

WORK SESSION AGENDA ITEM SUMMARY

City Council



STAFF

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SUBJECT FOR DISCUSSION

2025 Fort Collins Utilities Water Efficiency Plan Update

EXECUTIVE SUMMARY

The purpose of this item is to provide an overview on progress made on the state-mandated Fort Collins Utilities (Utilities) Water Efficiency Plan (WEP) and to provide foundational information ahead of seeking Council review and approval in summer 2025. Staff will describe information learned from extensive public engagement and will present proposed new water conservation goals and areas of opportunity for conservation strategies including voluntary incentives, education, standards, and policy. This item also provides a summary of engagement tactics and results, and equity evaluation, the conservation strategy prioritization process, as well as background on water use and Utilities broader efforts to manager water supply and demand.

GENERAL DIRECTION SOUGHT AND SPECIFIC QUESTIONS TO BE ANSWERED

1. Do the proposed conservation goals and strategies align with what Council sees as our community values?
2. Does the WEP work to-date meet “ambitious but comfortable” guidance?
3. What else does Council need to know prior to staff seeking approval of the updated WEP?

BACKGROUND / DISCUSSION

Water is an essential resource for all of us. The City and Utilities have a strong commitment to ensure its efficient use as a key tool to minimize risk of future shortages¹. Utilities is updating its [2015 WEP](#) (Attachment 1), following the key tasks described at the Council Work Session on Feb. 13, 2024 (Attachment 2). The updated plan will:

¹ The [Water Supply Vulnerability Study](#) (WSVS) identified high water demands as a significant vulnerability, noting that it is important to implement conservation and efficiency efforts and track demand trends. The WSVS is available online at fcgov.com/utilities/img/site_specific/uploads/wsvs-final-report.pdf.

- Meet Colorado Water Conservation Board (CWCB) requirements
- Set new conservation goals to (1) reduce the amount of treated water we use within the Utilities water service area and to (2) build resilience of City-owned public landscapes
- Guide water use for Utilities customers and the City organization
- Inform planning decisions and better resource allocation

The WEP applies mainly to treated water use in Utilities’ water service area, which encompasses about 60% of the City geographic area and about 80% of the population. By updating our water conservation² goals and strategies, we aim to continue long-term reductions in water demand through a variety of levers available to manage water use - behavioral, regulatory, infrastructure, and economic. Successful demand management and increased landscape resiliency provides reduced risk and gives customers the opportunity to benefit from less water use that leads to lower water bills. Developing more equitable opportunities for program participation and support provides greater community outcomes while improving overall resilience.

The 2025 WEP update will outline a new roadmap for increased water demand management that considers equitable outcomes, integrates with land use planning, and is based on quantitative analysis of potential water savings from individual strategies. The WEP sets a 15-year planning horizon with a 2040 goal. However, the CWCB requires WEP updates every seven years, which is an opportunity to evaluate conservation goals and strategies, demand and climate conditions, and community values.

Alignment and Connection to Overall Water Supply Planning

The WEP aligns with the City of Fort Collins’ Strategic Objective ENV 2, “Sustain the health of the Cache la Poudre River and regional watersheds while delivering a resilient, economically responsible and high-quality water supply for all Fort Collins residents.” It also aligns with the water utility’s mission statement, “We are a One Water Utility, providing exceptional water services for our community through integrated, resilient, and equitable practices and systems.” Other City and state policies and plans that align include City Council Priority 7, the Water Supply and Demand Management Policy, Our Climate Future (Big Move #3), and the Colorado Water Plan.

Utilities uses a multi-faceted approach to balance supply and demand to ensure a reliable water supply now and in the future, including storage, a diverse portfolio of water rights, and conservation. The conservation goals and strategies outlined in the WEP are critical tools used to manage variable water demands from diverse water users. Historically, during average and wet precipitation years, Utilities’ water rights provide more water than customers use. During extended hot and dry periods, current supplies may not meet demands while also maintaining a stored reserve of water for emergencies. Furthermore, we anticipate a future where climate impacts and population growth increase demands and put pressure on Utilities to restrict water use. Additional information is described in materials presented at the Council Work Session on Feb. 13, 2024 (Attachment 2).

Collaboration with Other Water Providers

Certain areas within City limits are served by neighboring water providers. Other water providers have their own WEPs that describe goals and strategies for their service areas; however, Utilities values these partnerships and continues to look for ways to collaborate. To-date staff have met with East Larimer County and Fort Collins-Loveland Water Districts to discuss the WEP. Staff will incorporate information about regional partnership opportunities in the WEP and plan to pursue partnership opportunities in the future.

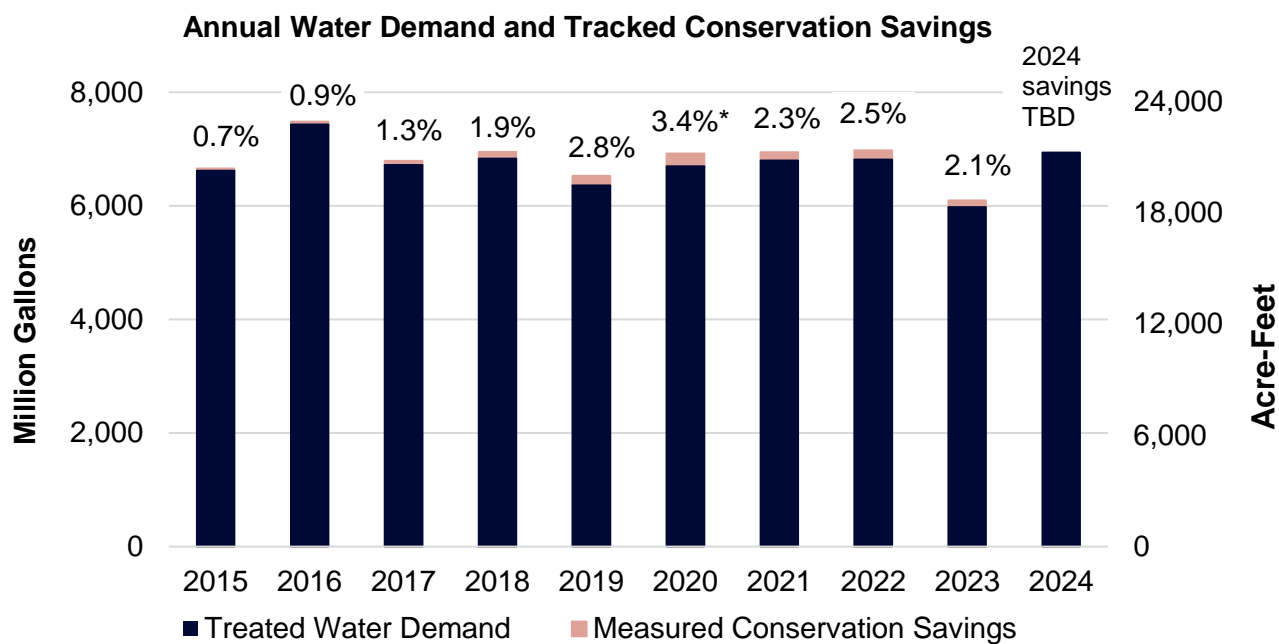
² Utilities’ Water Conservation department focuses on water demand management through a variety of behavior-based conservation practices and technology-based efficiency measures that extend water supplies either directly through water savings or through substituting alternative supplies such as reuse. For simplicity and consistency with our department name, the term “conservation” is used throughout this document and the WEP to refer to both behavioral and technology-based demand management.

Water Use and Demand Management Overview

Utilities currently provides water to approximately 32,900 residential and 2,900 commercial customer accounts. The 2024 estimated residential population served was 139,300. On average, residential customers use about 60% of the treated water delivered each year and commercial customers use about 40%. Commercial customers include large irrigation-only accounts and landscapes maintained by homeowner associations. Each year, indoor water use accounts for about 57% of total treated water used, while outdoor and seasonal uses are about 43% of the annual total on average. The [2023 Water Conservation Annual Report](#) (Attachment 3) summarizes treated water demands by sector and savings from conservation programs.

Since 2000, population has grown by 28% while water use within Utilities’ water service area has decreased by 42% per capita. However, that rate slowed in recent years. From 2020 to 2023, average per-person water use was 135 gallons per capita per day (GPCD), 4% above the current 2015 WEP goal of 130 GPCD by 2030. Utilities met this goal once, during the high-precipitation year of 2023, with 122 GPCD.

Utilities water conservation programs lowered overall annual water demand by 135 million gallons (415 acre-feet) on average from 2015 to 2023, the eight-year period since the current WEP was approved (Figure 1). This is about 2% of Utilities’ average treated water demand for the same eight-year period (6.68 billion gallons or 20,500 acre-feet³). A portion of estimated annual savings will persist into future years, such as savings from efficient toilet and landscape installations. Many other conservation strategies, such as educational campaigns, and external influences, like weather, also generate water savings but are challenging to quantify and not included in annual water savings totals.



* 2020 included 30 days of mandatory restrictions due to infrastructure project & wildfire; conservation program savings were estimated to be 1.9% without mandatory restrictions.

Figure 1. Annual water demand and tracked conservation program savings for Utilities customers (excludes wholesale and unique large contractual deliveries).

³ Demands presented in this AIS include distribution system losses and exclude wholesale and unique large contractual deliveries, which are not a primary focus of conservation activities.

Demand is expected to increase due to rising temperatures and residential and commercial growth. Figure 2 presents historical residential and commercial customer demand, including non-revenue losses from treatment and distribution, with a range of projected future demands based on modeled growth and climate scenarios. Although a specific future demand cannot be predicted with certainty, implementing active water conservation strategies can lower the projected future demands.

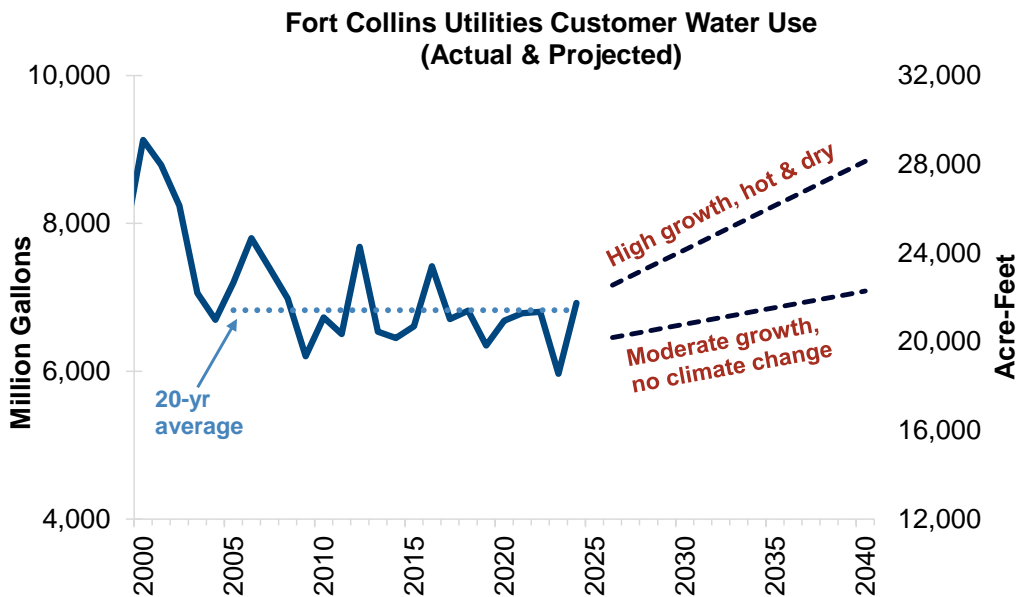


Figure 2 Historical and projected water use for Utilities customers (excludes wholesale and unique large contractual deliveries).

WEP Update Process

The CWCB requires water providers to prepare WEPs to outline how they plan to enhance water conservation and efficiency to combat increasing competition and demand for water. Utilities received grant funding (\$160,000) from the CWCB and a one-time budget enhancement offer (\$145,000) to fund consultant support with engagement and analysis. The Water Conservation department began work in January 2023 and targets completion by summer 2025.

The updated 2025 WEP will replace the 2015 WEP. The 2025 WEP will modernize previous versions by setting new service area and City conservation goals and strategies based on recent community and staff engagement, an equity evaluation, and updated analysis of water use and potential conservation savings. The updated WEP will also identify opportunities to lower water use at City facilities and improve landscape resilience on the City’s public parks, streetscapes, and open spaces.

Engagement

Community and staff input are vital to shaping the updated WEP and associated conservation goals and strategies. Our engagement strategy drew on the One Water integrated and collaborative planning approach, with tactics to both broadly engage the whole community while focusing resources on connecting with disproportionately impacted communities⁴. It all culminated to develop inclusive and community-driven water conservation goals and strategies.

⁴ The WEP update identified disproportionately impacted community groups based on the 14 historically underrepresented groups identified in Our Climate Future, as well as additional groups, like renters, who face many barriers to both participating in and benefitting from water conservation programs and strategies.

From 2023 through June 2024, engagement captured over 5,000 touchpoints via: a survey (1,319 responses), Our City web page, advertisements, in-person meetings hosted by compensated community consultants, focus groups and meetings with targeted water users including City departments, HOAs, and small businesses, meetings with community members who identify with one or more disproportionately impacted groups, consultant-led one-on-one interviews, and input from the City's Climate Equity Committee⁵. Staff sought to reduce barriers to participation in engagement through collaborating with community consultants, providing Spanish translations, hard copies of the survey, tabling in public spaces, hosting meetings outside typical working hours, and providing food, childcare, and conservation giveaways at meetings. Engagement tactics and results are summarized in Attachment 4, *Fort Collins Water Efficiency Plan Engagement Synthesis*.

Staff organized engagement results into themes to guide conservation goal and strategy development.

Community values that inform conservation goals:

- Concerns about water scarcity and providing for future generations
- Willingness to take action, but want everyone to share in that responsibility
- Support for landscape changes away from turf grass

The community generally supported strategies that showed impact by lowering demand at multiple water use levels - individuals, highest users, and City properties. The characteristics of these conservation strategies are as follows:

- Support upgrades to water-efficient fixtures for both indoor (e.g., plumbing) and outdoor (e.g., irrigation) uses by making them free or inexpensive
- Reduce existing turf and encourage water-efficient landscapes
- Support customers with leak issues and by installing efficient equipment
- Use regulations to manage some water uses, including new growth, non-functional outdoor spaces, commercial users, and the highest water users
- Support inexpensive actions that save money
- Provide more education for everyone, specifically:
 - Target HOAs, landscapers, homeowners, and disproportionately impacted communities with resources specific to them
 - Remove barriers by coming to people in places and ways where they are already gathering and comfortable

Successful implementation of water conservation strategies will benefit from ongoing alignment with the engagement themes and from maintaining the community and staff relationships that were fostered during WEP engagement. This will facilitate water use understanding and conservation opportunities between Utilities and our community, especially City departments and disproportionately impacted community members.

⁵ The Climate Equity Committee (CEC) was formed to support the equitable implementation of Our Climate Future.

Equity Evaluation

Equity is integrated into the WEP update process, through (1) the engagement activities described above, (2) selection of conservation strategies, and (3) implementation of conservation strategies.

Consultants developed a custom equity evaluation process focused on water use and conservation and refined it based on input from one-on-one community interviews, WEP engagement, the Climate Equity Committee, and the City's Equity Office. The two-step equity evaluation process involves first examining each current and potential conservation strategy for "red flags" such as barriers to participation or negative unintended consequences. Strategies that are likely to support positive equitable outcomes were elevated with higher scores in the strategy prioritization process described below. In the second step of the equity evaluation process, staff will include equity in conservation strategy implementation planning by applying a series of questions designed to identify opportunities to increase equitable outcomes.

Proposed Conservation Goals

The updated WEP will continue Utilities' historical trend of setting impactful goals that build on past successes by presenting two goals to guide Utilities, City, and customer actions. The 2025 goals reflect community feedback, staff input, and a commitment to take action now to build resilience and minimize future water shortage risks:

- **Goal 1:** All customers contribute to lowering annual water demand by 3% (about 225 million gallons or 690 acre-feet) by 2040 to reduce risk of shortages.
 - The WEP will set an overall water conservation goal that applies to all treated water use within Utilities' water service area, including both customer and City water use. The objective of this overall goal is to gradually and consistently lower demand to minimize the frequency and/or magnitude of shortages in a hotter, more populated future; we anticipate this amount of savings would offset increasing demands driven by an average annual temperature increase of over 1°F between now and 2040.
 - Meeting this goal would require increasing the volume of annual conservation savings by approximately 40% over the current average savings of 135 million gallons (MG) per year.
- **Goal 2:** The City builds resilience by improving outdoor water efficiency across City-owned landscapes to benefit our community and environment.
 - For the first time, the WEP will set a goal directed at the City's water use, which includes both treated and raw water and properties outside of Utilities' water service area. The goal for water conservation on City-owned landscapes is intended to contribute to the overall WEP water conservation goal by lowering municipal water use, building resiliency in our public landscapes to prepare for a hotter future, prioritizing water use for places that most benefit the community, and creating highly-visible projects that inspire water-saving actions by individuals and businesses.

Staff will track specific quantitative metrics, including overall water use, non-revenue losses, water conservation program savings and participation rates, and actions like irrigation upgrades and turf removal on City properties. The intention of these goals is to prepare for a hotter and more variable climate by minimizing the potential frequency and magnitude of future water shortages and by building long-term landscape resilience. Additionally, by shifting away from a GPCD metric⁶, Utilities aims to

⁶ This updated overall goal sets a new target and uses a different metric than the GPCD-based goals set previously. Customer feedback noted that a GPCD metric isn't meaningful to customers. For example, it was unclear how an individual's water use (as

encourage public participation in conservation by helping all water users see themselves in the goals and strategy offerings. The previous GPCD metric was a system-wide value that included both residential and commercial use, making it hard for customers to understand how it relates to their individual use. Furthermore, the methods to calculate GPCD vary, which adds further confusion and limits the ability to compare across water providers, as discussed in Attachment 2.

Areas of Opportunity and Conservation Strategy Selection Process

Utilities already has a robust water conservation program with activities that touch on many different uses and affect the entire service area. The Water Conservation team aims to continue to build on effective existing programs, incentives, and policies, as well as develop new strategies for conservation. Staff evaluated current and potential new conservation strategies using a number of criteria, including water savings, cost, ease of implementation, community acceptance, customer reach, and co-benefits such as equitable and environmental outcomes.

A set of strategies associated with lowering the City's water use (supporting proposed goal #1) and advancing conservation and resilience on City-owned landscapes (supporting proposed goal #2) was developed through collaborative meetings and engagement with cross-departmental staff and identifying conservation and resilience actions that align with their existing plans, policies, practices, and available funding.

The following areas of opportunity are the focus of conservation strategies prioritized in the 2025 WEP update:

- Behavioral (e.g., education, technical assistance, voluntary actions)
- Regulatory (e.g., water restrictions, policies, land use and plumbing code changes)
- Economic (e.g., incentives, utility rate structure, development fees)
- Infrastructure (e.g., metering, leak detection, maintenance, greywater)

Water conservation strategies are intended to be implemented, tracked, and refined over time. This cultivates and supports a water efficient, adaptive, and knowledgeable customer base through education and cost-effective water efficiency programs while minimizing water shortage risk and supporting the City's Strategic Plan. Strategies can impact the entire community and we have selected a set of strategies that we expect to meet our goals; provide opportunities for all customers, including disproportionately impacted groups and those who have had low historical participation rates; provide customized strategies to meet high-use and unique customer sector needs; continue doing what works well and is liked by customers; and lead by example as a municipality.

Water Use and Savings Analysis

The WEP update involves estimating potential water savings associated with conservation strategies and evaluation of their impact on overall demand. Utilities' future water demands are largely dependent on population change and growth patterns, the rate of commercial and industrial development, and climate influences. System losses from treatment and distribution also influence overall demand. A range of projected future demands based on possible growth and climate scenarios is shown above in Figure 2.

seen on their bill) related to a GPCD goal. For most residential customers, on average, their individual GPCD or even gallons per household per day are much lower than the system-wide GPCD; however, during the summer irrigation months, it may be significantly higher. For customers in multi-family or multi-business units that are not sub-metered, there is no way to connect to the single system-wide goal.

Utilities worked with consultants to develop a customized model, called the Water Efficiency Tool (WET), to evaluate the complex interactions between climate impacts, growth and estimated water savings. This tool helps us estimate the effectiveness of various strategies to achieve goals in the future.⁷ WET was designed to enable examination of the potential water savings of certain conservation strategies and will be used to inform strategy selection for this WEP update and into the future.

Water savings potential was estimated for conservation strategies using WET results, paired with historical program participation data and estimates from industry resources like the Colorado WaterWise Best Practices Guidebook⁸. Staff has conducted a preliminary analysis of savings estimates and believes the goal of 3% reduction by 2040 is achievable. Additional modeling analysis will further refine estimations and strategy selection. This step is underway. In addition to measurable savings from conservation strategies, Utilities might experience further demand reduction driven by educational programs, passive savings related to widespread technological efficiency improvements, or water rate changes.

Implementation and Cost

As part of the WEP process, we have developed strategies that not only align with feedback from engagement, but also target high water savings impact with low cost to Utilities and customers to most effectively and efficiently reach the 2040 goals. The portfolio of strategies proposed in the WEP was holistically evaluated and includes continuation of some current actions as well as new strategies. Staff anticipate gradually implementing the strategies outlined in the WEP, following all necessary steps to seek approval and funding, beginning in 2026 and continuing through the seven-year WEP renewal cycle.

Based on our strategy analysis, we anticipate achieving WEP goals without driving much new funding need and limited need for new funding sources or future budget enhancements. For Goal 1 (overall water savings) staff identified opportunities to reallocate our budget (shifting our funding to different strategies) potential low-cost opportunities with strategic partnerships, and third-party support. For Goal 2 (City landscape resilience), many of the strategies align with planned or ongoing work. In addition, there are also new funding opportunities for landscape projects including the 2050 tax, Water Conservation's ongoing budget, and external grants.

It is important to also consider the potential future costs resulting from inaction now. Climate impacts are estimated to increase costs in several ways. Insufficient water demand management now could impact Utilities and City properties through cost and staffing impacts such as needing more water storage, water right purchases and landscape impacts related to water restrictions from more frequent and severe water shortages. To customers this could mean increased fees and rates and loss of landscaping, as well as water restrictions that can cause economic impacts.

⁷ The WET was developed specifically to evaluate how water conservation strategies impact customer demands in a variety of scenarios through 2040. The intended outcome (conservation planning) and hybrid econometric/end-use specific projection mechanisms in WET are distinct from past GPCD-based projections (such as used long-term supply planning and for the Halligan Water Supply Project) or the demand estimation tool model, which supported risk analyses in the 2019 Water Supply Vulnerability Study. Instead, the WET focuses solely on the subset of total water use associated with billed residential and commercial customer demands. The WET was not used to predict future large contractual or wholesale demands, does not incorporate storage reserve targets, and does not consider water supplies.

⁸ Available online at: <https://indd.adobe.com/view/a66fdb02-50c6-4ec3-8fea-4db473212faf> .

NEXT STEPS

Anticipated next steps from February to July 2025:

- Complete remaining work to finalize decisions and prepare plan
- Q2 2025: 60-day public comment period and CWCB's review, seek Board and Commissions' recommendations
- Q3 2025: Seek City Council approval via resolution, then submit to CWCB
- 2026-2032: Implement prioritized water conservation strategies
- 2032: Next state required WEP update submittal to CWCB (seven-year renewal cycle)

ATTACHMENTS

1. 2015 Water Efficiency Plan
2. Work Session Materials, February 13, 2024
3. 2023 Water Conservation Annual Report
4. Engagement Summary Memo
5. Presentation