Fort Collins City Council Work Session Agenda

6:00 p.m., Tuesday, February 13, 2024

Council Information Center (CIC), 300 Laporte Avenue, Fort Collins, CO 80521

NOTE: New location for Council work sessions.

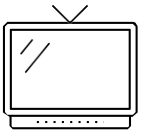
NOTICE:

Work Sessions of the City Council are held on the 2nd and 4th Tuesdays of each month in the Colorado Room of the 222 Building. Meetings are conducted in a hybrid format, however there is no public participation permitted in a work session.

City Council members may participate in this meeting via electronic means pursuant to their adopted policies and protocol.

How to view this Meeting:

Meetings are open to the public and can be attended in person by anyone.



Meetings are televised live on Channels 14 & 881 on cable television.

Meetings are livestreamed on the City's website, fcgov.com/fctv.

Upon request, the City of Fort Collins will provide language access services for individuals who have limited English proficiency, or auxiliary aids and services for individuals with disabilities, to access City services, programs and activities. Contact 970.221.6515 (V/TDD: Dial 711 for Relay Colorado) for assistance. Please provide 48 hours' advance notice when possible.

A solicitud, la Ciudad de Fort Collins proporcionará servicios de acceso a idiomas para personas que no dominan el idioma inglés, o ayudas y servicios auxiliares para personas con discapacidad, para que puedan acceder a los servicios, programas y actividades de la Ciudad. Para asistencia, llame al 970.221.6515 (V/TDD: Marque 711 para Relay Colorado). Por favor proporcione 48 horas de aviso previo cuando sea posible.

While work sessions do not include public comment, mail comments about any item on the agenda to cityleaders@fcgov.com

City of Fort Collins

Meeting agendas, minutes, and archived videos are available on the City's meeting portal at https://fortcollins-co.municodemeetings.com/

City Council Work Session Agenda

February 13, 2024 at 6:00 PM

Jeni Arndt, Mayor
Emily Francis, District 6, Mayor Pro Tem
Susan Gutowsky, District 1
Julie Pignataro, District 2
Tricia Canonico, District 3
Melanie Potyondy, District 4
Kelly Ohlson, District 5

Council Information Center (CIC)
300 Laporte Avenue, Fort Collins

NOTE: New location for Council work sessions.

Cablecast on FCTV
Channel 14 on Connexion
Channel 14 and 881 on Comcast

Carrie Daggett	Kelly DiMartino	Heather Walls
City Attorney	City Manager	Interim City Clerk

CITY COUNCIL WORK SESSION
6:00 PM

A) CALL MEETING TO ORDER

B) ITEMS FOR DISCUSSION

1. **Staff Report: Connexion Update.**

   The purpose of this item is to update Council on Connexion, including financials to date and 2024 focus.

2. **Council Priority Setting Session #2 – Staff Feedback.**

   The purpose of this item is provide information, seek alignment and clarification from Council as it relates to their proposed priorities discussed at the Council retreat on January 27, 2024.

3. **Community Capital Improvement Program and Street Maintenance ¼-cent Tax Renewals.**

   The purpose of this item is to provide background and confirm the desire, process, and proposed timeline to refer the renewal of both the Street Maintenance and the Community Capital taxes to the November 2024 ballot.

4. **2024 Water Efficiency Plan Status.**

   The purpose of this item is to describe the state-mandated Fort Collins Utilities (Utilities) Water Efficiency Plan (WEP) and the 2024 update process. The updated WEP will set conservation goals, incorporate extensive public engagement focusing on marginalized community members, and employ numeric modeling and an equity analysis to help prioritize future water conservation and efficiency strategies. Potential strategies include education, voluntary incentives, regulations, and standards. The Agenda Item Summary also provides background on water use and Utilities' work to manage water supply and demand.

C) ANNOUNCEMENTS

D) ADJOURNMENT

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A solicitud, la Ciudad de Fort Collins proporcionará servicios de acceso a idiomas para personas que no dominan el idioma inglés, o ayudas y servicios auxiliares para personas con discapacidad, para que puedan acceder a los servicios, programas y actividades de la Ciudad. Para asistencia, llame al 970.221.6515 (V/TDD: Marque 711 para Relay Colorado). Por favor proporcione aviso previo. Las solicitudes de interpretación en una reunión deben realizarse antes del mediodía del día anterior.

February 13, 2024

WORK SESSION AGENDA ITEM SUMMARY

City Council

STAFF

Chad Crager, Connexion Executive Director

SUBJECT FOR DISCUSSION

Staff Report: Connexion Update.

EXECUTIVE SUMMARY

The purpose of this item is to update Council on Connexion, including financials to date and 2024 focus.

BACKGROUND / DISCUSSION

Connexion completed the main build out in 2023, which resulted in Connexion transitioning to ongoing operations and growth. We continue to construct to MDU's (Multi Dwelling Units) and have renewed our focus on products, sales, and marketing. Connexion continues to provide a diverse range of Digital Inclusion services, including a discounted $20 monthly rate for 1 Gig internet speeds.

Connexion's partnership with Larimer County has led to upcoming Connexion fiber construction in the Growth Management Area as well as recent grant awards for Connexion fiber in four rural areas of Larimer County.

The attached Connexion 2023 Report highlights the number of customers, revenue, and financials.

ATTACHMENTS

1. Connexion End of Year 2023 Report
2. Presentation

FORT COLLINS connexion

END OF YEAR REPORT

Information below reflects end of 2023

TAKE RATES

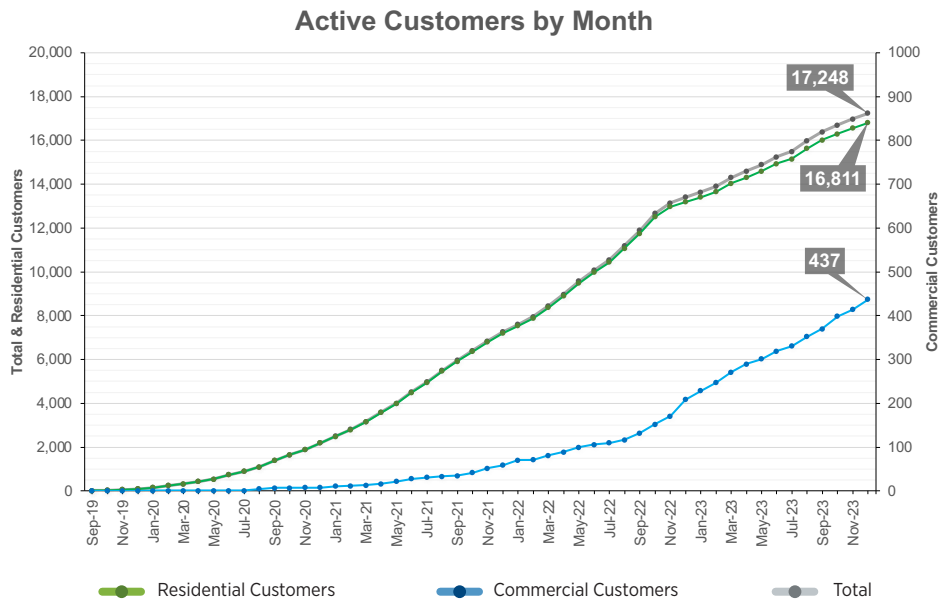
RESIDENTIAL

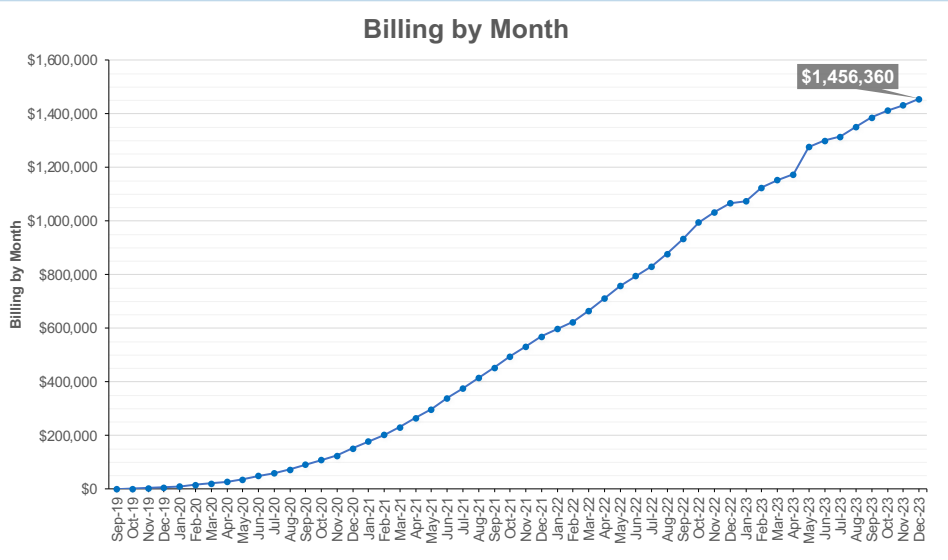
37%

COMMERCIAL

10%

CUSTOMER COUNT





City of Fort Collins

fcconnexion.com

24-26055

INEXION
END OF YEAR REPORT
Information below reflects end of 2023

FORT COLLINS connexion

FINANCES

*Connexion Income Statement for Year Ending 12/31/2023**

Revenues	2023	% Change	2022
Recurring revenue	$15,437,933	43.9%	$10,731,121
Other revenue	$932,979	70.7%	$546,510
Total gross revenue	$16,370,912	45.2%	$11,277,631
Costs of goods sold	$2,176,011	31.8%	$1,651,496
Expenses and other costs**	$15,952,921	14.2%	$13,968,206
Net Operating Income	$(1,758,019)	59.5%	$(4,342,071)
NOI less debt service	$4,192,380	182.1%	$1,486,020

**Financials are prelminary and unaudited*

***Net of depreciation and amortization*

- In 2023 Connexion began to transition from a focus on build-out to one of ongoing operations and growth, resulting in a 44% increase in recurring revenue from 2022. Recurring revenue represents the monthly fees customers pay for internet, video and phone products, and growth is expected to remain strong in 2024 and beyond. Expenses grew in proportion to the revenue in 2023 and are expected to begin to grow more slowly in 2024 such that operating margin expands and continues doing so for the next several years as adoption continues to grow.
- In 2023, Connexion paid $9.3 million in interest and principal for its outstanding bond instruments. On the capital front, Connexion has utilized the proceeds of the initial bonds totaling $130 million towards the building out of the network, installing a substantial number of multi-dwelling units (MDUs), and other hardware and materials. In Q3, a $20 million bond was issued and made available primarily for addressing the capital needs of the remaining MDUs in the city.

GENERAL HIGHLIGHTS

- In August 2023, Connexion's "main" buildout was completed. The main buildout includes 357 fiber areas. Each fiber area includes around 225 homes.
- The main buildout does not include Multi-Dwelling Units or MDUs. MDUs make up over 40% of residences in Fort Collins.
- Connexion has currently "lit up" 28% of MDUs within city limits.
- Commercial take rate is currently at 10%, and typically Connexion is adding one new business customer per day.
- Connexion's Digital Inclusion Program (***fcconnexion.com/digital-inclusion-program***) allows income qualified customers to get 1 Gigabit internet service for only $20. Currently, Connexion has around 500 Digital Inclusion customers. *6% of all Connexion Internet revenue is set aside to fund this program.
- Connexion received $3.58M from Larimer County to provide Connexion infrastructure to county homes and businesses north of the Harmony/Taft Hill intersection. This build out should be complete by Fall 2024.
- Connexion was recently awarded $10.8M (with a 25% match provided by Larimer County) for four rural areas in Larimer County† with the goal of completion by the end of 2026:
  - Red Feather Phase 1
  - Poudre Park
  - CSU Mountain Campus/Rustic
  - Rist Canyon

†More information about exact locations will be available on ***fcconnexion.com*** *in the future*

City of Fort Collins

Connexion Update

Chad Crager, Executive Director

City Council Staff Report

02-13-2024

here are we now?

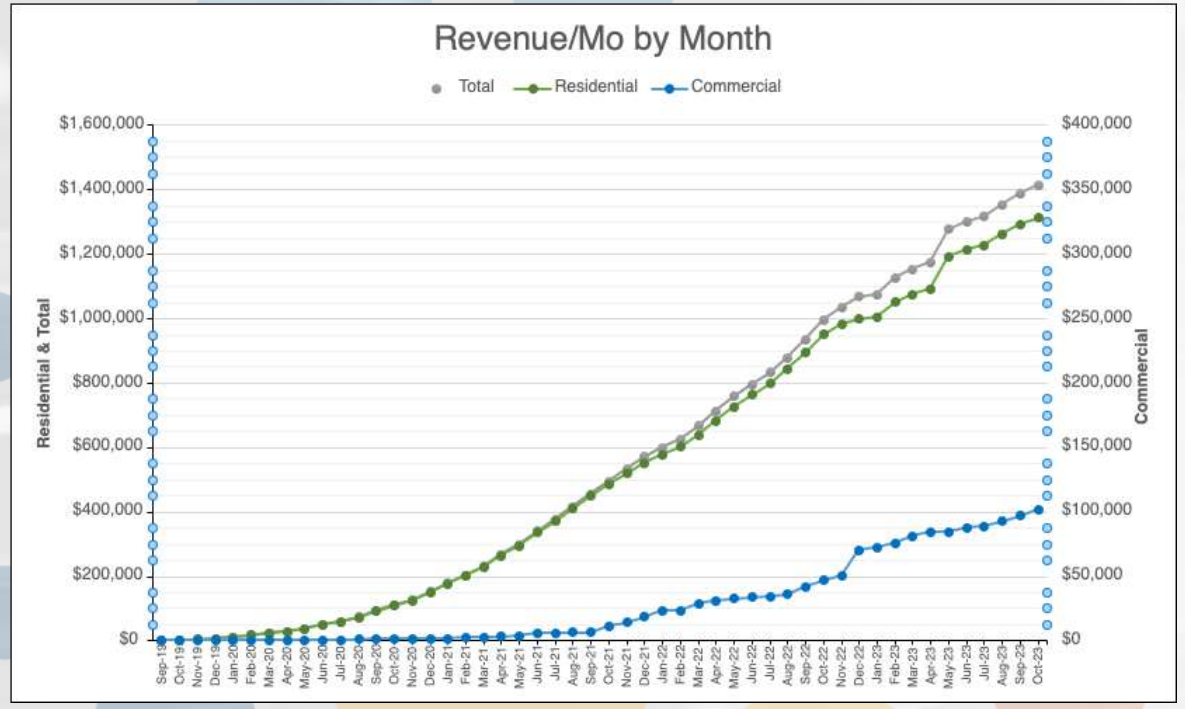
- Main Build Out Completed
- Key Hires
- ROI (Return on Investment) Process
- Asset Management
- Resident Feedback Group
- Over 17k Customers
- TR (Take Rate) = 37% Residential/10% Commercial

24 Happenings

- Continue to Build out MDU’s (Multi Dwelling Units)
- Multi-gig Speeds
- Improved Wi-Fi Experience and TV Product
- Additional Commercial Offerings
- Larimer County Expansion

shboard


Active Customers by Month
Total & Residential Customers
Commercial Customers
17,248
16,811
437

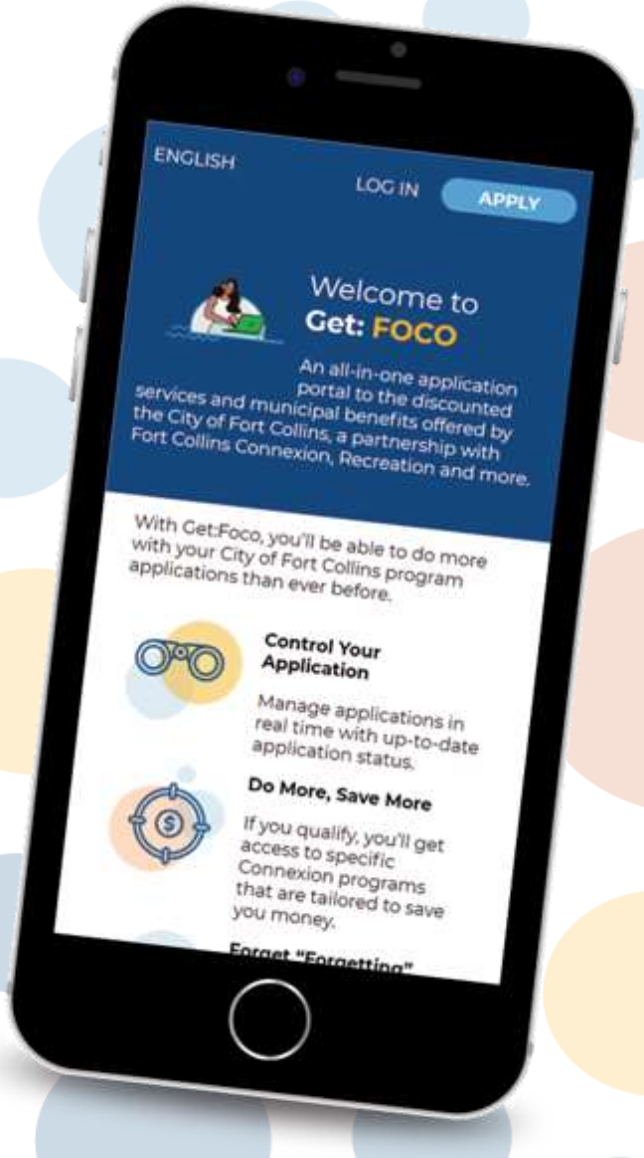

Revenue/Mo by Month
Total
Residential
Commercial
Residential & Total
Commercial

rimer County Expansion

- GMA (Growth Management Area) – Harmony/Taft Hill
- 4 rural areas (CPF (Capital Projects Fund) grants):
  - Red Feather Phase 1
  - CSU (Colorado State University) Mountain Campus/Rustic
  - Poudre Park
  - Rist Canyon

gital Inclusion

- Over 600 Digital Equity Customers
- Bulk Deals
- ACP (Affordable Connectivity Program) Funds Dwindling



Questions?

Februrary 13, 2024

WORK SESSION AGENDA ITEM SUMMARY

City Council

STAFF

Rupa Venkatesh, Assistant City Manager

SUBJECT FOR DISCUSSION

Council Priority Setting Session #2 – Staff Feedback.

EXECUTIVE SUMMARY

The purpose of this item is provide information, seek alignment and clarification from Council as it relates to their proposed priorities discussed at the Council retreat on January 27, 2024.

GENERAL DIRECTION SOUGHT AND SPECIFIC QUESTIONS TO BE ANSWERED

1. Does staff's framing of Council's proposed priorities align with Council expectations?

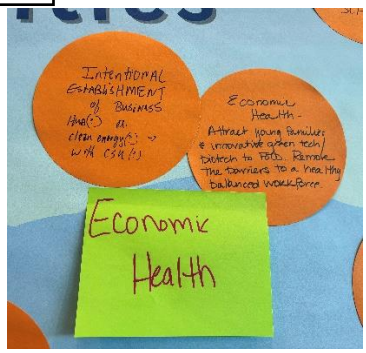
2. What additional information would be helpful for Council prior to their consideration of adoption of priorities on March 19?

BACKGROUND / DISCUSSION

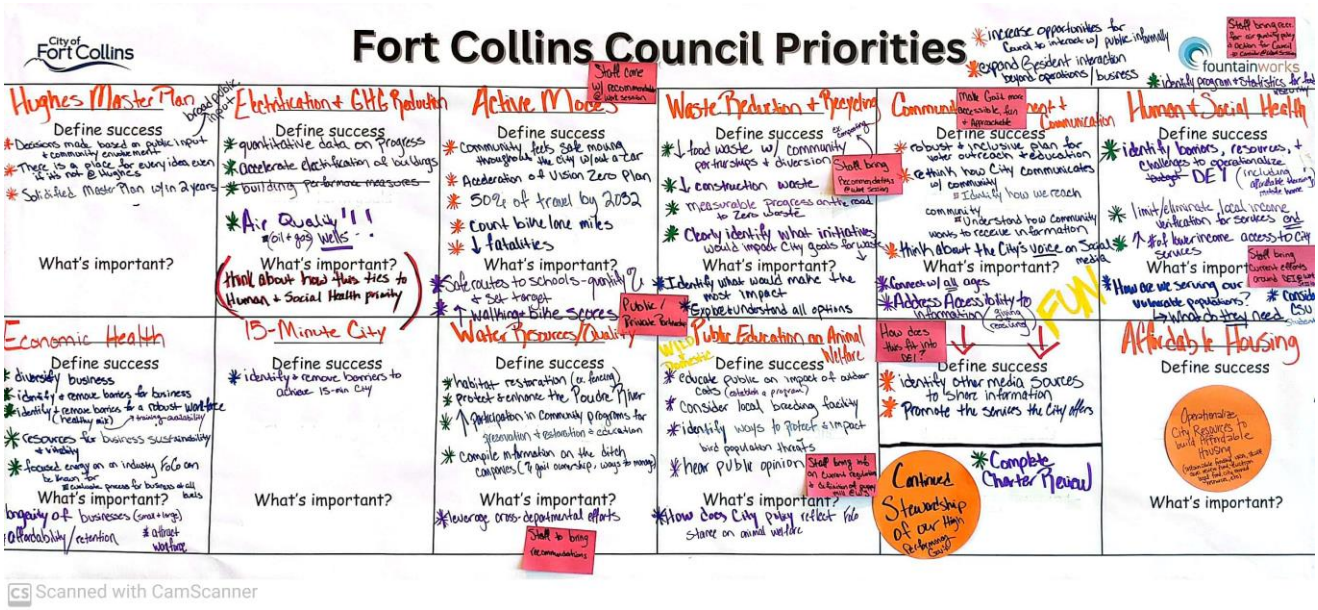
On January 27, 2024, Council held its biannual retreat at the Colorado State University Canvas Stadium, facilitated by Fountainworks. The first part of the retreat was dedicated to priority setting. Each Councilmember was asked to share up to five priorities with the group and were able to ask questions and clarification of each other. At the end of this session, staff worked with the facilitators to group similar priorities and twelve proposed priority buckets were identified. Fountainworks then helped facilitate a discussion for Councilmembers to define what success would mean and the importance of each priority.

Following the retreat, staff used Council inputs to rephrase the titles of some of the proposed priorities, crafted a problem statement to help define the priority, identified current work underway, and brainstormed potential short-term goals, resource requirements, and potential community engagement efforts. Attachment 1 contains a summary of this.

The priority inputs column contains information from the first part of the priority setting session of the retreat where each Councilmember was asked to share up to five priorities and write them on large, circular orange sticky notes. These were then grouped and labeled with a large, rectangular green sticky note. Below is a picture of one of these groups:



The inputs found in the “How did Council define success” column of Attachment 1 comes directly from the session that Fountainworks helped facilitate. Here is a picture of the end result from the retreat:



The twelve proposed priorities are organized in Attachment 1 and presentation by Strategic Outcome Area.

As it relates to the animal welfare priority, Council asked for additional information regarding puppy mill and pet store regulations. Please see Attachment 2.

NEXT STEPS

Fountainworks is expected to deliver a final report from the retreat that will be shared with Council in the next few weeks.

The January 23 Work Session Summary memorandum dated February 1, 2024, indicated that Council would be provided with a high-level summary of the updated Strategic Objectives as part of materials with this Agenda Item Summary. However, staff needs more time to complete the materials so it will now be part of the February 27 Work Session. During this work session, information will be provided as it relates to updates to the Strategic Plan.

In addition, during the February 27 Work Session, insight will be provided for the bike rack items collected during the Council retreat.

During the March 19, 2024, Council regular meeting, the adoption of Council priorities and the Strategic Plan will be considered. Over the next two years, staff will provide regular updates, bring forward budget considerations, and other formal actions that Council can take to advance these priorities.

ATTACHMENTS

1. Proposed Council Priorities Table
2. Follow up Re: Puppy Mills and Pet Store Regulations
3. Presentation

Strategic Outcome Area: Neighborhood Belonging and Community Vitality (previously Neighborhood Livability & Social Health)

Council Priority #1: Operationalize City resources to build and preserve affordable housing.

Lead: Social Sustainability

Partners: PDT/CDNS, Environmental Services, Economic Health, URA, Utilities, Finance, Operation Services, City Attorney's Office

Priority Inputs	How did Council define success?	Current work underway	Short Term Goals *further explanation below	Resource Requirements
Ex. tools: • Sustainable funding • URA • Development review fund • Eviction legal fund • City owned resources, etc.	• Meet our Housing Goals • Non silo-ed departments and utilizing the breadth of our organization to accomplish/make progress towards goals • Mobile home parks (MHP) – Implement local enforcement of state regulations	• Implementation of the Housing Strategic Plan • Land Use Code changes • Fee Credit program • Land Bank • City competitive funds – federal and city • Proposition 123 applications for funding • Countywide homelessness strategic plan work underway in 2024 • 24/7 shelter proposal • *MHP*: Staff will be gradually implementing local enforcement of some building and maintenance codes	• Expedite review of affordable housing projects to achieve decisions within 90 days or less • Streamline processes and regulations to encourage development of more affordable housing • Evaluate new/updated City regulations and fees for their impact on the cost to build and create options to offset additional costs • Identify city resources that could be dedicated to affordable housing and actively seek (re) development partners • Create sustainable source(s) of dedicated local funding for housing	• Additional dedicated long-term funding stream(s) • Council agenda time for complex policy discussions • Cross-departmental capacity to seek redevelopment partners and leverage City resources • *MHP*: Mobilizing collective resources to inform an integrated strategy

<u>Community Engagement</u>

- Housing Summit (planned for 2024)
- Update to housing dashboard (planned for 2024)
- Targeted engagement

MHP: educational sessions and clean up events

***Short Term Goals**:

- **Expedite review of affordable housing projects to achieve decisions within 90 days or less**
  - Adopt currently proposed updates to LUC to permit administrative review for affordable projects
  - LEAN/Process improvement project to reduce development review timelines for affordable housing (applying for grant to support this in Q1)
- **Streamline processes and regulations to encourage development of more affordable housing**
  - Adopt currently proposed updates to LUC to expand and improve affordable housing incentives
  - Encourage additional housing along centers and corridors (overlap w 15 min cities, transportation priorities)
  - Minimum housing density requirements in next phase of LUC updates along high-frequency transit and/or centers & corridors
  - Address occupancy regulations
  - Align with State legislation around land use, occupancy, housing
- **Evaluate new/updated City regulations and fees for their impact on the cost to build housing and create options to offset additional cost for affordable housing projects**
  - Cross-departmental evaluation of fees; build a comprehensive picture
  - Build analysis of impact on cost to build housing into scope for major fee and regulatory updates across the organization (ex: impact fees, energy code, building code, land use code, utility fees, and similar)
  - Identify opportunities and funding sources across the organization to subsidize/offset costs for affordable housing
  - Expand fee credit program beyond 30% AMI units and recalibrate credit amount to reflect true cost of development fees
- **Identify City resources that could be dedicated to affordable housing and actively seek (re)development partners to leverage those resources into new or preserved housing units**
  - Real estate assets – inventory and assess, prioritize, mobilize
  - Land bank parcels – update disposition study, identify ready to develop sites, mobilize
  - Funding – BFO, affordable housing capital fund, new sales tax (OCF Big Move 7)
  - URA – investigate ways to leverage funds, priorities, properties
- **Create sustainable source(s) of dedicated local funding for housing**
  - Housing impact fee
  - Housing linkage fee
  - Tax initiative
  - Bond issuance (ex: San Antonio, Portland, Austin, San Francisco)
  - Private/philanthropic investment (ex: Denver social impact bond)
  - And more

Council Priority #2: Improve human and social health for vulnerable populations.

Lead: Equity Office and Social Sustainability

Partners: Recreation, Utilities, Neighborhood Services, Finance, Economic Health, Environmental Services

Priority Inputs	How did Council define success?	Current work underway	Short Term Goals	Resource Requirements
• Operationalize DEI across the city organization (budgets for space, education, removing income verification for city requirements, recruiting and retaining diverse talent) • Barriers to access • Mobile Home Park Enforcement program (local level policy) • Food insecurity • Implement best practices for air quality monitoring and action (beyond ozone) • Oil & Gas city-owned active wells in northeast Fort Collins • Engage underserved communities to identify their needs • Address food insecurity, including student population, ex. Rams Against Hunger • Address indoor air quality	• Identify barriers, resources and challenges to operationalize DEI, including affordable housing and mobile homes • Limit/eliminate local income verification for services • Increase number of low income access to city services • Non siloed departments and utilizing the breadth of the organization to accomplish issue • How are we serving our vulnerable populations? What do they need? • Consider CSU students • Air Quality • Oil and gas wells	• Equity Office to provide a 2023 Impact Report by end of February 2024 • Get FoCo program (grocery tax rebate program, recreation discounts, etc.) • Annual competitive funding process for both HUD and City funds to support housing and human services specifically for low-income residents (total of approx. $3m annually – combined Federal and GF funds – not including ARPA funds) • City property leases to nonprofit service providers (ex: Teaching Tree, Seasonal Overflow Shelter, Teen Activity Center, Center for Family Outreach, FoCo Café, Housing Catalyst) • Childcare services (including reduced fee, REC) and Childcare system support (funding/partnership, SSD)	• Synthesize November 2023 Centers for Public Deliberation Community Report, the CSU Symposium Equity Asset Mapping report and the Community Survey to identify common themes and barriers • Develop and implement plans to remove or mitigate obstacles and expand funding and services to our underserved community members • Identify top community priorities where the City should focus funding and assistance • Consolidate or coordinate programs – a “one stop shop.” • Take direct actions to ensure compliance and reduce O&G operations in and around FC; especially in NE Fort Collins. • Mitigation strategies are focused on assuring compliance with State	• Human Services Grant Funding: awards to nonprofits and partners providing direct services to vulnerable and low-income residents (elderly, households in poverty, persons experiencing homelessness, those with various medical/behavioral health needs, children & youth). • Equity Grant Funding: awards to social justice and direct service organizations and partners that support community-led programs that ignite, inspire, and foster a community culture of belonging, uplift mental and physical health, and support the basic needs in the community. • Immigration Legal Fund: program funding to maintain current services and expand for asylum cases and work permits.

		• Immigration Legal Fund - funding for contract vendors to provide legal services for immigration issues. 262 cases since 2022, with approx. 100 resolved. • Creating the foundation of wealth building through entrepreneurship/business ownership • Add new regulatory ozone site and continue community-led air toxics monitoring.	regulations regarding several ongoing issues, open complaints and alleged violations. • 2024 Mini-BFO request: Healthy Homes program funding to implement more residential home improvements in underserved communities • Support evaluation of Utilities rates and fees for eliminating barriers associated with building and transportation electrification	• 2025 BFO for a community engagement manager in Equity Office to include contractual community connectors program for multi-cultural representation • 2025 BFO for an in-house translator in Equity Office • Air Quality/Adaption: Resources to update public spaces and facilities to be more smoke-ready in anticipation of wildfire impacts

Community Engagement

- Human Servies Priorities Platform project is underway – Stage I includes engagement with nonprofit leaders, Boards/Commissions, residents, regional funders.
- Proposed community connectors program and community engagement manager to be introduced in 2-25 BFO to help engage with community to identify their needs and barriers to access.
- Air quality/adaptation – During poor air quality events (e.g., wildfires and high ozone days), outreach is provided on how community members can monitor the Air Quality Index and protect themselves.

Council Priority #3: 15-minute City: Ignite our neighborhood centers.

Lead: CDNS and Economic Health Office

Partners: Social Sustainability, Natural Areas, Parks, FC Moves, Transfort

Example Public/Private partners: Urban Renewal Authority, Business Improvement Districts, Downtown Development Authority, Housing Catalyst, neighborhood associations

Priority Input	How did Council define success?	Current work underway	Short Term Goals	Resource Requirements
• Identify and remove barriers to achieve 15-min city • Minimize obstacles to implementation of 15-min city through public outreach, public-private partnerships, consolidating funding • Use metrics to measure success (e.g., walk score, bike lane miles) • Easier and faster adaptive reuse in our centers • Show businesses the "happy path" to permitting	• Identify and remove barriers to achieve 15-min city	• Land use code updates for process improvements, clear and predictable standards and implement strategies for commercial centers and corridors • Small Business Technical Assistance Program (ARPA) which offers staff support and mini grants to offset costs of design and engineering services • Business process improvements and digital transformation solutions for permitting and inspections • Cross functional City team to assist businesses navigating review and permitting • "Shift Your Ride: Neighborhood" program • Support for site selection for small businesses • Staff started exploring the potential of URA tools	1) **Regulatory Improvement:** Develop scope, process and timeline for the next phase of Land Use Code updates 2) **Business Process Improvement:** Improve existing tools, processes, and resources for new businesses, short term tenants 3) **Building internal capacity/knowledge:** Prepare an internal, high-level assessment of neighborhood centers 4) **Public/Private Partnerships (P3):** Explore and determine optimal P3 opportunities 5) **Awareness/Coalition Building:** Test and demonstrate diverse ways to raise awareness and support 6) **Integration opportunities:** Identify other opportunities to integrate the 15-min City Analysis into work planning. (e.g., Transit System Optimization Study)	1) Additional funding needed to complete next phase 2) Focus on cost neutral solutions in 2024; additional resources for digital transformation in 2025; Small Business Technical Assistance Program (ARPA) will end in 2024 3) Focus on cost-neutral but future resourcing may include incentive programs, mini grants, staffing for navigators, etc. 4) Future resourcing for MBEC and Larimer Small Business Development Centers 5) Exploring 2025 funding for more neighborhood-scale events and collaborations with businesses (can include sponsorships, vendor fees and other revenue sources) 6) Dependent on opportunity

Community Engagement (tied to each of the numbered short-term goals and resource requirements)

1) Robust, citywide community engagement at the onset of the process until final adoption. Community will inform problem identification, establishment of guiding principles and recommended solutions.

2) Targeted to various customers and users of our system. Will consult in problem identification and improvements to processes, tools, and technology. Further outreach may be necessary to inform of anything new.

3) One-on-one engagement with businesses and nearby neighborhoods calibrated to the different centers.

4) Stakeholder discussions with various board members and leaders.

5) Shift Your Ride: Neighborhoods program will connect neighborhood residents and businesses; Mayor and Council could consider attending or co-hosting events as an effective way to grow awareness and coalitions of support in their Districts.

6) Dependent on opportunity.

Council Priority #4: Improve animal welfare through public education.

Lead: CMO

Partners: Neighborhood Services, NOCO Humane

Priority Inputs	How did Council define success?	Current work underway	Short Term Goals	Resource Requirements
• Do not support commercial breeding facilities. • Education that it is illegal to have cats off leash and it is destructive to environment and birds.	• Educate public on impact of outdoor cats (establish a program) • Consider local breeding facility • Identify ways to protect and impact bird populations threats • Hear public opinion • How does City policy reflect City of Fort Collins stance on animal welfare?	• City contracts with NOCO Humane to enforce local animal welfare requirements in the municipal code. • Retail pet shops are required to be licensed under state law through Pet Animal Care Facilities Act (PACFA) • The Nature on the City project has funded several conversion projects from turf grass to native habitats and	• Coordinate with NOCO Humane on education and outreach regarding off-leash cats • Expand research regarding municipalities in Colorado with different rules on retail pet sales	• Additional funding and staff resources would be necessary to partner with NOCO Humane to create an education and outreach campaign related to off-leash cats and their impact on the environment and songbirds.

		pollinator gardens to support native wildlife and decrease the use of water resources.		
Community Engagement • Education and outreach campaign.				

** Additional information from retreat re: puppy mills are provided as attachments.

Strategic Outcome Area: Economic Health

Council Priority #5: Pursue an integrated, intentional approach to economic health.

Lead: Economic Health

Partners: CDNS, Sales Tax/Finance, Utilities, CMO, Urban Renewal Authority, Environmental Services, Cultural Services, Downtown Development Authority

Priority Inputs	How did Council define success?	Current work underway	Short Term Goals	Resource Requirements
• Intentional establishments of business hubs that are in alignment with our values and goals (e.g., clean energy, CSU partnership, PSD, front range, etc.) • Attract young families and innovative green tech/biotech to Fort Collins. Remove the barriers to a healthy balanced workforce.	• Diversify business • Identify and remove barriers for a robust workforce (healthy mix of entry, mid, senior levels) • Need to evaluate to remove barriers include streamline processes, cost of doing business, with a focus on independent, small business • Increase opportunities to train in certain sectors through partnerships with different entities	• Internal Business Engagement Action Plan (BEAP) • NoCo Works (two county workforce initiative with private and public partners) • CO-WY Climate Resilience Engine receive NSF grant of $15M over next two years, totaling $160M over 10 years.	• Barriers to business report – work with different teams and potentially the Institute of Justice to do a scan of the current state to determine what those barriers to business are • Test a Business Development Liaison position based on learnings from the Capital Projects Business Liaison • Focus business retention, expansion, and attraction (BREA) efforts in bioscience, life science, climate solutions, and	• Potential shared 1.0 FTE • Funding to support assessment work, BREA strategies, and workforce pilots

	• Resources for business sustainability and vitality • Focused energy on an industry Fort Collins can be known for • Measure and create longevity of businesses (small and large) through support and retention • Affordability/retention • Attract workforce • Show business the "happy path" and how to overcome hurdles • Doing business in Fort Collins should be: less silo-ed between departments with initial communication, more holistic process; provide a navigator to the business		circular economy supply chain. • Deepen the relationship, coordination, and economic opportunities with CSU, FRCC, PSD, OEDIT, and Innosphere Ventures to address workforce and economic mobility. • Futureproof the Multicultural Business and Entrepreneur program's bilingual business connectors/navigators.	
Community Engagement • Ongoing relationship management with primary employers and small businesses with an emphasis on underserved and historically marginalized communities. • Continued engagement with local and regional partners, workforce development entities, educational institutions, business serving organizations and others. • Connection to building owners, land owners and developers.				

Strategic Outcome Area: Environmental Health

Council Priority #6: Create pathways for Zero Waste infrastructure and policies.

Lead: Environmental Services

Partners: Larimer County, Water Reclamation, Streets

Priority Inputs	How did Council define success?	Current work underway	Short Term Goals	Resource Requirements
• Real progress on Road to Zero Waste • Food should not be wasted nor scarce in our community • Utilize food waste through composting • Food waste reduction or diversion – what is in our local control? • Composting – if we can't divert, what are other ways to avoid the landfill. • Explore option to buy a biodigester.	• Decrease food waste with community partnerships and diversion, e.g., composting • Reduce construction waste • Measurable progress on the Road to Zero Waste • Clearly identify what initiatives would impact city goals for waste • Identify what is most impactful to prioritize in order to reduce waste whether it is construction and demolition waste, plastics, recycling and re-use of rare earth materials, etc. • Explore and understand all options	• Our Climate Future has identified the top-priority areas of focus for meaningful progress on our waste diversion goals: 1) Construction and demolition materials, 2) Food scraps & yard trimmings, 3) Municipal industrial "waste" (soils & aggregates) • Contracted trash and recycling service to over 41,000 households in Fort Collins to start September 2024- services include weekly recycling and weekly yard trimmings (seasonally) • Existing requirements that new construction, remodels and demolitions to recycle cardboard, metal, aggregates and wood • Enforcement through permit documentation as well as site visits • Engaging in statewide C&D collaborations with	• Infrastructure pathways: Develop clear pathway to local/regional *construction & demolition waste sorting facility* to enhance opportunities for recycling of building materials and for local/regional *food scrap processing facility/facilities* to enhance opportunities for keeping materials out of landfills • Policies leveraging existing infrastructure: Implement the contracted hauling program to expand yard trimmings collection; develop policy for commercial/multi-family yard trimmings • Once infrastructure pathways identified: Engage in policy/program development for residential and commercial food scraps	• Additional staff resources required to manage City's industrial waste • Infrastructure needs within Utilities to support enhanced electrification

		a goal of market development for C&D materials	as well as construction and demolition materials	
Community Engagement • Continued robust education and outreach to support residents and businesses.				

Council Priority #7: Reduce climate and air pollution through electrification.

Lead: Our Climate Future Leadership

Partners: Utilities (Energy Services), Sustainability (Environmental Services), Community Services (Parks and Natural Areas), Operation Services

Priority Inputs	How did Council define success?	Current work underway	Short Term Goals	Resource Requirements
• Advance Our Climate Future Big Moves – electrification and decarbonization of buildings through education/public outreach, partnerships and funding consolidation (ex. Ithaca) • Substantial progress toward climate action goals	• Quantitative data on progress • Accelerate electrification of new buildings • Increase number of buildings that are decarbonized • Increase in the uptake of loans and rebates • Retrofit the current buildings being electric	• Develop Zero Carbon building code for new construction • Distributed Energy Resources (DER) incentives and electricity management for development of Virtual Power Plant. • Home Energy Reports, EV education strategies, Building Energy and Water Scoring program • Epic Homes and Efficiency Works incentive programs, Epic Homes Financing • Implement OCF Council Roadmap to simultaneously address climate, energy and waste goals while improving our	• Adopt policies and performance standards for energy use in existing buildings • Evaluate and identify resources for improving local electric distribution infrastructure to support building and transportation electrification • Continue electric conversion of City-owned, gas-powered equipment (e.g., lawn & garden equipment, small utility vehicles, fleet vehicles) • Strategic allocation of 2050 Tax funds through 2024 & 2025/2026 budget processes • Continue to build capital stack and administrative	• Existing methods to increase building and transportation electrification can be accelerated/scaled (e.g., more technical resources and incentives for building owners to improve buildings and equipment, vehicle fleet conversions, etc.) • Infrastructure needs within Utilities to support enhanced electrification

		community's equity and resilience	resources to expand customers electrifying their homes using the Epic Loan revolving loan fund	

Community Engagement

- Continue to build Shared Leadership approach for Our Climate Future outcomes, including with local institutions, Larimer County, Platte River Power Authority – the City cannot do it alone
- Put people at the center of the solutions for community leadership and an equitable, just transition to the clean energy future
- City Climate Equity Committee (CEC) is advising staff on project/program development and implementation to bring diverse perspectives with lived experience and direct community connections.
- City/County Air Quality Monitoring Advisory Committee (AQ-MAC) is leading a community driven discussion on priorities in air quality monitoring and effective risk communication.
- Effectively manage stakeholder relationships to minimize engagement fatigue but ensure community voice is heard.
- Increased focus on communities of concern (aka under-resourced) and support for accessing available resources.

Council Priority #8: Protect surface water in an integrated way and ensure resilient water resources.

Lead: Water Utilities

Partners: Natural Areas, Parks, City Manager's Office

Priority Inputs	How did Council define success?	Current work underway	Short Term Goals	Resource Requirements
• Look at acquiring additional properties along Poudre River • Additional habitat restoration, monitoring river health, increasing flows • Accelerate actions to protect and enhance the Poudre River • Prevention of above ground infrastructure on public lands along the river	• Habitat restoration, protection, and access (e.g., no fencing) • Enhance flows in the Poudre River • Increase participation in community programs and education for water awareness and conservation. • Compile information on the ditch companies (% of government	• **Water Efficiency Plan 2024** – we are developing new goal(s) and prioritizing various water conservation and efficiency strategies to optimize outcomes (increased equity in program participation and ROI). Rain barrels, consolidation opportunities, and conservation encouragement could all	• Develop Fort Collins One Water Action Framework, Phase 2 – Develops the One Water Action Framework that identifies key strategies, goals, and performance metrics for the Water Utilities, based on the opportunities identified in Phase I. • Poudre River Health Assessment Framework (RHAF) – assess the upper and middle river	• The identified short-term goals would be brought forth through the Budgeting for Outcomes process.

• Develop an irrigation ditch document for the City and FMA and develop policies and related governance – who owns the ditch companies, how much of each does the City own, and suggested ways on managing it like trees • Water conservation program consolidation • Provide creative ways to encourage water conservation to get community on board on what they can do as an individual (e.g., Rain barrels, irrigate yard, leverage raw water wells)	ownership, ways to manage) • Decrease water usage per capita as a sign of increasing conservation. • Leverage cross-departmental and agency efforts.	be addressed in the prioritization process. • **Water Supply Requirements –** we are developing a methodology for updating the Water Supply Requirements, Excess Water Use Fees, and assigning Water Allotments. 2024 will be spent developing a recommendation for City Council to approve in QTR 4 2024 with adoption in QTR 1 2025. • **Fort Collins One Water Action Framework**, **Phase I (2024)** – we are developing a holistic approach to management of all water resources (raw water, drinking water, wastewater, stormwater) for improved and expanded beneficial outcomes. Phase I involves information and data gathering to describe the water landscape of the Fort Collins community and establishes the Water Utilities' One Water	reaches through Fort Collins using the RHAF to understand current conditions and identify most impactful opportunities to improve ecological health of the river in the face of current and future stressors. • Poudre Flows Initiative – A regional effort to keep more water in the river from the Poudre Canyon to the confluence of the South Platte, while not compromising the benefits of the water rights. • Poudre Water Quality Network – continue to build out the capabilities of the monitoring network by developing community-facing dashboard that enables real-time visualization of water quality conditions. • Leverage regional partnerships and opportunities to improve stream flows, habitat, and related goals. • NISP Response & Engagement – consulting support for 1) engagement in River-	

		Vision and guiding principles. • **Poudre River Watershed Protection** – We engage in numerous partnerships with community groups, water utilities, suppliers, and land management agencies to plan and implement watershed health projects that reduce risks associated with wildfire and protect and enhance water quality, water supply infrastructure and watershed function. • **Water Quality Monitoring Programs** – lead three ongoing collaborative monitoring programs focused on protecting drinking water quality and minimizing water quality impacts in the Poudre River from urban runoff, stormwater influence and reclaimed wastewater discharges. These programs support regulatory compliance with drinking water and wastewater regulations. • **Source Water Protection Plan** – working with	wide master planning, and 2) resource-specific technical evaluation of proposed mitigation strategies and impacts, as needed. • Leverage regional partnership and opportunities to improve stream flows, habitat and other related goals	

		regional partners to update the 2016 plan, which identifies potential pollution risks paired with best management practices for mitigating those risks within source watersheds.		

Community Engagement

- Ongoing efforts with regional water service providers in Northern Colorado.
- Community outreach programs through Water Conservation division.
- Participate in City and community events.
- Movie theatre ads on water conservation programs, for example sprinklers and toilets (tied to Water Efficiency Plan) – Planned for 2024.
- Flyers and website development ongoing.
- Outreach around Water Supply Requirements, water excess fees and water allotment assignments.

Strategic Outcome Area: Transportation & Mobility

Council Priority #9: 15-minute City – Accelerate our shift to Active Modes.

Lead: FC Moves and Parks/Trails

Partners: CDNS, Streets, Traffic, Engineering, Transfort, Environmental Health, Natural Areas, Police Services

Priority Inputs	How did Council define success?	Current work underway	Short Term Goals	Resource Requirements
• Community feels safe moving throughout the city without a car • Acceleration of Vision Zero plan • 50% travel by 2032 • Increase bike lane miles • Increase walking and biking score • Reduce fatalities	• Community feels safe moving throughout the city without a car • Acceleration of Vision Zero Plan • 50% of travel by 2032 • Count bike lane miles • Decrease fatalities	• Safe Routes to School Program • Active Modes Plan implementation • Vision Zero Plan implementation • Transportation Capital Project Prioritization Study	1. **Operationalize Active Mode Investment:** Prioritize Active Modes and Safe Routes to School across all departments and funding 2. **Update Land Use and Street Design Standards**: Update policies, standards and guidelines based on an	• The 2024 audit to identify regulatory barriers will inform additional resource needs in 2025. • Strategic Trails Plan implementation needs will be evaluated during this process.

• Safe Routes to School – quantify and set a target	• Safe to Routes to Schools – quantify and set target • Increase walking and bike scores	• Transportation Capital Improvement Plan • Shift Your Ride program • Tax renewals: Pavement Maintenance and CCIP • Transfort System Optimization • Adult education and outreach	audit to be completed in '24. 3. **Update the Strategic Trails Plan:** The update will begin in 2024 and will be integrated into the Active Mode Plan. 4. **Expand Existing Programs**: Identify short term opportunities to expand existing programs such as Safe Routes to School and Shift Your Ride for greater impact. 5. **Awareness/Coalition Building:** Test and demonstrate diverse ways to raise awareness and support 6. **Tax Renewals/BFO:** Leverage upcoming Tax Renewal efforts and Budgeting for Outcomes (including 2050 Tax) to centralize and future proof funding. 7. **Bolster Operations and Maintenance:** Explore ways to bolster maintenance and operations of existing bike and pedestrian facilities. 8. **Short Term Tracking and Metrics:** City Staff will identify the most critical metrics and tracking	• Expansion of existing programs will require additional or reallocated funding and can be explored during the 25/26 BFO Process • Based on the success of new engagement in 2024, additional resources will be required in 2025 to continue or expand. • Current maintenance budgets for streets, sidewalks and off-street trails are struggling to keep pace with the growth of the network. The unique maintenance needs of some facilities also require equipment investments. City Staff will explore opportunities to leverage existing budgets and advance proposals in the 2025/2026 Budgeting for Outcomes Process.

			methods from all plans to focus reporting progress during this two-year timeframe.	

Community Engagement

- Robust community engagement for the next phase of the Land Use Code update.
- Citywide community engagement and outreach efforts for the Strategic Trails Plan to inform the vision and strategies of the plan.
- Customer input and demand will inform specific strategies to support programs.
- Meaningful, equitable community engagement and smaller scale events to raise community awareness and support.

Strategic Outcome Area: High Performance Government

Council Priority #10: Develop a Hughes Site Master Plan.

Lead: City Manager's Office, Community Services

Priority Inputs	How did Council define success?	Current work underway	Short Term Goals	Resource Requirements
• Master Plan for Hughes that allows connection to nature through recreation – foot, bikes, skis • Youth-led bike park plan • Support the creation of the wildlife and nature campus on the former Hughes site • Retain Hughes as a natural area wildlife and nature campus and low-impact recreation	• Decisions made based on broad public input and community involvement • There is a place for every idea even if it's not at Hughes. • Solidified Master Plan within 2 years.	• Broad, general engagement was conducted in the fall of 2022 to better understand community interest in different uses on the site.	• Develop a scope and cost for a planning process including community engagement and site design. • In parallel, determine feasibility of a mountain bike park and a wildlife/nature campus at this site or to identify alternate locations.	• To complete an engagement and adoptable site plan, some level of funding would be required. Consideration for an off-cycle appropriation or wait to submit an offer for the 2025-2026 budget cycle. • Any implementation of a developed plan would need to come through future budget process, grants, etc.

Community Engagement

- There is currently no engagement planned related to the Hughes site.
- A scope/timeline can be created and presented to Council at a future work session.

Council Priority #11: Make government more accessible, approachable, and fun.

Lead: CPIO

Partners: Equity Office, all departments

Priority Inputs	How did Council define success?	Current work underway	Short Term Goals	Resource Requirements
• More clarity on how you address the government • Every resident feels like they have the same access and knowledge • Keep Fort Collins fun – easier to have organic, fun things in our community • Address voter turnout and accessibility, including education on Rank Choice Voting • Communicate clearly to our community what our priorities are • How do folks want to engage with the city? • Tell our story and bring community along with us rather than just informing • Youth engagement • Neighborhood ambassadors • City interacting with community other than in a technical way. • Come to Council at 5:30 to meet your Councilmember	• Robust and inclusive plan for voter outreach and education • Rethink how City communicates with community • Identify how we reach community • Understand how community wants to receive information • Think about the City's voice on social media • Connect with all ages • Address accessibility to information (giving and receiving)	• Language access guidelines • Inclusive engagement guide • Digital experience (website, legislative management, other digital systems) • Customer Experience roadmap • Digital accessibility • Ongoing community events (Linden St., Open Streets, Bike to work day, etc.) • Ec. Health business listening sessions, business connectors/bilingual navigators' outreach, business appreciation celebrations, Council/ business features, etc. • CityWorks 101 • Cultural Services pop-ups • Council/ community meet and greets, ex Council proclamation receptions • Council listening sessions • Youth Advisory board reboot	• Optimize website and implement new digital experience platform (Phased launch through 2024 and 2025) • Digital accessibility transition plan (implementation by July 2024) • Exploration of a 3-1-1 service • Identify and remove barriers to smaller neighborhood events • Pilot deliberative democracy innovations, such as "citizen" assemblies with partners like CSU. • Video storytelling strategy • Develop a multilingual pay program	• Funding to amplify/ promote information more broadly to the org (advertising, print, traditional communication channels) • Funding for new website and ongoing maintenance • Funding for staff/technology for 3-1-1 service • 2025 BFO for a community engagement manager in Equity Office to include contractual community connectors program for multi-cultural representation • 2025 BFO for an in-house translator in Equity Office

• Bike to School Day • Utilize social media to communicate that residents can interact with Council in a variety of ways • Promote intergenerational relationships to energize inclusion of seniors in our community. e.g., Rams Against Hunger				
Community Outreach • Annual Community Survey and other engagement efforts to learn about barriers and preferred methods of communication and engagement.				

Council Priority #12: Continued stewardship of our civic institution.

Lead: City Attorney's Office
Partners: City Clerk's Office

Priority Inputs	How did Council define success?	Current work underway	Short Term Goals	Resource Requirements
• Charter Review	• Complete Charter Review	• Currently review the charter but not as a systemic effort	• Complete review of Charter for inconsistencies and obsolete language by late 2025	• Supplemental outside counsel
Community Engagement • Depends on nature of review. May not be needed for corrective changes as opposed to new policy changes.				

- **What is a puppy mill vs. a breeder?**
  - Many businesses that sell or adopt out dogs must be licensed or registered under the Federal Animal Welfare Act (AWA) by the United States Department of Agriculture (USDA).
  - Different types of licenses are required depending on the type of activity involving dogs.
  - "A Class A licensee is a breeder whose business consists of dogs and other regulated animals bred and raised on his or her premises in a closed or stable colony." (USDA Fact Sheet)
  - "A Class B licensee is a dealer or broker whose business includes the purchase and/or resale of any dog or other regulated animal."
  - There are certain exemptions for licensure, including, but not limited to, if a breeder maintains four or fewer "breeding females" on the premises, or if a breeder always sells pets to new owners in face-to-face transactions.
  - There are also regulations under the Colorado Department of Agriculture (CDA) under the Pet Animal Care Facilities Act (PACFA). These regulations specify many details of different types of animal care facilities, including retail establishments. More information can be found in the link below.
- **Does Pet City get their animals from a puppy mill?**
  - Staff have visited Pet City and have spoken to the owner about the sources of their animals. They have said that they have trusted veterinarians visit their breeders and they only source from trusted, licensed breeders. Staff have not independently verified this information.
  - Pet City appears to meet the requirements to be licensed under PACFA.
- **What are the rules and laws that retail pet stores need to follow?**
  - The rules under PACFA relate specifically to operations within the state of Colorado. Federal regulations generally do not seem to include retail establishments and instead focus more specifically on regulation of breeding facilities.
- **How many other cities in Colorado passed a similar ordinance?**
  - Fourteen (14) municipalities in Colorado have enacted puppy mill ordinances. Most have only banned the sale of dogs and cats from pet stores; however, a couple municipalities have banned all dog and cat sales generally.
  - Most other Colorado municipalities with puppy mill ordinances do have specific definitions for breeders to distinguish them from puppy mills.
- **Did those cities have to shut down any stores? If so, how many?**
  - Of the 14 municipalities that have passed puppy mill ordinances in Colorado, only the City of Fountain had an existing pet store that actively sold dogs and cats at the time its ordinance was passed. The City ultimately decided to create an exception for its one existing pet store to continue selling dogs and cats so long as it complies with USDA licensing requirements.

Sources: https://www.aphis.usda.gov/animal_welfare/downloads/breeders/dogs/TechNote-QA-Dog-Activities-Requiring-a-USDA-License-or-Registration_11-29-2018.pdf

PACFA Rules 2023:
https://www.sos.state.co.us/CCR/Upload/NoticeOfRulemaking/ProposedRuleAttach2023-00036.pdf

02-13-2024

Council Priorities Session #2

Rupa Venkatesh

Assistant City Manager

uncil Questions

Does staff's framing of Council's proposed priorities align with Council expectations?

What additional information would be helpful for Council prior to their consideration of adoption of priorities on March 19?

mmary of Proposed Priorities

Neighborhood Livability & Social Health

- Operationalize City resources to build and preserve affordable housing
- Improve human and social health for vulnerable populations
- 15-minute City: Ignite our neighborhood centers
- Improve animal welfare through public education

Economic Health

- Pursue an integrated, intentional approach to economic health

Environmental Health

- Create pathways for zero waste infrastructure and policies
- Reduce climate and air pollution through electrification
- Protect surface water in an integrated way and ensure resilient water resources

Transportation & Mobility

- 15-minute City: Accelerate our shift to active modes

High Performing Government

- Develop a Hughes Site Master Plan
- Make government more accessible, approachable and fun
- Continue stewardship of our civic institution

Strategic Outcome Area: Neighborhood Livability & Social Health

Operationalize City Resources to Build and Preserve Affordable Housing

Original priority name: No change

Problem Statement

Not everyone in our community has access to healthy, stable housing, and we are currently not meeting our affordable housing production goal. Limited highly competitive funding, rapidly increasing costs, long development timelines, and historic under-production of housing units have led to severe housing availability and affordability issues in Fort Collins and many areas around the State of Colorado.

Examples of short-term goals

- Expedite review of affordable housing projects to achieve decisions within 90 days or less in order to meet housing production commitments under Proposition 123.
- Streamline processes and regulations to encourage development of more affordable housing.
- Create sustainable source(s) of dedicated local funding for housing.

Improve Human and Social Health for Vulnerable Populations

Original priority name: Human and Social Health

Problem Statement

Obstacles and barriers exist that impede access to services for our underserved community members.

Existing oil and gas wells in and around Fort Collins cause harmful pollution and have negative environmental and human health impacts.

Examples of short-term goals

- 2024 Mini-BFO request: Healthy Homes program funding to implement more residential home improvements in underserved communities.
- Develop and implement plans to remove or mitigate obstacles and expand funding and services to our underserved community members.
- Take direct actions to ensure compliance and reduce oil and gas operations in and around Fort Collins, especially in northeast Fort Collins.

-minute City: Ignite Neighborhood Centers

Original priority name: 15-minute City

Problem Statement

Market factors, limited tools and programs, ownership patterns and rising development costs hinder us from accelerating our goal for everyone to have daily goods and services within a 15-minute walk or bike ride from their home.

Examples of short-term goals

- Regulatory Improvement: Develop scope, process and timeline the next phase of Land Use Code updates related to our neighborhood centers, employment areas and corridors.
- Business Process Improvement: Evaluate existing tools, processes and resources to go from complexity to simplicity with common permits for new businesses, short term tenants.
- Public/Private Partnerships (P3): Explore and determine optimal P3 opportunities (either new or enhanced) for deeper understanding of the goals and challenges of the 15-minute city, identifying collaboration and implementation actions.

prove Animal Welfare through Public Education

Original priority name: Public Education on Animal Welfare.

Problem Statement

Fort Collins is a place that loves its animals, both wild and domesticated, and its policies should reflect that. Research shows that outdoor cats are the number one direct threat to songbirds and further public education is needed to help mitigate these impacts.

Examples of short-term goals

- Coordinate with NOCO Humane on education and outreach regarding off-leash cats.
- Expand research regarding municipalities in Colorado with different rules on retail pet sales.

Strategic Outcome Area: Economic Health

rsue an integrated, intentional approach to economic health.

Original priority name: Economic Health

Problem Statement

Good jobs and opportunities for economic mobility, especially in key economic sectors like climate-tech and bioscience, are missing for many in our community, particularly those from underserved and underrepresented populations.

Processes related to doing business in the City of Fort Collins can be unclear, unnecessarily complex, and unfriendly to business customers.

Examples of short-term goals

- Focus business retention, expansion, and attraction (BREA) efforts in bioscience, life science, climate solutions, and the circular economy supply chain.
- Work across City departments to evaluate the barriers to doing business in Fort Collins.
- Test a Business Development Liaison position based on the learnings and experience from the Capital Projects Business Liaison.

Strategic Outcome Area: Environmental Health

eate Pathways for Zero Waste Infrastructure and Policies

Original priority name: Waste Reduction and Recycling

Problem Statement

Fort Collins is currently missing the nearby infrastructure needed to meet its commitments to becoming a Zero Waste and Carbon Neutral community. Policies and programs for diverting material away from landfills are dependent upon viable, community-scale facilities for recycling/composting/etc.

Examples of short-term goals

- Infrastructure pathways: Develop clear pathway to local/regional *construction and demolition waste sorting facility* to enhance opportunities for recycling of building materials and for local/regional *food scrap processing facility/facilities* to enhance opportunities for keeping materials out of landfills.

- Policies leveraging existing infrastructure: Implement the contracted hauling program to expand yard trimmings collection; develop policy for commercial/multi-family yard trimmings.

- Once infrastructure pathways identified: Engage in policy/program development for residential and commercial food scraps as well as construction and demolition materials.

duce Climate and Air Pollution through Electrification

Original priority name: Electrification and GHG reduction

Problem Statement

Building energy use accounts for over 2/3rds of the community emissions inventory; vehicle transportation emissions account for 25%; small engines (such as lawn and garden equipment) contribute to both local GHG emissions and air pollution; and the North Front Range is in a severe non-attainment zone for air quality under the Clean Air Act. Without significantly reducing emissions from these sectors, it will be impossible to improve air quality and meet Council-adopted climate goals.

Examples of short-term goals

- Adopt policies and performance standards for energy use in existing buildings and new building energy codes for new construction.
- Strategic allocation of 2050 Tax funds through 2024 and 2025/2026 budgeting for outcomes process.
- Continue electric conversion of City-owned, gas-powered equipment.

Protect Surface Water in an Integrated Way and Ensure Resilient Water Resources

Original priority name: Water Resources/Quality

Problem Statement

Efforts to protect the Poudre River, enhance watershed habitat and in-stream flows depend on a complex network of relationships, landowners, infrastructure, and operations of a variety of regional partners, including ditch companies. Furthermore, the future ability of the water utility to provide sufficient water supply through a cost-sensitive lens depends on the successful development of a one-water framework that is resilient and equitable that emphasizes conservation and storage.

Examples of short-term goals

- Develop the One Water Action Framework that identifies key strategies, goals, and performance metrics for the Water Utility in partnership with Colorado State University and Water Research Foundation.
- Poudre River Health Assessment Framework (RHAF) assess the upper and middle river reaches through Fort Collins. Use the RHAF to understand current conditions and identify most impactful opportunities to improve ecological health of the river in the face of current and future stressors.
- Leverage regional partnerships and opportunities to improve stream flows, habitat, and other related goals.

Strategic Outcome Area: Transportation & Mobility

15-minute City: Accelerate our Shift to Active Modes

Original priority name: Active Modes

Problem Statement

Multiple departments and funding sources are necessary to implement the Active Modes and Vision Zero Plans which can create inefficiency and missed opportunities. Community support and behavior change is also critical. Both challenges need focus in order to accelerate achieving our goal of 50% active mode share by 2032.

Examples of short-term goals

- Prioritize Active Modes and Safe Routes to School projects for all implementing departments and existing funding sources (e.g., FC Moves, Streets, Traffic, Engineering, Parks).
- Update a substantive set of policies, standards and guidelines that are currently barriers to implementing the AMP and Vision Zero. City Staff will complete an audit in 2024.
- Leverage upcoming Tax Renewal efforts (Community Capital Investment Program and Street Maintenance Program Tax) and Budgeting for Outcomes (including 2050 Tax) to further prioritize and centralize funding for collective impact of Active Modes Plan and Strategic Trails Plan implementation.

Strategic Outcome Area: High Performance Government

velop a Hughes Site Master Plan

Original priority name: Hughes Site Master Plan

Problem Statement

In accordance with the voter-approved ballot measure, the City acquired the 164-acre Hughes site in summer 2023. After conducting initial general public outreach and identifying conflicting interests and desires, Council would like to engage in an inclusive process to develop a site plan for future use.

Examples of short-term goals

- Develop a scope and cost for a planning process including community engagement and site design.
- In parallel, determine feasibility of a mountain bike park and/or wildlife/nature campus at this site or on alternate locations.

ke government more accessible, approachable and fun.

Original priority name: No change.

Problem Statement

Our evolving community and ever-changing media/communications landscape requires an innovative approach to reduce barriers and ensure everyone has access to timely, relevant and accurate information and opportunities to connect with their local government and community in meaningful ways.

Examples of short-term goals

- Optimize website and implement new digital experience platform (Phased launch through 2024 and 2025).
- Video storytelling strategy.
- Identify and remove barriers to smaller neighborhood events.

ntinue Stewardship of our Civic Institution

Original priority name: Continued stewardship of our high performing government

Problem Statement

Although small parts of the Charter get reviewed and updated on a regular basis, due to changes in state laws and elections procedures, there is a need to modernize and update the City Charter which has not been done in a comprehensive way in over 25 years.

Example of a short-term goal

- Complete review of Charter for inconsistencies and obsolete language by late 2025.

ority Setting Timeline

DECEMBER 12
Work Session: Council End of Term Report

JANUARY 27
Retreat: Priority Setting Session 1

FEBRUARY 27
Work Session: Strategic Plan + Council Priorities Discussion

MARCH 19
Adoption of Strategic Plan + Council Priorities

DEC | JAN | FEB | MAR | APR | MAY | JUN

JANUARY 23
Work Session: Ground Setting for Priority Setting

FEBRUARY 13
Work Session: Priority Setting Session 2 with Staff Feedback

MARCH TBD
Council Finance Committee: 2024 Mini BFO for 2050 tax

JUNE 25
Start of 2024-2026 Budget Work Sessions

ke Rack Items - will be brought back February 27.

- Safe Indoor air quality in residential homes prioritizing low income
  - Incorporated into the “Improve Human and Social Health for Vulnerable Populations” priority
- State regulations
- Align City policies with SB23-111
- Municipal Innovation fund – expand to community
- Safe Passage Initiative/River Diversion
- FCPS messaging that they have no ICE relationships
- Expanded solar infrastructure
- Two tracks for historic review process
- Maintenance for annexed streets

uncil Questions

Does staff's framing of Council's proposed priorities align with Council expectations?

What additional information would be helpful for Council prior to their consideration of adoption of priorities on March 19?

Thank you!

February 13, 2024

WORK SESSION AGENDA ITEM SUMMARY

City Council

STAFF

Travis Storin, Chief Financial Officer
Ginny Sawyer, Lead Policy and Project Manager

SUBJECT FOR DISCUSSION

Community Capital Improvement Program and Street Maintenance ¼-cent Tax Renewals.

EXECUTIVE SUMMARY

The purpose of this item is to provide background and confirm the desire, process, and proposed timeline to refer the renewal of both the Street Maintenance and the Community Capital taxes to the November 2024 ballot.

GENERAL DIRECTION SOUGHT AND SPECIFIC QUESTIONS TO BE ANSWERED

1. What questions do Councilmembers have on past programs and initiatives?

2. What questions or suggestions do Councilmembers have regarding the proposed process and timeline to refer these renewals?

3. Do Councilmembers have questions or suggestions on potential future projects to be included in a capital renewal package?

BACKGROUND / DISCUSSION

The City of Fort Collins has a 40+ year history of utilizing voter approved sales tax initiatives to fund major capital projects and to achieve and maintain an extensive transportation system. Starting in 1973, with a 7-year, one-cent tax that helped fund the Downtown Library, the Lincoln Center, City Hall, Mulberry Pool and other improvements, residents have continued to support sales tax capital programs to create the city we enjoy today.

Historic initiatives include:

- Choices ‘73
- Project RECAP
- Edora Pool and Ice Center
- Natural Areas
- Choices ‘95

- Building Community Choice
- Building on Basics

The current initiatives, Community Capital Improvement Program (CCIP) and the Street Maintenance Program (SMP), will expire on December 31, 2025. With only one annual election opportunity (November), staff are recommending seeking these tax renewals in 2024. Both programs are a dedicated ¼- cent sales tax which equated to 25 cents on a $100 purchase. Over the 10-year program (2016-2025) each ¼-cent is estimated to generate approximately $80.0 million for community-wide investments.

CCIP Considerations

The current CCIP package includes both stand-alone capital projects (Willow Street, Lincoln Avenue Bridge, White Water Park, etc.) and fund buckets dedicated to specific uses (Bicycle Infrastructure Improvements, Sidewalk ADA Compliance, Arterial Intersection Improvements, etc.). Historically, almost half of the capital packages have been utilized for transportation related activity including serving as a means to match and acquire grant funding.

Potential Projects

Staff have begun initial internal meetings to outline a workplan for a November ballot referral. Part of that work includes reviewing adopted plans for potential project candidates. These early meetings have generated the following ideas:

Transportation/Engineering:

- Arterial improvements
- Bike infrastructure
- Sidewalk/ADA improvements
- Bus stop improvements and bus replacement
- Howes (street conversions)

Other Funds:

- Affordable Housing
- Nature in the City
- Active Mode Infrastructure

Capital Projects:

- Civic Center advancement
- Car Barn advancement
- Park Improvements (Martinez)
- Parks shop
- Transfort maintenance site
- Lincoln Center upgrades
- North College Community Hub
- Composting facility

- Trail strategic plan components
- River masterplan (another reach)
- Mountain Avenue re-design
- Children's Garden renovation
- Mulberry Pool Replacement
- Pickleball expansion
- Mountain biking facility (site TBD)

Along with project identification, staff are developing a guidance template to both help and ensure costing estimates are realistic and account for contingency and inflation. Past packages have also included 5 years of operation and maintenance funding if they require staffing and/or landscape or other maintenance.

Street Maintenance Program (SMP)

The SMP is intended to provide preventative maintenance to prolong the life of our streets. Streets are evaluated through visual inspection and testing and analysis that leads to a Pavement Condition Index (PCI) rating from excellent to poor. The Street Maintenance Program improves concrete curb, gutter and sidewalk; constructs handicap access ramps; repairs deteriorating asphalt; and reconstructs, overlays or slurry seals existing streets. With current funding levels, the SMP anticipates performing street maintenance treatments on approximately 40 to 50 miles of streets per year.

Since 2010, street lane-miles have increased by 181 on a base of 1,813. This means current funding is stretched even further.

Council Timeline

Currently the project team has scheduled Council work sessions on April 23 and June 11. Staff anticipates another work session in July and then a ballot referral at the August 20 regular meeting. In between these full council meetings, the team will be working with Council Finance Committee and engaging the public.

The ballot referral is typically done by a resolution that refers an ordinance to the voters. The ballot addresses the funding package. Should the program be renewed, Council would then provide direction on the timing of the projects. Previous language is provided on slides 19 and 20 in the power point.

NEXT STEPS

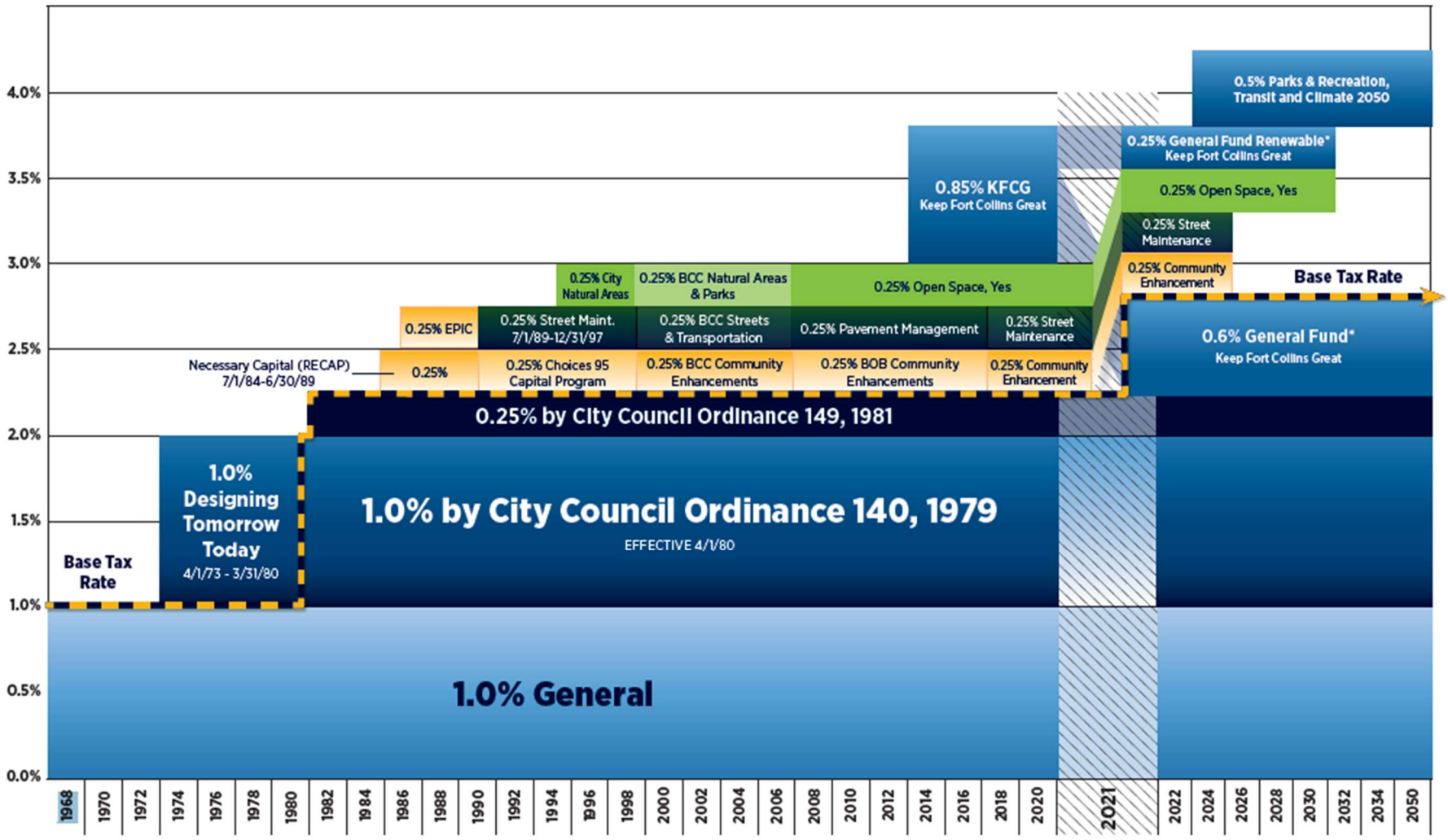
- March 2024 discussion item with Council Finance Committee to develop guiding principles and take input on potential CCIP projects
- Council Work Sessions (2) and Finance Committee Meetings (2) Q1-Q3 2024

ATTACHMENTS

1. Current Tax Stack
2. Historical Voter Approved Sales Tax Initiatives
3. Presentation

SALES AND USE **TAX RATES** 1968-2050

ALL TAXES WERE **VOTER APPROVED** UNLESS OTHERWISE STATED.



* KFCG revenue replacement will continue the 0.85% tax by increasing the on-going tax rate by 0.60% and adding a renewable 0.25% tax through 2030. Auxiliary aids and services are available for persons with disabilities. REVISED FEB 2021 23-25886

Voter Approved Sales Tax Initiatives 1973-2030

CHOICES '73: DESIGNING TOMORROW TODAY
(1-cent) 1973-1980

- Comprehensive Land Use Master Plan
- Avery House purchase
- Downtown Redevelopment projects
- Main Library
- Lincoln Center
- Fire Station #4
- Mulberry Pool
- City Hall Building
- Open Space land acquisition
- Parks acquisition
- Sewer to Andersonville and Alta Vista
- Storm Drainage Program
- Comprehensive Transportation Study
- Bus System
- Street Improvements

PROJECT RECAP
(¼-cent) 1984-1989

- Major Street Improvements
  - Lemay, Horsetooth to Harmony
  - Shields Street Improvements
    * Intersections at Mulberry, Prospect, Laporte
    * Widening and bike path, Prospect to Laurel
  - Timberline/Prospect Intersection
  - Prospect, Shields to Taft Hill
  - College Avenue Medians, Horsetooth to Creger
  - Prospect/Taft Hill Intersection
  - Mulberry/Canyon Intersection
  - Street Major Maintenance Program
  - Bikeways on College, Timberline and Horsetooth
- Sidewalk Pedestrian Access Ramps
- Indoor Pool Renovation
- Poudre Fire Authority equipment replacement and land acquisition
- Open Space and Trails acquisition
- Construction

EDORA POOL ICE CENTER (EPIC)
(¼-cent) 1985-1989

CHOICES 95
(¼-cent) 1990-1997

- Major Street Improvements
  - Shields, Davidson to Casa Grande
  - Prospect Intersection Improvements
    * Lemay
    * Taft Hill
    * College
  - Prospect, Shields to Taft Hill
  - Shields, Laurel to Prospect
  - Eastside Neighborhood Intersections
  - Drake, Canterbury to Taft Hill
  - Timberline Extension, Prospect to Summitview
  - College/Drake Intersection
- Fire Station #10 Land Acquisition
- Fire South Battalion
- Lincoln Center Restrooms
- Parks and Open Space Projects
- Senior Center
- Eastside Neighborhood Park
- Southwest Community Park Land Acquisition
- Park Enhancements -- Buckingham and Edora
- Indoor Pool Renovations

NATURAL AREAS TAX
(¼-cent) 1992-1997

City of Fort Collins

Voter Approved Sales Tax Initiatives 1973-2030

BUILDING COMMUNITY CHOICE
(Three Separate ¼-cents) 1997-2005

Community Enhancements
- City/School District Community Projects
- Shields Street, Horsetooth to Troutman
- Police Building Land
- Northeast Truck Route
- Library Technology
- New Main Library Land
- Prospect, Poudre River to Summitview
- Performing Arts Center Land
- Taft Hill Road, Drake to Derby
- EPIC Second Ice Sheet
- Northside Aztlan Community Center

Streets and Transportation
- Pavement Management Program
- Pedestrian Plan
- Mason Trail
- North College Corridor

Natural Areas and Parks
- Natural Areas Acquisition
- Community Park Improvements
- Community Horticulture Center
- Gardens on Spring Creek
- Fossil Creek Community Park
- Regional Trails

OPEN SPACE YES!
(¼-cent) 2006 - 2030

Renewal of BCC Natural Areas and Parks ¼-cent tax for Open Space Acquisition and Maintenance

STREET MAINTENANCE
(¼-cent) 2006-2015 and 2016-2025

BUILDING ON BASICS
(¼-cent) 2006-2015
- Library Technology
- Fort Collins Museum/Discovery Science Center Joint Facility
- Lincoln Center Renovation/Cultural Facilities Plan
- Park Upgrades and Enhancements
- Fort Collins Senior Center Expansion
- Police Services CAD Replacement
- Harmony Road, Seneca to College Avenue
- Intersection Improvements and Traffic Signals
- North College Avenue Improvements
- Timberline Road, Drake to Prospect
- Transit Fleet Replacement Buses
- Bicycle Program Plan Implementation
- Pedestrian Plan and ADA Improvements

KEEP FORT COLLINS GREAT
(.085 cents) 2011-2021
- 33% Street Maintenance and repair
- 17% Other Transportation needs
- 17% Police Services
- 11% Poudre Fire Authority
- 11% Parks Maintenance and Recreation Services
- 11% Other Community Priorities

CAPITAL IMPROVEMENT PROGRAM
(¼-cent) 2016-2025
- Downtown Poudre River Improvements
- Gardens on Spring Creek Visitor's Center
- Club Tico Renovations
- City Park Train
- Sidewalk Improvements
- Bike Under/Over Passes
- Nature in the City
- Affordable Housing Fund

City of Fort Collins

February 13, 2024

Community Capital Improvement Program and Street Maintenance ¼-cent Tax Renewals

Travis Storin - Chief Financial Officer
Ginny Sawyer - Lead Policy and Project Manager

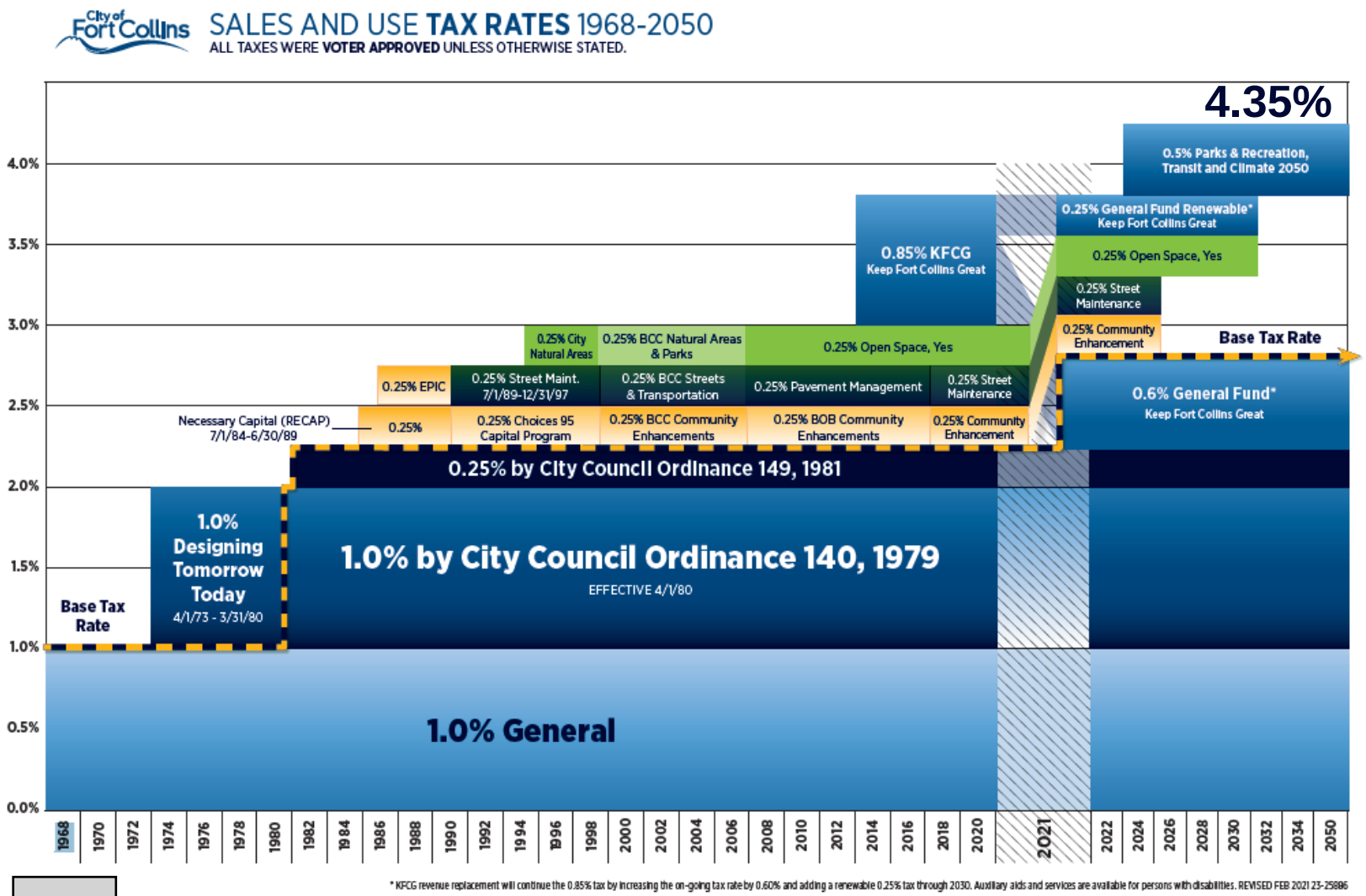
ection Sought

01 What questions do Councilmembers have on past programs and initiatives?

02 What questions or suggestions do Councilmembers have regarding the proposed process and timeline to refer these renewals?

03 Do Councilmembers have questions or suggestions on potential future projects to be included in a capital renewal package?

story of Dedicated Taxes



Tax Rate History

2.25%

Base on-going rate from 1984- 2021

2.85%

Base rate starting in 2021 with the addition of .60 increase from Keep Fort Collins Great

3.00%

Total rate from 1994-2016

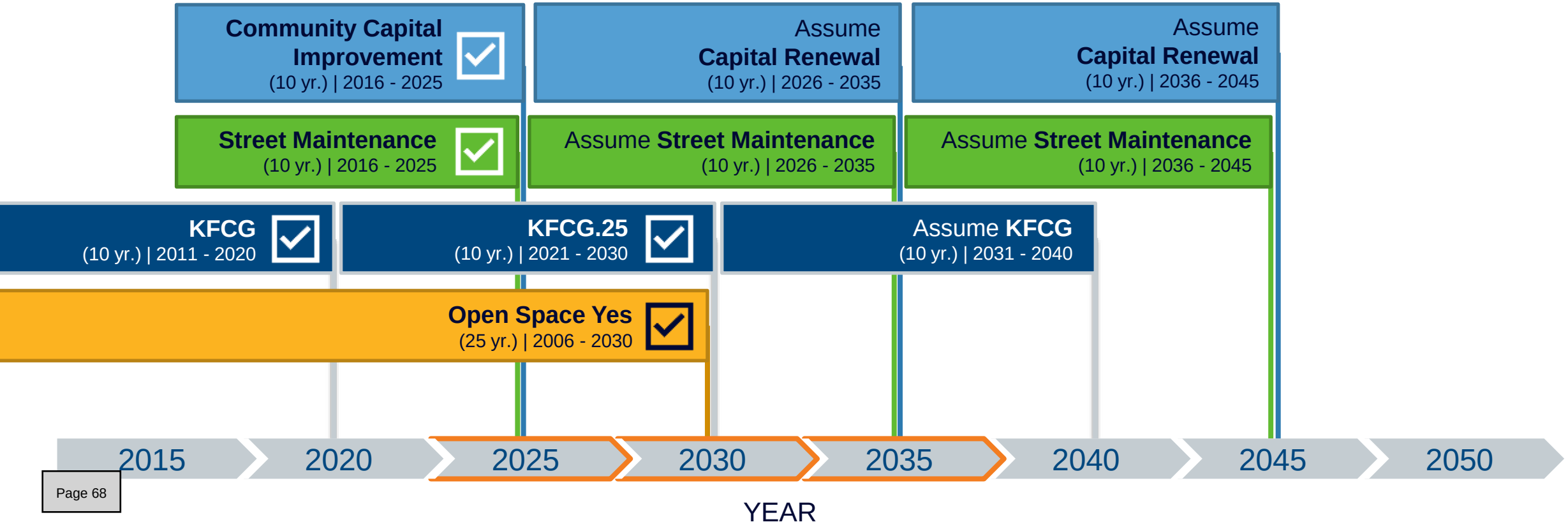
3.85%

Total rate from 2016-2024

k Renewals Over Time

Long-term Look at Possible **Tax Renewals**

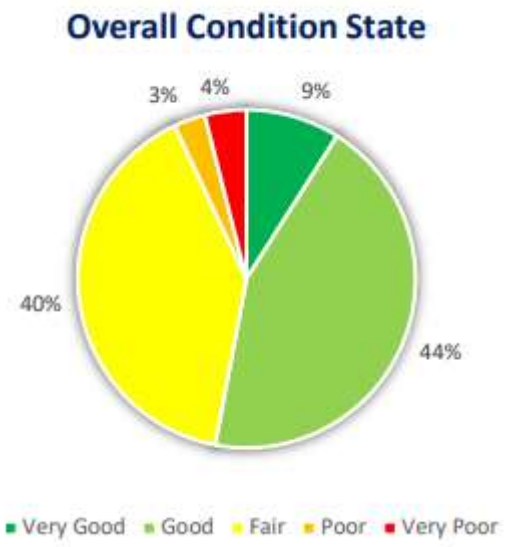
ASSUMES **10 YEAR** TERMS



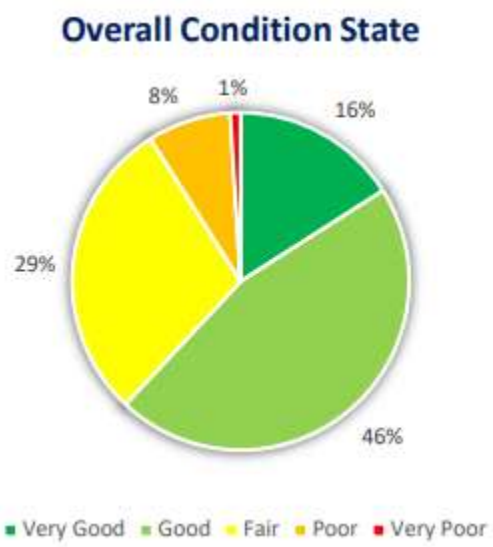
Streets Maintenance Program

rent Road System Conditions

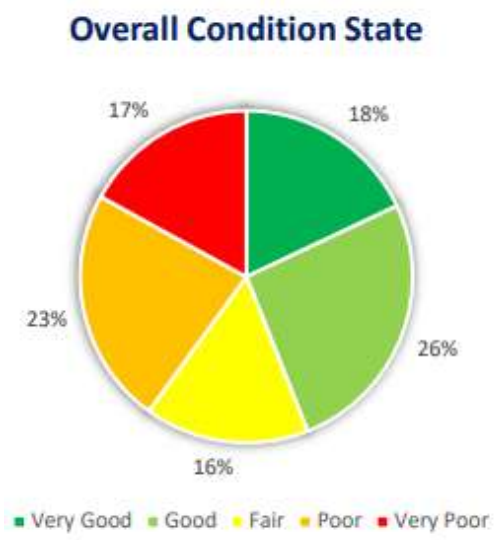
BRIDGES



STREETS

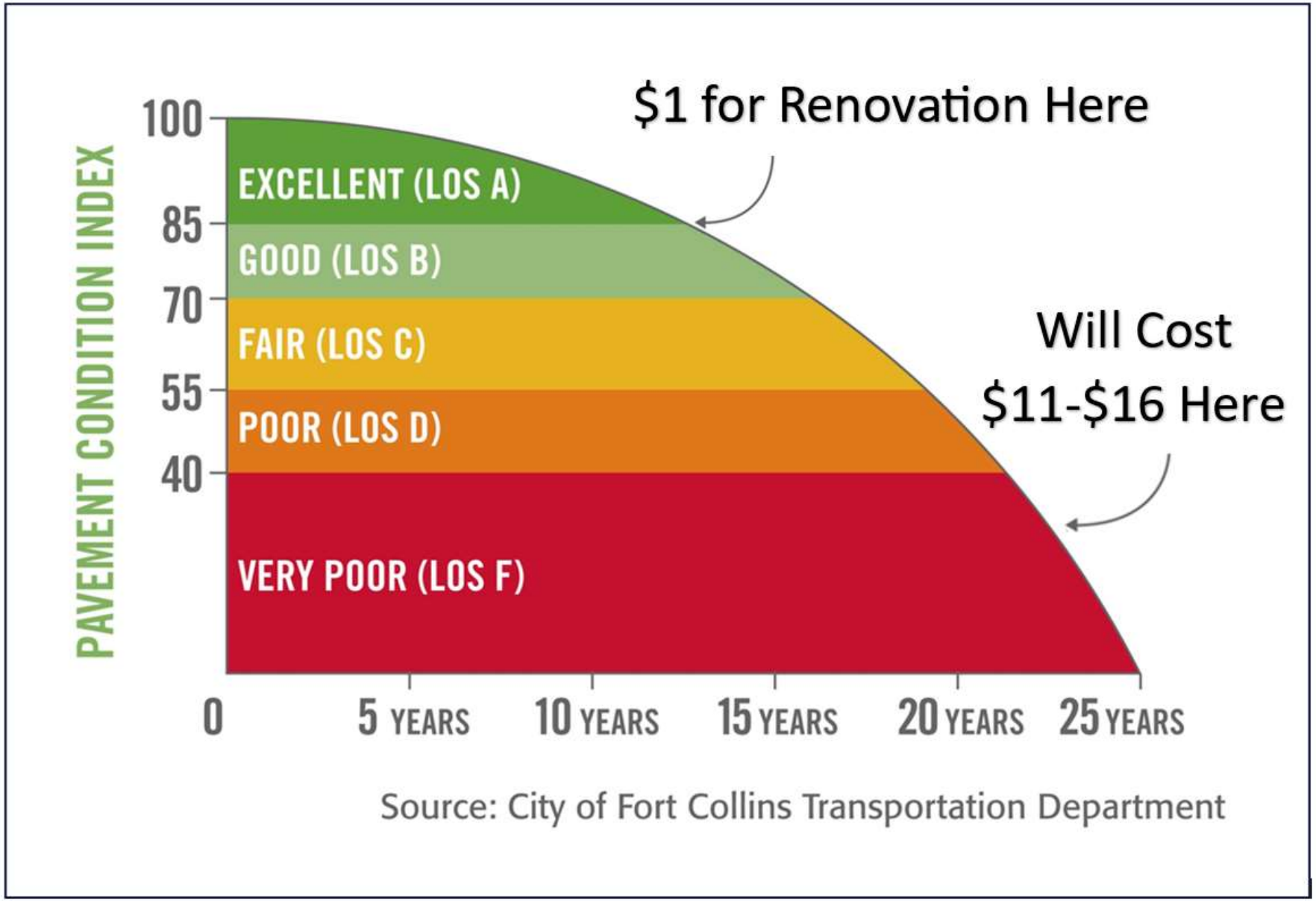


TRAFFIC

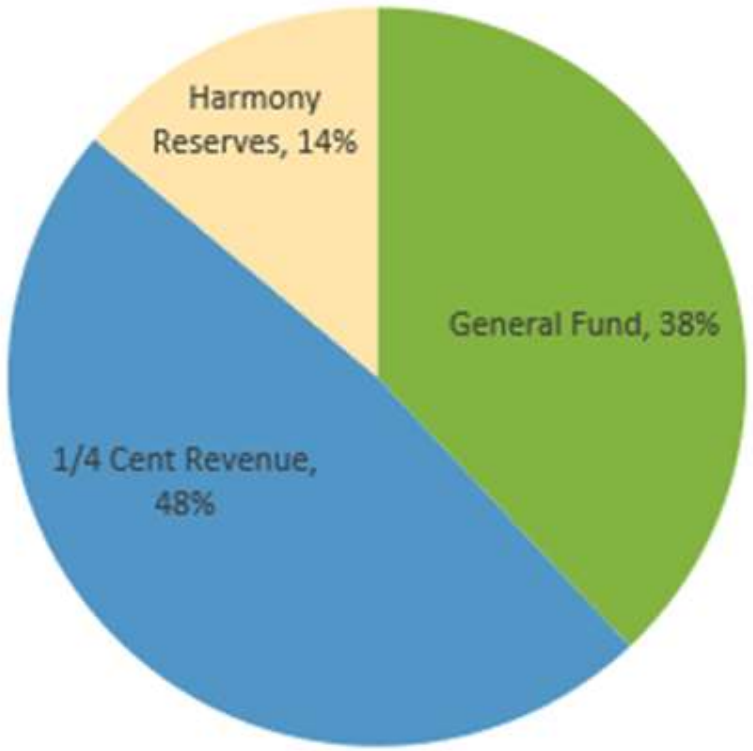


- "Condition State" is one factor used to define levels of service.
- Other factors include compliance with regulations, sustainability, quantity, and equity.

eet Maintenance Program (SMP)

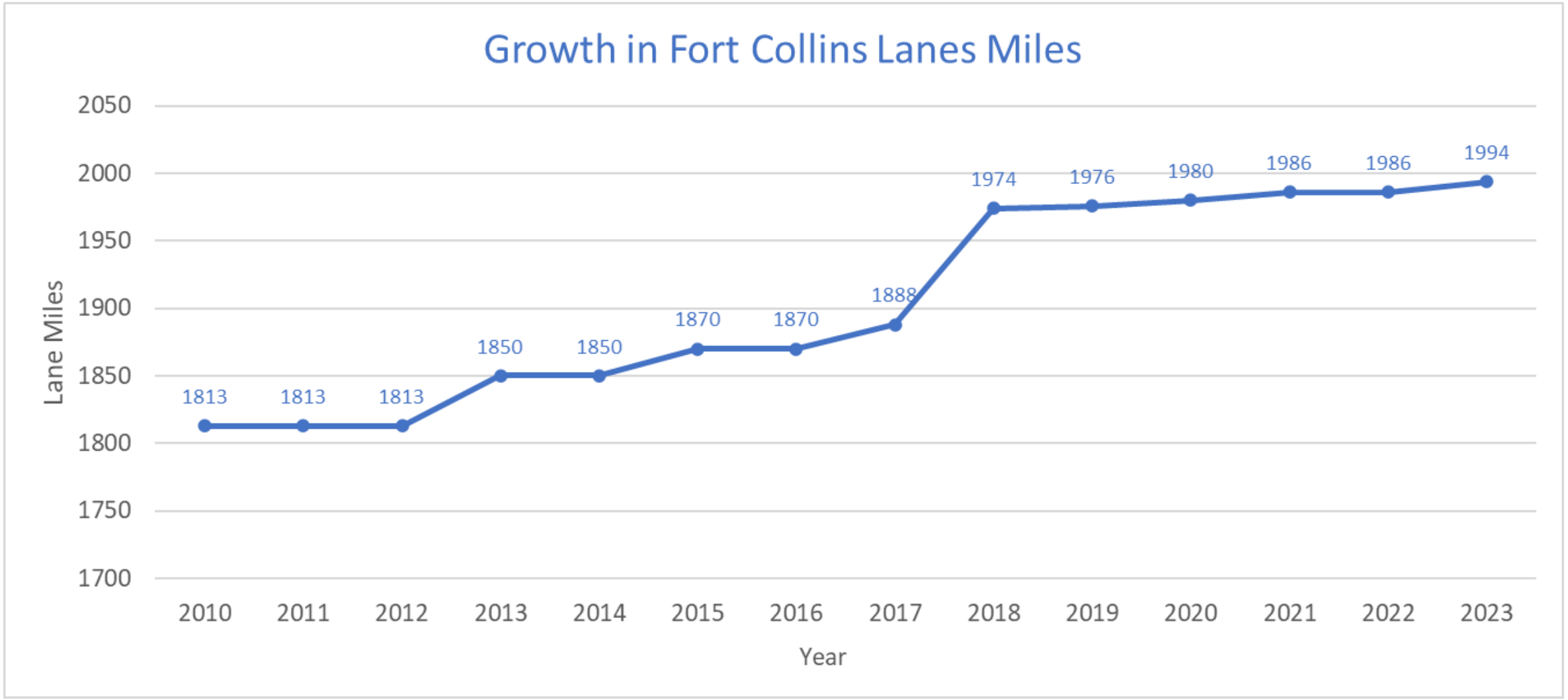


eet Maintenance Program (SMP)

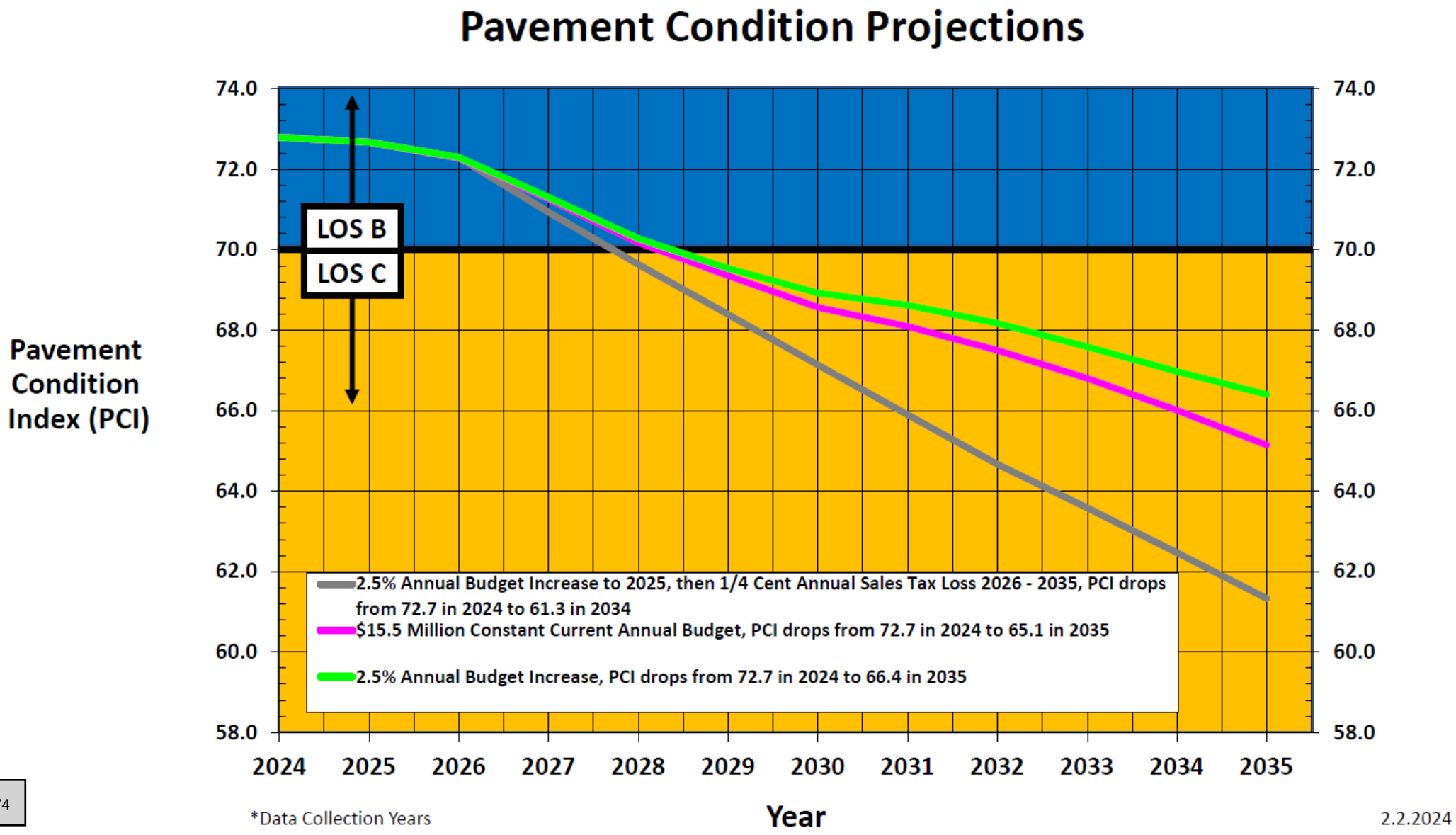


- ¼-cent SMP tax historically used exclusively for Streets department.
- During the 2023-2024 BFO Cycle, $2.0 M of SMP funds used to address critical bridge and traffic infrastructure needs.
- Current practice is to address the road system wholistically: bridges, streets, and traffic. This is intended to provide efficiencies by increasing collaboration and supporting strategic project planning.

adway Assets



eet Maintenance Program (SMP)



Community Capital Improvement (CCIP)

rrent CCIP Package

Historic Engineering/Transportation-Type Funds

- Arterial Intersection Improvements $6.0 M
- Bicycle Infrastructure Improvements $5.0 M
- Bike/Ped Grade Separated Crossing Fund $6.0 M
- Bus Stop Improvements $1.0 M
- Pedestrian Sidewalk / ADA-Compliance $14.0 M
- Transfort Bus Fleet Replacement $2.0 M

New Fund Buckets

- Affordable Housing Fund $4.0 M
- Nature in the City $3.0 M

Historic Capital-Type Projects

- Lincoln Ave. Bridge $5.3 M
- Linden St. Renovation $3.0 M
- SE Community Center w. Pool $14.0 M
- Gardens on Spring Creek Visitor's Center $2.0 M
- Willow Street Improvements $3.5 M
- Carnegie Bldg. Renovation $1.0 M
- ~~City Park Train $350K~~
- Club Tico Renovation $250k
- Downtown Poudre River Enhancements Whitewater Park $4.0 M

Approximately $75.0 M in total project costs.

rly Idea List

Transportation/Engineering:

- Arterial improvements
- Bike infrastructure
- Sidewalk/ADA improvements
- Bus stop improvements and bus replacement
- Howes (street conversions)

Other Funds:

- Affordable Housing
- Nature in the City
- Active Mode Infrastructure

Capital Projects:

- Civic Center advancement
- Car Barn advancement
- Park Improvements (Martinez)
- Parks shop
- Transfort maintenance site
- Lincoln Center upgrades
- North College Community Hub
- Composting facility
- Trail strategic plan components
- River masterplan (another reach)
- Mountain Avenue re-design
- Children's Garden renovation
- Mountain biking facility, site TBD
- Mulberry Pool Replacement
- Pickleball expansion

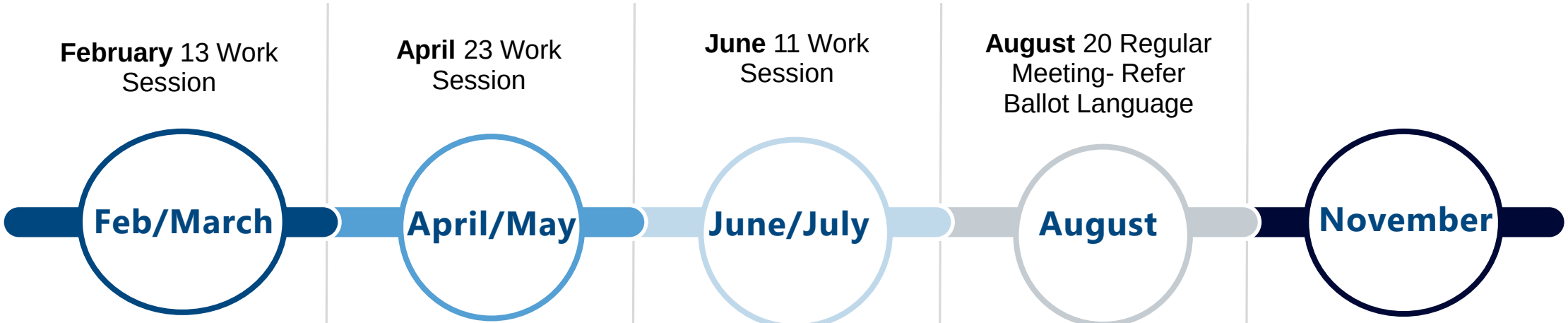
Timeline and Next Steps

24 Renewal

Why Now?

- With only one election annually want to provide runway for any potential need of a second election.
- Adopting the 2026 budget cycle without confirmation of this funding requires considering a budget with funding and a budget without funding.

neline



February 13 Work Session

March Council Finance Committee (develop guiding principles, input on potential projects)

Develop Engagement Plan

April 23 Work Session

May Council Finance Committee (refine potential projects)

Begin Engagement

June 11 Work Session

July 16 Work Session

Continue Engagement

August 20 Regular Meeting- Refer Ballot Language

Election

ection Sought

01 What questions do Councilmembers have on past programs and initiatives?

02 What questions or suggestions do Councilmembers have regarding the proposed process and timeline to refer these renewals?

03 Do Councilmembers have questions or suggestions on potential future projects to be included in a capital renewal package?

Previous Ballot Language

BALLOT ISSUE NO.1
A City-Initiated Question
Extending the Expiring Twenty-five Hundredths Percent (0.25%) "Building on Basics" Capital Projects Sales and Use Tax for a Period of Ten Years for the Purpose of Obtaining Revenue for the "Community Capital Improvement Program" Capital Projects and Related Operation and Maintenance

WITHOUT RAISING ADDITIONAL TAXES, SHALL THE CITY'S EXISTING 0.25% SALES AND USE TAX (25 CENTS ON A $100 PURCHASE) APPROVED BY THE VOTERS IN 2005 FOR THE "BUILDING ON BASICS" CAPITAL PROJECTS PROGRAM BE EXTENDED FROM ITS CURRENT EXPIRATION AT THE END OF DECEMBER 31, 2015, THROUGH THE END OF DECEMBER 31, 2025; PROVIDED THAT THE REVENUE DERIVED FROM THE EXTENSION OF SUCH TAX SHALL BE USED TO PAY THE COSTS OF PLANNING, DESIGN, REAL PROPERTY ACQUISITION, AND CONSTRUCTION OF THE FOLLOWING CAPITAL PROJECTS AS PART OF THE "COMMUNITY CAPITAL IMPROVEMENT PROGRAM", AND TO PAY FIVE (5) YEARS OF OPERATION AND MAINTENANCE ("O&M") FOR CERTAIN OF THESE CAPITAL PROJECTS AS SPECIFIED BELOW, ALL SUBJECT TO THE TERMS AND CONDITIONS OF PROPOSED ORDINANCE NO. 013, 2015:

Previous Ballot Language

- **BALLOT ISSUE NO. 2**

  A City-Initiated Question

  Extending the Expiring Quarter-cent Sales and Use Tax Used to Fund the City's Street Maintenance Program

  WITHOUT RAISING ADDITIONAL TAXES, SHALL THE CITY'S EXISTING 0.25% SALES AND USE TAX (25 CENTS ON A $100 PURCHASE) APPROVED BY THE VOTERS IN 2005 FOR THE STREET MAINTENANCE PROGRAM BE EXTENDED FROM ITS CURRENT EXPIRATION AT THE END OF DECEMBER 31, 2015, THROUGH THE END OF DECEMBER 31, 2025; PROVIDED THAT THE REVENUES DERIVED FROM SUCH TAX EXTENSION SHALL BE USED TO PAY THE COSTS OF PLANNING, DESIGN, RIGHT-OF-WAY ACQUISITION, INCIDENTAL UPGRADES AND OTHER COSTS ASSOCIATED WITH:

  - THE REPAIR AND RENOVATION OF CITY STREETS, INCLUDING, BUT NOT LIMITED TO, CURBS, GUTTERS, BRIDGES, SIDEWALKS, PARKWAYS, SHOULDERS AND MEDIANS;

  AND FURTHER PROVIDED THAT THE FULL AMOUNT OF REVENUES DERIVED FROM THE TAX EXTENSION MAY BE RETAINED AND EXPENDED BY THE CITY NOTWITHSTANDING ANY STATE REVENUE OR EXPENDITURE LIMITATION, INCLUDING, BUT NOT LIMITED TO, THE LIMITATION CONTAINED IN ARTICLE X, SECTION 20 OF THE COLORADO CONSTITUTION?

February 13, 2024

WORK SESSION AGENDA ITEM SUMMARY

City Council

STAFF

Alice Conovitz, Water Conservation Specialist
Mariel Miller, Water Conservation Manager

SUBJECT FOR DISCUSSION

2024 Water Efficiency Plan Status.

EXECUTIVE SUMMARY

The purpose of this item is to describe the state-mandated Fort Collins Utilities (Utilities) Water Efficiency Plan (WEP) and the 2024 update process. The updated WEP will set conservation goals, incorporate extensive public engagement focusing on marginalized community members, and employ numeric modeling and an equity analysis to help prioritize future water conservation and efficiency strategies. Potential strategies include education, voluntary incentives, regulations, and standards. The Agenda Item Summary also provides background on water use and Utilities' work to manage water supply and demand.

GENERAL DIRECTION SOUGHT AND SPECIFIC QUESTIONS TO BE ANSWERED

1. What is Council's vision for the Water Efficiency Plan and how it addresses water conservation and efficiency?

2. What does Council need to know from our engagement, equity, analysis, and water demand modeling efforts?

BACKGROUND / DISCUSSION

Water is an essential resource for all of us. The City of Fort Collins and Utilities have a strong commitment to ensure its efficient use. Utilities is updating its 2015 WEP (Attachment 1). The updated plan will:

- meet Colorado Water Conservation Board (CWCB) requirements
- set new goals to reduce the amount we use within the Utilities water service area
- guide water use for Utilities customers and the City organization
- inform Utilities planning decisions and better use of resources

By updating our water efficiency goals and strategies, we aim to continue reducing water use in our service area to increase equitable and resilient outcomes for all community members through minimizing the

frequency and severity of water shortages and providing all customers the opportunity to participate in conservation programs.

WEP recommended strategies are expected to include a mix of education and voluntary incentives, such as rebates, and required actions which could be implemented through codes, standards, and regulations. New water conservation goals and strategies set in the WEP will focus on long-term reductions in water demand to minimize the frequency and severity of water shortages for Utilities' water customers. In contrast, short-term responses to water shortages are defined in Fort Collins City Code Section 26-167 and the City's Water Shortage Action Plan[1] (WSAP).

Alignment

The WEP aligns with the City of Fort Collins' Strategic Objective ENV 4.4, "Provide a resilient, reliable, and high-quality water supply," and 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:

- Water Supply and Demand Management Policy
- WSAP
- Our Climate Future
- City of Fort Collins 2022 Strategic Plan
- Municipal Sustainability and Adaptation Plan
- City Plan
- Colorado Water Plan

Collaboration with Other Water Providers

Certain areas within City limits are served by other neighboring utility providers. This creates complexities around project planning, coordination, and customer communications. 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 with other providers. To-date staff have had several meetings with East Larimer County and Fort Collins-Loveland Water Districts to discuss the WEP. Staff plans for future discussion related to identifying opportunities to work together on conservation and efficiency strategies and will incorporate findings in the WEP.

WEP Update Process

The CWCB requires water providers to prepare WEPs to outline how they plan to enhance water 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 (2023-2024; $145,000) to fund consultant support for numeric water demand modeling, inclusive public engagement, and an equity analysis. The Utilities' Water Conservation team (Water Conservation) began work on the WEP update in January 2023 and targets completion by late 2024.

To steer the process and selection of water conservation goals and strategies, staff developed guiding principles as a foundation for the WEP update. These are presented in Attachment 2. Building on the guiding principles, the WEP update involves the following key tasks:

[1] The WSAP establishes conditions and restrictions to manage Utilities' water use when there is a projected water shortage. Restrictions work well in infrequent and severe situations, but frequent restrictions can have short- and long-term impacts to businesses; landscapes, especially tree health; and water revenue. Available online at *fcgov.com/WSAP*.

- **Model water savings from conservation strategies under a range of current and potential conditions, including climate, population, and population density.**
    - Water conservation and efficiency strategies selected for evaluation will be based on community engagement and input from staff and leadership, as well as data availability and model capabilities. Staff will prioritize the strategies based on potential water savings, equity, cost, resources, and feasibility.
- **Engage with staff to identify conservation goals and strategies for how the City uses water.**
    - Follow a One Water[2] approach, which aims to meet both community and ecosystem needs for resilience and reliability through collaboration and integrated and equitable management of water resources.
- **Engage with the community, with an emphasis on marginalized community members.**
    - Develop relationships with engaged community members by working with four compensated Community Consultants who will connect with their networks; conduct focus groups with marginalized and/or highly impacted community members; meet with the City's Climate Equity Committee; broadly distribute a survey designed to inform goals and strategies; and provide materials in English and Spanish.
    - OurCity (*ourcity/fcgov.com/WEP*) serves as the primary information source and survey hosting platform.
- **Analyze equity of both the update process and proposed conservation and efficiency strategies.**
    - Track engagement participation to determine if tactics to involve marginalized community members in the WEP update process have worked.
    - Perform gap analysis of strategies and the customer demographics that are likely to participate, to evaluate if Utilities is creating opportunities for all customers to reduce their water bills and be more resilient.
    - Develop and implement an equity evaluation of the potential outcomes of strategies so equity can be considered along with water savings potential and cost when prioritizing which strategies to implement.

Water Use and Demand Management Overview

Utilities currently provides water to approximately 32,800 residential and 2,800 commercial customer accounts. The 2022 estimated residential population served was 137,200. 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 like those 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 2022 Water Conservation Annual Report (Attachment 3) summarizes current treated water demands by sector and savings from conservation programs.

Since 2000, population has grown by 16% while water use within Utilities' water service area has decreased by 34% per capita. However, that rate of decrease slowed between years 2020-2022.

[2] One Water is an integrated planning and implementation approach to managing finite water resources for long-term resilience and reliability, meeting both community and ecosystem needs, as defined by the Water Research Foundation in the 2017 Blueprint for One Water. Utilities anticipates developing a One Water strategic plan by 2025.

Water Conservation staff develop and implement strategies to save water. These activities include planning, programming, and policies for indoor and outdoor water use by residential, commercial, and multi-family customers. Our current programs (residential: fcgov.com/save-water and commercial: fcgov.com/water-efficiency) largely focus on incentives and education around reducing water use at existing properties. For new construction, Water Conservation has more recently addressed developing efficiency-related development standards and codes.

The current WEP set a water conservation goal to reduce Utilities' customer use to 130 gallons per capita per day (GPCD)[3] by 2030 and outlines five key areas of opportunity. Since then, staff have made significant progress within these areas, including:

- leveraging meter technology to provide customers with leak alerts and a data portal to track their use
- sending monthly water use reports to all customers
- creating more education and opportunities to reduce outdoor use with irrigation equipment rebates, at-home sprinkler checkups, and water-efficient landscape conversion education and rebates
- adding new programs and incentives for commercial customers
- permitting graywater systems and increasing indoor fixture efficiency standards

In 2022, our programs saved an estimated 173 million gallons (531 acre-feet) of water. This is about 2.5% of Utilities' total treated water demand for 2022 (6.96 billion gallons or 21,359 acre-feet) and is more than double the average annual savings from conservation programs prior to 2018. A portion of estimated annual savings will persist into future years, such as savings from efficient toilet and landscape installations. Many other strategies, such as educational campaigns, and influences, like weather, generate water savings but are challenging to quantify and not included in annual water savings totals. In both 2021 and 2022[4], water use was 139 GPCD, 6.5% above the current WEP goal.

WEP Helps Provide a Reliable Water Supply

Utilities uses a multi-faceted approach to ensure a reliable and flexible water supply now and in the future. The WEP is one of many tools used to manage a diverse portfolio of water rights and complexity of users and water demands. Historically, during average and wet precipitation years, these water rights provide more water than customers use. During hot and dry years, current supplies may not meet demands while also maintaining a stored reserve of water for emergencies.[5] Furthermore, we anticipate a future where climate impacts and population growth increase demands and put pressure on Utilities to restrict water use.

[3] Water consumption is often characterized by daily, per person use, measured in gallons per capita per day (GPCD), and is commonly used as an industry standard for benchmarking despite calculation methods that vary. Utilities calculates GPCD by taking the total annual treated water demand (excluding large contractual customers) and dividing by the service area population.

[4] Utilities will publish the 2023 Water Conservation Annual Report in the first quarter of 2024. Due to a 123% increase in precipitation during 2023's irrigation season (compared to 5-year average) total treated water demand was approximately 15% less than projected for the year and per capita water use for 2023 is estimated at 132 GPCD.

[5] Section 2.1.3 of the City of Fort Collins Water Supply and Demand Management Policy states the water supply planning criteria will include a storage reserve that equates to 20% of annual demand in storage through a 1-in-50-year drought. This is meant to address emergency situations like pipeline failures or wildfire impacts. The reserve equates to about 3.7 months of average winter demand and about 1.5 months of average summer demand.

The approach and tools include:

- **Planning and modeling:** Population growth and climate trends are used to generate water demand forecasts. These demand forecasts inform the 2019 Utilities Water Supply Vulnerability Study[6] and strategic plans such as the WEP, Water Supply and Demand Management Policy, and Water Shortage Action Plan. A new demand model is being developed as part of this WEP update.
- **Water supply storage:** Storage infrastructure is critical to reliably save and deliver water. In addition to the storage available in Joe Wright Reservoir, the 8,200 acre-feet (2.7 billion gallons) enlargement of Halligan Reservoir through the Halligan Water Supply Project is essential for Utilities to meet projected future demands without frequent water shortages and corresponding restrictions.
- **Conservation and efficiency:** A suite of strategies guided by the WEP allows us to do more with the supplies we have and, in the long-term, has the potential to minimize the frequency and severity of future water shortages and corresponding restrictions.

WEP Minimizes Future Risks

The Water Supply Vulnerability Study (see footnote 7 and City Council Work Session on 3/24/2020) identified key risks to Utilities' water resources:

- A warmer/drier climate poses the largest risk.
- Reductions in Colorado-Big Thompson supplies would have significant impacts.
- High water demands represent a significant vulnerability. It is important to implement conservation and efficiency efforts and track demand trends.
- Water storage is crucial. Without enlarging Halligan Reservoir, Utilities' current water supply planning criteria could not be met under most future climate and demand conditions. Also, water storage can help capture water saved from conservation and efficiency efforts.

The 2024 Colorado Climate Center's Climate Change in Colorado[7] report documented a 2.3 degree Fahrenheit increase in the statewide annual average temperature from 1980-2022, and projects temperatures to rise an additional 1.0-4.0 degrees by 2050. For our region, the report notes slightly greater future warming.

The Water Supply Vulnerability Study indicates that even with storage in an enlarged Halligan Reservoir, a hotter, drier climate will require Utilities to impose water restrictions more frequently, based on projected demand for 2065 population. Historically, Utilities has imposed mandatory water restrictions at a frequency of 1-in-10 years in response to projected shortages from drought. Even if the Halligan Reservoir enlargement is completed and precipitation amounts do not change relative to today, the Water Supply Vulnerability Study projects that the need for mandatory restrictions would increase to about 3-in-10 years with a 5 degree temperature increase. Other factors such as reduced precipitation, higher than anticipated population increase or less focus on water conservation strategies would produce even greater frequency and severity of water shortages and restrictions. Implementing thoughtful and thorough water conservation and efficiency strategies can minimize the frequency and severity of water shortages and restrictions while providing all customers the opportunity to participate in conservation programs to reduce their bills and be more resilient to future shortages.

[6] Available online at fcgov.com/utilities/img/site_specific/uploads/wsvs-final-report.pdf.
[7] Available online at climatechange.colostate.edu.

NEXT STEPS

Anticipated next steps in February to December 2024:

- Conduct engagement
- Complete modeling
- Conduct equity analyses
- Prioritize strategies
- Q3 2024: Share results at a Council Work Session and with relevant Boards and Commissions
- Complete remaining work to finalize decisions and prepare plan
- Q4 2024: Seek Board and Commissions' recommendations and Council approval, then submit to Colorado Water Conservation Board
- 2025-2032: Implement prioritized water conservation strategies, which may include seeking additional resources including funding, training, and additional staff
- 2032: Next State required WEP update submittal

ATTACHMENTS

1. 2015 Water Efficiency Plan
2. Water Efficiency Plan Guiding Principles
3. 2022 Water Conservation Annual Report
4. Presentation

City of Fort Collins

2015 Water Efficiency Plan

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ACRONYM LIST

AF	Acre Foot (equals 325,851 gallons)
AMFC	Advanced Meter Fort Collins
BFO	Budgeting for Outcomes
BMP	Best management practice(s)
C-BT	Colorado-Big Thompson
CAP	Climate Action Plan
CWCB	Colorado Water Conservation Board
ELCO	East Larimer County Water District
FCLWD	Fort Collins - Loveland Water District
GMA	Growth management area
GPCD	gallons per capita per day
LCU	Large commercial users
MG	Million gallons
MGD	Million gallons per day
NCWCD	Northern Colorado Water Conservancy District or “Northern Water”
NEPA	National Environmental Policy Act
NPIC	North Poudre Irrigation Company
PRPA	Platte River Power Authority
RWR	Raw water requirement; requirement to provide water for any new development that occurs within the Utilities water service area
SWSI	Colorado Water Conservation Board’s Statewide Water Supply Initiative
TAZ	Traffic analysis zone
WEP TAG	Water efficiency plan technical advisory group
WSDMP	Water Supply and Demand Management Policy, 2012
WSSC	Water Supply and Storage Company
WTF	Water Treatment facility
WFCWD	West Fort Collins Water District
WQA	Winter quarterly average (Dec, Jan and Feb use)

EXECUTIVE SUMMARY

The City of Fort Collins Utilities has a strong commitment to ensure the efficient use of its natural resources. The Utilities' Water Conservation Program is nearly 40 years in the making and has resulted in lower per capita water use, even as population has grown significantly. These programs have benefited the Utilities by delaying or avoiding significant capital costs and have benefited customers through reduced water bills. The additional benefits to the City and the community include development of a conservation ethic, demonstration of a commitment to sustainability, support of economic health, enhanced resilience during drought periods, preparation for potential effects of climate change, and provision of water for other beneficial purposes such as agriculture, ecosystem services, recreation, and aesthetics.

This Water Efficiency Plan (WEP) is an update to the Water Conservation Plan approved by the Colorado Water Conservation Board in 2010. "Water efficiency is doing more with less – not doing without" – the term "efficiency" has replaced "conservation" because efficiency includes conservation and is a more appropriate term for the range of tactics needed in Colorado.[1] The 2010 Plan set a goal of 140 gallon per capita per day (GPCD) by the year 2020. This updated Plan proposes a new goal of 130 GPCD by 2030. The GPCD in 2014, normalized to account for weather, was 143 (without weather-normalization, GPCD was 139); for reference, the normalized GPCD in 2001 was 198.

Efficiency and Conservation activities

Fort Collins Utilities has a robust water conservation program with activities that touch on many different uses and affect the entire community. The Water Conservation team will continue to build on existing programs and develop new approaches to conservation. Programs will be evaluated for effectiveness in water efficiency, customer service, and technical excellence. The overall mission is to cultivate a water efficient, adaptive, and knowledgeable customer base through education and cost-effective water efficiency programs while supporting the City's Strategic Plan and its social, environmental, and economic health.

The Water Conservation team has identified five key areas of opportunity for greater water efficiency:

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

Actions will be guided by the following implementation principles:

- Employ sophisticated data-driven processes and decision-making
- Coordinate and support symbiotic efforts within Utilities and across the City
- Cultivate new and bolster existing community and statewide partnerships

[1] http://cwcb.state.co.us/water-management/waterEfficiency/Pages/main.aspx

Plan Development Process

The content and organization of this plan was developed using the Colorado Water Conservation Board's municipal water efficiency plan guidance document, as it is a state requirement to submit an updated Plan every 7 years. This plan was developed with input from the community and a technical advisory group: Water Efficiency Plan Technical Advisory Group (WEP TAG). The WEP TAG included Utilities and City staff as well as Water Board members. A draft of this WEP was presented to City Council at the October 13, 2015 work session and received positive feedback. Following this presentation, Water Conservation staff held a public comment period and performed additional outreach activities. This plan was approved and adopted by the Fort Collins City Council on March 1, 2016.

Note: this document includes several technical terms and abbreviations. An acronym list is provided after the table of contents for reference and a glossary is included at the end of the document to provide additional technical detail.

1.0 PROFILE OF EXISTING WATER SUPPLY SYSTEM

The City of Fort Collins is located 65 miles north of Denver in Larimer County, nestled between the Rocky Mountains foothills and the Eastern Plains of Colorado. Horsetooth Reservoir borders Fort Collins to the west and the Cache la Poudre River winds its way through north Fort Collins before reaching the South Platte River to the east of Greeley, CO.

The Fort Collins Utilities service area boundaries for water do not perfectly match the Fort Collins city limits.[2] Fort Collins-Loveland Water District (FCLWD) and East Larimer County Water District (ELCO) provide water to some areas within the city limits and will most likely serve additional city residents in the future.[3] Furthermore, Fort Collins Utilities provide water service to some customers beyond the city limits; this is primarily northwest of Fort Collins, including providing wholesale water to West Fort Collins Water District (WFCWD). Figure 1.1 shows the Utilities service area and the neighboring water district services areas with respect to the Fort Collins Growth Management Area (GMA) and the official city limits. Fort Collins Utilities currently serves about 75% of Fort Collins' residents and businesses.

Note that this Chapter contains an abbreviated set of information on the Water Supply System; for a more detailed account, see the City of Fort Collins' Water Supply and Demand Management (Policy) Report (dated April 2014)[4]. The updated Policy, which was approved by City Council in late 2012, serves as a guide for the Fort Collins Utilities to a sustainable and integrated approach to 1) ensuring an adequate, safe, and reliable supply of water for the beneficial use by customers and the community, and 2) managing the level of demand and the efficient use of a scarce and valuable resource consistent with the preferences of customers and in recognition of the region's semi-arid climate.

[2] Fort Collins Utilities is an enterprise and does not receive funds from the City of Fort Collins general fund. Water Conservation is entirely funded by the Water Fund.

[3] The Fort Collins Utilities service area is landlocked by neighboring water districts. There will be little new development and mostly re-development of existing properties within the service area boundaries. Most land available in Fort Collins for new development is outside of the water service area. This Plan only applies to the Utilities' water service area except where noted, such as collaboration with neighboring water districts.

[4] http://www.fcgov.com/utilities/what-we-do/water/water-supply-demand/

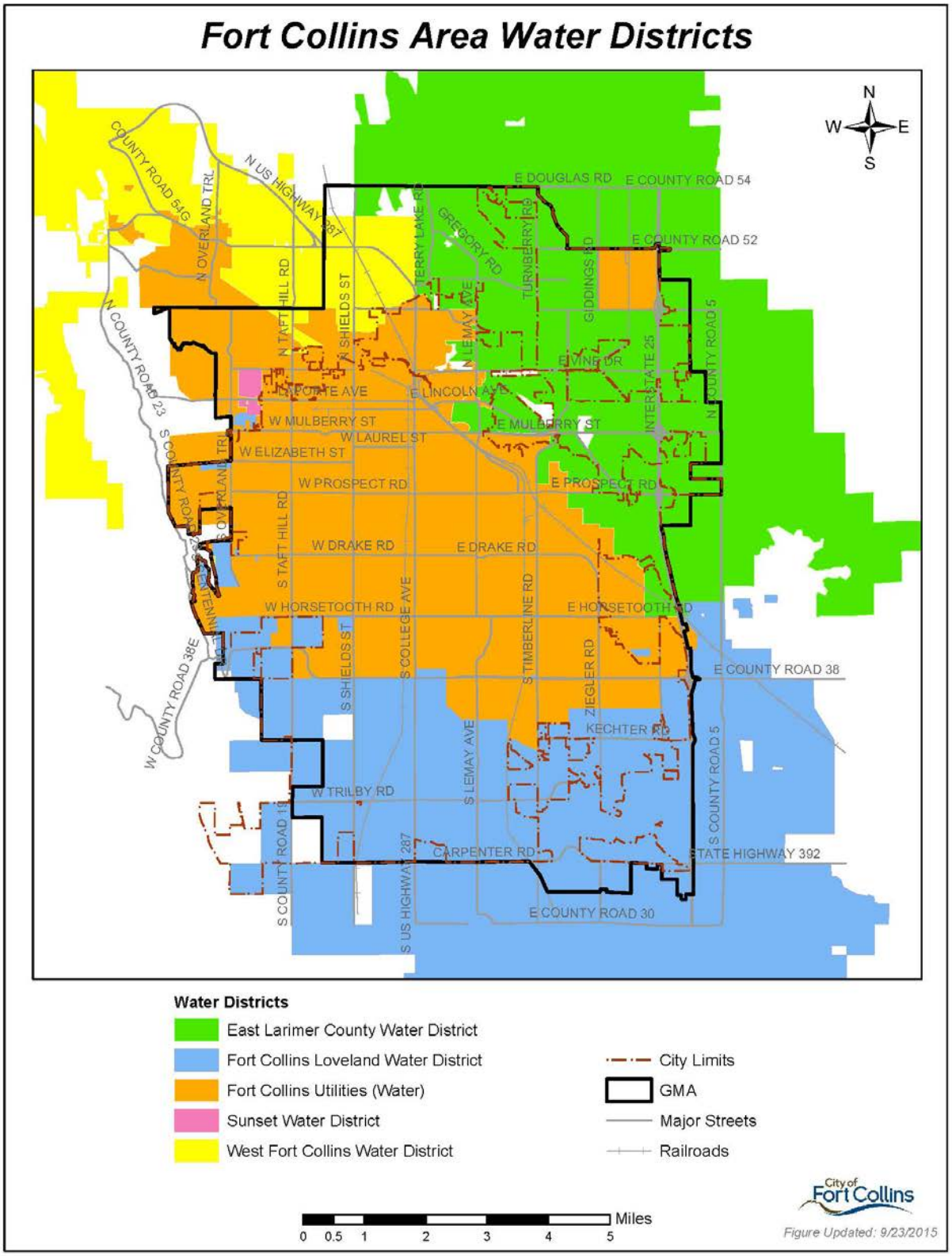


Figure 1.1: Water Service Area and surrounding Water District boundaries

1.1 OVERVIEW OF EXISTING WATER SUPPLY SYSTEM

The Fort Collins Utilities' water sources are surface supplies. The Utilities water supplies come from two major systems: the Cache la Poudre River (Poudre River) Basin and the Colorado-Big Thompson (C-BT) Project, often referred to as "Horsetooth Water".[5] The City's water supply and treatment system consists of several key facilities, which are illustrated in Figure 1.2 and include the Poudre River diversion structure and pipelines, Joe Wright Reservoir, Michigan Ditch, Horsetooth Reservoir, the Water Treatment Facility, the Mulberry Reclamation Facility, and the Drake Reclamation Facility.[6] Figure 1.2 includes Halligan Reservoir, which is currently owned by Fort Collins Utilities but operated by the North Poudre Irrigation Company (NPIC). A discussion of the Halligan Water Supply Storage Project is located in the "Storage" portion of the System Reliability section below. The City's Water system contains approximately 540 miles of pipeline and 34,298 connections. In addition to treated water, the City diverts about 3,000 to 4,000 acre-feet of raw water to irrigate City parks, golf courses, a cemetery, greenbelt areas, some school grounds, and for the purposes of meeting some contractual raw water delivery obligations. In 2014, the City of Fort Collins Utilities supplied 7.4 billion gallons of water to approximately 130,200 people.[7]

From the beginning of the City of Fort Collins Water Utility in the 1880s up to the early 1960s, the City depended primarily on direct flow rights to the Cache la Poudre River (Poudre River) to satisfy its water demands. Direct flow rights are water rights that can be taken for direct use, as opposed to storage rights that can be taken for later use. The first water right was obtained in 1889 and four other senior direct flow rights were obtained in the early 1900s; these currently allow the Utilities to divert an average of 11,300 acre-feet of raw water annually. In the late 1950s, the Utilities acquired its first 6,000 units of Colorado-Big Thompson (C-BT) Project water. To date, the Utilities owns about 18,855 units of CB-T water. In addition to these two major sources of water, the Utilities began to acquire shares of several local irrigation company stocks starting in the 1960s, in part to expand the Utilities' water supply portfolio and in part as developers turned over the water rights from lands they were building over in order to satisfy the raw water requirements for new development.[8]

[5] Horsetooth Reservoir borders the City of Fort Collins and is an East Slope terminal reservoir in the C-BT system. For more information on the Colorado-Big Thompson Project, which is operated and maintained by Northern Water and the U.S. Bureau of Reclamation, please see: http://www.northernwater.org/WaterProjects/C-BTProject.aspx

[6] The Water Treatment Facility chemically treats up to 87 MGD (million gallons per day). The Mulberry Water Reclamation Facility employs physical, biological, and chemical processes to treat up to 6 MGD. The Drake Water Reclamation Facility employs similar processes and treats up to 23 MGD of wastewater.

[7] One acre-foot of water is equivalent to 325, 851 gallons of water. 7.4 billion gallons of water is approximately equal to 22, 710 acre-feet of water.

[8] The use of "City" vs. "Utilities" may be confusing in this section. Nearly all water rights are in the name of the City of Fort Collins; however, the majority of the water rights are utilized and administered by Fort Collins Utilities. The Parks Department and the Natural Areas Department also use some of the water rights and are responsible for them. The districts (ELCO and FCLWD) serve some residents and businesses within the Fort Collins GMA, however, they each have their own water rights.

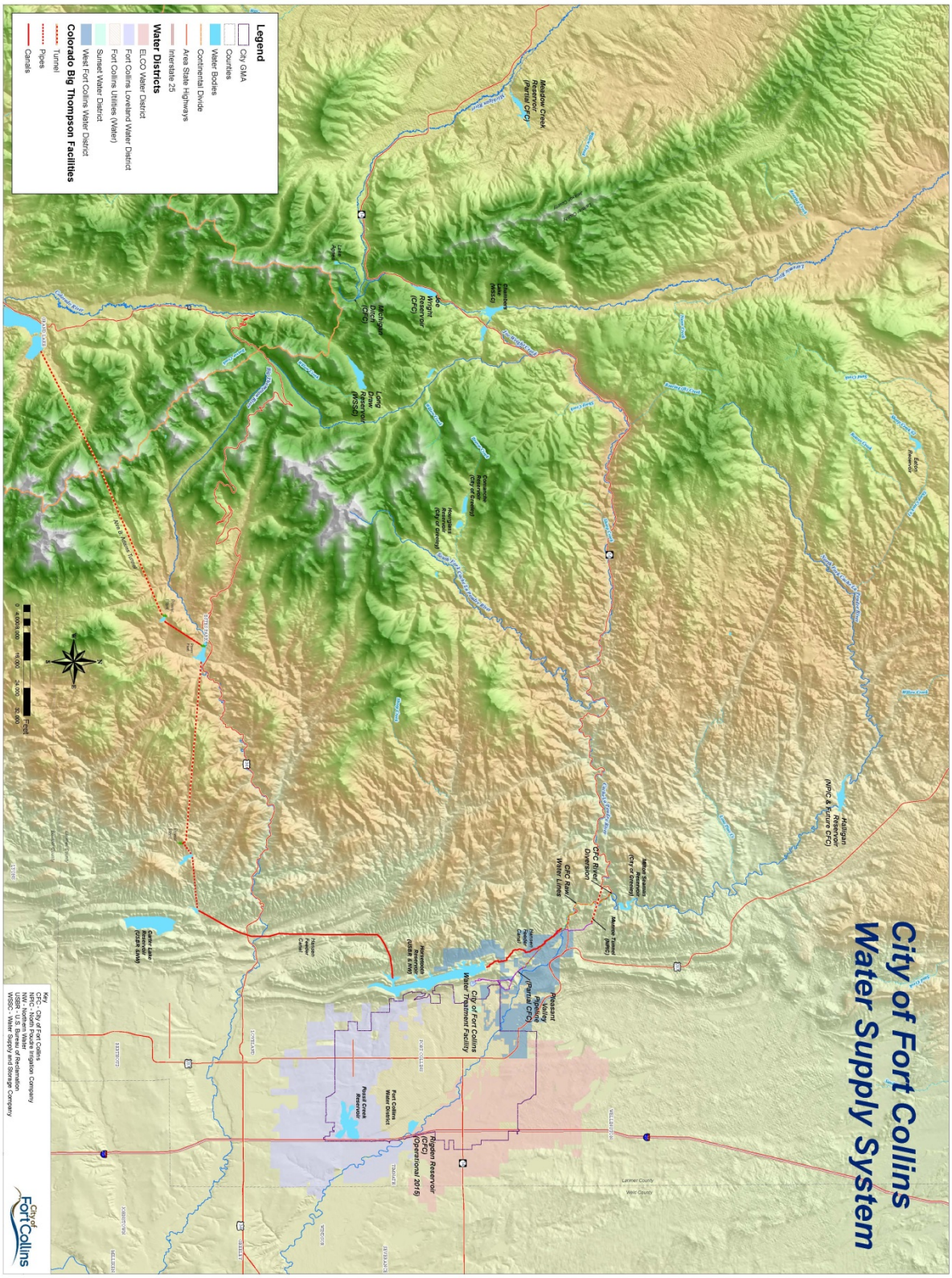


Figure 1.2 City of Fort Collins Utilities Water Supply System Map

Table 1.1 shows the average annual yield of the Utilities' various water sources. For more detailed information on each supply source, see Appendix A. The Utilities' average annual raw water yield as of 2014 is approximately 75,245 acre-feet, but the actual treatable average annual yield is closer to 55,000 acre-feet per year. The treatable water right yield is lower due to legal constraints, such as agricultural rights that have not been converted for municipal use, ditch losses, water right volumetric limitations and return flow obligations. The Utilities' modeling has shown that the current firm yield of its system is approximately 31,000 acre-feet per year.[9] During the summer months, however, much of the Utilities' water rights yield more water than the demands of the service area customers. Both the raw water yield and treatable yield are reduced in dry years, requiring more storage water to meet demands.

Table 1.1 Raw Water Yield in 2014

Source	acre-feet
Poudre River Direct Flow	11,300
Joe Wright-Michigan Ditch	5,500
Northern Water (CBT)	14,330
North Poudre Irrigation Company[10]	19,850
Pleasant Valley & Lake Canal Company	7,760
PRPA Reuse Plan	2,310
Southside Ditches[11]	10,760
Water Supply and Storage Company	2,240
Miscellaneous[12]	1,195
Average Raw Yield Total	**75,245**

Note: Yields are the approximate average annual yields and are not representative of a dry year conditions and do not reflect other constraints of the system.

[9] This assumes a 1-in-50 year drought; Firm yield is commonly determined by calculating the maximum constant annual demand (quantity of water) that can be met with the available supply during a specified multi-year hydrologic period.
[10] These sources are only partially available for municipal use.
[11] The Southside ditches refer to Arthur, Larimer No. 2, New Mercer, and Warren Lake irrigation companies.
[12] These are relatively small contributors to the overall raw yield and include shares in Chaffee Ditch, Boxelder Irrigation Ditch Company, Lake Canal Company, Louden Irrigating Canal and Reservoir Company.

Reusable Supplies:

An important part of the City's water supplies are sources that are reusable. Typically, this is water that is imported from another basin or comes from specific in-basin sources that may be totally consumed through succession of identified uses. For Fort Collins, this includes much of the Michigan Ditch and Joe Wright Reservoir water and portions of the Southside Ditches water that has been converted from agricultural use to municipal use.

A sizeable portion of the Utilities treated water supplies are reusable.[13] Much of this is used as part of a Reuse Plan which involves the City, Water Supply and Storage Company (WSSC) and Platte River Power Authority (PRPA) [14]. Reusable sources owned by the City and WSSC are used Utilities' customers and the reusable effluent is used by PRPA at their Rawhide Power Plant facility. In turn, PRPA provides Windy Gap water to the City.

Raw Water Requirements:

Developers are required to provide water for any new development that occurs within the Utilities water service area. The amount is determined by the Utilities; the developer is assessed a raw water requirement (RWR) for any new development that occurs within the service area. This practice originally began in the 1960s when two acre-feet per acre of land developed was required. Because water use varied considerably depending on the type of use for any given area, a study was done in 1983-84 to develop the existing method of assessing the RWRs, which attempts to more closely assess the requirements based on actual use.

The formula for residential development considers the density, and an estimate of indoor and outdoor use. The RWR is calculated by multiplying the water use estimate by a "water supply factor" that is used to reflect the variability in supply and demand from year to year as well as other unaccounted for water use.[15] Non-residential requirements are based on tap size. Water use is analyzed for all non-residential customers for a given tap size and the requirements are based on those results. Since there is a lot of variability within each tap size, a raw water surcharge is assessed for any annual use exceeding an annual allotment.[16]

Developers and builders may satisfy the RWR by either turning over water rights acceptable to the City or paying cash in-lieu-of the water rights. The City uses in-lieu payments to purchase additional water rights or implement other means of increasing the firm yield of the Utilities' water supply, such as developing storage capacity. The in-lieu fee is evaluated and, if needed, revised to reflect the costs associated with developing the required water supplies (e.g., market price of water rights).

[13] This refers to the total amount of water used, not to the total amount of water feasibly available in a given year.
[14] 2012 Water Supply and Demand Management Policy (2014 Report).
[15] The current water supply factor is 1.92. This equation is used to determine the residential RWR is as follows: RWR = 1.92 x [(.18 x Number of Dwelling Units) + (1.2 x Net Acres)]
[16] Requirements vary from .90 acre-feet for a 3/4 inch meter to 9.60 acre-feet for a 2-inch meter. For larger meters, the RWR is based on an estimate of water use.

1.2 WATER SUPPLY RELIABILITY

Fort Collins Utilities is responsible for providing an adequate and reliable supply of water to its customers. The planning criteria describe the water demand that can be reliably served under specified drought conditions and the margin of safety the Utilities should have in place to address unforeseen circumstances.[17] The three main planning criteria used to develop the City's water supply system are 1) the drought criterion, 2) the storage reserve factor and, 3) the planning demand level. These criteria determine the amount of water supplies and facilities the Utilities' needs (e.g., the amount of storage required) and should be conservative to account for inherent uncertainties in water supply planning.

Drought Criterion

The drought criterion states that in a 1-in-50 year drought the Utilities should be able to meet the planning demand level. This is an important criterion because not only will demands often be higher in drought periods due to less precipitation, water supply systems generally will also yield less water. The Utilities has used a 1-in-50 year drought criterion since the original 1988 Water Supply Policy.

Storage Reserve Factor

A storage reserve factor is a criterion to have a certain percent of annual demand in storage through the drought criterion (1-in-50 year drought). This storage reserve provides a short-term supply to address emergency situations, such as pipeline shutdowns (which can and have occurred during drought conditions). The Policy calls for a 20 percent storage reserve factor, which equates to about 3.5 months of winter supplies or about 1.5 months of summer supplies.

Planning Demand Level

The planning demand level is the amount of demand the water supply system should be developed to meet. Since acquiring water supplies takes many years, projecting future demands is required to determine which supplies and/or facilities need to be acquired. The planning demand level is measured in gallons per capita per day (GPCD) and is used along with projected population and projected large contractual use (LCU) needs to determine future demand levels; population projections will be discussed in detail in Section 2.4. The planning demand level is set higher than current use and current water conservation goals to account for uncertainties in water supply planning that might reduce the Utilities' water supply yield. The current Water Supply and Demand Management Policy set 150 GPCD as the planning demand level, which is the average of 2006-2011 water use.

Impacts of Climate Change

Climate change could significantly impact the reliability of the Utilities' supplies and/or the amount of water required to maintain existing landscapes. These changes may include reduced snow pack, earlier runoff, hotter and drier summers, and an increased recurrence of drought. A great deal of uncertainty exists related to current climate change projections along the Colorado Front Range and its impact on municipal water supply and demands. Current research indicates that changes in precipitation in this area are uncertain but that temperatures will increase and therefore it is likely that runoff will come

[17] Water Supply and Demand Management Policy Report (dated April 2014; approved by City Council in later 2012).

earlier and in a shorter amount of time, precipitation may come more often as rain rather than snow, and higher temperatures will increase outdoor demands and change growing seasons for existing landscapes. For additional information refer to the CWCB 2014 report "Climate Change in Colorado: A Synthesis to Support Water Resources Management and Adaptation". [18]

The Utilities' water supply planning criteria and assumptions are conservative in part to account for climate change based on the information to date. The City will continue to monitor climate change information and, if necessary, will revise its water supply planning criteria and assumptions to ensure future water supply reliability.

1.3 SUPPLY-SIDE LIMITATIONS AND FUTURE NEEDS

Table 1.2 lists the future water supply needs and challenges. The full use of the Utilities' water rights in a given year can be reduced by several physical and legal constraints. Legal challenges are related to Colorado water laws and the administration of water rights. Some of the agricultural water rights owned by the Utilities are not available for use because the shares need to be changed in Water Court to municipal use.

The Colorado Water Conservation Board's Statewide Supply Initiative (SWSI) predicts a significant gap between water supplies and water demands along Colorado's Front Range, starting in 2040 for the Northern region of the South Platter River Basin.[19] Fort Collins is a forward-thinking community and the Utilities has identified water supply needed through 2065. Two key solutions to ensuring a reliable supply system moving forward include storage development and water efficiency programs. Water that is conserved may only be used for other beneficial purposes or at other times of the year if storage is available for that unused water.

Table 1.2 Water Supply Limitations and Future Need

Future Need/Challenge	Yes	No
System is in a designated critical water supply shortage area	X	
System experiences frequent water supply shortages and/or supply emergencies		X
System has substantial real or apparent water losses		X
Experiencing high rates of population and demand growth		X
Planning substantial improvements or additions	X	
Increases to wastewater system capacity anticipated		X
Need additional drought reserves	X	
Drinking water quality issues		X

[18] http://cwcb.state.co.us/environment/climate-change/Pages/main.aspx

[19] Camp Dresser & McKee Inc. 2011. Colorado's Water Supply Future: Colorado Water Conservation Board 2010.

Storage Constraints

A primary physical constraint is the lack of storage capacity to manage and regulate the water rights owned by the City. Additional water storage capacity is critically needed to increase the yield and reliability of its water supply system. Operational storage is needed to meet return flow obligations inherent with converted irrigation shares and provide other operational flexibility, which has recently been met through the acquisition of Rigden Reservoir. Carryover storage is needed to capture water during wetter years for use during drier years and also provide a storage reserve for unexpected emergencies (e.g. a pipeline failure). Both types of storage are needed to increase the reliability and redundancy desired to meet the water needs of our customers.

While the Utilities do have some year-to-year "carryover" storage capacity, much of this is already allocated to meet return flow obligations and other contractual agreements. Northern Water does include some carryover storage in the CB-T system; however, it is also almost entirely allocated to meeting contractual obligations.[20] While the City owns shares of several ditch companies that do have storage, we do not have access to the storage systems. Acquiring storage in the Poudre Basin that meets the storage reserve would help diversify the City's water supply system, which is currently highly reliant on C-BT storage.

Planned Storage Improvements

In 2003 the City acquired Halligan Reservoir, located on the North Fork of the Poudre River approximately 25 miles northwest of Fort Collins, for carryover and vulnerability storage. With plans for its expansion, the City is currently going through the National Environmental Policy Act (NEPA) permitting process, including an analysis of potential environmental impacts, other storage options, and costs and benefits. In 2013, the City acquired an existing gravel pit storage facility located below the Drake Water Reclamation Facility. The gravel pit, now Rigden Reservoir, has been enlarged to 1,900 acre feet and is being used for operational storage. The reservoir began operation in 2015 and will increase the system's firm yield.

[20] Note that CB-T water is particularly valuable to the water supply portfolio because it can be stored within the C-BT reservoir system for use any time *within* a given water year.

2.0 PROFILE OF WATER DEMAND AND HISTORICAL DEMAND MANAGEMENT

The City of Fort Collins city limits do not perfectly coincide with the Utilities water service area. The information in Section 2.1 below describes the City of Fort Collins, rather than the service area, as the city limits are how this type of information is collected by the City Planning Department, the U.S. Census, and the American Community Survey. Information in Sections 2.2-2.4, however, will pertain to the Utilities' water service area.

2.1 DEMOGRAPHICS AND KEY CHARACTERISTICS OF THE SERVICE AREA

The City of Fort Collins is home to approximately 158,600 residents and 30,000 students as of 2015.[21] The average household size is 2.37 people, the median age is about 29 years old, and about 27% of households have at least one person under the age of 18. The average household income is about $72,000. As of the 2010 U.S. Census, about 55% of homes were owner-occupied, 57% of homes were single-family detached residences, and the median home value was $247,800. About 11% of the housing stock is estimated to be built prior to1960 and about 40% were built prior to 1980.[22]

The City of Fort Collins is home to two major public higher education institutions: Colorado State University and Front Range Community College. Fort Collins was once home to a wide swath of agricultural activity; however, much of this is now limited to the outskirts of the City or has moved outside of the City entirely. Several high-tech industries call Fort Collins home, including Hewlett Packard, Intel, Woodward Inc., and AMD, among others. In addition to the other major employers like the City Government and the colleges, there has been an increase in the areas of clean energy, bioscience, and agri-tech businesses. The City also enjoys a strong microbrewery industry alongside an Anheuser-Busch Brewery.[23]

2.2 HISTORICAL WATER DEMANDS

Up until the early 2000s, the Utilities' service area population growth was largely matched by an increase in total water demands. Like many other Colorado communities, the 2002-03 drought spurred the City of Fort Collins to rethink its water use. While the population continues to grow, water demands have exhibited a downward trend, as illustrated in Figure 2.1. From 2001 to 2014, the service area population increased by about 7% while the total treated water demand decreased by about 25%. Such reductions are a combined result of Utilities' customers being fully metered and adopting tiered/seasonal rate structures by 2003, as well as the robust water conservation program and the water conservation efforts by customers.

[21] As of 2014, the Utilities' service area provided treated water to about 130,200 residents.
[22] This paragraph contains information about the City of Fort Collins from three sources: the City Planning Department, the 2010 U.S. Census, and the 2013 American Community Survey.
[23] The Fort Collins AB Brewery is home to the world-famous Budweiser Clydesdales West Coast Team.

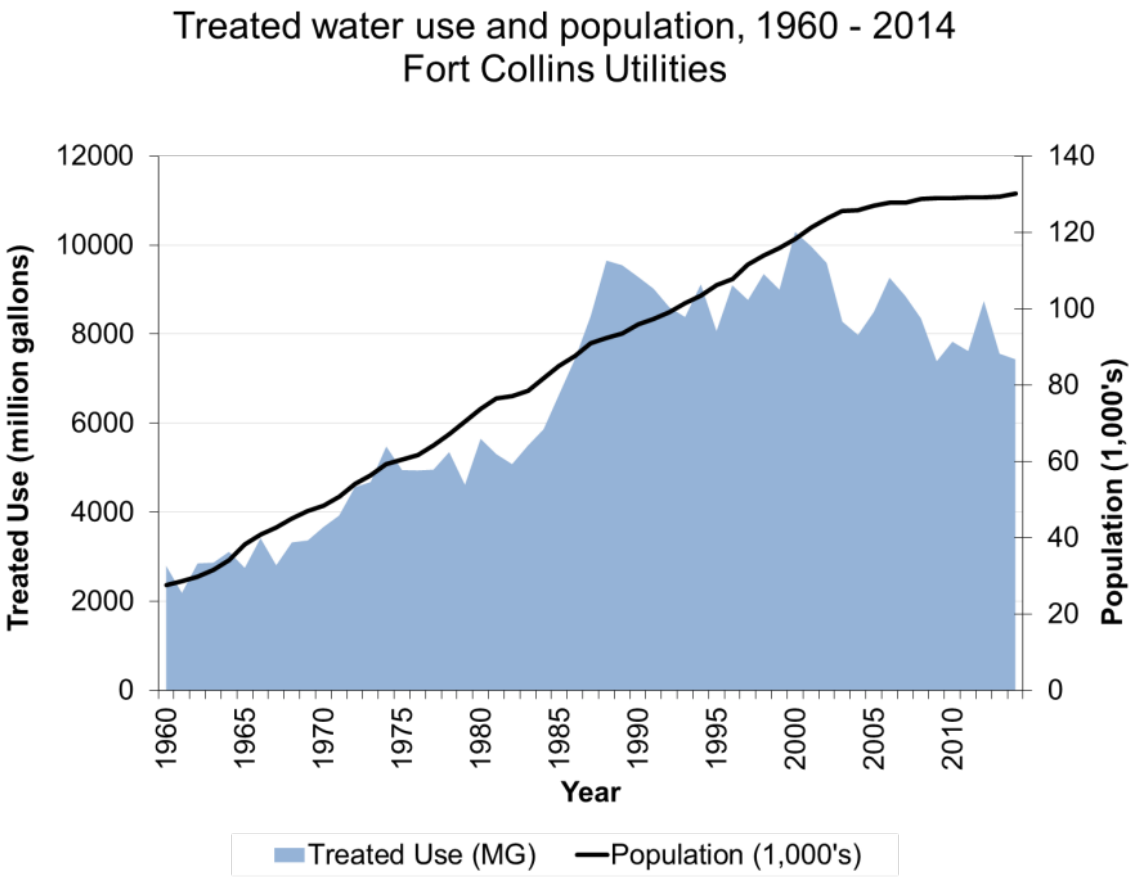


Figure 2.1 Treated water use and population

Daily water demand varies considerably throughout the year. Water use is fairly consistent throughout the winter months, then more than doubles in the summer months as customers increase use for landscapes and other seasonal purposes (e.g. pools). Figure 2.2 illustrates a five-year average of the daily treated water delivered from 2010-2014 along with details on the peak day for each year, which highlights how variable water demands can be in any given year.

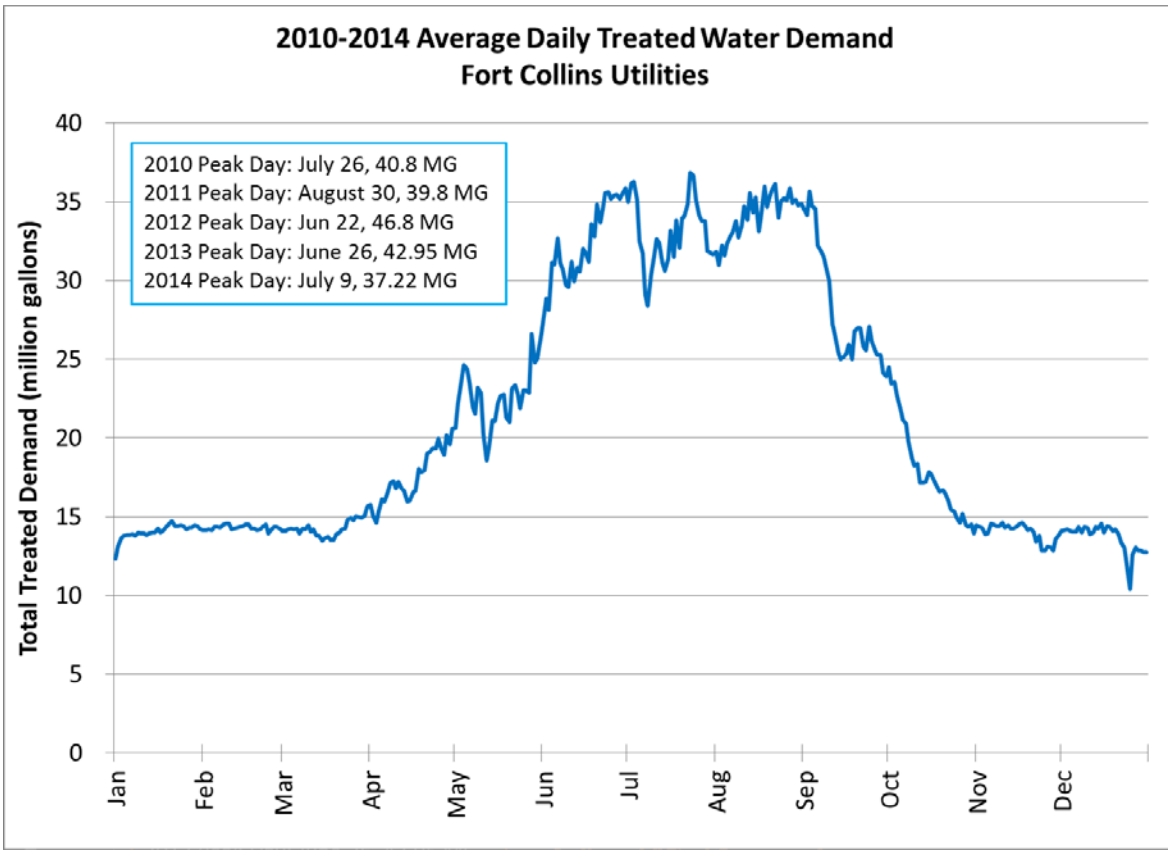


Figure 2.2 Average daily treated water demand

Fort Collins Utilities monitors treated water use by eight categories, as shown in Table 2.1. This table reports the annual use, number of accounts, average monthly use and water use by account, as of 2014. The majority of accounts are single-family residential accounts, however on a per account basis commercial customers use the most water. Recall that since the Utilities' water service area is different than the City limits; Outside City Customers refer to customers outside of the city limits but who are Utilities' customers. West Fort Collins Water District receives wholesale treated water from the Utilities, which is why they appear as one singular customer.

Table 2.1 Treated Water Use by Customer Category

	2014			
Customer Category	**Annual Water Use (MG)***	**Number of Accounts**	**Average Monthly Use (MG)***	**Average Annual Use per Account (gal)***
Single-Family	2,142	26,930	178.5	79,536
Duplex	120	1,226	10	97,750
Multi-Family	970	2,240	80.8	432,934
Commercial	2,972	2,222	247.7	1,337,765
City Government	107	225	8.9	475,830
West Fort Collins WD	140	1	11.7	140,000,000
Outside City Customers	280	1,454	23.3	192,751
Total	6,731	34,298	560.9	196,251

*Note: These numbers are rounded and are not exact. MG = million gallons.

As shown in Figure 2.3, residential categories collectively use the most water each year: about 47% on average, with about 32% attributable to single-family homes. The City government buildings and facilities only use about 1% of the treated water each year, outside City customer use about 4% and the Utilities delivers about 2% of the treated water to West Fort Collins Water District. System loss is discussed in greater detail below.

Commercial customers use about 39% of treated water, on average. Beyond the small, mid and large commercial customers, the City has identified a number of Key Accounts, who are businesses that are typically the largest water and energy users. The Utilities' Customer Accounts representatives work together with the Key Account customers to connect them to the appropriate experts, programs and services they need from the City of Fort Collins. These partnerships help customers achieve their sustainability goals as well as the goals set by the Energy Policy, Water Efficiency Plan and Climate Action Plan. The Customer Accounts team offers a customized and targeted approach to assist in accomplishing the goals set by these policies. Given the uniqueness of how each business utilizes water, the largest users can also apply for a custom water conservation rebate, up to $5,000, in addition to being encouraged to participate in our other rebate programs.

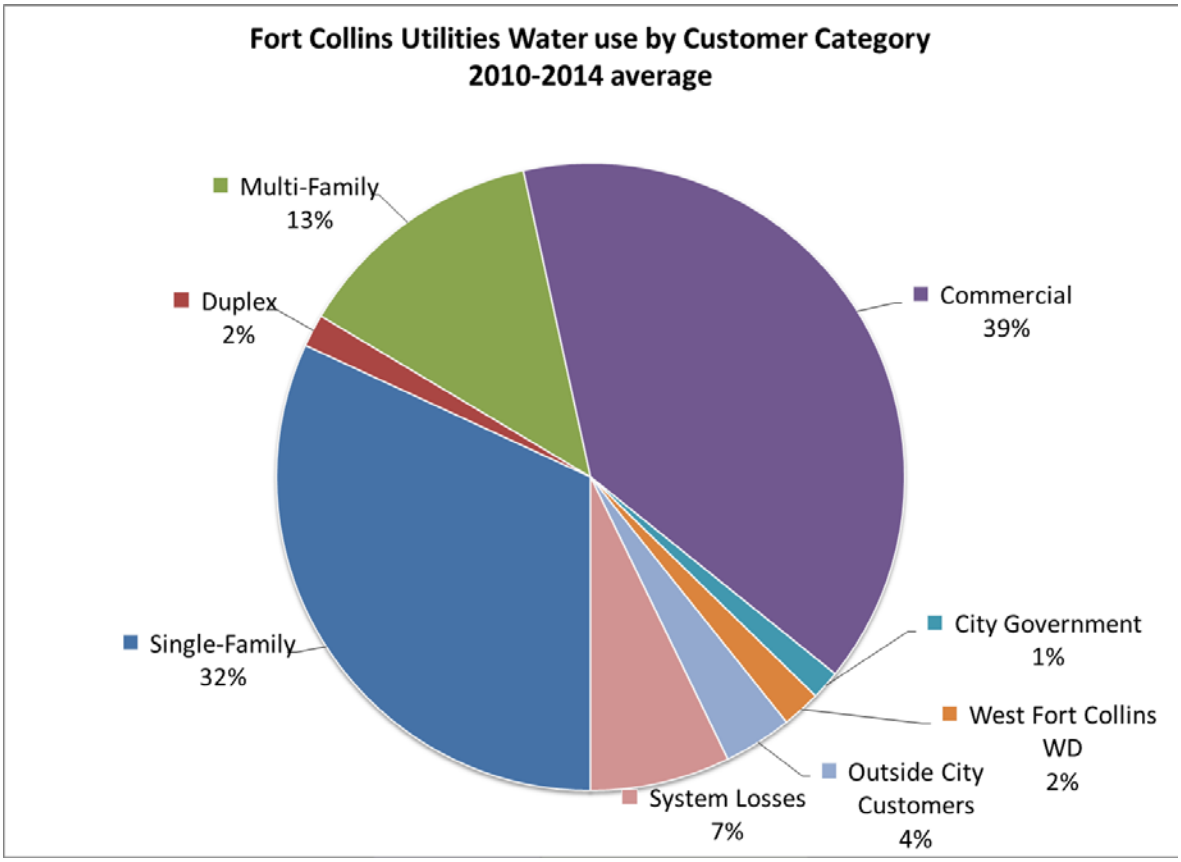


Figure 2.3 Water use by customer category, 2010-2014 average

2.2.1 GPCD: GALLONS CONSUMED PER PERSON PER DAY

Water consumption is often characterized by daily per person use, measured in gallons per capita per day (GPCD). This is calculated as total treated water use (total treated water that leaves the water treatment facility; includes all uses) divided by service area population and 365 days:

$$GPCD = \frac{total\ treated\ demand - LCU}{service\ area\ population * 365\ days}$$

These calculations exclude large contractual customers (LCU) and other sales or exchange arrangements to produce a value that is somewhat more comparable to other municipalities.[24]

Fort Collins Utilities also estimates a weather-normalized GPCD metric in order to control for the fluctuations associated with varying weather patterns. This normalized GPCD is approximately the GPCD

[24] While the use of GPCD for comparisons has long been an industry standard practice, there is evidence that it is a difficult indicator for individual water-users to relate their behaviors to, and the system-wide GPCD is a function of far more than a utility's water conservation and efficiency activities. More on this topic and recommended changes can be found in in Chapter 3.

that would have occurred if the weather conditions had been the average weather conditions for the region. This means that the actual GPCD is generally higher than the normalized GPCD when we have a relatively dry year and lower in a relatively wet year.

Demand levels have declined significantly over the last few decades, from around 230 GPCD in the early 1990s to about 200 GPCD before the drought year of 2002. Figure 2.4 shows actual GPCD and normalized GPCD from 2001 through 2014. To help illustrate the role that weather plays in our actual GPCD, the graph also includes annual precipitation and evapotranspiration for grass, both in inches.[25] In years where our region received less precipitation and the evapotranspiration rate was higher, actual per capita water use is higher. The average normalized use over 2002 to 2009 is 158 GPCD, approximately a 21% reduction in per capita water use from before 2002. The average normalized use from 2010 to 2014 is 146 GPCD, which is about a 27% reduction in per capita use from pre-2002. Since the 2002-03 drought, several factors have helped to reduce water use including, universal metering, conservation-oriented rate structures, more efficient plumbing standards, and our robust water efficiency and education programs.

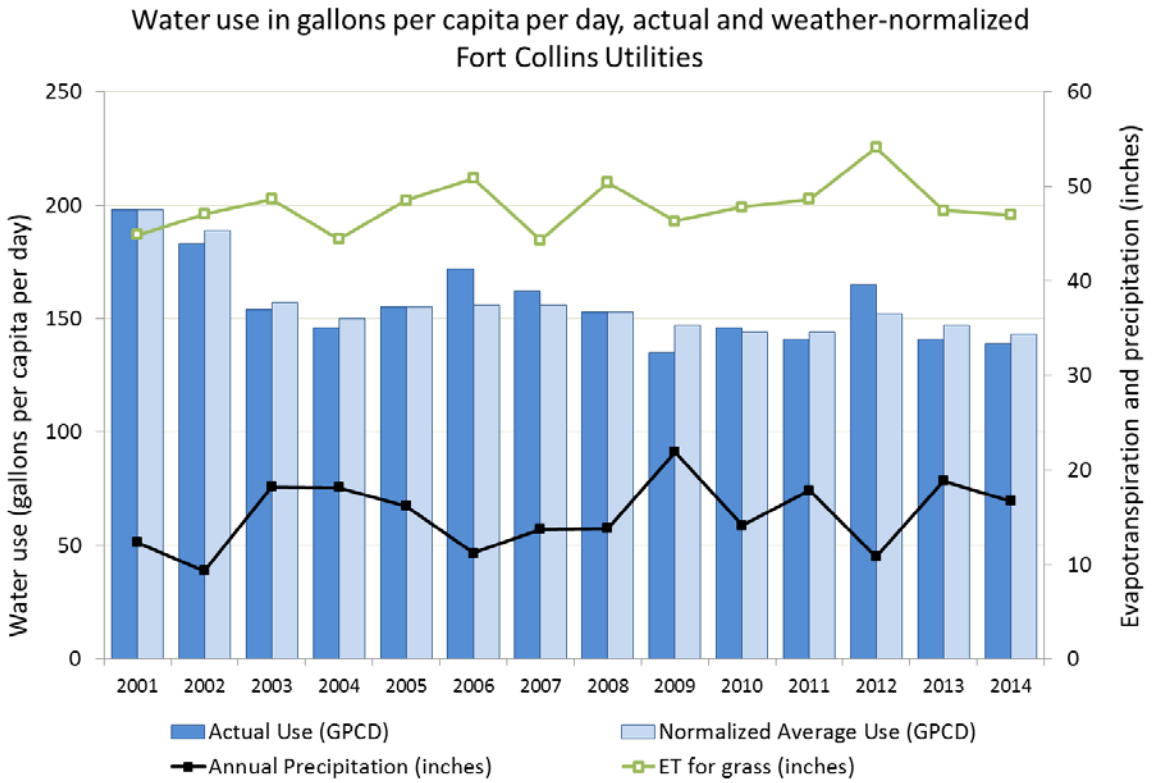


Figure 2.4 Water use in gallons per capita per day and weather data

[25] Evapotranspiration is often defined as the combination of the water lost (evaporate) to the atmosphere from the ground surface, evaporation from the capillary fringe of the groundwater table, along with the plant transpiration, which is evaporation of water from plant leaves. Evapotranspiration is affected by temperature, relative humidity, wind and air movement, soil moisture availability, and the type of plant. For more information see: http://water.usgs.gov/edu/watercycleevapotranspiration.html

Weather patterns mostly affect outdoor use of water. Figure 2.5illustrates an estimate of the portion of water demand that is utilized outdoors. A common method for estimating indoor versus outdoor use is to take the average of the demands in December through February and set this to be the estimate of average indoor demands and assume that no outdoor use occurs in those months. Then for months March through October, attribute any use above and beyond this average indoor use to be the estimated outdoor use portion. As shown in Figure 2.5, water use in the summer months can be up to almost two-thirds of total water demands.

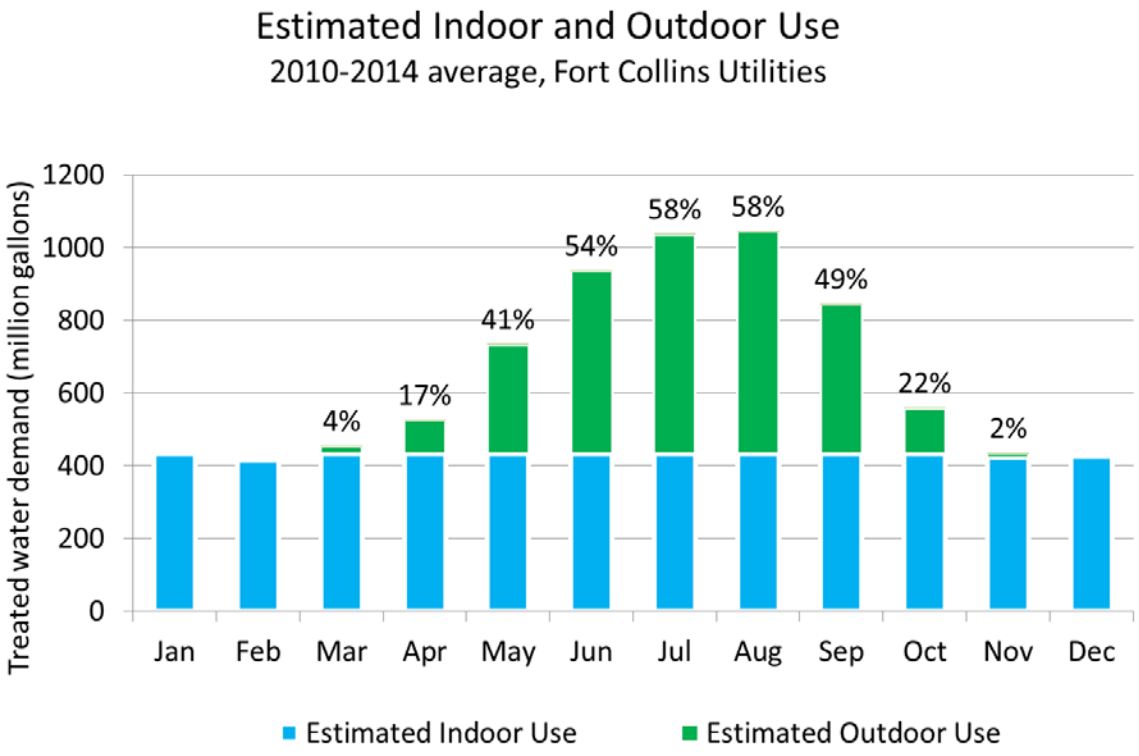


Figure 2.5 Estimated indoor and outdoor use, 2010-2014 average

Fort Collins Utilities participated in a single-family end use study in 2012.[26] This study helped shed some light on how families are using water, through a small 88-household survey and analysis. In terms of outdoor use, many of the participating homes were estimated to be under-watering, relative to what was water needs estimated based on landscape area and weather information. However a minority of homes were over-watering and this excess was large enough to offset any under-watering by the other participating households. This highlights our need to provide improved programs and education to help our customers use the optimal amount of water for their landscape.

Since indoor use is less visible to the Utilities, how people allocate and use water indoors is more of a mystery. This 2012 study illustrated that there are still a significant number of low efficiency toilets and

[26] Study was conducted by Aquacraft Water Engineering and Management, Inc.

clothes washers in the housing stock, however the majority of participating homes had a high efficiency shower heads. The study also estimated that a significant amount of water is lost to leaks, which often go unnoticed by the residents. This highlights the need to utilize data available through the Advanced Meter Fort Collins (AMFC) program to help identify leaks and let our customers know so that they can address the problem and stop paying for lost water; we are piloting a Continuous Consumption program to meet this need, discussed further in Section 2.3.

As noted in Section 1.1, in addition to treated water the Utilities diverts about 3,000 to 4,000 acre-feet of raw water to irrigate City parks, golf courses, a cemetery, greenbelt areas, some school grounds, and for the purposes of meeting some contractual raw water delivery obligations.

2.2.2 SYSTEM WATER LOSS

Water losses in the Fort Collins Utilities' water system can occur in several locations:

- Between the points of diversion and the water treatment facility (e.g., from conveyance losses within the pipelines carrying water to the treatment facility)
- Within the water treatment facility (e.g., during filter backwash processes)
- Within the water distribution system between the water treatment facility and the meters of end users (e.g., from conveyance losses in the distribution pipe network)

Losses within the conveyance system that brings water to the treatment plant and within the water treatment plant itself are not fully quantified, but estimated at 3% of the annual diverted volume, when estimated from source to outlet of the treatment plant. Losses within the distribution system are estimated based on the difference between the amount of water treated at the treatment plant and the cumulative amount of water metered at end users. A summary of losses is provided in Table 2.2 below. These numbers represent estimates only and may reflect a number of factors. Fort Collins Utilities is currently exploring integration of the American Water Works Association's M36 methodology into its water loss management and tracking.

Table 2.2 System Water Loss Estimates

Loss Estimate (in Million Gallons)	**2010**	**2011**	**2012**	**2013**	**2014**
Treatment and Diversion to Treatment Conveyance Losses	242.2	235.7	270.8	233.8	230.0
Distribution Losses	426.5	462.1	695.1	534.9	705.7
Total	668.7	697.8	965.9	768.8	935.7
Distribution loss as percentage of total treated water	5.4%	6.1%	7.9%	7.1%	9.5%

2.3 PAST AND CURRENT DEMAND MANAGEMENT ACTIVITIES

Faced with a drought in 1977, the Utilities created a part-time water conservation position. In 1989 the position expanded to a full-time position. The first Water Demand Management Policy in 1992 lead to an expansion of conservation projects and increased educational and outreach efforts. The 1992 Policy set a conservation goal of 195 GPCD by the year 2020.

Prompted by the drought of 2002-03, Utilities made several efforts in 2003 to increase accountability and encourage the efficient use of water including fully metering every customer by, implementing a conservation-oriented rate structure – a tiered rate structure – with a seasonal component, initiating several new outreach and educational programs, and also developing the Utilities' first Water Supply Shortage Response Plan as guidance during drought and other emergency conditions.[27] The first joint Water Supply and Demand Management Policy was developed in 2003 and set a conservation goal of 185 GPCD by 2010.

The Utilities' Water Conservation program expanded again in 2010 with the development of a formal Water Conservation Plan. This plan set the current conservation goal of 140 GPCD by 2020. City Council approved the budget for additional programs and staff outlined in the plan starting with the 2010-2011 budgets. The plan was approved by the Colorado Water Conservation Board in early 2010. Note that conservation goals are purposely set lower than the Planning Demand Level discussed in Section 1.2, which is used for supply reliability planning.

2.3.1 CURRENT DEMAND MANAGEMENT ACTIVITIES

Table 2.3 is a list of the current demand management activities along with the initial year of implementation, if known. Note that many of our activities, programs, and regulations have substantially evolved over the years. For a description of each activity, see Appendix B, which also contains a table with participation levels from 2010 to 2014 for most of our current activities. This table does not contain participation counts for events.

[27] The Water Supply Shortage Response Plan contains certain restrictions on the use of City-treated water and other actions to be taken during a specified drought or water supply conditions.

Table 2.3 List of Current Water Conservation Activities

Foundational Activities	Educational Activities
Conservation-oriented rate structures (2003)	Business education programs (2004)
Continuous consumption program (2015)	Community education programs (1977)
Metering (2003)	Conservation kit giveaways (1990)
Monitor My Use (2014)	Conservation public information efforts (1977)
Online water use calculator (2012)	Home water reports (2014)
Seasonal rate structures (2003)	Hotel and restaurant conservation materials (2003)
Utility water loss program (1993)	K-12 education programs (1997)
Target Technical Assistance and Incentives	Watershed tours (2012)
Clothes washer rebates (2003)	Xeriscape Demonstration Garden (1986)
Commercial facility assessments (2004)	**Ordinances and Regulations**
Custom commercial rebates (2011)	Green building codes (2011)
Dishwasher rebates (2007)	Landscape and irrigation standards (1994)
Home efficiency audits (2009)	Parkway landscaping regulations (2013)
Home efficiency loans/ZILCH/on-bill financing (2010)	Plumbing standards (1978)
Irrigation equipment rebates	Restrictive covenants ordinance (2003)
Low income retrofit program (2007, w/ LCCC)	Soil amendment ordinance (2003)
Restaurant pre-rinse spray valve distribution (2011)	Wasting water ordinance (1917)
Showerhead rebates (2011)	Water efficiency upgrades at City buildings (2010)
Sprinkler system audits (1999)	Water supply and shortage response plan (2003)
Toilet/Urinal rebates (2010)	**Other Activities**
Xeriscape design/incentive program (2010)	Raw water for City irrigation, large customer reuse project (1985), backwash water recycling (2003)

2.4 DEMAND FORECASTS

Acquiring water supplies takes many years. In order to ensure a reliable water supply for customers in the future, the Utilities plan for future growth and water needs. The City's future municipal water demands are largely dependent on population growth and the rate of commercial and industrial development. The rate and pattern of population growth are also influenced by the future economy, land use policies, and development incentives, among other factors. As such, the Water Supply and Demand Management Policy Report (dated April 2014) takes the long view and identifies projected demands through 2050.

2.4.1 PLANNING HORIZON

The current Water Conservation Plan, developed in 2009, identified a 10-year planning horizon with a goal to update the plan in five years. This Water Efficiency Plan, to be submitted to the Colorado Water Conservation Board in 2017, takes the middle road and uses a 2030 planning horizon, with incremental goals leading up to the 2030 goal, as well as a goal to develop an updated plan no later than 2024 (seven years after this Plan's required submission year).

2.4.2 DEMAND PROJECTIONS

The Utilities estimates future water demands for a given year by first multiplying the projected population by the planning demand level (150 gallons per capita per day) multiplied by the number of calendar days, then projected large contractual use (LCU) is added to get the total projected water demand, as shown in the equation below. The Demand Planning Level is currently set at 150 gallons per capita per day, and is purposely set higher than conservation goals to provide a greater level of system reliability[28].

$$Total\ Demand = Projected\ Population\ \times 150\ gpcd \times 365\ days + Projected\ LCU$$

2.4.3 POPULATION PROJECTIONS

Given the differences between the Fort Collins Utilities water service area, the Fort Collins city limits, and the Fort Collins Growth Management Area, population projections were estimated using information from a Traffic Analysis Zone (TAZ) study developed for the City of Fort Collins and Larimer County. The TAZ information is based on City and County zoning designations, which dictate the type of development and thus population densities. The TAZ study makes population estimates based on projected new development and redevelopment in each zone. The population projections for this Plan were estimated by using the zones within the water service area. Note that, based on the TAZ study, it is anticipated that the Fort Collins Utilities' water service area will reach build-out near 2040, meaning that all vacant buildable land will be developed. After build-out, it is assumed that the water service area population will only grow via redevelopment, and therefore population growth in the service area is expected to eventually slow down. However, the Utilities currently has agreements to supply water to surrounding water districts. With these agreements in place and the potential for more in the future, the Utilities considers these possibilities in estimating future demand projections. Thus, the population projections used in this plan includes some of West Fort Collins Water District.[29]

[28] For more information on the Planning Demand Level, see Section 1.2.

[29] The estimates do not include some Fort Collins-Loveland Water District areas currently served by the Utility because these areas are served only in the sense that a) FCLWD purchases some excess capacity in our Water Treatment Facility, and b) there is an now terminated agreement whereby certain areas of development could meet raw water requirements either through the Utilities or the districts. If any of these areas are annexed by the City, then they would still have the option to make use of this option.

2.4.4 LARGE CONTRACTUAL USE

In addition to population-based water demands, the Utilities also has contractual obligations to provide water for the current and future demands of several large industrial water users. Large contractual use (LCU) is estimated separately from population-based water demand projections and is not included in the GPCD metric. The LCU projections are added to the overall projected demands, which are based on population projections and the water demand planning level set in the Water Supply and Demand Management Policy Report (dated April 2014). LCU is currently about 3,900 acre-feet per year of treated water. Additional raw water is provided to LCUs. Because of certain applications, a portion of the water supplied to LCUs must be sourced from reusable water rights. The future LCU is estimated to be about 8,000 acre-feet per year by 2050. This will require a mix of single use and reusable water sources.

Figure 2.6 illustrates the projected population for the water service area. This figure also illustrates the project water demands based on the historic Planning Demand Level and the current Planning Demand Level.[30] It is clear that conservation and efficiency activities, among other factors, have helped to reduce total water use as well as per capita water use; these reductions have lowered the planning demand level and helped to increase the reliability of the water supply system.

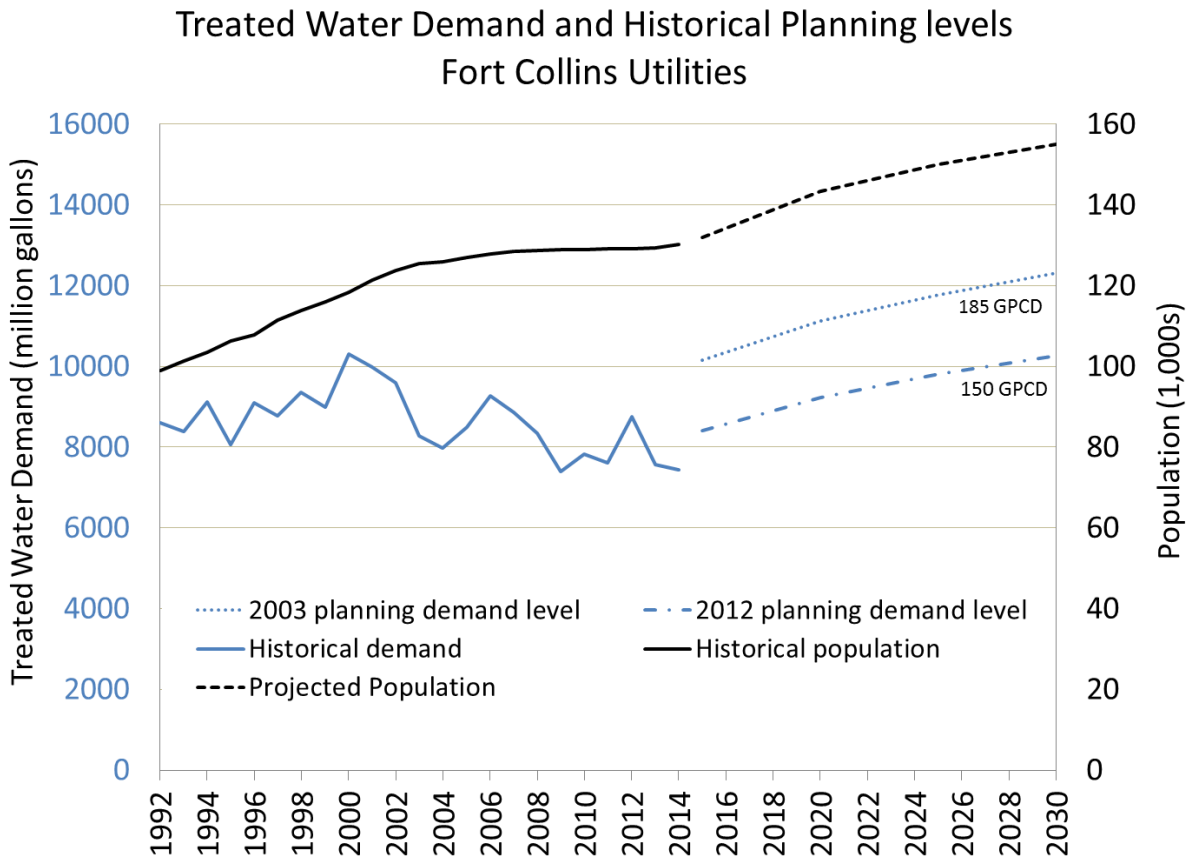


Figure 2.6 Treated water demand, historical planning levels, and population

[30] These estimates also incorporates an estimated 8% system water loss level.

3.0 INTEGRATED WATER SUPPLY AND DEMAND MANAGEMENT PLANNING

There are four main documents that provide direction and/or complement the Utilities' water efficiency efforts, listed below. Along with the most recent Water Conservation Plan of 2010, these documents helped to develop this updated Water Efficiency Plan and will also guide our ultimate implementation moving forward.

- The City of Fort Collins Strategic Plan (2015-16)[31]: this document is a result of a planning process incorporating input from citizens, businesses, City Council, and City staff. It identifies the City's seven key outcome areas as well as several strategic objectives in each area; these are to guide the work in all City service areas. Water efficiency aligns very strongly with Objectives 4.8, 4.7 and 4.6, it also touches on several other objectives detailed in Appendix C.

- The Water Supply and Demand Management Policy (2012)[32]: this is the guiding document for water supply and demand management activities. The objective is to provide a sustainable and integrated approach to 1) ensuring an adequate, safe, and reliable supply of water for the beneficial use by customers and the community, and 2) managing the level of demand and the efficient use of a scarce and valuable resource consistent with the preference of Water Utility customers and in recognition of the region's semi-arid climate. The original water supply-focused policy was developed and approved in 1988; it was updated in 2003 and again in 2012, with the most up-to-date report published in 2014. This Policy defers to the latest Water Efficiency Plan to set the efficiency goals.

- 2015 Climate Action Plan Framework: The CAP provides a high level framework to set Fort Collins on the path to achieve carbon emissions reduction objectives as requested by Council, but will not determine future implementation details. Implementation details will be developed as strategies and tactics are considered on a case-by-case basis, and will be brought forward to Council for approval prior to implementation. The two main strategic initiatives that involve water are: 1) Water and Land Use, and 2) Preparation, Adaptation, and Resilience.

- The Water Supply Shortage Response Plan (2014)[33]: this document identifies the restrictions and requirements intended to achieve progressively higher levels of water savings under various projected water shortage conditions. The original plan was approved by City Council in 2003 and an update was approved in 2014.

[31] The City's Strategic Plan can be found at: http://www.fcgov.com/citymanager/pdf/strategic-plan-2015.pdf

[32] Though a more extensive report was developed and dated April 2014. See the City's Water Supply and Demand page: http://www.fcgov.com/utilities/what-we-do/water/water-supply-demand

[33] http://www.fcgov.com/utilities/img/site_specific/uploads/ORDINANCE_NUMBER_088_July_2014_Water_Supply_Shortage_Response_Plan.pdf

3.1 WATER EFFICIENCY AND WATER SUPPLY PLANNING

In planning for a reliable, secure, and sustainable water future, the Utilities employs an integrated resource planning strategy that utilizes a portfolio-based approach to meeting future demands and is guided by the documents described in Section 3.0 above. In most years, the City of Fort Collins Utilities has the benefit of having a plentiful level of water supplies that ensure sufficient supplies above the reliability criteria discussed in Section 1.2. The Utilities' water supplies are expected to support projected changes to demand under a combined strategy of a) increased long-term storage and, b) continued water efficiency efforts. This diversified approach will reduce water demand, improve system reliability, and enhance community resilience to drought and climate change. These two strategies need to be undertaken collectively; either on their own will be significantly less effective without the other.

Expanded water efficiency measures are cost-effective means to water supplies that can be utilized for several beneficial purposes. Conserved water can be stored for periods of drought, leased for agriculture, and used for beneficial environmental enhancement efforts such as in-stream flow programs. Increased storage provides a physical location for conserved water and enables Fort Collins to take full advantage of savings achieved by customers. See Section 1.3 for more information on the role of storage in our supply and demand management planning.

3.1.1 BENEFITS OF WATER EFFICIENCY

In addition to being a key part of the integrated resource management process, water efficiency programs also:

Foster a conservation ethic and reduce waste: the success of this Plan depends on the cooperation and support of the Water Utility customers and the City of Fort Collins community. Instilling a conservation ethic is an important foundation to changing habits and attitudes toward water use. The power of the individual in conservation makes a big difference in protecting quality of life, including our environment today and for generations to come. Our average use, calculated as gallons per capita per day (GPCD), has declined significantly. For example, in 2001 the GPCD was 198, whereas in 2014 it was 143. Several conservation-based efforts took place on the heels of the 2002-03 drought which have helped to support a sustained reduction in use; these include full metering, conservation-oriented rate structures, seasonal rate structures, expanded targeted industry outreach, the restrictive covenants ordinance, conservation kit giveaways, clothes washer rebates, and more.

Demonstrate a commitment to sustainability: The City aims to be leaders in this effort. The City approved the Climate Action Plan Framework in 2015 and previously approved an Action Plan for Sustainability in 2004, and an Environmental Policy in 2009 that outline the ways the City itself will reduce its environmental impact (this includes a commitment to identifying and implementing effective ways to conserve natural resources). To bring the global concept of sustainability to action at the local level, sustainability advocates use the triple bottom line in decision-making. Essentially, that means projects are evaluated based on their social, economic and environmental impacts. Rather than make decisions on the basis of profit or the economic bottom line, three bottom lines (social, economic, and environmental) are considered. For the City, it means creating an optimal mix of resource efficiency, cost effectiveness and employee well-being in daily City operations. One example of a goal is to reduce municipal operations water irrigation and increase efficiency per acre, as well as to reduce indoor use by

20% by 2020.[34] City buildings are required to achieve LEED "Gold" certification. Also, several areas of City grounds have been renovated with low water using landscape materials and some weather sensors have been added to the irrigation systems. The City Parks system is regularly audited; the majority of the Parks irrigation systems uses 95% or less of the water needed, based on the turf and plant requirements.

Provide water for multiple beneficial purposes: Conservation efforts can help to provide more water for beneficial uses beyond normal municipal purposes. For example, the area around Fort Collins continues to be a productive agricultural area, which in addition to representing economic activity, also provide significant open space outside of Fort Collins that is desired by many residents. When possible, making some of the City's surplus water available for these purposes provides supplemental revenue for the Utility and its customers. The potential environmental benefits of conserved water are also important. These include providing additional flow for the local stream systems, in-stream flow programs, improvements in water quality, improvements in aquatic and riparian ecosystems, enhanced recreational opportunities, and aesthetics, among other benefits.

Enhance resilience during drought periods: Conservation and efficiency efforts can help to develop a community and landscape that is more resilient to drought conditions. Through support of drought planning and implementation of proactive mitigation efforts, the actions proposed in this Plan can help to reduce vulnerability, protect economic health, and ease the effect of drought on individuals, businesses, and landscapes.

Prepare for climate change: Climate change may have significant impacts on both water demands and water supplies in the time frame of this plan. It is anticipated that climate change in the Mountain West will likely include the following changes: Increased evapotranspiration rates, increasing the water required to maintain the landscaping; more frequent dry spells and a longer growing season; increased variability in seasonal snow pack; earlier spring snowmelt and runoff; changes in the distribution of precipitation throughout a given year. These changes are expected to accelerate over the decades ahead and impacts may depend largely on factors such as population growth, economic growth and technological changes. Utilities will likely face significant challenges in the years ahead managing both water demands and water supplies. With many uncertainties regarding both water supply and demand, it is prudent to prepare for a wide range of conditions in the future. One example of the importance of efficiency efforts is that without conservation and/or significant changes in landscaping choices, outdoor water use will likely increase over the coming decades as customers strive to maintain their landscapes in a hotter and longer growing season. Furthermore, an approach that also includes planning for adequate reservoir capacity to help balance the swing in supplies available between wet and dry periods

[34] http://www.fcgov.com/sustainability/goals.php

Reduce costs:

- Direct utility costs: Efficiency programs decrease water and wastewater treatment costs as it reduces the amount of chemicals and energy used to produce, deliver, and heat water.
- Customer costs: water bill, but also the cost of energy to heat water, and landscape related costs including the cost to maintain, like labor costs, fertilizer and other landscape-related product costs.[35]
- Long-term costs: decisions about water supplies, treatment/distribution capacity needs, storage facilities are all made in consideration of projected water demand and peak capacity.

In addition to these savings, Fort Collins Utilities has benefited financially from conservation in two notable ways:

- Halligan Water Supply Storage project size: The original Halligan Reservoir enlargement planned allotment for Fort Collins was 12,000 acre-feet, which was in part based on the 2003 planning demand level of 185 GPCD. Among other factors considered in the permitting process, the role of conservation and the downward trend in GPCD (current planning demand level = 150 GPCD) resulted in revising the enlargement downward to only 8,125 acre-feet, which is approximately a 68% reduction and represents a $6.1M savings in project costs.

- Extra Water Treatment Facility capacity: A Water Treatment Facility (WTF) is designed for peak demand. The Fort Collins WTF was last expanded in 1999, prior to the significant increase in conservation efforts prompted by the 2002-03 drought. The total WTF treatment capacity of 87 MGD is estimated to be *at least* 23% larger than the expected build out in 2035 peak demand (~ 20 MGD). In 2013, the City of Fort Collins Utilities entered into an agreement with Fort Collins-Loveland Water District to sell FCLWD up to 5 million gallons per day (MGD) in excess water treatment capacity. The financial benefits of this agreement include the associated plant investment fee of $12.6M and a treatment charge of about $2 per thousand gallons.[36]

- Delay of capital expansion projects: Decreased wastewater flows have delayed the expansions of the Drake Water Reclamation Facility treatment capacity from 2010 to 2028.

[35] These costs may also represent larger environmental costs as run-off from landscapes can affect water quality and ecosystem health.

[36] In addition to the benefits to the City of Fort Collins Utilities, Fort Collins-Loveland Water District will be able to defer expansion of their current treatment facility and/or construction of a new water treatment facility. Additional information on this agreement can be found in the City of Fort Collins City Council agenda and materials from the October 1st, 2013 regular City Council meeting.

3.2 WATER EFFICIENCY GOALS

The WEP's overarching goal, which tracks from previous goals, is to reduce water demand to 130 GPCD by 2030. During the development of this updated Plan, however, it became clear that a single, system-wide metric of water use doesn't resonate with and isn't meaningful for customers. During the public comment period Water Conservation staff often saw that the GPCD metric was confusing. For example, it was unclear which water uses (residential, commercial, the Utilities' largest users, etc.) were involved in its calculation. The exact definition/equation of a utility's GPCD is a common issue for other entities and therefore can complicate and limit the ability to compare across utilities. Furthermore, a system-wide GPCD isn't a direct measure of the progress and effectiveness of the Water Conservation team's activities.

It was also unclear how an individual's water use (as seen on their bill) related to a GPCD goal. For most residential customers, on average, their individual GPCD or even GPHD (gallons per household her 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. The community's feedback raised the question of the appropriateness of a GPCD goal, as well as the question of the best way to structure goals to motivate lasting change and communicate water efficiency progress.

Amy Vickers & Associates, Mary Wyatt Tiger and Shadi Eskaf confirm these broad issues: "…estimates of [GPCD] are not comparable to each other when the types of data used to compute GPCD differ. While average single-family water use metrics reflect a relatively small number of types of indoor and outdoor end uses of water that are common to most single-family homes, an average water use metric for an entire city reflects thousands of different types of water-using activities […] Furthermore, a system-wide average neglects the nuances of individual customer behavior and is not specific enough to detect some significant changes in water use behavior." in the 2013 American Water Works Association report: *A Guide to Customer Water-Use Indicators for Conservation and Financial Planning*.

For this WEP, a long-term goal of 130 gpcd by 2030 will remain. GPCD is still an industry standard and still a means to compare progress over time for the Fort Collins Utilities system overall. In the coming years, staff will work to evolve the metrics and indicators by which we judge water conservation/efficiency progress. The ultimate version of the goal definitions and structure will be subject to analysis and research and will be reflected in the next update of the Utilities' Water Efficiency Plan. Currently, staff recommends moving toward measurement and tracking of:

- Volume of water saved. This will be evaluated based on tracking conservation and efficiency programs. This is being added in part because City and Utility leadership have asked for clearer metrics related to Water Conservation programs. This metric provides good clarity and is a more direct measurement of the impact of Water Conservation programs.
- Program participation. This will be tracked by programs and events. This will give a measure of how many customers we're reaching.
- Residential water use indicators defined using measures of the amount of water delivered to residential customers and the service area population. This will likely be further broken down by type of residence (single-family, duplex, multi-family).
- Commercial sector indicators. These indicators will be based on industry-specific standards and set in partnership with the local commercial sector.

An updated Water Efficiency Plan will be developed no later than 2024 (7 years from the anticipated CWCB 2017 submission date). Figure 3.1 illustrates the projected water demand level if the 130 GPCD by 2030 goal is met, the current 140 GPCD by 2020 goal in the 2010 Water Conservation Plan, and the current 150 GPCD Planning Demand Level used in water supply reliability planning, along with historical and projected population. Figure 3.2 is a graph of GPCD levels, rather than total volume. This figure shows the historical GPCD levels along with our goal level and the projected trend in use that will achieve that goal. Chapter 4 describes the strategies for achieving this goal.

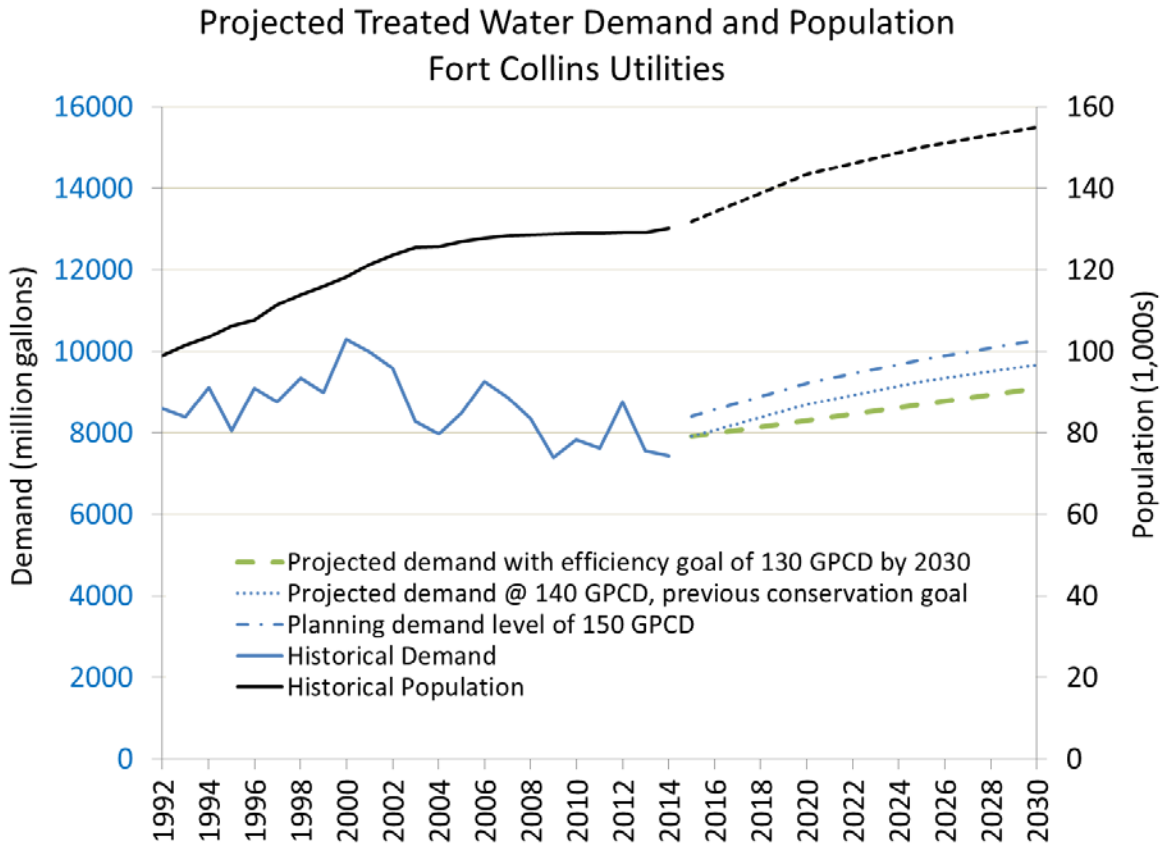


Figure 3.1 Water efficiency goal, demand and population

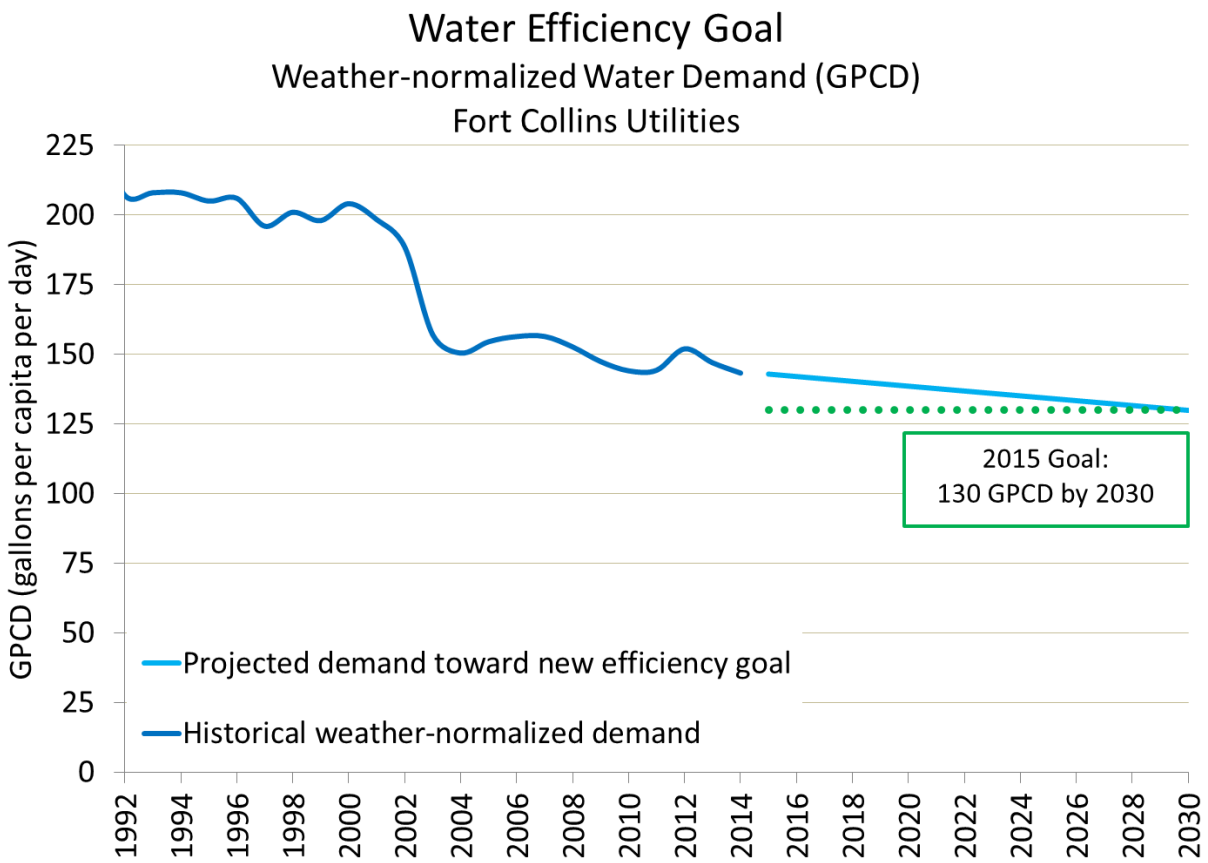


Figure 3.2 Historical GPCD and New Efficiency Goal

4.0 SELECTION OF WATER EFFICIENCY ACTIVITIES

The Utilities Water Conservation Team uses its mission and three overarching objectives to select the programs, projects, and approaches used in our daily efforts. These will ultimately guide our path to achieving our water efficiency goal of 130 GPCD by 2030 and align our work and efforts with those of the Utilities, the City and the State.

Water Conservation Team Mission: Cultivate a water efficient, adaptive, and knowledgeable customer base through education and cost-effective water efficiency programs while supporting the City's strategic plan and its social, environmental, and economic health.

Water Conservation Team Objectives:

- Water Efficiency and Conservation – provide water for beneficial purposes while reducing unnecessary use and waste.
- Customer Service – provide exceptional service for an exceptional community
- Technical Support – provide technical expertise to customers and City staff

4.1 SUMMARY OF SELECTION PROCESS

4.1.1 SELECTION PROCESS AND CRITERIA

Fort Collins has a robust water conservation approach with a number of conservation activities that have been implemented for years. We intend to continue the water efficiency activities, in some form, within our current portfolio of programs. These programs are likely to evolve over the years and the exact specifics of each are subject to change as a result of changing legislation, regulations, technology, customer preferences, appliance/fixture saturation rate, and Utilities/City plans. For example, the state of Colorado has passed legislation (Senate Bill 14-103) that mandates that any plumbing figure sold in the state must meet WaterSense standards by September 2016; this includes lavatory faucets, toilets, urinals, and showerheads. This change will likely affect our current approach to incentivizing customers to swap out old efficient fixtures for new, efficient ones.

In addition to a review of our existing activities, new and innovative activities were researched. Potential activities were identified from a number of sources including the Colorado Water Conservation Board's technical resources, the Colorado WaterWise Guidebook of Best Practices for Municipal Water Conservation in Colorado[37], a broad literature review, exploration of other utility case studies, and input from Utility staff, the City of Fort Collins Water Board, the community, the Water Conservation staff, and a Water Efficiency Plan Technical Advisory Group, consisting of several City departments as well as community members. This process not only identified activities, but also processes and tools that have the potential to help improve all activities.

The activities identified in this plan represent the best choices at the time. Technology, regulations, efficiency standards, market saturation, customer preferences and other factors are likely to change before this plan is updated and are sure to change during the course of the planning horizon (2030). We will continue to monitor the effectiveness and appropriateness of current activities while also exploring

[37] http://cwcb.state.co.us/technical-resources/best-management-practices/Pages/main.aspx

new programs. The City of Fort Collins utilizes a two-year budgeting cycle called Budgeting for Outcomes, which determines funding for Water Efficiency activities by, in part, evaluating the proposed activities against the City's strategic outcomes. We are therefore potentially constrained in terms of the activities we can undertake; the funding must be available and approved by City Council.

4.1.2 PRIORITIZATION PROCESS

Each of the potential activities will be prioritized using the following qualitative screening criteria.

- Program Effectiveness: This combines the estimated water savings with the estimated program costs: How effective is the activities in terms of gallons of water saved per program dollar spent?
- Staff Resources: How labor- and time-intensive is the program? Do we have the staff resources to properly support, monitor and evaluate the program?
- Customer Preferences: Does this activity meet the needs and wants of the Utility water service area customers? Does this activity support the social and economic health of our customers?
- Participation Level and Reach: How many customers could be impacted by this program? What types of customers does it reach? Is it engaging previously unengaged customers?
- Alignment with other Utility and City objectives: Does this program support activities in other areas of the Utility and the City? Does it help achieve Utility and City strategic objectives?

4.1.3 POTENTIAL NEW DEMAND MANAGEMENT ACTIVITIES

In addition to continuing the existing set of water conservation and efficiency activities listed in Section 2.3 and described in greater detail in Appendix B, we identified five areas of opportunity for developing new programs and approaches. Each highlights an area with great potential to expand and increase water efficiency and great potential to better meet the needs of our customers. Each of these areas also supports specific strategic outcomes and objectives in the City's Strategic Plan; these are listed in Appendix C. In this process we also identified three implementation principles that will guide the development of any new programs and strategies; these are detailed in Section 5.1.

Areas of Opportunity

- Leverage Advanced Meter Fort Collins data and capabilities
- Promote and support greater outdoor water efficiency
- Encourage greater integration of water efficiency into land use planning and building codes
- Expand commercial and industrial sector strategies
- Increase community water literacy

Table 4.1 highlights a few benefits of each identified area, a few potential activities that fall into each area, as well as a brief description of an existing practice within the area.

Table 4.1 Areas of Opportunity

Leverage Advanced Meter Fort Collins data and capabilities		
Aligns with City Plan Strategic Objectives: 3.9, 4.6, 4.7, 4.8, 7.9, 7.10		
Benefits • Increased customer understanding of water use • Greater connectivity to customers • Increased customer benefits through web portal information and tools • Less confusion and fewer bill surprises	Potential Activities • Monitor My Use & High Bill/Use Alerts • Improved leak detection • Near real-time identification of savings and inefficiencies • Craft easy-to-understand, targeted water-savings actions based on data and use patterns	Example: The continuous consumption uses AMI data to detect likely leaks; we alert homeowners so that they can fix the leak and avoid damage and high bills. In 2015 we reached out to 980 customers.
Promote and support greater outdoor water efficiency		
Aligns with City Plan Strategic Objectives: 1.11, 4.6, 4.7, 4.8, 7.5		
Benefits • Reduced peak season and peak day demands, which impact system capacity needs and long-term planning • Customer benefits through lower bills, increased aesthetics and home value • Fewer wasting water issues/complaints	Potential Activities • Residential and Commercial sprinkler audit programs • Xeriscape Incentive Program • Customer and Contractor training series • Interactive demonstrations • Educational Water budget tool	Example: In 2014 we provided over 400 sprinkler system audits, with an estimated potential savings of 30MG. The cost-effectiveness of this program is about $1.20 per 1,000 gallons saved.
Encourage greater integration of water efficiency into land use planning and building codes		
Aligns with City Plan Strategic Objectives: 1.3, 1.11, 3.7, 4.7, 4.8		
Benefits • Increased efficiency of development • New development will lead by example • Less waste from pursuing retrofits of new development • Reduced impact of population growth	Example Activities • Landscape requirements and incentives for new development • Contractor education and trainings • New and re-development plan review requirements • Require WaterSense appliances and fixtures	Example: Beginning in 2012, the City's Green Building Code mandates WaterSense toilets and other fixtures in residential and commercial facilities; this is estimated to save between 20-25% annually.

Expand commercial and industrial sector strategies		
Aligns with City Plan Strategic Objectives: 3.5, 3.6, 4.7, 4.8, 5.10		
Benefits • Increased water savings due to scale of projects • Enhanced business partnerships • Support ClimateWise program • Enable greater economic health	Example Activities • Custom commercial rebate program • Benchmarking • Targeted industry-specific campaigns and outreach • Address tenant/owner incentive misalignment	Example: In 2013 the custom commercial program helped replace two pools filters, which are estimated to have nearly 800,000 gallons per year.
Increase community water literacy		
Aligns with City Plan Strategic Objectives: 4.6, 4.7, 4.8, 7.4		
Benefits • Customer has greater understanding of role in the water system • Increased customer understanding and support of Utilities' actions and decisions • Increased cooperation during difficult conditions	Example Activities • Improved and expanded messaging strategies • Identify new approaches to education and outreach • Develop innovative methods to strengthen K-12 water literacy curriculum	Example: In 2014 we began providing Home Water Report to select customers; these display usage information, comparisions to similar homes, and provide efficiency tips. Households receiving the reports reduced their use by 2%.

We also highlight a few other promising areas, in addition to our current program and the types of activities identified in the Strategic Objectives sections, that we plan to explore in the coming years. Many of these overlap with several of the Areas of Opportunity or warranted some additional explanation, and thus are discussed in greater detail below.

- Rate Structures: Prices send a value signal to customers and help customers determine how they value using water. Rate structures are also designed to cover the cost of providing service.[38] Therefore it is important to balance both sides. Along with the Finance team, we intend to explore new means of incentivizing the efficient use of water while supporting revenue requirements.

- New and Re-Development Incentives & Requirements: There are a variety of decisions made throughout the development and re-development process. We aim to further explore and support ordinances or regulations like low water use landscape requirements, tap fees and incentive programs that are more aligned to encouraged efficiency from the start, irrigation taps/requirements, greywater ordinances and systems, and more.

[38] This includes operational costs (like treatment costs), maintenance costs, and capital costs.

- M36 Audit & Other Leak Monitoring Initiatives: A significant way to reduce water loss, reduce bills and repair expenses, is a robust portfolio of leak detection, monitoring, and notification initiatives, including those that address leaks within our distribution system, private property leaks that occur prior to the meter and result in non-revenue waste, and continue to expand and enhance our beyond-the-meter Continuous Consumption Program. The Utilities is also in the process of incorporating the American Water Works Association's M36 Audit process to ensure "the accountable and efficient management of water supplies" by the Utilities.[39]

- Rebate and Incentive Programs: We aim to ensure that the rebate level is based upon data-driven estimates of the water savings that results from the appliance, fixture, or technology change. This process will also include an approach to phase out or adjust program specifications once Colorado becomes a WaterSense state in September 2016. We also want to expand the reach of our programs to help more customers, either through community partnerships or new approaches to outreach and marketing. We will explore how to reach more low-income or otherwise disadvantaged/at-risk households, rental units, and multi-family units.[40]

[39] The M36 represents a National standardized approach to water supply system audits that accounts for all water. http://www.awwa.org/portals/0/files/publications/documents/toc/m36ed3.pdf http://oawwa.org/SDWA%20Presentations/2013/Water%20Audit%20Presentation,%20November%204,%202013.pdf

[40] While this is titled "Rebates and Incentive programs", efforts to reach underserved populations may also include expansion of direct-install programs like our current partnership with the Larimer County Conservation Corps (LCCC).

5.0 IMPLEMENTATION AND MONITORING

5.1 IMPLEMENTATION

The following principles serve as guidance to implementing existing and new activities. We believe these principles will help to improve effectiveness of our programs, help to achieve our water efficiency goals, and keep our actions in alignment with our overall mission. These principles are also in alignment with several Strategic Objectives in the City Plan, including 3.9, 7.4, 7.5, 7.10, and 7.11. These are further described in Appendix C.

Employ sophisticated data-driven processes and decision-making

Benefits

- Decisions supported by data
- Improved accuracy of water savings estimates
- Increased overall portfolio effectiveness
- Increased program savings and reach through use of behavioral science principles

Example Actions

- Targeted and tailored programs
- Marketing and Communications
- Streamlined, consistent program tracking and reporting
- Develop and monitor targeted metrics to support targeted goals

Cultivate new and bolster existing community and statewide partnerships

Benefits

- Greater trust in the Utilities
- Expanded capacity and reach through project partners
- Support economic health
- Stronger network of conservation partners

Example Actions

- Expand conservation support for nearby water districts
- Expand work with higher education institutions
- Increase public-private projects, like an industry-specific water efficiency conference
- Participate in and contribute to statewide conservation efforts, (e.g. Colorado WaterWise, Colorado Foundation for Water Education)

Coordinate and support symbiotic efforts within Utilities and across the City

Benefits

- Improved consistency and reduced redundancy across City efforts
- Simplified processes for customers
- Greater synergies in the water-energy nexus space

Example Actions

- Resource Conservation unification in Utilities
- Collaborate with efforts of Environmental Services, Planning, Natural Areas, Community Engagement, Nature in the City, Housing and Development, Parks, among others
- Partnerships with the neighboring water districts.

5.1.1 EVALUATION AND DEVELOPMENT

Each year existing activities will be evaluated and adjusted to ensure that they are performing well – both internally and externally – and that they are meeting our goals and objectives. Any new programs will be subject to a holistic vetting process, by bringing in internal stakeholders from other areas of the Utilities and the City to ensure consideration of multiple viewpoints and create organization-wide awareness and support for the new program.

Part of the support for existing new program development will stem from the Utilities' new Program Management Office, which is tasked with launching Utilities activities in a way that is well planned, well-resourced and sustainable. New programs will be developed through a process that includes several key stages. New programs will need clearly stated goals and objectives. Models will be developed to test the viability of the proposed program in meeting water savings and other goals. These models will likely lay the groundwork for metrics that will measure the effectiveness of the programs. Once a proposed process starts to become clear, risk assessment and a business case will be developed to strengthen and validate the proposed conservation program or activity. Proposed processes will be mapped and documented and roles of staff will be assigned. Internal and external stakeholders will be engaged to ensure consideration of multiple viewpoints, create organization-wise awareness and support for the new program, and to make sure the program is supported by our customers.

The programs that ultimately are implemented will be a function of the budgeting process. The City of Fort Collins uses a Budgeting for Outcomes (BFO) approach, which is based on the premise of prioritizing funding for results, rather than focusing on funding inputs and costs. This method shifts the focus from paying for costs to buying results, and emphasizes accountability, innovation, and partnerships. This is a two-year cycle, with the next preparation phase starting in 2016 for the 2017-18 budget cycle. In order to fund new water efficiency programs, we will need to show that the program can deliver results. These results most importantly include improved water efficiency and sustained water savings.

5.2 MONITORING

We cannot monitor or improve what we do not measure. The benefits of monitoring include:

- Feedback as to whether or not conservation activities are affecting change.
- Identification of programs that might not be cost-effective relative to other programs or to developing new supply.
- Clarity of alignment with goals and if a given program warrants expansion, modification or termination.
- Improvement of modeling of supply needs.
- Illustration of savings by various customer segments
- Tracking of participation based on customer class and other factors to help verify programs are accessible to all types of customers
- Prioritization of program development funding and expansion

While the main goal of this plan is identified in terms of GPCD (a common metric used throughout the water industry that captures community water use changes at a high level) we intend to also focus on more specific and targeted measures. This is further discussed in Chapter 3.

In addition to what is discussed in Chapter 3, tracking measures may include but are not limited to:

- Water savings estimates with breakdowns by seasonal vs. baseline, consumptive vs. non-consumptive, treated vs. raw
- Direct and indirect energy savings associated with water saved
- Landscape changes, including the amount of irrigated landscape; annual amount of audited landscape
- Total participation in programs and events, number of new participants, types of participants – including type of customer based on customer class, sociodemographic categories, geographic location, etc.
- Customer use of the Monitor My Use web portal, mobile, and other online tools and alerts
- How effectively events, educational and informational strategies lead customers to participate in a program; if participation in one program leads to participation in other programs

6.0 CHAPTER 6: ADOPTION, PUBLIC REVIEW AND FORMAL APPROVAL

6.1 ADOPTION OF NEW POLICY

6.1.1 ON OCTOBER 13, 2015, THE CITY OF FORT COLLINS CITY COUNCIL REVIEWED THIS DOCUMENT DURING A WORK SESSION. THE PUBLIC COMMENT PERIOD WAS THEN OPEN FROM NOVEMBER 2, 2015 TO JANUARY 15, 2016. ON MARCH 1, 2016 THE CITY OF FORT COLLINS CITY COUNCIL APPROVED AND ADOPTED THIS PLAN.

6.2 PUBLIC REVIEW PROCESS

Community Leader Involvement in Efficiency Plan Development: Communication with community leaders was a critical component for soliciting ideas and developing consensus to support public review process and the Efficiency Plan as a whole.

A Technical Advisory Group was convened with the purpose of exploring options for conservation and issues related to conservation. The group included Water Board members and Utilities' staff as well as staff from the City of Fort Collins' Environmental Services Department:

- Adam Jokerst, Water Resources Engineer
- Alexander Maas, Water Board Member
- Brett Bovee, Water Board Member
- Carol Webb, Water Resources and Treatment Operations Manager
- Donnie Dustin, Water Resources Manager
- Josh Birks, Economic Health Director
- Katy Bigner, Environmental Planner
- Lance Smith, Strategic Financial Planning Manager
- Laurie D'Audney, Water Conservation Manager (retired)
- Lea Pace, Water Conservation Intern
- Lisa Rosintoski, Utilities Customer Connections Manger
- Michelle Finchum, Community Engagement Specialist
- Peter Mayer, Water DM
- Randy Reuscher, Utility Rate Analyst
- Rebecca Hill, Water Board Member
- Renee Davis, Water Conservation Specialist
- Steve Malers, Water Board Chair
- Tiana Smith, Customer Accounts Manager
- Tim Buchanan, City Forester

This group met for seven meetings, with each meeting focusing on a specific topic. The topics were:

- Meeting 1: Water supply & storage; potential water efficiency goals
- Meeting 2: Scenarios based on water efficiency goals
- Meeting 3: Commercial impacts; current and potential conservation activities
- Meeting 4: Revenue effects from lower demand
- Meeting 5: Tree and landscape impacts; landscape survey results
- Meeting 6: Scenarios based on water efficiency goals, identification of conservation activities.
- Meeting 7: Continued identification and discussion of conservation activities.

The Technical Advisory Group not only heard for expert City staff, but also provided input on potential metrics and possible conservation activities. A member of this group also instigated the creation of a figure to help the public understand where water is used and possible points of improved efficiency.

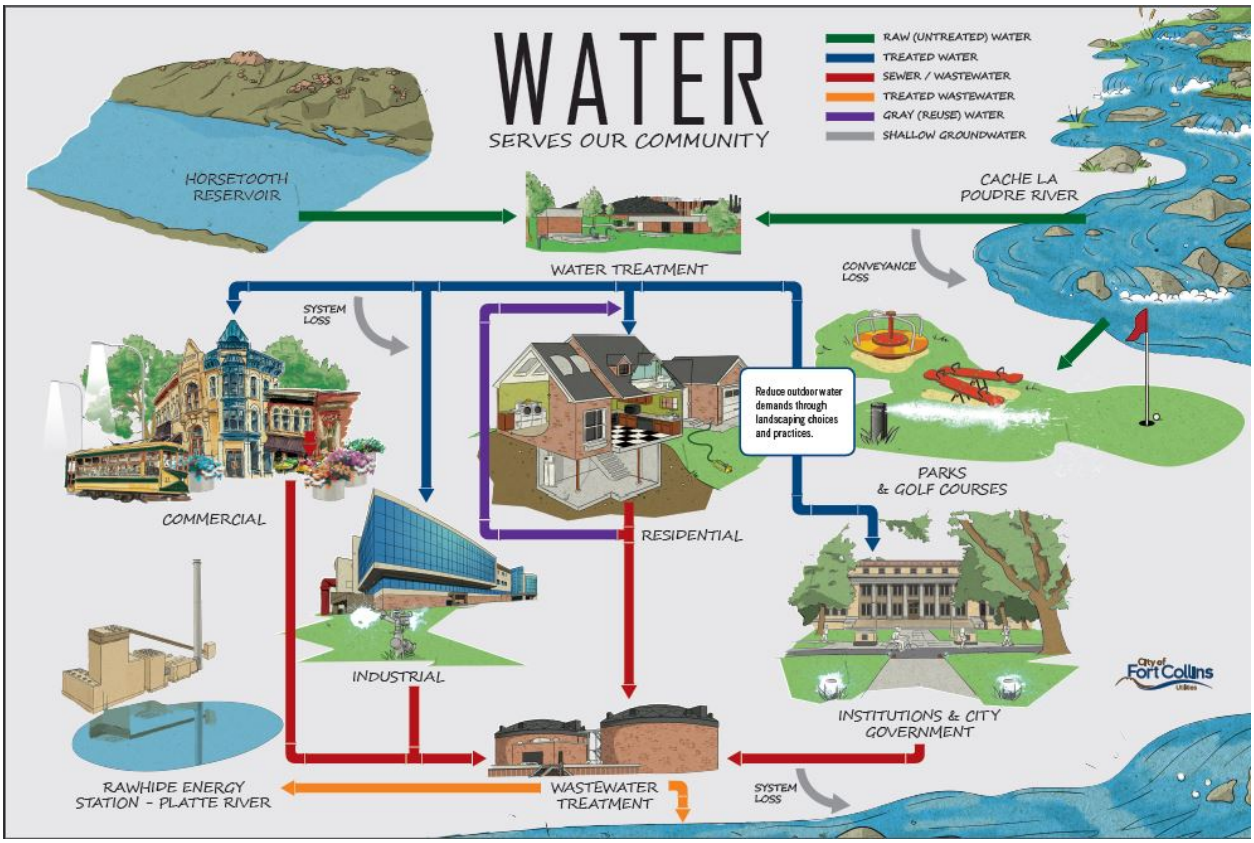


Figure 3 Diagram of Water Sources, Key Infrastructure and Customers

Public Engagement

Communication with the public was done through several channels. The public comment period was open from November 2, 2015 to January 15, 2016. This involved a survey and public comment forum on a Utilities website with the draft of the Plan. Posters were hung around town and we ran social media ads to encourage visits to the website. 11 people provided extensive comments via the online forum.

398 unique people visited the website during this period, though social media had thousands of impressions on viewers so thousands of people are at least aware that the Plan is being updated.

Planners worked in collaboration with CSU's Center for Public Deliberation at a community issues forum in April 2015. This meeting had diverse topics on the agenda and as such provided broad outreach. This was a good chance to engage beyond the usual water-focused audiences.

The Coloradoan, the local Fort Collins newspaper, published the article "Rate changes among water conservation strategies" on November 15, 2015. This article detailed the various approaches to water conservation in the draft Water Efficiency Plan. It also encouraged readers to learn more and provide input during the public comment period. 12 people commented on the Plan through the Coloradoan online comment forum.

The public was also engaged through presentations to various city advisory boards. This effort connected the plan to the public through board members as well as City departments that have a stakeholder role. Boards visited include:

- Water Board work session, April 2, 2015 and October 1, 2015
- Energy Board work session, June 4, 2015
- Planning and Zoning work session, June 5, 2015
- Parks and Recreation Board, June 24, 2015.
- Natural Resources Advisory Board, July 15, 2015 and October 21, 2015.

In addition, we reached out to Economic Advisory Commission and the Land Conservation Stewardship Board. These boards felt our plan was outside their scope, but expressed that if Council directed, they would welcome a presentation.

Local business groups and organizations were also targeted for outreach.

- Associated Landscape Contractors of Colorado, September 10, 2015
- Rocky Mountain Fly Casters, a local chapter of Trout Unlimited, September 16, 2015
- Save the Poudre, October 1, 2015.
    - Save the Poudre member Gary Wockner provided a formal public comment memo to City Council on January 15, 2016.
- Key Accounts semi-annual meeting, November 4, 2015. A follow-up email encouraged commercial and industrial Utilities customers to visit the website and take part in the public comment period.
- Poudre Heritage Alliance, November 18, 2015. An electronic copy of presentation was made available to the group with a request to distribute to their board.
- Downtown Development Authority, materials requested for the January 20, 2016 in lieu of a presentation (presentation originally scheduled for their December 10 meeting, but would have had to have been pushed to a meeting beyond the March City Council session).
- Northern Colorado Home Builders Association's newsletter carried information and a link to the online survey.
- Odell Brewing Company, January 13, 2016
- State Senator Kefalas, January 22, 2016

6.3 6.3 LOCAL ADOPTION AND STATE APPROVAL PROCESSES

6.3.1 THIS PLAN WILL BE PRESENTED AT A FORT COLLINS CITY COUNCIL WORK SESSION IN OCTOBER 2015 AND AGAIN AT A REGULAR SESSION IN MARCH OF 2016. AT THE REGULAR SESSION, FORT COLLINS CITY COUNCIL ADOPTED THE PLAN. FURTHER SUPPORT FROM CITY COUNCIL WAS DEMONSTRATED IN THE 2016 BUDGETING PROCESS WHEN THE COUNCIL PRIORITIZED ADDING ADDITIONAL STAFF. THE PLAN WAS SENT TO CWCB FOR APPROVAL IN JANUARY 2017.

6.4 6.4 PERIODIC REVIEW AND UPDATE

Progress towards the 130 gpcd by 2030 goal will be monitored annually. The water efficiency plan will be reviewed annually during the drafting of Water Conservation's annual report. This report is submitted to Fort Collins Utilities' Water Board for review. An updated water efficiency plan will be developed no later than 2024 (7 years from the anticipated CWCB 2017 submission date).

GLOSSARY

1-in-50 Year Drought Criterion - criterion adopted in the current Water Supply and Demand Management Policy that defines the level of risk for the City's water supply system; a drought is a period of below average runoff that can last one or more years and is often measured by its duration, average annual shortage and cumulative deficit below the average; a 1-in-50 drought corresponds to a dry period that is likely to occur, on average, once every 50 years; although the Poudre River Basin has several drought periods in its recorded history, it is difficult to assess whether any of these droughts were equal in magnitude to a 1-in-50 drought; the 1985 Drought Study developed the 1-in-50 drought used in assessing the Utilities water supply system; this drought period is six years long and has a cumulative deficit of 550,000 acre-feet, which represents annual river volumes that are about 70% of the long-term average for the Poudre River; see also "Statistically Based Drought Analysis"

Acre-Foot or Acre-Feet (AF) - volume of water equal to about 326,000 gallons; one acre-foot can supply around three to four single family homes in Fort Collins per year; for storage comparison the maximum volume of Horsetooth Reservoir is about 157,000 acre-feet

Active Capacity - the usable capacity of a reservoir for storage and regulation of inflows and releases that does not include any capacity below the reservoir's lowest outlet (which is known as dead capacity)

Carryover - used in reference to storage; it is the ability to save water in storage for use at a later time, most notably in following years

Colorado-Big Thompson (CBT) Project - a Bureau of Reclamation project that brings water from the Colorado River basin to the east side of the continental divide via a tunnel and the Big Thompson River to several locations including Horsetooth Reservoir; operated by the Northern Colorado Water Conservancy District (or Northern Water); Fort Collins Utilities currently owns 18,855 units of the 310,000 total units in the CBT project

Direct Flow Rights - water rights that can be taken for direct use, as opposed to storage rights that can be taken for later use; see also "Senior Water Rights"

Drought Criterion - The drought criterion states that in a 1-in-50 year drought the Utilities should be able to meet the planning demand level. This is an important criterion because not only will demands often be higher in drought periods due to less precipitation, water supply systems generally will also yield less water. The Utilities has used a 1-in-50 year drought criterion since the original 1988 Water Supply Policy.

ELCO - short for East Larimer County Water District

Evapotranspiration - the combination of the water lost (evaporate) to the atmosphere from the ground surface, evaporation from the capillary fringe of the groundwater table, along with the plant transpiration, which is evaporation of water from plant leaves. Evapotranspiration is affected by temperature, relative humidity, wind and air movement, soil moisture availability, and the type of plant. For more information see: http://water.usgs.gov/edu/watercycleevapotranspiration.html

FCLWD - short for Fort Collins-Loveland Water District

Firm Yield - a measure of the ability of a water supply system to meet water demands through a series of drought years; for the Fort Collins Utilities, this means being able to meet the planning demand level and storage reserve factor through the 1-in-50 year drought criterion; see also “1-in-50 Year Drought Criterion”, “planning demand level” and “storage reserve factor”

GMA – short for Growth Management Area, which is the planned boundary of the City of Fort Collins’ future City limits

GPCD - short for gallons per capita per day; a measurement of municipal water use; for the Fort Collins Utilities, GPCD is calculated based on the total annual treated water produced at the Water Treatment Facility for use by all Water Utility customers (minus large contractual customers and other sales or exchange agreements) divided by the estimated population of the Water Utility’s service area and 365 days

Legal Return Flows or Return Flow Obligations - refers to legal requirements when changing water rights from agricultural to municipal use; this process requires obtaining a decree from Colorado Water Court that involves detailed analysis of the historic agricultural water use, including the water diversions, amount used by the crops, and the return flow patterns of the water not used by the crops; terms in the decree to prevent municipalities from taking more water than was historically taken and replacing return flows in the right amount, location and time to prevent injury to other water rights

LiDar: This is a remote sensing technology that can be used in large-scale landscape analysis.

Northern Water or NCWCD - short for Northern Colorado Water Conservancy District (NCWCD); Northern Water operates the Colorado-Big Thompson (CBT) Project and is involved in several other regional water projects on behalf of their participants; see also “Colorado-Big Thompson (CBT) Project”

NPIC - short for North Poudre Irrigation Company; an irrigation company that supplies water to farmers north of Fort Collins and is the owner of all water currently stored in Halligan Reservoir

Planning Demand Level - level of water use (demand) in GPCD used for water supply planning purposes that is a factor in determining the amount of water supplies and/or facilities needed; see also “GPCD”

RWR – short for Raw Water Requirements, which requires new development to turn in water rights or cash-in-lieu of water rights to support the water needs of that development; cash is used to increase the firm yield and long-term reliability of the Utilities’ supply system (e.g., purchase additional storage capacity)

Senior Water Rights - refers to Colorado water law’s use of the “prior appropriation” or priority system, which dictates that in times of short supply, earlier water rights decrees (senior rights) will get their water before others (junior rights) can begin to use water, often described as “first in time, first in right”

Storage Reserve Factor - refers to a commonly used engineering principle in designing water supply systems to address short-term supply interruptions; as defined in the Water Supply and Demand Management Policy, the storage reserve factor incorporates having 20 percent of annual demands in storage through the 1-in-50 drought which equates to about 3.5 months of winter (indoor) demands or 1.5 month of summer demands

Water Rights Portfolio - the mix of water rights owned by a water supplier; typically includes water for direct use, as well as for storage for later use; for the Fort Collins Utilities, includes City owned water rights, owned and/or converted shares in agricultural rights, storage rights at Joe Wright Reservoir, and ownership in the CBT project

WSDMP - short for Water Supply & Demand Management Policy, which provides Fort Collins Utilities guidance in balancing water supplies and demands

Yield or Water Rights Yield - refers to the amount of water that is produced from a water right; the yield of water rights vary from year to year depending on the amount of water available (i.e., low or high river runoff) and the priority of the water right; see also “Firm Yield” and “Senior Water Rights”.

APPENDIX A: MATERIALS RELATED TO CHAPTER 1

The following are descriptions of the various water supplies currently in the Utilities water supply portfolio:

Poudre River Basin Water Rights:

- Senior Direct Flow Decrees: The City has five very senior direct flow decrees on the Poudre River that are available to the City most of the time. Only in very severe dry periods are the diversions limited.
- Junior Direct Flow Decrees: These junior rights are only in priority during the peak runoff period when most of the other rights on the Poudre River have been satisfied. In dry years, the City may not be able to divert anything under these rights.
- Pleasant Valley and Lake Canal Shares: The City owns a substantial portion of the shares in this mutual irrigation company. The amount of water the City is entitled to divert to meet treated water demands depends on the number of shares the City designates for such use and which priorities owned by the irrigation company are in priority during the season.
- Southside Ditches: The City owns shares of stock in the Arthur, Larimer No. 2, New Mercer and Warren Lake irrigation companies, often referred to as the Southside Ditches. With 13 separate priorities, yields vary considerably from year to year. Much of the yield comes from a couple of large junior rights and normally only yields during the high runoff months of May and June.
- Michigan Ditch and Joe Wright Reservoir System: This system consists of a ditch that diverts water from the Michigan River drainage across the divide into the Poudre River Basin, Joe Wright Reservoir and storage capacity in Meadow Creek Reservoir. Joe Wright Reservoir includes about 6,500 acre-feet of active storage and is the only storage facility owned and operated by the City. There are usually periods during the peak runoff season in which the reservoir is full and Michigan Ditch water is available if it can be taken directly to meet demands. Joe Wright Reservoir is used primarily to regulate the annual Michigan Ditch flows and has limited carryover capacity to provide drought protection for the City. The City also has storage capacity in Meadow Creek Reservoir, which is used to release water to downstream senior rights on the Michigan River.
- Water Supply and Storage Company Shares**:** The City owns about 27 shares in this irrigation company. Since the City-owned shares are not presently decreed for municipal use, this water is usually rented back for agricultural use.

Colorado-Big Thompson Water System:

- Horsetooth Reservoir: Water from Horsetooth Reservoir, a part of the C-BT Project, can be delivered to the City's water treatment facility or to the Poudre River. The following sources are available for use from Horsetooth Reservoir.
- Windy Gap Water**:** The City receives Windy Gap water from Platte River Power Authority (PRPA) as payment for 4,200 acre-feet of reusable effluent made available to PRPA by the City. The reusable effluent is the result of a Reuse Plan that involves the City, PRPA, and the Water Supply and Storage Company (WSSC). The 4,200 acre-feet of Windy Gap water is dedicated for large contractual use that requires reusable water. As part of the Reuse Plan, the City is required to deliver 1,890 acre-feet of single use water to the WSSC.
- North Poudre Irrigation Company (NPIC) Shares**:** The City currently owns about 3,564 shares of NPIC. Each share consists of native water supply (which is primarily decreed for agricultural use)

and 4 units of C-BT water. Unless the agricultural portion of each share is changed for municipal purposes, the City can only use the C-BT portion of the shares to meet treated water demands.

- West Fort Collins Water District (WFCWD) Water**:** Through an agreement with the WFCWD, the City provides treated water to their customers and in return, gets reimbursed with an equivalent amount of C-BT water. In recent years, the amount transferred to the City has been about 500 acre-feet each year.

APPENDIX B: MATERIALS RELATED TO CHAPTER 2

Table: Collected Service Area Trends, 2001-2014

Year	Service Area Population	Annual Water Use (MG)	Average Day Use (MGD)	Actual Use (GPCD)	Normalized Average Use (GPCD)	Peak Day Use (MGD)	Actual Peak Day Use (GPCD)	1 in 50 Normalized Peak Day Use	Annual Precipitation (inches)	ETos Grass Tot (in)
2001	121,300	9,978	27.3	198	198	55.8	428	503	12.3	45
2002	123,700	9,599	26.2	183	189	51.4	378	411	9.3	47
2003	125,500	8,280	22.6	154	157	46.9	346	383	18.2	49
2004	125,800	7,984	21.8	146	150	42.3	307	327	18.1	44
2005	126,900	8,497	23.3	155	155	50.1	365	363	16.2	49
2006	127,800	9,268	25.4	172	156	48.9	353	350	11.2	51
2007	128,400	8,860	24.2	162	156	47.5	342	356	13.7	44
2008	128,700	8,352	22.8	153	153	44.3	321	333	13.8	50
2009	128,900	7,391	20.2	135	147	37.1	265	304	21.9	46
2010	129,000	7,830	21.4	146	144	40.8	295	323	14.1	48
2011	129,100	7,621	20.8	141	144	39.7	285	289	17.8	49
2012	129,200	8,757	23.9	165	152	46.8	342	315	10.8	54
2013	129,300	7,560	20.7	141	147	43	312	303	18.8	47
2014	130,200	7,437	20.4	139	143	37.2	269	288	16.7	47

The following are descriptions of the Current Water Conservation Program Activities, along with the first year of full implementation.

Foundational Activities

- Conservation-oriented rate structures (2003) – Tiered rates (increasing block rate structure). There are currently three tiers for residential single-family and duplex customers, one tier for multi-family units, and two tiers and commercial customers.[41]
- Continuous Consumption program (2015): this program developed a data query that checks the meter data for meter readings that have continuously remained above zero for 72 hours. Customers with the highest continuous flow rates are contacted to make them aware of the continuous consumption and the likely leak. Staff troubleshoots with the customer to try to find the source of continuous use.
- Metering (2003): Commercial and multi-family units have been metered for decades; the Utilities fully metered residential customers by 2003. The Utilities transitioned to advanced metering infrastructure (AMI) in 2014, known as Advanced Meter Fort Collins (AMFC) The data resolution is hourly intervals for water and 15-minute intervals for electric.
- Monitor My Use (2014): this web-based portal was developed to provide customers near-real time access to their historical and current electric and water usage and costs. The portal also provides comparisons to the previous bill period, and illustrates which tier you are currently in. There are alert-based features that a customer can use to provide automatic notifications when they reach a certain usage level or cost level.[42] A mobile version was launched in December 2014.
- Online water use calculator (2012): Customers can use an online calculator with their household parameters and historic water consumption to identify ways to improve efficiency and reduce use.[43]
- Seasonal rate structures (2003): Multi-family and commercial customers face higher rates from May through October.
- Utility water loss program (1993): Sonar equipment is used to listen for leaks in the water mains and pinpoint their locations. Crews monitor water leaks on an ongoing basis, with a two-year cycle to survey all water mains. Catching leaks before they have surfaced saves water and costs of excavation and repairs, and supports the wasting water ordinance.

[41] For the most current residential rates see: http://www.fcgov.com/utilities/residential/rates/water. Multi-family units are often not sub-metered and instead have a base charge which varies by the number of dwelling units. Commercial customers' rates are based on the size of the meter; this includes the base charge, the volumetric charge, and the volume above which customers face the second-tier rates. See http://www.fcgov.com/utilities/business/manage-your-account/rates/water for the most current rates.

[42] This tool is only available for residential customers. Commercial customers currently have access to a different tool called MV Web and the Utilities is exploring new methods and systems to address commercial customers' needs.

[43] Currently, the Utilities' website provides a link to the following website developed by the Alliance for Water Efficiency: http://www.home-water-works.org/

Targeted Technical Assistance and Incentives

- Commercial custom rebates (2011): offered for any technology (e.g. cooling tower conductivity control, leak detection and repair, fixture replacement, etc.) that has a documented water savings from the current equipment.
- Commercial facility assessments (2004): facility audits are performed to assess water and energy use and make recommendations for improved efficiency. During these assessments, low-flow aerators are installed at no cost to the business.
- Home efficiency audits (2009): residential customers are offered an energy and water audit of their home to identify equipment and actions that can improve efficiency for a small fee. Faucet aerators and showerheads are installed at the time of the audit.
- Home efficiency loans/on-bill financing (2010): this program offers a low cost, no-money-down financing option for up to 20 years. Loans are conveniently repaid by the customer through their monthly utility bill.
- Indoor Appliance and Fixture Rebates (residential and commercial):
    - Clothes Washer (2003): Available for eligible EnergyStar labeled clothes washers.
    - Dishwasher (started 2007): Available for eligible EnergyStar labeled dishwashers.
    - Toilet (2010): Available for eligible WaterSense labeled toilets and urinals.[44]
    - Showerhead (2011): Available for eligible WaterSense labeled showerheads.
    - Outdoor Equipment Rebates (residential and commercial):
    - Sensors (rain, soil moisture), high-efficiency nozzles, pressure-reducing heads, pressure regulators, and smart irrigation controllers
- Low income retrofit program (2007): provides low income single- and multi-family households with toilet, showerhead and faucet aerator retrofits. This work is often done in partnership with Larimer County Conservation Corps.
- Restaurant pre-rinse spray valve distribution (started 2011): low flow pre-rinse spray valves (to rinse trays of dishes prior to washing them) are installed at no charge for restaurants and other food service operations.
- Sprinkler system audits (1999): audits are offered to homeowners and homeowner associations to help them improve sprinkler system efficiency.
- Xeriscape design/incentive program (2010): provides homeowners a one-on-one consultation with a landscape design professional for a small fee.

[44] The toilet rebate program also includes a mandatory toilet recycling component. The porcelain from recycled toilets is used by the Streets Department as a road base.
http://www.fcgov.com/utilities/residential/conserve/water-efficiency/toilet-rebates/toilet-recycling

Educational Activities

- Business education programs (2004): Programs are offered to commercial customers on a variety of environmental topics, including water conservation. Staff provides newsletters, mailings, meetings and seminars on topics of interest to specific businesses, such as restaurants, hotels, car washes, landscapers, and key accounts.
- Community education programs (1977)[45]: These programs include the Educators' workshops, contractor trainings, and partnerships to put on other events like the Residential Environmental Program Series. The Utilities also conducts educational programs about Xeriscape landscaping, watering techniques and practices and general water conservation. A daily Lawn Watering Guide is published in the Fort Collins Coloradoan and on the City's website during the watering season.
- Conservation kit giveaways (1990): Free conservation kits with indoor and/or outdoor water-saving devices and information are offered periodically to customers during events.
- Conservation public information efforts (1977): Information is disseminated via bill inserts, bus benches, billboards, events, newspaper articles, TV and radio announcements, Utilities website information, social media, and more. The team also serves as technical experts to help commercial customers with water use or billing questions. Displays are set up at several community events including the Sustainable Living Fair, Harvest Festival, Business Innovation Fair and many others.
- Home Water Reports (2014): These reports are delivered to a portion of customers on a bi-monthly basis. The reports provide households with information on their current water use and comparisons to historical use as well as similar households' use.[46]
- Hotel and restaurant conservation material distribution (2003): A three-card set is available for hotels and other lodging establishments to inform guests about importance of water conservation to our area and to encourage the reuse of towels and linens. Tent cards are available for restaurants telling customers that "water is served upon request."
- K-12 education programs (1977): Presentations and hands-on activities are provided to school classes on water topics, including the history of water in Fort Collins, water use and conservation, water chemistry and watersheds. Fort Collins Utilities is a co-sponsor of the annual Children's Water Festival.
- Watershed tours (2012): Educational bus tours of the Utilities' Cache la Poudre watershed; involves information about drinking water, protection of water resources, water quality, and managing urban watersheds.
- Xeriscape Demonstration Garden (1986): Staff oversees maintenance of the City's Xeriscape Demonstration Garden and provides tours at organized events and upon request. We are also partnering to support various demonstration gardens and other events at the Gardens on Spring Creek.[47]

[45] http://www.fcgov.com/utilities/community-education

[46] The Utilities implements a similar program (Home Energy Reports) for electric customers.

[47] http://www.fcgov.com/gardens/

Ordinances and Regulations

- Green building codes (2011)[48]: Existing building codes include many elements that support green building; the code green amendments represent the next steps along the path of integrating green building practices into mainstream construction. These codes include a requirement for bathroom and kitchen faucet aerators, showerheads and toilets to not exceed the flow rates of WaterSense labeled fixtures.
- Landscape and irrigation standards (1994) - New development landscape and irrigation plans are reviewed for compliance with the Land Use Code's water conservation standards. As part of these standards, a rain shut-off device and a post-installation audit are required for commercial sprinkler systems.
- Parkway landscaping regulations (2013)[49] – The City updated the Streetscape Standards to include more flexibility to xeriscape the parkway, the strip of land between a residential street and the sidewalk.
- Plumbing standards (1978): All construction within the City of Fort Collins shall comply with the most recent International Plumbing Code, among other codes and standards.[50]
- Restrictive covenants ordinance (2003) – City Code prohibits homeowner association covenants from banning the use of Xeriscape or requiring a percentage of landscape area to be planted with turf, if the homeowner owns the property and pays for the water that irrigations the landscape.
- Soil amendment ordinance (2003): requires builders to amend the soil for new landscapes.
- Wasting water ordinance (1917) – staff enforces the section of the City Code that prohibits wasting water. Wasting water complaints are investigated. Complaints are used as an education tool, but enforcement by ticketing is also an option.[51]
- Water efficiency upgrades at City buildings (2010): The City is committed to building new City buildings to the LEED standards; including water efficiency upgrades. Audits are conducted at existing City facilities and upgraded water-efficient indoor fixtures and sprinkler system equipment are installed. The City has a sustainability goal to reduce municipal building water use (normalized to account for weather conditions), by 20% by 2020.[52]
- Water Supply Shortage Response Plan (2003): This plan has a series of measures to be enacted, including water restrictions, for various levels of water shortage.[53]

[48] http://www.fcgov.com/enviro/green-building.php
[49] http://www.fcgov.com/planning/streetscapedesign.php
[50] http://www.fcgov.com/building/codes.php

[51] City Ordinance No. 089, last updated in 2014.
[52] http://www.fcgov.com/sustainability/goals.php
[53] City Ordinance No. 088, last updated in 2014.

Other Activities

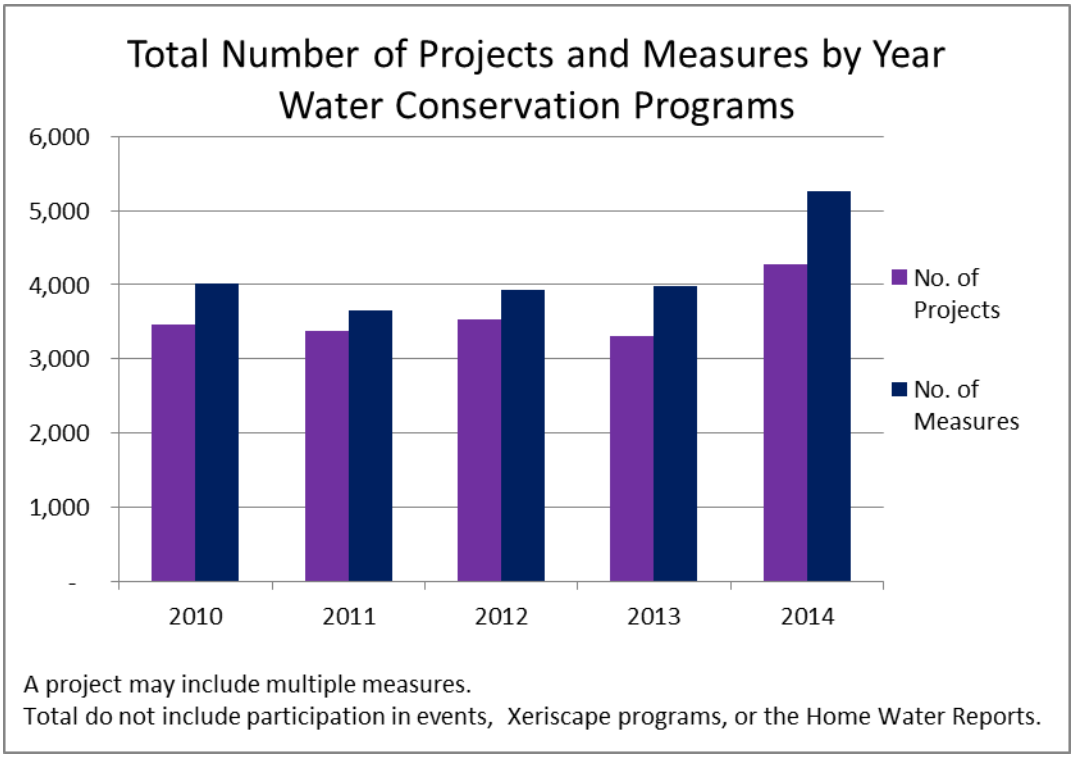
- Backwash water recycling (2003): Backwash water recycling equipment at the water treatment facility treats backwash water and recycles it to the beginning of the treatment process.
- Large customer reuse (1985) – Treated wastewater from the Drake Water Reclamation Facility is pumped to Rawhide Power Plant for landscaping and cooling water.
- Raw water for City irrigation: Raw water is used to irrigate the majority of the City's parks, cemeteries, and golf courses.[54]

Program Participation 2010-2014 (does not include event attendance)

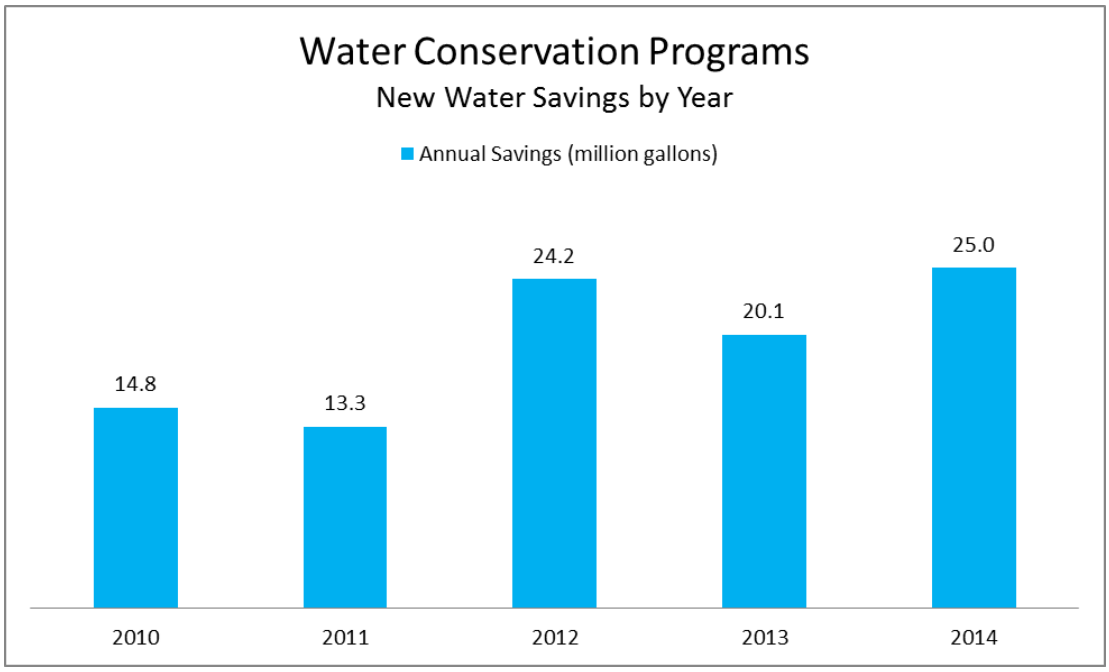
Program	2010	2011	2012	2013	2014
Clothes Washers	1249	1366	993	971	1058
Commercial Clothes Washer	--	--	0	1	0
Commercial Dishwasher	--	--	0	1	0
Commercial Facility Water Assessments	81	77	93	268	281
Commercial Kitchen Info Program	--	--	32 nozzles, 72 aerators	16 rebates, 79 items	--
Commercial Restroom	--	1	4 rebates; 443 items	16 rebates; 79 items	27 rebates; 249 items
Commercial Sprinkler Audits	2	1	0	0	0
Commercial Sprinkler Equipment	--	15	56 rebates; 964 items	35 rebates; 2266 items	12 rebates; 165 items
Custom Commercial Rebate	--	2	1	3 rebates; 14 items	0
Dishwasher	780	880	635	648	787
ELCO Audits	--	--	42	48	68
FCLWD Audits	112	82	67	94	97
Garden-in-a-box	--	68	63	74	--
HOA Sprinkler Audits	5	12	14	13	11
Home Efficiency Audits	466	519	592	683	662
Home efficiency loans/On-bill Financing	13	6	5	0	7
Home Water Reports	--	--	--	--	10,000
Irrigation Plan Review	11	42	44	49	69
Irrigation Site Inspection	21	24	28	34	52
Landscape Plan Reviews	29	49	54	73	59
Low Income Retrofit Program	--	250 homes	275 homes	275 homes	482 homes
Residential Sprinkler Audits	449	331	232	394	232
Residential Sprinkler Equipment	164	118	137 rebates; 170 items	108 rebates; 880 items	97 rebates; 135 items
Residential Toilet	479	573	912	651	1004
Showerhead	--	21	27	25	73
Xeriscape Design Clinic/Assistance	55	50	37	--	46

[54] Many of these properties have only ever been irrigated with raw water, thus the "start" date varies.

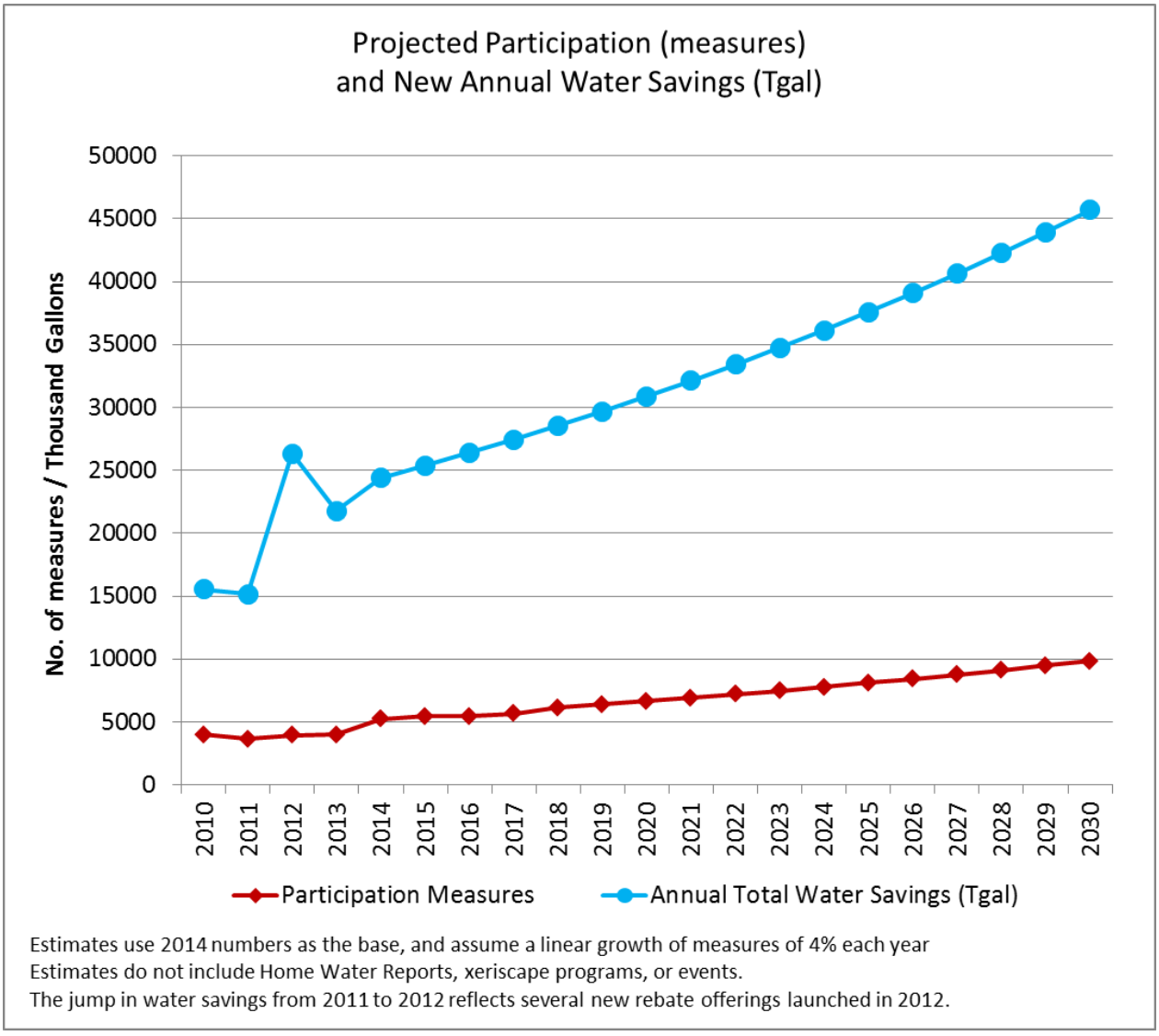
Below is a graph of the total number of projects and measures by year from 2010 to 2014.



Below is a graph of the estimated new annual water savings in million gallons. These totals do not reflect savings from Xeriscape programs, Home Water Reports, or events.



See below for a graph of projected participation (where participation here means total number of measures) and annual new water savings in thousand gallons, where the savings includes customer water use reductions as well as savings from treated less water and avoiding losses throughout the distribution system.



Estimates use 2014 numbers as the base, and assume a linear growth of measures of 4% each year
Estimates do not include Home Water Reports, xeriscape programs, or events.
The jump in water savings from 2011 to 2012 reflects several new rebate offerings launched in 2012.

APPENDIX C: MATERIALS RELATED TO CHAPTER 3

Water Efficiency and Conservation Activities and related actions support the following Strategic Objectives from the City's 2015-16 Strategic Plan.[55]

City of Fort Collins Strategic Objectives most relevant to Water Conservation Activities	
Key Strategic Outcome: Environmental Health	
	4.1: Improve and protect wildlife habitat and the ecosystems of the Poudre River and other urban streams.
	4.2: Achieve environmental goals using the Sustainability Assessment framework.
	4.6 Engage citizens in ways to educate and change behavior toward more sustainable living practices.
	4.7: Increase the community's resiliency and preparedness for changes in climate, weather and resource availability.
	4.8: Protect and monitor water quality, and implement appropriate conservation efforts and long-term water storage capability.
Key Strategic Outcome: Economic Health	
	3.5: Sustain high water quality to support the community and water-dependent businesses.
	3.6: Maintain utility systems and services; infrastructure integrity; and stable, competitive rates.
	3.7: Support sustainable infill and redevelopment to meet climate action strategies.
	3.9: Provide transparent, predictable and efficient processes for citizens and businesses interacting with the City.
Key Strategic Outcome: Community and Neighborhood Livability	
	1.3: Direct and guide growth in the community through appropriate planning, annexation, land use and development review processes.
	1.11: Maintain and enhance attractive neighborhoods through City services, innovative enforcement techniques, and voluntary compliance with City codes and regulations.
Key Strategic Outcome: Safe Community	
	5.10: Provide a high-quality, sustainable water supply that meets or exceeds all public health standards and supports a healthy and safe community.
Key Strategic Outcome: High Performing Government	
	7.4 Strengthen methods of public engagement and reach all segments of the community.
	7.6: Enhance the use of performance metrics to assess results.
	7.9: Improve productivity, efficiency, effectiveness, customer service and citizen satisfaction in all areas of the municipal organization.
	7.10: Implement leading-edge and innovative practices that drive performance excellence and quality improvements across all Service Areas.
	7.11: Proactively influence policy at other levels of government regulation.

[55] http://www.fcgov.com/citymanager/pdf/strategic-plan-2015.pdf

Water Efficiency Plan (WEP) Guiding Principles

Last updated October 2023

WEP Planning Process Guiding Principles

1. Complete the WEP update on time and on budget while optimally using resources.
2. Collaborate regionally, including other water service providers.
3. Engage marginalized community members and address systems of oppression, while also pursuing broad engagement.
4. Build and strengthen working relationships within the municipality and across the community, to better implement water efficiency strategies.
5. Align processes and outcomes with other City and Utilities priorities.

WEP Goal Setting and Efficiency Strategy Selection Guiding Principles

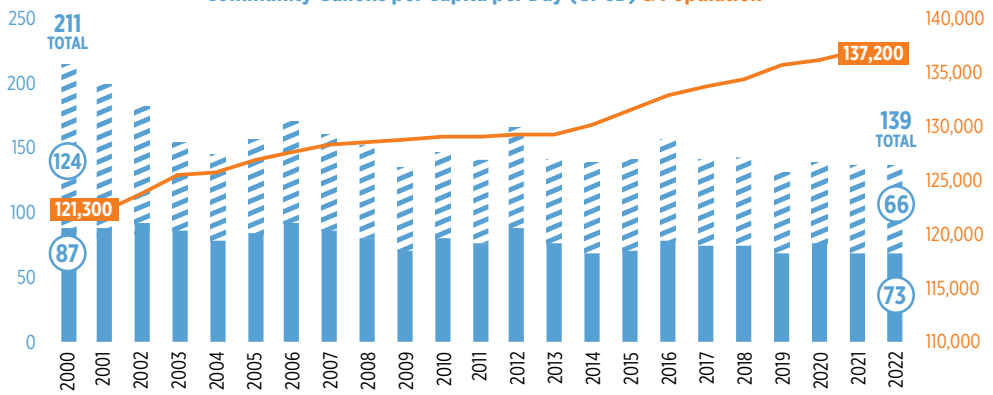
1. Reduce water demand to increase preparedness and resilience for ongoing and uncertain climate, economic, and social risks to our water availability.
2. Commit, as stewards of the City, to continue to be leaders in conservation and efficiency.
3. Create water efficiency strategies based on future supply and demand projections, of which the decision-making is data-driven, regionally adaptive, considers the triple bottom line and affordability.
4. Target water efficiency strategies that provide multiple benefits for the community, the environment, and consider the entire water system, including the river.

2022 WATER CONSERVATION ANNUAL REPORT

Fort Collins Utilities has a strong commitment to ensuring the efficient and responsible use of our natural resources. Our Water Conservation Program started in 1977 and we continue to innovate, providing ongoing and relevant water efficiency support to the community.

City of Fort Collins Utilities

Community Gallons per Capita per Day (GPCD) & Population



WATER CONSERVATION AND EFFICIENCY AT A GLANCE

GPCD is down 34% since 2000.

Based on total water treated.

Residential GPCD
Commercial GPCD
Population

WATER SAVINGS

Actions in 2022 resulted in 173.3 million gallons (MG) saved or 2% of 2022 total treated water.

2,140 homes' average annual water use was saved in 2022.

PROGRAMS AND SERVICES

RESIDENTIAL

Outdoor Water Use
- Shift Your Water: *2.6 MG*
- Landscape Conversions: *1.1 MG*
- Sprinkler Checkups: *0.2 MG*

TOTAL 3.8 million gallons

Indoor Water Use
- Efficient Product Installations (Larimer County): *2.7 MG*

TOTAL 2.7 million gallons

Combined Water Use
- Home Water Reports: *37.8 MG*
- Continuous Consumption (Leak) Notifications: *4.6 MG*
- Efficiency Rebates: *2.1 MG*

TOTAL 44.5 million gallons

RESIDENTIAL TOTAL 51

COMMERCIAL

TOTAL 19.4 million gallons

Outdoor Water Use
- Landscape Water Budget Program: *11 MG*
- Irrigation Rebates: *5.1 MG*
- Landscape Conversions: *3.4 MG*

TOTAL 3 million gallons

Indoor Water Use
- Efficient Product Installations: *2 MG*
- Efficiency Rebates: *1 MG*

TOTAL 99.8 million gallons

Combined Water Use
- Continuous Consumption (Leak) Notifications: *99.8 MG*

COMMERCIAL TOTAL 122.3

TOTAL ANNUAL SAVINGS: 173.3 million gallons

LEARN MORE:

Residential Efficiency Programs and Rebates: fcgov.com/save-water
Commercial Efficiency Programs and Rebates: fcgov.com/water-efficiency

MEASUREMENT MATTERS

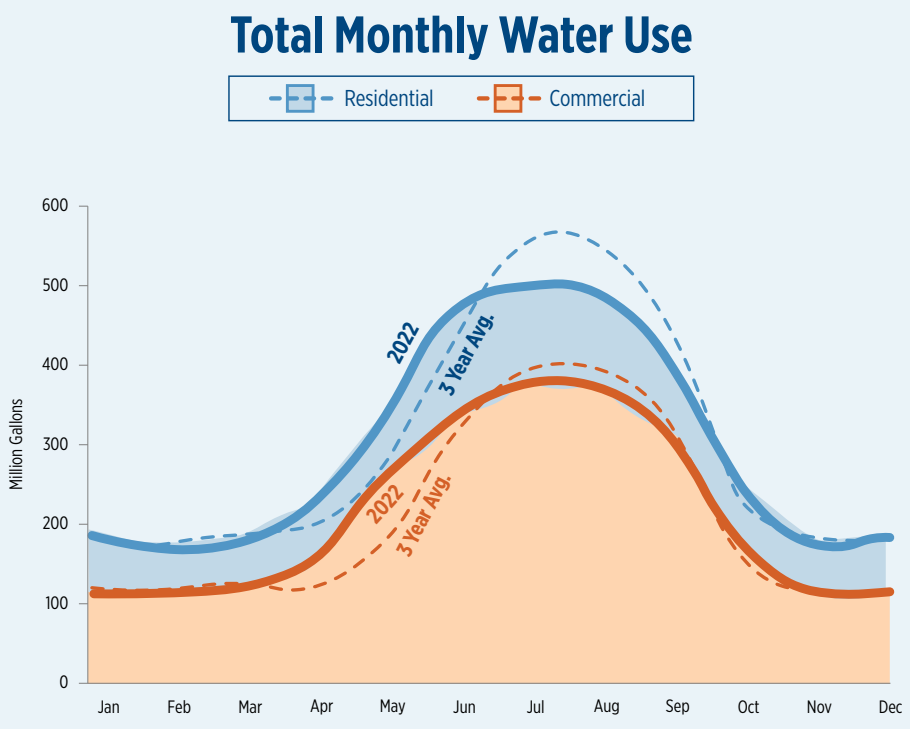
Utilities measures and tracks numerous water conservation metrics, including:

- Gallons per capita per day (GPCD) is the total treated water used for commercial and residential customers, divided by the service area population (about 70% of Fort Collins), and divided by 365 days. GPCD helps determine if conservation and efficiency efforts are impacting community water use regardless of population growth. GPCD fluctuates greatly with weather – hotter and drier months during the irrigation season create higher water demands for our community.
- Precipitation and temperature are evaluated to determine water is impacted by annual changes to climate.
- Estimated water savings from programs and services offered by the Water Conservation Program is another way to evaluate our efforts and impact on water use in Fort Collins Utilities Water Service Area. When possible, we use program participants' water use data to get the most accurate water savings estimates. This helps us monitor our efforts and determine which programs and services are the most effective at saving water.

WATER USE IN 2022

Overall water use in 2022 was very similar to previous years with a few differences to point out:

- Residential water use was down 1% and commercial water use was up 4% compared to a 3-year historical average (2019 – 2021).
- Residential and commercial water use trended 18% higher from April-June and 9% lower from July-Sept. compared to 2021 water use. This may be due to a drier spring (April-June) and wetter summer (July-Sept) in 2022 vs. 2021.
- 173 million gallons saved in 2022 is an 8% increase in estimated savings compared to 2021 (160 million gallons).
- Overall, Utilities customers used 139 gallons per person per day (GPCD), which is the same GPCD as 2021. This is a 34% reduction in GPCD since 2000. An additional 6.5% reduction is needed to meet Utilities' goal of reaching 130 GPCD by 2030.



AVERAGE YEARLY USE PER CUSTOMER CLASS:

Single Family & Duplex: 81,000 gal/yr
Multi-Family Building: 448,100 gal/yr
(includes multiple units)

Commercial: 906,350 gal/yr

AVERAGE YEARLY ACCOUNTS:

2022 Residential: 32,766 accounts
- 30,363 SF/Duplex accounts
- 2,403 MFR accounts.

2022 Commercial: includes 2,807 commercial and irrigation accounts

2022 Residential total water use:
3,540,000,000 gallons

2022 Commercial total water use:
2,540,000,000 gallons

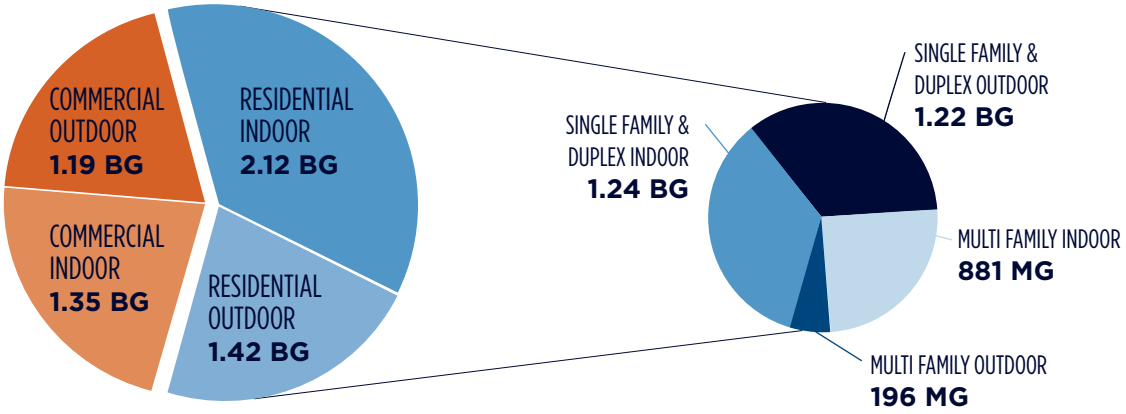
T IMPACTS WATER USE?

Water use constantly fluctuates – both individual and overall community use. Many factors impact how much water we use, including:

- **Conservation Behavior:** Different behaviors, such as how long and how often people shower, water lawns, and leave faucets running when brushing teeth or washing hands impact both individual and community water use. Businesses also impact water use through their daily practices and production processes.
- **Efficient Fixtures/Appliances:** Homes and businesses that have water-efficient appliances, fixtures, irrigation equipment and technologies use less water.
- **Leaks:** The average US household wastes 10,000 gallons of water, or about 12% of the total average household water use, every year. Leaks are often silent and go unnoticed, like the ones in your irrigation system, toilet or dripping showerhead. If leaks were found and fixed, the average water bill would be 10% less and Fort Collins Utilities would save hundreds of millions of gallons each year.
- **Weather:** is a significant factor in how much water we use outdoors on our landscapes and to a lesser extent, how much water larger businesses use for cooling towers. Hotter and drier weather, resulting from climate change, makes water-wise landscapes and efficient cooling towers a critical strategy for managing resilient and sustainable water demand.
- **Population:** The more people in a household and community, the greater total water use.
- **Land development patterns and urban design:** Less dense developments that include more landscaped areas require more water for maintenance. Landscapes that are not regionally adapted or native to our area, such as turf grasses, require more water than nature provides. The development choices we make can impact water use for many years. Parkways, medians, parks and other green spaces also impact community water use. Choosing the right landscape for the right purpose and using water-wise plants avoids costly landscape retrofits in the future.

OUTDOOR WATER USE (COMMERCIAL + RESIDENTIAL) IS 43% OR 2.61 BG.

BG = Billion Gallons



2022 WATER CONSERVATION PROGRAM HIGHLIGHTS

- **Shift Your Water:** The 2nd year of Shift Your Water was more successful than 2021, with 918 households pledging to stop irrigating their grass by Oct. 1, saving an estimated 2.6 million gallons of water.
- **Graywater:** A permit process allowing graywater in all development types for toilet flushing water only was developed and adopted by Council city-wide.
- **Continuous Consumption:** Utilities sends notifications to all customers who have ongoing water use, every hour for 24 hours or more. These notifications inform customers on how to check for and resolve leaks. In 2022, 3,410 notifications were sent to residential customers and 7,946 to commercial customers, which saved an estimated 104.6 million gallons of water.
- **Stopping water waste:** If irrigation equipment breaks or sprays excessively, water runs onto streets and sidewalks. When someone in the community identifies water being wasted, they can notify the Saving Water Hotline (fcgov.com/saving-water-hotline) to resolve the issue. In 2022, Water Conservation responded to 98 water-wasting incidents.
- **Plumbing efficiency standard changes:** The adoption of increased efficiency codes for toilets and public bathroom faucets and more efficient and compact plumbing systems, which wastes less water by minimizing the need to flush cold water from pipes before getting hot water to each fixture.
- **Record-breaking year for Xeriscape:** The annual Xeriscape Garden Party saw over 700 attendees, providing numerous educational opportunities and over 2000 plants for attendees to take home and plant in their gardens. The residential Xeriscape Incentive Program saw 94 completed projects, 35% more than in 2021.

IN 2023, WE'RE FOCUSED ON

- **Water Shortage Preparation:** Utilities, local experts and industry partners continue to monitor Colorado River conditions and the federal and state discussions addressing the ongoing drought. Utilities gets half of its water from the Colorado-Big Thompson Project, which is stored in Horsetooth Reservoir and managed by Northern Water. If Colorado-Big Thompson Project water supplies were to be interrupted, Northern Water would determine if, when, and how much Utilities' supply would be reduced. If needed, Utilities will respond to shortages following the steps set in the Water Shortage Action Plan (fcgov.com/wsap).

- **Landscape and Irrigation Training:** There are many landscape transformation projects happening in Fort Collins with a focus on replacing high-water use areas with water-wise landscapes. Along with these projects, there is a need to ensure new landscapes are successful, attractive and water efficient. What goes into the ground is only part of the water savings equation- the other critical factor is behavior and practice.

  Providing discounted educational and certification opportunities for our community's landscape professionals can help increase the water-saving potential of these landscape conversions.

- **Xeriscape and Soil Amendment Codes (fcgov.com/xsa):** Council has an identified priority to increase xeriscaping and address soil amendments in all types of new and redeveloped properties. Utilities Water Conservation Team is leading this effort with engagement opportunities for the public to provide input on the following proposals:
  - Limit cool-season grass (turf) in new development and redevelopment.
  - Expand irrigation efficiency standards.
  - Increase flexibility, compliance and enforcement in existing soil amendment code.

- **Water Efficiency Plan Update:** The Water Efficiency Plan (fcgov.com/wep) was last updated in 2015 and outlines water conservation goals and strategies. This year's update aims to integrate water and land use planning and incorporate climate change modeling, equity and resilience into future plans and goals.

City of Fort Collins Utilities

LEARN MORE:

Water Efficiency Plan: **fcgov.com/water-efficiency-plan**

23-25044

2-13-2024

Fort Collins Utilities Water Efficiency Plan (WEP)

City Council Work Session

Mariel Miller
Water Conservation Manager

Alice Conovitz
Water Conservation Specialist

estions for Council

1. What is Council's vision for the WEP and how it addresses water conservation and efficiency?

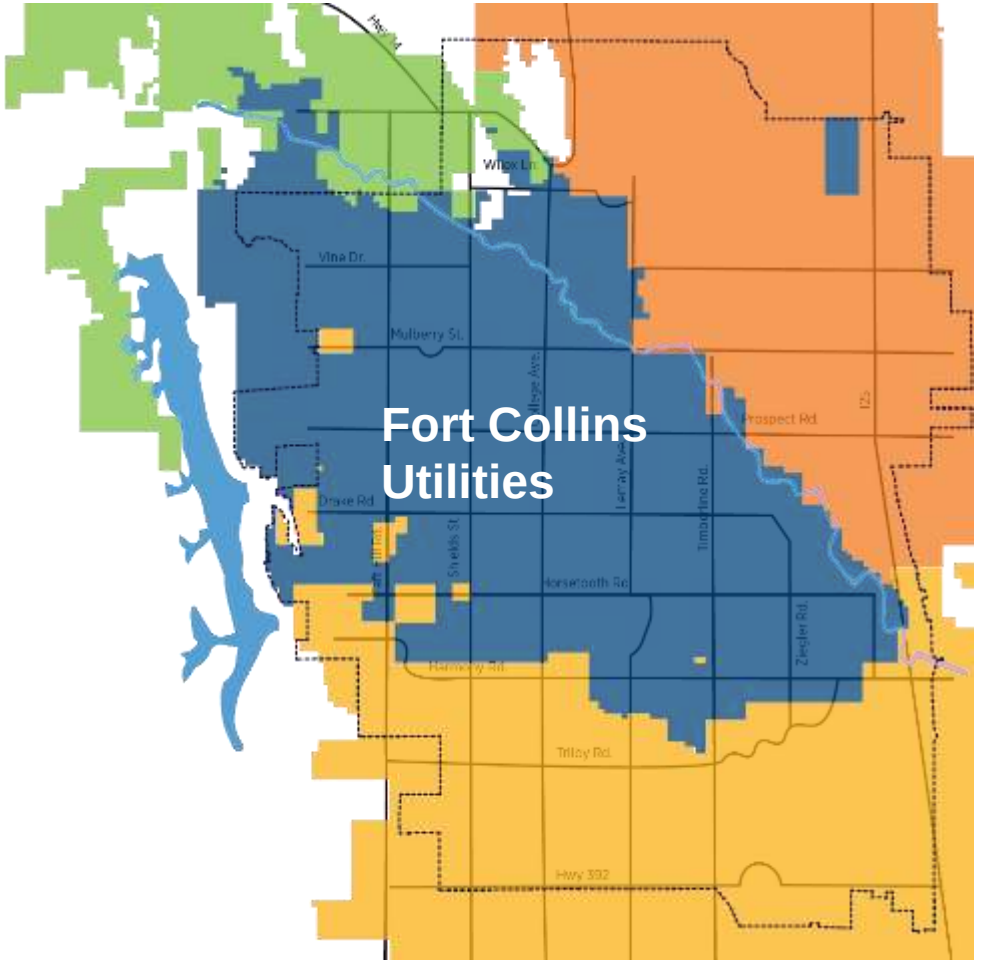
2. What does Council need to know from our engagement, equity analysis, and water demand modeling efforts?

Background

eating a Reliable Water Supply

1. **Planning and modeling**
   - Water Supply and Demand Management Policy
   - Water Supply Vulnerability Study
2. **Water supply storage**
   - Halligan Reservoir enlargement
3. **Conservation and efficiency (demand management)**
   - WEP
   - Water Shortage Action Plan

Continued collaboration with neighboring water providers



ny Ways to Manage Demands

Long Term

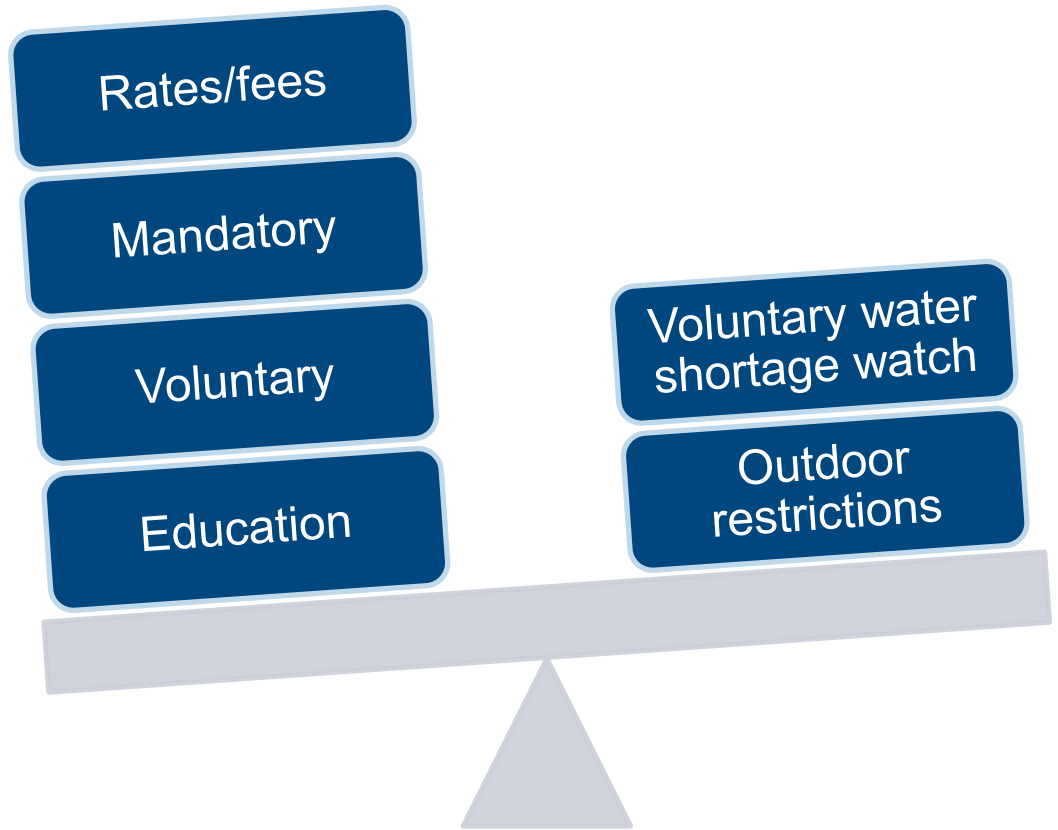
Water Conservation and Efficiency

Pros
- Resiliency
- Conservation behaviors
- Water literacy
- Flexibility

Cons
- Requires mandatory efforts to go beyond low-hanging fruit
- Requires ongoing resources
- Takes years to see accumulated savings

Short Term

Water Shortage Restrictions



Pros
- Fast-acting
- Can achieve deep reductions

Cons
- Living infrastructure
- Business
- Time
- Water revenue
- Little flexibility

ter Supply: Risks and Solutions

Warmer, drier climate poses largest risk

Potential reduction in Colorado-Big Thompson poses risk

Adequate storage is crucial to meet future water demands

Managing demands is crucial to minimize water restrictions

ter Supply: Risks

Warmer, drier climate poses largest risk

- Historical restrictions
  - **1-in-10 years**
- 2065 predictions without Halligan
  - **9-in-10 years**
- Even with Halligan, climate change will drive more frequent restrictions
  - **6-in-10 years:**
    - temperature ↑ 5°
    - precipitation ↓ -5%
  - **3-in-10 years:**
    - temperature ↑ 5°
    - precipitation no change

Potential reduction in Colorado-Big Thompson poses risk

- No reductions currently planned
- Ongoing challenge
- Solutions: more demand management and Halligan Reservoir enlargement

ıter Supply: Solutions

Adequate storage to meet future water demands

Using conservation and efficiency strategies to minimize water restrictions

Halligan

- Increase storage
  - Would store 2.7 billion gallons (~8,200 AF)
    - 39% of current annual demand
- Prepare for future demand
- Drought resilience
- 16x more than 2022's annual water conservation program savings

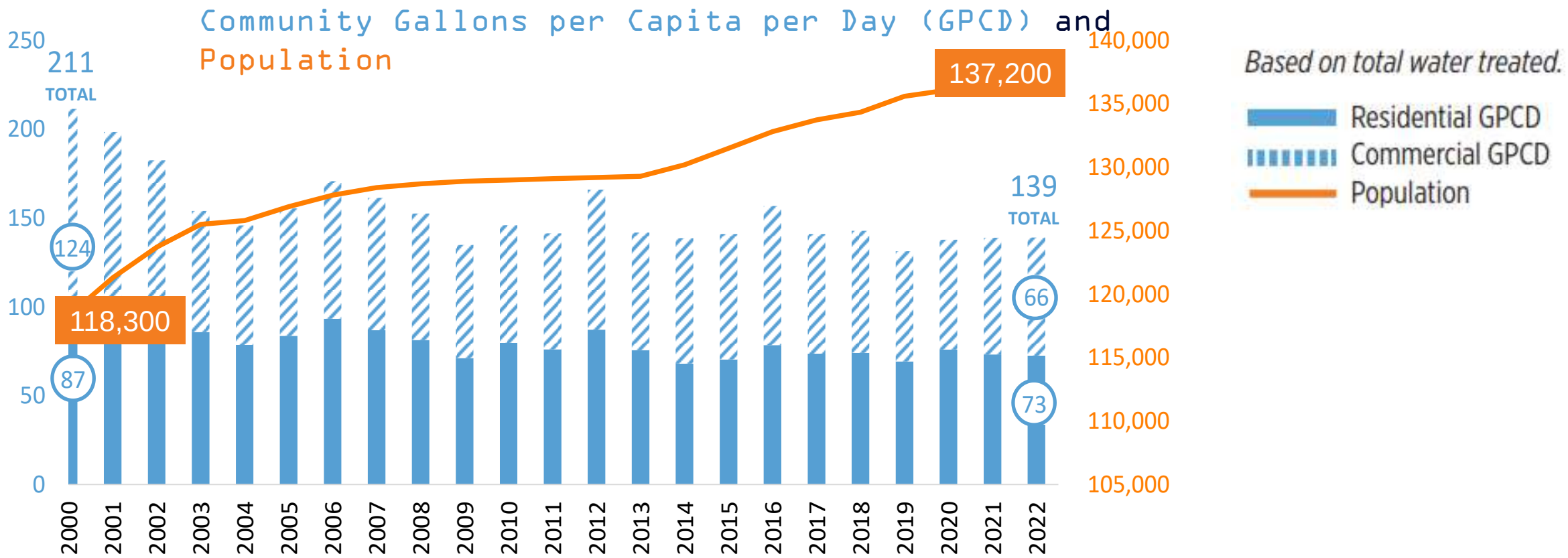
WEP

- Water conservation activities
  - Saved 173 million gallons (531 AF) in 2022
    - 2.5% of current annual demand
  - Reduced per capita use by 34% over the last two decades

ny Water Conservation and Efficiency?

- Makes supplies last longer and go further
- Conservation efforts are cost effective
- Keeps rates and fees down
- Creates resilience

rrent WEP Goal: 130 GPCD by 2030



Water conservation works

- 16% increase in population
- 34% decrease in GPCD

Current WEP goal: 130 GPCD by 2030

- 5-year average (2018-2022) = 138 GPCD
- 2023 preliminary result = 132 GPCD
  - Precip was 123% more during irrigation season compared to average (2018-2022)

WEP Update

Creating an informed future state

EP Purpose and Content

Guide	Guide Water Conservation, Utilities and City on water demand management
Set	Set water use reduction goals
Identify	Identify conservation and efficiency strategies (roadmap to goals)

What's a WEP?

- State requirement
- Planning document with a seven-year cadence
- Developed with extensive community input
- *fcgov.com/WEP*

It does not...

- Create standards or regulations without additional process
- Apply to temporary water shortages
- Apply to areas outside of Utilities' water service area

Looking for Answers and Solutions: WEP Update

Re-evaluate goals and metrics (130 GPCD by 2030)

- Consider future demand, vulnerabilities, climate, growth, attainability

Identify and prioritize demand management strategies (incentives, standards, codes)

- Evaluate based on water savings, engagement, equity, cost, resources, feasibility

Quantitative demand model

- Model water savings from demand management strategies under different climate and growth scenarios

Engagement and equity analyses

- Inclusive public engagement
- Analyze for equitable outcomes and identify/resolve gaps

One Water integrated water management

- Cross-departmental engagement
- Emphasis on land use planning
- Utilize OCF framework and make progress on Big Move #3

y Tasks

Project and Model Set-up

Q1 2023 – Q1 2024

Plan, build teams, retain consultants

- Water demand model development, data processing, and inputs
- Develop guiding principles & goal framework
- Plan and test engagement

Engage

Q2 2023 – Q3 2024

Engage to inform conservation strategies and goals

- Include marginalized community members
- Track equity in participation
- Broad, diverse engagement
- City departments

Analyze to Prioritize

Q1 – Q3 2024

- Analyze equity of process and potential strategy gaps/outcomes
- Model conservation strategy savings
- Prioritize conservation strategies
- Share: second Council Work Session (Q3)

Prepare and Submit

Q2 – Q4 2024

Draft, revise, finalize WEP

- Seek Board, Commission, Council input
- Council first reading (Q4)
- Submit to state

oad Engagement

Outreach to marginalized community members: identify motivations/barriers to conservation

- Four Community Consultants
- Focus groups/open houses
- City resources: Equity Office, Climate Equity Committee

Broad engagement throughout community: align conservation with culture and values

- Online platform: *ourcity.fcgov.com/wep*
- Movie theater ad with survey link
- Key Accounts, business community
- Landscape professionals
- Environmental and community organizations
- Other ads, emails, social media posts, events, meetings
- Synthesize and incorporate past engagement / survey responses from related efforts

City staff and leadership engagement: organizational water use goals and strategy priorities

- Facilitated meetings with City departments
- City Council work sessions (Q3); WEP first reading (Q4 2024)
- Water Commission, Natural Resources Advisory Board (Q3)
- Super Issues meeting (Dec. 2023)

hat Success Might Look Like

- More informed planning decisions
- Minimize frequency and severity of water shortages
- More equitable and resilient outcomes for all
- Better utilization of resources

estions for Council

1. What is Council's vision for the WEP and how it addresses water conservation and efficiency?

2. What does Council need to know from our engagement, equity analysis, and water demand modeling efforts?

Thank you!

ourcity.fcgov.com/WEP

Extra Slides

WEP Coordination with ELCO and FCLWD

State requires each water provider to have a WEP

2022

- Met to discuss opportunities for coordination on the Utilities WEP

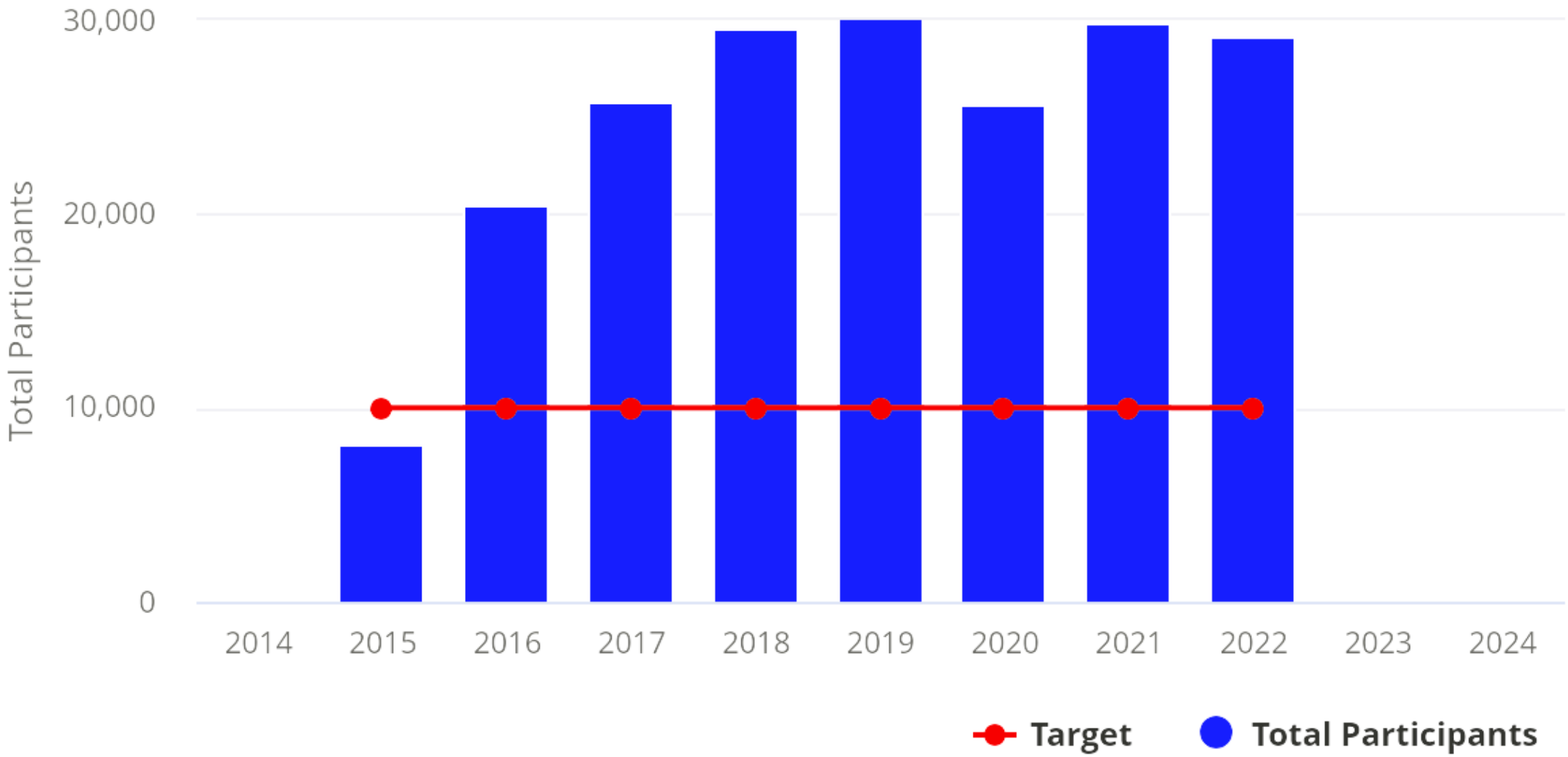
2023

- Met 1-2 times in 2023 to discuss:
  - Opportunities to coordinate on the water demand model
  - Update on our WEP and learn more about theirs and timing of plans

2024

- Request to meet again before finalized to discuss opportunities to collaborate on various strategies, as appropriate
- Planning for a section in the WEP that addresses:
  - Coordination to-date
  - Possible areas of opportunity and barriers

storical Program Participation and Engagement



finitions

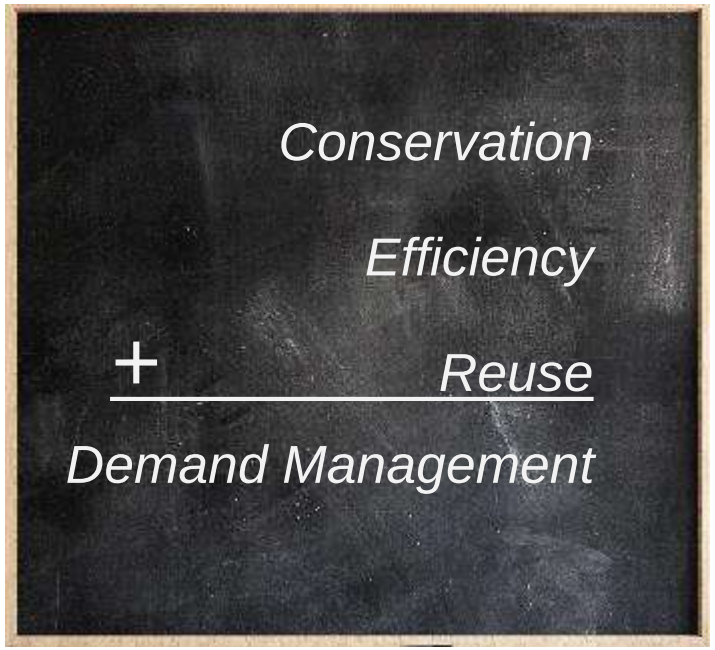
Water Terms

Examples:

Conservation ≈ Taking shorter showers

Efficiency ≈ WaterSense/high-efficiency showerhead

Reuse ≈ Graywater



Water Measurements

Acre-Foot (AF)

- About one football field filled up with water to your shin

- Four single-unit homes' annual indoor and outdoor use in Fort Collins

- 325,851-gallon sized milk jugs

sources

Funding

- $160,000 – Colorado Water Conservation Board grant
- $145,000 – BFO cash match + $47,000 of staff in-kind match

Staff Support

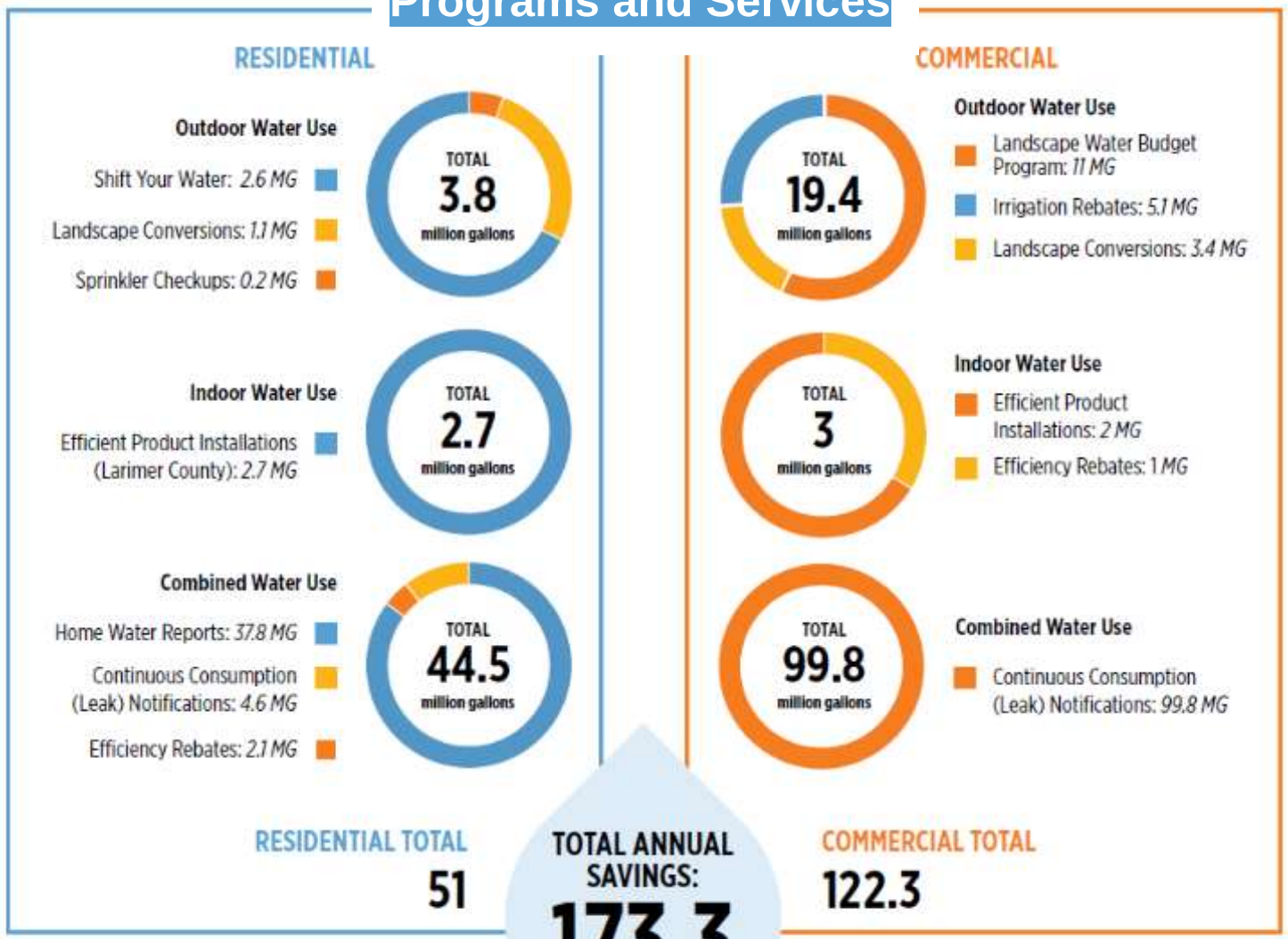
- Water Conservation and Customer Connections
- Water Resources and Planning
- Cross-departmental leadership team
- Broad staff engagement

Consultant Support

- Water demand model
- Engagement
- Equity analysis

rrent State: 2022 Conservation Programs

Programs and Services



(531 AF - 2.5% of annual demand)

Regulations and Codes

- Land use
- Building/plumbing
- Wasting water prohibitions
- Graywater
- Shortage responses

Rates and Fees

Education and Engagement

hat Other Colorado Communities are Doing

Affordability, Rates and Fees

- Free plumbing assistance for income-qualified customer for leaks (Aurora)
- Free turf replacement for income-qualified customers (Aurora)
- Customized water rates based on landscape and occupancy (Greeley, Castle Rock)
- Water-use based tap fees to incentivize water-wise development (Various)

Lawn Watering Requirements

- More than half of 30 different Front Range communities researched limit watering during normal drought conditions in the following ways:
  - No daytime watering (e.g., no watering between 10 a.m. – 6 p.m.)
  - Number of days per week (e.g., three days per week)
  - Seasonal window (e.g., watering only between May 1 – Sept. 30)

Non-functional Turf

- Denver Water, Castle Rock and Aurora committed to reduce non-functional turf grass by at least 30%
- Of 38 communities with turf replacement programs in CO, about 17 also limit turf in new development

Education

- Required registration for landscape and irrigation professionals who install and maintain non-residential landscapes (Castle Rock)
- 100% reimbursement for irrigation and landscape professionals' training and certification programs (Greeley)

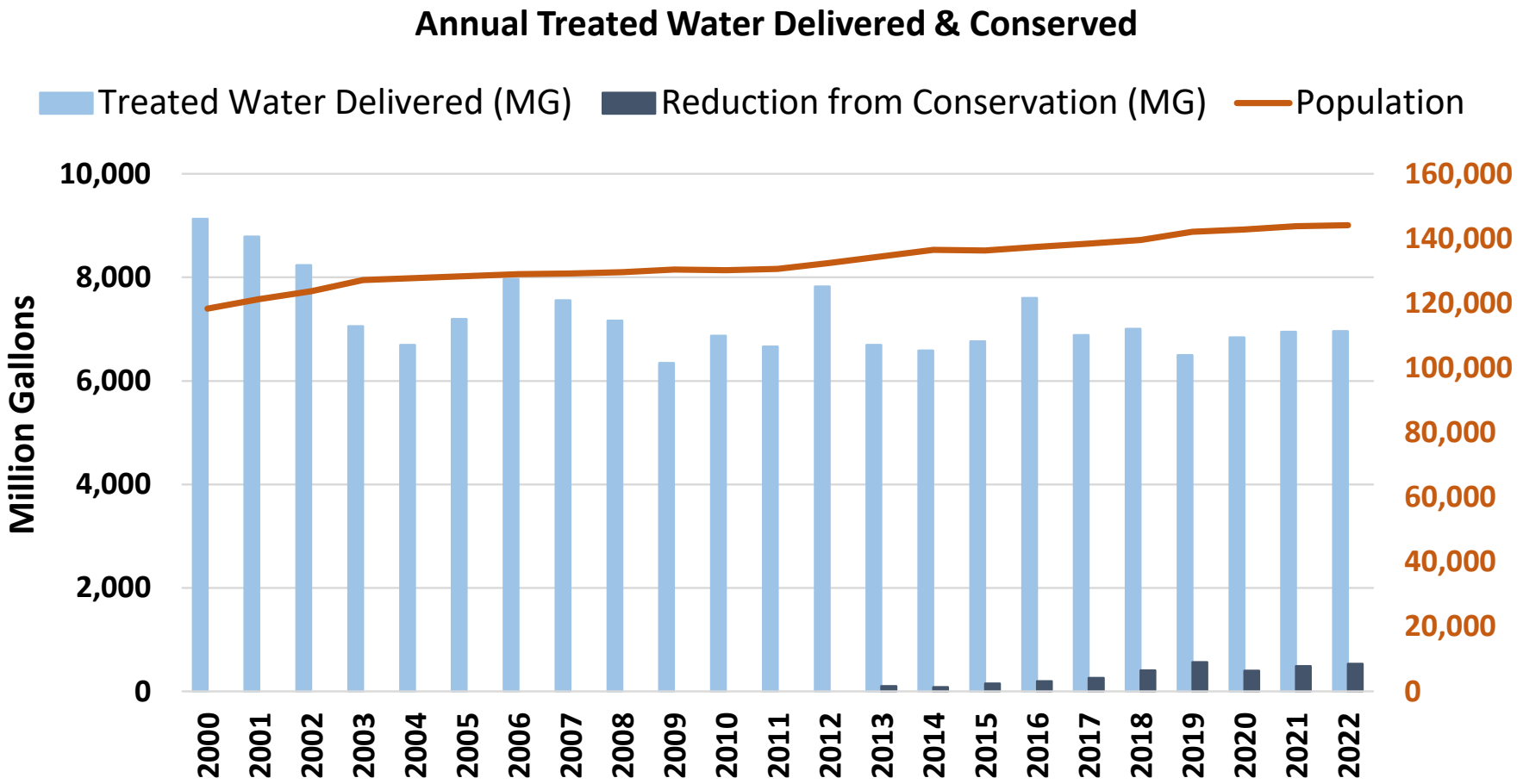
Goals

- Reduce total water demand by 2,034 AF by 2030 (Greeley)
- re water consumption is below 100 GPCD by 2025 (Castle Rock; 14.5% reduction from current)

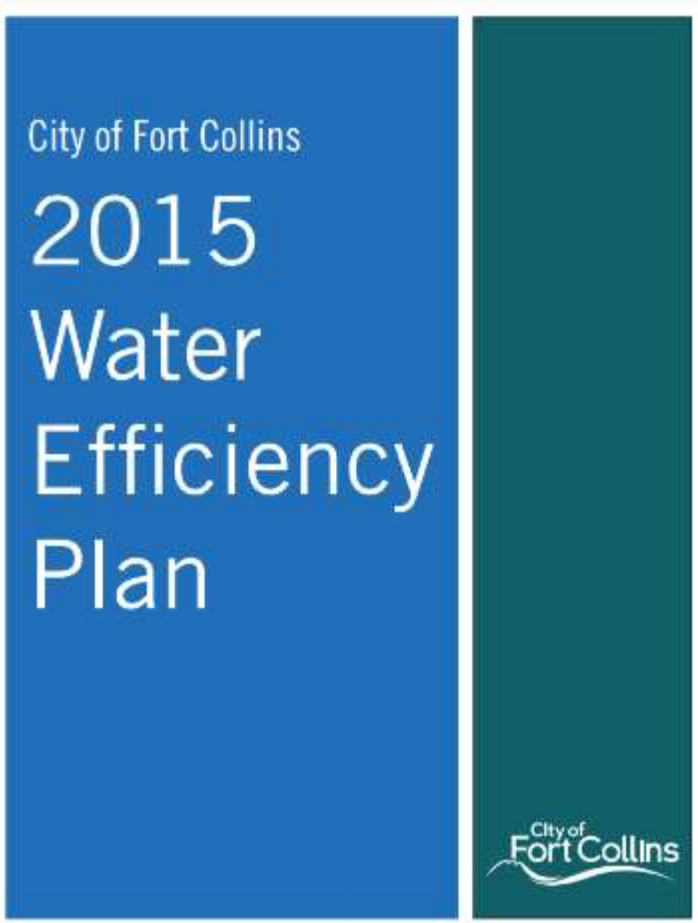
rrent State: Making Progress

Water Use and Conservation: 2022 vs 2000

- Population increased by 16%
- Treated water delivered decreased by 19% (rolling average)
- Annual water use reduction due to select conservation programs estimated at 2.3% of total demand (rolling average)



rrent State: 2015 Goals and Opportunities



fcgov.com/WEP

Current WEP goal: 130 gallons per capita per day by 2030

Areas of Opportunity

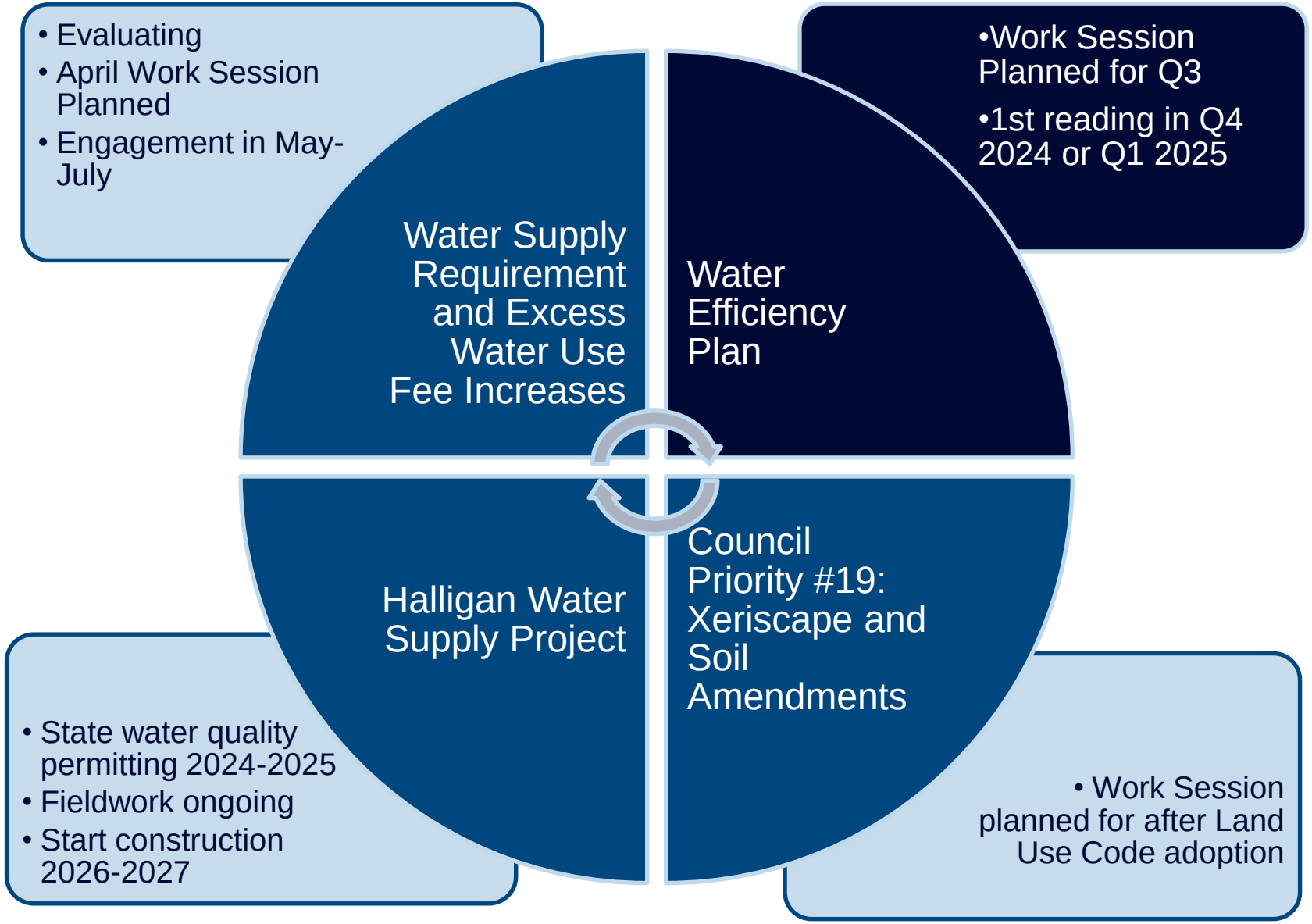
1. Leverage Advanced Meter Fort Collins data and capabilities
2. Promote and support greater outdoor water efficiency
3. Encourage greater integration of water efficiency into land use planning and building codes
4. Expand commercial and industrial sector strategies
5. Increase community water literacy

ading with One Water

One Water: All water has value and should be managed in a sustainable, inclusive, integrated way.

- WEP update = integrated, inclusive approach to water management
- WEP process will contribute to overall One Water foundation-building
  - Guiding principles
  - Cross-departmental relationships

24 Water Topics & Next Steps



ategic Alignment

Council Priorities

City Strategic Plan

Utilities Strategic Plan

City Plan

Our Climate Future

Municipal Sustainability and Adaptation Plan

State Laws

Colorado Water Plan

Water Supply & Demand Management Policy

Water Shortage Action Plan

Halligan Project