

# **City Council Agenda Packet**

**For 3-7-2023**

**Part 1**

**Items 1-11**

**Packet Pages 1-524**

# Fort Collins City Council Agenda

Regular Meeting

6:00 p.m. Tuesday, March 7, 2023

City Council Chambers at City Hall, 300 Laporte Ave, Fort Collins, CO 80521

Zoom Webinar link: <https://zoom.us/j/98241416497>

## NOTICE:

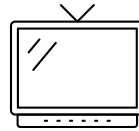
Regular meetings of the City Council are held on the 1st and 3rd Tuesdays of each month in the City Council Chambers. Meetings are conducted in a hybrid format, with a Zoom webinar in addition to the in person meeting in Council Chambers.

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 available through the Zoom platform, electronically or by phone.



Meetings are livestreamed on the City's website, [fcgov.com/fctv](http://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 advance notice. Requests for interpretation at a meeting should be made by noon the day before.*

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## **There are in person and remote options for members of the public who would like to participate in Council meetings:**

### **Comment in real time:**

*During the public comment portion of the meeting and discussion items:*



In person attendees can address the Council in the Chambers. The public can join the Zoom webinar and comment from the remote meeting, joining online or via phone.



All speakers are required to sign up to speak using the online sign up system available at [www.fcgov.com/agendas](http://www.fcgov.com/agendas). Staff is also available outside of Chambers prior to meetings to assist with the sign up process for in person attendees.

Full instructions for online participation are available at [fcgov.com/councilcomments](http://fcgov.com/councilcomments).

Join the online meeting using the link in this agenda to log in on an internet-enabled smartphone, laptop or computer with a speaker and microphone. Using earphones with a microphone will greatly improve audio experience.

To be recognized to speak during public participation portions of the meeting, click the 'Raise Hand' button.

Participate via phone using this call in number and meeting ID:

Call in number: 720 928 9299

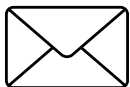
Meeting ID: 982 4141 6497

During public participation opportunities in the meeting, press \*9 to indicate a desire to speak.

### **Submit written comments:**



Email comments about any item on the agenda to [cityleaders@fcgov.com](mailto:cityleaders@fcgov.com)



Written comments can be mailed or dropped off at the City Manager's Office at City Hall, at 300 Laporte Ave, Fort Collins, CO 80521

***Documents to Share during public participation:*** Persons wishing to display presentation materials using the City's display equipment under the Public Participation portion of a meeting or during discussion of any Council item must provide any such materials to the City Clerk in a form or format readily usable on the City's display technology no later than two (2) hours prior to the beginning of the meeting at which the materials are to be presented.

*NOTE: All presentation materials for appeals, addition of permitted use applications or protests related to election matters must be provided to the City Clerk no later than noon on the day of the meeting at which the item will be considered. See Council Rules of Conduct in Meetings for details.*



# City Council Regular Meeting Agenda

**March 7, 2023 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  
Shirley Peel, District 4  
Kelly Ohlson, District 5

City Council Chambers  
300 Laporte Avenue, Fort Collins  
& via Zoom at  
<https://zoom.us/j/98241416497>

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

Carrie Daggett  
City Attorney

Kelly DiMartino  
City Manager

Anissa Hollingshead  
City Clerk

## PROCLAMATIONS & PRESENTATIONS 5:00 PM

### A) PROCLAMATIONS AND PRESENTATIONS

[PP 1.](#) Proclaiming March 20-26, 2023, as Fix a Leak Week.

## REGULAR MEETING 6:00 PM

### B) CALL MEETING TO ORDER

### C) PLEDGE OF ALLEGIANCE

### D) ROLL CALL

### E) CITY MANAGER'S AGENDA REVIEW

- City Manager Review of Agenda
- Consent Calendar Review, including removal of items from Consent Calendar for individual discussion.

### F) COMMUNITY REPORTS

### G) PUBLIC COMMENT ON ANY TOPICS OR ITEMS OR COMMUNITY EVENTS

*(Including requests for removal of items from Consent Calendar for individual discussion.)*

*Individuals may comment regarding any topics of concern, whether or not included on this agenda. Comments regarding land use projects for which a development application has been filed should be submitted in the development review process\*\* and not to Council.*

- *Those who wish to speak are required to sign up using the online sign-up system available at [www.fcgov.com/council-meeting-participation-signup/](http://www.fcgov.com/council-meeting-participation-signup/)*

- *Each speaker will be allowed to speak one time during public comment. If a speaker comments on a particular agenda item during general public comment, that speaker will not also be entitled to speak during discussion on the same agenda item.*
- *All speakers will be called to speak by the presiding officer from the list of those signed up. After everyone signed up is called on, the presiding officer may ask others wishing to speak to identify themselves by raising their hand (in person or using the Raise Hand option on Zoom), and if in person then will be asked to move to one of the two lines of speakers (or to a seat nearby, for those who are not able to stand while waiting).*
- *The presiding officer will determine and announce the length of time allowed for each speaker.*
- *Each speaker will be asked to state his or her name and general address for the record, and, if their comments relate to a particular agenda item, to identify the agenda item number. Any written comments or materials intended for the Council should be provided to the City Clerk.*
- *A timer will beep one time and turn yellow to indicate that 30 seconds of speaking time remain and will beep again and turn red when a speaker's time has ended.*

*[\*\*For questions about the development review process or the status of any particular development, consult the Development Review Center page on the city's website at <https://www.fcgov.com/developmentreview/>, or contact the Development Review Center at 970.221.6760.]*

## **H) PUBLIC COMMENT FOLLOW-UP**

## **I) COUNCILMEMBER REMOVAL OF ITEMS FROM CONSENT CALENDAR FOR DISCUSSION**

### **CONSENT CALENDAR**

*The Consent Calendar is intended to allow Council to spend its time and energy on the important items on a lengthy agenda. Staff recommends approval of the Consent Calendar. Agenda items pulled from the Consent Calendar by either Council or the City Manager will be considered separately under their own Section, titled "Consideration of Items Removed from Consent Calendar for Individual Discussion." Items remaining on the Consent Calendar will be approved by Council with one vote. The Consent Calendar consists of:*

- *Ordinances on First Reading that are routine;*
- *Ordinances on Second Reading that are routine;*
- *Those of no perceived controversy;*
- *Routine administrative actions.*

#### **1. Second Reading of Ordinance No. 024, 2023, Appropriating Philanthropic Revenue Received By City Give for Fort Collins Police Services for the Safe Futures Initiative.**

The purpose of this Ordinance, unanimously adopted (6-0) on First Reading on February 21, 2023, is to request appropriation of \$86,000.00 in philanthropic revenue received by City Give for Fort Collins Police Services for the Safe Futures initiative.

In 2019, City Give, a formalized enterprise-wide initiative was launched to create a transparent, non-partisan governance structure for the acceptance and appropriations of charitable gifts.

**2. Second Reading of Ordinance No. 025, 2023, Appropriating Prior Year Reserves and Unanticipated Revenue from Philanthropic Donations Received Through City Give for Various Programs and Services as Designated by the Donors.**

The purpose of this Ordinance, which was unanimously adopted (6-0) on First Reading on February 21, 2023, is to request appropriation of \$19,692 in philanthropic revenue received through City Give. These miscellaneous gifts to various City service areas and departments support a variety of programs and services and are aligned with both the City's strategic priorities and the respective donors' designation.

In 2019, City Give, a formalized enterprise-wide initiative was launched to create a transparent, non-partisan governance structure for the acceptance and appropriations of charitable gifts.

**3. Items Related to Residential Solid Waste Collection.**

A. Second Reading of Ordinance No. 027, 2023, Amending Chapter 12, Article II and Chapter 15, Article XV of the Code of the City of Fort Collins to Allow for the Establishment of a City Waste Collection Program and Generally Updating Provisions of the Code Governing Waste Collection Within the City.

B. Second Reading of Ordinance No. 028, 2023, Authorizing the City Manager to Enter Into a Contract for the Provision of Residential Waste Collection Services.

C. Second Reading of Ordinance No. 029, 2023, Appropriating Prior Year Reserves for Start-up Costs to Create a Contracted Residential Waste Collection Program.

The purpose of this item is to consider the adoption of a contracted residential waste and recycling program, which includes three separate Ordinances and one policy question:

1. Ordinance No. 027, 2023, would amend the City Code to enable the contracted hauling program and establish the City Administrative Fee to fund the City's role in the program.
2. Ordinance No. 028, 2023, would adopt the contract with Republic Services.
3. Ordinance No. 029, 2023, would approve an off-cycle general fund appropriation in the amount of \$107,251 to support the start-up phase of the proposed program.
4. Policy question: Do Councilmembers prefer the weekly or every-other-week recycling collection option?

This program aligns with the Council Priority to Explore a Districted System for Garbage, Recycling and Compost.

The proposed program includes the following benefits:

- Trash, recycling as well as yard trimmings and two bulky item collections per year for a cost similar to what most residents paid in 2022 for only trash and recycling
- A more affordable way to increase the collection of yard trimmings from residents
- Cost-effective, predictable pricing
- Opportunity to ensure a high level of customer service with penalties to the hauler and service credits to customers in the event of a missed pickup etc.

- Fewer trucks on residential roads helps to improve neighborhood safety, quality of life, reduces emissions, also reduces road wear and tear
- Additional yard trimmings composted (78% - 130% increase) and additional materials recycled if Councilmembers select the weekly recycling policy option (9% - 27% increase). Additional yard trimmings and recycling combined would achieve 3.7% - 6.7% of the progress needed to meet the zero waste goal.

All three Ordinances were unanimously adopted (6-0) on First Reading on February 21, 2023.

Between First and Second Reading, staff has revised the Review Version of the contract with Republic Services and the proposed Code changes contained in Ordinance No. 027. Here are summaries of those changes:

- Staff revised the frequency of the Recyclable Materials Service from every-other-week to weekly within the contract, added a new provision to address the City's right to change from weekly to every-other-week Recyclable Materials Service during the Agreement term subject to the party's good faith negotiations to determine the timing and impact to pricing of such change, and updated the Pricing Sheet accordingly. (See attached Contract Revision #1). Staff also updated the Pricing Sheet to reflect the selection of weekly Recyclable Materials Service (See attached Contract Revision #2). Additionally, staff incorporated a Cooperative Purchase provision to allow other governmental entities within the state of Colorado to use the City's competitive purchasing process as the basis to negotiate a contract with Republic Services for similar services, subject to such governmental entities' governing laws, rules, and regulations. (See attached Contract Revision #3).
- Staff also revised the Code changes to make various technical updates, including correcting the use of certain defined terms, removing unnecessary language, and correcting typographical errors. Staff moved a subsection from existing Section 15-413(d) to new Section 15-412(h) and clarified communication requirements for collectors in that same subsection. Additionally, staff clarified yard trimmings collection requirements within Section 15-414. All amendments from the First Reading version of Ordinance No.0 27 are shown within the Second Reading version of Ordinance No. 027.

**4. Second Reading of Ordinance No. 030, 2023, Adopting the North College MAX BRT Plan as a Component of City Plan.**

The purpose of this Ordinance, unanimously adopted (6-0) on First Reading on February 21, 2023, is to consider adoption of the North College Max Plan. The North College MAX BRT Plan is the result of approximately 18 months of community engagement, information analysis, and concept refinement. The plan provides recommendations for Bus Rapid Transit, local transit routes, bicycle and pedestrian facilities, future development, and affordability.

**5. First Reading of Ordinance No. 032, 2023, Authorizing the Release of Restrictive Covenants on Property at 1947 Phia Way Developed by Fort Collins Habitat for Humanity.**

The purpose of this item is to obtain authorization from Council to release the Agreement of Restrictive Covenants Affecting Real Property on the single-family home located at 1947 Phia Way, which was developed by Fort Collins Habitat for Humanity. The development of this home was initially assisted with funding from the Department of Housing and Urban Development (HUD). At the time of completion, the project no longer met the HUD requirements, triggering a HUD mandated repayment of the funds and cancellation of the project.

**6. First Reading of Ordinance 033, 2023, Extending the Moratorium on Certain Activities of State Interest Designated in Ordinance No. 122, 2021.**

The purpose of this item is the First Reading of an ordinance that extends the length of a moratorium previously imposed through Ordinance No. 122, 2021, and further extended with Ordinance No. 139, 2022, on two designated activities of state interest. The proposed Ordinance extends the length of the existing moratorium for three months beyond March 31, 2022, or until City Council adopts guidelines for the administration of the two designated activities. Extending the moratorium allows staff to reengage with stakeholders and develop policy decision points for Council's consideration along with first reading of the version-three 1041 regulations, May 2, 2023.

**7. First Reading of Ordinance No. 034, 2023, Making Supplemental Appropriations from the Colorado Water Conservation Board Grant and Water Fund Reserves and Authorizing Transfers of Appropriations for the Water Efficiency Plan Update.**

The purpose of this item is to support updating the City's Water Efficiency Plan by end of 2024 by:

- Appropriating \$160,000 of unanticipated grant revenue, awarded by the Colorado Water Conservation Board, to the Water Fund
- Appropriating \$65,795 from the Water Fund reserves
- Utilizing matching funds in the amount of \$126,705 from existing 2023 appropriations into this new grant project

**8. First Reading of Ordinance No. 035, 2023, Authorizing the City Manager to Execute Agreements, Conveyances, and Other Documents to Incorporate the Spring Cañon Waste Way Ditch.**

The purpose of this item is to approve the City's conveyance of its 2/12ths fractional ownership of the Spring Cañon Waste Way Ditch (Ditch) to a newly formed and incorporated Spring Cañon Wasteway Ditch Company (Ditch Company), and thereby receive 2/12ths share of the Ditch Company. This item would also authorize the City Manager to execute related agreements needed to form the Ditch Company. This administrative restructuring of the Ditch and water right ownership will allow for a variety of efficiencies including easier shareholder transfers, providing a single point of contact, and improving coordination of Ditch maintenance.

**9. Resolution 2023-024 Adopting the Water Quality Management Policy for City-Owned Lakes and Stormwater Basins in the Growth Management Area.**

The lakes and stormwater basins (together, "urban lakes") that the City owns are important resources that provide a range of benefits to the Fort Collins community. There are significant challenges associated with managing water quality in the City's urban lakes. A project team has been working over the last two years to address these challenges by developing the City of Fort Collins Urban Lakes Water Quality Management Policy ("Policy") and associated Guidance Document ("Guidance"). The Policy provides a framework for the City's water quality operational and management decisions for its urban lakes and the Guidance provides technical resources to assist City staff with implementing the Policy. Development of the Policy and Guidance were informed by feedback received as part of an extensive stakeholder engagement process, and the Water Commission, Land Conservation and Stewardship Board, Natural Resources Advisory Board, and Parks and Recreation Board have formally recommended that City Council adopt the Policy.



## END OF CONSENT CALENDAR

### J) ADOPTION OF CONSENT CALENDAR

### K) CONSENT CALENDAR FOLLOW-UP *(This is an opportunity for Councilmembers to comment on items adopted or approved on the Consent Calendar.)*

### L) STAFF REPORTS

### M) COUNCILMEMBER REPORTS

### N) CONSIDERATION OF ITEMS REMOVED FROM THE CONSENT CALENDAR FOR INDIVIDUAL DISCUSSION

### O) CONSIDERATION OF ITEMS PLANNED FOR DISCUSSION

*The method of debate for discussion items is as follows:*

- Mayor introduced the item number and subject; asks if formal presentation will be made by staff
- Staff presentation (optional)
- Mayor requests public comment on the item (three minute limit for each person)
- Council questions of staff on the item
- Council motion on the item
- Council discussion
- Final Council comments
- Council vote on the item

*Note: Time limits for individual agenda items may be revised, at the discretion of the Mayor, to ensure all have an opportunity to speak. The timer will buzz when there are 30 seconds left and the light will turn yellow. It will buzz again at the end of the speaker's time.*

#### **10. Second Reading of Ordinance No. 026, 2023, Appropriating Philanthropic Revenue Received Through City Give for The Gardens on Spring Creek for General Operations as Designated by the Donor.**

The purpose of this Ordinance, adopted 5-1 (Nay: Ohlson) on First Reading on February 21, 2023, is to request appropriation of \$100,000 in philanthropic revenue received through City Give for The Gardens on Spring Creek for general operations as designated by the donor.

In 2019, City Give, a formalized enterprise-wide initiative was launched to create a transparent, non-partisan governance structure for the acceptance and appropriations of charitable gifts.

#### **11. Second Reading of Ordinance No. 031, 2023 Appropriating Prior Year Reserves for a Capital Contribution of \$1,000,000 for Construction of a New Public Terminal Facility at the Northern Colorado Regional Airport.**

The purpose of this Ordinance, adopted 5-1 (Nay: Ohlson) on First Reading on February 21, 2023, is to appropriate an anticipated \$1,000,000 capital contribution for the construction of a new public terminal facility (Project) at the Northern Colorado Regional Airport (Airport). Total Project costs are estimated to be \$25,000,000, and this Ordinance's adoption by the end of February helps to secure the anticipated \$21,000,000 of federal funding. At the suggestion of the Council Finance Committee, staff has developed a series of performance indicators to use as terms and conditions of the City contribution.

The Ordinance has been revised between first and second reading to add a new sixth recital listing the performance indicators for the Project that City staff identified. These indicators were not explicitly included in the changes to the Ordinance read into the record at first reading and approved by Council. These performance indicators are: (i) the Project achieve LEED Silver building certification; (ii) the Project include a public art commitment at 1% of the non-federal funding; (iii) the terminal's carbon footprint be no greater than 198 metric tons of carbon dioxide equivalent; (iv) the terminal have enhanced accessibility; and (v) the Airport achieve by 2028 no less than 33,000 bus or air passengers annually utilizing the terminal.

**12. Appeal of Planning and Zoning Commission Approval of 636 Castle Ridge Court Group Home Project Development Plan/Final Development Plan.**

The purpose of this quasi-judicial item is to consider an appeal of the Planning and Zoning Commission's decision on December 15, 2022, approving the Castle Ridge Group Home combined Project Development Plan/Final Development Plan (#FDP220013 or "FDP") located at 636 Castle Ridge Court. Two Notices of Appeal were filed, the first on December 21, 2022, and second on December 28, 2022, alleging that the Planning and Zoning Commission failed to properly interpret and apply relevant provisions of the Land Use Code and failed to conduct a fair hearing.

**P) OTHER BUSINESS**

**OB 1. Possible consideration of the initiation of new ordinances and/or resolutions by Councilmembers.**

*(Three or more individual Councilmembers may direct the City Manager and City Attorney to initiate and move forward with development and preparation of resolutions and ordinances not originating from the Council's Policy Agenda or initiated by staff.)*

**Q) ADJOURNMENT**

*Every regular Council meeting will end no later than midnight, except that: (1) any item of business commenced before midnight may be concluded before the meeting is adjourned and (2) the Council may, at any time prior to adjournment, by majority vote, extend a meeting beyond midnight for the purpose of considering additional items of business. Any matter that has been commenced and is still pending at the conclusion of the Council meeting, and all matters for consideration at the meeting that have not yet been considered by the Council, will be deemed continued to the next regular Council meeting, unless Council determines otherwise.*

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## PROCLAMATION

**WHEREAS**, the citizens of Fort Collins strive to practice water conservation in their homes and at work; and

**WHEREAS**, Fort Collins Utilities offers a variety of water conservation programs, services and educational tools for adults and youth; and

**WHEREAS**, the average home may waste up to 10,000 gallons of water every year due to running toilets, dripping faucets and other leaks if not regularly maintained; and

**WHEREAS**, the Environmental Protection Agency’s WaterSense program’s Fix a Leak Week encourages Americans to check household fixtures for leaks and repair any that are found; and

**WHEREAS**, Fort Collins Utilities is a WaterSense partner and contributes to the well-being of local citizens through water efficiency, customer service, environmental protection, economic development and safety awareness as detailed in the Water Efficiency Plan.

**NOW, THEREFORE**, I, Jeni Arndt, Mayor of the City of Fort Collins, do hereby proclaim the week of March 20-26, 2023, as

### **FIX A LEAK WEEK**

in Fort Collins to urge citizens to find and fix leaks and use water efficiently.

**IN WITNESS WHEREOF**, I have hereunto set my hand and the seal of the City of Fort Collins this 7th day of March, A.D. 2023.

\_\_\_\_\_  
Mayor

ATTEST:

\_\_\_\_\_  
City Clerk



# AGENDA ITEM SUMMARY

City Council

## STAFF

Nina Bodenhamer  
Dawn Downs, Legal

## SUBJECT

**Second Reading of Ordinance No. 024, 2023, Appropriating Philanthropic Revenue Received By City Give for Fort Collins Police Services for the Safe Futures Initiative.**

## EXECUTIVE SUMMARY

The purpose of this Ordinance, unanimously adopted (6-0) on First Reading on February 21, 2023, is to request appropriation of \$86,000.00 in philanthropic revenue received by City Give for Fort Collins Police Services for the Safe Futures initiative.

In 2019, City Give, a formalized enterprise-wide initiative was launched to create a transparent, non-partisan governance structure for the acceptance and appropriations of charitable gifts.

## STAFF RECOMMENDATION

Staff recommends adoption of the Ordinance on Second Reading.

## BACKGROUND / DISCUSSION

Like many law enforcement agencies across the nation, Fort Collins Police Services (FCPS) is adopting new industry practices for victim-centered services by hiring civilian professionals for forensics, fraud, and criminal investigations.

Traditionally served by uniformed police officers, this new approach offers a proactive, comprehensive victim-centered approach to public safety and leverages candidates from accounting, criminal justice, and forensic disciplines, who desire to serve their community. The Fort Collins Safe Futures Fund is a designated charitable fund to support the operational needs for innovative, victim-centered police services to address the impact crime has on victims, their families, and witnesses; Leverage technology-based skilled investigative resources; and, assist in the identification of victims of human trafficking and prevent the sexual exploitation of the most vulnerable members of our community.

The purpose of this item is to request appropriation of \$86,000.00 in philanthropic revenue received by City Give for Fort Collins Police Services for the Safe Futures initiative. The charitable support represents a range of generous local giving: \$50,000 from the Blue Ocean Foundation, \$35,000 from UCount, Timberline Church, and \$1,000 from the Community Foundation of Northern Colorado. All gifts are designated for the sole purpose of the Safe Futures initiative.

**CITY FINANCIAL IMPACTS**

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This Ordinance will appropriate \$86,000 in philanthropic revenue received by City Give for Fort Collins Police Services for expenditures in the General Fund. The funds have been received and accepted per the City Give Administrative and Financial Policy.

The City Manager has also determined that these appropriations are available and previously unappropriated from the designated funds and will not cause the total amount appropriated in these funds to exceed the current estimate of actual and anticipated revenues and all other funds to be received in these funds during fiscal year 2023.

These donations have been received and accepted per the City Give Administrative and Financial Policy.

**BOARD / COMMISSION / COMMITTEE RECOMMENDATION**

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None.

**PUBLIC OUTREACH**

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None.

**ATTACHMENTS**

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1. Ordinance for Consideration

ORDINANCE NO. 024, 2023  
OF THE COUNCIL OF THE CITY OF FORT COLLINS  
APPROPRIATING PHILANTHROPIC REVENUE RECEIVED BY CITY GIVE FOR FORT  
COLLINS POLICE SERVICES FOR THE SAFE FUTURES INITIATIVE

WHEREAS, like many law enforcement agencies across the nation, Fort Collins Police Services (FCPS) is adopting new industry practices for victim-centered services by hiring civilian professionals for forensics, fraud, and criminal investigations; and

WHEREAS, traditionally served by uniformed police officers, this new approach offers a proactive, comprehensive victim-centered approach to public safety and leverages candidates from accounting, criminal justice, and forensic disciplines, who desire to serve their community; and

WHEREAS, the Fort Collins Safe Futures Fund is a designated charitable fund to support the operational needs for innovative, victim-centered police services to address the impact crime has on victims, their families, and witnesses; leverage technology-based skilled investigative resources; and, assist in the identification of victims of human trafficking and prevent the sexual exploitation of the most vulnerable members of our community; and

WHEREAS, the purpose of this item is to request appropriation of \$86,000.00 in philanthropic revenue received by City Give for Fort Collins Police Services for the Safe Futures Initiative; and

WHEREAS, the charitable support represents a range of generous local giving: \$50,000 from the Blue Ocean Foundation, \$35,000 from UCount, Timberline Church, and \$1,000 from the Community Foundation of Northern Colorado, with all gifts designated for the sole purpose of the Safe Futures Initiative; and

WHEREAS, this appropriation benefits public health, safety and welfare of the citizens of Fort Collins and serves a public purpose of protecting our most vulnerable population of citizens by investigating crimes and holding perpetrators of those crimes accountable; and

WHEREAS, Article V, Section 9 of the City Charter permits the City Council, upon recommendation of the City Manager, to make a supplemental appropriation by ordinance at any time during the fiscal year, provided that the total amount of such supplemental appropriation, in combination with all previous appropriations for that fiscal year, do not exceed the current estimate of actual and anticipated revenues and all other funds to be received during the fiscal year; and

WHEREAS, the City Manager has recommended the appropriation described herein and determined that this appropriation is available and previously unappropriated from the General Fund and will not cause the total amount appropriated in the General Fund to exceed the current estimate of actual and anticipated revenues and all other funds to be received in this Fund during this fiscal year.

NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF FORT COLLINS as follows:

Section 1. That the City Council hereby makes and adopts the determinations and findings contained in the recitals set forth above.

Section 2. That there is hereby appropriated from new philanthropic revenue in the General Fund the sum of EIGHTY-SIX THOUSAND DOLLARS (\$86,000) to be expended in the General Fund by Fort Collins Police Services for the Safe Futures Initiative.

Introduced, considered favorably on first reading, and ordered published this 21st day of February 2023, and to be presented for final passage on the 7th day of March 2023.

\_\_\_\_\_  
Mayor

ATTEST:

\_\_\_\_\_  
City Clerk

Passed and adopted on final reading on the 7th day of March 2023.

\_\_\_\_\_  
Mayor

ATTEST:

\_\_\_\_\_  
City Clerk



# AGENDA ITEM SUMMARY

City Council

## STAFF

Nina Bodenhamer, Director, City Give  
John Duval, Legal

## SUBJECT

**Second Reading of Ordinance No. 025, 2023, Appropriating Prior Year Reserves and Unanticipated Revenue from Philanthropic Donations Received Through City Give for Various Programs and Services as Designated by the Donors.**

## EXECUTIVE SUMMARY

The purpose of this Ordinance, which was unanimously adopted (6-0) on First Reading on February 21, 2023, is to request appropriation of \$19,692 in philanthropic revenue received through City Give. These miscellaneous gifts to various City service areas and departments support a variety of programs and services and are aligned with both the City’s strategic priorities and the respective donors’ designation.

In 2019, City Give, a formalized enterprise-wide initiative was launched to create a transparent, non-partisan governance structure for the acceptance and appropriations of charitable gifts.

## STAFF RECOMMENDATION

Staff recommends adoption of the Ordinance on Second Reading.

## BACKGROUND / DISCUSSION

The City of Fort Collins has long been the beneficiary of local generosity and has a valuable role in our community’s philanthropic landscape. Generosity is demonstrated in both large and modest gifts, each appreciated for its investment in the mission and the range of services the City strives to deliver.

In 2022 and 2023, the City received several individual philanthropic donations supporting various service areas and departments totaling \$19,692 and these funds are currently unappropriated.

As acknowledged by Section 2.5 of the City’s Fiscal Management Policy 2-Revenue approved by City Council, the City Manager has adopted the City Give Financial Governance Policy to provide for the responsible and efficient management of charitable donations to the City; and 52.2.C. of the City Give Policy authorizes the City Give Director to accept donations of \$5,000 or less for the City service area as designated by the donor.

These generous donations have been directed by the respective donors to be used by the City for designated uses within and for the benefit of City service areas and programs as each donation is described in Exhibit A attached to the Ordinance.



**CITY FINANCIAL IMPACTS**

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This Ordinance will appropriate \$19,692 in philanthropic revenue received through City Give for gifts to various City departments to support a variety of programs and services.

The funds have been received and accepted per City Give Administrative and Financial Policy. The City Manager has also determined that these appropriations are available and previously unappropriated in the General Fund, Capital Projects Fund, Cultural Services and Facilities Fund, Transportation Fund, Natural Areas Fund, and the Golf Fund and will not cause the total amount appropriated in these funds to exceed the current estimate of actual and anticipated revenues and all other funds to be received in these funds during fiscal year 2023.

**BOARD / COMMISSION / COMMITTEE RECOMMENDATION**

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None.

**PUBLIC OUTREACH**

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None.

**ATTACHMENTS**

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1. Ordinance for Consideration
2. Ordinance Exhibit A

ORDINANCE NO. 025, 2023  
OF THE COUNCIL OF THE CITY OF FORT COLLINS  
APPROPRIATING PRIOR YEAR RESERVES AND UNANTICIPATED REVENUE  
FROM PHILANTHROPIC DONATIONS RECEIVED THROUGH CITY GIVE  
FOR VARIOUS PROGRAMS AND SERVICES AS DESIGNATED BY THE DONORS

WHEREAS, the City has received in 2022 and 2023 numerous philanthropic donations of \$5,000 or less totaling \$19,692 and these funds are currently unappropriated; and

WHEREAS, these donations have been directed by the donors to be used by the City for certain designated uses within and for the benefit of certain City service areas and departments as each donation is described in Exhibit “A” attached hereto and incorporated herein by reference; and

WHEREAS, as acknowledged by Section 2.5 of the City’s Fiscal Management Policy 2 – Revenue approved by City Council, the City Manager has adopted the City Give Financial Governance Policy to provide for the responsible and efficient management of charitable donations to the City (the “City Give Policy”); and

WHEREAS, Section 52.2.C. of the City Give Policy authorizes the City Give Director to accept donations of \$5,000 or less for the City service area intended by the donor to be benefited; and

WHEREAS, as so authorized, the City Give Director has accepted for the benefited City service areas and departments, as applicable, the donations to be appropriated in this Ordinance to be used as directed by each donor as described in Exhibit “A”; and

WHEREAS, Article V, Section 9 of the City Charter permits the City Council, upon recommendation of the City Manager, to make a supplemental appropriation by ordinance at any time during the fiscal year, provided that the total amount of such supplemental appropriation, in combination with all previous appropriations for that fiscal year, do not exceed the current estimate of actual and anticipated revenues and all other funds to be received during the fiscal year; and

WHEREAS, Article V, Section 9 of the City Charter also permits the City Council, upon the recommendation of the City Manager, to make supplemental appropriations by ordinance at any time during the fiscal year such funds for expenditure as may be available from reserves accumulated in prior years, notwithstanding that such reserves were not previously appropriated; and

WHEREAS, the City Manager has recommended the appropriations described in Sections 2 and 3 of this Ordinance and determined that the amount of each of these appropriations is available and previously unappropriated from the funds named in Sections 2 and 3 and will not cause the total amount appropriated in each such fund to exceed the current estimate of actual and anticipated revenues to be received in those funds during this fiscal year; and

WHEREAS, these appropriations will serve the public purpose of providing additional revenue to each of the benefited service areas to aid them in accomplishing the public purposes for which each service area is established thereby benefiting the public’s health, safety and welfare.

NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF FORT COLLINS as follows:

Section 1. That the City Council hereby makes and adopts the determinations and findings contained in the recitals set forth above.

Section 2. That there is hereby appropriated from the following funds these amounts of philanthropic revenue held in prior year reserves to be expended as designate by the donors in support of the various City programs and services as described in Exhibit “A”:

Capital Projects Fund	\$	500
Cultural Services and Facilities Fund	\$	6,125
General Fund	\$	2,285
Transportation Fund	\$	1,000
Natural Areas Fund	\$	2,575
Golf Fund	\$	1,207

Section 3. That there is hereby appropriated from the following funds these amounts of philanthropic revenue received in 2023 to be expended as designated by the donors in support of the various City programs and services as described in Exhibit “A”:

Capital Projects Fund	\$	5,000
General Fund	\$	1,000

Introduced, considered favorably on first reading, and ordered published this 21st day of February 2023, and to be presented for final passage on the 7th day of March 2023.

\_\_\_\_\_  
Mayor

ATTEST:

\_\_\_\_\_  
City Clerk

Passed and adopted on final reading on the 7th day of March 2023.

\_\_\_\_\_  
Mayor

ATTEST:

\_\_\_\_\_  
City Clerk

**Appropriation of Misc. Philanthropic Revenue, Gift Listing**

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01/06/2023	\$ 5,000.00	Dellenbach Motors	9/11 Memorial
12/22/2022	\$ 500.00	RBC/DAF	9/11 Memorial
02/18/2022	\$ 3,500.00	Greer Foundation	APP, Cultural Services
10/31/2022	\$ 1,000.00	Bike Sports	FC Moves, PDT
12/27/2021	\$ 185.00	Steve and Bonny Crews	Forestry, Parks, Community Services
07/31/2022	\$ 625.00	Misc.	Lincoln Center, Cultural Services
10/21/2022	\$ 2,000.00	Shrader	Lincoln Center, Cultural Services
01/26/2023	\$ 500.00	Thomas Knebel	Living Tree, Forestry, Parks, Community Services
08/18/2022	\$ 500.00	Jon & Jean Geller	Living Tree, Forestry, Parks, Community Services
10/27/2022	\$ 500.00	Kendra Nash	Living Tree, Forestry, Parks, Community Services
11/02/2022	\$ 250.00	Misc.	Living Tree, Forestry, Parks, Community Services
12/02/2022	\$ 2,000.00	Lucille Khoury	Natural Areas
12/02/2022	\$ 300.00	Charlie Sturgill	Natural Areas
12/16/2022	\$ 275.00	Bill Hintze	Natural Areas
11/12/2019	\$ 60.00	Eric Nelson Tribute	Parks, Community Services
05/29/2019	\$ 100.00	Eric Nelson Tribute	Parks, Community Services
07/09/2019	\$ 20.00	Eric Nelson Tribute	Parks, Community Services
07/09/2019	\$ 100.00	Eric Nelson Tribute	Parks, Community Services
08/14/2019	\$ 50.00	Eric Nelson Tribute	Parks, Community Services
02/19/2020	\$ 20.00	Eric Nelson Tribute	Parks, Community Services
11/22/2021	\$ 500.00	Odell Brewing	Parks, Community Services
01/06/2023	\$ 500.00	David & Laurie Linam	Restorative Justice, CDNS
08/31/2021	\$ 355.00	Miscellaneous	Youth Golf Scholarship, Golf
12/31/2021	\$ 25.00	BOU	Youth Golf Scholarship, Golf
10/20/2022	\$ 230.00	Miscellaneous	Youth Golf Scholarship, Golf
10/20/2022	\$ 123.92	Miscellaneous	Youth Golf Scholarship, Golf
10/27/2022	\$ 265.00	Miscellaneous	Youth Golf Scholarship, Golf
10/27/2022	\$ 8.00	Miscellaneous	Youth Golf Scholarship, Golf
12/23/2022	\$ 150.00	Tom & Emma Dreiling	Youth Golf Scholarship, Golf
12/31/2022	\$ 50.00	Meg Thornbury	Youth Golf Scholarship, Golf

# AGENDA ITEM SUMMARY

City Council



## STAFF

Caroline Mitchell, Waste Reduction and Recycling Program Manager  
 Lindsay Ex, Environmental Services Director  
 Ted Hewitt, Legal

## SUBJECT

**Items Related to Residential Solid Waste Collection.**

## EXECUTIVE SUMMARY

A. Second Reading of Ordinance No. 027, 2023, Amending Chapter 12, Article II and Chapter 15, Article XV of the Code of the City of Fort Collins to Allow for the Establishment of a City Waste Collection Program and Generally Updating Provisions of the Code Governing Waste Collection Within the City.

B. Second Reading of Ordinance No. 028, 2023, Authorizing the City Manager to Enter Into a Contract for the Provision of Residential Waste Collection Services.

C. Second Reading of Ordinance No. 029, 2023, Appropriating Prior Year Reserves for Start-up Costs to Create a Contracted Residential Waste Collection Program.

The purpose of this item is to consider the adoption of a contracted residential waste and recycling program, which includes three separate Ordinances and one policy question:

1. Ordinance No. 027, 2023, would amend the City Code to enable the contracted hauling program and establish the City Administrative Fee to fund the City's role in the program.
2. Ordinance No. 028, 2023, would adopt the contract with Republic Services.
3. Ordinance No. 029, 2023, would approve an off-cycle general fund appropriation in the amount of \$107,251 to support the start-up phase of the proposed program.
4. Policy question: Do Councilmembers prefer the weekly or every-other-week recycling collection option?

This program aligns with the Council Priority to Explore a Districted System for Garbage, Recycling and Compost.

The proposed program includes the following benefits:

- Trash, recycling as well as yard trimmings and two bulky item collections per year for a cost similar to what most residents paid in 2022 for only trash and recycling
- A more affordable way to increase the collection of yard trimmings from residents
- Cost-effective, predictable pricing

- Opportunity to ensure a high level of customer service with penalties to the hauler and service credits to customers in the event of a missed pickup etc.
- Fewer trucks on residential roads helps to improve neighborhood safety, quality of life, reduces emissions, also reduces road wear and tear
- Additional yard trimmings composted (78% - 130% increase) and additional materials recycled if Councilmembers select the weekly recycling policy option (9% - 27% increase). Additional yard trimmings and recycling combined would achieve 3.7% - 6.7% of the progress needed to meet the zero waste goal.

All three Ordinances were unanimously adopted (6-0) on First Reading on February 21, 2023.

Between First and Second Reading, staff has revised the Review Version of the contract with Republic Services and the proposed Code changes contained in Ordinance No. 027. Here are summaries of those changes:

- Staff revised the frequency of the Recyclable Materials Service from every-other-week to weekly within the contract, added a new provision to address the City's right to change from weekly to every-other-week Recyclable Materials Service during the Agreement term subject to the party's good faith negotiations to determine the timing and impact to pricing of such change, and updated the Pricing Sheet accordingly. (See attached Contract Revision #1). Staff also updated the Pricing Sheet to reflect the selection of weekly Recyclable Materials Service (See attached Contract Revision #2). Additionally, staff incorporated a Cooperative Purchase provision to allow other governmental entities within the state of Colorado to use the City's competitive purchasing process as the basis to negotiate a contract with Republic Services for similar services, subject to such governmental entities' governing laws, rules, and regulations. (See attached Contract Revision #3).
- Staff also revised the Code changes to make various technical updates, including correcting the use of certain defined terms, removing unnecessary language, and correcting typographical errors. Staff moved a subsection from existing Section 15-413(d) to new Section 15-412(h) and clarified communication requirements for collectors in that same subsection. Additionally, staff clarified yard trimmings collection requirements within Section 15-414. All amendments from the First Reading version of Ordinance No.0 27 are shown within the Second Reading version of Ordinance No. 027.

## **STAFF RECOMMENDATION**

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Staff recommends adoption of these Ordinances on Second Reading.

## **BACKGROUND / DISCUSSION**

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One of the adopted Council Priorities is to explore a districted system for garbage, recycling, and compost for single family homes. Districting is a sub-type of a contracted trash and recycling system. To ensure the broadest possible conversation in the community, the term "contracting" has been used throughout this project.

### **Alignment with Adopted Goals and Plans**

The Residential Solid Waste Collection Services Program (Program) would enable actions essential to meeting Fort Collins' adopted goal to produce zero waste by 2030. Fort Collins 2020 Community Diversion Rate goal was 75%, which was not achieved. In 2020, the Residential Diversion rate was 29% and the Community Diversion Rate (combining residential, commercial and industrial materials) was 52%. Increased composting is also a critical path to achieving our climate goals.

Contracting for trash and recycling aligns with several adopted plans and other Council priorities. Those plans include:

- Our Climate Future, Big Move 2: Zero Waste Neighborhoods
- City Plan, Principle ENV 5: Create a Zero Waste System
- Strategic Plan, Environmental Health 4.3 Zero Waste

Contracting for single family home trash, recycling and compost also supports the following adopted Council Priorities:

- *Accelerate Composting*
- *Improve Air Quality*
- *Enhanced Recycling Education*

### **Past Council Feedback**

City staff has met with the full City Council on three separate occasions and have met with the Council Finance Committee once. The following bullets summarize their feedback:

#### April 12th Work Session

- Continue efforts to pursue contracting
- Continue to engage community members regarding this effort and ensure engagement includes the benefits of trash contracting
- Engage community members to understand priorities related to contracting and service options and what community concerns should be addressed via the process
- Refine peer community research to understand best practices in program and Request for Proposal (RFP) development
- Present options for elements of a contracted system at the July 12<sup>th</sup> Council Work Session

#### July 12th Work Session

- Draft a Resolution that directs staff to develop and issue an RFP that reflects the staff recommendations and Council discussion at the July 12 Work Session
- Bring the Resolution for Council's consideration at its July 19 meeting

#### July 19th Regular Session

- Council adopted Resolution 2022-079 directing staff to develop and issue a Request for Proposals for contracted residential waste and recycling collection with specific program elements and designed to meet specific goals (see the Resolution for these specific elements and the Contract elements section below for the outcome of the RFP process)

#### February 2nd Council Finance Committee

- Unanimous support of the proposed \$1.35 administrative fee and \$107,251 appropriation for 2023 program start-up costs

### **Contract**

#### **Competitive Purchasing Process**

Based on this Council direction and community member feedback, City staff issued a Request for Proposals (RFP) in the fall of 2022. Three firms (Republic Services, Waste Management, and Sweetman Sanitation) submitted proposals. A cross-disciplinary team of City staff and external consultants with specific subject matter expertise in single hauler systems (LBA Consulting and a member of the Recycling Partnership) interviewed the three firms in late November 2022. Republic Services' proposal most closely



aligned with the priorities and evaluation criteria in the RFP. Staff negotiated a contract with Republic (attached) that will extend to September 30, 2029.

### Contract elements

The contract includes the following elements:

- Service start date: 9/30/24
- Duration: 5 years from the service start date
  - The time between the contract being signed and the service start date allows the Contractor to purchase trucks, hire staff, and conduct community outreach to ensure a smooth roll out
- Services included:
  - Weekly trash collection, weekly seasonal yard trimmings collection, two bulky items per year
  - The contract includes options for weekly or every other week recycling, pending Council decision on this service
  - Residents will automatically be signed up for yard trimmings collection, but may decline the service and receive a \$5 discount on their monthly bill
  - Food scrap collection is not included in this contract, but the contract can be amended when this service is available
- Sustainable vehicle strategy:
  - One electric collection vehicle will be utilized as a pilot
  - Any new vehicles purchased to service this contract will run on natural gas generated from landfill capture etc. (rather than new extraction)
  - Republic will not purchase any more diesel trucks to provide service under the contract
- Carts:
  - Contractor would purchase carts with a City logo, which will be paid for as part of the monthly service fee
  - The carts would remain at households at the end of the contract regardless of the vendor selected for the next contract
  - This supports consistency for residents and a level playing field for all potential vendors in the next competitive purchasing process
- Billing:
  - Contractor would bill residents directly
- Customer Service:
  - Contractor would provide a high level of customer service, including dedicated customer service representatives
- Performance:
  - The contractor is subject to extensive liquidated damages and performance standards to ensure a high level of service

### Pricing

The following monthly prices would be effective from 2024-2025 and includes trash, recycling, yard trimmings, 2 bulky item collections per year, and also includes the up to \$1.35 City administrative fee:

- XS trash cart (~16 gallons): \$11.10
- S cart (35 gallons): \$17.85
- M cart (65 gallons): \$34.60
- L cart (95 gallons): \$51.35
- XL cart (2 L carts): \$101.60

The contract allows a 3% price increase per year. The hauler may apply for an additional price increase only in the case of increased tip fees or regulatory changes. This creates a consistent, predictable price for community members, which was one of the goals prioritized by low-income community members.

**Opt-out Fee**

Households may opt out of the Program and use a different hauler or take material to the landfill themselves but must pay an opt-out fee equal to the smallest level of trash service (\$11.10 / month).

**Contract exclusions**

- Homeowner’s Associations (HOAs)
  - HOAs with contracts that comply with the City’s Pay-As-You-Throw and yard trimmings service requirements and that are in effect prior to the date the contract is signed may continue with their existing contracts or join the City’s contract
  - City staff will check HOA contracts to ensure compliance with City requirements in Q2-Q4 2023. Contracts out of compliance will have a fixed amount of time to either update their contracts or join the City’s contract
- Variances
  - Households may apply for variances. Any variance application will be verified by City compliance staff. Households granted a variance will be exempt from Program participation and will not have to pay the administrative fee. Variances include:
    - Large waste volume producing households (a household that generates more than two large carts’ worth of waste per week)
    - Shared service (two households that share the XS cart service)
- Dumpsters
  - Single unit residential dwellings and multi-unit residential dwellings with seven or fewer units that utilize a dumpster for waste collection are exempt from the Program. (The Community Recycling Ordinance would apply to these locations)

**Every other week or weekly recycling option**

A policy option within the contracted program is to select to remain with the current every other week recycling or to shift to weekly recycling collection for a small increase in the service fee.

Benefits of weekly recycling	Tradeoffs of weekly recycling
Additional recycling ~800 – 2500 tons (9% - 27% increase)	Additional cost \$1.25 / mo for small cart customers
Net GHG benefits 1100-3600 MTCO <sub>2</sub> e reduction ~3-8% of waste emissions  ~3-8% of waste emissions (accounts for increased transportation emissions)	Slight GHG increase 60 MTCO <sub>2</sub> e increase from additional trucks (GHG increase offset by emissions reductions from more recycling) Additional truck in the neighborhood every other week
Net GHG benefits 1100-3600 MTCO <sub>2</sub> e reduction ~3-8% of waste emissions (0.05-0.15% progress toward climate goals)	Slight GHG increase 60 MTCO <sub>2</sub> e increase from additional trucks (GHG increase offset by emissions reductions from more recycling)
Additional convenience Supports the increase in residential recycling from online shopping and more people working from home	Additional truck in the neighborhood every other week

The prices for the weekly and every other week options are included below.

Trash cart size	Option 1: Every Other Week Recycling Price	Option 2: Weekly Recycling Price
XS	\$11.10	\$11.10
S	\$17.85	\$19.10
M	\$34.60	\$37.10
L	\$51.35	\$55.10
XL	\$101.60	\$109.10

**Pricing Compared with Current Service Costs**

**Trash Bill Analysis**

City staff conducted a Trash Bill Analysis to understand current prices paid by community members (attached). The following highlights emerged:

- Community members pay different prices for the same service
  - Some are paying \$6-\$22 more per month (sometimes twice the price) than others for the same service. Prices are even different from the same company in the same area of town
- Haulers may not be charging the full amount for medium and large trash cart service required by the City’s Pay-As-You-Throw requirements
- Most haulers increased their service prices in late 2022 or early 2023. Staff called to get updated pricing in February 2023. Prices had increased 2% - 41% depending on the hauler and cart size

**Comparison with Contracted Service Costs**

The following information is based on trash bills from 2022. It shows that an apples-to-apples comparison of services in the current system and the contracted system show a significant cost savings for residents in the contracted system.

Trash Cart Size	% of Households Now	Trash + Recycling Only			
		Current	Contract	\$ Change	% Change
XS	0.5%	\$15.93	\$11.10	\$ (4.83)	-30%
Small	43%	\$18.18	\$12.85	\$ (5.33)	-29%
Med	41%	\$33.20	\$29.60	\$ (3.60)	-11%
Large	15%	\$45.11	\$46.35	\$ 1.24	3%
XL	n/a	n/a	\$96.60		

Trash Cart Size	Trash + Recycling + Yard Trimmings				Trash + Recyc + Yard Trims + Bulky Items			
	Current	Contract	\$ Change	% Change	Current	Contract	\$ Change	% Change
XS	\$33.10	\$11.10	\$ (22.00)	-66%	\$39.35	\$11.10	\$ (28.25)	-72%
Small	\$35.35	\$17.85	\$ (17.50)	-50%	\$41.18	\$17.85	\$ (23.33)	-57%
Med	\$50.37	\$34.60	\$ (15.77)	-31%	\$56.20	\$34.60	\$ (21.60)	-38%
Large	\$62.28	\$51.35	\$ (10.93)	-18%	\$68.12	\$51.35	\$ (16.77)	-25%
XL	n/a	\$101.60			n/a	\$101.60		

### **Administrative Fee and Appropriation Request**

A Fee Study (Attached) was conducted and recommended an administrative fee of up to \$1.35 per household per month to recover the City's costs of administering the Program (including program roll-out, program management, compliance and customer service). All pricing in the Council materials includes the \$1.35 administrative fee.

The City would begin collecting the revenue from the administrative fee revenue when service starts on September 30, 2024. A budget appropriation is requested to fund start-up costs from the contract adoption until the administrative fee collection begins. The appropriation would be repaid from administrative fee revenue over the duration of the contract.

The fee and appropriation were reviewed and unanimously supported by Council Finance Committee on February 2, 2023.

### **Benefits and Tradeoffs**

The following benefits and tradeoffs of shifting to a contracted residential hauling program have been identified. More details are included in the Benefits and Tradeoffs attachment.

#### Benefits:

- Increased equity and lower pricing
  - Cost-effective price for service
  - Predictable pricing
  - Access to bulky item collection
- Increased composting from yard trimmings collection
- Increased recycling (if Councilmembers select weekly recycling option)
- Greenhouse gas emissions reductions
- Street maintenance savings
- Sustainable collection vehicles
- Fewer trucks in neighborhoods
- High level of customer service with enforcement capability

#### Tradeoffs:

- Households would have to pay an opt out fee of \$11.10 / month to use a hauler other than the City's contracted hauler
- Perception of a reduction in competition in the hauling industry in Fort Collins
  - The proposed contract only accounts for 20% of the market share of trash and recycling hauling in Fort Collins by revenue

### **Code Changes**

The proposed Code changes include the following elements:

- Create a Residential Solid Waste Collection Program
- Create an administrative fee
- Confirm that HOAs may continue their contracts as long as they meet the Code requirements
- Update HOA yard trimmings requirement to match the City contract's level of service by September 30, 2024 (update from households having to request yard trimmings collection service to household being automatically signed up for yard trimmings but can decline service)
- Clarify Pay-As-You-Throw requirements
- Clarify limitations on which types of fees collectors may charge customers

- Provide that collectors take ownership of certain kinds of waste when it is loaded into a vehicle and providing that collectors do not take ownership of hazardous waste or other waste that is not accepted as disposal facilities

### **Next Steps**

If Councilmembers adopt the Ordinances on First Reading, the following would be next steps:

- Second Reading on March 7, 2023
- Staff would then work with contractor to prepare for service roll out on September 30, 2024
- Appropriation for 2024 startup costs would be included in the mid-cycle budget process

### **CITY FINANCIAL IMPACTS**

The Program is designed to be cost neutral to the City. However, because the revenue associated with the contract does not begin until service commences, Ordinance No. 029, 2023, would appropriate \$107,251 from the General Fund Reserves in 2023 to fund start-up costs of the City's role in the Residential Solid Waste Collection Program. The General Fund would be repaid from the administrative fee revenue over the five years from the service start date of the contact (September 30, 2024). More details can be found in the attached Residential Solid Waste Collection Program Administrative Fee Study.

### **BOARD / COMMISSION / COMMITTEE RECOMMENDATION**

The project team presented to the Natural Resource Advisory Board (NRAB) and Economic Advisory Board (EAB) in April and June 2022 and will again on February 15, 2023. Both NRAB and EAB wrote letters of support for the project in 2022 (minutes and letters are attached).

### **PUBLIC OUTREACH**

In addition to Boards and Commissions, staff has engaged with community members, stakeholders, and haulers throughout this project. Details are included in the attached Engagement Summary.

### **ATTACHMENTS**

First Reading attachments not included.

1. Ordinance A for Consideration
2. Ordinance B for Consideration
3. Ordinance B Exhibit A
4. Ordinance B Exhibit B
5. Ordinance B Exhibit C
6. Ordinance B Exhibit D
7. Ordinance C for Consideration
8. Contract Revision #1
9. Contract Revision #2
10. Contract Revision #3

ORDINANCE NO. 027, 2023  
OF THE COUNCIL OF THE CITY OF FORT COLLINS  
AMENDING CHAPTER 12, ARTICLE II AND CHAPTER 15, ARTICLE XV OF THE CODE  
OF THE CITY OF FORT COLLINS TO ALLOW FOR THE ESTABLISHMENT OF A CITY  
WASTE COLLECTION PROGRAM AND GENERALLY UPDATING PROVISIONS OF  
THE CODE GOVERNING WASTE COLLECTION WITHIN THE CITY

WHEREAS, on December 17, 2013, City Council adopted Resolution 2013-011 recognizing that the City’s history of public education regarding recycling and solid waste reduction and waste reduction goals from 1985 through the adoption of Resolution 1999-139 and establishing the goal of diverting 50% of the community’s waste stream from landfill disposal by 2010; and

WHEREAS, on October 21, 2014, City Council adopted Resolution 2014-098, establishing the City’s Waste Diversion Policy with the goal of achieving “zero waste” by 2030 (with interim goals) and recognizing the City’s “Road to Zero Waste” plan created to achieve this policy goal and the resulting direct economic and environmental benefits to the local and global community; and

WHEREAS, on March 16, 2021, City Council adopted Resolution 2021-031 approving and adopting the Fort Collins Our Climate Future Plan as a combined and comprehensive update to the City’s Climate Action Plan, updated Energy Policy and Road to Zero Waste Plan articulating a commitment to mitigate climate change, and energy and waste reduction goals, including recycling and waste diversion as a vital strategy to reduce greenhouse gas emissions; and

WHEREAS, in 2021, the City Council directed City staff to examine ways to reduce the impacts of trash collection services in Fort Collins, including street wear, air quality, neighborhood aesthetics, noise, and other neighborhood impacts, and to identify ways to improve diversion rates for recyclable and compostable materials; and

WHEREAS, based on a study conducted by a contracted third party, having numerous heavy trash vehicles on City streets impedes the attainment of these goals and accelerates the deterioration of City streets, causing additional street maintenance costs of more than \$600,000 per year; and

WHEREAS, based on a study conducted by a contracted third party, having numerous trash vehicles on City streets impedes the attainment of greenhouse gas emission reduction goals by emitting an additional 1,200 metric tons of CO2e per year; and

WHEREAS, at least four residential trash haulers currently provide service within the community, resulting in at least four trash trucks and four recycling trucks using residential streets to provide residential collection services each week, causing increased street wear, air pollution, noise, potential safety concerns, and other neighborhood impacts; and

WHEREAS, analysis of open market residential trash bills in Fort Collins indicates that residents currently pay 50% - 100% different prices for the same service, even from the same company in the same area of town and a contracted system would provide predictable uniform rates across the community; and

WHEREAS, additional yard trimmings collection is a key step to achieving climate and waste reduction goals and a contracted system allows for the opportunity to expand yard trimmings collection for a more affordable price than open market collection; and

WHEREAS, Colorado Revised Statutes (“C.R.S.”) § 30-15-401(7.5) authorizes the City to establish a residential waste collection program (the “Program”), through which the City can require municipal residents in single-unit residences and multi-unit residences with seven or fewer dwelling units to use or pay user charges for residential waste services; and

WHEREAS, on July 19, 2022, in Resolution 2022-079, the City Council directed City staff to design and issue a request for proposals for residential waste collection services, including trash and recycling collection services for purposes of establishing a waste collection program as authorized by C.R.S. § 30-15-401(7.5); and

WHEREAS, adoption of the Program would improve waste collection in the City including by: increased equity and lower pricing; increased composting of yard trimmings; reducing greenhouse gas emissions; saving on street maintenance; fewer trucks will drive through neighborhoods; and the Program will help ensure high level of waste collection customer service with enforcement capability; and

WHEREAS, adoption of the Program requires a series of changes to Chapter 12, Article II and Chapter 15, Article XV of the City Code; and

WHEREAS, the Code Changes include: establishing that single-family homes and multi-unit residences with seven or fewer dwelling units are within the Program and Program customers must pay the applicable rates and fees; establishing Program exclusions, including homeowners’ associations that meet certain requirements; authorizing variances for sharing service or for producing excess waste; establishing the administrative fee to be set by the City Manager; and creating a civil infraction for failure to meet Program requirements; and

WHEREAS, the Code Changes in this Ordinance include a variety of related and conforming changes to the provisions governing waste collection and waste collector licensing, including: clarifying Pay-As-You-Throw requirements; clarifying limitations on which types of fees collectors may charge customers; providing that collectors take ownership of certain kinds of waste when it is loaded into a vehicle and providing that collectors do not take ownership of hazardous waste or other waste that is not accepted at disposal facilities; amending yard trimmings collection requirements for all collectors to align with yard trimming requirements in the Program; and expanding the City Manager’s authority to examine records required to be retained by collectors.

NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF FORT COLLINS as follows:

Section 1. That the City Council hereby makes and adopts the determinations and findings contained in the recitals set forth above.

Section 2. That Section 12-16 of the Code of the City of Fort Collins is hereby amended by the addition of new definitions which read in their entirety as follows:

*Division 1  
General Requirements*

**Sec. 12-16. Definitions.**

The following words, terms and phrases, when used in this Article shall have the meanings ascribed to them in this Section:

...

*City's contracted waste collector* shall mean the person licensed pursuant to Chapter 15, Article XV of this Code who enters into a contract with the City to provide collection services under the City's residential waste collection program and the City's dumpster waste collection program.

*City's residential waste collection program or program* shall mean the City's provision of residential waste collection services within the City through the City's contracted waste collector pursuant to §§ 12-28 through 12-33 of this Article.

*City's dumpster waste collection program or dumpster program* shall mean the City's provision of dumpster-based waste collection services to residential units, multi-family customers in dwellings with eight (8) or more units, and commercial customers who opt-in to the program by requesting dumpster service from the City's contracted waste collector pursuant to §§ 12-28 through 12-33 of this Article.

*Commercial customers* shall have the meaning set forth in § 15-411 of this Code.

...

*Director* shall have the meaning set forth in § 15-411 of this Code.

*Dumpster* shall have the meaning set forth in § 15-411 of this Code.

...

*Group account* shall have the meaning set forth in § 15-411 of this Code.

...

*Large capacity container(s)* shall have the meaning set forth in § 15-411 of this Code.



*Medium capacity container(s)* shall have the meaning set forth in § 15-411 of this Code.

...

*Multi-family customer* shall have the meaning set forth in § 15-411 of this Code.

...

*Poly-cart* shall have the meaning set forth in § 15-411 of this Code.

*Program customer* shall mean the owner or occupant of a residential unit or any person who opts-in to receive residential waste collection services.

...

*Recyclable materials* shall have the meaning set forth in § 15-411 of this Code.

*Recycling* shall have the meaning set forth in § 15-411 of this Code.

...

*Residential customer* shall have the meaning set forth in § 15-411 of this Code.

*Residential waste collection services* shall mean the collection, transportation and disposal of residential solid waste, recyclable materials and yard trimmings by the City's contracted waste collector through the City's residential waste collection ~~service~~-program.

*Residential unit* shall mean all single-unit residential buildings, and multi-unit residential buildings containing seven (7) dwelling units or fewer within the City, except for residential units excluded pursuant to § 12-29 and residential units for which a variance has been granted in accordance with § 12-30.

...

*Small capacity container(s)* shall have the meaning set forth in § 15-411 of this Code.

*Solid waste* shall have the meaning set forth in § 15-411 of this Code.

*Solid waste collector* shall have the meaning set forth in § 15-411 of this Code.

*Volume capacity category of containers* shall have the meaning set forth in § 15-411 of this Code.

*Yard trimmings* shall have the meaning set forth in § 15-411 of this Code.

Section 3. That Section 12-18 of the Code of the City of Fort Collins is hereby amended to read as follows:

**Sec. 12-18. Collection and disposal of refuse and rubbish.**

(a) The occupant and the owner of any premises wherein any refuse or rubbish is produced or accumulated shall be jointly and severally responsible to provide for collection service and removal of refuse and rubbish to the degree of service necessary to maintain the premises in a clean and orderly condition. They shall not contract or arrange for such collection and removal except with solid waste collectors licensed by the City under § 15-417 and, if applicable, as required by §§ 12-28 through 12-33 of this Article. An individual may dispose of his or her own refuse and rubbish, provided that it is properly disposed of at the Larimer County Landfill or at any other disposal site which is approved by the State, in conformity with all City and county regulations.

...

(d) When loaded into collector’s vehicle, collector shall acquire title to and ownership of all non-hazardous waste that is accepted at a waste processing or disposal facility. Title to, ownership of and liability for any hazardous waste or waste that is otherwise not accepted at a processing or disposal facility shall remain with the generator of the waste and shall at no time pass to the collector.

Section 4. That Section 12-19 of the Code of the City of Fort Collins is hereby amended to read as follows:

**Sec. 12-19. Group accounts for collection.**

(a) Any person who solicits refuse collection services from a collector for residential customers through a group account shall arrange for such services in a manner that offers residential customers:

- (1) Choices from amongst small, medium and large capacity containers for solid waste that are placed for collection by the residential customer;
- (2) Charges to residential customers that are based upon the small, medium or large capacity solid waste container, in a manner consistent with § 15-412(c);
- (3) Recycling services, ~~including Poly carts required to be provided for recycling,~~ in a manner consistent with § 15-413; and
- (4) Yard trimmings collection, in a manner consistent with § 15-414.

(b) Any person who is subject to the requirements of Subsection (a) above shall provide written notice consistent with the notice required in Subsection 15-413~~(d)~~ to all residential customers served through the group account. Said notice shall be given to all such residential customers no more than thirty (30) days after notice of rates per volume capacity category of solid waste container and recyclable materials services and solid waste container options have been provided by the collector. In addition, written notices shall be sent to all new residential customers who join the group account after the date of the original notice. Said additional notices shall be given to

each new member no more than ten (10) days after the new member joins the group account. Said notice shall also be provided to all residential customers once per calendar year. A copy of the form of each such notice, a list of recipients of the notice, and a record of the date and manner of distribution shall be retained by the person providing the notice for a period of five (5) years from the date each notice was provided, and shall be made available to the City for inspection upon request during said period of time.

(c) No person who is subject to the provisions of Subsection (a) above shall in any way discourage or provide disincentives to any current or prospective residential customer served through a group account who wishes to select a volume capacity category or level of recycling service that is different from that selected by other residential customers served through such account.

Section 5. That Section 12-22(b) of the Code of the City of Fort Collins is hereby amended to read as follows:

**Sec 12-22 – Required recycling.**

...

(b) *Cardboard.* No person shall place recyclable cardboard in solid waste containers for collection, nor shall any person bury or otherwise dispose of recyclable cardboard in or on private or public property within the City. All recyclable cardboard must either be stored and presented or delivered to a licensed solid waste collector for recycling in accordance with the provisions of Subsection 15-413(c) or delivered directly to a qualified recycling facility appropriate for recyclable cardboard.

Section 6. That Section 12-27 of the Code of the City of Fort Collins is hereby amended to read as follows:

**Sec. 12-27. Violations and penalties.**

Any person who violates § 12-18 of this Article, or who violates Subsection 12-22(b), or Subsection 12-22(c) as it relates to Subsection 12-22(b), commits a civil infraction and is subject to the penalty provisions of Subsection 1-15(f). Any person who violates any other provision of §§ 12-18 through 12-26 also commits a misdemeanor. All such misdemeanor violations are subject to a fine or imprisonment in accordance with § 1-15.

Section 7. That Chapter 12 of the Code of the City of Fort Collins is hereby amended by the addition of new Sections 12-28 through 12-33, which read in their entirety as follows:

*Division 2  
City’s Residential Waste Collection Program*

**Sec. 12-28. City’s residential waste collection program.**

~~The City shall provide~~ There is established the City's residential waste collection program to provide residential waste collection services for all program customers, except for those residences excluded pursuant to § 12-29 and those residences for which a variance has been granted in accordance with § 12-30.

**Sec. 12-29. Program exclusions and opting-in to the program.**

- (a) All commercial customers and multi-unit residential buildings containing eight (8) dwelling units or more are excluded from the City's residential waste collection program, except that multi-unit residential buildings containing eight (8) dwelling units or more may elect to participate in the City's residential waste collection program subject to the requirements set forth in this Article.
- (b) All residential units served by a dumpster are excluded from the City residential waste collection ~~service~~ program.
- (c) Commercial customers, multi-family customers, and owners or occupants of a residential unit served by a dumpster may elect to participate in the City's dumpster program by requesting service from the City's contracted waste collector subject to the program requirements set forth in the City's waste collection contract and as contained in this Article.
- (d) Group accounts formed prior to March 17, 2023, conforming with all applicable requirements of this Article and of Chapter 15, Article XV of the City Code, are excluded from the City's residential waste collection program while under ~~the~~ an agreement with ~~the~~ a solid waste collector. Such group accounts, however, may elect to participate in the City's residential waste collection ~~service~~ program, subject to the requirements set forth in this Article. All group accounts formed on or after March 17, 2023, shall be subject to the City's residential waste collection program, unless otherwise excluded.

**Sec. 12-30. Variances.**

- (a) Program customers may request a variance from the program to apply to a residential unit pursuant to this Section. Program customers may request a shared service variance under Subsection (d)(1) of this Section or an excess waste variance under Subsection (d)(2) of this Section.
- (b) Upon receipt of a request for variance, the Director shall either approve the variance or disapprove the variance based on the applicable standard provided in Subsection (d) of this Section. A copy of the approved or disapproved variance shall be sent by the City to the requestor of the variance and to the City's contracted solid waste collector.
- (c) A variance granted under this Section shall be valid for twenty-four (24) months. A granted variance shall exclude the grantee's residential unit from the City's residential waste collection ~~service~~ program for the duration of the variance and accordingly, the grantee shall not be subject to any of the requirements of §12-32 for that period, including any requirement to pay

the City’s contracted waste collector any charge or fee under the City’s residential waste collection program.

(d) Program customers may request a variance from the program for the following situations:

(1) A shared service variance may be granted by the City in accordance with the following provisions:

a. A program customer may request from the City a variance for sharing residential waste collection services provided under the City’s residential waste collection program with one or more other program customers.

b. The variance shall only be granted if the program customer provides proof, to the reasonable satisfaction of the Director, that the program customer shares residential waste collection services with one or more other residential units and that the program customers together consistently produce combined total solid waste in an amount equal to or less than the smallest volume of solid waste service offered by the City’s contracted waste collector.

c. Only one (1) variance shall be granted per approved request, meaning that only one (1) program customer in a group of program customers sharing service is eligible to receive a variance. Program customers sharing service may collectively agree to how to share the financial benefit of the variance.

(2) An excess producer shall only be granted if the program customer provides proof, to the reasonable satisfaction of the Director, that the program customer consistently produces solid waste in an amount greater than the volume of the largest cart service offered by the City’s contracted waste collector.

**Sec. 12-31. Freedom to contract; freedom to self-haul.**

Nothing in this Article shall prohibit any program customer from contracting for or hauling their own solid waste, recyclable materials, or yard trimmings, provided it is collected and disposed of in conformity with all applicable City rules and regulations.

**Sec. 12-32. City contract; City administrative fee; rates.**

(a) The City may enter into an agreement with a licensed collector to become the City’s contracted waste collector. The City’s contracted waste collector shall provide residential waste collection services under the City’s residential waste collection program and the dumpster program. The contract shall establish all appropriate terms and conditions, including rates for residential waste collection services, for the contracted waste collector’s provision of residential waste services to the City. The contract shall also establish all appropriate terms and conditions for the dumpster program. All rates under the contract shall be in amounts that reasonably relate to the services provided for such rates. The City Manager may approve and execute future amendments to the contract that the City Manager, in consultation with the City Attorney,

determines to be necessary and appropriate to facilitate the program, so long as such amendments do not increase costs to program customers without a commensurate service improvement, substantially modify the purposes of the contract, or increase the obligations and responsibilities of the City as set forth in the contract.

(b) There is established a City administrative fee to be imposed on each program customer and dumpster program customer in the amount not to exceed one dollar and thirty-five cents (\$1.35) per month to defray the City costs of administering the program. The administrative fee shall be remitted to the City in accordance with the terms of the City’s contract with the collector. The administrative fee amount shall be determined by and adjusted as necessary by the City Manager in accordance with Chapter 7.5 of this Code, provided it does not exceed one dollar and thirty-five cents (\$1.35) per month.

(c) Each program customer shall pay to the City’s contracted waste collector the applicable rate for the solid waste, recyclable materials, and yard trimmings collection service provided, in addition to the administrative fee established under Subsection (b) of this Section.

(d) If a program customer who has not received a variance under §12-30 elects to not use the services provided by the City’s contracted waste collector, the program customer shall pay the City’s contracted waste collector the administrative fee established under Subsection (b) of this Section and the rate for the minimum level of solid waste service, which is nine dollars and seventy-five cents (\$9.75) per month for the period from September 30, 2024, to September 29, 2025, and which shall increase by three percent (3%) annually and as otherwise provided for by the City’s waste collection contract.

(e) Each dumpster program customer shall pay to the City’s contracted waste collector the applicable rate ~~to the City’s contracted waste collector~~ for the dumpster services, in addition to the administrative fee established under Subsection (b) of this Section. The dumpster program is only available if provided for pursuant to the contract. Pricing for such service through the dumpster program shall be as defined in the contract with the City’s residential waste collector.

(f) The City’s contracted waste collector shall not impose any rate, fee, charge, surcharge or any other assessment of any kind to any program customer except those expressly authorized in and pursuant to the contract. For clarity and without limitation, this Section prohibits the City’s contracted waste collector from imposing any charge authorized in Article XV of Chapter 15 of this Code to program customers.

**Sec. 12-33. Violations and penalties.**

Any person who violates any provision of §§ 12-28 through 12-32 of this Code, whether by acting in a manner declared to be unlawful or by failing to act as required, commits a civil infraction and shall be subject to the penalty provisions of Subsection 1-15(f) of this Code.

Section 8. That Section 15-411 of the Code of the City of Fort Collins is hereby amended to read as follows:

**Sec. 15-411. Definitions.**

The following words, terms and phrases, when used in this Article, shall have the meanings ascribed to them in this Section:

...

*City's residential waste collection program* or *program* shall have the meaning set forth in § 12-16.

*City's contracted waste collector* shall have the meaning set forth in § 12-16.

*Collector* shall mean a person providing collection service for solid waste, recyclable materials, food scraps, or yard trimmings.

*Commercial customers* shall mean any premises utilizing collection service where a commercial, industrial or institutional enterprise is carried on, including, without limitation, retail establishments, restaurants, hospitals, schools, day care centers, office buildings, nursing homes, clubs, churches and public facilities. Customers, other than residential customers, serviced using any type of collection container, including without limitation poly-carts, dumpsters, or roll-off bins, are considered commercial customers unless the service is provided for an active construction or demolition project permitted by the City building department. Customers at residential properties who use a dumpster for solid waste collection are commercial customers.

*Communal system for the collection of waste* shall mean an arrangement for the collection of refuse from multiple properties or residences using collection containers shared by those properties or residences.

...

*Extra-large capacity container* shall mean two (2) large capacity containers or the equivalent volume thereof.

*Extra-small capacity container* shall mean container or solid waste service for a volume of solid waste less than that held by the small capacity container.

...

*Group account* shall mean a customer account for collection of refuse from multiple residential customers, regardless of the method by which such services are contracted or arranged. An account for service arranged by a single property owner for collection of solid waste from multiple locations owned by that property owner shall not constitute a group account for the purposes of this Article.

...

*Poly-cart* shall mean a durable, watertight, plastic, wheeled container with a tightly fitting, rodent proof lid, manufactured and used for the collection of solid waste, recyclable materials, food scraps, or yard trimmings. For multi-family or commercial customers, a dumpster or roll-

off bin with aggregate volume of multiple poly-carts shall be deemed to constitute one (1) or more poly-carts.

...

*Recyclable materials* shall mean materials which have been separated from solid waste and can be recovered as useful materials and are properly prepared for the purpose of recycling, provided that such materials have been designated by the City Manager as recyclable pursuant to § 15-416 of this Article.

*Recycling* shall mean the process of recovering useful materials from refuse, including items for reuse.

*Recycling collector* shall mean a person providing recyclable materials collection service.

...

*Residential customer* shall mean a customer at a residential property for which a communal system for the collection of waste is not employed and which does not use a dumpster for solid waste collection.

...

*Solid waste* shall mean all refuse, putrescible and nonputrescible waste, excluding discarded or abandoned vehicles or parts thereof, sewage, sludge, septic tank and cesspool pumpings or other sludge, discarded home or industrial appliances, hazardous wastes, materials used as fertilizers or for other productive purposes and recyclable materials or yard trimmings or food scraps which that have been source separated for collection.

...

*Source separation* shall mean to separate recyclable materials, food scraps or yard trimmings from solid waste at the waste source.

*Volume capacity category of containers* shall mean extra-small capacity containers, small capacity containers, medium capacity containers, large capacity containers, or extra-large capacity containers placed for collection of solid waste, recyclable materials, food scraps or yard trimmings.

...

Section 9. That the definition “Existing customers” contained in Section 15-411 of the Code of the City of Fort Collins is hereby deleted.

Section 10. That Section 15-412 of the Code of the City of Fort Collins is hereby amended to read as follows:

**Sec. 15-412. License requirement.**



...

(b) *Exemptions.* The following persons or entities are not required to obtain a ~~solid waste or recyclable~~ collection license:

- (1) A civic, community, benevolent or charitable nonprofit organization that collects, transports and markets materials for resource recovery solely for the purpose of raising funds for a charitable, civic or benevolent activity;
- (2) A person who transports refuse produced by such person;
- (3) A property owner or agent thereof who transports refuse left by a tenant upon such owner's property, so long as such property owner does not provide collection service for compensation for tenants on a regular or continuing basis;
- (4) A demolition or construction contractor or landscaper who produces and transports refuse in the course of such occupation, where the refuse produced is merely incidental to the particular demolition, construction or landscape work being performed by such person.

(c) *Volume-based rates for solid waste service.*

(1) Any person licensed to operate as a solid waste collector within the City shall charge all residential customers, including, but not limited to, residential customers provided service through a group account, on the basis of the volume capacity category of the solid waste containers placed for collection by each residential customer. Solid waste collectors shall determine a rate for, and offer to residential customers, the small capacity container solid waste service, and that rate shall be used to determine the rates for all other service levels in accordance with the following:

- a. Medium capacity container solid waste service shall be two (2) times the rate of the small capacity container solid waste service.
- b. Large capacity container solid waste service shall be three (3) times the rate of the small capacity container solid waste service.
- c. Extra-large capacity container solid waste service shall be six (6) times the rate of the small capacity container solid waste service.
- d. A solid waste collector may offer extra-small capacity container solid waste service, the rate for which shall be less than the rate of the small capacity container solid waste service.
- e. The City's contracted waste collector shall charge customers under the City's residential waste collection program the rates established in the City's contract with the City's contracted waste collector.

(2) The charge for solid waste placed for collection that exceeds the customer's service subscription level shall be proportional to the collector's standard rate for a small capacity container (for example, a customer who placed out an extra thirty-two (32) gallon bag of solid waste would be charged one-quarter ( $\frac{1}{4}$ ) the monthly rate for the small capacity container service as the bag would be equivalent to the amount of small capacity container service volume provided per week).

a. A poly-cart in which the lid is unable to close due to the presence of solid waste is considered to contain excess solid waste and the solid waste collector must charge the customer accordingly.

b. Determining whether a customer has placed excess solid waste out for collection shall be made on an individual pick-up date basis. Solid waste collectors shall not "average" pick-up volumes (to allow for excess solid waste at one (1) time offset by a lower volume at another time).

(3) In order to further ensure that the charge for the collection of solid waste is based upon volume as required above, any solid waste collector may provide to each residential customer containers (which may include disposable bags), or labels to be attached to customer-provided disposable bags, showing the volume capacity category of such bags.

(4) A solid waste collector shall arrange for provision of service to each group account in a manner that results in an individual selection by each individual residential customer of a level of service that includes at a minimum the small, medium and large capacity containers and levels of service offered by the collector. In the case of a group account, the solid waste collector shall require a written contract that is compliant with the provisions of this Article and § 12-19.

(5) In offering or arranging for services, a collector shall provide reasonable notice of the range of volume capacity category container sizes or levels of service offered by the solid waste collector; and shall provide to each residential customer that customer's requested volume capacity category container size or level of service.

(6) It shall be unlawful for any person to knowingly attach any label to a container exceeding in volume the volume capacity category shown on, or represented by, such label, and to place said container for collection.

(7) Residential solid waste shall be collected curbside. No collector shall collect or transport solid waste, recyclables, food scraps or yard trimmings which have not been placed for collection through such system or in containers upon which such labels have been attached.

(8) The provisions of this Subsection 15-412(c) shall not be construed as prohibiting any collector from also establishing policies regarding the maximum weight of containers of solid waste and/or recyclable materials.

(d) *Fixed fees for prepaid disposable bags or labels for solid waste service.*

(1) Where prepaid disposable bags or prepaid labels for customer-provided disposable bags (rather than reusable containers) are provided by a solid waste collector to its customers for solid waste collection services, solid waste collectors may, but are not required to, charge a fixed fee for the purpose of covering the fixed operational costs of routing service trucks for such collections in addition to the volume based rates for the prepaid bags or labels under Subsection 15-412(c) above.

...

(e) *Service surcharge for solid waste service.*

(1) In addition to the volume-based rates and excess solid waste charges required pursuant to Subsection 15-412(c), the charge allowed in Subsection 15-413(a)(4) and any fixed fees permitted under Subsection 15-412(d) for collection of prepaid disposable bags or prepaid labels for customer-provided disposable bags, collectors may, but are not required to, charge a service surcharge to residential customers. A service surcharge may be imposed only to cover fluctuating operational costs of doing business outside of a collector's control (such as, for example, fuel costs or market based recycling fees paid by collectors). A service surcharge shall be permitted and charged only as set forth in this Subsection 15-412(e).

...

(4) A collector may not impose any other rate, fee, charge, surcharge, or any other assessment of any kind to any customer. Fees, charges, surcharges etc. not allowed include without limitation those for service termination or for cart pickup.

...

(h) *Communications.* All oral and written communications with customers by or on behalf of a collector, whether in person, by telephone, in written form or through any other means, must be consistent with and clearly and accurately describe all:

(1) Components of the system for solid waste service, recyclable materials service, yard trimmings service and any other collection service provided by the collector; and

(2) All applicable requirements of this Article and Article II of Chapter 12.

Section 11. That Section 15-413 of the Code of the City of Fort Collins is hereby amended to read as follows:

**Sec. 15-413. Recycling requirement.**

## (a) Curbside collection—Residential.

(1) Solid waste collectors shall provide residential solid waste customers curbside collection of recyclable materials for no additional charge. Such service shall include recyclable materials collection in an amount equal to at least eighteen (18) gallons and need not be more than two (2) large capacity containers. If a customer declines recyclable materials collection, solid waste collectors may not reduce the cost of collection service.

(2) Solid waste collectors shall provide curbside recyclable materials collection services on the same day of the week as they collect solid waste from the customer, except for residential customers located within mobile home parks.

(3) If solid waste collectors offer residential customers only the choice of an eighteen (18) gallon recycle tub, the solid waste collectors must provide recyclable materials collection at least once per week. Solid waste collectors that offer residential customers medium and/or large capacity containers for recycling ~~may~~ **must** provide recyclable materials collection a minimum of two (2) times per month.

(4) When a residential customer has two (2) large capacity containers for recycling collection, collectors may require that all recyclable materials fit inside the provided containers or charge the customer an excess recyclable materials fee equivalent to the excess solid waste fee for recyclables placed for collection outside the recyclable materials cart.

(b) *Multi-family and commercial solid waste and recyclable materials collection.*

(1) Each solid waste collector shall provide recyclable materials collection service to multi-family customers and commercial customers as a part of solid waste collection services. Solid waste collectors must charge multi-family and commercial customers for the minimum recycling service described in Subsection 15-413(b)(2), which may be itemized separately on bills. Solid waste collectors shall not exclude the cost of minimum recycling service unless such customer is granted a variance in accordance with Subsection 15-413(b)(3).

(2) The volume of recyclable materials collection service for service for multi-family and commercial customers shall be at least one-third ( $\frac{1}{3}$ ) of the total collection volume (including both solid waste and recyclables) based on the size of solid waste containers and the service frequency provided to such customer ("minimum recycling service"). For example, if a customer is provided with pick-up of a 4-cubic-yard trash container that is collected once per week, the collector shall also provide minimum recycling service in an amount equal to not less than a 2-cubic-yard recycling container as a part of such basic services (Two (2) cubic yards is one-third ( $\frac{1}{3}$ ) of the total service volume (including both solid waste and recyclables) of six (6) cubic yards).

(3) The City may grant a commercial or multi-family recycling customer a variance from the recycling requirements in Subsections 15-413(b)(1) and (2) in accordance with the following provisions:

(i)a. If a collector's multi-family customer or commercial customer seeks to not participate in minimum recycling collection services offered by a collector due to space constraints, self-hauling recyclables to recycling drop-off center, utilization of a separate licensed recycling collection provider other than the solid waste collector, failure to generate recyclables, or if only available location for recycling bin is not safely serviceable by hauler, the customer must submit a written request for variance on a form provided by the City and signed by the customer. A recycling bin location that is not safely serviceable is defined as a location that is substantially less safe to service than the trash bin service area for that location. Upon receipt of such a request for variance, the Director shall either approve the variance for good cause shown, or disapprove the variance. A copy of the approved or disapproved variance shall be sent by the City to the solid waste collector servicing that customer.

...

(c) *Recyclable materials collection containers, collection vehicles and related duties.* All licensed collectors of recyclable materials and solid waste operating within the City shall have the following duties:

(1) Except for materials that customers have not properly prepared for recycling, collectors may not commingle designated recyclable materials with refuse solid waste, nor dispose of recyclable materials set out by recycling customers by any means other than at a qualified recycling facility. ~~Recyclable materials shall include all those materials designated by the City Manager pursuant to § 15-416 as materials which collectors must offer to collect for recycling.~~

(2) Any vehicle used for the collection of recyclable materials must be clearly and unambiguously marked as a recycling truck, whether by permanent decals or markings, or by signage or placards displayed at all times during such use.

(3) Collectors must provide a recyclable materials container to any customer at any time upon request within one (1) billing period after the request is made.

(4) The following requirements shall apply for residential customers:

a. Unless a customer expressly declines it, the collector must provide residential solid waste customers a rigid recyclable materials collection receptacle poly-cart or eighteen (18) gallon tub for recyclable materials that meets the requirements of this Subsection 15-413(c). The recyclable materials container

must be clearly marked as a recyclables container with words or symbols or both and must be provided to the customer without additional charge.

b. Collectors must offer in writing the choice of a medium capacity or large capacity recycling container to each residential recycling customer annually.

(5) The following requirements shall apply for commercial customers:

a. Solid waste collectors shall provide recycling containers to multi-family and commercial customers (in the form of containers, dumpsters, or roll-off bins as deemed appropriate for servicing the location) and with a capacity sufficient to meet one-third ( $\frac{1}{3}$ ) of service as recycling volume requirement.

b. Regardless of the type of recyclable materials container, it must be clearly identifiable as a recycling container and include the following:

1. A conspicuous chasing arrows decal on the side(s) of the container accessed by service or pedestrian access; and

2. Signage such as stickers or weather-resistant laminated posters or imprinting into the surface of the container during manufacture, of recyclable materials accepted in local collection programs, including graphics depicting acceptable materials. Such information may be delivered by use of City-provided graphics or graphics provided by the collector and approved by the City.

(d) *Recyclable materials preparation and ownership.*

(1) The collector may establish such reasonable and industry-accepted requirements for the preparation of materials for recycling as are necessary to provide for the orderly collection of recyclable materials, including requirements for source separation.

(2) All recyclable materials placed for collection shall be owned by and be the responsibility of the customer until the materials are collected by the collector. Upon collection, the collector shall take title to and ownership of the recyclable materials. Title to, ownership of and liability for any hazardous waste or waste that is otherwise not accepted at a processing or disposal facility shall remain with the generator of the waste and shall at no time pass to the collector. No person other than the customer or the collector of recyclable materials shall take physical possession of any recyclable materials placed for collection, with the exception of City staff or their agents who make take physical possession of de minimis amounts of recyclable materials to conduct informational studies. Such materials must be recycled properly after completion of a study.

(e) *Customer notification.*

(1) Upon the initial provision of collection services to new residential customers, and on or before December 31 of each year with respect to existing residential customers, collectors shall notify in writing such customers of:

...

d. Such policies and requirements as have been established by the collector for the orderly collection of recyclable materials as authorized pursuant to Subsection 15-412(c)(8) or 15-413(d)(1);

...

(2) For group accounts, the notices required hereunder may be sent to the group representative for said account, provided that such notice shall further notify said representative of its obligation to provide all individual residential customers within the group of this same information, pursuant to Subsection 12-19(b).

~~(3) All verbal and written communications with customers by or on behalf of a collector, whether in person, by telephone, in written form or through any other means, must be consistent with and clearly and accurately describe all components of the system employed by the collector to provide and charge for variable rate solid waste collection and recycling services. The collector shall deliver to the Director a true and correct copy of each form of such notification sent on or before December 31 of each year.~~

Section 12. That Section 15-414 of the Code of the City of Fort Collins is hereby amended to read as follows:

**Sec. 15-414. - ~~Optional service~~—Residential yard trimmings.**

(a) *Residential service required.* Each solid waste collector licensed by the City shall make available to each residential customer receiving solid waste collection services, including customers receiving solid waste collection services through a group account, and shall provide to a residential customer upon request curbside collection of residential yard trimmings at least once per week from April 1 to November 30 of each year ~~upon a customer's request~~. As of September 30, 2024, each solid waste collector licensed by the City shall enroll each residential customer receiving solid waste collection services, including customers receiving solid waste collection services through a group account, in curbside collection of residential yard trimmings to be serviced at least once per week from April 1 to November 30 of each year and offer each residential customer the option to decline such service.

(b) *Rates.* Collectors shall be responsible for setting rates for collection of residential yard trimmings and such charges may be billed separately from any charges for basic services, as defined in § 15-411 to include collection of solid waste and recyclable materials, provided by the collector, and shall not be governed by the requirements of Subsection 15-412(e), provided that the City's contracted waste collector shall bill for yard trimmings services in accordance with the City's contract waste collection program for that program's customers. Beginning on September 30, 2024, collectors shall not list yards trimmings collection as a separate line item

on customers' bills and beginning on that date yard trimmings collection shall be included within the charges for basic services, unless the customer has declined yard trimmings collection service.

(c) *Disposal of yard trimmings.* Collectors may not comingle yard trimmings with solid waste or recyclable materials, nor dispose of yard trimmings at a landfill. Yard trimmings shall be disposed of by the collector at a location or facility permitted to collect ~~organic materials~~ **yard trimmings** for recycling, reuse or composting.

Section 13. That Section 15-415 of the Code of the City of Fort Collins is hereby amended to read as follows:

**Sec. 15-415. Collection of food store food scraps.**

(a) *Frequency of collection.* Collectors providing food scraps collection service to food stores shall provide collection with such frequency as is necessary to prevent overflow of containers. Service must be provided at least once per week, but no less frequently than may be required by the Larimer County Department of Health and Environment.

(b) *Collectors—Duties.* All licensed collectors of food scraps operating within the City shall have the following duties:

(1) Except as permitted by variance allowed under Subsection 12-23(a), collectors may not comingle food scraps with solid waste or recyclable material or dispose of food scraps by any means other than at a location or facility permitted by the State of Colorado to collect such material (but not to a landfill).

(2) A collector may establish such reasonable and industry-accepted requirements for the preparation of food scraps as are necessary to provide for the orderly collection of such materials, including requirements for source separation.

...

Section 14. That Section 15-417 of the Code of the City of Fort Collins is hereby amended to read as follows:

**Sec. 15-417. - Application for license.**

(a) Any person desiring to obtain a license to engage in the business of being a collector of solid waste, recyclable materials, food scraps, or yard trimmings within the City shall make written application to the Director on forms provided by the City. All applications for renewal of a license by a licensed collector must be submitted no later than November 30 in advance of the new license year. The application shall include, without limitation, the following information:

...



(3) A list of motor vehicles or fleets of human powered vehicles owned and/or operated by the applicant directly in the collection of solid waste, recyclable materials, food scraps, and/or yard trimmings, or operated or located at any time in the City during the current or pending license year, including vehicle make, color, year, U.S. Department of Transportation safety inspection identification number, cubic yard capacity, Colorado license plate number and empty tare weight where applicable.

...

Section 15. That Section 15-420(d) of the Code of the City of Fort Collins is hereby amended to read as follows:

**Sec. 15-420. - Plans, recordkeeping and reports.**

...

(d) Each collector licensed pursuant to this Article shall maintain accurate and complete records of the service provided to each customer, the charges to such customer and payments received, the form and recipients of any notice required pursuant to this Article, and any underlying records, including any books, accounts, contracts for services, including contracts for group accounts, written records of individual level of service requests, invoices, route sheets or other records necessary to verify the accuracy and completeness of such records, and copies of all applications for and documentation pertaining to all requests for variance pursuant to Subsection 15-413 (b)(3)-~~above~~. It shall be the duty of each collector to keep and preserve all such documents and records, including any electronic information, for a period of three (3) years from the end of the calendar year of such records, except for paper records of route sheets, which may be discarded one (1) year after the end of the calendar year of such route sheets. Notwithstanding any other requirement of this Article, a collector shall allow the City Manager, or their designee, to inspect any of the records referenced in this subsection when provided with seven (7) days advance written notice.

...

Section 16. That Section 15-422 of the Code of the City of Fort Collins is hereby amended to read as follows:

**Sec. 15-422. Identification of vehicles.**

Each vehicle used by a collector to provide services within the City pursuant to a license issued under this Article shall bear an identification sticker issued by the Financial Officer in a conspicuous place upon the vehicle, which identification sticker shall be issued by the Financial Officer at the time the license is granted.

Introduced, considered favorably on first reading and ordered published this 21st day of February, 2023, and to be presented for final passage on the 7th day of March, 2023.

\_\_\_\_\_  
Mayor

ATTEST:

\_\_\_\_\_  
City Clerk

Passed and adopted on final reading this 7th day of March, 2023.

\_\_\_\_\_  
Mayor

ATTEST:

\_\_\_\_\_  
City Clerk

ORDINANCE NO. 028, 2023  
OF THE COUNCIL OF THE CITY OF FORT COLLINS  
AUTHORIZING THE CITY MANAGER TO ENTER INTO A CONTRACT FOR THE  
PROVISION OF RESIDENTIAL WASTE COLLECTION SERVICES

WHEREAS, Colorado Revised Statutes (“C.R.S.”) § 30-15-401(7.5) authorizes the City to establish a residential waste collection program (the “Program”), which may require municipal residents to use or pay user charges for residential waste services; and

WHEREAS, to establish the Program, C.R.S. § 30-15-401(7.5)(b)(I) requires the City to issue a Request for Proposals for such services, provide written notice of the Request for Proposals to City-licensed waste haulers, and publish a six-month public notice of the Request for Proposals in a newspaper of general circulation within the City prior to requiring the use of the services or the time of initial imposition of the user charges; and

WHEREAS, C.R.S. § 30-15-401(7.5) also requires the local governing body to award the contract for the Program; and

WHEREAS, on July 19, 2022, in Resolution 2022-079, the City Council directed City staff to design and issue a Request for Proposals for residential waste collection services, including trash and recycling collection services; and

WHEREAS, City staff designed a Request for Proposals and issued it on September 12, 2022, with an addendum added on October 24, 2022, which are attached hereto as Exhibit A, mailed a copy of the Request for Proposals to all waste haulers licensed by the City, a list of which is attached hereto as Exhibit B, and published the required notice in a local newspaper, as shown in the affidavit attached hereto as Exhibit C; and

WHEREAS, City staff received three proposals in response to the Request for Proposals and conducted a procurement process in accordance with the requirements of the City Code; and

WHEREAS, based on the outcome of the procurement process, the City has selected Allied Waste Systems, Inc., which does business as Republic Services of Colorado, to provide the Program; and

WHEREAS, Section 8-186(a) of the City Code requires that most contracts for services (including this one) with a term of more than five years in length be authorized by the City Council by ordinance; and

WHEREAS, the agreement negotiated with Allied Waste Systems, Inc., which is attached hereto as Exhibit D (the “Agreement”), will remain in effect for a period longer than five years, that is until September 30, 2029, unless the Agreement is modified or terminated early; and

WHEREAS, an extended duration of the Agreement provides the City and Allied Waste Systems, Inc., needed time to set up the Program and then allows for a five-year service period.

NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF FORT COLLINS as follows:

Section 1. That the City Council hereby makes and adopts the determinations and findings contained in the recitals set forth above.

Section 2. That the City Council, in accordance with C.R.S. § 30-15-401(7.5) and Section 8-186(a) of the City Code, hereby approves of the attached Agreement for Residential Solid Waste Services between the City and Allied Waste Services, Inc.

Section 3. That the City Manager is hereby authorized to execute the Agreement for Residential Waste Collection Services in substantially the form attached as Exhibit “D”, together with such additional terms and conditions as the City Manager, in consultation with the City Attorney, determines are necessary or appropriate to protect the interests of the City.

Section 4. The City Manager may approve and execute future amendments to the Agreement for Residential Waste Collection Services in accordance with Section 12-32(a) of the City Code.

Introduced, considered favorably on first reading, and ordered published this 21st day of February, 2023 and to be presented for final passage on the 7th day of March, 2023.

\_\_\_\_\_  
Mayor

ATTEST:

\_\_\_\_\_  
City Clerk

Passed and adopted on final reading on this 7th day of March, 2023.

\_\_\_\_\_  
Mayor

ATTEST:

\_\_\_\_\_  
City Clerk



Financial Services  
 Purchasing Division  
 215 N. Mason St. 2<sup>nd</sup> Floor  
 PO Box 580  
 Fort Collins, CO 80522  
 970.221.6775  
 970.221.6707  
[fcgov.com/purchasing](http://fcgov.com/purchasing)

**REQUEST FOR PROPOSAL  
 9648 RESIDENTIAL SOLID WASTE COLLECTION SERVICES**

**RFP DUE: 5:00 PM MT (RMEPS Clock), October 24, 2022**

The City of Fort Collins is requesting proposals from qualified Contractors to provide collection of Solid Waste, Recyclable Materials, Yard Trimmings, Bulky Items and related services for single family homes and multi-family buildings of 7 or fewer units. Award of a contract for the Residential Solid Waste Collection initiative is subject to the City of Fort Collins Council approval by ordinance.

**As part of the City's commitment to sustainability, proposals must be submitted online through the Rocky Mountain E-Purchasing System (RMEPS) at <http://www.bidnetdirect.com/colorado/city-of-fort-collins>. Note: please ensure adequate time to submit proposals through RMEPS. Proposals not submitted by the designated Opening Date and Time will not be accepted by RMEPS.**

**A pre-proposal meeting will be held at 1:00 PM MT on September 26, 2022.** The pre-proposal meeting will be hosted on-line via Zoom. Select or copy/paste the below link into your browser for access to the meeting. Please add your name, email address, and organization name in the Zoom chat.

**Click here for the meeting:** <https://us02web.zoom.us/j/7056751403>  
**Meeting ID:** 705 675 1403

**All questions should be submitted, in writing via email, to Gerry Paul, Purchasing Director at [gspaul@fcgov.com](mailto:gspaul@fcgov.com), no later than 5:00 PM MT on October 3, 2022.** Please format your e-mail to include RFP 9648 Residential Solid Waste Collection Services in the subject line. Questions received after this deadline may not be answered. Responses to all questions submitted before the deadline will be addressed in an addendum and posted on the Rocky Mountain E-Purchasing System webpage.

**Rocky Mountain E-Purchasing System hosted by BidNet**

A copy of the RFP may be obtained at [www.bidnetdirect.com/colorado/city-of-fort-collins](http://www.bidnetdirect.com/colorado/city-of-fort-collins).

This RFP has been posted utilizing the following Commodity Code(s):

91027	Garbage/Solid Waste Removal, Disposal and/or Treatment
92677	Recycling Services

**Prohibition of Unlawful Discrimination:** The City of Fort Collins, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 U.S.C. §§ 2000d to 2000d-4) and the Regulations, hereby notifies all bidders that it will affirmatively ensure that any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full and fair opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award.

The City strictly prohibits unlawful discrimination based on an individual's gender (regardless of gender identity or gender expression), race, color, religion, creed, national origin, ancestry, age 40 years or older, marital status, disability, sexual orientation, genetic information, or other characteristics protected by law. For the purpose of this policy "sexual orientation" means a person's actual or perceived orientation toward heterosexuality, homosexuality, and bisexuality. The City also strictly prohibits unlawful harassment in the workplace, including sexual harassment. Further, the City strictly prohibits unlawful retaliation against a person who engages in protected activity. Protected activity includes an employee complaining that he or she has been discriminated against in violation of the above policy or participating in an employment discrimination proceeding.

The City requires its Contractors to comply with the City's policy for equal employment opportunity and to prohibit unlawful discrimination, harassment and retaliation. This requirement applies to all third-party Contractors and their subcontractors at every tier.

**Public Viewing Copy:** The City is a governmental entity subject to the Colorado Open Records Act, C.R.S. §§ 24-72-200.1 et seq. ("CORA"). Any proposals submitted hereunder are subject to public disclosure by the City pursuant to CORA and City ordinances. Contractors may submit one (1) additional complete proposal clearly marked "FOR PUBLIC VIEWING." In this version of the proposal, Contractors may redact text and/or data that it deems confidential or proprietary pursuant to CORA. Contractors must submit a supplemental document explaining the justification for each redaction. Failure to provide a public viewing copy will be considered a waiver of any claim of confidentiality under CORA without regard to how the applicant's proposal or certain pages of the proposal are marked confidential, proprietary, or similar. Such statement does not necessarily exempt such documentation from public disclosure if required by CORA, by order of a court of appropriate jurisdiction, or other applicable law. Generally, under CORA trade secrets, confidential commercial and financial data information is not required to be disclosed by the City. Proposals may not be marked "Confidential" or 'Proprietary' in their entirety. By responding to this RFP, Contractors hereby waives any and all claims for damages against the City for the City's good faith compliance with CORA. **All provisions of any contract resulting from this request for proposal will be public information.**

**Contractors Registration:** The City requires new Contractors receiving awards from the City to submit IRS form W-9 or W-8BEN/W8-BEN-E (international firms) and requires all Contractors to accept Direct Deposit (Electronic) payment. If needed, the W-9 form and the Vendor Direct Deposit Authorization Form can be found on the City's Purchasing website at [www.fcgov.com/purchasing](http://www.fcgov.com/purchasing) under Vendor Reference Documents. **Please do not submit these documents with your proposal**, however, if you take exception to participating in Direct Deposit (Electronic) payments please clearly note such in your proposal as an exception. The City may waive the requirement to participate in Direct Deposit (Electronic) payments at its sole discretion.

**Sales Prohibited/Conflict of Interest:** No officer, employee, or member of City Council, shall have a financial interest in the sale to the City of any real or personal property, equipment, material, supplies or services where such officer or employee exercises directly or indirectly any decision-making authority concerning such sale or any supervisory authority over the services to be rendered. This rule also applies to subcontracts with the City. Soliciting or accepting any gift, gratuity favor, entertainment, kickback or any items of monetary value from any person who has or is seeking to do business with the City of Fort Collins is prohibited.

**Collusive or Sham Proposals:** Any proposal deemed to be collusive or a sham proposal will be rejected and reported to authorities as such. Your authorized signature of this proposal assures that such proposal is genuine and is not a collusive or sham proposal.

The City of Fort Collins reserves the right to reject any and all proposals and to waive any irregularities or informalities.

**Utilization of Award by Other Agencies:** The City of Fort Collins reserves the right to allow other state and local governmental agencies, political subdivisions, and/or school districts to utilize the resulting award under all terms and conditions specified and upon agreement by all parties. Usage by any other entity shall not have a negative impact on the City of Fort Collins in the current term or in any future terms.

The selected Contractors shall be required to sign the City's Agreement prior to commencing services (see sample attached to this document).

Sincerely,



Gerry Paul  
Purchasing Director

## 1.0 INTRODUCTION

The City of Fort Collins is requesting proposals from qualified Contractors to provide collection of Solid Waste, Recyclable Materials, Yard Trimmings, Bulky Items and related services for single family homes and multi-family buildings of 7 or fewer units. Award of a contract for Residential Solid Waste Collection Services is subject to the Fort Collins City Council approval by ordinance.

Fort Collins has a long-standing commitment to waste reduction and has utilized a licensed open market collection system for decades.

Fort Collins' license requires haulers to report the materials collected from all sectors of the community, which is used to calculate various diversion rates. In 2020, the Community Diversion Rate (including residential, commercial, and industrial materials) was 52% and the Residential Diversion Rate was 29%. Details of Fort Collins diversion rates can be found in the annual reports at [www.fcgov.com/recycling/publications-resources.php](http://www.fcgov.com/recycling/publications-resources.php).

Fort Collins has adopted aggressive waste reduction goals, including working toward zero waste by 2030, and has identified a stagnant residential diversion rate as one of the challenges of making progress on that goal. Our Climate Future is the combined waste, climate and energy plan for Fort Collins and can be viewed at [www.fcgov.com/climateaction/our-climate-future](http://www.fcgov.com/climateaction/our-climate-future).

Fort Collins wishes to build upon the existing program by adding contracted collection for Residential Units. Fort Collins City Council has expressed support for a contracted system to help achieve the following goals:

- Reduce the number of trucks on residential streets and achieve street maintenance savings as well as increase safety in residential neighborhoods
- Reduce greenhouse gas emissions
- Increase diversion of Recyclable Materials and Yard Trimmings and encourage reuse of Bulky Items as much as possible
- Provide equitable pricing throughout the community
- Provide cost-effective pricing for Collection Services
- Provide a high level of customer service

## 2.0 GENERAL INFORMATION

Subject to Fort Collins City Council approval by ordinance and final negotiations with the awarded Contractor, definitions and general provisions of the contract will include the following:

**Alley Service:** Where alleys are the primary service option, Contractor shall provide Collection Services in alleys. Alleys are estimated to constitute 12-15% of the service area in Fort Collins. Further information on alleys is included in Section 3.0 below.

**Bulky Items:** Solid Waste that does not fit in a closed Solid Waste cart, excluding Hazardous Waste, Electronics, Yard Trimmings, Recyclable Cardboard, items that weigh over 60 pounds, and items larger than 6' x 6'.

### **Carts Terminology:**

- "Small Cart" shall mean a cart with a capacity from 30-39 gallons
- "Medium Cart" shall mean a cart with a capacity from 60-69 gallons
- "Large Cart" shall mean a cart with a capacity from 90-99 gallons



**City Limits:** The boundary of the City of Fort Collins as identified via the City of Fort Collins GIS system (see details in section 3.0). City Limits does not include the Growth Management Area.

**Collection Services:** The collection, transportation, and delivery to an appropriate facility of Solid Waste, Recyclable Materials, Yard Trimmings, Bulky Items, and associated services for Residential Units conducted in a manner consistent with all applicable laws and regulations and the provisions of the executed Agreement.

**Contract Term:** The contract shall commence on the Effective Date and shall continue for five (5) years from the Service Commencement Date, unless terminated as provided under the contract.

**Contractor:** The firm selected by the City to provide Collection Services.

**Core Service:** Collection Services of Solid Waste, Recyclable Materials, and Yard Trimmings. At the City's option, Customers may elect to opt out of Yard Trimmings collection. Core Services may also include Bulky Items in the event the City elects to include Bulky Items in the contract.

**Customer:** An individual who contracts with the Contractor for Collection Services.

**Door-to-Door Service:** Contractor shall provide door-to-door service (in which Contractor's staff brings carts from the Customer's location to the curb or alley for servicing and returns the carts) for Customers with a disability upon request for no additional charge. Current estimated usage of this service is less than 1% of residential Customers.

**Dumpster:** Means a metal or plastic container, one (1) cubic yard to ten (10) cubic yards in volume, that is manufactured and used for the collection of Solid Waste or Recyclable Materials.

**Effective Date:** Means the effective date of the Agreement, which shall be the date stated in Section 4, Contract Period.

**Electronics:** Means any electronic device or electronic component as those terms are defined in the Colorado Hazardous Waste Regulations, 6 Code of Colorado Regulations 1007-3, Section 260.10.

**Hazardous Waste:** Any chemical, compound, substance or mixture that state or federal law designates as hazardous because it is ignitable, corrosive, reactive or toxic, including but not limited to solvents, degreasers, paint thinners, cleaning fluids, pesticides, adhesives, strong acids and alkalis and waste paints and inks.

**Recyclable Cardboard:** Means corrugated cardboard, and shall include, but not be limited to, materials used in packaging or storage containers that consist of three (3) or more layers of Kraft paper material, at least one (1) of which is rippled or corrugated. Cardboard shall be considered recyclable cardboard regardless of whether it has glue, staples or tape affixed, but not if it is permanently attached to other packing material or a non-paper liner, waxed cardboard or cardboard contaminated with oil, paint, blood or other organic material.

**Recyclable Materials:** Means the materials listed in Table 3 and any other materials identified by Contractor and approved by the City as recyclable materials, which have been separated from Solid Waste and can be recovered as useful materials and are properly prepared for the purpose of recycling.

**Residential Units:** Means and includes all single-unit residential buildings, and multi-unit residential buildings containing seven (7) dwelling units or fewer within the City, subject to certain exceptions and/or City-granted variances as stated herein, and any Service Opt-in Customers.

**Exceptions:**

- Residential Units served by Dumpsters;
- Home Owner Associations (HOAs) with existing Solid Waste and recycling collection contracts as of the Effective Date and that meet the requirements in Chapter 12, Article II and Chapter 15, Article XV of the City code.

**Variances:**

- **Shared Service** – A variance from paying the Service Opt-Out Fee may be granted by the City if a Residential Unit shares Collection Services with another Residential Unit and shows to the reasonable satisfaction of the City that the Residential Units with shared service consistently produce combined total waste in an amount equal to or less than is collected through the Super Saver Service. Variances for this reason are anticipated to apply to less than 0.5% of Customers.
- **Excess Producers** - A variance from paying the Service Opt-Out Fee may be granted by the City if a Residential Unit shows to the reasonable satisfaction of the City that the Residential Unit consistently produces waste in an amount greater than the XL cart service. Variances for this reason are anticipated to apply to less than 0.5% of Customers.

**Service Commencement Date:** The date Collection Services at the Residential Units begins. Such date shall be mutually agreed upon by the parties and will start not less than six (6) and not more than twenty-four (24) months from the Effective Date of the Agreement

**Service Opt-in:** HOAs that meet an exception to the definition of Residential Units and multi-unit residential buildings containing eight (8) or more dwelling units may opt in as a Customer.

**Service Opt-Out Fee:** Any Customer wishing to not receive the contracted service will be charged the Super Saver Service price in lieu of receiving service from the Contractor.

**Service Suspension:** Contractor shall allow Customers to suspend service once per year upon request for a minimum of one (1) and maximum of six (6) months. Customers who request a Service Suspension will be charged the Super Saver price during such period of time. Contractor may not charge the Customer to start or stop the Service Suspension.

**Service Year:** A period of 12 calendar months beginning on the Service Commencement Date.

**Solid Waste:** Means all refuse, putrescible and nonputrescible waste, excluding Electronics, discarded or abandoned vehicles or parts thereof, sewage, sludge, septic tank and cesspool pumpings or other sludge, discarded home or industrial appliances, hazardous wastes, materials used as fertilizers or for other productive purposes and Recyclable Materials or Yard Trimmings which have been source separated for collection.

**Subcontractors:** The Contractor may not subcontract any of the services without the prior written consent of the City. If any of the services are subcontracted with the consent of the City, the Contractor shall be solely responsible for the performance of all duties under the Agreement..

**Super Saver Service:** A Solid Waste service level that is less than the Small Cart service (but not necessarily 100% price differential) and is offered to Customers at a price less than the Small Cart service. Super Saver Service shall also include the same services as are included in the other Solid Waste service levels (Recyclable Materials, Yard Trimmings, and Bulky Items collection). Examples of Super Saver Service options are included in Section 4.1.

**Wildlife-Resistant Carts:** The City does not require wildlife-resistant carts.

**Yard Trimmings:** Means those materials included in Table 4, and any other similar organic materials identified by Contractor and approved by the City as yard trimmings.

### 3.0 DEMOGRAPHIC & CURRENT PROGRAM

#### Community Demographics

- Approximately 40,000-45,500 Residential Units in Fort Collins are eligible for Collection Services under this contracted service.
- Approximately 10,500 additional Residential Units are in HOAs with existing contracts for Solid Waste and Recyclable Materials collection.
  - Some of these HOAs may be found to have contracts that are not compliant with the City's requirements and may join the City's contract
  - These HOAs may be required to add Yard Trimmings collection service, which may be provided by the City's Contractor or the HOA's existing contracted hauler at each HOA's discretion. If the HOA chooses the City's Contractor, the HOA and the Contractor will individually negotiate the price for collection service. The requirement for Yard Trimmings collection is anticipated to begin concurrent with the Service Commencement Date. The HOA Yard Trimmings requirement may be considered by Fort Collins City Council as a code change along with adoption of the Residential Solid Waste Collection Agreement.

#### GIS / Geographic Information

##### **City Limits**

The Contractor shall provide Collection Services for Residential Units within the City Limits. The City Limits can be downloaded from the City's Geographic Information System (GIS) at <https://www.fcgov.com/gis/downloadable-data>.

##### **Alleys**

- City-maintained alleys can be viewed within the "Street Centerlines" GIS data download from [www.fcgov.com/gis/downloadable-data](http://www.fcgov.com/gis/downloadable-data). Filter data by STREETTYPE "Alley."
- Privately-maintained alleys include but are not limited to alleys in the following developments. These developments may or may not already have contracted collection via their Homeowners' Association (HOA):
  - Observatory Village
  - Harvest Park

- Old Town North
- Sienna (neighborhood east and west of Azuro Dr.)

### **Homeowner's Associations (HOAs) with Existing Contracts**

A map of the location and relative size of the HOAs with existing Solid Waste and Recyclable Materials collection contracts as well as the Fort Collins City Limits are included in the Attachment 2.

### **Existing Program**

Fort Collins currently has an open market system in which haulers are required to have a license. That license requires:

- Solid Waste
  - Weekly collection
  - Pay-As-You-Throw pricing with 100% price differential between three cart sizes including Small (\$X), Medium (\$2X), and Large (\$3X).
- Recyclable Materials
  - Minimum of every-other-week collection
  - Up to two Large Carts bundled with Solid Waste service for no additional charge
  - Hauler must offer choice of cart size to customer; including Large or Medium carts; some offer Small Carts or open-top 18-gallon tubs.
  - Current participation: 96% of households
- Yard Trimmings
  - Weekly collection from April – November
  - Residents must opt into the collection service and pay an additional fee
  - Current subscription rates: 23% of open market households, 5% of HOAs; a combined total of approximately 17% City-wide

**Table 1 - 2021 Fort Collins Cart Distribution**

	Super Saver Service	18-gal tub	Small Cart	Medium Cart	Large Cart
<b>Open Market Solid Waste</b>	<b>1%</b>	<b>N/A</b>	<b>43%</b>	<b>41%</b>	<b>16%</b>
<b>Open Market Recycling</b>	<b>N/A</b>	<b>9%</b>	<b>0.1 %</b>	<b>53%</b>	<b>38%</b>
<b>Open Market Yard Trimmings</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>22%</b>	<b>1%</b>
<b>Contracted HOA Solid Waste</b>	<b>N/A</b>	<b>N/A</b>	<b>31%</b>	<b>36%</b>	<b>33%</b>
<b>Contracted HOA Recycling</b>	<b>N/A</b>	<b>17%</b>	<b>1%</b>	<b>42%</b>	<b>40%</b>
<b>Contracted HOA Yard Trimmings</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>3%</b>	<b>2%</b>

## 4.0 SCOPE OF WORK/COLLECTION SERVICES

### 4.1 Solid Waste Collection

Core Service Rates proposed in the Price Sheet (Attachment 3) shall include the following Solid Waste Collection Service components.

#### Proposal Requirements - Solid Waste

Proposal shall include the following Solid Waste Collection Service components.

- Five service levels as described in Table 2
- Volume-based rates as described below
  - 100% price difference between cart sizes (except for Super Saver Service)
- Weekly collection
  - Super Saver Service may be less frequent
- Materials shall be collected from wheeled carts with lids as described below
- Any Solid Waste overflows shall be assessed an extra cost as described below
- At the City's sole option, Contractor shall dispose of all Solid Waste at the Larimer County Landfill or the permitted landfill of the Contractor's choice

**Table 2**  
**VOLUME-BASED SOLID WASTE SERVICE DETAILS**

SOLID WASTE SERVICE LEVEL	CART SIZE	COLLECTION FREQUENCY	PRICING PER MONTH for CORE SERVICES
<b>Super Saver Service</b>	Less than Small service	To be described in proposal	Less than \$X
<b>Small Service</b>	30-39 gallon	Weekly	\$X
<b>Medium Service</b>	60-69 gallon	Weekly	\$2X
<b>Large Service</b>	90-99 gallon	Weekly	\$3X
<b>XL Service</b>	Two 90-99-gallon carts	Weekly	\$6X

#### Overflow Solid Waste

When a Customer sets out un-carted Solid Waste (including if a cart lid cannot fully close), the Contractor shall:

- Photograph the Solid Waste
- Affix an appropriately marked service tag to the Customer's Solid Waste cart
- Collect the overflow Solid Waste on the same day as Solid Waste cart
- Charge the Customer an extra cost as follows:
  - Cost for overflow shall be proportional to the volume of overflow solid waste
  - Fee per 32-gallon bag equivalent shall be proposed in the Price Sheet (Attachment 3)
  - Contractor will retain the additional cost paid by the Customer
- Note that if Contractor selects bag / tag / sticker Super Saver Service, pre-paid bags or tagged or stickered bags shall not be considered overflow Solid Waste

### **Blocked Carts**

If the Contractor cannot access a cart to service it, the Contractor shall:

- Photograph the cause of the issue
- Affix an appropriately marked service tag to the Customer's Solid Waste cart (and any other carts out for service that day). If attaching a tag is not feasible / practical, Contractor shall contact the Customer via text, email, or phone call to notify them of the problem and when their carts will next be serviced
- Contractor may leave the cart un-serviced until the service day that follows the removal of the situation blocking access to the cart(s)
- The following regularly scheduled service day, the Customer may set out 2x the regular amount of materials that would have been initially collected for no additional charge to account for the missed service. In this circumstance, materials equivalent to the regular service level shall not be considered overflow and Customer shall not be charged extra.
- If the blockage remains on the next service day, Contractor shall notify the City Representative and does not have to service the location until the blockage is addressed

### **Other Prohibitions**

City code prohibits Customers from disposing of Recyclable Cardboard in Solid Waste or Yard Trimmings carts or Electronics in any cart. When Recyclable Cardboard appears to constitute 25% or more of a Solid Waste or Yard Trimmings cart or when Electronics are observed in any cart, the Contractor shall:

- Photograph the item(s) in the cart
- Affix an appropriately marked service tag to the Customer's Solid Waste cart
- Not service the cart until the Recyclable Cardboard is removed
  - Contractor may leave the cart un-serviced until the service day that follows the removal of prohibited materials
  - The following week, the Customer may set out 2x the regular amount of Solid Waste for no additional charge to account for the missed service the week prior. In this circumstance, bags equivalent to the regular weekly service level of Solid Waste shall not be considered overflow Solid Waste.
- If Customer has not removed the materials by the next service day, Contractor shall notify the City Representative for compliance action

### **Super Saver Service**

Contractor's proposal shall include the container type and service frequency for the proposed Super Saver Service level. The service must be offered at a cost less than the Small Service but does not have to be a 100% price differential. The Super Saver Service must also include the same services as the other Solid Waste service levels (Recyclable Materials, Yard Trimmings, and Bulky Items collection). Examples of programs that would qualify as Super Saver Service that are active in northern Colorado are stated below. Contractors are welcome to propose different approaches.

Examples in Northern Colorado:

- Pay by the bag / tag / sticker:
  - Base monthly service fee includes Core Services (including curbside collection of Recyclable Materials, Yard Trimmings and Bulky Items collection)
  - Resident purchases pre-paid trash bags / tags / stickers at the Contractor's office and then places the bags out for collection on service day as needed. If this option is proposed, the proposal shall identify the location(s) where bags / tags / stickers may be purchased by the Customer. The location(s) must not be a City facility and must be within City Limits. The Contractor must accept cash and credit card payments for this service.
- 16-gallon carts: An insert is placed inside a 32-gallon cart to reduce the functional size to a 16-gallon cart that can be serviced weekly with automated trucks
- Every other week service: Super Saver Small Solid Waste carts have a different color lid and are only serviced every other week.

#### **4.2 Recyclable Materials Collection**

Core Service Rates proposed in the Price Sheet (Attachment 3) shall include the following Recyclable Materials Collection Service components.

##### **Proposal Requirements - Recyclable Materials**

Proposals shall include the following Recyclable Materials Collection Service components regardless of service options:

- The cost of Recyclable Materials collection shall be bundled in the Core Service price (i.e. the Customer's bill shall not include a separate itemized line-item price for Recyclable Materials collection)
- Standard service shall be a Large Cart
  - Residents can select a Medium Cart for no change in their monthly cost
- Collection shall be on the same day as Solid Waste collection
- Materials shall be collected in wheeled carts with lids
  - Note: The City will not offer open-top 18-gallon tub service because the tubs require manual collection and are a source of pollution when Recyclable Materials blow out of them
- At the City's discretion, Contractor shall deliver Recyclable Materials to the Larimer County Recycling Center or the permitted recycling center of the Contractor's choice
- Contractor proposals may identify any proposed additions to the materials in Table 3.
- Recyclable Materials shall not be landfilled unless the load is rejected from the recycling center due to contamination. If that occurs, Contractor shall notify the City Representative immediately with details of the incident / cause of the contamination. Contractor shall also include details and cause of the contamination incident in the regular report to City.

**Table 3**  
**MINIMUM LIST OF RECYCLABLE MATERIALS TO COLLECT**

Recyclable cardboard	Plastic bottles, tubs, jugs and jars (#1,2 and 5)
Office paper (white and colored)	Aluminum cans, foil & pie plates
Magazines	Steel / tin cans & empty aerosol cans
Paperboard	Glass bottles and jars
Kraft paper	Aseptic containers

See City recycling guidelines poster at [http://www.fcgov.com/recycling/pdf/2018\\_recycle\\_guidelines.pdf](http://www.fcgov.com/recycling/pdf/2018_recycle_guidelines.pdf).

### **Recyclable Materials Service Scenarios**

Proposals shall assume provision of Recyclable Materials Service for 100% of Customers. Proposals must provide pricing for two distinct service scenarios stated below. Contractor costs for each scenario shall be proposed in the Pricing Sheet (Attachment 3).

- Recyclable Materials Service Scenario 1: Every-other-week collection of up to two Large Recyclable Materials Carts
- Recyclable Materials Service Scenario 2: Weekly collection of one Large Recyclable Materials Cart

### **Recyclable Materials Contamination**

The Recyclable Materials contamination threshold shall be 10% by volume. When the Contractor encounters a cart with 10% or more contamination, the Contractor shall:

- Photograph the item(s) in the cart
- Affix an appropriately marked service tag to the Customer's Recyclable Materials cart
- Not service the cart until the contamination is removed
- Contractor may leave the cart un-serviced until the service day that follows the removal of the contamination
- The following regularly schedule service day, the Customer may set out 2x the regular amount of Recyclable Materials for no additional charge to account for the missed service. In this circumstance, Recyclable Materials may be placed in Recyclable Cardboard boxes and shall not be considered overflow Recyclable Materials
- If the Customer has not removed the contamination by the next service day, the Contractor shall affix a service tag to the cart, service the cart as Solid Waste, and charge the Customer the equivalent overflow Solid Waste fee

### **4.3 Yard Trimmings Collection**

Core Service Rates proposed in the Price Sheet (Attachment 3) shall include the following Yard Trimmings Collection Service components.

#### **Proposal Requirements – Yard Trimmings**

Proposal shall include the following Yard Trimmings service components regardless of other service options:



- The cost of Yard Trimmings collection shall be bundled in the Core Service price (i.e. the Customer’s bill shall not include a separate itemized line-item price for Yard Trimmings collection)
- Standard service shall be a Large Cart
  - Residents can select a Medium Cart for no change in their monthly price
- Materials shall be collected in the cart only (no loose materials will be accepted)
- Weekly service shall be provided seasonally from April 1<sup>st</sup> through November 30<sup>th</sup> each year
- Collection shall be on the same day as Solid Waste collection
- Materials shall be collected in wheeled carts with lids
- Contractor shall deliver Yard Trimmings to a permitted / licensed compost processing facility
  - Contractor shall receive approval from the City to take materials to a facility other than a permitted / licensed compost processing facility
  - Contractor proposals shall include the planned destination(s) for Yard Trimmings
  - Contractor proposals may identify any proposed additions to the materials included in Table 4
- Yard Trimmings may not be landfilled unless load is rejected from the Yard Trimmings destination due to contamination. If that occurs, Contractor shall notify City contact immediately with details of the incident / cause of the contamination. Contractor shall also include details and cause of the contamination incident in the regular report to City.

**Table 4  
MINIMUM LIST OF YARD TRIMMINGS TO COLLECT**

Brush & Limbs sized to fit in the cart
Grass Clippings
Leaves
Garden Trimmings / Weeds / Plant Material

**Yard Trimmings Service Scenarios**

Proposals must provide pricing for two distinct service scenarios stated below. Contractor price for each scenario shall be proposed in the Pricing Sheet (Attachment 3).

- Yard Trimmings Service Scenario 1:  
Bundled seasonal Yard Trimmings collection service for 100% of Customers.
- Yard Trimmings Service Scenario 2:  
Optional seasonal Yard Trimmings collection service with estimated participation rate of 75% of Customers. In Scenario 2, Customers would be automatically enrolled in the service but could contact the Contractor to decline collection service and receive a predetermined reduction in the Core Service price.

### **Yard Trimmings Contamination**

The Yard Trimmings contamination threshold shall be 10% by volume. When the Contractor encounters a cart with 10% or more contamination, the Contractor shall:

- Photograph the item(s) in the cart
- Affix an appropriately marked service tag to the Customer's Yard Trimmings cart
- Not service the cart until the contamination is removed
- Contractor may leave the cart un-serviced until the service day that follows the removal of the contamination
- The following week, the Customer may set out 2x the regular amount of Yard Trimmings for no additional charge to account for the missed service. In this circumstance, Yard Trimmings may be placed in paper yard waste bags and shall not be considered overflow Yard Trimmings.
- If the Customer has not removed the contamination by the next service day, the Contractor shall affix a service tag to the cart, service the cart as Solid Waste, and charge the Customer the equivalent overflow Solid Waste fee

#### **4.4 Periodic Residential Bulky Items Collection**

##### **Proposal Requirements – Bulky Items**

Proposal shall include the following Bulky Items service components regardless of other service options:

- Collection on an on-call basis
- Collection within one calendar week of request
- Collection need not be on the same day as regular Solid Waste services
- Contractor proposal shall include proposed collection equipment
- The City prefers but does not require proposal elements that encourage reuse of Bulky Items rather than landfilling them
- The Contractor shall track the number of and types of items collected (in categories mutually agreed upon by the Contractor and the City)
- Bulky Items shall be proposed in the Pricing Sheet (Attachment 3) in two categories:
  - 1) No Additional Fee Bulky Items
 

Shall include common household items, including but not limited to non-freon containing appliances and furniture, excluding the following:

    - Hazardous waste
    - Electronics
    - Yard waste
    - Recyclable Cardboard
    - Items that weigh over 60 pounds
    - Items larger than 6' x 6'

## 2) Additional Fee Bulky Items

Shall include items for which Customers will be charged an extra fee

- Contractor shall include in the Pricing Sheet (Attachment 3) any Additional Fee Bulky Items and the amount proposed for each of them.

### **Bulky Items Collection Scenarios**

Proposals must provide pricing for two distinct service scenarios stated below. Contractor costs for each scenario shall be proposed in the Pricing Sheet (Attachment 3).

- Bulky Items Collection Scenario 1: Collection of up to two No Additional Fee Bulky Items / year for each Customer
  - The price of this Bulky Items Collection Scenario 1 shall be bundled in the Core Service price (i.e. the Customer's bill shall not include a separate itemized line-item price for Bulky Items collection)
  - Contractor can charge the Customer the additional price included in the contract for each Additional Fee Bulky Item.
  - Customer will pay Contractor directly for each Bulky Item collection requested beyond the two included items. Pricing for these additional Bulky Items shall be the pricing proposed in Bulky Items Service Scenario 2.
- Bulky Items Collection Scenario 2: Collection of unlimited Bulky Items for a separate price
  - Customer will pay Contractor directly for each item. The price will be separate from the Core Service price.

### **4.5 Dumpster Service for Multi-Unit Residential and Commercial Customers**

In the Price Sheet (Attachment 3), proposals shall include pricing for Solid Waste and Recyclable Materials Dumpster service for multi-unit residential buildings or commercial buildings that opt in to receive such Dumpster service by Contractor. Service frequency and Dumpster sizes requested are included in the Price Sheet (Attachment 3).

### **4.6 Other Services or Additional Material Collections or Other Ways to Improve Program**

Nothing in this Request for Proposals is intended to limit the Contractor from offering other services or collecting additional materials or other ideas for ways to improve the program subject to the following:

- Such supplemental service(s) enhances services under the City's Agreement and supports the City's sustainability goals
- Collection is compliant with the terms of the City's Agreement and all local, state and federal laws and regulations
- Materials are managed at appropriately licensed / permitted facility
- The City does not wish to pursue seasonal Yard Trimmings collection events or Bulky Items collection days as part of the scope of the RFP

## **5.0 OPERATIONAL SPECIFICATION**

The Contractor shall provide all resources, equipment, and personnel necessary to perform all services described herein.

## 5.1 Carts

The Contractor shall purchase, assemble, and deliver all Solid Waste, Recyclable Materials, and Yard Trimmings carts as part of the City's contract. Cart ownership will transfer to the City at the end of the Agreement Term. The cost of the carts shall be itemized in the Price Sheet for purposes of this proposal. The Customer's bill shall not include a separate itemized line-item price for carts. The quoted price shall not include any grant funding. The final pricing for carts shall be reduced an amount equal to any grant funding provided by the City.

Carts shall be new, wheeled units that meet the following criteria:

- The cart body and lid shall be distinct for Solid Waste, Recyclable Materials and Yard Trimmings carts. Cart colors shall be:
  - Grey for Solid Waste (if grey carts significantly alter the cart price, Contractor can propose an alternative color other than blue or green)
  - Blue for Recyclable Materials
  - Green for Yard Trimmings
- Cart sizes available must be consistent with service levels in Section 4.
- Carts must be compatible with industry standard collection equipment
- Carts shall be manufactured with a minimum of five percent (5%) residential post-consumer recycled plastic content based on the weight of the entire mass of the body, lid and wheels
- Radio Frequency Identification (RFID) tags must be embedded in carts at the time of manufacturing
  - Contractor is not required to purchase RFID reading equipment or to use an RFID tracking or data management system
- Carts shall be hot-stamped with City logo, contact phone number, and have full-color guidelines for acceptable/unacceptable materials printed on the lids of the Recyclable Materials and Yard Trimmings carts
  - City will provide information and artwork for hot stamp and guidelines printing
  - Contractor information shall not be included on carts
- Contractor proposal shall include the proposed cart manufacturer, model number, and brief summary of the basis for the selected cart manufacturer and model.
  - The City retains the right to approve cart manufacturer
- Contractor proposal shall include details about the cart warranty, including length of warranty and transferability to the City at the end of the Agreement Term.

### **Grant Funding**

The City has secured \$15 per Recyclable Materials cart in grant funding from The Recycling Partnership to offset part of the Recyclable Materials cart cost. The City continues to seek grant funding to offset other cart costs. The quoted price shall not include any grant funding. The final pricing for carts shall be reduced by an amount equal to any grant funding provided by the City.

## Cart Exchanges and Replacement

### Initial Service Start-Up:

- Existing service providers who are not awarded the contract will coordinate with the City to remove their carts from households shifting to the City contract in a timely manner and with no charge to the household, per City code
- Contractor proposal shall include a strategy for removing existing Customer carts and replacing with new carts as well as providing carts to new Customers during the transition period with no service disruption
- Initial cart delivery and collection of the Contractor's existing carts shall be at no charge to the Customer

### Ongoing:

- The following cart services shall be provided to the Customer for no additional charge
  - Initial delivery of carts when a new Customer starts service
  - Collection of carts when a Customer ends service
  - Repairing or replacing broken or missing carts
  - Exchanging carts for a different service size
  - Cart delivery or exchange for any other reason
  - Contractor shall provide up to two delivery / exchange / repair instances per service address per year for no additional charge (each instance could involve one or more carts)
  - Contractor can charge Customer a delivery / exchange fee for delivery / exchange / repair needs beyond two instances per year
- Contractor shall deliver carts requested due to service level change requests, new service or replacements within 2 business days of request
- Contractor proposal shall provide an overview of the strategy for maintaining the optimum inventory and mix of cart sizes to support Customers

## Cart Maintenance

Contractor shall provide routine cart maintenance, repair and replacement. The cost for such services shall be incorporated into the cart cost proposed in the Pricing Sheet (Attachment 3).

Contractor shall:

- Maintain carts graffiti-free and in good working condition
- Clean up any spills or litter caused by collection or transportation, regardless of whether it is on public or private property
- Repair any damaged carts that can reasonably be returned for regular service
- Replace carts that cannot reasonably be repaired
- Recycle any decommissioned carts

Contractor proposal shall include the proposed location(s) for ongoing cart storage, cleaning and repair.

## 5.2 Collection Vehicles

The Contractor shall provide all vehicles and equipment needed for materials collection and transportation in an efficient and environmentally-sensitive manner.

The Contractor's proposal shall include details regarding the vehicles it intends to use for the Collection Services. Details must include, but are not limited to the following:

- Vehicle type, manufacturer, and model number
- Number of vehicle by vehicle type
- Fuel by vehicle type
- Average vehicle age by vehicle type
- Overview of vehicle replacement schedule
- Overview of preventative and corrective maintenance programs

Provide the date, description and resolution/corrective action taken for any vehicle accidents, infractions, or overweight vehicles that occurred within the last three (3) years.

When operational, all collection and transfer vehicles shall:

- Cover their loads
- Be kept in good repair and appearance
- Be clean and sanitary
- Be compliant with all local, state and federal safety and inspection regulations

Any vehicle leaks or spills shall be cleaned up as soon as possible and no later than 24 hours after occurrence.

Contractor proposal shall include plan to track and address overweight vehicles. Instances of overweight vehicles shall be included in the regular report to the City.

### **Sustainable Vehicles**

City goals include decreasing pollution and increasing sustainability. The City welcomes proposals that further these goals.

Proposals shall include the Contractor's level of commitment and timing to implement some or all of the following strategies to support greenhouse gas reduction.

- Convert to and/or expand alternative fuel vehicles, especially electric and/or natural gas vehicles utilized to provide Collection Services in the City
- Equip vehicle engines with emission-after-treatment devices such as NOx reduction catalysts and particulate filters
- Equip vehicles with operate-in-gear-at-idle technology and automatic engine shut-off systems
- Implement other reasonable mitigation or pollution prevention equipment or practices
- Implement noise reduction technology such as low-noise bin lifters and quiet work practices

An evaluation of fleet status will be a compulsory component of any consideration to a proposed change in pricing due to the cost of fuel.

**5.3 Collection Personnel**

The Contractor shall maintain staffing levels required to support the Collection Services on the schedules set forth herein. The Contractor shall have implemented a current Department of Transportation (DOT) compliance policy. Such policy shall be subject to audit and review by the City with reasonable prior notice.

At a minimum, all vehicle drivers shall be:

- Licensed by the State of Colorado with a valid Class B Commercial Driver License (CDL) with air brakes endorsement
- Alert, careful, courteous and competent
- Appropriately trained in operations and safety measures
- Provided with appropriate communication tools and Personal Protective Equipment (PPE)

Cell phones shall not be used in a moving vehicle.

**5.4 SAFETY**

The Contractor shall embrace a culture of safety to include a documented safety program for the Collection Services. The safety program must include as a minimum the following:

- Health and Safety Training
- Employee/Management Responsibility
- Hazard Recognition and Control
- Incident Reporting and Investigation

The Contractor shall track and report its Experience Modification Rate (EMR) on an annual basis. As part of the proposal please provide the EMR for the previous three (3) years. The Contractor shall track and report its OSHA Total Recordable Incident Rate (TRIR) and Days Away Restricted or Transferred (DART) calculated as follows:

<b>TRIR</b>	$\frac{\text{Number of recordable cases} \times 200,000}{\text{Number of hours worked}}$	<b>DART</b>	$\frac{\text{Number of DART cases} \times 200,000}{\text{Number of hours worked}}$
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**5.5 Collection Schedule**

Solid Waste, Recyclable Materials, and Yard Trimmings shall be collected from each Customer on the same day. On-call Bulky Items collections can be on a different day.

**Hours and Holidays**

All collections shall be conducted between 7 AM and 7 PM Monday through Friday and 7 AM to 7 PM on Saturdays during any week with a holiday. No collections shall occur on Sundays or holidays unless expressly authorized by the City Representative. Holidays shall include New Year's Day, Memorial Day, July 4<sup>th</sup>, Labor Day, Thanksgiving Day and Christmas Day.

**Severe Weather Protocol**

Contractor may suspend service on days that the City closes or when the City declares a late start due to severe weather or other times authorized by the City Representative. In the event of a closure/late start due to severe weather, the City will post a notification by 5 AM.

Contractor shall collect any missed collections due to suspended service within one calendar day of City facilities opening unless otherwise approved by the City Representative. The resumed service may cause a similar delay to other service days throughout that service week. (For example, if service is suspended on a Tuesday and resumes on Wednesday, the Tuesday Customers would be serviced on Wednesday and so on, including Friday collections taking place on Saturday.)

## **5.6 Program Transition Services**

The transition period will begin on the contract Effective Date and end on the Service Commencement Date.

### **City Responsibilities**

- Collaborate with the Contractor to design public notifications and service tags for the Collection Services
- Provide City information for cart hot stamps and artwork for printed material guidelines on cart lids
- Help to resolve questions while Contractor develops service address list
- Determine whether HOAs with existing hauling contracts comply with City requirements (and thus are exempt from the City contracted hauling program) and share that information with the Contractor
- Provide a phone number that shall be routed to the Contractor and that the Contractor shall use for all customer service inquiries, requests, complaints and other as related to this contract. The City will keep the phone number for contract customer service, regardless of whether a different Contractor is selected in the future
- Coordinate removal of carts from Customers of other service providers
- Establish Customer billing rates based on the contract pricing and the City's administrative fee established by the City Council

### **Contractor Responsibilities**

Contractor's proposal will include proposed dates for each of the following activities to be completed during the transition period and thereafter during the term of the contract:

- Develop, produce and distribute public notifications to Customers
  - Contractor shall collaborate with the City to design the public notifications and City shall have final approval authority
  - Contractor shall distribute public notifications at the following times at a minimum
    - During the initial start-up period
    - When new Customers start service (after the service start-up period)
    - When Customers change service levels at any time
    - Annually to all Customers at a time agreed upon with City Representative
  - The notification shall be in a multi-color, user-friendly format with any text in both English and Spanish and shall include:
    - Available service levels and rates
    - Annual collection calendar



- Set-out times and locations
  - Directions for changing service levels, managing overflow Solid Waste, contamination, and requesting additional services
  - Guidance on acceptable and unacceptable materials in Recyclable Materials and Yard Trimmings carts
- Develop service address list
  - Facilitate and manage Customer cart size selection
  - Conduct all billing set up
  - Develop and distribute a collection calendar(s) for all Customers
  - Produce service tags to address situations such as blocked carts, Solid Waste overflows, contaminated Recyclable Materials or Yard Trimmings, or other conditions that impact service or safety. Tags shall:
    - Include text in English and Spanish
    - Be made of durable, water-resistant material that can be written on
    - Be printed with 1 color
    - Have a mechanism for temporary attachment to carts
    - Be a minimum size of 5" x 10"
  - Remove all carts from existing Customers at no additional cost per Section 5.1
  - Provide all other services stated in the RFP and/or required to provide Collection Services in accordance with the terms of the Agreement.

### 5.7 Customer Billing

All Customer billing shall be conducted by the Contractor on behalf of the City.

Customer rates will be established by the City based on Contract pricing and City administrative fee. Rates and fees shall remain unchanged during each Service Year unless otherwise approved by an amendment to the Agreement. Customer bills may be on a monthly or quarterly schedule and can be assessed in advance or in arrears. Contractor proposal shall include the anticipated billing frequency and whether it will be assessed in advance or in arrears and why.

Contractor proposal shall address how the Contractor proposes to address the funding from Extended Producer Responsibility when it comes available. See C.R.S. 25-17-101 et seq.

All Customer bills shall include the following:

- Applicable Core Service rates
- Statement that Recyclable Materials collection (and seasonal Yard Trimmings collection if City selects Yard Trimmings collection scenario 1) are bundled services (i.e., Customer cannot elect not to receive)
  - City will provide text
- Separate itemization of any fees for overflow Solid Waste, contamination, Bulky Items collection and any other fees approved by the City
  - The only fees allowed on Customer bills are those described in this Request for Proposals and incorporated into the executed agreement. *All costs of service must be addressed in the Core Service rate or fees described in this Request for Proposals*

- City administrative fee(s) may be itemized separately or included with the Core Service price at the City's discretion. If itemized, the City will provide text to be included
- Bills shall include text in Spanish providing Customers with directions for requesting their full bill in Spanish

The Contractor shall provide Customer name, service address, billing address, phone number, Customer email, cart number and related cart sizes per service type to the City in an electronic format acceptable to both parties at the end of the Agreement.

### **5.8 Customer Service and Education**

All customer service functions shall be provided starting in the transition period and shall continue through the Agreement Term. Contractor proposal shall include dates within the transition period when partial and/ or full Customer service capabilities will be provided that align the Contractor's proposed transition schedule.

#### **Dedicated Customer Service Representatives**

Prompt customer service from representatives that understand Fort Collins' program is very important to the City. Although the City prefers the Contractor's customer service office to be located in Fort Collins, the City will consider other approaches. However, all dedicated customer service staff shall have a comprehensive working knowledge of Fort Collins neighborhoods and the specific details of services and rates provided under the Agreement. Contractor proposal shall include the number of customer service representatives they will dedicate to service the Customers (distinct from centralized call center responsibilities that service many communities), where the customer service representatives will be located, and how Contractor will ensure customer service representatives are familiar with Fort Collins' contract and neighborhoods.

#### **Customer Service Hours**

Dedicated customer service staff shall be available at a minimum from 8 AM to 5 PM MST Monday through Friday and Saturdays during weeks when holidays or service suspensions require Saturday collections. Contractor proposal shall include the hours for which dedicated customer service representatives will be available for Customers. Contractor proposal may, but is not required to, propose roll over hours to national call centers to extend customer service hours (only outside of minimum business hours).

#### **Customer Queries, Complaints and Service Change Requests**

The Contractor shall detail in the RFP response their approach to effectively meet the following requirements:

- Address all issues directly
  - The City shall not be the default customer service provider
- Answer Customer contacts primarily with live personnel
  - When call volume is unexpectedly high and live personnel are addressing other City queries, Customers shall be able to leave direct voice mail message; Contractor shall respond to Customer query within 1 business day
  - Maintain an average hold time of two minutes or less for customer service over the phone
  - Maintain an average abandonment rate of less than one percent of customer calls for customer service over the phone

- Resolve any missed collection issues within 1 business day
  - Excluding delays associated with service suspensions
  - Excluding instances where Customer had late set-out, blocked cart or excessive contamination (all of which shall be resolved or referred to the City within 1 calendar week)
- Resolve any other Customer or City complaints within 2 business days
- Respond to any service change or Bulky Items collection requests within 2 business days
  - Actual change or collection shall be completed within 1 calendar week
- Resolve all complaints and requests to the satisfaction of Customers and the City
- City shall have access to the recording of any complaints received via phone (upon request)
- City Representative or their designate shall be copied on all responses to written complaints via email, forms, or other means. The original complaint shall be included in any response.
- Contractor proposal may include proposed Customer service metrics beyond those stated in Section 5.9

### **Public Outreach and Education**

The City will conduct comprehensive public outreach and education activities throughout the Agreement Term. The Contractor shall support these efforts by:

- Producing and distributing Customer notifications as described in Section 5.6
- Maintaining a Fort Collins-specific website page(s) with the same information required for Customer notifications
- Providing Customers with the ability to request service changes online (such as start / stop service, cart size change, Bulky Items collection, report a missed collection, opt out of Yard Trimmings collection (if applicable) etc.)
- Providing service tags and utilizing them as noted throughout this RFP,
- Providing Customers with options for e-mail and text reminders prior to collection days
- Providing the City with information that will impact Customer service at least thirty days before any changes go into effect
  - Including changes in accepted Recyclable Materials or Yard Trimmings, equipment, routing, collection schedule etc.

Contractor proposal shall include examples of similar customer notifications, service tags, websites, and collection day reminders created for other communities it has serviced, if applicable.

### **5.9 Regular Reports**

All reports shall be submitted electronically in a format and with a level of detail that is acceptable to the City. Each report shall include information since the last report (monthly / quarterly / annual). Monthly reports shall be submitted within 15 days of the end of the month. Quarterly and annual reports shall be submitted within 30 days of the end of the month / quarter / year. Information within each topic area shall be sorted by Customer address unless otherwise specified below. For the purpose of this section, service type shall mean Solid Waste, Recyclable Materials, or Yard Trimmings. All reporting periods shall be based on a calendar year. The City reserves the right to request additional information mutually agreed up on by the City Representative and the Contractor. Reports shall include the following:

### Immediate Reporting

- Contaminated loads of Recyclable Materials or Yard Trimmings that include materials from Customers that are rejected from processing facilities.
  - Include date, service type, contamination type, situation that caused contamination, and any other relevant details
- Prohibited materials in carts or blocked carts that are not corrected within one week by Customer.

### Monthly Report

- Materials collected
  - Scale-based weight data for Solid Waste, Recyclable Materials, Yard Trimmings and Bulky Items collections, including facilities where they were delivered for reuse, recycling, composting, disposal or other management.
    - The weight of City materials in any mixed loads that also includes non-City Solid Waste can be estimated using methodology acceptable to the City
    - If materials were delivered to more than one facility, include the scale-based weight data for each facility
- Customer complaints
  - Include date of complaint, service address, complaint type, resolution, and date resolved
  - For purposes of this report, a complaint is any customer contact other than a service change or information request
    - Contractor and City will develop list of complaint types that are mutually agreeable, and they may include missed pick up, unsafe driving, spills, operating outside permitted hours, customer service phone call hold times, other customer service issues, etc.
- Missed collection
  - Date of missed collection, date of resolution, service type missed, service address, and whether missed collection was due to Contractor or Customer (i.e. late set out, blocked cart etc.)
- Contaminated loads of Recyclable Materials or Yard Trimmings rejected from processing facilities
  - Include date, service type, contamination type, situation that caused contamination, and any other relevant details

### Quarterly Report

- Number of Customers receiving Collection Services through the City contract
- Financials
  - Amount of administrative fee collected for remittance to the City
  - Any known performance violations and associated liquidated damages to be remitted to the City
  - Fees charged for the quarter sorted by fee type
  - Number of accounts over 90 days delinquent
- Special service situations and fees assessed
  - Include the incident date, service address, incident resolution and fee charged for the following incident types:
    - Overflow Solid Waste

- Prohibited items in Solid Waste carts (such as Recyclable Cardboard, Electronics, etc.)
  - Blocked carts
  - Contaminated Recyclable Materials carts
  - Contaminated Yard Trimmings carts
- Bulky Items collection
    - Service address, date service request received, date of bulky item pick up, and number of items by type (in categories agreed upon by Contractor and the City)
  - Customer service
    - Number of customer communications
      - Include date and type of customer service (complaint, service change, or information request)
    - Average hold times for phone calls
    - Average number of phone calls per time of day
      - Contractor and City shall mutually determine time categories, such as before 8 am, 8am-11am, 11am-1pm, 1pm to 3pm, 3pm -5pm, after 5pm
  - Cart activity (includes deliveries, replacements, repairs, removal or exchanges)
    - Include type of cart, type of action (delivery, repair, replacement, removal, exchange), request date, completion date, and service address. If Customer is changing cart size, include the initial and new cart size.
  - New opportunities: any new opportunities identified by Contractor to decrease materials landfilled, increase reuse, recycling or composting of materials
  - Number of Customers opting out of Collection Service

### Annual Report

- Annual summary of the number of the following
    - Missed collections by Contractor\*
    - Missed collections due to Customer (late set-out, blocked cart etc.)\*
    - Number of contaminated loads of Recyclable Materials or Yard Trimmings rejected by processor with brief notes of the cause
    - Carts delivered, repaired, replaced, removed or exchanged, sorted by activity type as a number and as a percentage of carts serviced by Contractor's Collection Services
- \* Express these data points as a raw number and as a percentage out of all the Customers receiving Collection Services through the City
- Annual summary of each of the following Financials
    - Amount of administrative fee remitted to the City
    - Amount of performance violations and associated liquidated damages remitted to the City
    - Amount of fees charged, sorted by fee type
    - Core Service rates charged to Customers
  - Summary of Bulky Item material collection by item type
  - Facilities where City Solid Waste, Recyclable Materials, Yard Trimmings and Bulky Items were delivered for reuse, recycling, composting, disposal or other management

- New opportunities: any new opportunities identified by Contractor to decrease materials landfilled, increase reuse, recycling or composting of materials

#### **Available to City Upon Request**

- Customer and service level details
  - Customer name, service address, billing address, phone number, Customer email, cart numbers and related cart sizes per service type
- Customer invoice
- Photograph of any incident of overflow solid waste, prohibited item in Solid Waste cart, blocked cart, contaminated Recyclable Materials cart, contaminated Yard Trimmings cart
- Recording of customer service interactions over the phone

#### **Quarterly Meeting**

City representative and Contractor contact shall meet quarterly to review and discuss Contractor performance. Either entity may also invite additional staff members as appropriate.

#### **Records Retention and Auditing Rights**

The Contractor shall maintain all records for a minimum of three (3) years from the end of the Agreement Term and any extension. Contractor records shall be available at all reasonable times for inspection by the City. The City will retain full auditing rights of the Contractor's accounting records as they pertain to the City's contract.

#### **5.10 Solid Waste, Recyclable Materials and Yard Trimmings Composition Analysis**

If the City or any agent hired by the City conducts a composition analysis of Solid Waste, Recyclable Materials, Yard Trimmings or other materials, the Contractor shall support by diverting loads identified by the City Representative or their agent to the designated sort site (within Larimer County) during the composition analysis.

Contractor proposals may include a description and prices (see the Pricing Sheet (Attachment 2)) for the Contractor to conduct an annual Solid Waste composition analysis to identify Recyclable Materials and Yard Trimmings still being landfilled, and possible composition analysis of Recyclable Materials and/or Yard Trimmings to identify contamination percentages and items. Composition analysis should utilize the same material categories as past City composition analysis and the same methodologies as much as possible. See 2016 City Solid Waste Composition Analysis at [https://www.fcgov.com/recycling/pdf/2016\\_Landfill\\_\\_Waste\\_Composition\\_Report\\_28Fort\\_Collins29.pdf?1555024955](https://www.fcgov.com/recycling/pdf/2016_Landfill__Waste_Composition_Report_28Fort_Collins29.pdf?1555024955)

#### **5.11 Contractor Compensation**

##### **Service Price Changes**

The City agrees that the Contractor's pricing as stated in Attachment 3 may be adjusted annually beginning on the first anniversary of the Service Commencement Date and annually thereafter to reflect changes in the cost of doing business except in instances when performance violations on contract non-compliance issues are unresolved. The adjustment will be the lesser of the Denver-Boulder-Greeley Consumer Price Index (CPI) or three percent annually.

### **Uncontrollable Cost Increases or Decreases**

On an annual basis beginning on the first anniversary of the Service Commencement Date the Contractor may petition the City for an additional pricing adjustment due to uncontrollable costs such as disposal or processing tip fee increases, fuel cost increases or changes in applicable regulations. The Contractor shall petition the City at least ninety (90) days prior to the anniversary date. Price adjustment petitions developed by the Contractor shall consider decreases in fuel costs (if any) as reported by the US Energy Information Administration for the Rocky Mountain region and / or Recyclable Materials tip fees as a potential counter-balance for other uncontrollable costs. Any pricing change under this subsection shall be effective on the anniversary of the Service Commencement Date.

Any petition shall include documentation to justify how the cost increases exceed the three percent per year standard increase. The City reserves the right, as a condition of approval, to inspect Contractor financial records that justify a change in the pricing. The City has no obligation to approve any petition but acknowledges uncontrollable costs may occur and intends to negotiate with the Contractor in good faith.

#### **5.12 Administrative Fee and Liquidated Damages Remittance**

The Contractor shall collect the administrative fee through Customer billing on behalf of the City. Contractor shall remit the administrative fee and liquidated damages from performance violations to the City within 30 calendar days of the last day of the calendar quarter via check or electronic transfer (at the City's discretion).

## **6.0 CONTRACTOR PERFORMANCE**

### **6.1 Performance Standards & Liquidated Damages**

Performance standards and liquidated damages for non-compliance to the Agreement requirements are stated in Table 5. In the event the Contractor fails to sustain the stated Performance Standard and/or any non-compliance with the terms of the Agreement may be considered a default subject to resolution in accordance with the terms of the Agreement. Table 5 consists of the following sub-tables:

In the event of a non-compliance, the City will notify the Contractor in writing of the basis of each assessment of liquidated damages and will work in good faith with the Contractor to resolve any disputes related to liquidated damages. Liquidated damages will be due to the City on the next quarterly remittance following assessment of the liquidated damages (per Section 5.12).

**See Next Page for Table 5**

**Table 5**  
**PERFORMANCE STANDARDS & LIQUIDATED DAMAGES**

**Material Conditions for Contract Default**

PERFORMANCE STANDARD VIOLATION	LIQUIDATED DAMAGES	CALCULATION BASIS	PERFORMANCE STANDARD
Failure to meet schedule for any transition activity	\$500 per day	Daily	100%
Failure to deliver all Solid Waste to Larimer County Landfill or other permitted landfill (depending on scenario City selects), all Recyclable Materials to Larimer County Recycling Center or other permitted recycling center (depending on scenario City selects), and all Yard Trimmings to approved facilities OR landfilling properly source separated Recyclable Materials or Yard Trimmings	\$3,000 per load	1 - Load	100%
Failure to maintain required insurance coverage	\$5,000 per incident	Insurance expiration date	100%
Failure to maintain irrevocable letter of credit	\$5,000 per incident	IRLOC expiration date	100%
Misrepresentation in reporting including inaccurate City administrative fees or liquidated damages	\$5,000 per incident	Each Reporting Period	100%
Contractor utilizing a driver to provide Collection Services that does not have a valid Class B CDL with air brakes endorsement and Colorado Drivers' License and/or is not current with DOT required training or other DOT requirements	\$1,000 per driver per day	All Drivers	100%
Delayed remittance of City administrative fees or liquidated damages	\$500 per day	Each Billing Period	100%
Failure to participate in mutually scheduled quarterly meeting	\$1,000 per incident	Each Quarterly Meeting	100%
Failure to allow City audits or maintain records for 3 years	\$3,000 per incident	Each City Audit	100%
Failure to provide the date, description and resolution/corrective action taken for any vehicle accidents, infractions, or overweight vehicles that occurred within the last three (3) years.	\$1,000 per incident	Each Reporting Period	100%



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Failure to deliver specified loads of material to a designated location in support of a material composition analysis conducted on behalf of the City	\$1,000 per load per audit	Annual Audit	100%
Failure to appropriately bill Customers according to the Agreement OR bill for fees not approved by City OR failure to provide text in Spanish with directions for accessing full bills in Spanish	\$3,000 per billing	Each Billing Period	100%
Failure to provide the number of dedicated service representatives familiar with city neighborhoods and City contract during business hours that are agreed upon in Service Agreement	\$500 per day	Daily	100%

Daily Operations

PERFORMANCE STANDARD VIOLATION	LIQUIDATED DAMAGES	CALCULATION BASIS FOR PERFORMANCE STANDARD	CORRECTIVE ACTION TIME PERIOD	PERFORMANCE STANDARD
Collection before 7 AM or after 7 PM or not on the designated scheduled collection day (each route shall be separate incident)	\$250 per incident	Monthly	Collected between 7AM and 7PM on scheduled collection day	98%
Failure to collect missed collections within 1 business day (excludes late set-outs & blocked carts which shall be collected within 1 calendar week) (excludes severe weather delays, which shall be serviced in accordance with Section 5.5)	\$250 per Customer per day	Monthly	Within specified time frame	98%
Failure to deliver carts after service start-up OR to replace damaged/lost carts within 2 business days	\$250 per day per cart	Monthly	Within 2 business days	98%
Failure to respond to Customer queries within 1 business day	\$250 per incident	Monthly	Within 1 business day	98%
Failure to resolve billing inquiries and disputes within two business days (including Saturdays where staffing is required)	\$250 per incident	Monthly	Within 2 Business Days	98%
Failure to maintain an average hold time of two minutes or less for customer service over the phone	\$250 per incident	Monthly Average	<2 Minutes	98%

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Failure to maintain an average abandonment rate of less than one percent of customer calls for customer service over the phone	\$250 per incident	Monthly Average	<1% of Customer Service calls	98%
Failure to resolve Customer or City complaints within 2 business days	\$250 per Customer per day	Monthly	Within 2 business days	98%
Failure to clean up any vehicle leaks or collect materials spilled during the execution of Collection Services within 24 hours	2X cost of clean-up incurred by City	Monthly	Within 24 hours	100%
Collection of overflow Solid Waste, prohibited materials, contaminated Recyclable Materials or contaminated Yard Trimmings without tagging & charging appropriate fee to customer	\$500 per incident	Monthly	Each Customer	98%
Failure to maintain carts in good working condition including needed repairs in accordance with the Agreement	\$100 per Cart	Monthly	Each Customer's	98%
Late or incomplete submission of on request, monthly, quarterly OR annual reports	\$250 per day	Monthly / Quarterly/ Annually	Within specified time frame	100%
Failure to cover vehicles that contain Solid Waste, Recyclable Materials, Yard Trimmings or Bulky Items OR to maintain vehicles that are clean, sanitary & in good working order	\$250 per incident	Each Load	Each Vehicle	100%
Failure to provide Bulky Item collection within 1 calendar week of Customer request	\$250 per Customer per day	Monthly	Within 1 calendar week	98%
Driver providing Collection Service utilizing a cell phone in a moving vehicle	\$500 per cell phone infraction	Monthly	All drivers	100%
Failure to maintain required color-coding for Solid Waste, Recyclable Materials or Yard Trimmings carts OR to maintain hot-stamp labels on all carts OR to maintain printed material guidelines on Recyclable Materials or Yard Trimmings carts	\$250 per cart per day	Monthly	Each Cart	98%
Failure to distribute approved notifications & collection calendars OR to develop/use approved service tags	\$250 per day	Monthly	Within specified time frame 98%	98%

## 6.2 Contactor Performance Review

The City reserves the right to conduct a full review of Contractor performance at any time during the contract term if any condition identified in the Agreement (see Attachment 4) occurs. If during the

review process the City finds that Contractor performance is unacceptable (regardless of remedies completed or penalties paid), it may subject the Contractor to the requirements of the termination clause in the Agreement (Attachment 4).

### 6.3 Irrevocable Letter of Credit

During the Term of the Agreement, the Contractor shall maintain an Irrevocable Letter of Credit as stated in the Agreement. (See Attachment 4).

## 7.0 REVIEW AND ASSESSMENT CRITERIA

Contractors will be evaluated on the criteria stated in Table 7. This set of criteria will be the basis for review and assessment of the written proposals and optional interview session. At the discretion of the City, interviews of the top-rated Contractors may be conducted.

The rating scale shall be from 1 to 10 for each criteria category with the following baseline for ratings:

- 1 = does not meet minimum requirements
- 5 = fulfills the minimum requirements
- 10 = exceeds minimum requirements in that category

**Table 7**

### PROPOSAL EVALUATION CRITERIA

CRITERIA	WEIGHTING
Acceptance Key Components of City Contract and Ability to Meet Service Requirements	10%
Strategy(ies) for Enhanced Sustainability and Equity	15%
Commitment to a High-Level of Customer Service	35%
Customer Pricing	40%
Total	100%

## 8.0 ANTICIPATED SCHEDULE

The following represents the City's target schedule for the RFP. The City reserves the right to amend the target schedule at any time.

- RFP issuance: September 12, 2022
- Pre-bid meeting: 1:00 PM MT on September 26, 2022
- Question deadline: 5:00 PM MT on October 3, 2022
- Proposal due date: 5:00 PM MT (our clock) on October 24, 2022
- Interviews (tentative): November / December 2022
- Award of Contract (tentative): February 2023

## 9.0 INTERVIEWS

In addition to submitting a written proposal, the top-rated Contractor may be interviewed by the RFP assessment team and asked to participate in an oral presentation to provide an overview of the company, approach to the project and to address questions. The evaluation criteria for the oral interviews will be the same as the criteria for the written evaluations and is included in Section 8.0.

Because of recent events involving COVID-19, the City may use non-traditional methods for the optional interview phase of the assessment process. The City will receive and score written proposals. However, instead of traditional in-person interviews for the optional interview session, the City may opt to use alternate methods including, but not limited to remote interviews through a platform such as Microsoft Teams or Zoom.

## **10. PROPOSAL SUBMITTAL**

Please limit the total length of your proposal to a maximum of fifty (50) 8 ½ x 11" pages (excluding cover pages, table of contents, dividers and Acknowledgement form, and Pricing Sheet). Font shall be a minimum of 10 Arial and margins are limited to no less than .5" for sides and top/bottom. Extended page sizes, such as 11" x 17", count as a single page and may be used for detailed pricing. Links to other files or websites shall not be permitted. Proposals that do not conform to these requirements may be rejected.

Contractors are required to provide detailed written responses to the following items in the order outlined below. The responses shall be considered technical offers of what Contractors propose to provide and shall be incorporated in the contract award as deemed appropriate by the City. A proposal that does not include all the information required may be deemed non-responsive and subject to rejection.

Responses must include all the items in the order listed below. It is suggested that the Contractors include each of the City's questions with their response.

The City of Fort Collins shall not reimburse any firm for costs incurred in the preparation and presentation of their proposal.

### **10.1 Cover Letter / Executive Summary**

The Executive Summary should highlight the content of the proposal and features of the program offered, including a general description of the program and any unique aspects or benefits provided by your firm.

Indicate your availability to participate in the interviews on the proposed dates as stated in the Section 8, Anticipated Schedule.

### **10.2 Contractor Background**

1. Describe the Contractor's business and background
2. Number of years in the business
3. Details about ownership
4. An overview of services offered and qualifications
5. Size of the firm
6. Location(s) of offices. If multiple, please identify which will be the primary for our account.
7. Primary contact information for the company including contact name(s) and title(s), mailing address(s), phone number(s), and email address(s).

### **10.3 Scope of Proposal**

#### **Solid Waste Collection Service**

- Complete Pricing Sheet (Attachment 3) for Solid Waste Collection Service and overflow Solid Waste fee

- Provide program details for the Super Saver Service
  - Container type
  - Service frequency
  - If proposing bag / tag / sticker service, include location within City limits where customer would purchase bags / tags / stickers

### **Recyclables Collection Service**

- Address any proposed additions to the materials stated in Table 3
- Complete Pricing Sheet (Attachment 3) for Recyclable Materials Service Scenario 1: Every-other-week collection of up to two Large Recyclable Materials Carts
- Complete Pricing Sheet (Attachment 3) for Recyclable Materials Service Scenario 2: Weekly collection of one Large Recyclable Materials Cart

### **Yard Trimmings Service**

- Planned destination(s) for Yard Trimmings
- May identify any proposed additions to the materials included in Table 4
- Complete Pricing Sheet (Attachment 3) for Yard Trimmings Service Scenario 1: Bundled seasonal Yard Trimmings collection service for 100% of Customers
- Complete Pricing Sheet (Attachment 3) for Yard Trimmings Service Scenario 2: Optional seasonal Yard Trimmings collection service with estimated participation rate of 75% of Customers

### **Bulky Items Collection**

- Provide details about the types of collection equipment to be used for Bulky Items collection
- Address your approach to encourage Customers to reuse Bulky Items rather than landfilling them
- Complete Pricing Sheet (Attachment 3) for Additional Fee Bulky Items proposed items and related prices
- Complete Pricing Sheet (Attachment 3) for Bulky Items Collection Scenario 1: Collection of up to two No Additional Fee Bulky Items / year for each Customer
- Complete Pricing Sheet (Attachment 3) for Bulky Items Collection Scenario 2: Collection of unlimited Bulky Items for a separate price

### **Dumpster Service**

- Complete Pricing Sheet (Attachment 3) for proposed pricing for Solid Waste and Recyclable Materials Dumpster service for multi-unit residential buildings with eight or more units and commercial buildings that opt in to receive such service by Contractor

### **Additional Services or Additional Material Collection or Other Ways to Improve Program**

- Provide details about any proposed additional services and/or additional material collections and/or other ways to improve the program to be included in the scope of the City's Agreement
- Provide pricing for any proposed additional services and/or additional material collections or other program improvements. Include pricing in an addendum to the Pricing Sheet (Attachment 3)

## **10.4 Operational Specifications**

### **Carts**

- Provide proposed cart manufacturer, model number, and brief summary of the basis for the selected cart manufacturer and model

- Provide details about the cart warranty, including length of warranty and transferability to the City at the end of the Agreement Term
- Complete the Pricing Sheet (Attachment 3) for the cost to be applied to the Customer bill for the purchase, assembly, delivery and maintenance of the carts
- Provide strategy for removing existing Customer carts and replacing with new carts as well as providing carts to new Customers during the transition period with no service disruption
- Provide overview of strategy for maintain the optimum mix of cart sizes to support Customers
- Provide details about the proposed location for ongoing cart storage, cleaning and repair

### Collection Vehicles

- Provide details about the vehicles to be used for the Collection Services including but not limited to the following:
  - Vehicle type, manufacturer, and model number
  - Number of vehicles by vehicle type
  - Fuel by vehicle type
  - Average vehicle age by vehicle type
  - Overview of vehicle replacement schedule
  - Overview of preventative and corrective maintenance programs
- Plan to track and address overweight vehicles
- Sustainable vehicle strategy including
  - Contractor's level of commitment and timing to implement all or some of the strategies to reduce greenhouse gases (see Section 5.2 for complete list)

### Program Transition Services

Contractor's proposal will include proposed dates for each of the following activities:

- Develop, produce and distribute public notifications to customers
  - Contractor shall collaborate with the City to design the public notifications and City shall have final approval authority
  - Contractor shall distribute public notifications at the following times at a minimum
    - During the initial start-up period
    - When new customers start service (after the service start-up period)
    - When customers change service levels at any time
    - Annually to all customers at a time agreed upon with City Representative
  - The notification shall be in a multi-color, user-friendly format with any text in both English and Spanish and shall include:
    - Available service levels and rates
    - Annual collection calendar
    - Set-out times and locations
    - Directions for changing service levels, managing overflow Solid Waste, contamination, and requesting additional services
    - Guidance on acceptable and unacceptable materials in Recyclable Materials and Yard Trimmings carts
- Develop service address list
- Facilitate and manage Customer cart size selection
- Conduct all billing set up
- Develop and distribute a collection calendar(s) for all Customers
- Produce service tags to address situations such as blocked carts, Solid Waste overflows, contaminated Recyclable Materials or Yard Trimmings, or other conditions that impact service or safety. Tags shall:

- o Include text in English and Spanish
- o Be made of durable, water-resistant material that can be written on
- o Be printed with 1 color
- o Have a mechanism for temporary attachment to carts
- o Be a minimum size of 5" x 10"
- Remove all containers from existing Customers at no additional cost per Section 6.1
- Purchase, assemble and deliver new carts to all Residential Units
- Provide services included in this Request for Proposals

### **Billing**

- Anticipated billing frequency and whether it will be assessed in advance or in arrears and why
- Address how the Contractor proposes to address the funding from Extended Producer Responsibility when it comes available (HB22-1355)

### **Customer Service and Education**

- Dates within the transition period when partial and/ or full Customer service capabilities will be provided that align the Contractor's proposed transition schedule
- Number of customer service representatives Contractor will dedicate to service the Customers (distinct from centralized call center responsibilities that service many communities), where the customer service representatives will be located, and how Contractor will ensure customer service representatives are familiar with Fort Collins' contract and neighborhoods
- Hours for which dedicated customer service representatives will be available for Customers
- May propose roll over hours to national call centers to extend customer service hours (only outside of minimum business hours)
- Details of how Contractor shall:
  - Address all issues directly
    - o The City shall not be the default customer service provider
  - Answer Customer contacts primarily with live personnel
    - o When call volume is unexpectedly high and live personnel are addressing other City queries, Customers shall be able to leave direct voice mail message; Contractor shall respond to Customer query within 1 business day
  - Resolve any missed collection issues within 1 business day
    - o Excluding delays associated with service suspensions
    - o Excluding instances where Customer had late set-out, blocked cart or excessive contamination (all of which shall be resolved or referred to the City within 1 calendar week)
  - Resolve any other Customer or City complaints within 2 business days
  - Respond to any service change or Bulky Items collection requests within 2 business days
    - o Actual change or collection shall be completed within 1 calendar week
  - Resolve all complaints and requests to the satisfaction of Customers and the City
- May include proposed customer service metrics beyond those listed in Section 6.8
- Include examples of similar customer notifications, service tags, websites, and collection day reminders created for other communities it has serviced, if applicable

### **Solid Waste, Recyclable Materials and Yard Trimmings Composition Analysis**

- Contractor proposals may include a description and costs (see the Pricing Sheet (Attachment 3))

**Confidential Redacted Version of Contractors Proposal**

Provide redacted version (if applicable) of proposal for public disclosure. Any proposed redactions must be limited to “trade secrets, privileged information, and confidential commercial, or financial information” pursuant to the Colorado Open Records Act (CORA). Contractor must submit a supplemental document explaining the justification for each redaction.

**Subcontractors**

The Contractor shall provide details regarding any subcontractors contractor proposes to use to provide services under the Agreement.

**Acknowledgement**

All Contractors submitting a proposal must sign the Acknowledgement Form (See Attachment 1)

**10.5 Sustainability/TBL Methodology**

In concise terms (no more than two pages), please describe your organization’s commitment to sustainability and supporting values.

Each element of the TBL sustainability criteria will receive equal consideration in determining the final Sustainability/TBL score.

1. Address how your firm strives to incorporate all three aspects (social, environmental, and economic) of Triple Bottom Line (TBL) sustainable practices into the workplace. Provide examples along with any metrics used to measure success within your firm.
2. Also provide examples of how your firm has incorporated all three aspects of TBL sustainable practices in previous similar projects on which your firm has been the prime Contractor.

Some examples are provided below:

- a. Environmental – Experience delivering projects / programs focused on environmental health priorities in the areas of climate resiliency, water quality and watershed protection, regulatory performance, management systems, air quality, renewable energy, sustainable building and design, construction materials management, and Solid Waste reduction.
- b. Economic – Experience working and delivering projects with an emphasis on strategic financial planning, job creation, business development, asset management, various project delivery methods, value engineering, regional partnerships, transparency, stakeholder engagement, strategic investments, aging infrastructure, repurposing of existing facilities, and competing financial priorities.
- c. Social - Experience working and delivering projects, programs, and/or initiatives that support Equity, Diversity, and Inclusion throughout your firm’s workplace, including leadership, and supply chain. Examples of this may be demonstration of working within cultural and language gaps, development of diversity programs, diverse project teams, equitable opportunity vendor supply chain, and how your firm has applied an equity lens to processes such as recruitment, hiring, purchasing, career pathways, salaries, and staff engagement.

**11. SAMPLE AGREEMENT**

Included with this request for proposals is a sample Agreement that the City intends to use for obtaining the services of the Contractor. The Contractor is required to review this Agreement and indicate any objections to the terms of the contract. If revisions to the contractual terms are requested, provide suggested revisions.



**12. ACKNOWLEDGEMENT**

The Acknowledgement form is attached as Attachment 1. Complete the attached form indicating the Contractor hereby acknowledges receipt of the City of Fort Collins Request for Proposal and acknowledges that the Contractor has read and agrees to be fully bound by all of the terms, conditions and other provisions set forth in the RFP.

**See Next Page for Attachment 1**

**Attachment 1**

**ACKNOWLEDGEMENT**

Contractor hereby acknowledges receipt of the City of Fort Collins Request for Proposal and acknowledges that it has read and agrees to be fully bound by all of the terms, conditions and other provisions set forth in the RFP 9648 Residential Solid Waste Collection and sample Agreement except as otherwise noted. Additionally, Contractor hereby makes the following representations to City:

- a. All of the statements and representations made in this proposal are true to the best of the Contractor's knowledge and belief.
- b. Contractor commits that it is able to meet the terms provided in this proposal.
- c. This proposal is a firm and binding offer, for a period of 90 days from the date hereof.
- d. Contractor further agrees that the method of award is acceptable.
- e. Contractor also agrees to complete the proposed Agreement with the City of Fort Collins within 10 days of notice of award. If contract is not completed and signed within 10 days, City reserves the right to cancel and award to the next highest rated firm.
- f. Contractor acknowledges receipt of \_\_\_ addenda.
- g. Contractor acknowledges no conflict of interest.
- h. Failure to provide a public viewing copy will be considered a waiver of any claim of confidentiality under Colorado Open Records Act (CORA). Contractor hereby waives any and all claims for damages against the City for the City's good faith compliance with CORA.

Legal Firm Name: \_\_\_\_\_

Physical Address: \_\_\_\_\_

Remit to Address: \_\_\_\_\_

Phone: \_\_\_\_\_

Name of Authorized Agent of Firm: \_\_\_\_\_

Signature of Authorized Agent: \_\_\_\_\_

Primary Contact for Project: \_\_\_\_\_

Title: \_\_\_\_\_ Email Address: \_\_\_\_\_

Phone: \_\_\_\_\_ Cell Phone: \_\_\_\_\_

**NOTE: ACKNOWLEDGMENT IS TO BE SIGNED & RETURNED WITH YOUR PROPOSAL.**

EXHIBIT A

**Attachment 2**

**HOAs**

**See Next Page**

Item 3.



EXHIBIT A

**Attachment 3**

**Pricing Sheet**

**See Separate Excel Attachment**

Item 3.

EXHIBIT A

**Attachment 4**

**Agreement**

**See Next Pages**

Item 3.

**AGREEMENT FOR RESIDENTIAL SOLID WASTE COLLECTION SERVICES**

THIS AGREEMENT FOR RESIDENTIAL SOLID WASTE COLLECTION SERVICES ("Agreement") is made and entered into by and between the CITY OF FORT COLLINS, a Colorado home-rule municipal corporation ("City"), whose address is 300 LaPorte Ave., Fort Collins, Colorado 80521 and \_\_\_\_\_ ("Contractor"), whose address is \_\_\_\_\_, each of which is individually a "Party" and collectively are the "Parties".

WHEREAS, the Contractor, in response to the City's Request for Proposals ("RFP") No. 9648 dated September 12, 2022, submitted a proposal for Residential Solid Waste Collection Services dated October \_\_, 2022 ("Proposal"), to provide Collection Services for Residential Units, as such terms are defined below, within the City; and

WHEREAS, based on the outcome of the RFP the City has selected the Contractor to perform the Collection Services for Residential Units in accordance with the terms of this Agreement and pursuant to the City's authority under C.R.S. § 30-15-401(7.5) and Chapter x, Article y of the City Code; and

WHEREAS, pursuant to C.R.S. § 30-15-401(7.5) and Section 8-186(a) of the City Code, this Agreement is subject to approval by the City Council of the City of Fort Collins by ordinance.

NOW THEREFORE, in consideration of the mutual covenants contained herein and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties hereby agree as follows:

1. **Definitions.** For the purposes of this Agreement, the following terms shall have the meanings set forth herein unless the context specifies otherwise:
  - A. "Bulky Waste" means Solid Waste that does not fit in a closed solid waste cart, excluding hazardous waste, electronics, yard trimmings, recyclable cardboard, items that weigh more than 60 pounds, and items larger than 6' x 6'.
  - B. "Collection Services" means the collection, transportation, and delivery to an appropriate facility of solid waste, recyclable materials, yard trimmings, bulky items, and associated services for residential units conducted in a manner consistent with all applicable laws and regulations and the provisions of this Agreement.
  - C. "Customer" means a customer of the Collection Services.
  - D. "Contractor" means Firm Name.
  - E. "Dumpster" means a metal or plastic container, one (1) cubic yard to ten (10) cubic yards in volume, that is manufactured and used for the collection of solid waste or recyclable materials.

- F. "Effective Date" means the effective date of this Agreement, which shall be the date stated in Section 4, Contract Term.
- G. "Electronics" means any electronic device or electronic component as those terms are defined in the Colorado Hazardous Waste Regulations, 6 Code of Colorado Regulations 1007-3, Section 260.10 and as amended by the State of Colorado from time to time.
- H. "Hazardous waste" means any chemical, compound, substance or mixture that state or federal law designates as hazardous because it is ignitable, corrosive, reactive or toxic, including but not limited to solvents, degreasers, paint thinners, cleaning fluids, pesticides, adhesives, strong acids and alkalis and waste paints and inks.
- I. "Recyclable cardboard" means corrugated cardboard, and shall include, but not be limited to, materials used in packaging or storage containers that consist of three (3) or more layers of Kraft paper material, at least one (1) of which is rippled or corrugated. Cardboard shall be considered recyclable cardboard regardless of whether it has glue, staples or tape affixed, but not if it is permanently attached to other packing material or a non-paper liner, waxed cardboard or cardboard contaminated with oil, paint, blood or other organic material.
- J. "Recyclable materials" means the materials listed in Table 3 of Exhibit A and any other materials identified by Contractor and approved by the City as recyclable materials, provided those materials have been separated from solid waste and can be recovered as useful materials and are properly prepared for the purpose of recycling.
- K. "Residential Units" means all single-unit residential buildings, and multi-unit residential buildings containing seven (7) dwelling units or fewer within the City, subject to certain exceptions and City-granted variances as stated in Exhibit A. Residential units also includes any service opt-in customers.
- L. "Service Opt-in" means Homeowner Associations within the City that meets an exception to the definition of Residential Units as provided in Exhibit A that opts-in to be a Customer and/or a multi-unit residential building containing eight (8) or more dwellings within the City that opts-in to be a Customer.
- M. "Services Commencement Date" means as stated in Section 5 of this Agreement.
- N. "Solid waste" means all refuse, putrescible and nonputrescible waste, excluding electronics, discarded or abandoned vehicles or parts thereof, sewage, sludge, septic tank and cesspool pumpings or other sludge, discarded home or industrial appliances, hazardous wastes, materials used as fertilizers or for other productive purposes and recyclable materials or yard trimmings which have been source separated for collection.



- O. "Yard trimmings" means those materials included in Table 4 of Exhibit A and any other similar organic materials identified by Contractor and approved by the City as yard trimmings.
2. Scope of Agreement.
- A. This Agreement pertains to Collection Services for Residential Units in the City provided by Contractor on behalf of the City pursuant to the City's authority in C.R.S. § 30-15-401(7.5). Contractor's work under this Agreement shall consist of all supervision, materials, equipment, fuel, labor, tip fees and other items necessary to provide a high level of customer service, timely accurate billing, and the collection, transportation and disposal of solid waste, recyclables, yard trimmings, bulky waste from Residential Units in accordance with the provisions of this Agreement.
- B. This Agreement shall not be considered a franchise for services to the residents of the City and any residential household may choose to negotiate with any other solid waste collection service provider licensed to do business in the City or may choose to remove their own solid waste and recyclables in accordance with applicable laws and regulations.
3. Scope of Services. Beginning on the Effective Date or Services Commencement Date, as applicable, the Contractor will provide the following services to the City or, as applicable, to each Customer:
- A. Contractor's Proposal. Contractor's Proposal is incorporated into this Agreement by this reference. In the event a conflict exists between this Agreement and any term in the Proposal, the terms in this Agreement shall supersede the terms in Proposal.
- B. Collection Services. Collection of solid waste, recyclables, yard trimmings, bulky waste and associated services for Residential Units shall be in accordance with **Exhibit A**, which is attached hereto and incorporated herein by this reference.
- C. Operating Specifications. All services performed hereunder shall be subject to the requirements stated in **Exhibit B**, which is attached hereto and incorporated herein by this reference.
- D. Contractor Performance. The Contractor is required to provide a high level of customer service, timely and accurate billing provided by Contractor on behalf of the City, and professionalism in the performance of services under this Agreement. Performance failures will be addressed, to the extent possible, through liquidated damages for certain infractions as set forth on **Exhibit C**. The parties agree, assigning a monetary value for damages to the City and the public for performance

failures for such matters do not easily translate to the dollar amount of such damage, and that the liquidated damage amounts that are set forth in **Exhibit C**, which is attached hereto and incorporated herein by this reference, are reasonable estimates as to the dollar amount of damage incurred in relation to each offending act or omission.

- E. **Pricing.** The Contractor shall perform Collection Services for Residential Units at the prices stated in **Exhibit D**, which is attached hereto and incorporated herein by this reference.
- F. **Insurance.** Without limiting any of the Contractor's obligations hereunder, the Contractor shall provide and maintain insurance coverage naming the City as an additional insured under this Agreement of the type and with the limits specified within **Exhibit E**, which is attached hereto and incorporated herein by this reference. Prior to the Effective Date of the Agreement, the Contractor shall deliver to the City's Purchasing Director, purchasing@fcgov.com or P.O. Box 580, Fort Collins, Colorado 80522, one copy of a certificate evidencing the insurance coverage required from an insurance company acceptable to the City.
- G. **Confidentiality.** The Contractor shall comply with **Exhibit F**, which is attached hereto and incorporated herein by this reference.
4. **Contract Term.** Subject to approval by ordinance of the Fort Collins City Council, this Agreement shall commence effective \_\_\_\_\_ (“Effective Date”) and shall continue in full force and effect for five (5) years from the Services Commencement Date, unless terminated as provided herein (“Term”).
5. **Services Commencement Date.** The Services Commencement Date is the date the Contractor starts collecting solid waste, recycling, yard trimmings, and bulky waste under the Agreement. This date shall be mutually agreed upon by the parties and will be not less than six (6) and not more than twenty-four (24) months from the Effective Date of the Agreement
6. **Early Termination by City.** Notwithstanding the time periods contained herein, the City may terminate this Agreement at any time without cause by providing written notice of termination to the Contractor. Such notice shall be delivered at least six (6) months prior to the effective date of the termination.
7. **Carts.** Upon expiration or termination of the Agreement, ownership of all carts and replacement parts for such carts purchased by the Contractor under this Agreement shall transfer to the City. In the event of expiration or termination for Contractor default, the ownership of the Carts shall transfer to the City at no-cost, free and clear of any liens or debt. In the event the Agreement is terminated early by the City in accordance with Section 6, the City shall pay the Contractor the net present value of the monthly cost per

cart multiplied by the number of months remaining to reach five (5) years from the Service Commencement Date. Upon transfer of ownership any manufacturer's warranty for the carts shall transfer to the City.

8. Notices. All notices provided under this Agreement shall be effective immediately when emailed or three (3) business days from the date of the notice when mailed to the following addresses:

Contractor

City

City of Fort Collins  
 Attn: Project Manager  
 PO Box 580  
 Fort Collins, CO 80522  
 City of Fort Collins  
 Attn: Purchasing Director  
 PO Box 580  
 Fort Collins, CO 80522

City of Fort Collins  
 Attn: City Attorney  
 PO Box 580  
 Fort Collins, CO 80522

9. Appropriation. To the extent this Agreement or any provision in it constitutes a multiple fiscal year debt or financial obligation of the City, it shall be subject to annual appropriation by City Council as required in Article V, Section 8(b) of the City Charter, City Code Section 8-186, and Article X, Section 20 of the Colorado Constitution. The City shall have no obligation to continue this Agreement in any fiscal year for which no such supporting appropriation has been made.
10. City Representative. The City has designated \_\_\_\_\_ to serve as its representative who shall make, within the scope of his or her authority, all necessary and proper decisions with reference to the Services provided under this Agreement. The City may change its representative by providing written notice of such change to

Contractor. All requests concerning this Agreement shall be directed to the City Representative. Notwithstanding the foregoing, any changes to the Agreement shall not be binding on either party without a written amendment to the Agreement.

11. Marks. Subject to a Party's express written approval, the other Party may use the Party's name, logo, symbol, trademark or service mark (together "Marks") in electronic, printed, stamped or inscribed materials to support and promote the relationship between the Parties during the Contract Period. Each Party's right to use the Marks is royalty-free, non-exclusive, non-transferrable, and non-assignable.
12. Independent Service Provider. It is the express intention of the Parties that Contractor is an independent contractor performing services and is not an employee, agent, joint venturer, or partner of City. The City shall not be responsible for withholding any portion of Contractor's compensation hereunder for the payment of FICA, Workmen's Compensation or other taxes or benefits or for any other purpose.
13. Subcontractors. Contractor may not subcontract any of the Collection Services set forth in this Agreement without the prior written consent of the City. If any of the Services are subcontracted hereunder (with the consent of the City), then the following provisions shall apply: (a) the subcontractor must be a reputable, qualified firm with an established record of successful performance in its respective trade performing identical or substantially similar work, (b) the subcontractor will be required to comply with all applicable terms of this Agreement, (c) the subcontract will not create any contractual relationship between any such subcontractor and the City, nor will it obligate the City to pay or see to the payment of any subcontractor, and (d) the work of the subcontractor will be subject to inspection by the City to the same extent as the work of the Contractor. Contractor shall be solely responsible for performance of all duties hereunder.
14. Personal Services. It is understood that the City enters into the Agreement based on the special abilities of the Contractor and that this Agreement shall be considered as an agreement for personal services. Accordingly, the Contractor shall neither assign any responsibilities nor delegate any duties arising under the Agreement without the prior written consent of the City.
15. Acceptance Not Waiver. The City's approval or acceptance of, or payment for any of the Services shall not be construed to operate as a waiver of any rights or benefits provided to the City under this Agreement or cause of action arising out of performance of this Agreement.
16. Warranty.
  - A. The Contractor hereby warrants that it is qualified and has the operational capacity and equipment to assume the duties and responsibilities necessary to effectively render the services described herein and has all the requisite corporate authority, professional licenses, and permits in good standing required by law.

B. The services performed by the Contractor shall be in accordance with generally accepted professional practices and the level of competency presently maintained by other practicing professional firms in the same or similar type of work. The services to be performed by the Contractor hereunder shall be done in compliance with applicable laws, ordinances, rules, and regulations.

17. City's Role. The Contractor shall provide all services with no direct support by City staff. Although City staff may collaborate with Contractor on certain initiatives such as Customer education and communication, such support is solely at the City's discretion. Notwithstanding the foregoing, the City intends to monitor and evaluate the progress and performance of Contractor to ensure the terms of this Agreement are being satisfactorily met in accordance with the City's and other applicable monitoring and evaluating criteria and standards. Contractor shall fully cooperate with the City relating to such monitoring and evaluation.

18. Force Majeure. If either party is prevented in whole or in part from performing its obligations by force majeure, then the party so prevented shall be excused from whatever performance is prevented by such cause. "Force Majeure" means any act or event that prevents a party from performing its obligations in accordance with the Agreement where the act or event is beyond the reasonable control and not the result of the fault or the negligence of the affected party and such party is unable to overcome such act or event through the exercise of due diligence. Such acts and events, include but are not limited to, acts of God, fire, explosion, accident, flood, earthquake, epidemic, war, riot, and restraints or injunctions, not resulting from a party's breach of any terms and conditions of this Agreement or any other contractual commitment. Force majeure acts or events do not include: economic or financial events that impact the Service Provider's ability to access or use financial resources; or labor disputes or strikes. Weather that causes City closures or delayed starts, as referenced in the Severe Weather Protocol in Exhibit A, is not a force majeure act or event. To the extent that the performance is actually prevented, the Service Provider must provide written notice to the City of such condition within ten (10) days from the onset of such condition.

19. Disputes Resolution. Except in the event of a Default, pursuant to Section 20, the Parties shall attempt to resolve disputes as follows:

A. Informal Dispute Resolution. The Parties will use reasonable efforts to resolve any disputes under this Agreement through negotiation. If a dispute arises between the Parties, the primary Representative for each Party will first strive to work out the problem internally. If the Representatives are unable to resolve the dispute within ten (10) days of commencing discussions, then either Party may deliver a written notice to the other Party describing the nature and substance of the dispute and proposing a resolution (the "Notice of Dispute").

B. Executive Negotiation. During the first ten (10) days following the delivery of the Notice of Dispute (and during any extension to which the Parties agree) an authorized executive of each Party shall attempt in good faith to resolve the dispute through negotiations. If such negotiations result in an agreement in principle to

settle the dispute, they shall cause a written settlement agreement to be prepared, signed and dated, whereupon the dispute shall be deemed settled, and not subject to further dispute resolution.

- C. **Unresolved Disputes.** Upon the Parties' mutual written agreement, any dispute under this Section 19 may be submitted for resolution to mediation to occur in Fort Collins, Colorado. The Parties reserve all rights to adjudicate any dispute not submitted to mediation under this Section 19 of the Agreement. In the event of mediation, the Parties shall share the cost for the mediator(s) equally and each party shall be solely responsible for their own legal counsel expenses.

20. **Default.** Each and every term and condition hereof shall be deemed to be a material element of this Agreement. In the event either party should fail or refuse to perform according to the terms of this Agreement, such party may be declared in default thereof.

21. **Remedies.** In the event a party has been declared in default, such defaulting party shall be allowed a period of ten (10) days within which to cure said default. In the event the default remains uncorrected, the party declaring default may elect to (a) terminate the Agreement and seek damages; (b) treat the Agreement as continuing and require specific performance; or (c) avail themselves of any other remedy at law or equity. If the non-defaulting party commences legal or equitable actions against the defaulting party, the defaulting party shall be liable to the non-defaulting party for the non-defaulting party's reasonable attorney fees and costs incurred because of the default.

22. **Performance Security.**

- A. The Contractor shall provide performance security by providing the City an irrevocable letter of credit in a form satisfactory to the City ninety (90) days prior to the Service Commencement Date. The amount of the letter of credit will be One-Million Dollars (\$1,000,000) issued by a local, federally insured (FDIC) banking institution with a debt rating of 1A or higher by the FDIC or A or higher by Standard & Poor's, Moody's Investor, or comparable agency as determined by the City.
- B. The irrevocable letter of credit shall contain the following endorsement, "At least sixty (60) days prior to cancellation, replacement, failure to renew or material alteration of this irrevocable letter of credit, written notice of such intent shall be given to the City by the financial institution. Such notice shall be given by certified mail to the City of Fort Collins, Purchasing Director, 215 North Mason, Fort Collins, CO 80522."
- C. The irrevocable letter of credit shall be released to the City in the event this Agreement is terminated by reason of breach or default of the Contractor. The irrevocable letter of credit will be released to Contractor at the end of the Agreement Term, provided there is no outstanding breach, default, or other payment deductions or adjustments.

D. The rights reserved to the City with respect to the irrevocable letter of credit are in addition to all other rights of the City, whether reserved by this Agreement, or otherwise authorized by law, and no action, proceeding or right with respect to the irrevocable letter of credit shall affect any other rights the City has or may have under the law.

23. Entire Agreement; Binding Effect; Order of Precedence; Authority to Execute. This Agreement, along with all Exhibits and other documents incorporated herein, shall constitute the entire Agreement of the parties regarding this transaction and shall be binding upon said parties, their officers, employees, agents and assigns and shall inure to the benefit of the respective survivors, heirs, personal representatives, successors and assigns of said parties. Covenants or representations not contained in this Agreement shall not be binding on the parties. In the event of a conflict between terms of the Agreement and any exhibit or attachment, the terms of the Agreement shall prevail. Each person executing this Agreement affirms that they have the necessary authority to sign on behalf of their respective party and to bind such party to the terms of this Agreement.

24. Indemnity. The Contractor agrees to indemnify and save harmless the City, its officers, agents and employees against and from any and all actions, suits, claims, demands or liability of any character whatsoever brought or asserted for injuries to or death of any person or persons, or damages to property arising out of, result from or occurring in connection with the performance of any service hereunder.

The Contractor shall take all necessary precautions in performing the work hereunder to prevent injury to persons and property.

25. Compliance with Law: The services to be performed by the Contractor hereunder shall be done in compliance with all applicable federal, state, county and City laws, ordinances, rules and regulations. Contractor must be properly licensed by the City to perform Collection Services.

26. Law/Severability. The laws of the State of Colorado shall govern the construction, interpretation, execution, and enforcement of this Agreement. The Parties further agree that Larimer County District Court is the proper venue for all disputes. If the City subsequently agrees in writing that the matter may be heard in federal court, venue will be in Federal District Court in Denver, Colorado. In the event any provision of this Agreement shall be held invalid or unenforceable by any court of competent jurisdiction, such holding shall not invalidate or render unenforceable any other provision of this Agreement.

27. Prohibition Against Unlawful Discrimination. The City, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 U.S.C. §§ 2000d to 2000d-4) and the Regulations, affirmatively ensures that for all contracts entered into with the City, disadvantaged business enterprises are afforded a full and fair opportunity to bid on the contract and are not to be discriminated against on the grounds of race, color, or national origin in consideration for an award.

The City strictly prohibits unlawful discrimination based on an individual's gender (regardless of gender identity or gender expression), race, color, religion, creed, national origin, ancestry, age 40 years or older, marital status, disability, sexual orientation, genetic information, or other characteristics protected by law. For the purpose of this policy "sexual orientation" means a person's actual or perceived orientation toward heterosexuality, homosexuality, and bisexuality. The City also strictly prohibits unlawful harassment in the workplace, including sexual harassment. Further, the City strictly prohibits unlawful retaliation against a person who engages in protected activity. Protected activity includes an employee complaining that he or she has been discriminated against in violation of the above policy or participating in an employment discrimination proceeding.

The City requires its vendors to comply with the City's policy for equal employment opportunity and to prohibit unlawful discrimination, harassment and retaliation. This requirement applies to all third-party vendors and their subcontractors at every tier.

28. Governmental Immunity Act. No term or condition of this Agreement shall be construed or interpreted as a waiver, express or implied, by the City of any of the notices, requirements, immunities, rights, benefits, protections, limitations of liability, and other provisions of the Colorado Governmental Immunity Act, C.R.S. § 24-10-101 et seq. and under any other applicable law.
29. Colorado Open Records Act. The Contractor hereby acknowledges that the City is a public entity subject to Sec. 24-72-201 et seq. of the Colorado Revised Statute (CORA). This Agreement is subject to public disclosure in whole pursuant to CORA.
30. Survival: Any terms and conditions of this Agreement that require continued performance, compliance, or effect beyond the termination date of the Agreement shall survive such termination date and shall be enforceable in the event of a failure to perform or comply.
31. Counterparts. This Agreement may be executed in one or more counterparts, each of which shall constitute an original and all of which shall constitute one and the same document. In addition, the Parties specifically acknowledge and agree that electronic signatures shall be effective for all purposes, in accordance with the provisions of the Uniform Electronic Transactions Act, Title 24, Article 71.3 of the Colorado Revised Statutes.

**Signature Page Follows**



IN WITNESS WHEREOF, the parties hereto have hereunto set their hands and seals the day and year first written above.

**CITY OF FORT COLLINS**

**CONTRACTOR**

\_\_\_\_\_  
Kelly DiMartino, City Manager

\_\_\_\_\_  
Date

**CITY OF FORT COLLINS**

\_\_\_\_\_  
Gerry Paul, Purchasing Director

\_\_\_\_\_  
Date

**APPROVED AS TO FORM**

**ATTEST**

**EXHIBIT A**

**SCOPE OF WORK/COLLECTION SERVICES**

EXHIBIT A

**EXHIBIT B**

**OPERATION SPECIFICATIONS**

EXHIBIT A

**EXHIBIT C**

**CONTRACTOR PERFORMANCE**

Item 3.

EXHIBIT A

**EXHIBIT D**

**PRICING**

**EXHIBIT E****INSURANCE**

The Contractor will provide, from insurance companies acceptable to the City, the insurance coverage designated hereinafter and pay all costs. Before commencing work under this bid, the Contractor shall furnish the City with certificates of insurance showing the type, amount, class of operations covered, effective dates and date of expiration of policies.

In case of the breach of any provision of the Insurance Requirements, the City, at its option, may take out and maintain, at the expense of the Contractor, such insurance as the City may deem proper and may deduct the cost of such insurance from any monies which may be due or become due the Contractor under this Agreement.

Insurance certificates should show the certificate holder as follows:

City of Fort Collins  
Purchasing Division  
PO Box 580  
Fort Collins, CO 80522

The City, its officers, agents and employees shall be named as additional insureds on the Contractor's general liability and automobile liability insurance policies **by marking the appropriate box or adding a statement to this effect on the certificate**, for any claims arising out of work performed under this Agreement.

Insurance coverages shall be as follows:

- A. Workers' Compensation & Employer's Liability. The Contractor shall maintain during the life of this Agreement for all of the Contractor's employees engaged in work performed under this agreement. Workers' Compensation & Employer's Liability insurance shall conform with statutory limits of \$100,000 per accident, \$500,000 disease aggregate, and \$100,000 disease each employee, or as required by Colorado law.
- B. General Liability. The Contractor shall maintain during the life of this Agreement such General Liability as will provide coverage for damage claims of personal injury, including accidental death, as well as for claims for property damage, which may arise directly or indirectly from the performance of work under this Agreement. Coverage for property damage shall be on a "broad form" basis. The amount of insurance for General Liability, shall not be less than Two Million Dollars (\$2,000,000) each occurrence and Four Million Dollars \$4,000,000 aggregate.
- C. Automobile Liability. The Contractor shall maintain during the life of this Agreement such Automobile Liability insurance as will provide coverage for damage claims of personal injury, including accidental death, as well as for claims for property damage, which may arise directly or indirectly from the performance of work under this Agreement. Coverage for property damage shall be on a "broad form" basis. The amount of insurance for Automobile Liability, shall not be less than One Million Dollars (\$1,000,000) combined single limits for bodily injury and property damage.

In the event any work is performed by a subcontractor, the Contractor shall be responsible for any liability directly or indirectly arising out of the work performed under this Agreement by a subcontractor, which liability is not covered by the subcontractor's insurance.

**EXHIBIT F****CONFIDENTIALITY**

**IN CONNECTION WITH SERVICES** provided to the City of Fort Collins (the “City”) pursuant to this Agreement (the “Agreement”), the Contractor hereby acknowledges that it has been informed that the City has established policies and procedures with regard to the handling of confidential information and other sensitive materials.

In consideration of access to certain information, data and material (hereinafter individually and collectively, regardless of nature, referred to as “information”) that are the property of and/or relate to the City or its employees, customers or suppliers, which access is related to the performance of services under this Agreement, the Contractor hereby acknowledges and agrees as follows:

That information that has or will come into its possession or knowledge in connection with the performance of services for the City may be confidential and/or proprietary. The Contractor agrees to treat as confidential (a) all information that is owned by the City, or that relates to the business of the City, or that is used by the City in carrying on business, and (b) all information that is proprietary to a third party (including but not limited to customers and suppliers of the City). The Contractor shall not disclose any such information to any person not having a legitimate need-to-know for purposes authorized by the City. Further, the Contractor shall not use such information to obtain any economic or other benefit for itself, or any third party, except as specifically authorized by the City.

As part of the Services provided to the City under this Agreement, the Contractor will maintain, store or process personal identifying information, as defined in C.R.S. § 24-73-101. Pursuant to C.R.S. § 24-73-102, Contractor shall implement and maintain reasonable security procedures and practices that are: appropriate to the nature of the personal identifying information disclosed to the Contractor in furtherance of this Agreement; and reasonably designed to help protect the personal identifying information from unauthorized access, use, modification, disclosure, or destruction.

The foregoing to the contrary notwithstanding, the Contractor understands that it shall have no obligation under this Agreement with respect to information and material that (a) becomes generally known to the public by publication or some means other than a breach of duty of this Agreement, or (b) is required by law, regulation or court order to be disclosed, provided that the request for such disclosure is proper and the disclosure does not exceed that which is required. In the event of any disclosure under (b) above, the Contractor shall furnish a copy of this Agreement to anyone to whom it is required to make such disclosure and shall promptly advise the City in writing of each such disclosure.

In the event that the Contractor ceases to perform services for the City, or the City so requests for any reason, the Contractor shall promptly return to the City any and all information described hereinabove, including all copies, notes and/or summaries (handwritten or mechanically produced) thereof, in its possession or control or as to which it otherwise has access.

The Contractor understands and agrees that the City’s remedies at law for a breach of the Contractor’s obligations under this Confidentiality Agreement may be inadequate and that the City



shall, in the event of any such breach, be entitled to seek equitable relief (including without limitation preliminary and permanent injunctive relief and specific performance) in addition to all other remedies provided hereunder or available at law.



Financial Services  
Purchasing Division  
215 N. Mason St. 2<sup>nd</sup> Floor  
PO Box 580  
Fort Collins, CO 80522  
970.221.6775  
970.221.6707  
[fcgov.com/purchasing](http://fcgov.com/purchasing)

### ADDENDUM NO. 1

RFP 9648 Residential Solid Waste Collection Services

CLOSING DATE: 5:00 PM MT (Our Clock) October 24, 2022

To all prospective proposers under the specifications and contract documents described above, the following changes/additions are hereby made and detailed in the following sections of this addendum:

#### Exhibit 1 – Questions and Answers

Please contact Gerry Paul, Purchasing Director, at [gspaul@fcgov.com](mailto:gspaul@fcgov.com) with any questions regarding this addendum.

**RECEIPT OF THIS ADDENDUM MUST BE ACKNOWLEDGED BY A WRITTEN STATEMENT ENCLOSED WITH THE REQUEST FOR PROPSAL STATING THAT THIS ADDENDUM HAS BEEN RECEIVED.**

**Questions and Answers:**

1. For Bulky Items Scenario 2, is that an on-call service? Customers would call in to request pick-up.

**Answer:** On-call means that the service is only provided when a Customer calls to request the service (as opposed to regularly-scheduled service).

2. Does Fort Collins have a storage yard we could use to store carts as they are deployed?

**Answer:** Proposals must reflect the RFP request that the Contractor is responsible for securing space for cart storage during assembly and delivery. Contractors may also propose an alternative scenario proposing the City provide a space and related cost savings.

3. What process was used to gather information related to container size currently in use by residents?

**Answer:** One of the requirements of Fort Collins' hauler license is that haulers report the number of homeowners' association and open market customers and the size of cart to which they subscribe. The table in the Request for Proposals (RFP) is a compilation of that information from 2021 reports from all residential haulers currently servicing Fort Collins.

4. On the bulky item definition, is it correct that anything over 60 pounds is not considered a bulky item?

**Answer:** The following items are always excluded from the Bulky Items collection: Hazardous Waste, Electronics, Yard Trimmings, Recyclable Cardboard.

The following items may be included in the Additional Fee Bulky Items at a fee determined by the Contractor: items that weigh over 60 pounds, items larger than 6' x 6', and other items identified by the Contractor.

5. Will the City of Fort Collins be responsible for maintaining the Utility lines within the Alleyways? Our firm requires a minimum height of 15ft to enter the alley safely.

**Answer:** Fort Collins utility lines are primarily underground. In general, the owner of the utility line is responsible for its maintenance. There may be various owners of any overhead lines in Fort Collins alleys.

6. Will code enforcement handle overgrown trees to ensure we can safely navigate the alleys and roadways?

**Answer:** The City Forester is generally responsible for the maintenance of trees within the City's rights-of-way and on other City property.

For trees located on other property, the property owner is responsible for tree maintenance, including for trees in an alley adjacent to the property up to the center line of the alley.

Property owners must ensure tree branch growth is maintained at a height no lower than 14 feet over the travel lanes of a street or alley.

If a property owner fails to maintain a tree as required by the City Code, the City Forester may provide notice to the property owner that the work must be accomplished. If the tree has not been brought into compliance as required by the City Forester, the work may be done by the City.

For a complete understanding of tree maintenance responsibility within the City, see Chapter 27 of the Fort Collins City Code.

7. Section 5.1 Carts: Will the City consider the option of using one color for all cart bodies and different lids to designate Garbage, Recycle, and Yard Waste?

**Answer:** Proposals must reflect the RFP request, and the City's preference is, that cart bodies and lids be the same color. Contractors may also include an alternative proposal in which cart bodies would be all one color with different color lids along with corresponding cost savings.

8. On page 13 of the RFP, taking the Yard Trimmings to a permitted/licensed facility is detailed. Currently, in the publicized Policy Advisory Council Notes from Larimer County website dated 9/8/22, it is not a guarantee the Compost Facility will be funded. *EX: The estimated Compost Facility would be \$6,250,000. If pricing for the North Landfill and Transfer Station is more than anticipated, the Compost Facility will not be funded as anticipated. Reference: [Solid Waste Policy Advisory Council Packet Document \(4\).pdf](#)* Beyond not having disposal rates secured at a facility that may or may not be built, should Contractors explore any other area disposal permitted outlets and they cannot handle the volume, how does the City recommend Contractors handle this volume?

**Answer:** There are several regional facilities other than the potential Larimer County facility that can accept yard trimmings.

9. As a way to achieve more favorable sustainability goals and lower customer pricing, would the City of Fort Collins consider a contract length of 7-10 years versus 5 years?

**Answer:** Proposals must reflect the RFP request for a 5-year contract length. Contractors may also propose a term length greater than 5 years, not to exceed 10 years with corresponding cost savings. A contract term longer than 5 years would require City Council approval via an ordinance.

10. At the Contractor's determination, can we require some residential customer segments who predominantly receive alley service to all have their carts serviced in the alley, versus some residents selecting curbside?

**Answer:** One of the City's objectives of the contract services is to provide a level of service equal to or better than the current service level. Residential customers on a

block that predominately receives alley service are currently able to select curbside service as an alternative.

Proposals must reflect the current service level. Contractors may also submit an additional alternative approach and related cost savings.

11. In the attached RFP, can the winning Contractor request the right to negotiate the final contract with the City?

**Answer:** The RFP includes a sample Agreement that the City intends to use for obtaining the services under this RFP. As stated in the RFP, any objections to the terms of the contract need to be stated in the proposal with suggested revisions. The City will consider negotiating the final contract terms with the selected Contractor, based on the objections stated as part of the Contractor's proposal.

12. Based on the Pre-Bid Meeting Call last week, we understand that Yard Trimmings are part of the bundled package with MSW and Recycling. By being bundled together with these other services, it is our understanding that PAYT Guidelines, with 100% multipliers among the tiers labeled Small, Medium and Large Cart Packages, must be followed. Can you please confirm this is accurate?

**Answer:** All pricing scenarios are based on 100% price difference between small, medium and large solid waste carts. All pricing scenarios include recycling for no additional charge. The "Yard Trimmings Collection Service" column in the pricing sheet indicates whether that pricing scenario is based on bundled or optional yard trimmings service.

Bundled yard trimmings collection means 100% of customers receive yard trimmings collection as part of the core services rate for no additional charge.

Optional yard trimmings collection means that customers would be automatically enrolled in the service but could contact the Contractor to decline collection service and receive a reduction in their core service price. The pricing sheet includes a field to enter the amount of reduction in the customer's bill if the customer elects to decline service (cell D48). The City estimates 75% of Customers would participate in the optional service scenario.

13. **Page 15 Section 4.4 - Dumpster Service for MFUs and Commercial Customers:** Is it required to provide pricing in this section, as there are multiple factors to consider: frequency of the service, enclosure considerations, potential recycling contamination and fees, location nuances, and the fact MFUs and Commercial Customers are subject to open market in the State of Colorado?

**Answer:** Contractors are required to provide pricing for dumpster service for Multi-Unit and Commercial Customers. The Pricing Sheet (Attachment 3 of the RFP) states the service frequency and various dumpster sizes by type. If there are other considerations that may impact pricing for the dumpster service, please state these factors and the associated financial impact as part of the proposal. Dumpster service may or may not be included in the final scope of the contract.

14. For the customer hold time, would the City consider a 90-second prompt to receive a call back as “answered” within the 2-minute time frame? This would be whether the resident chooses to continue holding or asks for a call back in the order their call was received.

**Answer:** Proposals must reflect the RFP request for calls to be answered within two minutes. Contractors may also submit an additional alternative approach and related cost savings.

15. Can you define what the City deems as uncontrollable rates/cost on page 23? Does the City consider it be a certain percentage and above?

**Answer:** An uncontrollable rate/cost is an expense over which the Contractor has no direct control. Under this contract the City anticipates uncontrollable costs may potentially include 1) fuel, 2) tip fees, and 3) changes in regulations. As part of the contract negotiations the City intends to negotiate and establish the specific indices for fuel and tip fees which will be the basis for considering an annual price adjustment above the lesser of the Denver-Boulder-Greeley Consumer Price Index (CPI) or three percent.

16. How big is the sample size for estimates in table 1 for small, medium, and large carts?

**Answer:** One of the requirements of Fort Collins’ hauler license is that haulers report the number of homeowners’ association and open market customers and the size of cart to which they subscribe. The table in the Request for Proposals (RFP) is a compilation of that information submitted for 2021 by all residential haulers currently servicing Fort Collins.

17. There is an inconsistency/contradiction in RFP surrounding the amount of time to exchange out carts – Section 5.8 says must respond within 2 days, Section 5.1 says we need to respond within 2 days but 7 days to deliver the carts. I would like clarity that it means we need to provide a response within 2 days but have 7 days to actually deliver the carts.

**Answer:** Thank you for identifying this inconsistency. The accurate text for both sections is:

*“Contractor shall collect, deliver or swap carts for any service change requests and fulfill Bulky Items collection requests within 1 calendar week.”*

18. For non-payment accounts is there a method the City would like to propose or do you want Contractor to specify that? Do we put them down to super saver service or other approach?

**Answer:** The City does not specify a process for addressing non-payment accounts. Contractors shall propose how they would handle non-payment accounts.

19. Does this RFP apply to the junk removal business?

**Answer:** This RFP does not apply directly to on-call junk removal Customers. Although pricing is requested for Bulky Items and dumpster service, the City intends to award a contract to one firm for ongoing residential solid waste cart-based services which may also include some level of services for Bulky Items and dumpsters.

20. Does this RFP apply to firms offering large roll-offs?

**Answer:** This RFP does not apply directly to on-call roll-off services. Although pricing is requested for dumpster service, the City intends to award a contract to one firm for ongoing residential solid waste cart-based services which may also include some level of services for Bulky Items and dumpsters.

## EXHIBIT B

Item 3.

## ORIGINAL MAILING LIST

Contact Name	Company Name	Address	City	ZIP
Yuliya Shymchyk	Alpine Waste & Recycling (NOW GFL)	7373 Washington Street	Denver	80229
Lori Cate	BeeLine Trucking Ltd	6042 WCR 42	Johnstown	80534
Kayla McGill	Bin There Dump That	541 E Garden Drive Unit O Sutie 140	Windsor	80550
Yvonne Cook	Blue Bear Waste Systems	2180 W 60th Ave	Denver	80221
Dan Garvin	Colorado Iron and Metal	903 Buckingham St	Fort Collins	80524
Jamie Blanchard-Poling	Compost Queen	2224 Stonegate Drive 1825 22nd Street Unit	Fort Collins	80525
Geoffrey Schmidt	Common Good Compost	9	Greeley	80631
Tanner Slatten	Custom Disposal & Service	620 E 3rd St	Eaton	80615
Stefani Richardson	Dirty Deeds	2580 E Harmony Rd ste 201	Fort Collins	80528
Nicole Hicks	Dumpster Diverz	PO Box 204	Timnath	80547
Paul Korte, Jenni Korte	Dumpster Rental	562 Boxwood Dr	Windsor	80550
Buster Dunn	Dunn Teller Enterprises	45407 CR 41	Pierce	80650
Andra Presser	Fuzion Field Services	PO Box 200638	Evans	80620
Brooklyn Hephner, Becca Walkinshaw	Gallegos Sanitation / Republic Sanitation	PO Box 1986	Ft. Collins	80522
Bridget Johnson	Green Girl	PO Box 324	Jamestown	80455
Taylor Hagen	Hagens Junk Removal	1609 Hillside Dr	Fort Collins	80524
Armando	Home Builders Services Inc	3031 Highway 119	Longmont	80504
Mike Howard	Hulk Addicts Hauling and Junk Removal	3836 Beechwood LN	Johnstown	80524
Adam Wasson	Junk King	PO Box 102	Berthoud	80513
Adam Wood	McDonald Farm Enterprises Inc.	7247 E. County Line	Longmont	80504
Rob Rapp	Rob and Mike's Hauling	2136 Cadman St.	Berthoud	80513
Jennifer Parkos	Mountain High Disposal	15416 Hwy 14	Ault	80610
Andrew Meredith	Mountain West Disposal	6094 Maidenhead Drive	Windsor	80550



## EXHIBIT B

Item 3.

William Kennedy	Organix	19065 Hickory Creek Drive Suite 240	Mokena, IL	60448
John Puma	Ram Waste Systems	5704 Bueno Drive	Ft. Collins	80526
Ronnie Lee Hicks	RH Contracting	PO BOX 1408	Wellington	80549
Dean Hoag	RMB Recycling	1475 N College Ave	Fort Collins	80521
Jonathan Heaberlin	Timberline Waste Services	606 4th St	Windsor	80550
Tim Lambert	Tim of All Trades	9 Nantucket Ct	Windsor	80550
Brian Heuer	Sage Disposal	8646 Blackwood Drive	Windsor	80550
David LeClair & Cathy Johnston	S&B Waste Systems (Now United Site Services)	6766 E County Road 18	Johnstown	80534
Patty Kennedy	S&S Sanitation	PO Box 673	Loveland	80539
Jeff Wright	Step Up Roll Offs	1635 Foxtrail Drive #307	Fort Collins	
Deb Overturf Frank Santiago Jeremy Bradley	Waste Management of N. Colo.	40950 W C Rd 25	Ault	80610
Kirk Barker John Newman	Waste-Not Recycling	1065 Poplar Street	Loveland	80537
Kevin D Jackson	Yee Haul Junk	500 N Impala Drive	Fort Collins	80521

## PACKETS RESENT

Contact Name	Company Name	Address	City	Zip
Yvonne Cook	Blue Bear Waste Systems	6130 Huron St	Denver	80221
Brian Cleveringa	HBSCO LLC dba Home Builders Services	PO Box 3525	Greenwood Village	80155
Jennifer Parkos	Mountain High Disposal	PO BOX 1100	Ault	80610
Andrew Meredith	Mountain West Disposal	PO Box 832	Windsor	80550
Deb Hoag	Rocky Mountain Battery Service dba RMB Recycling	1475 N College Ave	Fort Collins	80524
Beth Wright	Step Up Inc	1635 Foxtrail Drive #307	Loveland	80538
Kevin D Jackson	Yee Haul Junk	904 30th Avenue Ct	Greeley	80634
William Kennedy	Organix	3308 Bernice Ave	Russellville, Arkansas	72802
Matt Marquardt	McDonald Farm Enterprises Inc.	7440 E I25 Frontage Rd	Frederick	80516
Kayla McGill	Bin There Dump That	1942 East Lincoln Ave, Unit B	Fort Collins	80524

Item 3. - FORT COLLINS  
**COLORADOAN**

EXHIBIT C

Invoice Text

Notice of Intent to Provide City Residential Waste Services Pu

STATE OF COLORADO  
COUNTY OF LARIMER  
AFFIDAVIT OF PUBLICATION

CITY OF FC-CLERK-LEGALS  
300 LAPORTE AVE

FORT COLLINS CO 80521

I, being duly sworn, deposes and says that said is the legal clerk of the Fort Collins Coloradoan; that the same is a daily newspaper of general circulation and printed and published in the City of Fort Collins, in said county and state; that the notice or advertisement, of which the annexed is a true copy, has been published in said daily newspaper and that the notice was published in the regular and entire issue of every number of said newspaper during the period and time of publication of said notice, and in the newspaper proper and not in a supplement thereof; that the publication of said notice was contained in the issues of said newspaper dated on

09/15/22

that said Fort Collins Coloradoan has been published continuously and uninterruptedly during the period of at least six months next prior to the first publication of said notice or advertisement above referred to; that said newspaper has been admitted to the United States mails as second-class matter under the provisions of the Act of March 3, 1879, or any amendments thereof; and that said newspaper is a daily newspaper duly qualified for publishing legal notices and advertisements within the meaning of the laws of the State of Colorado.

*Nicole Jacobs*  
\_\_\_\_\_  
Legal Clerk

Subscribed and sworn to before me, within the County of Brown, State of Wisconsin this 15th of September 2022.

*Nancy Heyrman*  
\_\_\_\_\_  
Notary Public

*9.15.23*  
\_\_\_\_\_  
Notary Expires

NANCY HEYRMAN  
Notary Public  
State of Wisconsin

Legal No.0005413455

Affidavit Prepared  
Thursday, September 15, 2022 12:16 am

Ad#:0005413455

P O :

This is not an invoice

# of Affidavits:

EXHIBIT C

Item 3.

Notice to Provide City Residential Waste Services Pursuant to C.R.S. § 30-15-401 (7.5)

The City of Fort Collins is considering adoption of a requirement that municipal residents use or pay user charges for residential waste, recycling and yard trimmings collection service for single family homes, including multi-family residences of 7 or fewer units (the "City Residential Waste Services") in accordance with the following:

- (a) The area within which the City Residential Waste Services will be required includes the Fort Collins City Limits.
- (b) The date upon which the City Residential Waste Services requirement will start is not less than 6 and not more than 24 months after execution of a contract for City Residential Waste Services by the City.
- (c) Any person may, within 30 days after the date of this Notice, request in writing the opportunity to submit a proposal to provide City Residential Waste Services.

The City has issued a Request for Proposals (RFP) for the City Residential Waste Services. Persons wishing to submit a proposal are advised to register with Rocky Mountain E-Purchasing Systems at <http://www.bidnetdirect.com/> (use the "Vendor Register" link and complete your registration) and reference Solicitation #9648 Residential Solid Waste Collection Services or to provide a written request for the RFP by certified U.S. Mail, return receipt requested, addressed to the City of Fort Collins Purchasing Department, Attn: Gerry S. Paul, Ref Solicitation #9648 Residential Solid Waste Collection Services, 215 N Mason St. Fort Collins CO 80522-0580.

0005413455  
Coloradoan  
September 15, 2022

**REVIEW VERSION – RESIDENTIAL SOLID WASTE COLLECTION SERVICES –  
2/27/2023 SUBJECT TO CITY COUNCIL APPROVAL AND EXECUTION BY THE  
PARTIES**

**REVIEW VERSION – R2**

**AGREEMENT FOR RESIDENTIAL SOLID WASTE COLLECTION SERVICES**

**FEBRUARY 27, 2023**

**The contract is not in effect until approved by City Council and signed by both Republic Services and the City.**

**References to sections of the City Code in the review version of the contract may be changed prior to or during Council consideration of the contract because Council would be adopting changes to the municipal code simultaneous with adoption of the contract.**

**The City and Republic Services may make technical changes to the review version of the contract prior to signing.**

**REVIEW VERSION – RESIDENTIAL SOLID WASTE COLLECTION SERVICES – 2/27/2023  
SUBJECT TO CITY COUNCIL APPROVAL AND EXECUTION BY THE PARTIES**

**AGREEMENT FOR RESIDENTIAL SOLID WASTE COLLECTION SERVICES**

THIS AGREEMENT FOR RESIDENTIAL SOLID WASTE COLLECTION SERVICES ("Agreement") is made and entered into on the Effective Date (defined below) by and between the CITY OF FORT COLLINS, a Colorado home-rule municipal corporation ("City"), whose address is 300 LaPorte Ave., Fort Collins, Colorado 80521 and Allied Waste Systems, Inc., a Delaware corporation d/b/a Republic Services of Colorado ("Contractor"), whose local address is 1941 Heath Parkway, Unit 2, Fort Collins, CO 80524, each of which is individually a "Party" and collectively are the "Parties".

WHEREAS, the Contractor, in response to the City's Request for Proposals ("RFP") No. 9648 dated September 12, 2022, submitted a proposal for Residential Solid Waste Collection Services dated October 17, 2022 ("Proposal"), to provide Collection Services for Residential Units, as such terms are defined below, within the City; and

WHEREAS, based on the outcome of the RFP the City has selected the Contractor to perform the Collection Services for Residential Units in accordance with the terms of this Agreement and pursuant to the City's authority under C.R.S. § 30-15-401(7.5) and Chapter 12, Article II of the Fort Collins Municipal Code; and

WHEREAS, pursuant to C.R.S. § 30-15-401(7.5) and Section 8-186(a) of the Fort Collins Municipal Code, this Agreement is subject to approval by the City Council of the City of Fort Collins by ordinance.

NOW THEREFORE, in consideration of the mutual covenants contained herein and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties hereby agree as follows:

1. **Definitions.** For the purposes of this Agreement, the following terms shall have the meanings set forth herein unless the context specifies otherwise:
  - A. "Acceptable Waste" means Bulky Waste, Recyclable Materials, Solid Waste and Yard Trimmings but does not include Excluded Waste.
  - B. "Administrative Fee" means that fee authorized by Section 12-32(b) of the Fort Collins Municipal Code.
  - C. "Associated Services" means customer service and billing functions, including billing of Customers and Service Opt-Out Customers.
  - D. "Bulky Waste" means Solid Waste that does not fit in a closed solid waste cart, excluding Excluded Waste, electronics, yard trimmings, recyclable cardboard, items that weigh more than 60 pounds, and items larger than 6' x 6'.
  - E. Carts Terminology:
    - "XS Cart" shall mean a 30-39-gallon cart with an insert that functionally creates a cart with less than 30 gallons of available capacity.
    - "Small Cart" shall mean a cart with a capacity of 30-39 gallons.
    - "Medium Cart" shall mean a cart with a capacity of 60-69 gallons.
    - "Large Cart" shall mean a cart with a capacity of 90-99 gallons.
    - "XL Cart" shall mean two Large Carts.

**REVIEW VERSION – RESIDENTIAL SOLID WASTE COLLECTION SERVICES –  
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- F. “City Limits” means the boundary of the City of Fort Collins as identified via the City of Fort Collins GIS system. City Limits does not include the Growth Management Area. The City Limits are subject to change through future annexations by the City.
- G. “City Representative” means the City’s Environmental Program Manager for Waste Reduction & Recycling, or another City employee designated through the process established in Section 10, who shall be the Contractor’s primary contact at the City of Fort Collins.
- H. “Collection Services” means the collection, transportation, and delivery to an appropriate facility of Solid Waste, Recyclable Materials, Yard Trimmings, Bulky Items, and Associated Services for Residential Units conducted in a manner consistent with all applicable laws and regulations and the provisions of this Agreement.
- I. “Contractor” means Allied Waste Systems, Inc., a Delaware corporation d/b/a Republic Services of Colorado.
- J. “Customer” means an owner or occupant of a Residential Unit that receives Collection Services from Contractor under the terms of this Agreement.
- K. “Door-to-Door Service” means service in which Contractor brings carts from the Customer’s location to the curb or alley for servicing and returns the carts to the Customer’s location.
- L. “Dumpster” means a metal or plastic container, one (1) cubic yard to ten (10) cubic yards in volume, that is manufactured and used for the collection of Solid Waste, Recyclable Materials or Yard Trimmings.
- M. “Effective Date” means the effective date of this Agreement, which shall be the date stated in Section 4, Agreement Term.
- N. “Electronics” means any electronic device or electronic component as those terms are defined in the Colorado Hazardous Waste Regulations, 6 Code of Colorado Regulations 1007-3, Section 260.10 and as amended by the State of Colorado from time to time.
- O. “Excluded Waste” means (1) Hazardous Waste; (2) radioactive, volatile, corrosive, highly flammable, explosive, biomedical, infectious, biohazardous, or toxic waste as defined by applicable law; or (3) any other waste prohibited from a disposal or processing facility.
- P. “Force Majeure” means any act or event that prevents a Party from performing its obligations in accordance with the Agreement where the act or event is beyond the reasonable control and not the result of the fault or the negligence of the affected Party and such Party is unable to overcome such act or event through the exercise of due diligence. Such acts and events, include but are not limited to, acts of God, fire, explosion, accident, flood, earthquake, pandemic, epidemic, war, riot, and restraints or injunctions, not resulting from a Party’s breach of any terms and conditions of this Agreement or any other contractual commitment. Force Majeure acts or events do not include: economic or financial events that impact Contractor’s

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ability to access or use financial resources; or labor disputes or strikes. To the extent that the performance is actually prevented, the Contractor must provide written notice to the City of such condition within three (3) days from the onset of such condition. Weather that causes suspensions or delays in Collection Services, as referenced in the Severe Weather Protocol in Exhibit A, is not a Force Majeure act or event.

- Q. “Hazardous Waste” means any chemical, compound, substance or mixture that state or federal law designates as hazardous because it is ignitable, corrosive, reactive or toxic, including but not limited to solvents, degreasers, paint thinners, cleaning fluids, pesticides, adhesives, strong acids and alkalis and waste paints and inks.
- R. “Recyclable Cardboard” means corrugated cardboard, and shall include, but not be limited to, materials used in packaging or storage containers that consist of three (3) or more layers of Kraft paper material, at least one (1) of which is rippled or corrugated. Cardboard shall be considered Recyclable Cardboard regardless of whether it has glue, staples or tape affixed, but not if it is permanently attached to other packing material or a non-paper liner, waxed cardboard or cardboard contaminated with oil, paint, blood or other organic material.
- S. “Recyclable Materials” means the materials listed in Table 1 of Exhibit A and any other materials identified by Contractor and approved by the City as Recyclable Materials, provided those materials have been separated from Solid Waste and can be recovered as useful materials and are properly prepared for the purpose of recycling.
- T. “Residential Units” means and includes all single-unit residential buildings, and multi-unit residential buildings containing seven (7) dwelling units or fewer within the City Limits, subject to certain exceptions and/or City-granted variances as provided in Sections 12-29 and 12-30 of the Fort Collins Municipal Code. Residential Units also include residences of Service Opt-in Customers.
- U. “Service Commencement Date” means the date as stated in Section 5, upon which the Contractor begins providing all Collection Services to Residential Units.
- V. “Service Opt-In Customer” means a Homeowner Association (“HOA”) or multi-unit residential building containing eight (8) or more dwellings within the City Limits that qualifies for an exception to the City’s Residential Waste Collection Program as provided in Section 12-29 of the Fort Collins Municipal Code that opts-in to receive Collection Services from Contractor.
- W. “Service Opt-Out Customer” means any person or entity who opts-out of the City Residential Waste Collection Program pursuant to Fort Collins Municipal Code, Section 12-32(d).
- X. “Service Year” means a period of twelve (12) calendar months beginning on the Service Commencement Date.
- Y. “Solid Waste” means all refuse, putrescible and nonputrescible waste, excluding electronics, discarded or abandoned vehicles or parts thereof, sewage, sludge, septic tank and cesspool pumpings or other sludge, discarded home or industrial



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appliances, Hazardous Wastes, materials used as fertilizers or for other productive purposes and Recyclable Materials or Yard Trimmings which have been source separated for collection and does not include Excluded Waste.

- Z. “Transition Period” means the time from Effective Date until the Service Commencement Date.
- AA. “Transition Plan” means a plan documenting the timeline for which activities shall be undertaken by the Contractor and by the City during the Transition Period.
- BB. “Yard Trimmings” means those materials included in Table 2 of Exhibit A and any other similar organic materials identified by Contractor and approved in writing by the City Representative as Yard Trimmings.

2. Scope of Agreement.

- A. This Agreement pertains to Collection Services for Residential Units in the City Limits provided by Contractor on behalf of the City pursuant to the City’s authority in C.R.S. § 30-15-401(7.5). Contractor’s work under this Agreement shall consist of all supervision, materials, equipment, fuel, labor, tip fees and other items necessary to diligently and effectively provide Collection Services.
  - B. This Agreement shall not be considered a franchise for services to the residents of the City and any residential household may choose to negotiate with any other solid waste collection service provider licensed to do business in the City or may choose to remove their own Solid Waste, Recyclable Materials, Yard Trimming and Bulky Items in accordance with applicable laws and regulations and subject to the payment obligations set forth in Sections 3.1 and 4.7 of Exhibit A.
3. Scope of Services. Beginning on the Effective Date or Service Commencement Date, as applicable, the Contractor shall provide services to the City or, as applicable, to each Residential Unit as described herein:
- A. Request for Proposal. Request for Proposal (RFP) 9648 Residential Solid Waste Collection Services dated September 12, 2022 is incorporated herein by this reference. In the event a conflict exists between contract documents the order of precedence shall be 1) This Agreement including all exhibits; 2) RFP; and 3) Contractor’s Proposal.
  - B. Contractor’s Proposal. Contractor’s Proposal dated October 17, 2022 is incorporated herein by this reference.
  - C. Collection Services. Applicable Collection Services for Residential Units and Service Opt-Out Customers shall be in accordance with **Exhibit A**, which is attached hereto and incorporated herein by this reference.
  - D. Operating Specifications. All services performed hereunder shall be subject to the requirements stated in **Exhibit A**, which is attached hereto and incorporated herein by this reference.

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- E. Contractor Performance. The Contractor is required to provide a high level of customer service, timely and accurate billing on behalf of the City, and professionalism in the performance of services under this Agreement. Performance failures will be addressed, to the extent possible, through liquidated damages for certain infractions as set forth on Exhibit A. The Parties agree, assigning a monetary value for damages to the City and the public for performance failures for such matters do not easily translate to the dollar amount of such damage, and that the liquidated damage amounts that are set forth in Exhibit A, which is attached hereto and incorporated herein by this reference, are reasonable estimates as to the dollar amount of damage incurred in relation to each offending act or omission.
- F. Pricing. The Contractor shall perform applicable Collection Services for Residential Units and Service Opt-Out Customers at the prices stated in Exhibit B, which is attached hereto and incorporated herein by this reference.
- G. Compensation. As compensation for the services provided under this Agreement, Contractor shall retain all fees collected from Customers and Service Opt-Out Customers except for the Administrative Fee, as provided in Exhibit A. The City is not liable or otherwise responsible to Contractor for any fee not paid by any Customer or Service Opt-Out Customer.
- H. Insurance. Without limiting any of the Contractor's obligations hereunder, the Contractor shall provide and maintain insurance coverage naming the City as an additional insured under this Agreement, via blanket-form endorsement, as applicable of the type and with the limits specified within Exhibit C, which is attached hereto and incorporated herein by this reference. Prior to the Effective Date of the Agreement, the Contractor, or its authorized representative, shall deliver to the City's Purchasing Director, purchasing@fcgov.com or P.O. Box 580, Fort Collins, Colorado 80522, one copy of a certificate evidencing the insurance coverage required from an insurance company rated A-VIII or higher by A.M. best Company and approved in Colorado.
- I. Confidentiality. The Contractor shall comply with Exhibit D, which is attached hereto and incorporated herein by this reference.
- J. Ownership of Waste. Contractor shall take ownership of Acceptable Waste when it is loaded into Contractor's vehicle. Ownership of and liability for any Excluded Waste shall remain with the generator and shall at no time pass to Contractor.
- K. Right of Refusal. If any Excluded Waste is discovered before it is collected by Contractor, Contractor may refuse to collect the entire pick-up that contains those items. In the event such items are present but not discovered until after it has been collected by Contractor, Contractor may, in its sole discretion, remove, transport, and dispose of such items at a facility authorized to accept those items, in accordance with applicable law and charge the depositor or generator for all reasonable direct costs incurred due to the removal, remediation, handling, transportation, delivery, and disposal of those items.

**REVIEW VERSION – RESIDENTIAL SOLID WASTE COLLECTION SERVICES –  
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4. Agreement Term. Subject to approval by ordinance of the Fort Collins City Council, this Agreement shall commence effective March 17, 2023, (“Effective Date”) and shall continue in full force and effect for five (5) years from the Service Commencement Date, unless terminated as provided herein (“Agreement Term”).
5. Service Commencement Date. The Service Commencement Date is the date the Contractor starts performing all Collection Services for Residential Units under the Agreement. The Service Commencement Date shall be September 30, 2024, subject to change by mutual written agreement of the Parties.
6. Early Termination. Notwithstanding the time periods contained herein, this Agreement shall terminate: 1) if the City fails to appropriate funds pursuant to Section 9 of this Agreement at the time as such then-existing appropriations are to be depleted; or 2) in the event of a termination by default in accordance with Section 20; or 3) at either Party’s option pursuant to Exhibit A, Section 4.11 in the event the Parties cannot mutually agree on the impact of uncontrollable costs.
7. Carts. Upon expiration or termination of the Agreement, ownership of all carts and replacement parts for such carts purchased by the Contractor under this Agreement shall transfer to the City. In the event of expiration or termination for Contractor default, the ownership of the Carts shall transfer to the City at no cost, free and clear of any liens or debt. In the event the Agreement is terminated early by the City in accordance with Section 6, the City shall pay the Contractor the net present value of the monthly cost per cart multiplied by the number of months remaining to reach five (5) years from the Service Commencement Date. Upon transfer of ownership, carts at Residential Units shall remain at the Residential Unit and Contractor shall transport the carts and replacement parts for such carts not at Residential Units to a location within Larimer County designated by the City Representative.
8. Notices. All notices provided under this Agreement shall be effective immediately when emailed or three (3) business days from the date of the notice when mailed to the following addresses:

Contractor

Allied Waste Systems, Inc., d/b/a Republic Services of Colorado  
Attn: General Manager  
1941 Heath Parkway Unit 2  
Fort Collins, CO 80524

Republic Services, Inc.  
Attn: Legal Department  
18500 N. Allied Way  
Phoenix, AZ 85054

**REVIEW VERSION – RESIDENTIAL SOLID WASTE COLLECTION SERVICES –  
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City

City of Fort Collins  
Attn: Program Manager, Waste Reduction and Recycling  
PO Box 580  
Fort Collins, CO 80522

City of Fort Collins  
Attn: Purchasing Director  
PO Box 580  
Fort Collins, CO 80522

City of Fort Collins  
Attn: City Attorney's Office  
PO Box 580  
Fort Collins, CO 80522

9. Appropriation. To the extent this Agreement or any provision in it would constitute a multiple fiscal year debt or financial obligation of the City, it shall be subject to annual appropriation by City Council as required in Article V, Section 8(b) of the City Charter, City Code Section 8-186, and Article X, Section 20 of the Colorado Constitution. The City shall provide Contractor with thirty (30) days written notice of any failure of the City to appropriate adequate funds. Neither party shall have the obligation to continue this Agreement in any fiscal year for which no such supporting appropriation has been made.
10. City Representative. The City Representative shall make, within the scope of their authority, all necessary and proper decisions with reference to the services provided under this Agreement. The City, through the City Manager, may change its representative by providing written notice of such change to Contractor. All requests concerning this Agreement shall be directed to the City Representative. Notwithstanding the foregoing, any changes to the Agreement shall not be binding on either Party without a written amendment to the Agreement.
11. Marks. Subject to a Party's express written approval, the other Party may use the Party's name, logo, symbol, trademark or service mark (together "Marks") in electronic, printed, stamped or inscribed materials to support and promote the relationship between the Parties during the Agreement Term. Each Party's right to use the Marks is royalty-free, non-exclusive, non-transferrable, and non-assignable.
12. Independent Service Provider. It is the express intention of the Parties that Contractor is an independent contractor performing services and is not an employee, agent, joint venturer, or partner of City. The City shall not be responsible for withholding any portion of Contractor's compensation hereunder for the payment of FICA, Workmen's Compensation or other taxes or benefits or for any other purpose.
13. Subcontractors and Disposal Facilities.
- A. The City acknowledges and approves the Contractor's utilization of the following subcontractors to perform services hereunder:

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- i) Schaefer Plastics North America, LLC (“Schaefer”), which shall manufacture, warrant, and deliver the Carts for Solid Waste, Recyclable Materials and Yard Trimmings on Contractor’s behalf.
- B. The City acknowledges and approves Contractor’s use of the following disposal facilities:
- i) A-1 Organics for disposal of Yard Trimmings.
  - ii) Ewing Landscape Materials for disposal of Yard Trimmings.
  - iii) Larimer County Landfill for disposal of Solid Waste.
  - iv) Larimer County Recycling Center for disposal of Recyclable Materials.
  - v) North Weld Landfill for disposal of Solid Waste.
  - vi) Other disposal facilities selected and used in accordance with the terms of this Agreement.
- C. Except as stated above in Section 13(A), Contractor may not subcontract any of the Collection Services or use another disposal facility without the prior written consent of the City Representative.
- D. The following provisions shall apply for all services subcontracted hereunder: (a) the subcontractor must be a reputable, qualified firm with an established record of successful performance in its respective trade performing identical or substantially similar work, (b) the subcontractor shall be required to comply with all applicable terms of this Agreement, (c) the subcontract shall not create any contractual relationship between any such subcontractor and the City, nor shall it obligate the City to pay or see to the payment of any subcontractor, and (d) the work of the subcontractor shall be subject to inspection by the City to the same extent as the work of the Contractor. Contractor shall be solely responsible for performance of all duties hereunder.
14. Personal Services. It is understood that the City enters into the Agreement based on the special abilities of the Contractor and that this Agreement shall be considered as an agreement for personal services. Accordingly, the Contractor shall neither assign any responsibilities nor delegate any duties arising under the Agreement except as set forth in this Agreement without the prior written consent of the City, which consent shall not be unreasonably withheld, conditioned or delayed.
15. Not Waiver. The City’s approval or acceptance of, or payment for any of the services shall not be construed to operate as a waiver of any rights or benefits provided to the City under this Agreement or cause of action arising out of performance of this Agreement. The failure or delay by either Party to enforce any provision of this Agreement will not be deemed a waiver of future enforcement of that or any other provision.
16. Warranty.
- A. The Contractor hereby warrants that it is qualified and has the financial capacity, operational capacity and equipment to assume the duties and responsibilities necessary to effectively render the services described herein and has all the requisite corporate authority, professional licenses, and permits in good standing required by law.

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- B. The services performed by the Contractor shall be in accordance with generally accepted professional practices and the level of competency presently maintained by other practicing professional firms in the same or similar type of work. The services to be performed by the Contractor hereunder shall be done in compliance with applicable laws, ordinances, rules, and regulations.
- C. The Carts shall be warranted by Schaefer for a period of ten (10) years from the date of delivery. As stated in Exhibit A, Attachment 2 upon transfer of ownership the manufacturer's warranty for the carts shall transfer to the City. The Contractor shall use best efforts to ensure the City receives the manufacturer's warranty upon transfer of ownership.
17. City's Role. The Contractor shall provide all services with no direct support by City staff. Although City staff may collaborate with Contractor on certain initiatives such as Customer education and communication, such support is solely at the City's discretion. Notwithstanding the foregoing, the City intends to monitor and evaluate the progress and performance of Contractor to ensure the terms of this Agreement are being satisfactorily met in accordance with the City's and other applicable monitoring and evaluating criteria and standards. Contractor shall fully cooperate with the City relating to such monitoring and evaluation.
18. Force Majeure. If either Party is prevented in whole or in part from performing its obligations by force majeure, then the Party so prevented shall be excused from whatever performance is prevented by such cause.
19. Disputes Resolution. Except in the event of a Default, pursuant to Section 20, the Parties shall attempt to resolve disputes as follows:
- A. Informal Dispute Resolution. The Parties will use reasonable efforts to resolve any disputes under this Agreement through negotiation. If a dispute arises between the Parties, the primary Representative for each Party will first strive to work out the problem internally. If the Representatives are unable to resolve the dispute within ten (10) days of commencing discussions, then either Party may deliver a written notice to the other Party describing the nature and substance of the dispute and proposing a resolution (the "Notice of Dispute").
- B. Executive Negotiation. During the first ten (10) days following the delivery of the Notice of Dispute (and during any extension to which the Parties agree) an authorized executive of each Party shall attempt in good faith to resolve the dispute through negotiations. If such negotiations result in an agreement in principle to settle the dispute, they shall cause a written settlement agreement to be prepared, signed and dated, whereupon the dispute shall be deemed settled, and not subject to further dispute resolution.
- C. Unresolved Disputes. Upon the Parties' mutual written agreement, any dispute under this Section 19 may be submitted for resolution to mediation to occur in Fort Collins, Colorado. The Parties reserve all rights to adjudicate any dispute not submitted to mediation under this Section 19 of the Agreement. In the event of mediation, the Parties shall share the cost for the mediator(s) equally and each Party shall be solely responsible for their own legal counsel expenses.

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20. Default. If either Party breaches any provision of this Agreement and such breach is not substantially cured within ten (10) days after receipt of written notice from the non-breaching Party specifying such breach in reasonable detail, the non-breaching Party may terminate this Agreement by giving ten (10) days' written notice of termination to the breaching Party. However, if the breach is not within the reasonable control of the defaulting party and cannot be substantially cured within ten (10) days, such cure period may be extended to an agreed period of time pursuant to a mutually agreed upon corrective action plan to cure the default. If the breach is within the reasonable control of the defaulting party, and the defaulting party fails to cure such default in accordance with this Section, the party declaring default may elect to (a) terminate the Agreement and seek damages; (b) treat the Agreement as continuing and require specific performance; or (c) avail themselves of any other remedy at law or equity. If the non-defaulting Party, exhausts the dispute resolutions provisions stated in Section 19 of the Agreement, they may commence legal or equitable action against the defaulting Party, the defaulting Party shall be liable to the non-defaulting Party for the non-defaulting Party's reasonable attorney fees and costs incurred because of default.

21. Performance Security.

- A. The Contractor shall provide performance security by providing the City an irrevocable letter of credit in a form satisfactory to the City Purchasing Director at least ninety (90) days prior to the Service Commencement Date. The amount of the letter of credit will be One-Million Dollars (\$1,000,000) issued by a local, federally insured (FDIC) banking institution with a debt rating of 1A or higher by the FDIC or A or higher by Standard & Poor's, Moody's Investor, or comparable agency as determined by the City.
- B. The irrevocable letter of credit shall contain the following endorsement, "At least sixty (60) days prior to cancellation, replacement, failure to renew or material alteration of this irrevocable letter of credit, written notice of such intent shall be given to the City by the financial institution. Such notice shall be given by certified mail to the City of Fort Collins, Purchasing Director, 215 North Mason, Fort Collins, CO 80522."
- C. The irrevocable letter of credit shall be released to the City in the event this Agreement is terminated by reason of breach or default of the Contractor. The irrevocable letter of credit will be released to Contractor at the end of the Agreement Term, provided there is no outstanding breach, default, or other payment deductions or adjustments.
- D. The rights reserved to the City with respect to the irrevocable letter of credit are in addition to all other rights of the City, whether reserved by this Agreement, or otherwise authorized by law, and no action, proceeding or right with respect to the irrevocable letter of credit shall affect any other rights the City has or may have under the law.

22. Entire Agreement; Binding Effect; Order of Precedence; Authority to Execute. This Agreement, along with all Exhibits and other documents incorporated herein, shall constitute the entire Agreement of the Parties regarding this transaction and shall be binding upon said Parties, their officers, employees, agents and assigns and shall inure to the benefit of the respective survivors, heirs, personal representatives, successors and assigns of said Parties. Covenants or representations not contained in this

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Agreement shall not be binding on the Parties. In the event of a conflict between terms of the Agreement and any exhibit or attachment, the terms of the Agreement shall prevail. Each person executing this Agreement affirms that they have the necessary authority to sign on behalf of their respective Party and to bind such Party to the terms of this Agreement.

23. Indemnity. The Contractor agrees to indemnify, defend and save harmless the City, its officers, agents and employees against and from any and all actions, suits, claims, demands or liability of any character whatsoever (including reasonable attorneys' fees) brought or asserted for injuries to or death of any person or persons, or damages to property (collectively, "Claims") to the extent caused by the negligence or willful misconduct of the Contractor. The Contractor shall not be liable for any Claims resulting solely from negligence or willful misconduct of the City.
24. Compliance with Law: The services to be performed by the Contractor hereunder shall be done in compliance with all applicable federal, state, county and City laws, ordinances, rules and regulations. Contractor must be properly licensed by the City to perform Collection Services.
25. Law/Severability. The laws of the State of Colorado shall govern the construction, interpretation, execution, and enforcement of this Agreement. The Parties further agree that Larimer County District Court is the proper venue for all disputes. If the City subsequently agrees in writing that the matter may be heard in federal court, venue will be in Federal District Court in Denver, Colorado. In the event any provision of this Agreement shall be held invalid or unenforceable by any court of competent jurisdiction, such holding shall not invalidate or render unenforceable any other provision of this Agreement.
26. Prohibition Against Unlawful Discrimination. The City, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 U.S.C. §§ 2000d to 2000d-4) and the Regulations, affirmatively ensures that for all contracts entered into with the City, disadvantaged business enterprises are afforded a full and fair opportunity to bid on the contract and are not to be discriminated against on the grounds of race, color, or national origin in consideration for an award.

The City strictly prohibits unlawful discrimination based on an individual's gender (regardless of gender identity or gender expression), race, color, religion, creed, national origin, ancestry, age 40 years or older, marital status, disability, sexual orientation, genetic information, or other characteristics protected by law. For the purpose of this policy "sexual orientation" means a person's actual or perceived orientation toward heterosexuality, homosexuality, and bisexuality. The City also strictly prohibits unlawful harassment in the workplace, including sexual harassment. Further, the City strictly prohibits unlawful retaliation against a person who engages in protected activity. Protected activity includes an employee complaining that he or she has been discriminated against in violation of the above policy or participating in an employment discrimination proceeding.

The City requires its contractors to comply with the City's policy for equal employment opportunity and to prohibit unlawful discrimination, harassment and retaliation. This requirement applies to all third-party contractors and their subcontractors at every tier.



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27. Governmental Immunity Act. No term or condition of this Agreement shall be construed or interpreted as a waiver, express or implied, by the City of any of the notices, requirements, immunities, rights, benefits, protections, limitations of liability, and other provisions of the Colorado Governmental Immunity Act, C.R.S. § 24-10-101 et seq. and under any other applicable law.
28. Colorado Open Records Act. The Contractor hereby acknowledges that the City is a public entity subject to Sec. 24-72-201 et seq. of the Colorado Revised Statute (CORA). This Agreement is subject to public disclosure in whole pursuant to CORA.
29. Cooperative Purchase – Utilization by Other Governmental Entities. Any governmental entity within the state of Colorado may, subject to such entity's governing laws, rules, and regulations, use the City's competitive purchasing process as the basis to negotiate a contract with the Contractor for similar services. Any governmental entity that uses the City's competitive purchasing process as the basis of award will be solely responsible for negotiating all terms of such contract with the Contractor and issuing their own contract documents. The Contractor shall be required to include in any contract with another governmental entity that is entered into under this cooperative provision a contract clause that will hold harmless the City from all claims, demands, actions or causes of actions of every kind resulting directly or indirectly, arising out of, or in any way connected with the City's Agreement. The City makes no guarantee of usage by other entities of this Agreement. Utilization of this cooperative provision by any other entity must not have a negative impact on the City's level and/or quality of service.
30. Survival: Any terms and conditions of this Agreement that require continued performance, compliance, or effect beyond the termination date of the Agreement shall survive such termination date and shall be enforceable in the event of a failure to perform or comply.
31. Counterparts. This Agreement may be executed in one or more counterparts, each of which shall constitute an original and all of which shall constitute one and the same document. In addition, the Parties specifically acknowledge and agree that electronic signatures shall be effective for all purposes, in accordance with the provisions of the Uniform Electronic Transactions Act, Title 24, Article 71.3 of the Colorado Revised Statutes.

IN WITNESS WHEREOF, the Parties hereto have hereunto set their hands and seals the day and year first written above.

Signature Page Follows

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**CITY OF FORT COLLINS**

**ALLIED WASTE SYSTEMS, INC.**

\_\_\_\_\_  
Kelly DiMartino, City Manager

\_\_\_\_\_

\_\_\_\_\_  
Date

**CITY OF FORT COLLINS**

\_\_\_\_\_  
Gerry Paul, Purchasing Director

\_\_\_\_\_  
Date

**APPROVED AS TO FORM**

\_\_\_\_\_

**ATTEST**

\_\_\_\_\_

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**EXHIBIT A**

**SCOPE OF WORK/COLLECTION SERVICES**

**1.0 BACKGROUND**

The Agreement provides for Solid Waste, Recyclable Materials, Yard Trimmings, Bulky Items and related services for Residential Units in Fort Collins.

Fort Collins has a long-standing commitment to waste reduction and has utilized a licensed open market collection system for decades.

Fort Collins' license requires haulers to report the materials collected from all sectors of the community, which is used to calculate various diversion rates. In 2020, the community diversion rate (including residential, commercial, and industrial materials) was 52% and the residential diversion rate was 29%. Details of Fort Collins diversion rates can be found in the annual reports at [www.fcgov.com/recycling/publications-resources.php](http://www.fcgov.com/recycling/publications-resources.php).

Fort Collins has adopted aggressive waste reduction goals, including working toward zero waste by 2030, and has identified a stagnant residential diversion rate as one of the challenges of making progress on that goal. Our Climate Future is the combined waste, climate and energy plan for Fort Collins and can be viewed at [www.fcgov.com/climateaction/our-climate-future](http://www.fcgov.com/climateaction/our-climate-future).

Fort Collins wishes to build upon the existing program and the goals of this Agreement include, but are not limited to:

- Reduce the number of trucks on residential streets and achieve street maintenance savings as well as increase safety in residential neighborhoods.
- Reduce greenhouse gas emissions.
- Increase diversion of Recyclable Materials and Yard Trimmings and encourage reuse of Bulky Items as much as possible.
- Provide equitable pricing throughout the community.
- Provide cost-effective pricing for Collection Services.
- Provide a high level of customer service.

**2.0 SERVICE INFORMATION**

**City Limits**

The Contractor shall provide applicable Collection Services for Residential Units and Service Opt-Out Customers within the City Limits. Contractor is responsible for servicing Residential Units and Service Opt-Out Customers added to City limits within 60 days of the Residential Unit's location being annexed into the City Limits.

**Alleys**

Where alleys are the primary service option, Contractor shall provide Collection Services in alleys.

**Door to Door Service**

Contractor shall provide Door-to-Door Service for Customers with a disability as defined in Title 2 of the ADA upon request for no additional charge.

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**Service Suspension**

Contractor shall provide a suspension of services (a “Service Suspension”) up to once per calendar year upon Customer request for a period of one month or more. During the Service Suspension, the Contractor shall charge the Customer the XS Cart service price and the Administrative Fee. Contractor may not charge the Customer to start or stop the Service Suspension.

**Transition Plan**

The current version of the Transition Plan is Attachment 3 and may be adjusted during the Transition Period by mutual written consent of the Parties.

**Service Opt-Out Customers**

Contractor shall not provide Solid Waste, Recyclable Materials, Yard Trimmings, or Bulky Items collection services to Service Opt-Out Customers. Contractor shall bill Service Opt-Out Customers in accordance with this Agreement and the Fort Collins Municipal Code.

Customers may elect to opt out of Collection Services at any time by contacting the Contractor. In the event more than ten percent (10%) of eligible Customers elect to opt out within sixty (60) days of the Service Commencement Date, the Parties shall negotiate, in good faith, the time available to the Contractor to start Collection Services for Service Opt-Out Customers who choose to opt back in to Collection Services. For purposes of this paragraph, the calculation of eligible Customers shall consider only Customers at single-unit residential buildings not within an HOA and multi-unit residential buildings containing seven (7) dwelling units or fewer within the City Limits.

In the event the City eliminates or reduces the impact of the Pay-As-You-Throw program (volume-based trash rates with bundled recycling) in the residential hauler license requirements of Chapter 15, Article XV of the Fort Collins Municipal Code, the Parties shall negotiate in good faith, the time available to the Contractor to start Collection Services for Service Opt-Out Customers who choose to opt back in to Collection Services.

**Service Opt-In Customers**

If a Service Opt-In Customer requests to opt in to Collection Services, the Contractor shall work with the entity representing the Service Opt-In Customers to mutually agree to a date to deliver carts and start Collection Services (i.e. the Contractor is not required to meet the cart delivery requirements in section 4.1 of this Agreement).

**3.0 SCOPE OF WORK/COLLECTION SERVICES**

**3.1 Solid Waste Collection**

Contractor shall provide Solid Waste Collection Services as follows:

- Contractor shall offer five service levels to Customers, corresponding the XS, S, M, L, and XL Cart sizes, for the prices in the Price Sheet (Exhibit B). All service levels shall include Recyclable Materials, Yard Trimmings, and Bulky Items collection.
- Contractor shall provide weekly Solid Waste collection.
- Contractor shall collect Solid Waste from Solid Waste carts provided as part of this Agreement.

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- The Contractor may use any of the permitted landfills identified in this Agreement. Notwithstanding the previous sentence, at the City's sole option the City may require flow control, in which case the Contractor shall dispose of all Solid Waste at the Larimer County Landfill. City Representative shall notify the Contractor in writing with at least six (6) months' notice if the City elects to start or stop flow control of Solid Waste to the Larimer County Landfill. If such action takes place after one (1) year from the Service Commencement Date, the Parties shall negotiate in good faith any resulting financial impacts and update Exhibit B.

**Overflow Solid Waste**

When a Customer sets out un-carted Solid Waste (including if a cart lid cannot fully close), the Contractor shall:

- Photograph the Solid Waste.
- Affix an appropriately marked service tag to the Customer's Solid Waste cart.
- Collect the overflow Solid Waste on the same day as Solid Waste cart.
- Charge the Customer an extra \$4 per 32-gallon bag equivalent. Contractor will retain the additional cost paid by the Customer.

**Recyclable Cardboard in Non-Recycling Carts**

City code prohibits the disposing of Recyclable Cardboard in Solid Waste or Yard Trimmings carts or Electronics in any cart. When Recyclable Cardboard appears to constitute 25% or more of a Solid Waste or Yard Trimmings cart or when Electronics are observed in any cart, the Contractor shall:

- Photograph the item(s) in the cart.
- Affix an appropriately marked service tag to the Customer's Solid Waste cart.
- Not service the cart until the Recyclable Cardboard is removed.
  - Contractor may leave the cart un-serviced until the regularly scheduled service day that follows the removal of prohibited materials.
  - The following regularly scheduled service day, the Customer may set out twice the regular volume of Solid Waste for no additional charge to account for the prior missed service. In this circumstance, bags equivalent to the regular weekly service level of Solid Waste shall not be considered overflow Solid Waste.
- If Customer has not removed the materials by the next regularly scheduled service day, Contractor shall notify the City Representative for compliance action.

**3.2 Recyclable Materials Collection**

Contractor shall provide Recyclable Materials Collection Services as follows:

- Contractor shall collect Recyclable Materials from Recyclable Materials carts provided as part of this Agreement.
- Standard service shall be a Large Cart
  - Residents can select a Medium Cart for no change in their monthly cost subject to Section 4.1 of the Agreement.

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- Collection shall be on the same day as Solid Waste collection.
- At the City’s discretion, Contractor shall deliver Recyclable Materials to the Larimer County Recycling Center or the permitted recycling center of the Contractor’s choice for the pricing included in the Price Sheet (Exhibit B). City Representative shall notify the Contractor in writing with at least six (6) months prior written notice if the City elects to start or stop flow control of Recyclable Materials to the Larimer County Recycling Center. If such action takes place after one (1) year from the Service Commencement Date the Parties shall negotiate in good faith any resulting financial impacts and update Exhibit B.
- Recyclable Materials shall not be landfilled unless the load is rejected from the recycling center due to contamination. If that occurs, Contractor shall notify the City Representative within one (1) business day with details of the incident / cause of the contamination. Contractor shall also include details and cause of the contamination incident in the regular report to the City Representative.

**Table 1  
MINIMUM LIST OF RECYCLABLE MATERIALS TO COLLECT**

Recyclable Cardboard	Plastic bottles, tubs, jugs and jars (#1,2 and 5)
Office paper (white and colored)	Aluminum cans, clean foil & pie plates
Magazines	Steel / tin cans & empty aerosol cans
Paperboard	Glass bottles and jars
Kraft paper	Aseptic containers

**Recyclable Materials Service Frequency and Number of Carts**

Recyclable Materials Service shall be provided to 100% of Customers as part of the Collection Services cost. Recyclable Materials Services collection shall be performed weekly with up to two (2) Large Recyclable Materials Cart. Except as otherwise set forth herein, Contractor shall only be required to collect the contents of the Recyclable Materials Carts and may charge Customers for additional Recyclable Materials should Contractor elect to collect such materials. Any such material cannot be in a plastic bag and must not exceed the Cart size. The fee for such services shall be in accordance with the Pricing Schedule in Exhibit B.

**Changes in Frequency of Recyclable Materials Services Collection**

In the event the City wishes to change the frequency of Recyclable Materials Services collection from weekly to every-other-week, the parties agree to negotiate in good faith the timing to implement the change and impact to pricing with consideration to the effect of such change on the Contractor’s operations.

**Changes in Market Conditions**

If the materials recovery facility processing Customers’ Recyclable Materials temporarily or permanently stops accepting some or all of the items in Table 1, the Parties will come to mutual agreement about how to adjust Collection Services in a timely manner.

**Recyclable Materials Contamination**

The Recyclable Materials contamination threshold shall be ten percent (10%) by volume. When the Contractor encounters a cart with ten percent (10%) or more contamination, the Contractor shall:

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- Photograph the item(s) in the cart.
- Affix an appropriately marked service tag to the Customer's Recyclable Materials cart.
- Not service the cart until the contamination is removed.
- Contractor may leave the cart un-serviced until the regularly scheduled service day that follows the removal of the contamination.
- The following regularly scheduled service day, the Customer may set out twice the regular volume of Recyclable Materials for no additional charge to account for the prior missed service. In this circumstance, Recyclable Materials may be placed in Recyclable Cardboard boxes and shall not be considered overflow Recyclable Materials.
- If the Customer has not removed the contamination by the next regularly scheduled service day, the Contractor shall affix a service tag to the cart, service the cart as Solid Waste, and charge the Customer the equivalent overflow Solid Waste fee.

### **3.3 Yard Trimmings Collection**

Contractor shall provide Yard Trimmings Collection Services as follows:

Contractor shall automatically enroll Customers in Yard Trimmings Collection Services. However, Customers may elect to opt-out of Yard Trimmings Collection Services at the time of the initial sign-up for services or by contacting the Contractor.

Customer's may elect to opt-out of Yard Trimming Collection Services at any time however, the effectivity date for such change in service and corresponding reduction in the monthly cost shall in accordance with Attachment 1, attached hereto and incorporated herein by reference.

- In the event a Customer elects to opt-out of the Yard Trimming collection services, the Customer's monthly cost shall be reduced in accordance with the Pricing Sheet (Exhibit B).
  - Contractor shall collect Yard Trimmings from Yard Trimmings carts provided as part of this Agreement.
- Contractor shall collect Yard Trimmings in the cart only (no loose materials will be accepted).
- Unless the Customer opts out of Yard Trimmings Collection Services, Contractor shall provide Customers a Large Cart for Yard Trimmings Collection Services.
  - Customers may select a Medium Cart for no change in their monthly cost subject to Section 4.1 of the Agreement.
- Contractor shall collect Yard Trimmings weekly from April 1<sup>st</sup> through November 30<sup>th</sup> each year.
- Contractor shall collect Yard Trimmings on the same day as Solid Waste and Recyclable Materials collection.
- Contractor shall deliver Yard Trimmings to A-1 Organics or Ewing Landscape Materials.
  - Contractor shall receive prior written approval from the City Representative to take materials to a facility other than A-1 Organics or Ewing Landscape Materials.

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- Yard Trimmings may not be landfilled unless load is rejected from the Yard Trimmings destination due to contamination. If that occurs, Contractor shall notify City Representative via email within one (1) business day with details of the incident / cause of the contamination. Contractor shall also include details and cause of the contamination incident in the regular report to the City Representative.

**Table 2  
MINIMUM LIST OF YARD TRIMMINGS TO COLLECT**

Brush & Limbs (Up to 3" diameter and length to fit in in the cart with lid closed)
Grass Clippings
Leaves
Garden Trimmings / Weeds / Plant Material

**Yard Trimmings Contamination**

The Yard Trimmings contamination threshold shall be ten percent (10%) by volume. When the Contractor encounters a cart with ten percent (10%) or more contamination through visual inspection of the cart, the Contractor shall:

- Photograph the item(s) in the cart.
- Affix an appropriately marked service tag to the Customer's Yard Trimmings cart.
- Not service the cart until the contamination is removed.
- Contractor may leave the cart un-serviced until the regularly scheduled service day that follows the removal of the contamination.
- The following regularly scheduled service day, the Customer may set out twice the regular volume of Yard Trimmings for no additional charge to account for the prior missed service. In this circumstance, Yard Trimmings may be placed in paper yard waste bags and shall not be considered overflow Yard Trimmings.
- If the Customer has not removed the contamination by the next regularly scheduled service day, the Contractor shall affix a service tag to the cart, service the cart as Solid Waste, and charge the Customer the equivalent overflow Solid Waste fee.

**3.4 Periodic Residential Bulky Items Collection**

**Bulky Items Collection Services**

The Contractor shall provide Bulky Items Collection Services as follows:

- Collection on an on-call basis.
- Collection within five (5) business days of request.
- Collection need not be on the same day as regular Solid Waste services.
- Contractor shall utilize a rear load truck to provide Bulky Items Collection.
- Contractor will provide periodic educational outreach to Customers in the City to encourage reuse of Bulky Items.
- Contractor shall track the number of and types of items collected (in categories mutually agreed upon by the Contractor and the City Representative).



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- As part of the Collection Services cost, Customers may request collection of up to two (2) No Additional Fee Bulky Items per calendar year for no additional charge. Customers requesting collection of more than two (2) No Additional Fee Bulky Item collections per calendar year shall pay the price stated in the Pricing Sheet (Exhibit B) for any additional No Additional Fee Bulky Items.
  - No Additional Fee Bulky Items
 

Shall include common household items, including but not limited to non-freon containing appliances and furniture, excluding the following:

    - Excluded Waste
    - Hazardous Waste
    - Electronics
    - Yard Trimmings
    - Recyclable Cardboard
    - Items that weigh over 60 pounds
    - Items larger than 6' x 6'
  - Additional Fee Bulky Items
 

Shall include items for which Customers will be charged an extra fee, per the pricing stated in the Pricing Sheet (Exhibit B).

**3.5 Dumpster Service for Multi-Unit Residential and Commercial Customers**

At the City's discretion and with 90 days advance written notice of the City Representative, the Contractor shall offer Dumpster service for Solid Waste and Recyclable Materials pursuant to the terms of this Agreement. As determined by the City, this service offering may be made available to Residential Units, multi-unit residential buildings, or commercial buildings that opt in to receive such Dumpster service by Contractor. Pricing for such Dumpster services shall be as stated in the Price Sheet (Exhibit B).

**3.6 Other Services or Additional Material Collections or Other Ways to Improve Program**

The Contractor may identify at any time and propose to the City to offer other services or collect additional materials to improve the program subject to the following:

- Such supplemental service(s) enhances services under the City's Agreement and supports the City's sustainability goals.
- Collection is compliant with the terms of the City's Agreement and all local, state and federal laws and regulations.
- Materials are managed at an appropriately licensed / permitted facility.

Any additional services or additional materials collected are subject to the City's prior written approval at the City's sole discretion.

**4.0 OPERATIONAL SPECIFICATION**

The Contractor shall provide all resources, equipment, and personnel necessary to perform all services described herein.

**4.1 Carts**

The Contractor shall purchase, assemble, and deliver all Solid Waste, Recyclable Materials, and Yard Trimmings carts.

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Cart ownership will transfer to the City at the end of the Agreement Term subject to Section 5 of the Agreement.

The cost of the carts is included in the monthly rates as stated in the Pricing Sheet (Exhibit B). The Customer's bill shall not include a separate itemized line-item price for carts.

Carts shall be new, wheeled units that meet the following criteria:

- The cart body and lid shall be distinct for Solid Waste, Recyclable Materials and Yard Trimmings carts. Cart colors shall be:
  - Grey for Solid Waste (CL.GRY.1).
  - Blue for Recyclable Materials (CL.BLU.1).
  - Green for Yard Trimmings (CL.GRN.1).
- Cart sizes available must be consistent with service levels in Section 3.
- Carts must be compatible with industry standard collection equipment.
- Carts shall be manufactured with a minimum of ten percent (10%) residential post-consumer recycled plastic content based on the weight of the entire mass of the body, lid and wheels.
- Radio Frequency Identification (RFID) tags must be embedded in carts at the time of manufacturing.
- Carts shall be hot-stamped with City logo and contact phone number. The lids of Recyclable Materials and Yard Trimmings carts shall have in-mold labeling of full-color guidelines for acceptable/unacceptable materials.
  - The City Representative will provide information and artwork for hot stamp and in-mold label guidelines printing.
  - Contractor logos and information shall not be included on carts other than temporary labeling approved by the City Representative.
- Carts shall be purchased from Schaefer and shall be model numbers 95Q.0R0, 65Q.0R0 and 35Q.0R0.
- Schaeffer shall provide a 10-year warranty on the carts purchased pursuant to this Agreement which shall transfer to the City simultaneous with the transfer of the cart ownership at the end of this Agreement Term.

### **Grant Funding**

The City has secured \$15 per Recyclable Materials cart in grant funding from The Recycling Partnership to offset part of the Recyclable Materials cart cost. The price stated in the Pricing Sheet (Exhibit B) has been reduced by an amount equal to this grant funding.

Once the City has received the grant funds, the City Council has appropriated such funds and the City has confirmed delivery of the carts, the City shall authorize the Contractor to initiate an invoice for such grant funds. The Contractor shall then invoice the City for an amount equal to the grant funding. Invoices should be emailed to [invoices@fcgov.com](mailto:invoices@fcgov.com) with a copy to the City Representative. Pay terms shall be Net 30 days from the date of the invoice.

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The City may continue to seek grant funding to offset other cart costs. In the event the City secures additional grant funding, the price for services shall be reduced by an amount equal to the additional grant funding provided by the City.

**Cart Exchanges and Replacement**

Initial Service Start-Up:

- Contractor shall provide an appropriately sized and equipped fenced, secured location to utilize during cart assembly and delivery. The Contractor shall notify the City Representative in writing as soon as reasonably possible once the site has been identified.
- Contractor shall provide a second appropriately sized and equipped fenced, secured location to store Contractor's legacy carts and other haulers' carts. The Contractor shall notify the City Representative in writing as soon as reasonably possible once the site has been identified.
- Contractor shall collect existing Republic Services or Gallegos carts from their customers simultaneous with delivery of carts for Collection Services. Subject to written agreement with other licensed haulers, Contractor shall collect other haulers' existing carts from their customers simultaneous with delivery of carts for Collection Services unless otherwise mutually agreed in writing by the Parties.
  - All collected carts shall be transported to the secure storage location agreed upon by the City Representative and Contractor.
  - The City Representative shall use commercially reasonable efforts to support communication between the Contractor and other licensed haulers.
- Contractor shall deliver new carts simultaneously with the old cart removal unless otherwise mutually agreed in writing by the Parties.
- Contractor shall scan the RFID in each cart and the related serial number at the point of delivery and confirm the carts delivered are the correct size and type requested by each Customer.
  - Throughout the duration of this Agreement, Contractor shall maintain a current database of the serial number of each cart and the affiliated address, along with the Customer's name, phone number, email address and billing address. With thirty (30) days' advance written request by City, Contractor shall send City the information contained in the database in a mutually agreed-upon format. As part of Contractor's subcontract with Schaefer, Contractor will provide information correlating each serial number with its corresponding RFID within reasonable time upon request.
- Contractor shall affix information to carts at the time of delivery.
  - The information shall include but is not limited to guidelines and a service calendar. The information shall be designed collaboratively by the City and the Contractor with final written approval by the City Representative.
  - The Contractor shall pay all printing and any other costs (such as cost for attaching to carts at delivery etc.) for the information.
- Contractor and the City Representative shall agree in writing to the cart deployment and collection schedule at least ninety (90) days prior to cart delivery and collection.

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- Contractor shall recycle all unusable Republic Services carts and carts labeled as Gallegos Sanitation.
- Contractor shall provide Cart delivery and collection of Contractor's and Gallegos' Carts, and subject to written agreement between the Contractor and other haulers, such haulers' Carts. Such service shall be performed at no charge to the Customer.
- Upon receipt of a Customer complaint that Contractor delivered the incorrect size or type of cart, Contractor shall deliver correct carts and remove incorrect carts by the next scheduled service day for such waste stream.

Ongoing:

- Contractor shall provide up to two (2) delivery / exchange / repair instances per service address per year for no additional charge. Each instance could involve one or more carts for the following reasons:
  - Initial delivery of carts when a new Customer starts service.
  - Collection of carts when a Customer ends service.
  - Repairing or replacing broken or missing carts.
  - Exchanging carts for a different service size.
  - Cart delivery or exchange for any other reason.

Contractor can charge Customer a delivery / exchange fee for delivery / exchange / repair needs beyond two instance per year. The cart exchange fee for such instances is included in the Pricing Sheet (Exhibit B).

- Contractor shall deliver, exchange or collect carts by the next service date for the applicable waste stream.
- Contractor shall maintain at least two percent (2%) surplus inventory for each size and type of cart utilized as part of this Agreement. Contractor shall monitor cart inventory daily. Contractor shall ensure adequate inventory of carts at all times.
- Cart inventory utilized as part of this Agreement shall be securely stored within Contractor's fenced property.

**Cart Maintenance**

Contractor shall provide routine cart maintenance, repair and replacement.

Contractor shall:

- Maintain carts graffiti-free and in good working condition.
- Repair any damaged carts that can reasonably be returned for regular service.
- Replace carts that cannot reasonably be repaired.
- Recycle any decommissioned carts.

**4.2 Collection Vehicles**

The Contractor shall provide all vehicles and equipment needed for Collection Services in an efficient and environmentally sensitive manner.

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**Collection Vehicles**

Collection vehicles used to provide Collection Services for this Agreement shall meet the following criteria:

- Be 2018 model year or newer.
- As applicable, have functioning diesel exhaust aftertreatment systems.
- At least 50% of the diesel collection vehicles shall meet US16 Emission standards.
- At least 45% of the diesel collection vehicles shall have certified clean idle engines.

Contractor shall not purchase and/or transfer from another location any additional diesel trucks for use in Collection Services for this Agreement. Both Parties acknowledge vehicles may need to be transferred due to a vehicle collision or equipment failure. All new trucks purchased and any replacements for trucks retired from service shall be RNG-fueled or electric trucks.

Contractor shall provide an adequate fleet size of vehicles required to perform the services hereunder.

Contractor shall conduct a pilot utilizing at least one electric collection vehicle for as long as reasonable for the duration of this Agreement. With mutual agreement, Contractor and the City may pursue additional electric collection vehicles within the Term of this Agreement.

Details of vehicles anticipated to be utilized as of the Service Commencement Date as well as replacement criteria and schedule are in Attachment 4.

**Fuel**

Contractor shall construct RNG fueling infrastructure that shall be operational by the Service Commencement Date and for the duration of this Agreement. Contractor shall secure RNG credits to utilize at least 98% RNG for all natural-gas-fueled collection vehicles utilized for Collection Services.

Contractor shall construct at least one electric charging station at Contractor's Fort Collins facility by the Service Commencement Date to support the electric collection vehicle pilot project.

**Preventative Maintenance and Repairs**

Contractor shall conduct preventative maintenance to ensure that collection vehicles are available to provide Collection Services, including at a minimum the following:

- Every collection vehicle shall be inspected and lubed according to the following schedule.
  - Every 150 hrs. for automated and front load trucks (Approximately every 12-15 days of use).
  - Every 250 hrs. for rear load trucks. (Approximately every 20-25 days of use).
- Hydraulics shall be maintained sufficiently to prevent hydraulic fluid leaks.
- Seals on trucks shall be regularly replaced to prevent material leaks.

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**Overweight vehicles**

Contractor shall track vehicle weights on an ongoing basis. Routes shall be designed to support collection vehicles remaining under legal weight limits.

Weight tickets from disposal facilities shall be retained for a minimum of six months.

Instances of overweight vehicles shall be included in the regular report to the City Representative.

**4.3 Collection Personnel**

The Contractor shall maintain staffing levels required to support the Collection Services on the schedules set forth herein. The Contractor shall maintain a current Department of Transportation (DOT) compliance policy. Such policy shall be subject to audit and review by the City with reasonable prior notice.

At a minimum, all vehicle drivers shall be:

- Licensed by the State of Colorado with a valid Class B Commercial Driver License (CDL) with air brakes endorsement.
- Alert, careful, courteous and competent.
- Appropriately trained in operations and safety measures.
- Provided with appropriate communication tools and Personal Protective Equipment (PPE).

**4.4 SAFETY**

**Safety Program**

The Contractor shall embrace a culture of safety to include a documented safety program for the Collection Services. The safety program must include at a minimum the following:

- Health and Safety Training.
- Employee/Management Responsibility.
- Hazard Recognition and Control.
- Incident Reporting and Investigation.

**Tracking and Reporting**

The Contractor shall track and report to the City Representative on an annual basis its Experience Modification Rate (EMR) and OSHA Total Recordable Incident Rate (TRIR). The calculation for TRIR is as follows:

$$\text{TRIR} = \frac{\text{Number of recordable cases} \times 200,000}{\text{Number of hours worked}}$$

Contractor shall notify the City Representative in writing within 24 hours in the event of a serious accident involving injury.

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Contractor shall provide a summary of any incident report and investigation for any accident or infraction as well as any follow up actions taken to resolve situation or prevent in the future in the regular report to the City Representative.

**Vehicle Safety**

Contractor shall ensure, when operational, all collection and transfer vehicles:

- Have covered loads.
- Be kept in good repair and appearance.
- Be clean and sanitary.
- Be compliant with all local, state, and federal safety and inspection regulations.

Contractor's drivers shall conduct pre- and post-trip inspections daily and shall identify any issues in a written vehicle condition report.

Any collection vehicle deemed unsafe or not legal to operate shall be removed from service.

Contractor collection vehicles shall have dash cameras, back up cameras, and software with real-time GPS tracking.

**Spill Response**

Any vehicle leaks or spills shall be cleaned up as soon as possible and no later than 24 hours after occurrence.

Contractor shall clean up any spills or litter caused by collection or transportation, regardless of whether it is on public or private property.

**Cell Phone Usage**

No driver of a Contractor vehicle operating in furtherance of this Agreement shall use a cell phone when the vehicle is moving.

**4.5 Collection Schedule, Missed Collections and Blocked Carts**

**Hours and Holidays**

All collections shall be conducted between 7 a.m. and 7 p.m. Monday through Friday and 7 a.m. to 7 p.m. on Saturdays during any week with a holiday or due to severe weather.

No collections shall occur on Sundays or holidays unless expressly authorized by the City Representative.

Holidays observed shall be New Year's Day, Memorial Day, July 4<sup>th</sup>, Labor Day, Thanksgiving Day and Christmas Day. The date on which each holiday is observed shall follow the schedule of the disposal facilities utilized by the Contractors.

**Severe Weather Protocol**

On days when the City closes or declares a late start due to severe weather or other emergency, the Contractor may suspend or delay service without prior approval of the City. The City will post such notification at fcgov.com by 5 a.m. Mountain Time.

In situations where the Contractor seeks to suspend or delay service, but the City has not closed its facilities or declared a delayed start, Contractor must notify the City Representative in writing by 7 a.m. Mountain Time of the basis for the service suspension

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for that day. Contractor shall use commercially reasonable efforts to avoid any service suspension or delay.

Contractor shall collect any missed collections due to suspended service within one calendar day of the resumption of service (as determined by Contractor) unless otherwise approved by the City Representative. The resumed service may cause a similar delay to other service days throughout that service week. (For example, if service is suspended on a Tuesday and resumes on Wednesday, the Tuesday Customers would be serviced on Wednesday and so on, including Friday collections taking place on Saturday.)

If severe weather requires a service suspension of two or more days in length, Contractor may delay service of the necessary service days until the following regularly scheduled service day (for instance, if service must be suspended on Monday and Tuesday, Monday Customers' service may be delayed until the following service day so that Tuesday Customers would be serviced on Wednesday and so on, including Friday collections taking place on Saturday.)

If multi-day service suspensions take place over the course of multiple weeks, Contractor shall adjust which day of service is delayed for one week. Any one service day shall not be delayed for more than one week (i.e. if storms take place on two Wednesdays in a row, Wednesday customers may have service delayed to the following week, but in the second week Thursday customers would be delayed so that no one set of customers is without service for any longer than two weeks).

**Missed Collections**

Contractor shall resolve any missed collection issues within one (1) business day if the missed collection is reported by 4 p.m. Missed collections reported after 4 p.m. shall be serviced within two (2) business days.

- Excluding delays associated with service suspensions.
- Excluding instances where Customer had late set-out, blocked cart or excessive contamination.
- Contractor shall photograph when carts are not set out by the service time.

**Blocked Carts**

If the Contractor cannot access a cart to service it, the Contractor shall:

- Photograph the cause of the issue.
- Affix an appropriately marked service tag to the blocked cart(s). If attaching a tag is not feasible / practical, Contractor shall contact the Customer via text, email, or phone call to notify them of the problem and when their cart(s) will next be serviced.

Contractor may leave the cart(s) un-serviced until the next regularly scheduled service day that follows the removal of the situation blocking access to the cart(s).

The following regularly scheduled service day, the Customer may set out twice the regular volume of materials for no additional charge to account for the prior missed service. In this circumstance, materials equivalent to the regular service level shall not be considered overflow and Customer shall not be charged extra.



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If the blockage remains on the next regularly scheduled service day, Contractor shall notify the City Representative and does not have to service the location until the blockage is addressed.

**4.6 City and Contractor Responsibilities During Transition Period and Beyond**

**City Responsibilities**

- Collaborate with the Contractor to design public notifications and service tags for the Collection Services.
- Provide information and artwork for cart hot stamps and cart lid in-mold labels.
- Help to resolve questions while Contractor develops service address list.
- Determine whether HOAs with existing hauling contracts comply with City requirements (and thus are exempt from the City’s residential waste collection program under Section 12-29 of the City Code) and share that information with the Contractor.
- Provide a phone number that shall be routed to the Contractor and that the Contractor shall use for all customer service inquiries, requests, complaints and other as related to this Agreement. The City will retain all rights to the phone number. Contractor will assist to transfer the phone number to the City or next selected contractor at the end of the Agreement Term.
- The City Representative shall use commercially reasonable efforts to support communication between the Contractor and other licensed haulers during the time that Republic legacy and other haulers’ carts are being collected.
- Establish Customer billing rates based on the contract pricing and the Administrative Fee.

**Contractor Responsibilities**

Contractor shall:

- Develop, produce and distribute public notifications to Customers.
  - Contractor shall collaborate with the City Representative to design the public notifications and City Representative shall have final approval authority.
  - Contractor shall distribute public notifications at the following times at a minimum.
    - During the initial start-up period.
    - When new Customers start service (after the service start-up period).
    - When Customers change service levels at any time.
    - Annually to all Customers at a time agreed upon with City Representative.
  - The notification shall be in a multi-color, user-friendly format with any text in both English and Spanish and shall include:
    - Available service levels and rates.
    - Annual collection calendar.
    - Set-out times and locations.
    - Directions for changing service levels, managing overflow Solid Waste, contamination, and requesting additional services.
    - Guidance on acceptable and unacceptable materials in Recyclable Materials and Yard Trimmings carts.
- Develop service address list.

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- Facilitate and manage Customer cart size selection.
  - Customers shall be able to select their cart sizes via any of the following options: a Fort Collins-specific page on RepublicServices.com, through the mail, or over the phone.
- Conduct all billing set-up with Customers.
- Develop and distribute a collection calendar(s) for all Customers.
- Produce service tags to address situations such as blocked carts, Solid Waste overflows, contaminated Recyclable Materials or Yard Trimmings, or other conditions that impact service or safety. The City Representative shall have final approval authority of the service tag design. Tags shall:
  - Include text in English and Spanish.
  - Be made of durable, water-resistant material that can be written on.
  - Be printed with one (1) color.
  - Have a mechanism for temporary attachment to carts.
  - Be a minimum size of 5” x 10”.
- Remove all existing carts from Customers at no additional cost simultaneous with new cart delivery per Section 4.1.
- Provide all other services stated in this Agreement and/or required to provide Collection Services in accordance with the terms of the Agreement.

#### **4.7 Customer Billing**

All Customer billing shall be conducted by the Contractor.

Customer rates will be established by the City based on the pricing stated in Exhibit B and Administrative Fee.

Contractor portion of rates and fees shall remain unchanged during each Service Year unless otherwise approved by an amendment to this Agreement.

Customer bills shall be on a quarterly schedule and shall be assessed in advance.

Contractor shall charge all Service Opt-Out Customers the XS Cart service price and the Administrative Fee.

All Customer bills shall include the following:

- Applicable Collection Services rates as one line item (i.e. Recyclables Materials, Yard Trimmings and Bulky Items collections shall not be separate line items).
- Separate itemization of any fees accrued by the Customer for overflow Solid Waste, contamination, Bulky Items collection and any other fees approved by the City.
  - The only charges allowed on Customer bills are those described in this Agreement.
- Administrative Fee(s) may be itemized separately or included with the Collection Services price at the City’s discretion. If itemized, the City Representative will provide text to be included on bills.

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- Bills shall include text in Spanish providing Customers with directions for how to receive a Spanish translation of their Bill. During the Agreement Term, the Contractor will seek the capability to provide Customer bills in Spanish upon request.

#### **4.8 Customer Service and Education**

All customer service functions shall be provided starting in the Transition Period and shall continue through the Agreement Term.

##### **Customer Service Representatives**

Prompt customer service from representatives who understand Fort Collins' program is very important to the City.

Contractor shall have a sufficient number of qualified and experience customer service agents who possess comprehensive working knowledge of Fort Collins neighborhoods and the specific details of services, rates, and applicable provisions of the Agreement available at the specified times to service Customers. These customer service agents will work in Contractor's Colorado Pod and service Fort Collins and Colorado generally, with priority given to Customer contacts.

During times of high call volume, Customer contacts may roll over to Contractor's Northwest area pod representatives.

##### **Customer Service Hours**

Customer service staff dedicated to Customers under this Agreement shall be available at a minimum from 7:30 a.m. to 5 p.m. Mountain Time (MT) Monday through Friday.

Northwest area pod customer service agents shall be available additional hours of 5 p.m. to 6 p.m. MT Monday through Friday and 8 a.m. to 1 p.m. MT Saturdays.

##### **Customer Queries and Complaints**

Contractor shall:

- Address all issues directly and strive for a one call resolution to Customer and Service Opt-Out Customer needs.
  - The City shall not be the default customer service provider.
- Answer Customer contacts primarily with live personnel.
  - When call volume is unexpectedly high and live personnel are addressing other City queries, Customers may opt to receive a call back while holding their place in the call queue.
- Provide an option for Customers calling after hours to leave a voice mail message; Contractor shall respond to Customer query within one (1) business day.
- Maintain an average hold time of three (3) minutes or less for customer service over the phone.
- Maintain an average abandonment rate of less than three percent (3%) of customer calls for customer service over the phone.

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- Offer Customers the opportunity to take an optional three (3) question survey at the end of a call with a customer service agent. The survey questions will be mutually agreed upon by the Parties.
  - Responses to the survey from Fort Collins Customers shall be included in the regular report to the City Representative.
- Resolve any other Customer or City complaints within two (2) business days.
- Resolve all complaints and requests to the satisfaction of Customers and the City Representative.

Subject to Customer's consent, City shall have access to the recording of any phone customer service interactions and/or written communications with a Customer upon request. Contractor shall retain phone recordings for ninety (90) days from the date of the interaction and written correspondence for six (6) months from the date of the correspondence. Contractor shall obtain any required consent of Customers and Service Opt-Out Customers to provide this information to the City Representative.

**Public Outreach and Education**

The City will conduct comprehensive public outreach and education activities throughout the Agreement Term. The Contractor shall support these efforts by:

- Producing and distributing Customer notifications as described in Section 4.6.
- Maintaining a Fort Collins-specific website page(s) with the same information required for Customer notifications.
- Providing Customers with the ability to request service changes online (such as start / stop service, cart size change, Bulky Items collection, report a missed collection, opt out of Yard Trimmings collection etc.).
- Providing service tags and utilizing them as described in this Agreement.
- Providing the City Representative with information that will impact Customer service at least thirty (30) days before any changes go into effect.
  - Including changes in accepted Recyclable Materials or Yard Trimmings, equipment, routing, collection schedule etc.

**4.9 Regular Reports**

All reports shall be submitted electronically in a format and with a level of detail that is acceptable to the City Representative.

Each report shall include information since the last report (monthly / quarterly / annual).

Monthly reports shall be submitted within 15 days of the end of the month. Quarterly and annual reports shall be submitted within 30 days of the end of the month / quarter / year.

Information within each topic area shall be sorted by Customer address unless otherwise specified below.

For the purpose of this section, service type shall mean Solid Waste, Recyclable Materials, or Yard Trimmings.

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All reporting periods shall be based on a calendar year.

The City reserves the right to request additional information mutually agreed up on by the City Representative and the Contractor.

Reports shall include the following:

**Immediate Reporting**

Contractor shall notify the City Representative via email within twenty-four (24) hours in the event of a serious accident involving injury or death.

Contractor shall notify the City Representative via email as well as spill@fcgov.com in the event of any spill that enters a storm drain inlet or any significant spill.

Contractor shall send a report to the City Representative within one (1) business day if / when any of the following occur:

- Contaminated loads of Recyclable Materials or Yard Trimmings that include materials from Customers that are rejected from processing facilities.
  - Include date, service type, contamination type, situation that caused contamination, and any other relevant details.
- Prohibited materials in carts or blocked carts that are not corrected within one (1) week by Customer.

**Monthly Report**

- Materials collected.
  - Scale-based weight data for Solid Waste, Recyclable Materials, Yard Trimmings and Bulky Items collections, including facilities where they were delivered for reuse, recycling, composting, disposal or other management.
    - The weight of City materials in any mixed loads that also includes non-City Solid Waste can be estimated using methodology acceptable to the City.
    - If materials were delivered to more than one (1) facility, include the scale-based weight data for each facility.
- Customer complaints.
  - Include date of complaint, service address, complaint type, resolution, and date resolved.
  - For purposes of this report, a complaint is any customer contact other than a service change or information request.
    - Contractor and the City Representative will develop list of complaint types that are mutually agreeable, and they may include missed collection, unsafe driving, spills, operating outside permitted hours, customer service phone call hold times, other customer service issues, etc.
- Missed collection.
  - Date of missed collection, date of resolution, service type missed, service address, and whether missed collection was due to Contractor or Customer (i.e. late set out, blocked cart etc.).

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- Contaminated loads of Recyclable Materials or Yard Trimmings rejected from processing facilities.
  - Include date, service type, contamination type, situation that caused contamination, and any other relevant details.
- Accidents or infractions.
  - Provide a summary of any incident report and investigation for any accident or infraction as well as any follow up actions taken to resolve situation or prevent in the future.

**Quarterly Report**

- Number of Customers receiving Collection Services through the City contract.
- Financials.
  - Amount of Administrative Fee collected for remittance to the City.
  - Any known performance violations and associated liquidated damages to be remitted to the City.
  - Fees charged for the quarter sorted by fee type.
  - Number of accounts over 90 days delinquent.
- Special service situations and fees assessed.
  - Include the incident date, service address, incident resolution and fee charged for the following incident types:
    - Overflow Solid Waste.
    - Prohibited items in Solid Waste carts (such as Recyclable Cardboard, Electronics, etc.).
    - Blocked carts.
    - Contaminated Recyclable Materials carts.
    - Contaminated Yard Trimmings carts.
- Bulky Items collection.
  - Service address, date service request received, date of bulky item pick up, and number of items by type (in categories agreed upon by Contractor and the City Representative)
- Customer service.
  - Number of customer communications.
    - Include date and type of customer service (complaint, service change, or information request).
  - Percent of phone calls answered via roll over to Northwest area pod or national staff.
  - Summary of Customer responses to customer service survey.
  - Percent abandoned phone calls.
  - Average hold times for phone calls.

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- Average number of phone calls per time of day.
  - Contractor and the City Representative shall mutually determine time categories, such as before 8 am, 8am-11am, 11am-1pm, 1pm to 3pm, 3pm -5pm, 5-6pm, after 6pm.
- Cart activity (includes deliveries, replacements, repairs, removal or exchanges).
  - Include type of cart, type of action (delivery, repair, replacement, removal, exchange), request date, completion date, and service address. If Customer is changing cart size, include the initial and new cart size.
- New opportunities: any new opportunities identified by Contractor to decrease materials landfilled, increase reuse, recycling or composting of materials.
- Number of Customers opting out of Collection Service.

### **Annual Report**

- Annual average of the number of Customers receiving Collection Services through the City contract.
- Monthly scale-based weight data for Solid Waste, Recyclable Materials, Yard Trimmings and Bulky Items collections, including facilities where they were delivered for reuse, recycling, composting, disposal or other management for each month of the year.
- Annual summary of the number of the following:
  - Missed collections by Contractor\*.
  - Missed collections due to Customer (late set-out, blocked cart etc.)\*.
  - Number of contaminated loads of Recyclable Materials or Yard Trimmings rejected by processor with brief notes of the cause.
  - Carts delivered, repaired, replaced, removed or exchanged, sorted by activity type as a number and as a percentage of carts serviced by Contractor's Collection Services.
- \* Express these data points as a raw number and as a percentage out of all the Customers receiving Collection Services through the City.
- Annual summary of each of the following Financials.
  - Amount of Administrative Fee remitted to the City.
  - Amount of liquidated damages remitted to the City.
  - Amount of fees charged, sorted by fee type.
  - Collection Services rates charged to Customers.
- Summary of Bulky Item material collection by item type.
- New opportunities: any new opportunities identified by Contractor to decrease materials landfilled, increase reuse, recycling or composting of materials.

### **Available to City Upon Request**

- Customer and service level details.
  - Customer name, service address, billing address, phone number, Customer email, cart serial number and related cart sizes per service type.
- Customer invoice.

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- Time and date stamped photograph of any incident of a late set out, overflow solid waste, prohibited item in Solid Waste cart, blocked cart, contaminated Recyclable Materials cart, contaminated Yard Trimmings cart.
- Recording of customer service interactions over the phone (must be retained for ninety (90) days after interaction).
- Copy of written customer service interactions (must be retained for six (6) months after interaction)

**Quarterly Meeting**

City Representative and Contractor contact shall meet quarterly to review and discuss Contractor performance. Either Party may also invite additional staff members as appropriate.

**Records Retention and Auditing Rights**

The Contractor shall maintain all records for a minimum of three (3) years from the end of the Agreement Term and any extension, with the exception of phone customer service interactions, which shall be retained for at least ninety (90) days and written customer service interactions, which shall be retained for at least six (6) months from the interaction. Contractor shall retain records of tip fees paid during the Agreement Term for a minimum of three (3) years from the end of the Agreement Term and any extension.

Contractor records shall be available at all reasonable times for inspection by the City, including records of tip fees paid.

The City will retain full auditing rights of the Contractor's accounting records as they pertain to this Agreement.

**Materials to Provide to City Near the End of Agreement Term**

Contractor shall provide documentation certifying transfer of ownership of carts and of cart warranty to the City Representative within 30 days from the end of the Agreement Term.

Contractor shall provide the following to the City Representative within 30 days of the end of the Agreement Term:

- Customer name, service address, billing address, phone number, Customer email, cart serial and related cart sizes per service type to the City in Excel or other electronic format acceptable to both Parties.

**4.10 Solid Waste, Recyclable Materials and Yard Trimmings Composition Analysis**

If the City or any agent hired by the City conducts a composition analysis of Solid Waste, Recyclable Materials, Yard Trimmings or other materials, the Contractor shall support by diverting loads identified by the City Representative or their agent to the designated sort site (within Larimer County) during the composition analysis and any significant additional cost shall be negotiated by the Parties in good faith.



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**4.11 Contractor Compensation**

**Service Price Changes**

The City agrees that the Contractor's pricing as stated in Exhibit B may be adjusted annually beginning on the first anniversary of the Service Commencement Date and annually thereafter, except in instances when performance violations on contract non-compliance issues are unresolved.

The adjustment will be three percent (3%) annually effective on the anniversary date of the Service Commencement Date.

**Uncontrollable Cost Increases or Decreases**

On an annual basis beginning on the first anniversary of the Service Commencement Date the Contractor may petition the City for an additional pricing adjustment due to uncontrollable costs limited to disposal or processing tip fee increases or changes in applicable regulations. The Contractor shall petition the City at least ninety (90) days prior to the anniversary date.

Price adjustment petitions developed by the Contractor for tip fee increases shall include written documentation of tip fees for all materials collected in Collection Services as of the time of the application as well as an average over the last twelve (12) months. The petition shall consider decreases in other tip fees as a potential counterbalance for other uncontrollable costs.

Any pricing change under this subsection shall be effective on the anniversary of the Service Commencement Date.

Any petition shall include documentation to justify how the cost increases exceed the three percent (3%) per year standard increase.

The City reserves the right, as a condition of approval, to inspect Contractor financial records that justify a change in the pricing.

The City has no obligation to approve any petition but acknowledges uncontrollable costs may occur and intends to negotiate with the Contractor in good faith without unreasonable delay. In the event the Parties are unable to agree on such uncontrolled costs the pricing shall increase 3.5% inclusive of the increase stated in Service Price Changes stated above and either party shall have the right to terminate the Agreement with twelve (12) months written notice.

**4.12 Administrative Fee and Liquidated Damages Remittance**

The Contractor shall collect the Administrative Fee through Customer billing on behalf of the City. Contractor shall remit the Administrative Fee and liquidated damages from performance violations to the City Representative within thirty (30) calendar days of the last day of the calendar quarter via check made out to the City of Fort Collins.

**5.0 CONTRACTOR PERFORMANCE**

**5.1 Performance Standards & Liquidated Damages**

Performance standards and liquidated damages for non-compliance to the Agreement requirements are stated in Table 3.

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The liquidated damages stated in Table 3 are reasonable estimates as to the dollar amount of damages incurred in relation to each offending act or omission. The City may assess liquidated damages regardless of whether the Contractor has met or is meeting the related performance standards percentages stated in Table 3. The liquidated damages are not intended as a penalty and the assessment of liquidated damages shall not be deemed a default except in the event the Contractor fails to cure in accordance with the Agreement.

During the Agreement Term, the Contractor shall sustain the performance standards stated in Table 3. In the event the Contractor fails to sustain the stated performance standards and/or is not in compliance with the terms of the Agreement, the City may deem the Contractor to be in default in accordance with the provisions of Section 20.

In the event of non-compliance, the City shall notify the Contractor in writing of the basis for each assessment of liquidated damages. City shall work in good faith with the Contractor to resolve any disputes related to liquidated damages.

Liquidated damages shall be due to the City on the next quarterly remittance following assessment of the liquidated damages (per Section 4.12).

**Table 3**

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**PERFORMANCE STANDARDS & LIQUIDATED DAMAGES**

**Material Conditions for Contract Default**

PERFORMANCE STANDARD VIOLATION	LIQUIDATED DAMAGES	CALCULATION BASIS FOR PERFORMANCE STANDARD	PERFORMANCE STANDARD
Failure to meet schedule for any Transition Plan activity	\$500 per day	Daily	100%
Failure to deliver all Solid Waste to mutually-agreed-upon permitted landfill, all Recyclable Materials to the Larimer County Recycling Center, and all Yard Trimmings to mutually-agreed-upon facilities OR landfilling properly source separated Recyclable Materials or Yard Trimmings	\$3,000 per load	1 - Load	100%
Failure to maintain required insurance coverage	\$5,000 per incident	Insurance expiration date	100%
Failure to maintain irrevocable letter of credit	\$5,000 per incident	ILOC expiration date	100%
Misrepresentation in reporting including inaccurate Administrative Fees or liquidated damages	\$5,000 per incident	Each Reporting Period	100%
Contractor utilizing a driver to provide Collection Services that does not have a valid Class B CDL with air brakes endorsement and Colorado Drivers' License and/or is not current with DOT required training or other DOT requirements	\$1,000 per driver per day	All Drivers	100%
Delayed remittance of Administrative Fees or liquidated damages	\$500 per day	Each Billing Period	100%
Failure to participate in mutually scheduled quarterly meeting	\$1,000 per incident	Each Quarterly Meeting	100%
Failure to allow City audits or maintain records for three (3) years or retain customer service phone recordings for ninety (90) days or customer service written correspondence for six (6) months	\$3,000 per incident	Each City Audit or Each Information Request	100%

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PERFORMANCE STANDARD VIOLATION	LIQUIDATED DAMAGES	CALCULATION BASIS FOR PERFORMANCE STANDARD	PERFORMANCE STANDARD
Failure to provide written notice within 24 hours of any serious accident involving injury or death or significant spill the date, description and resolution/corrective action taken for any vehicle accidents, infractions, or overweight vehicles that occurred.	\$1,000 per incident	Each Reporting Period	100%
Failure to deliver specified loads of material to a designated location in support of a material composition analysis conducted on behalf of the City	\$1,000 per load per audit	Annual Audit	100%
Failure to appropriately bill Customers according to the Agreement OR billing Customers for fees not approved by City OR failure to provide text in Spanish with directions for accessing full bills in Spanish	\$300 per bill, up to \$3,000 per quarterly billing cycle	Per Customer Bill	100%
Failure to provide dedicated service representatives in the Colorado Pod and NW Pod during each respective pod's customer service hours in this Agreement	\$500 per day	Daily	100%

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**Daily Operations**

PERFORMANCE STANDARD VIOLATION	LIQUIDATED DAMAGES	CALCULATION BASIS FOR PERFORMANCE STANDARD	REQUIRED TIME PERIOD OR MEASUREMENT UNIT	PERFORMANCE STANDARD
Collection Services taking place before 7 a.m. or after 7 p.m. (each route shall be separate incident)	\$250 per incident	Monthly	Collected between 7 a.m. and 7 p.m.	98%
Failure to collect missed collections reported by 4 p.m. within one (1) business day or those reported after 4 p.m. within two (2) business days (excludes late setouts & blocked carts which shall be collected within one (1) calendar week) (excludes severe weather delays, which shall be serviced in accordance with Section 4.5)	\$150 per Customer per day plus one month credit to each missed Customer	Monthly	Within specified time frame	98%
Failure to deliver carts to new Customers (after initial service start-up) OR to replace and/or repair damaged/lost carts OR to collect carts when Customer ends service OR to deliver correct cart type and size if initial cart delivery was incorrect by the next scheduled service day	\$150 per day per cart plus one month credit to each impacted customer	Monthly	Within two (2) business days	98%
Failure to respond to Customer queries within one (1) business day	\$250 per incident	Monthly	Within one (1) business day	98%
Failure to resolve billing inquiries and disputes within two (2) business days	\$250 per incident	Monthly	Within two (2) Business Days	98%
Failure to maintain an average hold time of three (3) minutes or less for customer service over the phone	\$500 per month	Monthly Average	Less than three (3) Minutes	98%

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PERFORMANCE STANDARD VIOLATION	LIQUIDATED DAMAGES	CALCULATION BASIS FOR PERFORMANCE STANDARD	REQUIRED TIME PERIOD OR MEASUREMENT UNIT	PERFORMANCE STANDARD
Failure to maintain an average abandonment rate of less than three percent (3%) of customer calls for customer service over the phone	\$500 per month	Monthly Average	Less than three percent (3) of Customer Service calls	98%
Failure to clean up any vehicle leaks or collect materials spilled during the execution of Collection Services within twenty-four (24) hours of spill	Twice (2X) cost of clean-up incurred by City	Monthly	Within twenty-four (24) hours	100%
Collection of overflow Solid Waste, prohibited materials, contaminated Recyclable Materials or contaminated Yard Trimmings without tagging and / or charging appropriate fee to customer	\$500 per incident	Monthly	Each Customer	98%
Late or incomplete submission of on-request, monthly, quarterly OR annual reports	\$250 per day	Monthly / Quarterly/ Annually	Within specified time frame	100%
Failure to cover vehicles that contain Solid Waste, Recyclable Materials, Yard Trimmings or Bulky Items OR to maintain vehicles in clean, sanitary and good working order	\$250 per incident	Each Load	Each Vehicle	100%
Failure to provide Bulky Item collection within five (5) business days of Customer request	\$150 per Customer per day plus one month credit to each impacted Customer	Monthly	Within five (5) business days	98%
Driver providing Collection Service utilizing a cell phone in a moving vehicle	\$500 per cell phone infraction	Per Incident	All drivers	100%

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PERFORMANCE STANDARD VIOLATION	LIQUIDATED DAMAGES	CALCULATION BASIS FOR PERFORMANCE STANDARD	REQUIRED TIME PERIOD OR MEASUREMENT UNIT	PERFORMANCE STANDARD
Failure to maintain required color-coding for Solid Waste, Recyclable Materials or Yard Trimmings carts OR to maintain hot-stamp labels on all carts OR to maintain printed material guidelines on Recyclable Materials or Yard Trimmings carts	\$250 per cart per day	Monthly	Each Cart	98%
Failure to distribute approved notifications & collection calendars OR to develop/use approved service tags	\$250 per day	Monthly	Within specified time frame	98%

### **5.2 Contactor Performance Review**

The City reserves the right to conduct a full review of Contractor performance at any time during the Agreement Term. If during the review process or any other deliberative process the City determines the Contractor's performance is not in compliance with the terms of the Agreement (regardless of liquidated damages paid), the City may declare the Contractor in default and terminate the Agreement pursuant to Section 20, Defaults of this Agreement.

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**Attachment 1**

**Yard Trimmings Opt-In or Opt-Out Effectivity Dates**

<b>Date of Customer Notification to Contractor Requesting to Opt-In or Opt-Out</b>	<b>Date Effective for Service and Billing</b>
<b>First Six Months after Service Commencement Date</b>	
By September 1, 2024	October 1, 2024
By October 1, 2024	November 1, 2024
By November 1, 2024	December 1, 2024
By December 1, 2024	January 1, 2025
By January 1, 2025	February 1, 2025
By February 1, 2025	March 1, 2025
<b>Next Six Months after Service Commencement Date</b>	
By January 1	February 1
By February 1	March 1
By March 1	April 1
By April 1	August 1
By May 1	August 1
By June 1	August 1
By July 1	August 1
By August 1	December 1
By September 1	December 1
By October 1	December 1
By November 1	December 1
By December 1	January 1



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**Attachment 2**

**Schaefer Cart Warranty Transfer Acknowledgement**



CITY OF FORT COLLINS, CO

RE: WARRANTY TRANSFER CONFIRMATION

1/20/2023

To Whom It May Concern:

Please accept this letter as confirmation that the 10-year warranty of the Schaefer carts, that would be purchased for the City of Fort Collins, CO contract, will transfer to the city from Republic Services at the conclusion of the initial term of the 5-year contract. The result will be the remaining years of warranty from cart purchases for the contract will transfer with the asset to the City of Fort Collins, CO.

This arrangement is possible due to the partnership Schaefer and Republic Services share, spanning over 20 years.

If there are any further questions or clarifications needed, please feel free to contact me.

We sincerely hope to partner with the city during this project for a smoothly executed transition for the residents of Fort Collins.

Thank you,

A handwritten signature in black ink that reads 'Brett Belda'.

Brett Belda  
Vice President, Waste Technology Division  
Schaefer Plastics North America, LLC.  
[Brett.Belda@ssi-plastic.com](mailto:Brett.Belda@ssi-plastic.com)  
(440) 679- 2430

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**Attachment 3**

**Transition Plan**

Program Transition Services Updated 1/3/23	Start Date	Completed Date	Touch Points	Assigned
*Not all-inclusive of every detail. We are proposing a draft timeline, but it is our intent to sit down with the City to mutually agree upon dates, as we are using best estimates right now. We typically provide a draft and very early after signing an agreement we sit down with the City to walk through it and make sure we are aligned on dates or changes needed.				
<b>Denotes a milestone.</b>				
<b>Project</b>	<b>Start Date</b>	<b>Completed Date</b>	<b>Touch Points</b>	<b>Assigned</b>
<b>EV Vehicle - Pilot Program with Xcel Energy</b>				
EV Mobile Battery Charging Single Charging Station Installed	12/2022 (exp.)	Q1-Q2 2023	Single	HQ EV Team Republic Services
EV Truck Arrives	Q3 2023	N/A	Single	HQ EV Team Republic Services / Kevin O'Reilly Fleet Maintenance Shop
EV Truck Show & Tell with Partners (Invite Event)	Q3/Q4 2023	Ongoing Educational Events	Multiple	HQ Republic Services Marketing, Holli McElwee and Partner with City on Invites Elected Officials/Staff
<b>EV Truck to Begin Route in Fort Collins</b>	<b>Q3/Q4 2023</b>	<b>Ongoing</b>	<b>Single</b>	<b>Kevin O'Reilly Fleet Maintenance and Austin Self Operations Manager</b>
<b>RNG Trucks (ASL)</b>				
RNG Infrastructure Construction Begins/Concludes	Q1 2023	Q2/Q3 2024	Multiple	HQ EV Team Republic Services / Kevin O'Reilly Fleet Maintenance Shop
RNG Truck Order Placed	Q1/Q2 2023	Q1/Q2 2024	Multiple	HQ EV Team Republic Services / Kevin O'Reilly Fleet Maintenance Shop
<b>RNG Trucks Arrive</b>	<b>Q3 2024</b>	<b>Q3 2024</b>	<b>Multiple</b>	<b>HQ EV Team Republic Services / Kevin O'Reilly Fleet Maintenance Shop</b>
<b>Single-Hauler Communications</b>				
Monthly Coordination Meetings with City Representative	3/20/2023	9/29/2029	Monthly	Holli McElwee; Austin Self; Tony Jimenz(Other Dept. Managers, As Necessary)
Press Release 1	3/21/2023	3/22/2023	Single	Subject: Single Hauler Contract with Republic Services Adopted; City of Fort Collins (RS Requests Ability to Review); Approved by City Staff
Cart Set-Out Times and Locations	5/1/2024	9/14/2024	Multiple & Series Out	HQ Marketing and Holli McElwee; Approved by City Staff
Develop Public Notifications to Customers	6/1/2023	9/14/2024	Multiple & Series Out	HQ Marketing and Holli McElwee; Approved by City Staff
Directions: Changing Service, Managing Solid Waste Overflow	6/1/2024	12/30/2024 (Ongoing)	Multiple & Series Out	HQ Marketing and Holli McElwee; Approved by City Staff
Press Release 2	3/1/2024	3/15/2024	Single	Subject: Ordering Carts; City of Fort Collins (RS Requests Ability to Review); Approved by City Staff
<b>Create Letter, Postcard, Website Landing Page - Multiple Touch Pts.</b>	<b>11/1/2023</b>	<b>12/1/2024</b>	<b>Multiple &amp; Series Out</b>	<b>HQ Marketing and Holli McElwee; Approved by City Staff</b>
Distribute Public Notifications to Customers	1/1/2024	2/1/2024	Multiple & Series Out	HQ Marketing and Holli McElwee; Approved by City Staff
Facilitate and Manage Customer Cart Size Collection Communications and Ordering	11/1/2023	3/31/2024	Series Out	HQ Marketing, Digital, Holli McElwee, CS, Billing & Ops; Approved by City Staff
Press Release 3	5/1/2024	5/16/2024	Single	Subject: Ordering Carts Reminder City of Fort Collins (RS Requests Ability to Review); Approved by City Staff
Produce Service Tags (Oops, Contamination, Blocked Carts)	6/1/2024	8/1/2024 (Ready 9/30/24)	Multiple & Series Out	HQ Marketing and Holli McElwee; Approved by City Staff
Annual Collection Calendar	6/1/2024	8/7/2024	Multiple & Series Out	HQ Marketing and Holli McElwee; Approved by City Staff
Press Release 4	6/1/2024	8/15/2024	Single	Subject: Program Roll-Out & Collection Service - City of Fort Collins (RS Requests Ability to Review); Approved by City Staff
Develop and Mail the Yard Waste Recycling Guide	6/1/2024	9/1/2024 (& YOY: New Starts)	Mailed & Digital	HQ Marketing and Holli McElwee; Approved by City Staff
Recycle Guide	6/1/2024	9/1/2024 (& YOY: New Starts)	Mailed & Digital	HQ Marketing and Holli McElwee; Approved by City Staff
City of Fort Collins E-Newsletter	6/1/2024	8/30/2024	Multiple	City of Fort Collins (RS Requests Ability to Review); Approved by City Staff
Annual Communications - English/Spanish - Using the App	6/1/2024	9/30/2024 (& YOY)	Multiple & Series Out	HQ Marketing and Holli McElwee; Approved by City Staff
Service Levels & Rates	6/1/2024	9/30/2024	Multiple & Series Out	HQ Marketing and Holli McElwee; Approved by City Staff
New Customer Start Service Electronic Packet	6/1/2024	9/30/2024	Multiple & Series Out	HQ Marketing and Holli McElwee; Approved by City Staff
Cart Hanger Postcard for Cart Deployment/New Carts Delivered	6/1/2024	10/4/2024	Placed on New Carts	HQ Marketing, Holli McElwee & Schaefer; Approved by City Staff
Change of Service Levels	6/1/2024	12/30/2024	Multiple & Series Out	Holli McElwee Creative; CS Containers; Approved by City Staff
<b>Service Addresses and Orders</b>				
Meet with City of Fort Collins Environmental Services Representative	By 3/30/2023	Possible Weekly Touch Pts. TBD	TBD	Republic's GM, Austin Self, Holli McElwee, Catherine Morrow and Area Representative
Fort Collins staff answers questions while Republic drafts a Complete Residential Address List ***Per RFP Interview Discussion	3/31/2023	8/30/2023 (Ongoing w' Moves/Bulk)	Have to Determine	City Staff & Republic Services Representatives
Meet with other haulers to determine if they want their carts collected along with Republic carts	6/1/2024	9/30/2024	TBD	TBD
Cross Reference the List With Republic's Existing Customer List	8/30/2023	9/30/2023	Have to Determine	Republic Services Operations (Austin Self), Routing Manager and Area Team
<b>Color Details, Hot Stamp, Artwork, City Phone #, Stream, Cart Sizes All Due</b>	<b>2/1/2024</b>	<b>2/1/2024</b>	<b>Single</b>	<b>Holli McElwee, Austin Self, Stephen Walker, HQ Marketing, City Representative and All Approved by City Representative</b>
<b>Set-up All Routing for 45,500 (+-) Customers (Will Coordinate with the City on Exacts)</b>	<b>3/1/2024</b>	<b>6/30/2024</b>	<b>Series</b>	<b>Republic Services Operations (Austin Self), Routing Manager and Area Team</b>
Conduct All Billing Set-Up	3/1/2024	9/20/2024	Series Out	HQ Billing/Franchise Specialists, Catherine Morrow, Kathy Sommermeyer
Cart PO Placement and Order Finalization	4/1/2024	4/1/2024	Bulk Order #1	Stephen Walker and Josh Jones
Carts arrive	6/1/2024	7/1/2024		
***Place 2nd Cart Order; Only if Needed; Stragler Order (Move-ins/outs, Late Orders, HOAs or Residents or Late Adopters)	5/1/2024	6/15/2024	If Needed	Stephen Walker, Operations Manager and Josh Jones, Shop Supervisor
Develop and Distribute a Collection Calendar to All Customers	9/1/2024	9/7/2024	Series Out YOY	HQ Marketing and Holli McElwee; Approved by City Staff
Issue OOPS Tags	9/30/2024	(Ongoing & As Need Per HH)	Series Out	Drivers on Route; Approved by City Staff
<b>Hiring and Training Class B CDL Drivers</b>				
Post job openings for Class B CDL drivers. Target the Northern Colorado / Southern Wyoming regions. Determine if out-of-area geo targeting needs to occur as we work through the recruitment process.	6/1/2023	9/30/2024 (Ongoing)	Series Out	Maria Placencio and Republic Service's Recruiter
Begin interviewing. Note: Some interviews will take place sooner or later than this date, just depending on the candidate pool.	11/1/2023	9/30/2024 (Ongoing)	Series Out	Maria Placencio, HR Manager, and Republic Service's Recruiter
Begin background checks and drug testing. Note: Some interviews will take place sooner or later than this date, just depending on the candidate pool.	12/1/2023	9/30/2024 (Ongoing)	Series Out	Republic Service's Recruiter and Outside Agency
Hire, new hire orientation and train (18+ days for training/driver).	2/1/2024	8/1/2024 (Ongoing)	Series Out	Karisa Sommermeyer, Ops Clerk (New Hire Orientation), Shadow Other Departments, Operations Supervisor (Driver Training)

Project	Start Date	Completed Date	Touch Points	Assigned
Drivers are route ready. Until service officially begins 9/30/24, we will utilize this pool of drivers in other lines of business, on yard waste routes and as SOS relief drivers for other BUs.	2/19/2024	8/20/2024 (Ongoing)	Series Out	Austin Self and Tony Jimenez
Post for Collection Helpers, if needed	3/1/2024	As Needed	Series Out	Maria Placencio, HR Manager, and Republic Service's Recruiter
City-wide contract collection services begin.	9/30/2024	9/29/2024 (5-Year)	Series Out	All Resi Fort Collins Crew(s)
Continued driver safety training and daily huddles/crew-outs.	9/30/2024	Ongoing	Series Out	Austin Self, Tony Jimenez, Stephen Walker, and Special Visits by Area on Occasion
Keep the Class B CDL job posting opened and candidate pool steady, as there is bound to be natural ebbs and flows with the workforce.	9/30/2024	Ongoing	Series Out	Maria Placencio, HR Manager, and Republic Service's Recruiter
<b>Hiring and Training Customer Service Representatives (Republic's CRC)</b>				
Begin recruiting for 20 CRC agents.	9/30/2023	11/30/2023	Series Out Depending on	Republic's Recruiter and CRC Manager
Begin interviewing.	12/1/2023	1/15/2024	Series Out Depending on	Republic's Recruiter and CRC Manager
Begin making offers, background check, drug testing/screening.	1/15/2024	2/15/2024	Series Out Depending on	Republic's Recruiter and CRC Manager
Begin new hire orientation, training, onboarding, taking calls, expecting 20 agents by the "Completed Date".	2/15/2024 (Ongoing)	8/15/2024 (Ongoing)	Series Out Depending on	Republic's Recruiter and CRC Manager
<b>Cart Pickup and New Cart Deployment - Cart Deployment Can Be Scaled Up or Down</b>				
Republic Secure the Rental of Two Yards, One for New Carts and Other for Legacy Carts	7/1/2024	10/31/2024		Republic's GM
Pick Up Legacy Carts; Deliver New Cart Roll-Out Assemble & Deliver New Carts to All Residential Units	8/26/2024	9/20/2024	Routed Out; Series	Schaefer Representative & A&D Team
Clean-up From New Cart Roll-Out (Any Missed Residents/Changes); Some Overlapping of Above New Cart Roll-Out	9/20/2024	10/24/2024	As Needed	Schaefer Representative & A&D Team
First Day of Monday Collection Services (MSW, REC, YW, BULK)	9/30/2024	Ongoing	Weekly & EOW	All Departments: Ops, Billing, CS, Muni, Fleet, etc.
After the initial roll-out of Carts, Republic's Delivery Department would Deliver New Carts, Switch-Outs, etc.	10/5/2024	9/29/2029	Daily; As Needed	Republic's Operations Delivery Department

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**Attachment 4**

**Vehicle Details**

Collection Vehicle Chart								
Unit #	Year	Make	Model	Body	Est. Replacemer	Includes Aftertreatment	Age	Fuel
<b>Updated 1/31/23</b>								
Residential Front Load				12				
2201	2021	Mack	LR64	McNeilus	2031	Yes		1 Diesel
2202	2021	Mack	LR64	McNeilus	2031	Yes		1 Diesel
2203	2021	Mack	LR64	McNeilus	2031	Yes		1 Diesel
2204	2021	Mack	LR64	McNeilus	2031	Yes		1 Diesel
2205	2020	Mack	LR64	McNeilus	2030	Yes		2 Diesel
2206	2020	Mack	LR64R DSL	McNeilus	2030	Yes		2 Diesel
2207	2018	Peterbilt	520	McNeilus	2028	Yes		4 Diesel
2208	2018	Peterbilt	520	McNeilus	2028	Yes		4 Diesel
2209	2018	Peterbilt	520	McNeilus	2028	Yes		4 Diesel
2210	2018	Mack	LR613	McNeilus	2028	Yes		4 Diesel
1214	2021	Mack	LR64	Heil	2031	Yes		1 Diesel
1215	2021	Mack	LR64	Heil	2031	Yes		1 Diesel
							Avg Age	2.2
Rear Load				2				
2080	2021	Peterbilt	520	McNeilus	2031	Yes		1 Diesel
2081	2021	Peterbilt	520	McNeilus	2031	Yes		1 Diesel
							Avg. Age	1

This spreadsheet includes information about existing diesel collection vehicles that will provide Collection Service. Additional vehicles will be purchased. All new vehicles will be CNG-fueled vehicles.

EXHIBIT D

Item 3.

**REVIEW VERSION – RESIDENTIAL SOLID WASTE COLLECTION SERVICES –  
2/27/2023 SUBJECT TO CITY COUNCIL APPROVAL AND EXECUTION BY THE  
PARTIES**

**EXHIBIT B**

**PRICING**



### Fort Collins Residential Solid Waste Collection Services Price Sheet

Note: Contractor may not charge any fees beyond those listed in this pricing sheet

#### Collection Service Price Options

	Service Scenario	XS Service Price \$ / month / Customer	Small Cart Service Price \$ / month / Customer	Medium Cart Service Price \$ / month / Customer	Large Cart Service Price \$ / month / Customer	XL Cart Service Price \$ / month / Customer
1	Solid Waste collection, weekly Recyclable Materials collection, Yard Trimmings collection and Bulky Items collection (Requires Solid Waste go to Larimer County Landfill)	\$10.75	\$19.00	\$38.25	\$57.50	\$115.25
2	Solid Waste collection, weekly Recyclable Materials collection, Yard Trimmings collection and Bulky Items collection (Contractor may take Solid Waste to approved landfill of their choice)	\$9.75	\$17.75	\$35.75	\$53.75	\$107.75

*These service rates have been reduced by \$0.25/mo to account for The Recycling Partnership grant funding.  
City Administrative Fee will be charged monthly in addition to the above pricing.*

#### Additional Fees / Services

Yard Trimmings	\$ / Customer / month
Decrease in Customer bill if Customer declines Optional Yard Trimmings Service (Price decrease does not apply to XS cart customers)	\$5.00

Overflow trash or recycling fee	\$ / 32 gallon equivalent
Fee charged to Customers with overflow trash or recycling	\$4.00

Additional cart delivery fee	\$ / delivery instance
Delivery / exchange fee for cart delivery / exchange / repair needs beyond two instances per year	\$35.00

City administrative fee	\$ / month
Fee charged to Customers and Opt-Out Customers	\$1.35

*The City Administration Fee is set by the City Manager and shall not exceed \$1.35*

Bulky Items Collection	
No Additional Fee Bulky Items	\$ / item
\$ per "No Additional Fee" Bulky Item (when customer request more than 2 Bulky Item collections per calendar year)	\$40.00
"Additional Fee" Bulky Items	\$ / item
Non-CFC containing appliances	\$50.00
Sofas, chairs, furniture (less than 60 lbs.)	\$40.00
Mattresses & box springs	\$40.00
Large or overweight items (above 60 lbs.)	Call for pricing

Dumpster Service		
Dumpster size and type	Service Frequency	\$ / month for service
2 cubic yard Solid Waste + 2 cubic yard Recyclable Materials	Weekly	\$110.50
3 cubic yard Solid Waste + 2 cubic yard Recyclable Materials	Weekly	\$183.50
4 cubic yard Solid Waste + 2 cubic yard Recyclable Materials	Weekly	\$200.00
6 cubic yard Solid Waste + 3 cubic yard Recyclable Materials	Weekly	\$330.00

*City Administrative Fee will be charged monthly in addition to the above pricing.*

**REVIEW VERSION – RESIDENTIAL SOLID WASTE COLLECTION SERVICES – 2/27/2023  
SUBJECT TO CITY COUNCIL APPROVAL AND EXECUTION BY THE PARTIES**

**EXHIBIT C**

**INSURANCE**

Without limiting any of the Contractor's obligations hereunder, the Contractor shall provide and maintain insurance coverage naming the City as an additional insured under this Agreement, via blanket-form endorsement, as applicable of the type and with the limits specified herein. Prior to the Effective Date of the Agreement, the Contractor, or its authorized representative, shall deliver to the City's Purchasing Director, purchasing@fcgov.com or P.O. Box 580, Fort Collins, Colorado 80522, one copy of a certificate evidencing the insurance coverage required from an insurance company rated A-VIII or higher by A.M. best Company and approved in Colorado.

In case of the breach of any provision of the Insurance Requirements, the City, at its option, may take out and maintain, at the expense of the Contractor, such insurance as the City may deem proper and charge-back the cost of such insurance.

Insurance certificates should show the certificate holder as follows:

City of Fort Collins  
Purchasing Division  
PO Box 580  
Fort Collins, CO 80522

The City, its officers, agents and employees shall be named as additional insureds on the Contractor's general liability and automobile liability insurance policies **by marking the appropriate box or adding a statement to this effect on the certificate**, for any claims arising out of work performed under this Agreement.

Insurance coverages shall be as follows:

- A. Workers' Compensation & Employer's Liability. The Contractor shall maintain the following coverage for the Agreement Term for all of the Contractor's employees engaged in work performed under this Agreement. Workers' Compensation & Employer's Liability insurance shall conform with statutory limits of \$100,000 per accident, \$500,000 disease aggregate, and \$100,000 disease for each employee, or as required by Colorado law.
- B. General Liability. The Contractor shall maintain for the duration of the Agreement Term such General Liability as will provide coverage for damage claims of personal injury, including accidental death, as well as for claims for property damage, which may arise directly or indirectly from the performance of work under this Agreement. Coverage for property damage shall be on a "broad form" basis. The amount of insurance for General Liability shall not be less than Two Million Dollars (\$2,000,000) each occurrence and Four Million Dollars (\$4,000,000) aggregate.
- C. Automobile Liability. The Contractor shall maintain for the Agreement Term such Automobile Liability insurance as will provide coverage for damage claims of personal injury, including accidental death, as well as for claims for property damage, which may arise directly or indirectly from the performance of work under this Agreement. Coverage for property damage shall be on a "broad form" basis. The amount of insurance for Automobile Liability shall not be less than One Million Dollars (\$1,000,000) combined single limits for bodily injury and property damage.

In the event any work is performed by a subcontractor, the Contractor shall be responsible for any liability directly or indirectly arising out of the work performed under this Agreement by a subcontractor, which liability is not covered by the subcontractor's insurance.

**REVIEW VERSION – RESIDENTIAL SOLID WASTE COLLECTION SERVICES – 2/27/2023  
SUBJECT TO CITY COUNCIL APPROVAL AND EXECUTION BY THE PARTIES****EXHIBIT D****CONFIDENTIALITY**

**IN CONNECTION WITH SERVICES** provided to the City pursuant to this Agreement, the Contractor hereby acknowledges that it has been informed that the City has established policies and procedures with regard to the handling of confidential information and other sensitive materials.

In consideration of access to certain information, data and material (hereinafter individually and collectively, regardless of nature, referred to as “information”) that are the property of and/or relate to the City or its employees, customers or suppliers, which access is related to the performance of services under this Agreement, the Contractor hereby acknowledges and agrees as follows:

That information that has or will come into its possession or knowledge in connection with the performance of services for the City may be confidential and/or proprietary. The Contractor agrees to treat as confidential (a) all information that is owned by the City, or that relates to the business of the City, or that is used by the City in carrying on business, and (b) all information that is proprietary to a third party (including but not limited to customers and suppliers of the City). The Contractor shall not disclose any such information to any person not having a legitimate need-to-know for purposes authorized by the City. Further, the Contractor shall not use such information to obtain any economic or other benefit for itself, or any third party, except as specifically authorized by the City.

As part of the Services provided to the City under this Agreement, the Contractor will maintain, store or process personal identifying information, as defined in C.R.S. § 24-73-101, of Customers and Service Opt-Out Customers. Pursuant to C.R.S. § 24-73-102, Contractor shall maintain confidentiality of this information and implement and maintain reasonable security procedures and practices that are: appropriate to the nature of the personal identifying information disclosed to the Contractor in furtherance of this Agreement; and reasonably designed to help protect the personal identifying information from unauthorized access, use, modification, disclosure, or destruction. If the Contractor becomes aware of any unauthorized release of personal identifying information, it shall notify the City immediately and cooperate with the City regarding recovery, remediation, and the necessity to involve law enforcement, as determined by the City. After any such release, Contractor shall take steps to reduce the risk of incurring a similar type of release in the future as directed by the City, which may include, but is not limited to, developing and implementing a remediation plan that is approved by the City at no additional cost to the City. In addition to any other remedies available to City under law or equity, Contractor will promptly reimburse City in full for all costs incurred by City relating to any such release.

The foregoing to the contrary notwithstanding, the Contractor understands that it shall have no obligation under this Agreement with respect to information and material that (a) becomes generally known to the public by publication or some means other than a breach of duty of this Agreement, or (b) is required by law, regulation or court order to be disclosed, provided that the request for such disclosure is proper and the disclosure does not exceed that which is required. In the event of any disclosure under (b) above, the Contractor shall furnish a copy of this Agreement to anyone to whom it is required to make such disclosure and shall promptly advise the City in writing of each such disclosure.

Item 3.

**REVIEW VERSION – RESIDENTIAL SOLID WASTE COLLECTION SERVICES – 2/27/2023  
SUBJECT TO CITY COUNCIL APPROVAL AND EXECUTION BY THE PARTIES**

In the event that the Contractor ceases to perform services for the City, or the City so requests for any reason, the Contractor shall promptly return to the City any and all information described hereinabove, including all copies, notes and/or summaries (handwritten or mechanically produced) thereof, in its possession or control or as to which it otherwise has access.

The Contractor understands and agrees that the City’s remedies at law for a breach of the Contractor’s obligations under this Confidentiality Agreement may be inadequate and that the City shall, in the event of any such breach, be entitled to seek equitable relief (including without limitation preliminary and permanent injunctive relief and specific performance) in addition to all other remedies provided hereunder or available at law.

ORDINANCE NO. 029, 2023  
OF THE COUNCIL OF THE CITY OF FORT COLLINS  
APPROPRIATING PRIOR YEAR RESERVES FOR START-UP COSTS TO CREATE  
A CONTRACTED RESIDENTIAL WASTE COLLECTION PROGRAM

WHEREAS, the Council of the City of Fort Collins seeks to establish a City Residential Waste Collection Program (“Program”); and

WHEREAS, to establish the Program, the City Council, simultaneously with the adoption of this Ordinance, is adopting Ordinance No. 027, 2023, to amend the City Code to authorize the Program, and Ordinance No. 028, 2023 to approve an agreement with a waste collector to provide solid waste, recyclable materials, yard trimmings and bulky items collection services (the “services”) to certain residences and other locations within the City; and

WHEREAS, customers of the Program will pay the contracted waste collector the applicable rates for the services and an administrative fee to be remitted to the City to pay for the City’s administrative costs to manage the Program; and

WHEREAS, the services will commence September 30, 2024; and

WHEREAS, the City seeks to start administrative work prior to the commencement of the services using prior year reserves in the General Fund, which will be paid back using the administrative fee collected from customers of the Program; and

WHEREAS, this appropriation benefits the public health, safety and welfare of the residents of Fort Collins and serves the public purpose of facilitating the administration of a program to improve waste collection in the City; and

WHEREAS, Article V, Section 9 of the City Charter permits the City Council, upon the recommendation of the City Manager, to make supplemental appropriations by ordinance at any time during the fiscal year such funds for expenditure as may be available from reserves accumulated in prior years, notwithstanding that such reserves were not previously appropriated; and

WHEREAS, the City Manager has recommended the appropriation described herein and determined that this appropriation is available and previously unappropriated from the General Fund and will not cause the total amount appropriated in the General Fund to exceed the current estimate of actual and anticipated revenues and all other funds to be received in this Fund during this fiscal year.

NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF FORT COLLINS as follows:

Section 1. That the City Council hereby makes and adopts the determinations and findings contained in the recitals set forth above.

Section 2. That there is hereby appropriated from prior year reserves in the General Fund the sum of ONE HUNDRED SEVEN THOUSAND TWO HUNDRED FIFTY-ONE DOLLARS (\$107,251) to be expended in the General Fund for Start-up Costs to Create a Contracted Residential Waste and Recycling Collection Program.

Introduced, considered favorably on first reading, and ordered published this 21st day of February 2023, and to be presented for final passage on the 7th day of March 2023.

\_\_\_\_\_  
Mayor

ATTEST:

\_\_\_\_\_  
City Clerk

Passed and adopted on final reading on the 7th day of March 2023.

\_\_\_\_\_  
Mayor

ATTEST:

\_\_\_\_\_  
City Clerk

- Collection shall be on the same day as Solid Waste collection.
- At the City’s discretion, Contractor shall deliver Recyclable Materials to the Larimer County Recycling Center or the permitted recycling center of the Contractor’s choice for the pricing included in the Price Sheet (Exhibit B). City Representative shall notify the Contractor in writing with at least six (6) months prior written notice if the City elects to start or stop flow control of Recyclable Materials to the Larimer County Recycling Center. If such action takes place after one (1) year from the Service Commencement Date the Parties shall negotiate in good faith any resulting financial impacts and update Exhibit B.
- Recyclable Materials shall not be landfilled unless the load is rejected from the recycling center due to contamination. If that occurs, Contractor shall notify the City Representative within one (1) business day with details of the incident / cause of the contamination. Contractor shall also include details and cause of the contamination incident in the regular report to the City Representative.

**Table 1  
MINIMUM LIST OF RECYCLABLE MATERIALS TO COLLECT**

Recyclable Cardboard	Plastic bottles, tubs, jugs and jars (#1,2 and 5)
Office paper (white and colored)	Aluminum cans, clean foil & pie plates
Magazines	Steel / tin cans & empty aerosol cans
Paperboard	Glass bottles and jars
Kraft paper	Aseptic containers

**Recyclable Materials Service Frequency and Number of Carts**

Recyclable Materials Service shall be provided to 100% of Customers as part of the Collection Services cost. Recyclable Materials Services ~~shall be every other week~~ collection ~~of~~ shall be performed weekly with up to two ~~Large Recyclable Materials Carts or weekly collection of one~~(2) Large Recyclable Materials Cart. Except as otherwise set forth herein, Contractor shall only be required to collect the contents of the Recyclable Materials Carts and may charge Customers for additional Recyclable Materials should Contractor elect to collect such materials. Any such material cannot be in a plastic bag and must not exceed the Cart size. The fee for such services shall be in accordance with the Pricing Schedule in Exhibit B.

**Changes in Frequency of Recyclable Materials Services Collection**

In the event the City wishes to change the frequency of Recyclable Materials Services collection from weekly to every-other-week, the parties agree to negotiate in good faith the timing to implement the change and impact to pricing with consideration to the effect of such change on the Contractor’s operations.

**Changes in Market Conditions**

If the materials recovery facility processing Customers’ Recyclable Materials temporarily or permanently stops accepting some or all of the items in Table 1, the Parties will come to mutual agreement about how to adjust Collection Services in a timely manner.

**Recyclable Materials Contamination**

The Recyclable Materials contamination threshold shall be ten percent (10%) by volume. When the Contractor encounters a cart with ten percent (10%) or more contamination, the

## Fort Collins Residential Solid Waste Collection Services Price Sheet

Note: Contractor may not charge any fees beyond those listed in this pricing sheet

### Collection Service Price Options

	Service Scenario	XS Service Price \$ / month / Customer	Small Cart Service Price \$ / month / Customer	Medium Cart Service Price \$ / month / Customer	Large Cart Service Price \$ / month / Customer	XL Cart Service Price \$ / month / Customer
1	Solid Waste collection, weekly Recyclable Materials collection, Yard Trimmings collection and Bulky Items collection (Requires Solid Waste go to Larimer County Landfill)	\$10.75	\$19.00	\$38.25	\$57.50	\$115.25
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*These service rates have been reduced by \$0.25/mo to account for The Recycling Partnership grant funding.  
City Administrative Fee will be charged monthly in addition to the above pricing.*

### Additional Fees / Services

Yard Trimmings	\$ / Customer / month
Decrease in Customer bill if Customer declines Optional Yard Trimmings Service (Price decrease does not apply to XS cart customers)	\$5.00

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City administrative fee	\$ / month
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Bulky Items Collection	
No Additional Fee Bulky Items	\$ / item
\$ per "No Additional Fee" Bulky Item (when customer request more than 2 Bulky Item collections per calendar year)	\$40.00
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Non-CFC containing appliances	\$50.00
Sofas, chairs, furniture (less than 60 lbs.)	\$40.00
Mattresses & box springs	\$40.00
Large or overweight items (above 60 lbs.)	Call for pricing

Dumpster Service		
Dumpster size and type	Service Frequency	\$ / month for service
2 cubic yard Solid Waste + 2 cubic yard Recyclable Materials	Weekly	\$110.50
3 cubic yard Solid Waste + 2 cubic yard Recyclable Materials	Weekly	\$183.50
4 cubic yard Solid Waste + 2 cubic yard Recyclable Materials	Weekly	\$200.00
6 cubic yard Solid Waste + 3 cubic yard Recyclable Materials	Weekly	\$330.00

*City Administrative Fee will be charged monthly in addition to the above pricing.*



**REVIEW VERSION – RESIDENTIAL SOLID WASTE COLLECTION SERVICES – 2/1/2023  
SUBJECT TO CITY COUNCIL APPROVAL AND EXECUTION BY THE PARTIES**

27. Governmental Immunity Act. No term or condition of this Agreement shall be construed or interpreted as a waiver, express or implied, by the City of any of the notices, requirements, immunities, rights, benefits, protections, limitations of liability, and other provisions of the Colorado Governmental Immunity Act, C.R.S. § 24-10-101 et seq. and under any other applicable law.

28. Colorado Open Records Act. The Contractor hereby acknowledges that the City is a public entity subject to Sec. 24-72-201 et seq. of the Colorado Revised Statute (CORA). This Agreement is subject to public disclosure in whole pursuant to CORA.

29. Cooperative Purchase – Utilization by Other Governmental Entities. Any governmental entity within the state of Colorado may, subject to such entity’s governing laws, rules, and regulations, use the City’s competitive purchasing process as the basis to negotiate a contract with the Contractor for similar services. Any governmental entity that uses the City’s competitive purchasing process as the basis of award will be solely responsible for negotiating all terms of such contract with the Contractor and issuing their own contract documents. The Contractor shall be required to include in any contract with another governmental entity that is entered into under this cooperative provision a contract clause that will hold harmless the City from all claims, demands, actions or causes of actions of every kind resulting directly or indirectly, arising out of, or in any way connected with the City’s Agreement. The City makes no guarantee of usage by other entities of this Agreement. Utilization of this cooperative provision by any other entity must not have a negative impact on the City’s level and/or quality of service.

29.30. Survival: Any terms and conditions of this Agreement that require continued performance, compliance, or effect beyond the termination date of the Agreement shall survive such termination date and shall be enforceable in the event of a failure to perform or comply.

30.31. Counterparts. This Agreement may be executed in one or more counterparts, each of which shall constitute an original and all of which shall constitute one and the same document. In addition, the Parties specifically acknowledge and agree that electronic signatures shall be effective for all purposes, in accordance with the provisions of the Uniform Electronic Transactions Act, Title 24, Article 71.3 of the Colorado Revised Statutes.

IN WITNESS WHEREOF, the Parties hereto have hereunto set their hands and seals the day and year first written above.

Signature Page Follows

# AGENDA ITEM SUMMARY

City Council




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## STAFF

Seth Lorson, Transit Planner  
 Drew Brooks, Interim Deputy Director of PDT  
 Aaron Guin, Legal

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## SUBJECT

**Second Reading of Ordinance No. 030, 2023, Adopting the North College MAX BRT Plan as a Component of City Plan.**

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## EXECUTIVE SUMMARY

The purpose of this Ordinance, unanimously adopted (6-0) on First Reading on February 21, 2023, is to consider adoption of the North College Max Plan. The North College MAX BRT Plan is the result of approximately 18 months of community engagement, information analysis, and concept refinement. The plan provides recommendations for Bus Rapid Transit, local transit routes, bicycle and pedestrian facilities, future development, and affordability.

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## STAFF RECOMMENDATION

Staff recommends adoption of the Ordinance on Second Reading.

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## BACKGROUND / DISCUSSION

### A. PROJECT GENESIS

Development of Bus Rapid Transit (BRT) on North College Avenue was identified as a goal in the Transit Master Plan (2019) and has been requested by the North College business and residential community for many years. In addition to policy documents and community demand, expansion of transit services to North College is consistent with the City's climate and equity goals.

Our Climate Future sets a goal of 80% reduction in greenhouse gas emissions by 2030 and identifies expansion of public transit and bicycle facilities, and increased density, as "big moves" needed to achieve these goals. The current routes (8 & 81) serving the North College corridor are the fastest growing routes in the Transfort system.

The City's efforts to focus on equity includes prioritizing the North College area for this planning process. Notably, the North College area is made up of approximately 41% Hispanic and Latinx community members, as compared to nearly 12% in the Fort Collins community at large. The North College area also has a lower average annual household income (\$47,200) than the rest of Fort Collins (\$68,000). Additionally, North College is home to many social service agencies including Salud Medical Clinic, Larimer County Department of Human Services, Food Bank for Larimer County, Murphy Center

for Hope, Catholic Charities of Larimer County, and The Family Center La Familia. The Fort Collins Rescue Mission also is planning to relocate to the area.

These conditions lead to the successful application for an FTA grant (5338 TOD Pilot) to provide funding for consultant assistance to create the North College MAX BRT Plan.

## B. PURPOSE

The purpose of the North College MAX BRT Plan and process:

- **Guide transportation infrastructure improvements and new development** in a way that allows North College Avenue to continue its evolution as the northern entryway to the City with a positive community look and feel.
- **Plan and provide steps for implementation for increased transit investment** and a multi-modal transportation network in the North College area that is safe, comfortable, and convenient for people of all ages and abilities.
- **Build upon Citywide efforts to preserve affordability for residents and local businesses** and recommend appropriate strategies for the North College area.
- **Guide new development** that can provide affordable housing, essential services, and open space in the area.
- Contribute to numerous other efforts in the North College area to **strengthen its unique local character and sense of place.**

## C. PROJECT PHASES AND PUBLIC ENGAGEMENT

The North College MAX BRT Plan has taken an equity-forward approach to plan creation and community engagement. Prior to beginning the planning process, an Equity and Engagement Working Group was created. This group, made up of North College community members and representatives of social service agencies, framed the strategies used in the public involvement plan.

In each phase of the project, all material and events/workshops were available in English and Spanish. Community-based organizations (Spanish-speaking) traveled door-to-door to establish trust and meet community members where they were most comfortable. Also, incentives for participation were provided as recognition that a person's time is valuable and engaging with the City competes with other priorities such as work, childcare, and free time.

Each phase of the project presented information to the community and incorporated feedback into each subsequent phase, thus creating a feedback loop and outcomes that were familiar to stakeholders. Due to this consistent approach, engagement in the final phase of the project garnered very few requests for changes and many nods of appreciation.

Project Phases: (Engagement summaries from each phase are available in Appendix A.)

### Phase 1 – Existing Conditions

Opportunities and challenges for existing transportation infrastructure, travel patterns, and development trends were presented to the community and stakeholders. (See Appendix B – Existing Conditions Report). Participants shared that their top concerns were safe and comfortable transportation and fears about gentrification.

## Phase 2 – Alternatives Evaluation

Possible future transit alignments, options for multi-modal infrastructure, and the close relationship between land use and provision of transit were presented to the community and stakeholders. (See Appendix C - Alternatives Analysis). Participants shared that increases in density for new jobs and housing is acceptable if it will bring BRT and safer, more comfortable bicycle and pedestrian facilities to the North College corridor.

## Phase 3 – Recommendations

Based on the feedback and analysis in the first two phases, recommendations for BRT, bicycle/pedestrian infrastructure, and future land development were presented to the community and stakeholders. Feedback and discussions were primarily focused on confirming what we heard and discussions about implementation and timeline.

## Phase 4 – Draft Plan

Outcomes consistent with the trajectory of the plan and revised, based on community and stakeholder feedback, the draft plan document was posted for public review and stakeholder meetings. The feedback provided few areas for adjustment and was generally supportive of the plan and complementary of the process. Revisions to the plan were made based on feedback throughout the process, including comments by the Planning and Zoning Commission specific to phasing implementation.

## D. PROJECT VISION

Based on the feedback from the community and stakeholders, the following vision statement was crafted:

*The vision for North College Avenue is for a safe, accessible, attractive, and affordable corridor for people who live, work, and visit the North College area. North College Avenue will be a gateway and hub for local and regional transit connections that link people to essential services, recreation, and entertainment.*

*The corridor will connect to a comfortable and convenient network for people using active modes made up of sidewalks, share-use paths, and bike lanes.*

*Transit stations will be focal points for new, multi-story development that de-emphasizes surface parking. Corridor development will bring upgrades to infrastructure, improve public space, and fill in existing vacant land and buildings. New development will occur in a way that protects the natural environment and preserves affordability and diversity of residents, local businesses, and service providers. North College Avenue will become a district and destination with its own distinct character that is driven by residents, workers, and local business owners. The corridor will be a safe and comfortable corridor to travel through and a destination for people of all socio-economic statuses, ages, and abilities.*

*The corridor will:*

- *Be a gateway into the City of Fort Collins.*
- *Include a safe, comfortable, and convenient transportation network for people taking transit, using active modes, and driving.*
- *Stay affordable for residents and local businesses.*
- *Grow in a way that protects the natural environment and the local community.*
- *Provide ample services, places to live, employment opportunities, and spaces for recreation.*
- *Display its own unique local character.*

## E. PLAN RECOMMENDATIONS

(Transportation plan recommendations are located on page 21 of plan document.)

The plan recommends a **phased approach** to implementation for the following reasons (Phasing details are found on page 34 of plan document):

- A major capital project was constructed on North College less than a decade ago. The construction of sidewalks, streetscape amenities, and medians presented challenges for residents and especially businesses in the North College corridor. More major construction in the near term is not welcome.
- The mid- and long-term recommendations are not yet needed in the corridor but associated conditions will be monitored to determine when they are needed.
- The mid- and long-term recommendations are expensive and without meeting certain population and ridership requirements this project is not eligible for the FTA grants that typically pay for such improvements (such as the Small Starts grant used for the MAX BRT).

### NEAR-TERM RECOMMENDATIONS

- Create a new high frequency bus route on North College Avenue in the existing general purpose travel lanes at a 15-minute frequency.
- Consolidate existing local bus stops on North College Avenue at signalized intersections.
- Realign Route 8 to serve Blue Spruce Drive, Redwood Street, and Linden Street at a 30-minute frequency.
- Implement a micro-transit zone in the North College area to serve places not well-served by fixed-route transit.
- Construct infrastructure for people walking and biking, including segments of shared-use path north of Hibdon Court, new signals on North College Avenue, and improved bikeways, walkways, and crossings along streets parallel and connecting to North College Avenue.
- Adopt amendments to the Mason Street realignment identified in the Master Street Plan.
- Implement Transit Oriented Development (TOD) strategies including a TOD overlay; change setback and height standards; establish connectivity, outdoor space, and dominant block face requirements; adjust Architectural Standards; and create incentives to preserve existing commercial buildings.
- Implement strategies to preserve and increase affordability, including applying the Urban Renewal Authority's tools, requiring considerable public benefits from metro districts, rezoning the North College Mobile Home Park, leveraging the City's land bank, and establishing an affordable housing goal for the area.
- Implement affordable commercial lease strategies, develop business grants for local businesses, and provide incentives for building improvements and redevelopments for local businesses.

### MID-TERM RECOMMENDATIONS

The large capital investments (marked with an \*) in the mid-term recommendations will not be implemented until the following **conditions** are met:

- Ridership on North College BRT is at 1,000 boardings per day, or
- Traffic becomes congested to the point that intersections on North College Avenue are experiencing a level of service F, or
- The population (currently approximately 7,000) and employment (currently approximately 16,125) of the area doubles from current levels, or
- CDOT plans a major rehabilitation project for North College Avenue and this plan's recommended improvements could occur at the same time.
- Prior to any major capital project related to this plan, an Equity Analysis is recommended to identify and mitigate possible negative outcomes.

Recommendations:

- \*Construct Business Access Transit (BAT) bus-only lanes, MAX stations with mobility hubs, and complete shared-use paths on North College Avenue
- \*Acquire property for and construct a bus turn-around north of Terry Lake Road
- Increase bus frequency (15-minutes on North College Avenue and 15-minutes on Route 8) and service hours
- Create a mobility hub near the Willox Lane roundabout in conjunction with redevelopment of the former Albertson's
- Construct access infrastructure for people walking and biking along Mason Street and Red Cedar Circle
- \*Construct medians south of Conifer Street
- Provide regional stormwater detention

**LONG-TERM RECOMMENDATIONS**

- Once ridership on North College approaches 1,500 boardings per day, recommend increasing North College BRT frequency to 10-minutes and evaluate feasibility of interlining with MAX on Mason Street

**CITY FINANCIAL IMPACTS**

---

Near-term:

- Capital costs: \$3M (plus optional \$2.3M to replace current buses with battery/electric buses)
- Operating costs: \$500k/year for microtransit
- Fixed route operations are revenue neutral

Mid-term:

- Capital costs: \$27M (plus optional \$1M for an additional 40-foot battery electric bus)
- Operating costs: +\$1M/year

Long-term:

- Capital costs: \$1.3M for additional articulated battery electric bus
- Operating costs: \$500k/year

Item 4.

As work is completed toward implementation, various approaches will be utilized. Primarily, State and Federal grants will contribute toward payment for transit improvements (typically with a 20% - 50% local match), bicycle and pedestrian improvements will be included in the capital improvement list and will be constructed incrementally with new land development and redevelopment.

**BOARD / COMMISSION / COMMITTEE RECOMMENDATION**

---

The Planning and Zoning Commission recommended approval of the North College MAX Plan by a 7 – 0 vote on November 17, 2022.

The Transportation Board recommended approval by a 5 – 2 vote on October 19, 2022. (Dissenting votes suggested that the long-term recommendations should be implemented immediately and that the cross-section graphics should show a semi-truck.)

**PUBLIC OUTREACH**

---

Community outreach has been extensive and focused on equity. A summary is included in the project narrative, above. Below is a snapshot of engagement. For more details, please review Appendix A of the Plan.



**ATTACHMENTS**

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First Reading attachments not included.

- 1. Ordinance for Consideration
- 2. Ordinance Exhibit A

ORDINANCE NO. 030, 2023  
OF THE COUNCIL OF THE CITY OF FORT COLLINS  
ADOPTING THE NORTH COLLEGE MAX BRT PLAN  
AS A COMPONENT OF CITY PLAN

WHEREAS, the development of Bus Rapid Transit on North College Avenue was identified as a goal in the 2019 Transit Master Plan and has been requested by the North College Avenue area businesses and the residential community for many years; and

WHEREAS, the North College MAX BRT Plan provides recommendations for Bus Rapid Transit, local transit routes, bicycle and pedestrian facilities, future development, and affordability; and

WHEREAS, the North College MAX BRT Plan was developed after extensive public outreach, discussion and consideration of community needs and priorities and is the result of approximately eighteen months of community engagement, information analysis, and concept refinement; and

WHEREAS, Our Climate Future sets a goal of 80% reduction in greenhouse gas emissions by 2030 and identifies expansion of public transit and bicycle facilities as “big moves” needed to achieve these goals; and

WHEREAS, Routes 8 and 81, which serve the North College Avenue corridor, are the fastest growing bus transportation routes in the Transfort system; and

WHEREAS, the North College MAX BRT Plan’s expansion of transit services to North College is consistent with the City’s climate and equity goals; and

WHEREAS, the North College MAX BRT Plan has been the subject of extensive public outreach and stakeholder presentations and have received the favorable recommendations of the Planning and Zoning Commission and the Transportation Board; and

WHEREAS, the purpose of the North College MAX BRT Plan is to guide transportation infrastructure improvements and new development, to plan and provide steps for implementation for increased transit investment, to build upon City-wide efforts to preserve affordability for residents and local businesses, and to contribute to other efforts in the North College Avenue area to help strengthen its unique local character and sense of place; and

WHEREAS, the City Council has determined that it is in the best interests of the residents of the City of Fort Collins to adopt formally the North College MAX BRT Plan.

NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF FORT COLLINS as follows:

Section 1. That the City Council hereby makes and adopts the determinations and findings contained in the recitals set forth above.



Section 2. That the City Council hereby adopts the North College MAX BRT Plan attached hereto as Exhibit “A” as a component of City Plan, the City’s comprehensive plan.

Introduced, considered favorably on first reading, and ordered published this 21st day of February, 2023, and to be presented for final passage on the 7th day of March, 2023.

\_\_\_\_\_  
Mayor

ATTEST:

\_\_\_\_\_  
City Clerk

Passed and adopted on final reading on the 7th day of March, 2023.

\_\_\_\_\_  
Mayor

ATTEST:

\_\_\_\_\_  
City Clerk

# North College MAX BRT

## Final Plan Report



February  
2023

PREPARED FOR



CONSULTANT TEAM



INSTITUTE  
FOR THE BUILT



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# Executive Summary

: The North College MAX Bus Rapid Transit (BRT) Plan makes  
 : recommendations for the future of transportation and land use  
 : on North College Avenue, from approximately Willow Street  
 : to Terry Lake Road. MAX BRT on North College Avenue is an  
 : important project to emerge from the city’s Transit Master Plan  
 : and is consistent with City Council Priorities and Strategic Plan  
 : objectives, Our Climate Future, and the city’s equity goals.

: **The future vision for the corridor is that it will:**



Be a **gateway** into the City of Fort Collins.



Include a **safe, comfortable, and convenient** transportation network for people taking transit, using active modes, and driving.



Stay **affordable** for residents and local businesses.



Grow in a way that **protects the natural environment and the local community.**



Provide ample **services, places to live, employment opportunities, and spaces for recreation.**



Display its own unique local character.

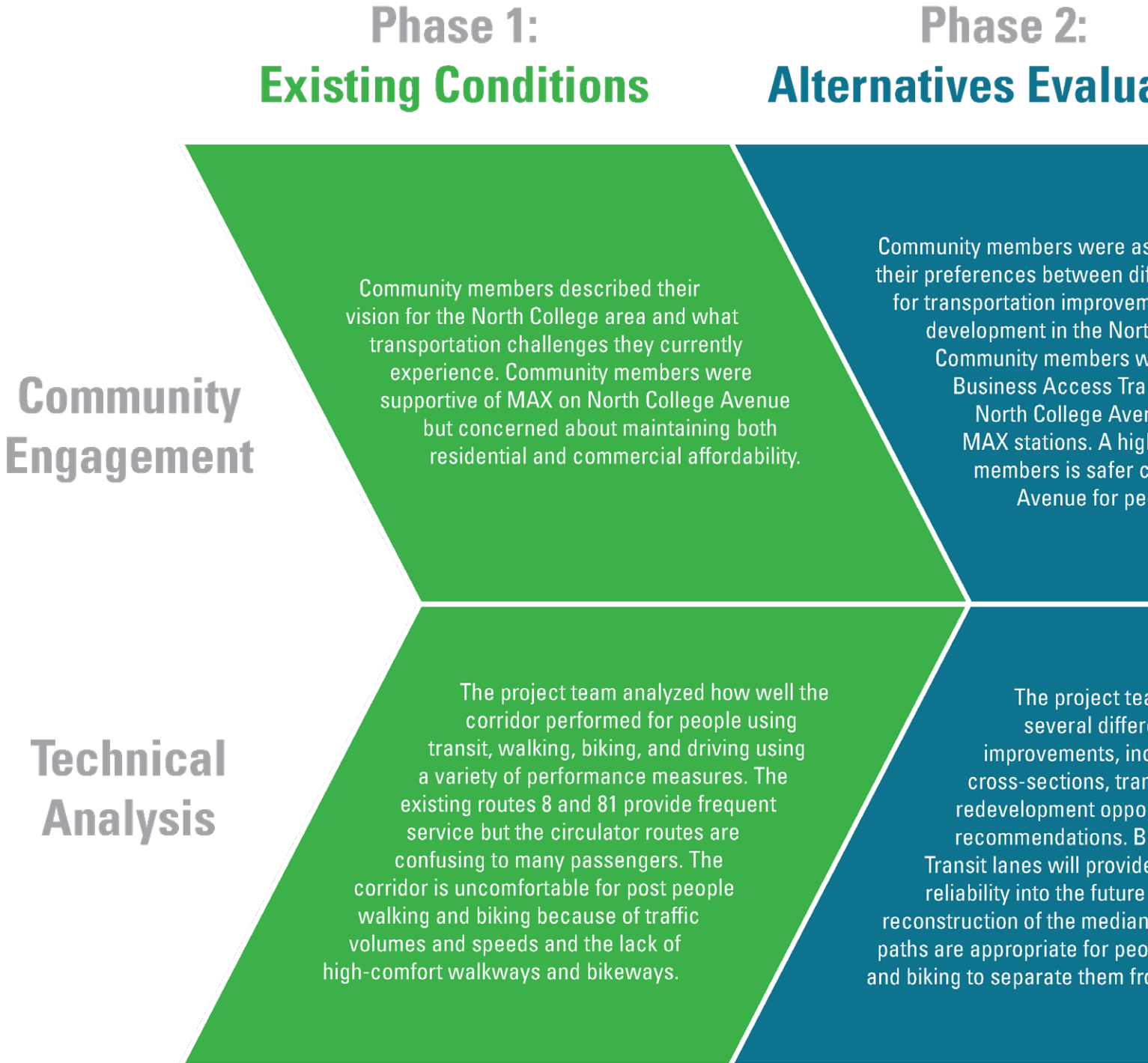


The project's three phases of community engagement each involved 300-500 individuals to shape this plan. Additionally, the project team completed a robust technical process including existing conditions analysis, alternatives evaluation, and final recommendations. This plan's recommendations are supported both technically and by the community because of this process.

The key elements of MAX BRT on North College Avenue are BRT service with Business Access Transit (BAT) lanes, MAX stops and stations, and shared use paths for people walking and biking. Transit Oriented Development (TOD) urban design and land use strategies will increase the area's population and employment. Lastly, a host of strategies will help preserve and increase affordability in the North College area as the area grows. Transportation and land use change in the area will happen over time. The plan's most significant cost, the construction of BRT on North College Avenue, is estimated to cost \$22 million in 2022 dollars.

The plan development process included robust community involvement and technical analyses, both of which occurred across three phases.

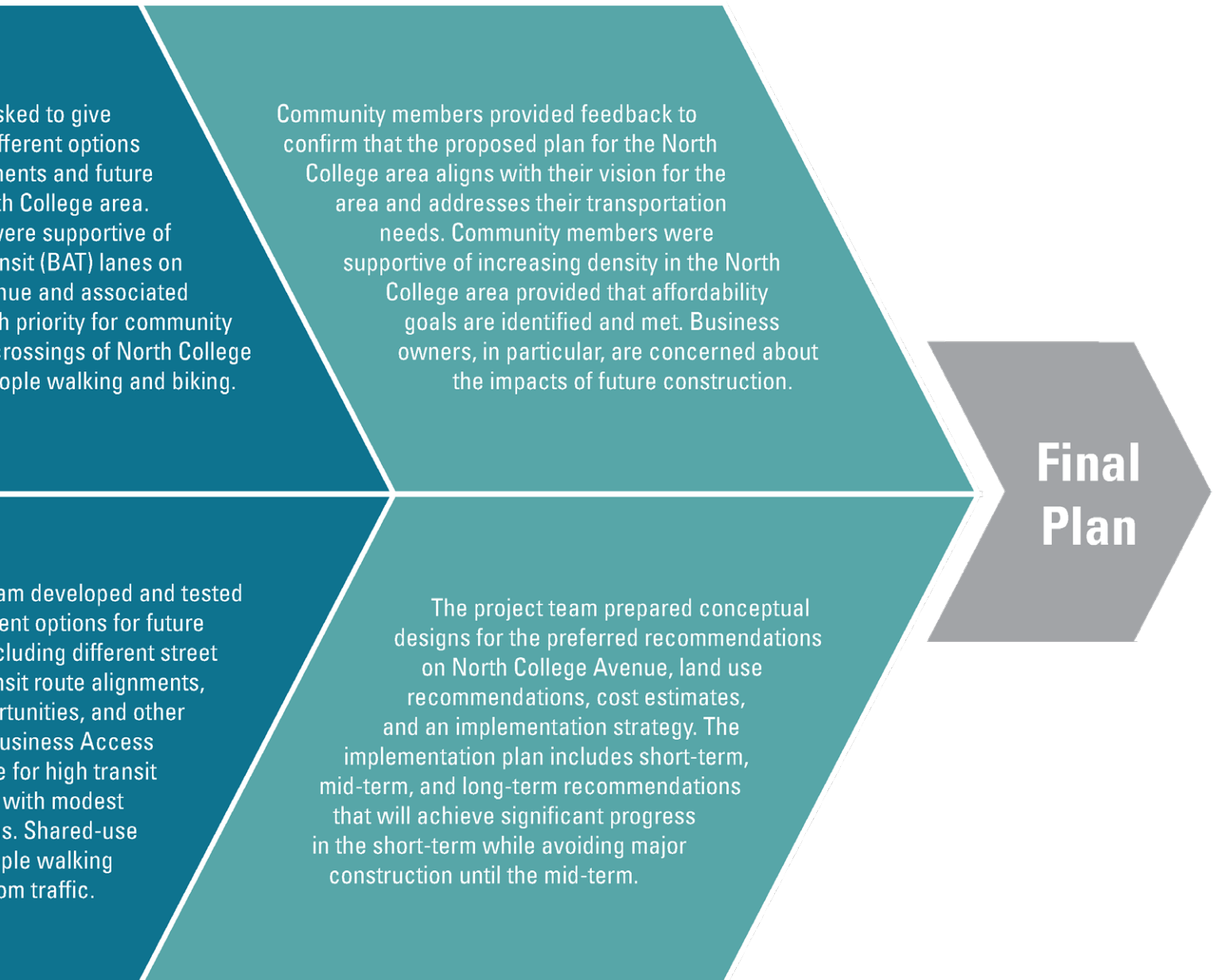
Figure 1: Plan Development Process



### Phase 3:

## Final Recommendations

ation





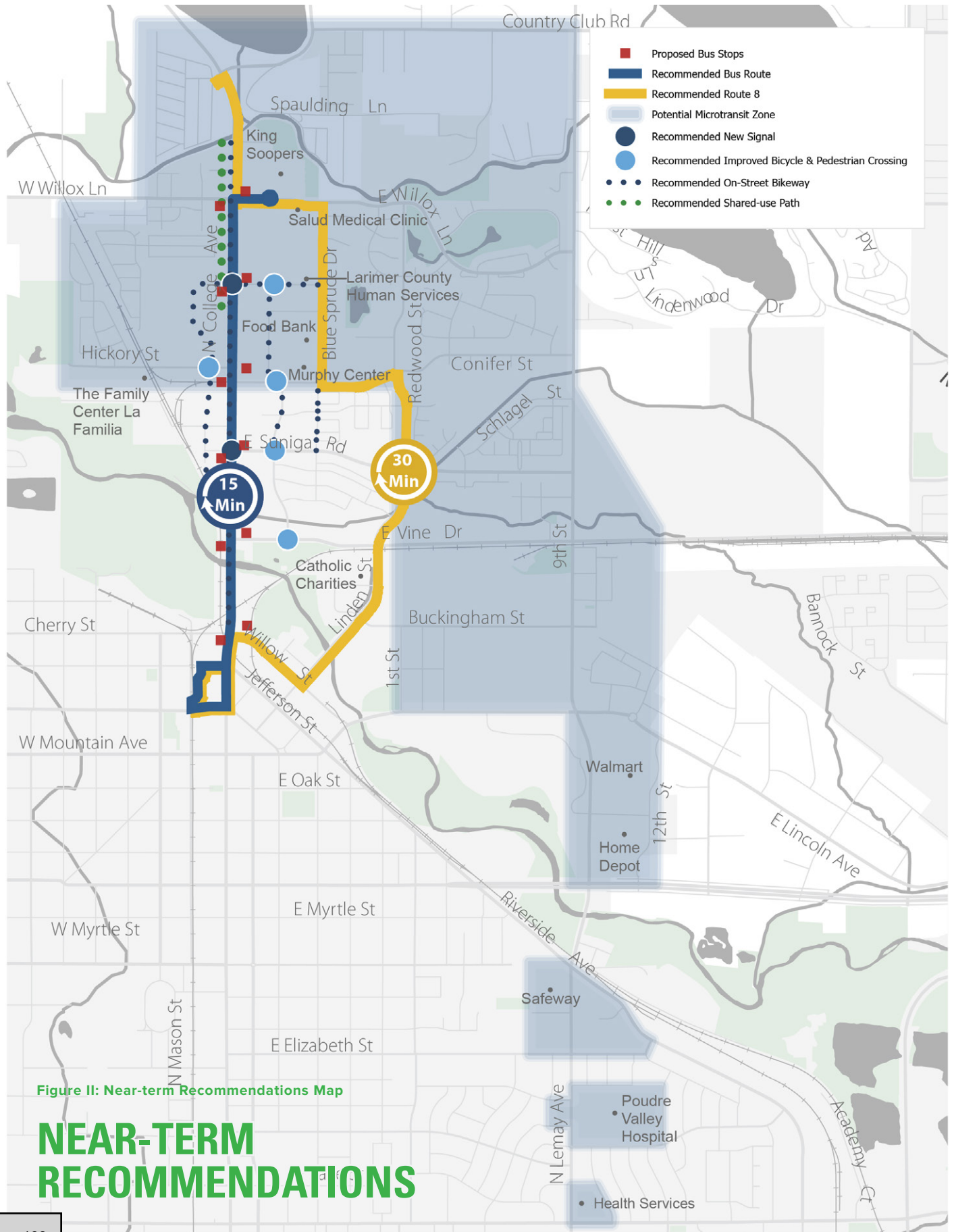


Figure II: Near-term Recommendations Map

# NEAR-TERM RECOMMENDATIONS

Table I: Near-term Recommendations Summary

### Near-term Plan Recommendations Summary

Near-term investments will cost approximately \$3 million in capital costs and \$750,000 per year in operating costs for microtransit service.

- Create a new high frequency bus route on North College Avenue in the existing general purpose travel lanes at 15-minute frequency
- Consolidate existing local bus stops on North College Avenue at signalized intersections
- Realign route 8 to serve Blue Spruce Drive, Redwood Street, and Linden Street at 30-minute frequency
- Implement a micro-transit zone in the North College area to serve places not well-served by fixed-route transit
- Construct access infrastructure for people walking and biking, including segments of shared use path north of Hibdon Court, new signals on North College Avenue, interim protected bike lanes on North College Avenue, and improved bikeways, walkways, and crossings along streets parallel and connecting to North College Avenue
- As development and redevelopment occur, construct access infrastructure for people walking and biking along Mason Street and Red Cedar Circle
- Adopt amendments to the Mason Street realignment identified in the Master Streets Plan
- Implement Transit Oriented Development (TOD) strategies including a TOD overlay; change setback and height standards; establish connectivity, outdoor space, and dominant block face requirements; adjust Architectural Standards; and create incentives to preserve existing commercial buildings
- Implement strategies to preserve and increase affordability, including applying the Urban Renewal Authority's tools, requiring considerable public benefits from metro districts, rezoning the North College Mobile Home Park, leveraging the city's land bank, and establishing an affordable housing goal for the area

Figure III: Interim Protected Bike Lane Cross-section

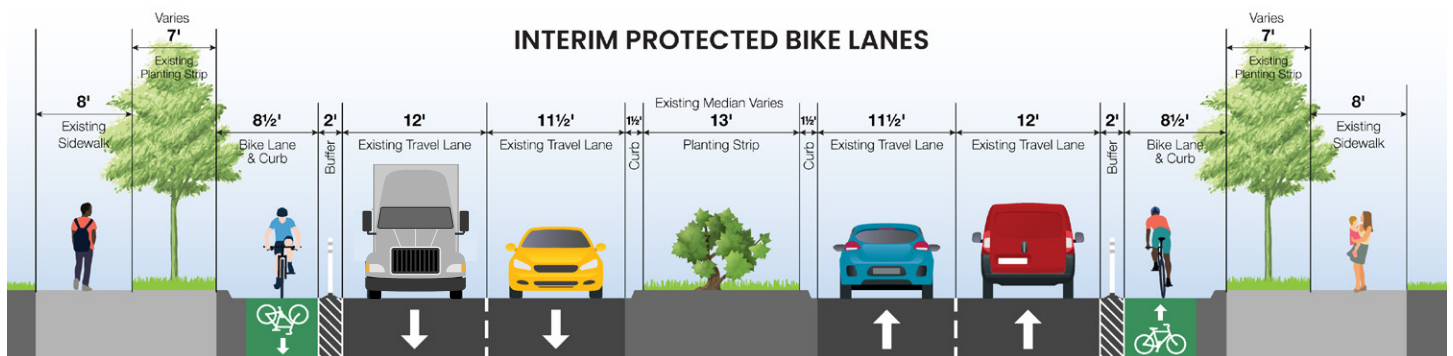




Table II: Mid-term Recommendations Summary

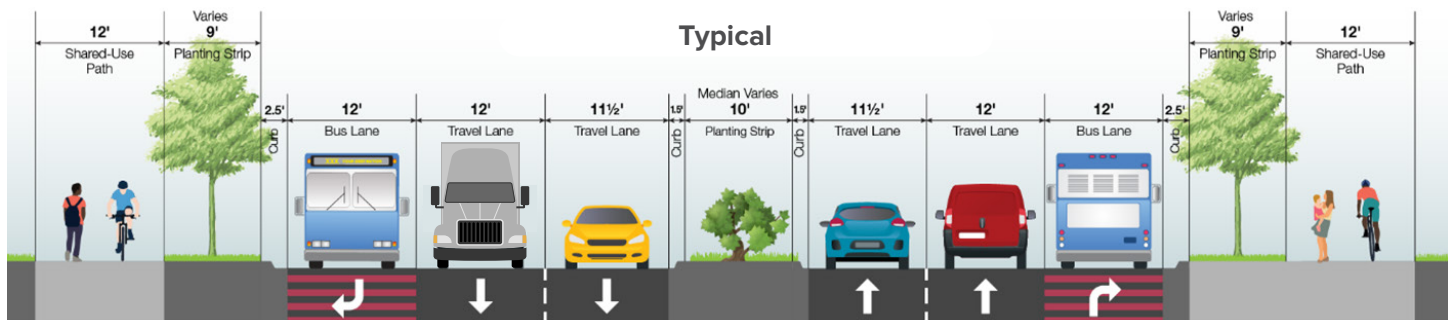
### Mid-term Plan Recommendations Summary

Mid-term transit investments will cost approximately \$22 million. Multiple conditions could create the conditions for the mid-term transit investments. The purposes for a phased approach with conditions are to effectively allocate scarce city resources and to postpone construction impacts to property owners who endured construction just seven years ago.

Conditions are: corridor ridership approaches 1,000 boardings per day; intersection approaches (e.g., northbound approach, southbound approach) on North College Avenue experience level of service F conditions; corridor population and employment approximately doubles from current levels, or major rehabilitation maintenance of the corridor creates an opportunity to “one-build” the project.

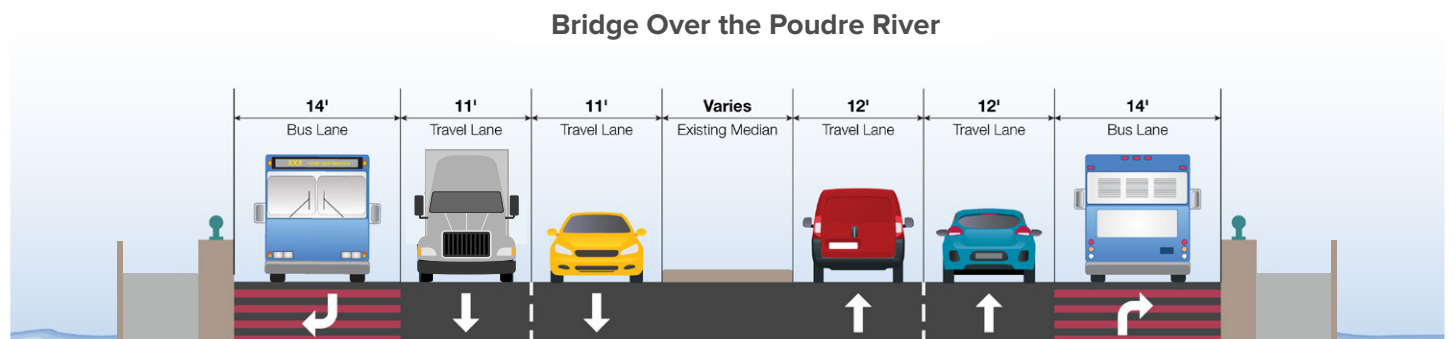
- Construct Business Access Transit (BAT) lanes, MAX stations with mobility hubs, and complete shared-use paths on North College Avenue
- Acquire property for and construct a bus turn-around north of Terry Lake Road
- Increase bus frequency (15-minutes on North College Avenue and 15-minutes on Route 8) and service hours
- Create a mobility hub near the Willox Lane roundabout in conjunction with redevelopment of the former Albertson’s
- Construct medians south of Conifer Street
- Provide regional stormwater detention
- New regional transit to Wellington

Figure V: Typical North College Avenue BAT Lane Cross-section



\*At signalized intersections, turn lanes will replace the median.

Figure VI: North College Avenue Cross-section at Poudre River Bridge



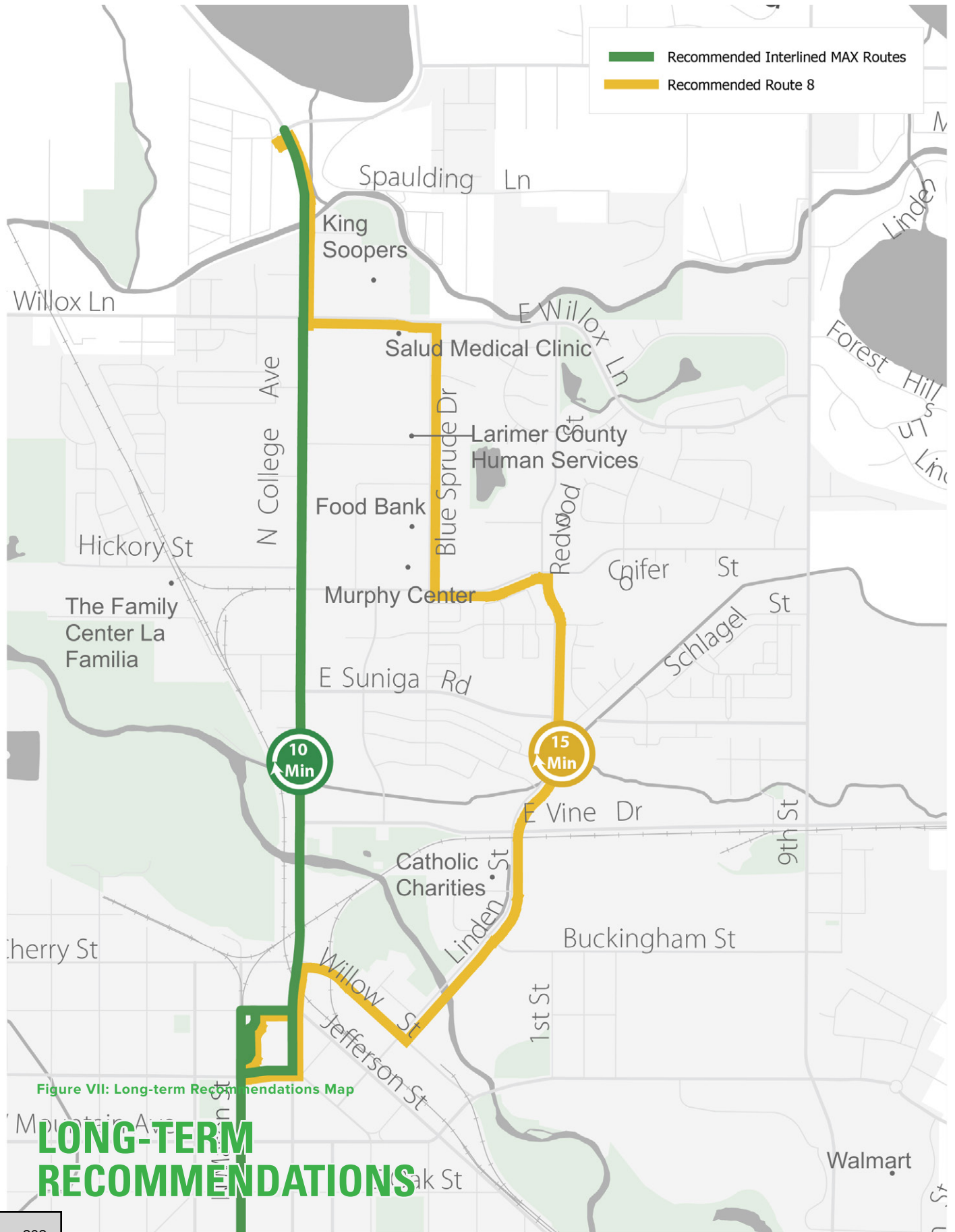


Figure VII: Long-term Recommendations Map

Table III: Long-term Recommendations Summary

### Long-term Plan Recommendations Summary

*Long-term interlining is estimate to cost an additional \$750,000 per year in operating costs. Long-term interlining of MAX on North College Avenue with MAX on Mason Street could be triggered if North College Avenue ridership approaches 1,500 boardings per day.*

- Increase MAX frequency to 10-minutes and evaluate feasibility of interlining MAX on North College Avenue with MAX on Mason Street



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# Introduction



# Introduction

MAX BRT on North College was chosen as a priority to support our commitment to equity and climate action and because the area is growing in terms of population, employment, and transit ridership.

This report includes the final recommendations for the future of North College Avenue and the commercial areas and neighborhoods surrounding it. The process for the North College MAX Bus Rapid Transit (BRT) Plan began in February of 2021. This process included three separate phases of community engagement, an existing conditions assessment, and an evaluation of different transportation and land use alternatives. The final recommendations for the North College area presented in this report were developed from community members input received and the technical analysis conducted. This report summarizes the process that led to these recommendations and presents the final transportation, development, and funding recommendations. Additionally this plan includes potential phasing and funding sources for all recommendations.

## WHY THE NORTH COLLEGE MAX BRT PLAN?

MAX BRT on North College Avenue was chosen as a priority because of the growth and development in north Fort Collins that is occurring today and anticipated to continue for the foreseeable future. This additional growth of residents and workers will require improvements to the multi-modal transportation network in order to maintain efficiency of transportation in the area and shift more people to active modes, including walking, biking, and e-scooters, and public

transportation modes when possible. In addition, the city has an opportunity now to help guide new development in the area to better serve community goals like preserving and increasing affordable housing and commercial space, support multi-modal transportation, provide services that support the local community, and increase open space. Furthermore, North College Avenue is a priority for increased transit investments because routes 8 and 81 (which loop through the North College area) are currently some of the most used transit routes in the city.

Equity considerations are a priority when planning in the North College area given the area's high concentration of social service providers, low-income residents, and Spanish speaking populations.

The North College MAX BRT Plan was prioritized for completion over other transit corridors in the city because it presents an opportunity to plan ahead for anticipated growth in north Fort Collins while also addressing existing equity concerns by identifying needed improvements to the multi-modal transportation networks, existing land use policies, and funding and incentives for implementation of these improvements.

The MAX BRT Plan builds on previous planning efforts like the Transit Master Plan and aims to contribute to many of the city's goals including elements of the Council's strategic objectives, the city's climate action goals, and the city's commitment to improving equitable processes and outcomes across the city.



# TRANSIT MASTER PLAN


























The North College MAX BRT was identified as part of the future transit network in the *Fort Collins Transit Master Plan (2019)*. As part of the North College MAX BRT the proposed MAX station adjacent to the King Soopers at 1842 North College Avenue was identified as a future transit center and mobility hub with a park-and-ride. The transit recommendations in this plan are similar to those presented in the *Transit Master Plan* with some adjustments made based

on community input and alternatives evaluation findings. **Figure 1** displays the future transit network from the 2019 plan. The North College MAX route completes the north-south MAX corridor through Fort Collins, creating a spine of rapid transit traversing the city. North College Avenue is a high priority in the city, after West Elizabeth Street which has the city's highest ridership outside of the MAX corridor, and above Harmony Road which has lower ridership and less transit-supportive urban form.

The *Transit Master Plan* also outlines the relationship between land use density

and viability of different transit solutions (see **Figure 2**). In general, areas with higher densities of residents and jobs generate higher demand for transit ridership which requires greater capital investment in transit and more frequent transit service. This concept is key to this study and provided a foundation for the analysis of existing and projected land use development in the North College area and how improvements to the area's land use policies could support a future MAX BRT route on North College Avenue. Today, the North College Avenue area's density is in the range of Mixed Neighborhoods.

Figure 2: 2019 Transit Master Plan - Land-use Densities and Supported Transit Service

Land Use				Transit	
Land Use Type	Example	Residents per Acre	Jobs per Acre	Appropriate Types of Transit	Frequency of Service
 Downtowns & High Density Corridors		>45	or >25	 BRT  High Frequency Bus  Local Bus	 10 minutes or better
 Urban Mixed-Use		30-45	or 15-25	 BRT  High Frequency Bus  Local Bus	 10-15 minutes
 Neighborhood & Suburban Mixed-Use		15-30	or 10-15	 Local Bus	 15-30 minutes
 Mixed Neighborhoods		10-15	or 5-10	 Local Bus  Micro-Transit	 30 minutes On demand
 Single Family Neighborhoods		<10	or <5	 Rideshare  Micro-Transit	On demand

# CITY COUNCIL PRIORITIES & STRATEGIC PLAN OBJECTIVES

This plan also aims to address City Council’s priorities and help work towards the strategic outcomes listed in the Council’s 2022 Strategic Plan. Below is a list of the strategic outcomes most relevant to the recommendations put forth in this plan:



## Neighborhood Livability & Social Health

- **1.1:** Increase housing supply and choice and address inequities in housing to ensure that everyone has healthy, stable housing they can afford.
- **1.6:** Transform regulations and revise procedures to increase clarity and predictability to ensure new development advances adopted City plans and policies.
- **1.8:** Preserve and enhance mobile home parks as a source of affordable housing and create a safe and equitable environment for residents.



## Culture & Recreation

- **2.5:** Ensure safety and access to and within City parks, natural areas, paved trails, and cultural and recreation facilities for visitors and employees.



## Economic Health

- **3.1:** Collaborate with local and regional partners to achieve economic resilience in Northern Colorado.
- **3.3:** Support local businesses by engaging in opportunities for business revival with a focus on the Recovery Plan.



## Environmental Health

- **4.1:** Intensify efforts to meet 2030 climate, energy and 100% renewable electricity goals that are centered in equity and improve community resilience
- **4.2:** Improve indoor and outdoor air quality.



## Safe Community

- **5.1:** Improve overall community safety while continuing to increase the level of public trust and willingness to use emergency services.
- **5.5:** Provide and maintain reliable utility services and infrastructure that directly preserve and improve public health and community safety.



## Transportation & Mobility

- **6.1:** Improve safety for all modes and users of the transportation system to ultimately achieve a system with no fatalities or serious injuries.
- **6.2:** Support an efficient, reliable transportation system for all modes of travel, enhance high-priority intersection operations, and reduce Vehicle Miles Traveled (VMT).
- **6.3:** Invest in equitable access to, and expansion of, all sustainable modes of travel with emphasis on growing transit ridership.
- **6.4:** Support and invest in regional transportation connections.



## High Performing Government

- **7.3:** Engage the community more effectively with enhanced inclusion of diverse identities, languages and needs.



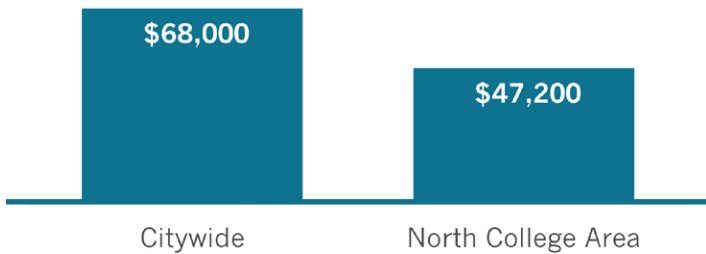
# 80%

The recommendations in the North College MAX BRT Plan are most relevant to the City’s goal of reducing 2030 greenhouse gas emissions by 80% below 2005 baseline levels.

## CLIMATE GOALS

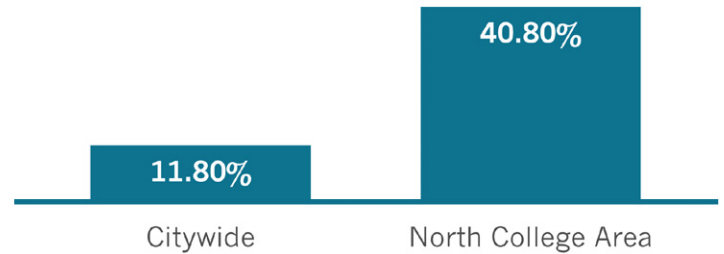
The recommendations in this plan were also developed in an effort to help contribute to the City’s climate action goals as described in Fort Collins’ Our Climate Future Plan. The recommendations in the North College MAX BRT Plan are most relevant to the City’s goal of reducing 2030 greenhouse gas emissions by 80% below 2005 baseline levels. Our Climate Future includes a Big Move to provide convenient transportation choices, including expanding local and regional public transit, continuing to build bicycle facilities, and creating mobility hubs. Additionally, Our Climate Future also includes a Big Move with moves related to increasing the density and mix of land uses. The North College MAX BRT Plan’s recommendations include transportation and land use improvements that aim to make it easier, more efficient, and more comfortable to use transit and active transportation modes. Shifting more trips to, from, and within the North College area to transit and active transportation modes will reduce the number of vehicle miles traveled and therefore the greenhouse gas emissions created by ground travel.

### Median Household Income



Source: US Census Bureau

### Hispanic Population



Source: US Census Bureau

## EQUITY

Improving equity is a core priority for the City and was a guiding principal for the process and recommendations for this plan. The public engagement process of this plan integrated equity through outreach to historically underrepresented populations, like people who primarily speak Spanish, mobile home community residents, service industry workers, and patrons of the area’s social service providers. Several social service providers are located in the North College area, including Salud Medical Clinic, Larimer County Department of Human Services, Food Bank For Larimer County, Murphy Center for Hope, Catholic Charities of Larimer

County, and The Family Center La Familia. In an effort to make the process more accessible to a wide range of people, a diversity of outreach opportunities were presented throughout the project including online engagement, in-person workshops, and virtual meetings. The Fort Collins Community Connectors handed out flyers to area businesses and went door-to-door to collect community member feedback in neighborhoods with high numbers of underrepresented groups. In addition to the outreach process, improving equitable outcomes was a key consideration throughout this project’s recommendation development and technical analysis. The equity considerations that were considered for different recommendations are included in the more detailed discussions of study recommendations later in this report.



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# Vision, Purpose, & Need





# Vision, Purpose, & Need

The vision for North College Avenue is for a safe, accessible, and affordable corridor for people who live, work, and visit the North College area.

The vision, purpose, and need statements below were created using the public input collected and existing conditions analysis conducted in previous phases of this project. The **vision statement** describes the ideal of how the study area should look and function once all of the plan recommendations have been implemented. The **project purpose** outlines this specific plan's role in achieving the vision statements. The **statement of need** summarizes the common themes of existing challenges in the study area.


## VISION STATEMENT

The vision for North College Avenue is for a safe, accessible, attractive, and affordable corridor for people who live, work, and visit the North College area. North College Avenue will be a gateway and hub for local and regional transit connections that link people to essential services, recreation, and entertainment.


The corridor will connect to a comfortable and convenient network for people using active modes made up of sidewalks, share-use paths, and bike lanes.

Transit stations will be focal points for new, multi-story development that de-emphasizes surface parking. Corridor development will bring upgrades to infrastructure, improve public space, and fill in existing vacant land and buildings. New development will occur in a way that protects the natural environment and preserves affordability and diversity of residents, local businesses, and service providers. North College Avenue will become a district and destination with its own distinct character that is driven by residents, workers, and local business owners. The corridor will be a safe and comfortable corridor to travel through and a destination for people of all socio-economic statuses, ages, and abilities.

### The corridor will:



Be a **gateway** into the City of Fort Collins.




Include a **safe, comfortable, and convenient** transportation network for people taking transit, using active modes, and driving.




Stay **affordable** for residents and local businesses.



Grow in a way that **protects the natural environment and the local community.**



Provide ample **services, places to live, employment opportunities, and spaces for recreation.**



Display its own **unique** local character.

## PROJECT PURPOSE

The purpose of the North College MAX Plan is to guide future transit investments and help align policies with those future transit investments.

This plan will provide a roadmap for the City of Fort Collins to make improvements to transportation infrastructure and transit service in the North College area. Additionally, this plan provides recommendations to guide new development in a direction that preserves affordability for residents and local businesses, is supportive of transit and other active modes of transportation and promotes needed services and open space to the surrounding community. In summary, this plan's purpose is to:

- **Guide transportation infrastructure improvements and new development** in a way that allows North College Avenue to continue its evolution as the northern entryway to the city with a positive community look and feel.
- **Plan and provide steps for implementation** for increased transit investment and a multi-modal transportation network in the North College area that is safe, comfortable and convenient for people of all ages and abilities.
- **Build upon citywide efforts to preserve affordability** for residents and local businesses and recommend appropriate strategies for the North College area in particular.
- **Guide new development to provide** affordable housing, essential services, and open space in the area.
- Contribute to numerous other efforts in the North College area to **strengthen its unique local character and sense of place**.

## STATEMENT OF NEED

From analyses of community Input (**Appendix A**) and existing conditions (**Appendix B**) the following five statements of need for the North College area were developed:

- **Incomplete multi-modal transportation network** that makes it challenging to comfortably get to, from, and around the North College area by modes other than driving. Additionally, the current network creates many areas of conflict between people driving and people using active modes which impacts efficiency and feelings of safety, especially for vulnerable, active mode users. Additionally, community members expressed that the existing transportation network could be improved to better protect the natural environment.
- **Need for increased investment in transit service** in the North College area. Community members expressed a desire for more frequent and efficient transit service on North College Avenue and the surrounding area with more investments in bus stops, future MAX stations, and security to make them feel safer and more comfortable. Community members also expressed the importance of preserving the existing transit connections to the Poudre Valley Mobile Home Park and social services on Blue Spruce Drive.
- **Lack of comfortable places to walk and bike** in the North College area due to missing or uncomfortable infrastructure, infrequent controlled crossings of roadways (particularly across North College Avenue), and the frequency of driveways that intersect the bike lane and sidewalk on North College Avenue.
- **Desire for redevelopment of vacant properties** to provide new homes, services, and enough travel demand for high-frequency transit.
- **Increasing costs of buying or renting property** for both residents and local businesses, which is making it hard to stay in the North College area and Fort Collins at large, especially for underrepresented populations including people with lower incomes and Hispanic residents.





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# Plan Development

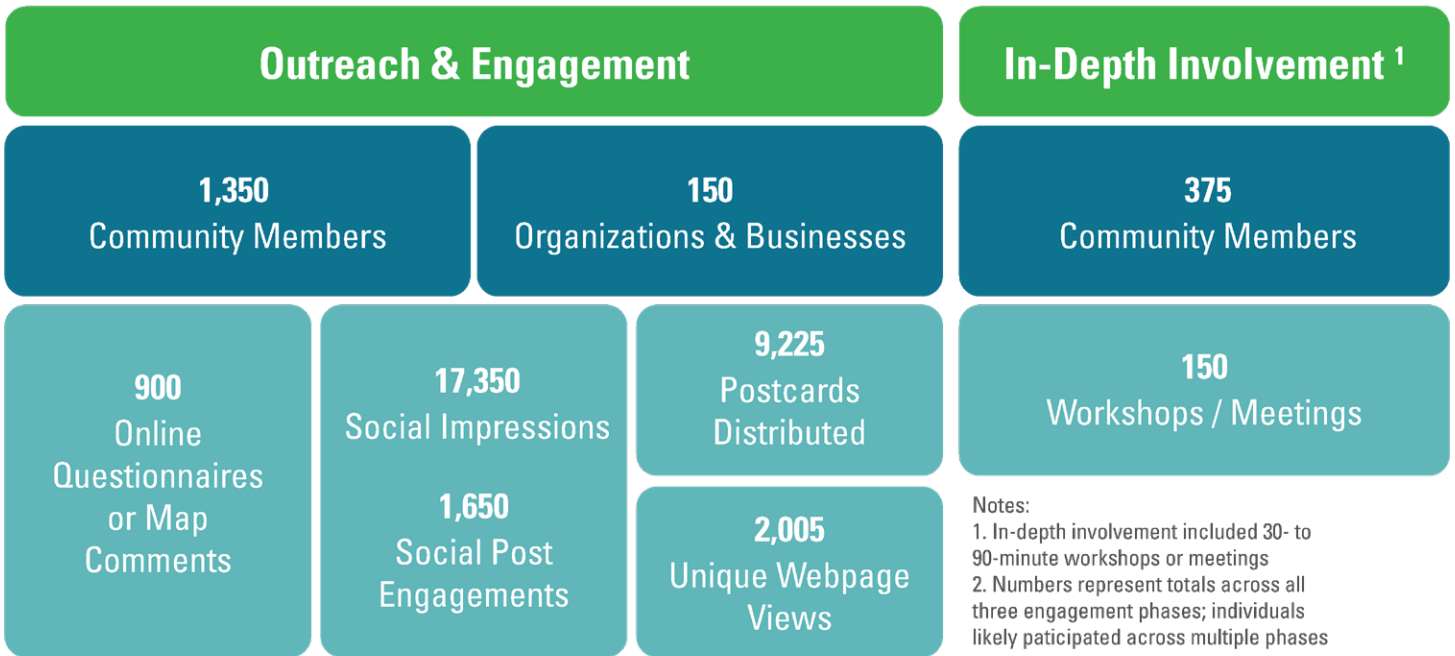
# Plan Development

**This plan details the final recommendations for the future of transportation and related land use improvements in the North College area.** These recommendations were developed and refined through an extensive public outreach process and technical analysis. These processes are summarized in **Figure 3** and more details about each can be found in their respective appendices at the end of this report.

Figure 3: Plan Development Process



Figure 4: Outreach Summary



### Phase 3: Recommendations

Community members provided feedback to the project team that the proposed plan for the North College area aligns with their vision for the area and addresses their transportation needs. Community members were supportive of increasing density in the North College area provided that affordability goals are identified and met. Business owners, in particular, are concerned about the impacts of future construction.

The project team prepared conceptual designs for the preferred recommendations on North College Avenue, land use recommendations, cost estimates, and an implementation strategy. The implementation plan includes short-term, mid-term, and long-term recommendations that will achieve significant progress in the short-term while avoiding major construction until the mid-term.

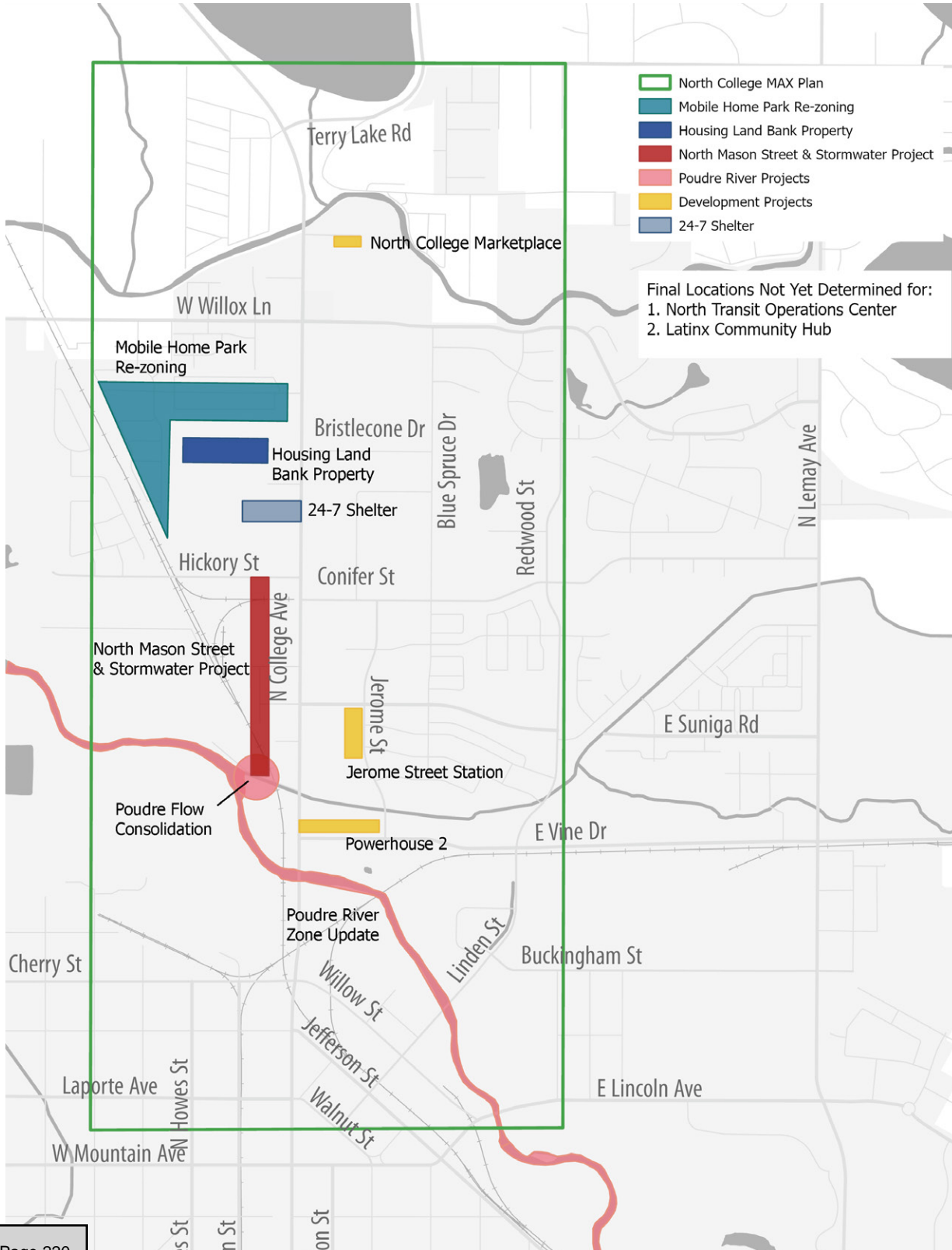
The plan was developed across three separate phases of community engagement and technical analyses. The team implemented an equity-forward community engagement process given the proportion of under-served populations in the North College area. Specifically, community members, community-based organizations, and representatives of the area’s social service providers all participated in the community engagement process. Given the high proportion of Hispanic residents, the team conducted outreach in all phases in both English and Spanish, including door-to-door outreach in the area’s mobile home parks. Lastly, recognizing the value of peoples’ time, compensation was provided to participants of workshops in the form of \$50 grocery gift cards. **Figure 4** summarizes the number of people engaged through different mediums through the community engagement process.



To see more details about each phase of outreach and the results of those efforts see **Appendix A** of this plan. To see more about the technical analysis, see **Appendix B** which includes the Existing Conditions Report and **Appendix C** which includes the Alternatives Analysis Report.

# The North College MAX BRT Plan was developed to be consistent with other projects in the area, as shown in Figure 5.

Figure 5: Active Projects in the North College Area







do State University



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# Transportation Plan Recommendations

# Transportation Plan Recommendations

This design also aims to improve the comfort and safety of people using active modes and people taking transit on the corridor.

## ROADWAY DESIGN OF NORTH COLLEGE

The long-term design for North College Avenue can be seen in **Figure 6** and **Figure 7**. Plan view cut sheets of the entire corridor can be seen in **Appendix D**. The roadway design includes Business Access Transit (BAT) lanes and sidewalks widened into shared-use paths for people walking and biking.

### BUSINESS ACCESS TRANSIT LANES

Business Access Transit (BAT) lanes are a key element of the preferred cross-section. BAT lanes are lanes in which buses travel and vehicles can use only for making right turns at intersections or turning into existing driveways midblock. The recommended BAT lanes can be accommodated in the existing curb-to-curb width of the street if the existing median width is reduced, typically one to five feet of median narrowing is necessary.

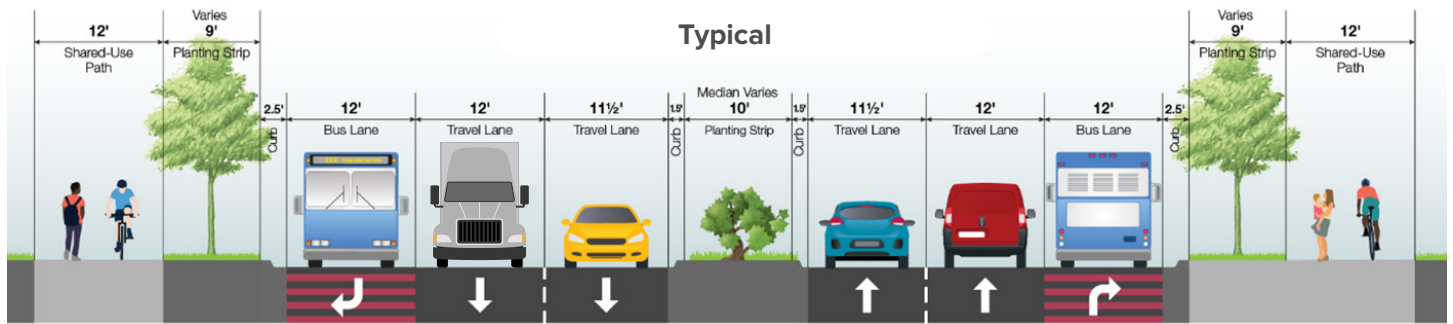
### SHARED-USE PATHS

The construction of BAT lanes does not allow enough width for on-street bicycle lanes. However, community input indicated that higher comfort bicycle infrastructure (like an off-street path) is preferred on North College Avenue over on-street bike lanes due to the volume and speed of vehicles. Instead of bike lanes, a shared-use path (10- to 12-foot wide,

which requires acquiring up to two feet of right-of-way on each side) is recommended along the length of the corridor to provide a high-comfort facility for people using active modes. In many areas the shared-use path cannot be accommodated in existing right-of-way. Therefore it is recommended that in areas without sufficient right-of-way, the existing sidewalk be widened behind the back of walk to allow for both a shared-use path and the existing width of landscaped buffer. This also will minimize disturbance to established street trees that are already on the corridor. Implementation of this cross section will require acquisition or easement for additional right-of-way at certain locations on the corridor (see **Appendix D**).

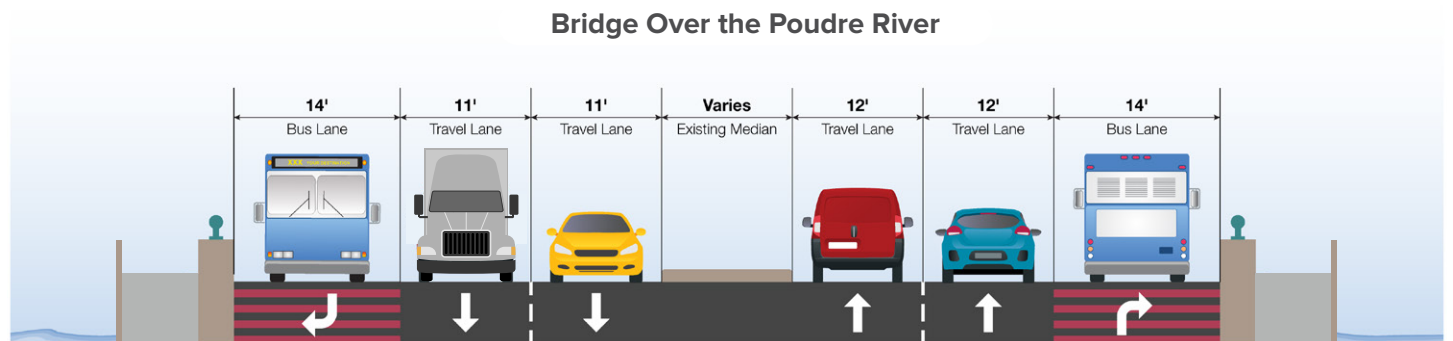
Due to the cost and disruption of construction required to build a shared use path along the length of the corridor, it is recommended only a priority section be constructed in the near-term where parallel bikeways are not feasible. Elsewhere, the remainder of the path will be implemented as parcels redevelop along North College Avenue. The priority area to be constructed in the near-term is on the west side of North College Avenue between Hibdon Court and the pedestrian and bicycle bridge over the canal to the north (**Figure 10**).

Figure 6: Typical North College Avenue BAT Lane Cross-section



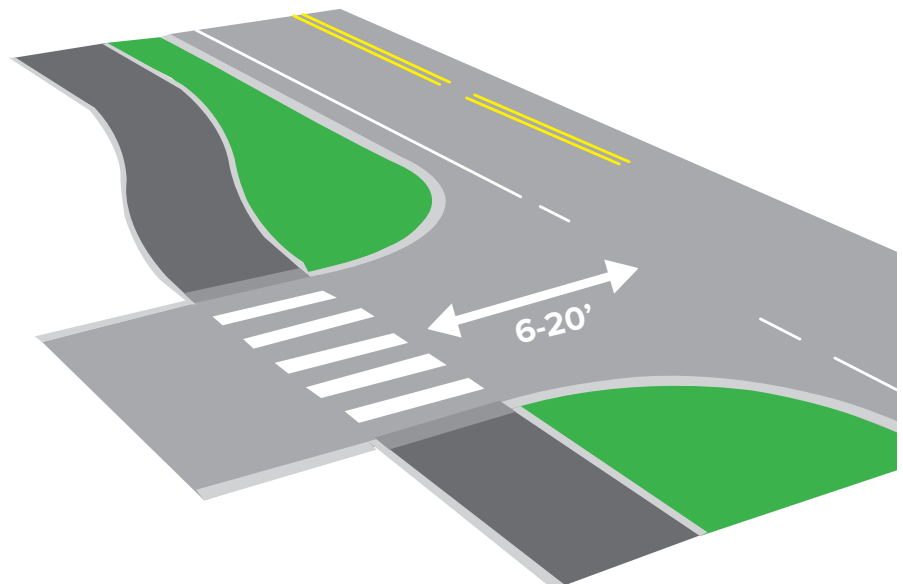
\*At signalized intersections, turn lanes will replace the median.

Figure 7: North College Avenue Cross-section at Poudre River Bridge



Throughout the project, concerns were heard regarding the safety of people biking and walking on the shared use paths where they intersect minor streets and driveways. **Figure 8** shows treatments implemented in other cities to minimize crash risk at similar locations. These treatments include bending out the shared use path at intersections to create yielding space for drivers turning off of the major street and stacking space for drivers waiting to turn onto the major street. High-visibility markings emphasize the path crossing to people driving.

Figure 8: Typical Shared-use Path Crossing with Setback and High-visibility Markings



## MEDIANS

Creating the BAT lanes will require narrowing the existing landscaped medians, typically by one to five feet. Additionally, the plan recommends adding medians on North College where they do not currently exist south of Conifer Street and as shown in **Figure 9**. The median narrowing and new median would have some construction impacts to the corridor.

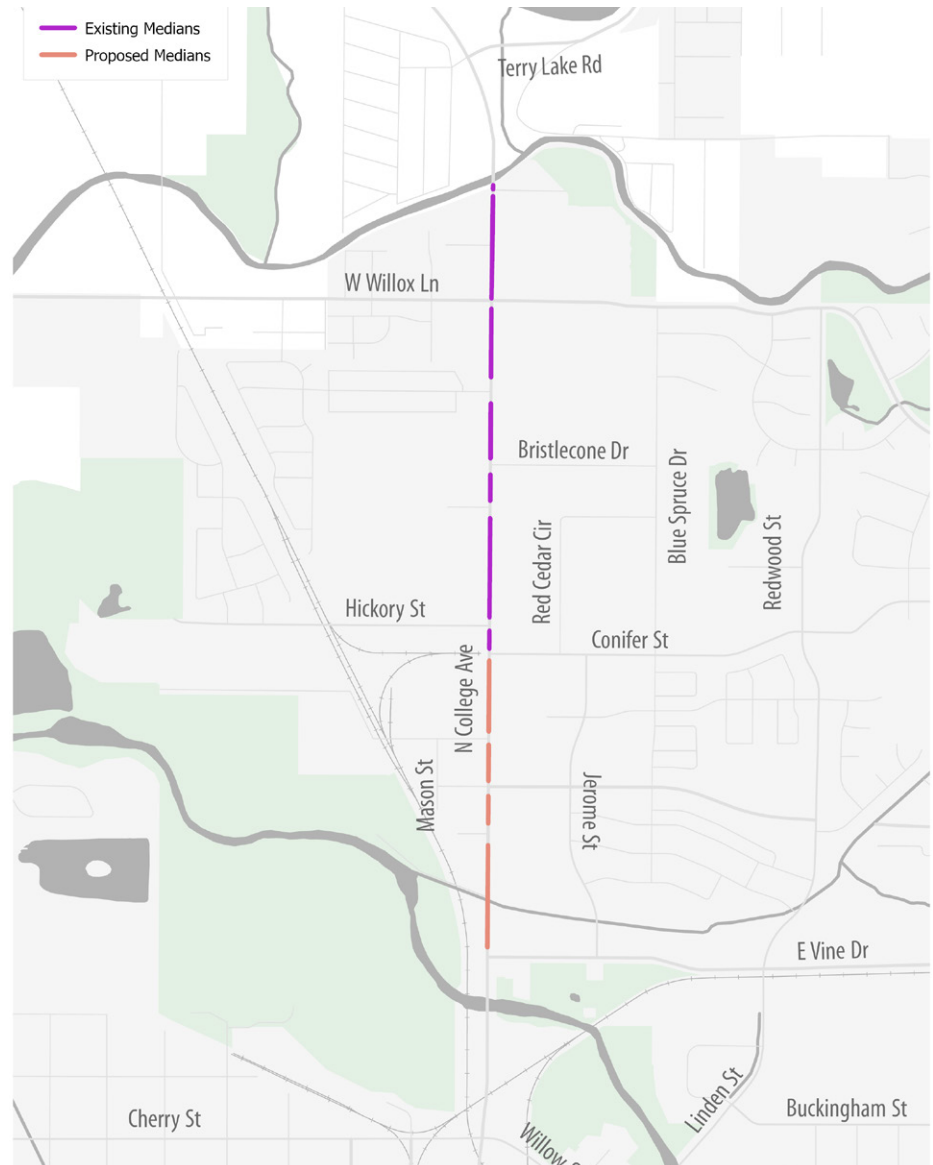
## FUTURE BUS TURNAROUND

This plan also recommends constructing a new turnaround for buses outside of the Poudre Valley Mobile Home Park, somewhere north of Terry Lake Road along either North College Avenue or Terry Lake Road. Through this plan, the project team explored whether any publicly owned parcels were available for a turnaround and found none. Instead, the city will have to work with a property owner or property owners to acquire land for a turnaround. The project team explored different dimensions for this turnaround and found that approximately one acre of land is adequate, with a minimum depth of 150 feet and a minimum length of 250 feet.

## COST ESTIMATES

Conceptual cost estimates were developed for the full implementation of the cross-sections shown in **Figure 6** and **Figure 7** along the length of North College Avenue. The total for all improvements is estimated to cost **\$21.8 million in 2022 dollars**, excluding right-of-way costs and the future bus turnaround. Rebuilding the entire corridor

**Figure 9: Existing and Future Median Locations**



at once would not only be a considerable financial investment but would also create additional construction impacts. For this reason, the phasing of elements is recommended and phasing options are described in more detail in Phasing & Funding Sources, later in this section.

**Appendix E** provides the more detailed breakdown of the cost estimate.

# TRANSIT RECOMMENDATIONS

Below is a summary of recommendations for transit service changes across the North College area:

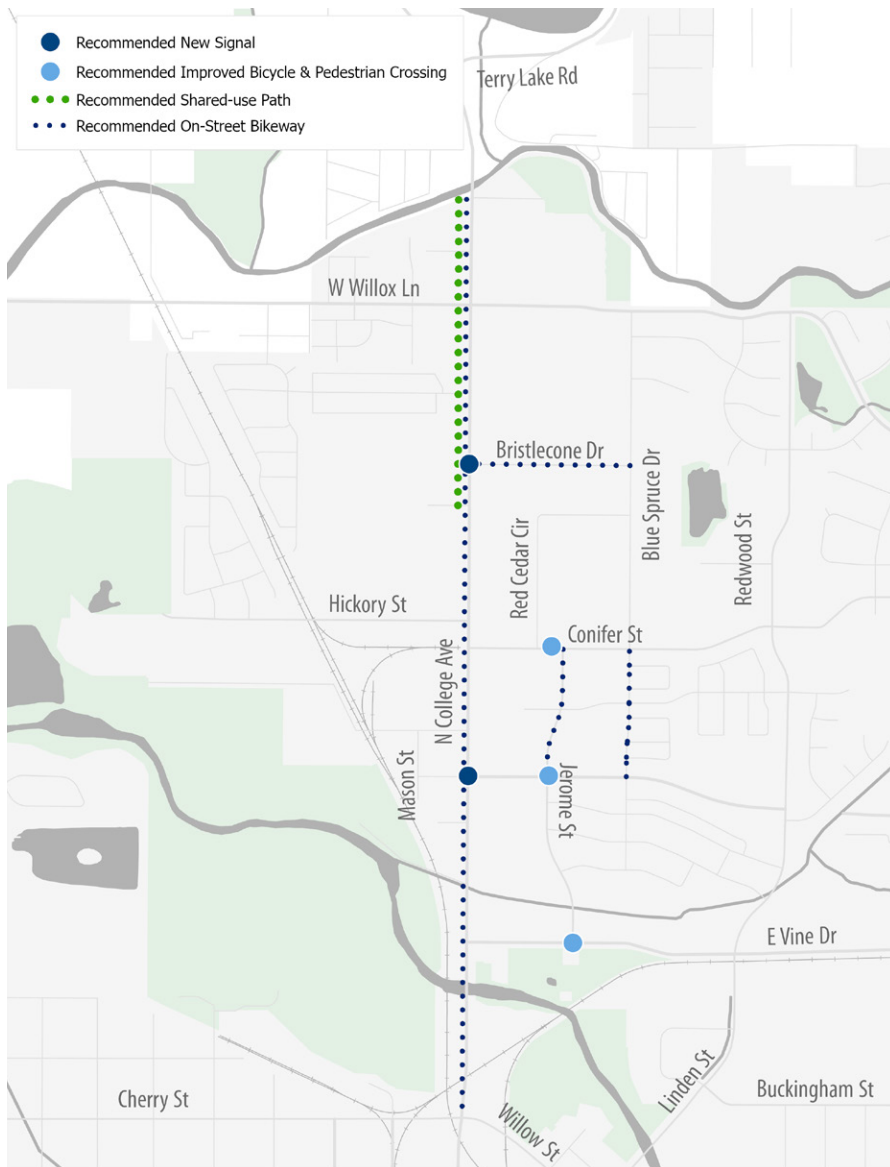
- New MAX BRT route on North College Avenue; long-term interlining of service with MAX on Mason Street
- Realign route 8 to run from the Downtown Transit Center to Poudre Valley Mobile Home Park, operating on Blue Spruce Drive, Redwood Street, and Linden Street
- Elimination of route 81 (the North College MAX will replace this service)
- New on-demand transit service like micro-transit service operating in the neighborhoods near North College Avenue, connecting to businesses on Lemay Avenue and bringing people into the high-frequency transit network

These recommendations are shown on a map in **Figure 11**. The following sections provide further detail about and the reasoning for each recommendation.

## MAX ON NORTH COLLEGE AVENUE

The first phase MAX route alignment for North College Avenue is from the Downtown Transit Center to Willox Street on North College Avenue and back, with the Willox Street roundabout as the northern turnaround point (see **Figure 11**). This alternative was chosen because it could be implemented immediately without needing to build a new turnaround area. This alignment creates a straightforward and intuitive MAX route that goes both north and south on North College Avenue and does not make any additional loops, helping with route efficiency as well as being easier to understand for riders.

**Figure 10: Near-term Pedestrian & Bicycle Recommendations, Including High-priority Shared-use Path Segment**



The drawbacks of this alignment is that MAX level service is not provided directly to the Poudre Valley Mobile Home Park or the social services on Blue Spruce Drive and Redwood Street. However, Route 8 will still provide local service to these locations and the efficiency of a local route on Blue Spruce Drive and Redwood Street will be improved because it will not need to make a loop on North College Avenue. Additionally, MAX service will be provided within a half mile of the main entrance to the mobile home park at Terry Lake Road and within a quarter mile of the south end which has an unofficial pedestrian access point that residents use to enter and exit the neighborhood. Further discussion of the final route alignment for the local route 8 is covered in an upcoming section of this report.

### Potential Future Phase of Route Alignment

It is recommended that the long-term vision for MAX on North College Avenue include creating a new turnaround point near the North College Avenue/Terry Lake Road (CO 1) intersection (see Figure 11). There will be a considerable cost to purchase the property for and construction of this turnaround, which makes it a less desirable alternative in the short-term. However as a long-term goal, this turnaround would be able to provide MAX service closer to the Poudre Valley Mobile Home Park and other residences in the area north of Willox Street. This turnaround would also be available for use by local buses to eliminate buses turning around inside of the mobile home park as they currently do today.

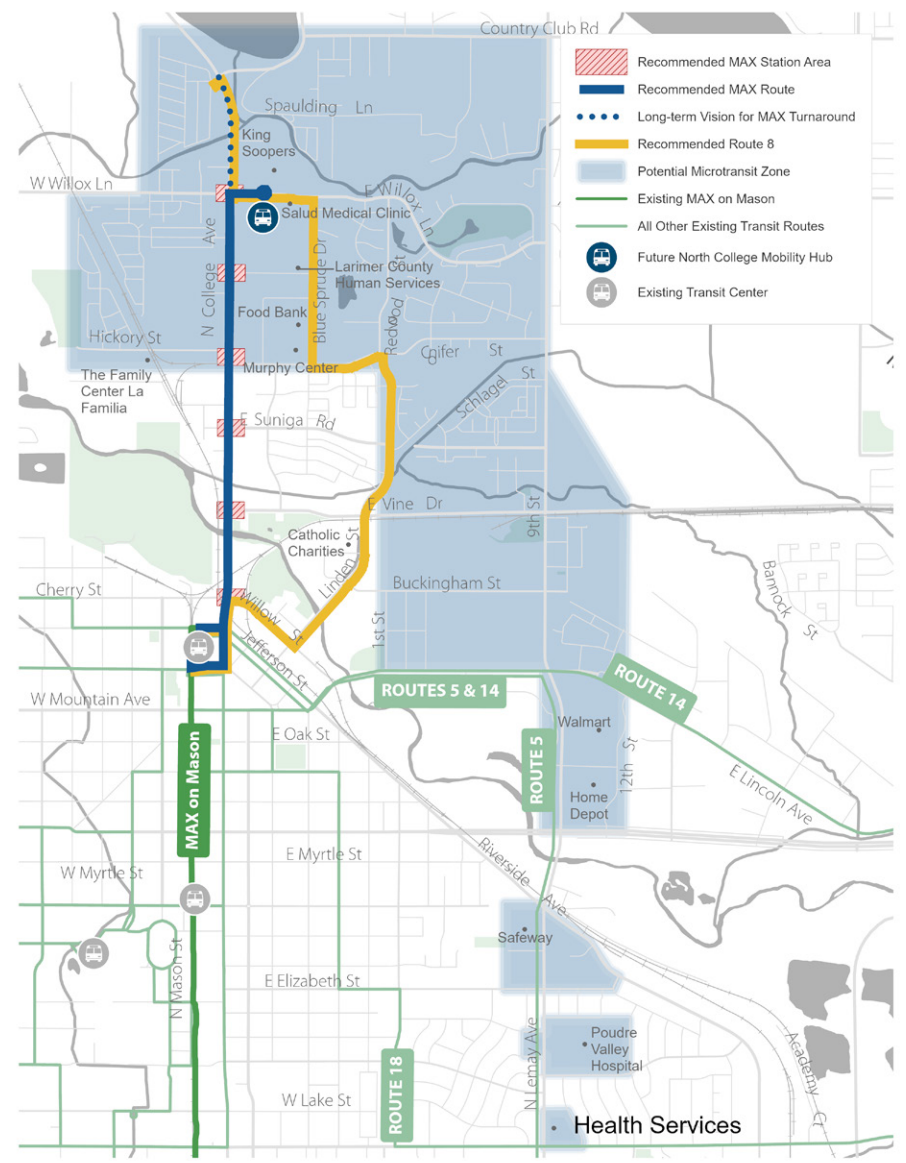
### Service Characteristics

It is recommended that the MAX route on North College Avenue operate at a 15-minute frequency. A round trip of the route is estimated to take about 12-minutes. Therefore, this service could be operated with one bus every 15 minutes with roughly three minutes of recovery time between trips. The following sections provide additional information on how the possibility of interlining MAX on North College Avenue with MAX on Mason Street and could affect frequencies.

### Future Interlining with MAX on Mason Street

Based on extensive community desire for a one-seat ride from North College Avenue to the South Transit Center, technical analysis of this plan considered the feasibility, benefits, and drawbacks of interlining the MAX on North College Avenue with the existing MAX on Mason Street route. Interlining the two routes would result in operating the service as one continuous route where the Downtown Transit Center would serve as a stop rather than a transfer. In the near- and mid-term it is recommended that these two MAX routes operate separately (possibly with different service names) because of a mismatch of the planned frequencies of each route and reliability challenges created by railroad

Figure 11: Map of Final Transit Recommendations



### Mismatch of Frequencies

Before the COVID-19 pandemic, MAX on Mason Street ran at 10-minute frequencies with six buses required to operate that service. It is expected that MAX on Mason Street will return to this frequency once resources are available. The MAX route on North College Avenue is proposed to have 15-minute frequencies which allows the route to be operated using only one bus. Existing demand is not yet at a level where 10-minute frequency is necessary. The two MAX routes operating separately would require a total of seven buses. Riders would transfer from the North College Avenue route to the Mason Street route at the Downtown Transit Center. Given the planned frequencies of 15- and 10-minutes, riders would not experience much waiting to transfer.

If interlining is desirable in the future, the challenge of misaligned frequencies (10-minutes vs. 15-minutes) can be addressed two different ways:

1. Run a bus at 10-minute frequencies the length of the two routes, from the turnaround on Willox Lane to the South Transit Center. This requires eight buses to operate (one more than if the routes operate separately). MAX on Mason Street currently has a simple 60-minute run time with built in recovery time. Extending up to North College Avenue would create a 75-minute cycle time for the route that would require two additional buses than MAX on Mason Street did before the pandemic.

The benefits of interlining are that it is a simple and intuitive schedule for riders and provides a single seat ride from the North College area all the way to the South Transit Center. This strategy also provides more frequent service to North College Avenue than if the routes operated separately. The drawbacks of this option are that it requires an additional bus to operate compared to the non-interlined option, which would be an extra cost for the bus, operator hours, and other operating costs. It is possible the additional resource investments to interline the two routes may not result in proportional increases in ridership based on expected demand in the North College area.

2. Run only every other MAX on Mason Street bus up North College Avenue so that MAX on Mason Street has 10-minute frequency but MAX on North College Avenue would have 20-minute frequency. This option also requires 8 buses, because of the needed cycle time to combine both routes into one. The only benefit this option achieves is creating the single seat ride from Willox Lane to the South Transit Center. The drawbacks include the alternating run schedule (which is often confusing and frustrating for riders), additional resources needed for the eighth bus, and lower frequency service for the North College area. This strategy would require similar resources as the first without the added benefit of high-frequency service on North College Avenue.

Based on 2019 ridership data, MAX on Mason Street averages 285 boardings per station per day or 800 passengers per mile. Interlining would be most appropriate when transit ridership on North College Avenue comes within a margin of these levels of productivity (approximately 1,500 boardings per day).

#### *Conflicts from Additional Rail Crossings*

The North College Avenue MAX route will need to cross two freight rail lines in order to connect the Downtown Transit Center with the north end of North College Avenue. MAX on Mason Street already crosses the rail twice: once when turning around north of the Downtown Transit Center and a second time in the southbound direction at Laurel Street. The rail crossings will impact the route's reliability at certain times as

the bus must wait for the trains to pass through. This is likely to cause the bus to run behind schedule. Rail crossings will be a challenge for the North College MAX route regardless but interlining with MAX on Mason Street will bring this challenge to the Mason Street service where it is not currently an issue. Rather than just the North College area occasionally experiencing these delays, the railroad crossings have the potential to impact the reliability of the entire interlined route.

For these two reasons it is recommended that the two services begin operating as separate routes. The feasibility and benefits of interlining the two routes may be more appropriate to consider when ridership of a North College MAX route is better understood after the service has been operating for a couple of years.

## CO2 EMISSION REDUCTION BENEFITS

MAX on North College Avenue is envisioned to eventually deliver daily ridership over 1,000 boardings per day. Assuming typical point-to-point travel distances of three to five miles, and if all of these trips were to be made by car, this level of ridership represents 3,000 to 5,000 vehicle miles traveled (VMT) per day, or 2,400 to 4,000 pounds of reduced CO2 emissions per day. While this likely over-estimates the CO2 emissions reduction potential of MAX on North College Avenue as not all ridership would be converted from driving trips, it does illustrate the CO2 emissions-reducing potential of the service.

## STOPS & STATIONS

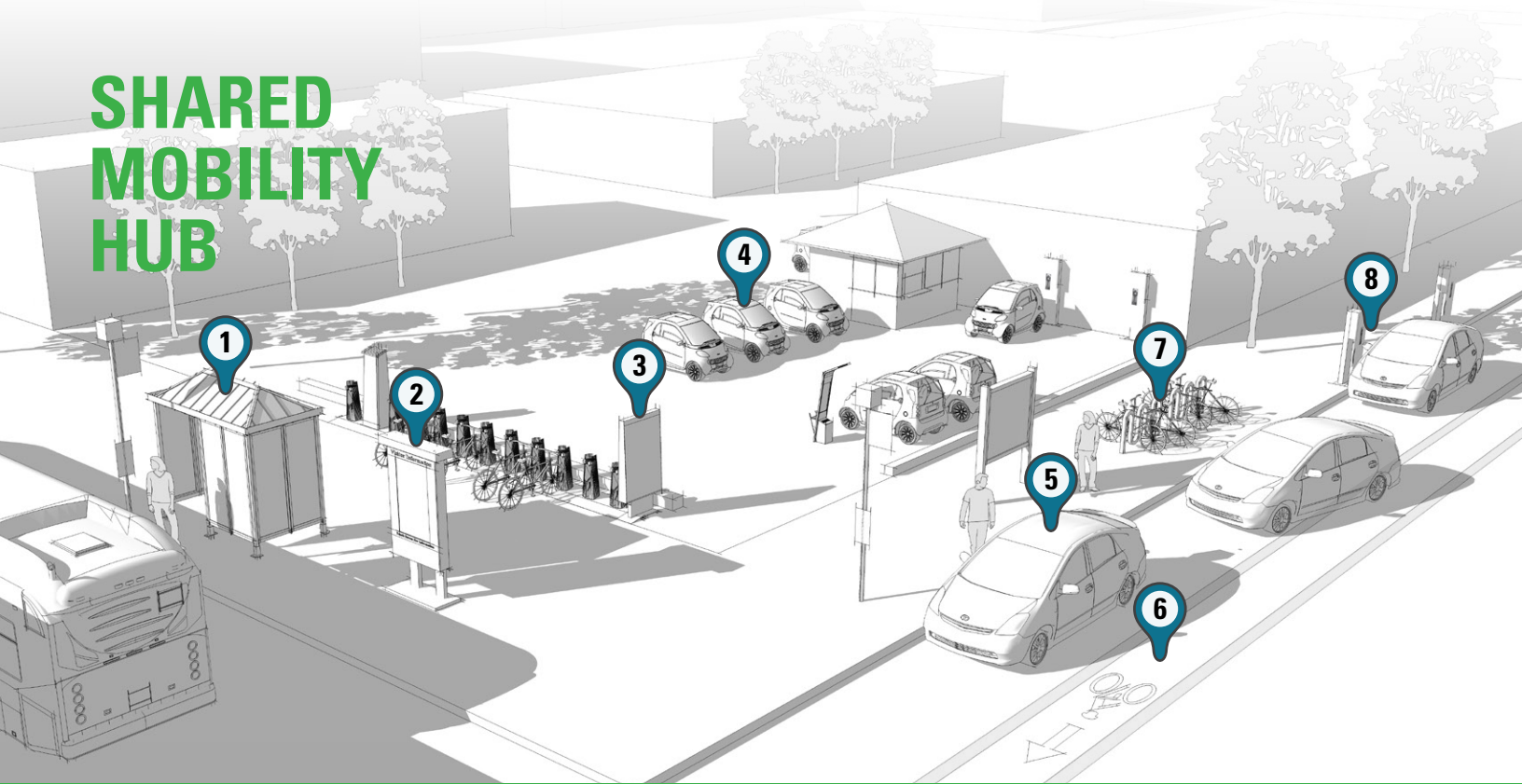
### Locations

The final plan for MAX on North College Avenue includes consolidating and aligning the existing bus stops to create the MAX stations (see **Figure 11**). New station locations were chosen for their proximity to key destinations as well as their alignment with existing or proposed traffic signals. All stations were aligned into matching pairs, one northbound station and one southbound station on the other side of the road. These station pairs make the service easier to use for riders, allowing someone to pick-up the bus for their return trip in the same location they were dropped off. This mitigates confusion about where to go to take the bus back, especially for newer riders.

Station pairs were located around traffic signals to provide safe, controlled pedestrian crossings linking the northbound and southbound stations together. Crossing at signals to access bus stops and destinations on the other side of the road improves pedestrian comfort as well as minimizing out of direction travel for people accessing the bus stops.



Figure 12: Shared Mobility Hub



**1** Bus shelter

**5** TNC/microtransit drop-off/pick-up

**2** Information and fare payment

**6** Intersecting bike lane or bike paths

**3** Scooter share & bike share (Zagster)

**7** Bike parking

**4** Car share

**8** Car charging station

## Amenities at MAX Stations

It is recommended that each MAX BRT station feature multimodal options, with the most northern station near King Soopers being the a mobility hub with the most amenities.

All MAX BRT stations should have the following amenities, where space allows:

- Intuitive information on transportation options:
  - » Live informational signage on transit arrival times
  - » Maps of key destinations, transit routes, and bicycle facilities
- High comfort station amenities including:
  - » Shelters
  - » Benches
  - » Trash cans
  - » Pedestrian scale lighting
  - » Kiosks for ticket purchases (if applicable)
- Features of universal design for accessibility by all users
- Public art
- Security features such as emergency telephones
- Bicycle parking (covered where possible)
- Micro-mobility parking areas

The northern most station near the King Soopers will serve as a mobility hub. The Transit Master Plan envisioned a mobility hub at this location, which can be incorporated into redevelopment of the former Albertsons site. As a mobility hub, it can include the following additional amenities illustrated in **Figure 12**:

- Secure bicycle parking
- Park-n-ride
- Restrooms
- Electric vehicle (EV) charging
- Car share
- Taxi/ride hailing loading zones
- Micro-mobility charging hubs

These additional amenities would require more space than a typical MAX station. Partnerships can be pursued with nearby landowners and businesses to create shared parking agreements or other agreements allowing station amenities to be located on parcels near the station. The vacant Albertsons lot could provide a great opportunity to accommodate these mobility hub elements on part of that property.

## NEW ROUTE 8

The recommended alignment for local bus service is to eliminate the current route 81 and realign route 8 to create greater efficiency and eliminate redundancy with MAX on North College Avenue. The new route 8 will run from the Downtown Transit Center to Willow Street, then head north on Linden Street to Redwood Street to Blue Spruce Drive. The route will then turn west on Willox Lane and turnaround in the Poudre

Valley Mobile Home Park as it does today and then reverse the directions above back to downtown (see **Figure 11**). When the future turnaround south of Terry Lake is constructed, route 8 will also use this turnaround in order to remove turning buses from the Poudre Valley Mobile Home Park.

The new alignment of route 8 will make it more intuitive and efficient for riders, particularly those using the service to get to and from the services on Blue Spruce drive, since the route would run the same path northbound and southbound. The alignment also retains the connection between the service providers east of North College Avenue with the Downtown Transit Center.

Alignments that brought route 8 to destinations on Lemay Avenue were considered, however after analysis those options were not recommended because of route inefficiency, loss of the connection from services on Blue Spruce Drive to Downtown, and redundancy with route 5. Instead, this need for connections to destinations on Lemay Avenue, like shopping and medical services, was addressed with a recommendation for new on-demand micro-transit service that is detailed in the following section.

## Service Characteristics

The new alignment of route 8 is recommended to run at 20-minute frequencies. It is estimated that a round trip of this route would take about 35-minutes. This means it would require two buses to operate route 8 at 20-minute frequency with a 5-minute recovery period between trips. Route 8 could also operate at 30-minute frequencies but this would still require two buses. For this reason it is more beneficial and efficient to operate the route at 20-minute frequencies.

## Amenities at Local Bus Stops

It is recommended that all local bus stops on the realigned route 8 be upgraded to include the following amenities where space is available:

- Shelters
- Maps of the transit system
- Benches
- Trash cans
- Pedestrian scale lighting
- Bicycle/micro-mobility parking

Providing these amenities at stops can make riding the bus feel safer and more comfortable for a wider demographic of riders. Bus shelters make it more feasible and comfortable for people to ride transit in inclement weather. Benches provide a chance to rest while waiting for the bus which can be particularly critical for older adults and people with mobility issues. Trash cans and pedestrian scale lighting provide a more comfortable station environment, particularly at night. Bicycle and micro-

**Figure 13** Image of Microtransit Service in Denver called the “Montbello Connector”



mobility parking provide an option for people to easily access the stop by bicycle or scooter to make their trip more efficient or access a bus stop that is too far to comfortably walk to.

## INNOVATION ZONE: NEW MICRO-TRANSIT SERVICE

This plan recommends exploring a microtransit service from the North College area to destinations on Lemay Avenue. See **Figure 11** for the approximate boundaries of the recommended zones within the study area. Travelers could request trips that started and ended at any two points within the three zones on the map. The three zones encompass the mobile home communities near North College Avenue, the Tres Colonias neighborhoods, Walmart, Home Depot, Safeway, Poudre Valley Hospital, and other medical services on Lemay Avenue. These microtransit zones were drawn based on where community members reported they wanted new transit connections to the North College area.

The microtransit service will help fill the gap in transit service to the Tres Colonias neighborhoods and provide a direct link from the North College area to Home Depot, Walmart, Safeway, and medical services on Lemay Avenue. These new connections were identified as high priority by community members. Additionally, the service would provide a first/last-mile connection between MAX service on North College Avenue and the surrounding neighborhoods. The data collected about trips in the microtransit system can inform the creation of a service in the future.

### What is Microtransit?

Microtransit is a form of demand response transit that uses a smartphone app (with a call-in option) to match trip requests in real time. Microtransit typically uses small vans or shuttle buses and can be operated by a contracted provider or by an agency, like Transfort, with purchase of a ride-matching app and associated technology.

Microtransit allows for transit service connecting low to medium density areas with popular destinations where a fixed-route bus route may not be appropriate due to low demand for fixed-route transit. Microtransit technology has the ability to group trips to and from popular destinations at similar times. This service can charge a fare or be operated fare-free.

### Equity Considerations for Microtransit

A new microtransit service should still be accessible to people who do not have reliable access to cellphone data, are not proficient in using a smartphone, or are uncomfortable creating a profile on an app. To address this concern, the new service should include a call-in option as an alternative to using the app. Providing a call-in option for riders is an essential component to making this tech-enabled service more accessible to everyone.

Additionally, any materials developed for this service should be in both English and Spanish, at a minimum, in order to make the service easy and accessible for riders who primarily speak Spanish. Finally, it should be noted that at least one vehicle in the microtransit fleet must be ADA accessible.

### Service Characteristics

Within the study area, the proposed microtransit zones cover a total of 2.4 square miles. Operating this microtransit system would require one to two vehicles (one of which must be ADA accessible) in order to provide service within 10-minutes of a request. The exact number of vehicles needed will depend on days and hours of service, projected demand, and the final service area as it may be desirable to serve other nearby areas not served by fixed-route transit.

## ACTIVE MODE RECOMMENDATIONS

In addition to the new shared use path along North College Avenue, several other recommendations were developed for improving active mode use in the North College area, building upon the recommendations in the 2022 update to the Active Modes Plan (see **Figure 14**):

- Construction of two new traffic signals on North College Avenue

- Improvement of five key roadway crossings east of North College Avenue
- Creation of comfortable pedestrian and bicycle networks to the east and west of North College Avenue
- Interim protected bike lanes on North College Avenue

The following sections provide locations and more detail for these pedestrian and bicycle recommendations.

### Roadway Crossings

Additional signals with crosswalks at Bristlecone Street and Suniga Road are recommended. Signalizing these intersections would provide additional controlled crossings for people using active modes and make it more convenient for transit riders to get between the northbound and southbound stations at these locations (see **Figure 14**). The signal at North College Avenue/Suniga Road is already planned for construction and both the signals are planned for in CDOT's *US-287 (North College Avenue) Access Control Plan*. The signal at Bristlecone Drive would also serve people accessing the future 24/7 shelter at Hibdon Court.

Figure 14: Pedestrian & Bicycle Infrastructure Improvements





In addition to the signals on North College Avenue, it is recommended that the following intersections be evaluated for improved bicycle and pedestrian crossings (see **Figure 14**):

- Conifer Street / Red Cedar Court / Jerome Street
- Suniga Road / Jerome Street
- Vine Drive / Jerome Street (in design as of fall 2022)
- Hickory Street / Mason Street  
(when Mason Street extension is constructed)
- Bristlecone Street / Red Cedar Court  
(when Red Cedar Court extension is constructed)

These locations are all on the recommended parallel networks for improved bicycle and pedestrian infrastructure (see **Figure 14**) and several were identified by community members as difficult areas to cross the street.

### Active Mode Networks Adjacent to North College Avenue

It is recommended that investments be made on streets adjacent to North College Avenue to create comfortable infrastructure for people using active modes (see **Figure 14**). Investments in the streets around North College Avenue will give people the option to walk and bike on lower speed streets with fewer cars, providing an alternative to walking or biking on North College Avenue.

The recommended infrastructure upgrades to these streets include:

- New bikeways on:
  - » Bristlecone Street between North College Avenue and Blue Spruce Drive – this segment has a curb-to-curb width of approximately 40 feet, which is adequate for buffered or protected bike lanes if on-street parking is prohibited. If parking cannot be removed, a Neighborhood Bikeway may be feasible provided that traffic calming can achieve the desired vehicular volume and speed levels of a Neighborhood Bikeway.
  - » Blue Spruce Drive from Conifer Street to Suniga Road – this segment has a curb-to-curb width of approximately 30 feet. Given the residential nature of this segment, a Neighborhood Bikeway is recommended. Additional traffic calming treatments may be necessary to achieve the desired vehicular volume and speed levels of a Neighborhood Bikeway.
  - » The proposed Mason Street extension – the Mason Street extension is proposed as a 2-lane collector. The Larimer County Urban Area Street Standards for a 2-lane collector feature two travel lanes and buffered bike lanes with 5-foot bike lanes and 3-foot buffers.
  - » The proposed Red Cedar Circle extension – the Red Cedar Circle extension is proposed as a 2-lane collector.

The Larimer County Urban Area Street Standards for a 2-lane collector feature two travel lanes and buffered bike lanes with 5-foot bike lanes and 3-foot buffers.

- Wide detached sidewalks with limited or no curb cuts across the sidewalk on the proposed Mason Street extension.
- Wayfinding on North College Avenue and the parallel pedestrian and bicycle corridors directing people how best to walk and bike between key destinations and use the parallel streets to bike the length of North College Avenue comfortably.

Investing in these parallel streets for people using active modes will make it more convenient and comfortable to move through the North College area, as well as improve the first and last mile connections to MAX stations and route 8 stops.

### INTERIM PROTECTED BIKE LANES ON NORTH COLLEGE AVENUE

As an interim solution to address user comfort for people biking on North College Avenue, this plan recommends that the wide shoulder on North College Avenue be converted into one-way protected bike lanes. The shoulders are typically 8 feet wide from curb to edge line which is adequate space for a 5- to 6-foot bike lane and a 2- to 3-foot buffer with vertical delineators. **Figure 15** shows a cross-section of the interim protected bike lanes. Eventually, once BAT lanes are added by narrowing the median, the continuous shared-use path on North College Avenue will replace the protected bike lanes.

### Changes to the Master Street Plan

The map of adjacent pedestrian and bicycle networks (**Figure 14**) assumes the future construction of two roadway extensions: Mason Street and Red Cedar Court. The alignment shown in **Figure 16** differs from that currently shown in the Master Streets Plan. These alignments are recommended for a variety of reasons including equity, feasibility, and circulation.

### Mason Street Extension

The Master Street Plan indicates a future extension of Mason Street from Suniga Road, to the north through the North College Mobile Home Park, across Willox Lane, across the Larimer & Weld Canal, and connecting back to North College Avenue through the Poudre Valley Mobile Home Park in Larimer County. The intention of the original Mason Street alignment was to provide a parallel street on the west side of North College Avenue for local access and circulation as an alternative to the highway. The original Mason Street alignment provided access to North College Avenue at signalized intersections as medians were implemented on North College Avenue to manage access to individual properties.

This plan recommends amending the Master Street Plan to show Mason Street’s north terminus at a future intersection with Bristlecone Drive which will have a traffic signal on North College Avenue. The remaining portion of a future parallel Mason Street can still provide access and utilities to land parcels that currently lack that infrastructure. It also would provide bicycle and pedestrian paths for local circulation without requiring the use of the highway. Because Mason Street will still provide access to North College Avenue at the same signalized intersections as previously proposed, the traffic impacts of this change will be minimal.

In the area of the North College Mobile Home Park, this original alignment is based on ideas for potential redevelopment of the east portion of the park with related drainage and utility improvements. Additionally, new access to a traffic signal on North College Avenue would provide improved access to shopping and other destinations to the east and north. Recently, park ownership and management have changed their approach to reinvest in the east portion of the park, at the same time that affordable housing has become an increasingly critical issue which is evident by the current effort to rezone the park to Manufactured Housing (M-H), intended to preserve affordability. For these reasons, along with the community discussions for this plan, this plan recommends amending the Master Street Plan to show Mason Street’s north terminus at

Figure 15: Interim Protected Bike Lane Cross-section

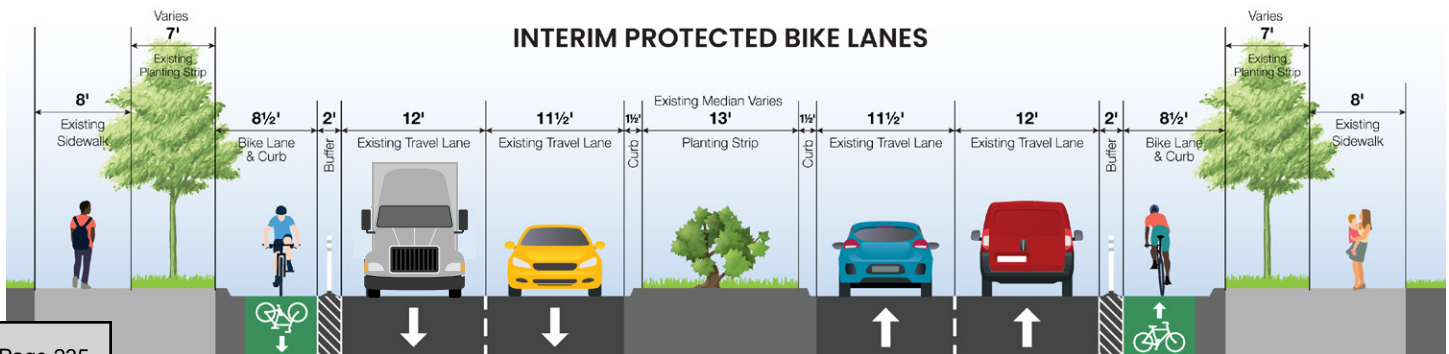
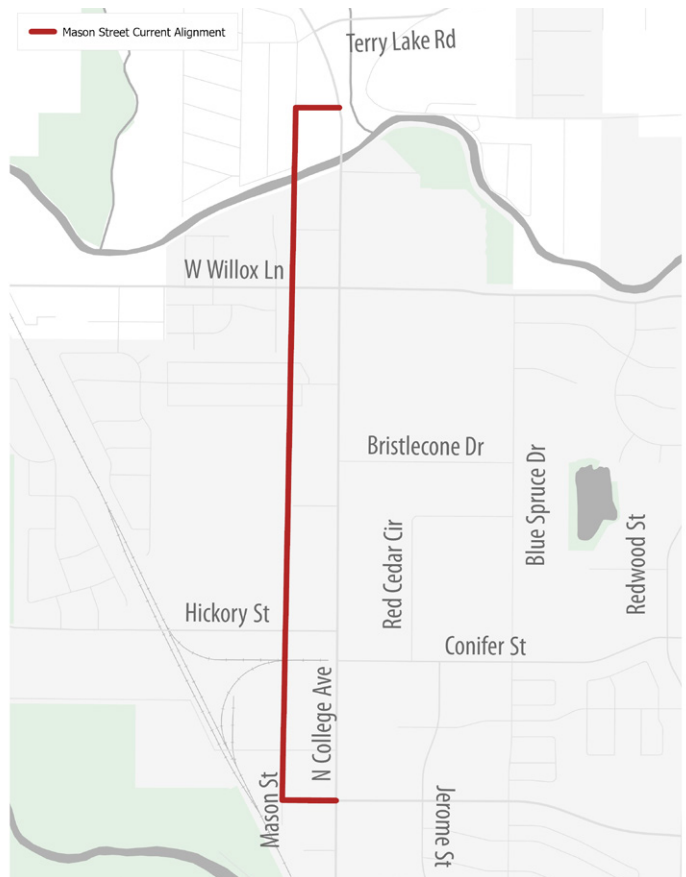


Figure 16: Original and Recommended Mason Street Alignment



a future intersection with Bristlecone Drive. This will remove the future Mason Street connection through the park.

The Master Street Plan also indicates future extension of the Mason Street alignment northward from Wilcox Lane along what is currently Wilcox Court, across the Larimer & Weld Canal with a new bridge, and then along a street through the Poudre Valley Mobile Home Park in Larimer County connecting to North College Avenue. This study recommends removing that proposed street segment because of the major difficulties and costs and minor benefits. A short segment of Mason Street was already built south of Wilcox Lane. This segment provides access to two parcels owned by the City of Fort Collins. In the future, this segment can be reconfigured as a cul-de-sac to enable turning around as well as parcel access.

While a parallel street that extends the full length of the corridor is lost with this realignment, the intent of the original alignment is still achieved. The parcels to the south of the Poudre Valley Mobile Home Park are the parcels without

existing access to North College Avenue. The proposed alignment would still provide access to those parcels. High-comfort bicycle and pedestrian infrastructure can be accommodated in the form of a shared-use path on North College Avenue north of Bristlecone Drive, rather than on a parallel street. For this reason this section of the recommended shared-use path is a near-term priority project in this plan.

Lastly, south of Conifer Street, the Mason Street extension will complement proposed medians south of Conifer Street by provided alternative access to properties currently accessed by North College Avenue.

The development of North Mason Street will likely have an alternative cross-section to the Collector identified in the Larimer County Urban Area Street Standards (LCUASS), but will still accommodate a buffered bike facility for the parallel bike network. This is to accommodate the existing businesses and property alignments, and likely low volumes of traffic.

### Red Cedar Court Extension

The current alignment in the Master Street Plan for Red Cedar Court crosses Bristlecone Street to connect to Willox Lane. The new alignment, shown in **Figure 17**, would terminate Red Cedar Court as a collector street at Bristlecone Street, using Blue Spruce Drive as a continuous north-south collector street parallel to North College Avenue. Development and redevelopment north of Bristlecone Street, including redevelopment of the former Albertson's, would allow for other north-south streets connecting to Red Cedar Court.

## PHASING & FUNDING SOURCES

The plan recommends a **phased approach** to implementation for the following reasons:

A major capital project was constructed on North College less than a decade ago. The construction of sidewalks, streetscape amenities, and medians was challenging for residents and businesses in the North College corridor. More major construction in the near term is not welcome.

The mid- and long-term recommendations are not yet needed in the corridor but associated conditions will be monitored to determine when they are needed.

The mid- and long-term recommendations are expensive and without meeting certain population and ridership requirements this project is not eligible for the FTA grants that typically pay for such improvements like the Small Starts grant used for the MAX BRT.

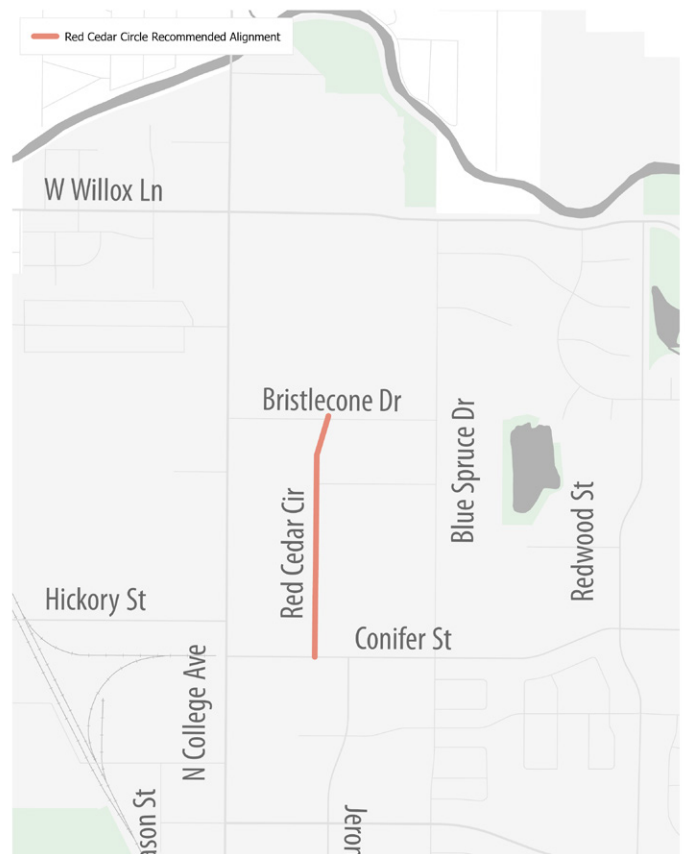
All of the transportation recommendations detailed previously are summarized and organized as near-, mid-, and long-term transportation recommendations and displayed in **Table 1**, **Table 2**, and **Table 3**, respectively. Potential funding sources and relevant partners were identified for each recommendation.

### Funding Opportunity Acronyms

Below is a list of acronyms used in the recommendations tables that correspond to federal grants or other federal funding programs:

- **FTA** - Federal Transit Administration

Figure 17: Recommended Red Cedar Court Alignment



- **MMOF** - Multimodal Transportation and Mitigation Options Fund (distributed through North Front Range Metropolitan Planning Organization)
- **CMAQ** - Congestion Mitigation and Air Quality Improvement Program (distributed through North Front Range Metropolitan Planning Organization)
- **STBG** – Surface Transportation Block Grant (distributed through North Front Range Metropolitan Planning Organization)
  - » (TA) - Transportation Alternatives (a subset of the Surface Transportation Block Grant)
- **RAISE** - Rebuilding American Infrastructure with Sustainability and Equity Discretionary Grant Program (distributed by the United States Department of Transportation)



## NEAR-TERM RECOMMENDATIONS

Table 1: Near-term Transportation Recommendations

Recommendation		Planning Level Cost Estimates	Relevant Partners	Potential Funding Sources
Fixed-route Transit Realignments:				
<ul style="list-style-type: none"> <li>Create new high-frequency bus route on North College Avenue within existing general-purpose lanes at 15-minute frequency (with turnaround at Willox Lane roundabout)</li> <li>Realign route 8 on Blue Spruce Drive, Redwood Street, and Linden Street at 30-minute frequency</li> <li>Eliminate route 81</li> </ul>		Fleet needs: \$2.3m for battery electric buses  Operating costs: neutral	Transfort	FTA 5307 Funding, MMOF, CMAQ
Micro-transit Zone		Fleet needs: \$120k  Operating costs: +\$500k per year	Transfort, Ride-matching technology provider	FTA 5307 Funding, MMOF, CMAQ
Consolidate existing local bus stops into new MAX Stations at signalized intersections (with basic amenities such as shelters, benches, trash cans, and pedestrian scale lighting)		\$450k	FC Moves, Engineering, CDOT, Property owners	FTA 5339 Funding, CMAQ, STBG, RAISE
New shared use path on the west side of North College Avenue (between the canal and Hibdon Court)		\$770k	FC Moves, Engineering, CDOT, Property owners	STBG, MMOF, CMAQ, RAISE
Adopt amendments to the Mason Street realignment identified in the Master Streets Plan		No cost. Staff time only.	City Council, FC Moves, Engineering, Traffic Operations	N/A
New Signals	Suniga Road/North College Avenue	\$500k	FC Moves, Engineering, Traffic Operations	MMOF, STBG
	Bristlecone Street/North College Avenue	\$500k	FC Moves, Engineering, Traffic Operations	MMOF, STBG
Improved bicycle and pedestrian crossings	Bristlecone Drive/Red Cedar Circle	\$80k	FC Moves, Engineering, Traffic Operations	MMOF, STBG (TA), CMAQ
	Conifer Street/Red Cedar Circle/Jerome Street	\$80k	FC Moves, Engineering, Traffic Operations	MMOF, STBG (TA), CMAQ
	Hickory Street/Mason Street	\$80k	FC Moves, Engineering, Traffic Operations	MMOF, STBG (TA), CMAQ
	Suniga Road/Jerome Street	\$80k	FC Moves, Engineering, Traffic Operations	MMOF, STBG (TA), CMAQ
	Vine Drive/Jerome Street	\$80k	FC Moves, Engineering, Traffic Operations	MMOF, STBG (TA), CMAQ
New buffered or protected bike lanes	Interim one-way protected bike lanes on North College Avenue north of the railroad crossing	\$340k	FC Moves, Engineering, Traffic Operations	Local
	Jerome Street (between Conifer Street and Suniga Road)	\$25k	FC Moves, Engineering, Traffic Operations	MMOF, STBG (TA), CMAQ
	Blue Spruce Drive (between Conifer Street and Suniga Road)	\$25k	FC Moves, Engineering, Traffic Operations	MMOF, STBG (TA), CMAQ
	Bristlecone Street (between North College Avenue and Blue Spruce Drive)	\$50k	FC Moves, Engineering, Traffic Operations	MMOF, STBG (TA), CMAQ

## MID-TERM RECOMMENDATIONS

The mid-term recommendations include large capital investments that will not be implemented until the following conditions are met:

- Ridership on North College BRT is at 1,000 boardings per day, or
- Traffic becomes congested to the point that intersections on North College Avenue are experiencing a level of service F, or

- The population (currently approximately 7,000) and employment (currently approximately 16,125) of the area doubles from current levels, or
- CDOT plans a major rehabilitation project for North College Avenue and this plan's recommended improvements could occur at the same time.

Additionally, prior to any major capital project related to this plan, an Equity Analysis is recommended to identify and mitigate possible negative outcomes.

**Table 2:** Mid-term Transportation Recommendations

Recommendation		Planning Level Cost Estimates	Necessary Partners	Potential Funding Sources
Business Access Transit (BAT) lanes on North College Avenue (between Willox Lane and Willow Street)		\$22m	FC Moves, Engineering, Traffic Operations CDOT	FTA 5339 Funding, MMOF, STBG (TA), CMAQ, RAISE
*Increase bus frequency and service hours: <ul style="list-style-type: none"> <li>• MAX on North College Avenue with 15-minute peak frequency</li> <li>• Route 8 with 15-minute peak frequency</li> </ul>		Fleet needs: +\$1m Operating costs: +\$1m per year	Transfort, Ride-matching technology provider	FTA 5307 Funding, MMOF, CMAQ
Creation of mobility hub near Willox Lane turnaround		No capital cost. Incorporate into redevelopment plans.	Transfort, FC Moves, Engineering, Property owners	FTA 5339 Funding, MMOF, STBG (TA), CMAQ
*Shared-use paths for the length of North College Avenue on both sides of the roadway		Included in cost of BAT lanes.	Public Works, CDOT, Property owners	MMOF, STBG, CMAQ
Fully built MAX stations with multimodal options		Included in cost of BAT lanes.	Transfort, FC Moves, Engineering, Traffic Operations, CDOT, Property owners	FTA 5339 Funding, MMOF, STBG, CMAQ
Bus turnaround north of Terry Lake Road		\$5m; does not include property.	Transfort, FC Moves, Engineering, Traffic Operations, CDOT, Adjacent property owners	FTA 5339 Funding, MMOF, STBG, CMAQ
*Construct medians south of Conifer Street		Included in cost of BAT lanes.	FC Moves, Engineering, Traffic Operations, CDOT, Property owners	MMOF, STBG (TA), CMAQ
*New buffered or protected bike lanes or shared use paths with planned roadway connections	Mason Street (between Bristlecone Street and Alpine Street)	No capital cost. Incorporate into new street construction.	FC Moves, Engineering, Traffic Operations	MMOF, STBG (TA), CMAQ
	Red Cedar Circle (between Willox Lane and Conifer Street)	No capital cost. Incorporate into new street construction.	FC Moves, Engineering, Traffic Operations	MMOF, STBG (TA), CMAQ

*\*Recommendations with an asterisk could be implemented before the previously listed conditions are met.*

# LONG-TERM RECOMMENDATIONS

Table 3: Long-term Transportation Recommendations

Recommendation	Planning Level Cost Estimates	Relevant Partners	Potential Funding Sources
Increase bus frequency to 10-minutes; re-evaluate feasibility and benefits of interlining MAX on North College Avenue with MAX on Mason Street	Fleet needs: +\$1.3m Operating costs: +\$500k per year	Transfort, FC Moves, Planning Development & Transportation	FTA 5307 Funding, MMOF, STBG, CMAQ

# MAINTENANCE CONSIDERATIONS

Some of the recommendations in this plan, such as shared-use paths, landscaped medians, transit station amenities, and protected bike lanes will require more time to maintain and may require the purchase of specialized equipment, incurring higher maintenance costs. For example, based on analysis completed for the Bicycle Master Plan, the Fort Collins Streets Department estimated that it costs \$17,900 per year to sweep and plow one mile of protected bike lane compared to \$3,970 per year to sweep and plow one mile of standard bike lane.

As projects from this plan go through final design, the project management team shall work closely with the Transfort, Streets Department, Forestry, and the Parks Department to identify maintenance requirements, context appropriate materials, and maintenance responsibilities. Future budget requests should be made at the time the recommended facilities are built.







05

# Urban Design & Land Use Requirements

# Urban Design & Land Use Requirements

Community members expressed that their priorities included **preserving and expanding affordability for residents and local businesses, increasing density to support high-frequency transit, and redevelopment of currently vacant properties to provide new housing, services, and infrastructure improvements in the area.**

Based on community input and travel demand projections, it was determined that this plan needed to create recommendations around land use, future development, and affordability. Community members expressed that their priorities for future development in the North College Avenue area included preserving and expanding affordability for residents and local businesses, increasing density to support high-frequency transit, and redevelopment of currently vacant properties to provide new housing, services, and infrastructure improvements in the area. The existing zoning in the area does not support these ideas as effectively as it could.

## CORRIDOR DENSITY AND BRT CORRELATION

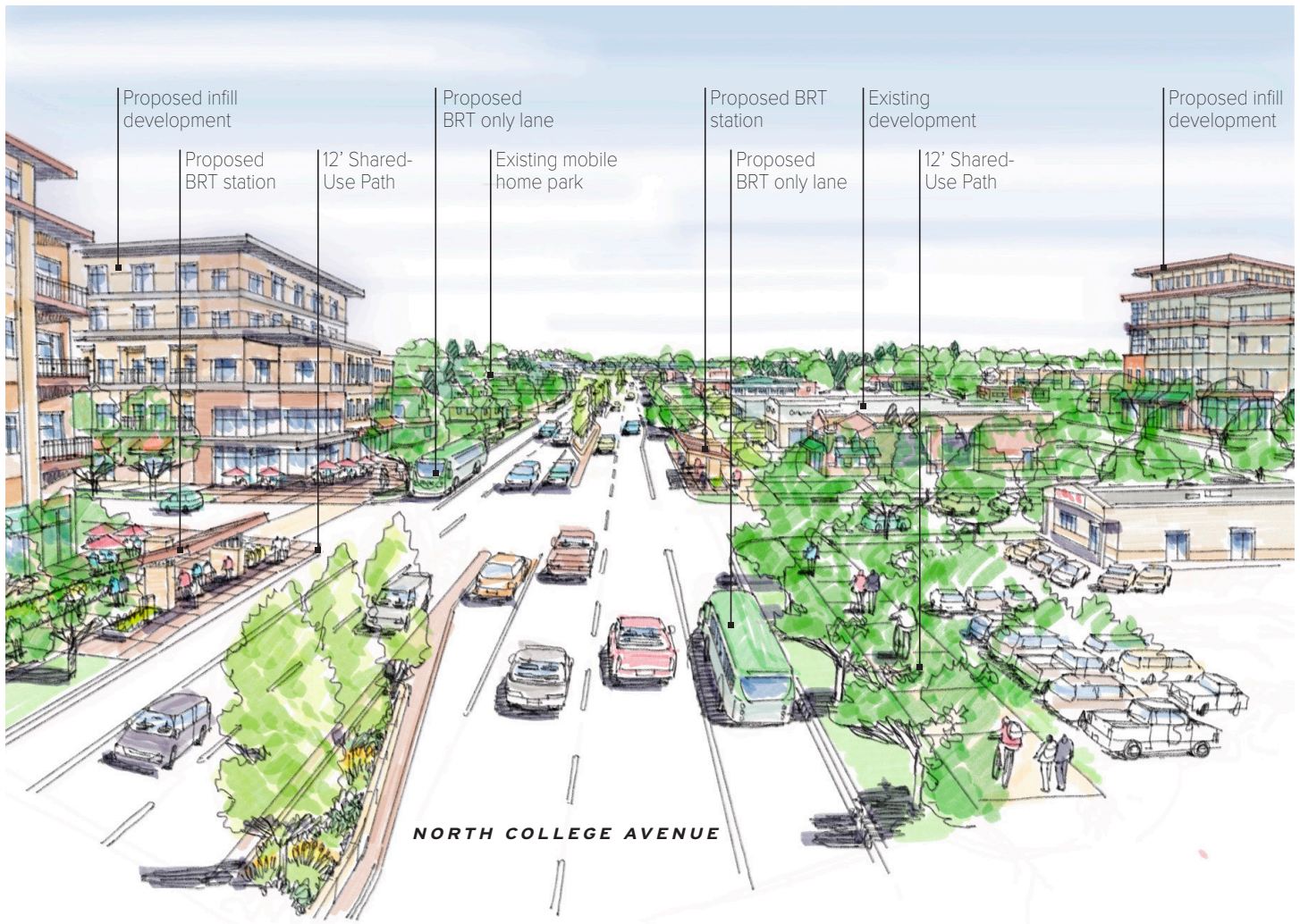
BRT corridors are typically found in more dense urban settings due to higher population and ridership demand in these areas. Low density areas lack the population for frequent ridership demand and have larger dispersal areas making accessing stations difficult. Federal grants for infrastructure improvements are awarded when there is increased ridership demand and the zoning conditions that support higher population densities. As shown in **Figure 18**, the area is currently transitioning

**Figure 18:** Depicts the Correlation Between Densities and Building Height Increases With the Type of Public Transit That Can Be Supported

Land Use				Transit	
Land Use Type	Example	Residents per Acre	Jobs per Acre	Appropriate Types of Transit	Frequency of Service
Downtowns & High Density Corridors		>45	or >25	BRT High Frequency Bus Local Bus	10 minutes or better
Urban Mixed-Use		30-45	or 15-25	BRT High Frequency Bus Local Bus	10-15 minutes
Neighborhood & Suburban Mixed-Use		15-30	or 10-15	Local Bus	15-30 minutes
Mixed Neighborhoods		10-15	or 5-10	Local Bus Micro-Transit	30 minutes On demand
Single Family Neighborhoods		<10	or <5	Rideshare Micro-Transit	On demand

The North College area's current land uses and density reflect Mixed Neighborhoods. With the recommendations of this plan, the area will transition to an Urban Mixed-Use area, compatible with BRT.

**Figure 19:** An artist's rendering of possible character of North College Avenue with Redeveloped and New Developed Properties That Adhere To Recommendations



from low density to medium and higher density.

The following recommendations have been developed to bring additional residential units and new businesses required along North College Avenue to support BRT operations and infrastructure.

To help address these community priorities the following policies are recommended for the North College Avenue area:

- Establish a North College Avenue specific Transit-Oriented Development (TOD) Overlay Zone
- Modify the existing 200-foot residential setback from North College Avenue
- Increase building height allowance
- Provide regional detention and reduce Low Impact Development (LID) requirements for projects that include

while also reducing development costs

- Establish connectivity requirements
- Establish outdoor space requirements for large urban buildings
- Reference River Downtown Redevelopment (RDR) architectural standards
- Create incentives to preserve existing commercial buildings and current rental rates where possible

The following sections provide more detail about each of the policies listed previously. The current Mason MAX BRT utilizes many of the same recommendations particularly in the area near Colorado State University and Downtown Fort Collins.

**Figure 19** shows an artist's rendering of possible character of North College Avenue with redevelopment and new development that utilizes the recommended policies while also integrating with the existing commercial and residential of the area.



# NORTH COLLEGE AVENUE SPECIFIC TOD OVERLAY ZONE

Currently the City of Fort Collins has an existing Transit-Oriented Development (TOD) Overlay Zone that runs along the Mason Street Corridor from Vine Drive to the South Transit Center. This TOD Overlay Zone includes reduced parking requirements and increased building heights that allow for additional housing units when affordable units are included. This TOD Overlay Zone is meant to encourage more dense residential developments and affordable housing that support ridership for the MAX BRT route on Mason Street.

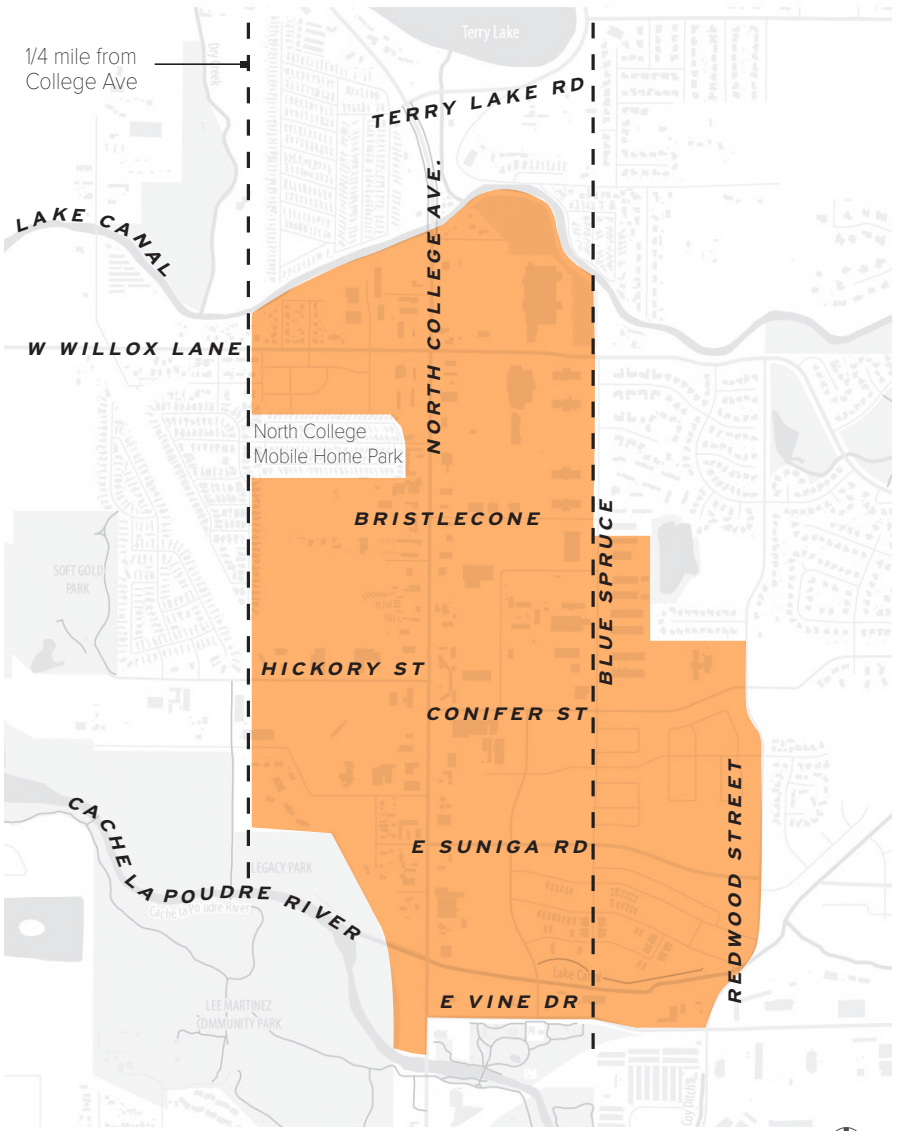
In order to facilitate denser transit-oriented development that supports public transit and provides pedestrian and bike connectivity, more open space options, and regional detention, a new TOD Overlay Zone should be established north of Vine Street to Terry Lake Road along North College Avenue. Parking reductions should be created for standard developments and decreased further when affordable housing units are included.

Figure 20 outlines the proposed area of the North College Avenue TOD Overlay Zone.

## RECOMMENDATIONS:

- Limit new auto-oriented developments such as auto dealerships, car washes, etc like the current 10% limitation on auto dealerships within the zone district on North College and discourage traditional auto-oriented design like drive-thru restaurants in order to prioritize development that supports the ridership of the BRT and is more compatible with a multi-modal user group.
- Explore feasibility and costs/benefits of URA funded parking structure that could be utilized for public/affordable housing parking.
- Establish a transit-oriented development (TOD) Overlay zone or create a new zone district if deemed appropriate upon further

Figure 20: North College Avenue TOD Overlay Zone Extents



	Current City of Fort Collins Land Use Code Parking Requirement		Proposed City of Fort Collins Land Development Code Parking Requirement*	Proposed North College Ave TOD Overlay Parking Requirement	
	Non-TOD	Existing Mason TOD Overlay	Non-TOD	TOD Overlay	Any Project with Affordable Housing (applies to all units)
1-Bedroom	1.5	0.75	1	0.75	0.5
2-Bedroom	1.75	1	1.5	1	.75
3-Bedroom	2.0	1.25	2.0	1.25	1
4+-Bedroom	3.0	1.5	3.0	1.5	1.25
All Bedrooms	-	0.75	-	0.75	0.75

\* The City of Fort Collins Planning Department is currently working on Land Use Code changes to encourage housing capacity and afford ability

# MODIFY RESIDENTIAL SETBACK REQUIREMENT

In the 1994 zoning updates a 200-foot setback was established along North College Avenue that restricted any residential development within it. The intent of this setback was to preserve commercial uses along the corridor and recognize the impacts of the highway on livability.

In order to support the new MAX BRT route, improve streetscapes, and allow for more housing in the corridor, this setback should be modified to allow residential uses on North College Avenue when part of mixed-use developments where a portion of the ground floor is commercial. Stand-alone commercial uses should continue to be permitted.

Figure 21 and Figure 22 outline the different modifications to the setback approaches that can be used to encourage both mixed-use and commercial only developments along North College Avenue while allowing for the development of new residential units as well.

## RECOMMENDATIONS:

- Allow residential development with ground floor commercial (mixed-use) within 200-feet of North College Avenue
- Commercial area should be minimum 20% of ground floor area or 20% of primary right-of-way frontage, whichever is greater
- Uses associated with residential component may not be considered as a portion of the commercial area (i.e. leasing offices, recreation facilities for residential, etc.)

Figure 21: Plan View Options for Configuring Residential and Commercial within Mixed Use Developments within 200 Feet of North College Avenue

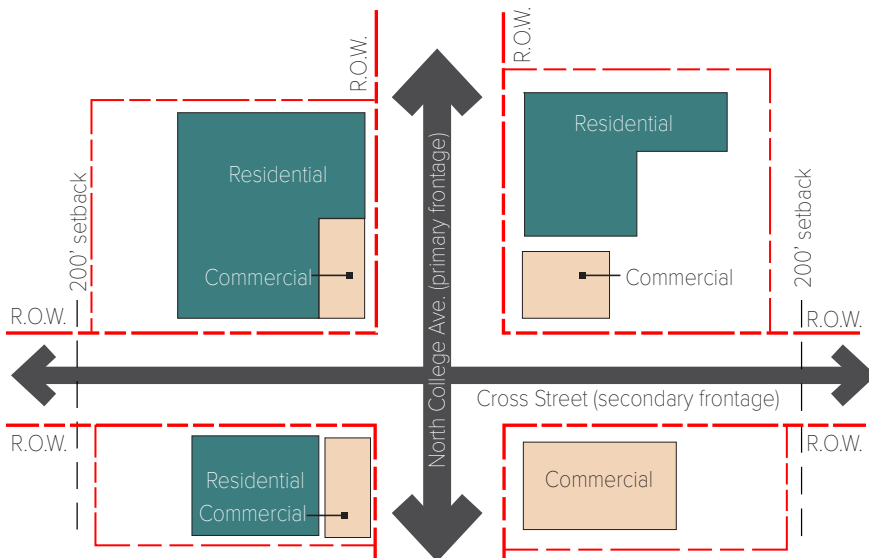
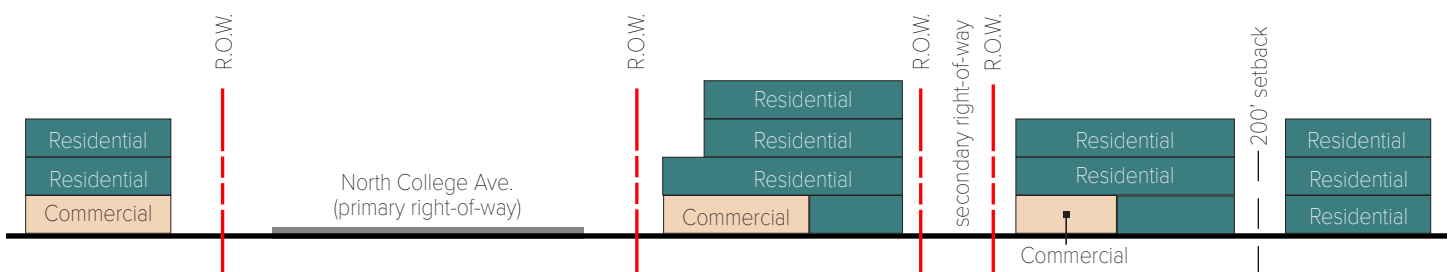


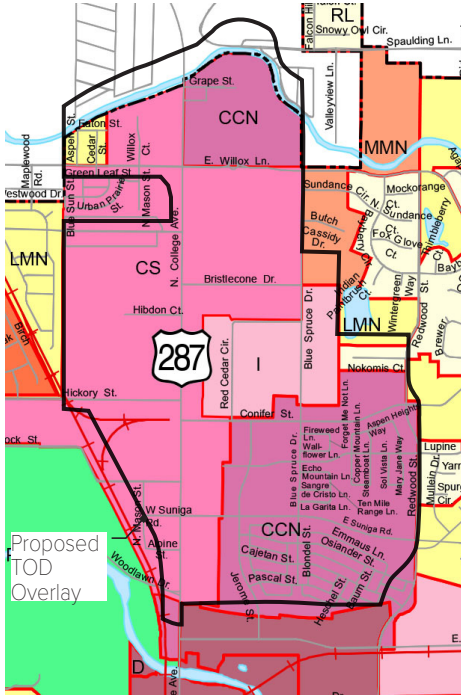
Figure 22: Section View Options for Mixed Use Development within 200 Feet of North College Avenue Showing Orientation of Commercial Uses



# INCREASE BUILDING HEIGHT ALLOWANCE

Within the study area there are currently five (5) different zone districts with varying building height allowances described below and shown in **Figure 23**:

**Figure 23: Zoning Map**

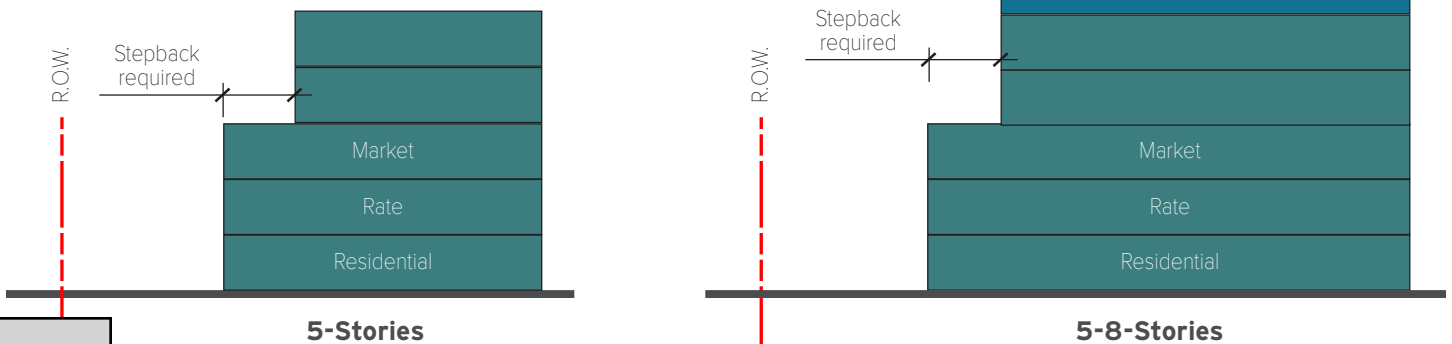


- The Service Commercial District (C-S) district comprises much of the area and allows for a maximum building height of 3-stories
- A small portion of the north-west corner of the study area is Low Density Mixed-Use Neighborhood District (L-M-N) and has a 3-story maximum
- The Industrial District (I), also on the east side of North College Avenue allows for a maximum of 4-stories for mixed use buildings
- Two areas east of North College Avenue are zoned Community Commercial North College (C-C-N) and Downtown District (D-innovation subdistrict) and have a maximum building height of 5-stories

To promote denser development for the BRT line as well as to increase the likelihood of more affordable/attainable housing units it is recommended that within the North College Avenue TOD Overlay Zone building height allowance be increased if the share of affordable units in a development exceeds 30% (see **Figure 24**).

Building step-backs, which help reduce the perception of overall height along street frontages should be required along primary public right-of-way for buildings over 3-stories. Mixed use developments will typically require 4-5 stories in order to be financially feasible, public feedback has indicated that this is supported.

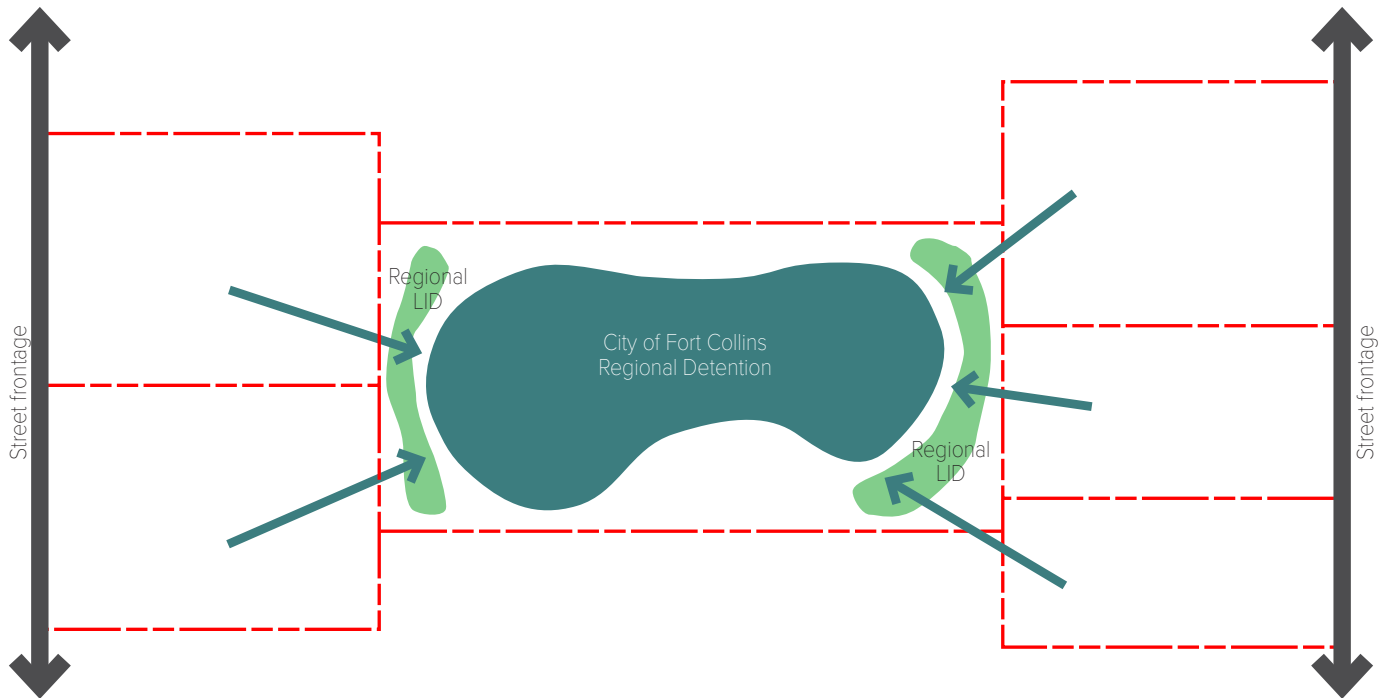
**Figure 24: Building Height Sections**



## RECOMMENDATIONS:

- Increase building height allowance to 5-stories within the 200-foot setback of North College Avenue
- 8-stories should be permitted in all other areas of the North College Avenue TOD Overlay Zone

Figure 25: Regional Detention for All Development and LID for Developments with Affordable/Attainable Housing Diagram



## PROVIDE REGIONAL DETENTION AND REDUCE LID REQUIREMENTS

By providing a regional detention system for all developments along North College Avenue more area could be developed on each site, reducing the overall development cost. Offsite detention reduces design fees, lowers construction and maintenance costs, allows for more densities on project sites and creates more park-like natural areas for all residents of the community

Low Impact Development (LID) stormwater treatment facilities comprise a large portion of not only a site’s area but also of the development costs. Currently each site must provide LID treatment. Allowing for LID treatment to occur in off-site detention facilities or reducing the area that needs to be treated for sites that include affordable housing will allow for less infrastructure needing to be designed, accommodated, maintained, and paid for. These saved costs promote the inclusion of affordable/attainable housing in a project.

Currently the city has secured a parcel on the west side of North College Avenue that will serve as regional detention for all the development from Bristlecone to the Poudre River. Additional efforts should continue to analyze and secure regional detention on the east side of North College Avenue.

## RECOMMENDATIONS:

- Invest in additional regional detention on the west side of North College Avenue, if current Hickory Pond is not sufficient for future development (see **Figure 25**)
- Explore reduction of LID requirements for developments with more than 30% of the development’s units being affordable/attainable housing (for example, only treat vehicular areas, etc.)
- Explore centralized LID treatment within regional detention areas in lieu of “treatment train” approach of having small, isolated LID treatments for developments with affordable/attainable housing

# ESTABLISH PEDESTRIAN & BICYCLE CONNECTIVITY REQUIREMENTS

North College Avenue has several locations with block lengths that are over 1,000-feet, making it difficult for bikes and pedestrians to easily move east and west from North College Avenue.

The addition of city or privately owned and maintained trail connections would ease circulation for these travel modes from the North College MAX BRT to residential units on parallel streets.

Figure 26 identifies where these connections should be made. These locations are based on current block lengths, existing building locations, existing city owned land, as well as existing and proposed streets that are east and west of North College Avenue. Easements and/or property dedication to the city should both be considered. Right-of-way dedications would ensure long term maintenance and snow removal. Figure 27 displays diagrams of what these connections may look like. Within the west area the mobile home neighborhoods would not be included in the TOD Overlay Zone. General TOD Overlay Zone recommendations are outlined here.

## RECOMMENDATIONS:

- Developments within designated areas on map (Figure 26) shall be required to provide multi-modal connections from North College Avenue to parallel streets
- Dedication of 15-foot access easement or parcel to City of Fort Collins should be required to accommodate a 10-12-foot trail connection (Figure 27)

Figure 26: Multi-modal Connections and Block Lengths

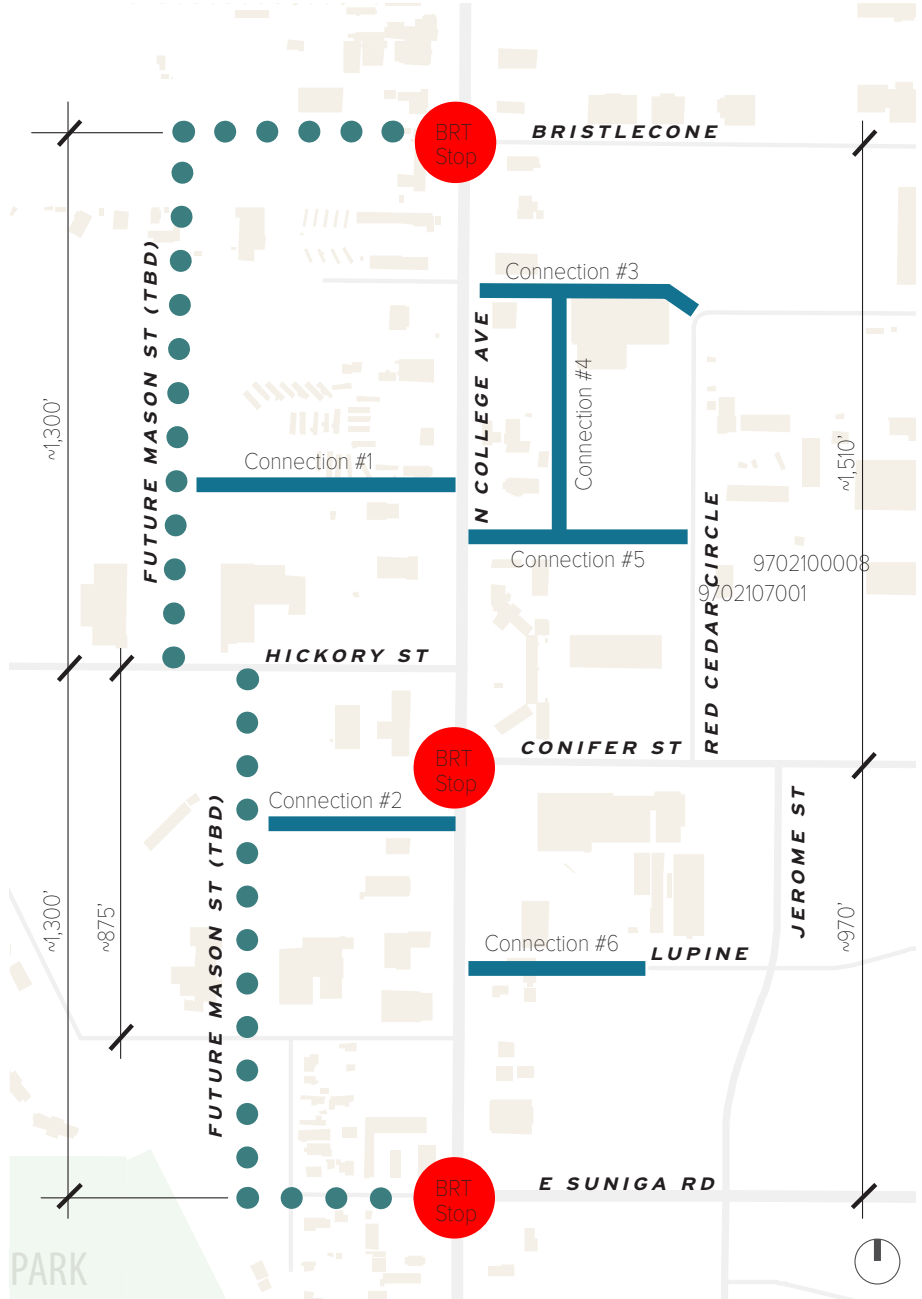
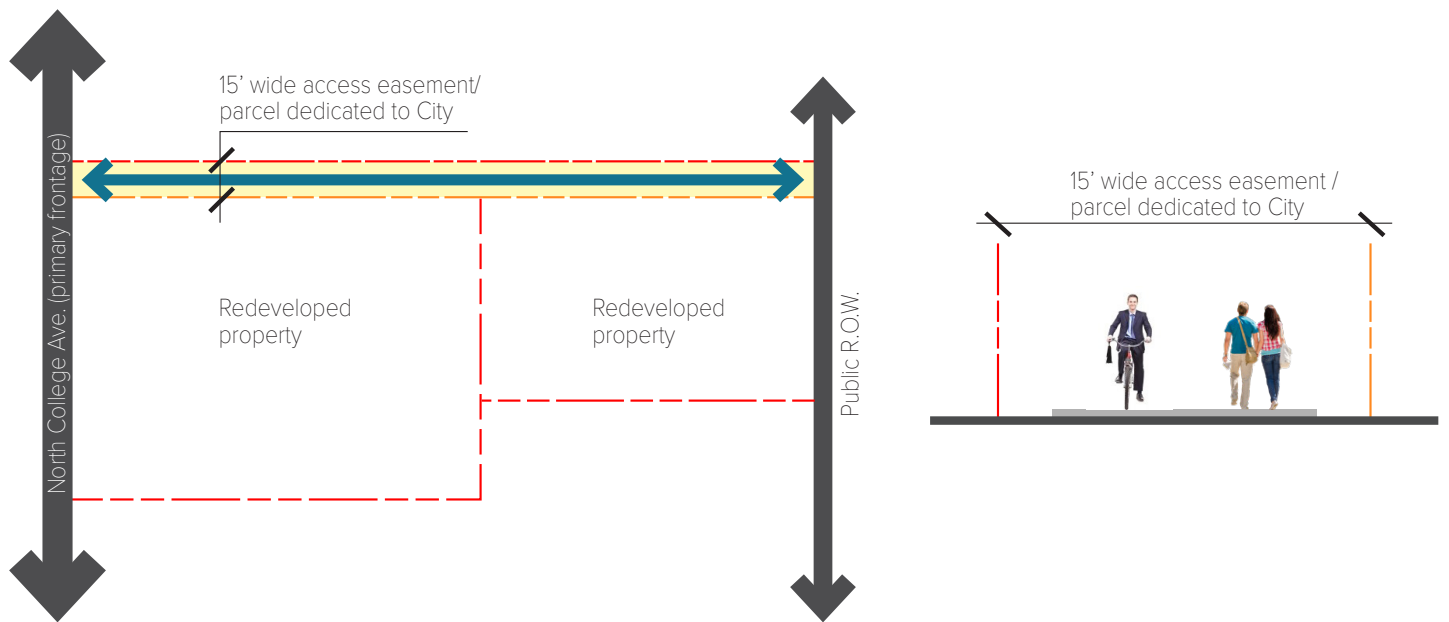


Figure 27: Example Multi-Modal Connection Plan and Section



# ESTABLISH OUTDOOR SPACE REQUIREMENTS

Within the North College Avenue TOD Overlay Zone, outdoor spaces should be more urban in form with plazas, courtyards, and rooftop spaces. These types of outdoor spaces allow for gathering and refuge to activate the streetscapes and create visually appealing areas within developments. Naturalized/vegetated open spaces within the North College Avenue TOD Overlay Zone will be accomplished with the regional detention areas. **Figure 28** and **Figure 29** provide examples of how these requirements could look.

Figure 28: Example Open Space Configurations

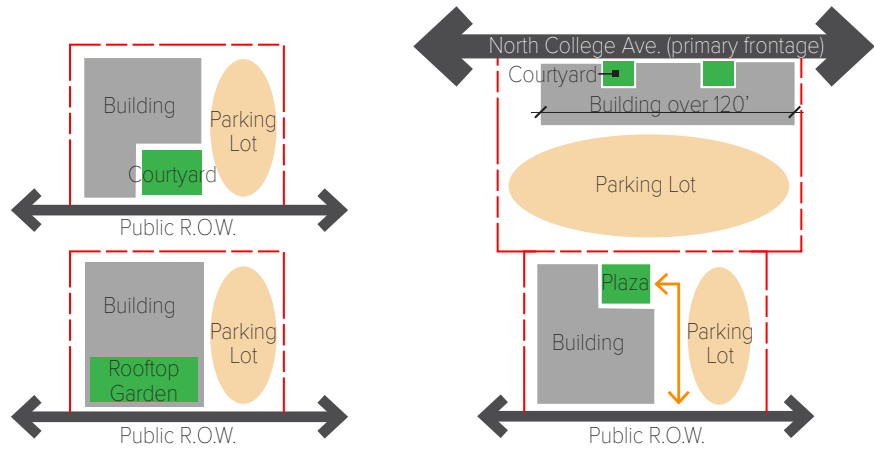


Figure 29: Example of Courtyard

## RECOMMENDATIONS:

- Courtyards oriented to the primary public right-of-way on all multi-family buildings over 120-feet in length along right-of-way
- Open space credit for roof top amenities with permanent vegetation that is oriented towards the right-of-way
- Connecting walkways that have enhancements such as plazas and courtyards interior to the site
- Consider reducing the amount of open space requirements in the event that regional detention areas are created



Figure 30: Comparison of Architectural Character Images (“More of This” vs. “Less of This”)

More of This



Less of This



# REFERENCE RIVER DOWNTOWN REDEVELOPMENT (RDR) ARCHITECTURAL STANDARDS

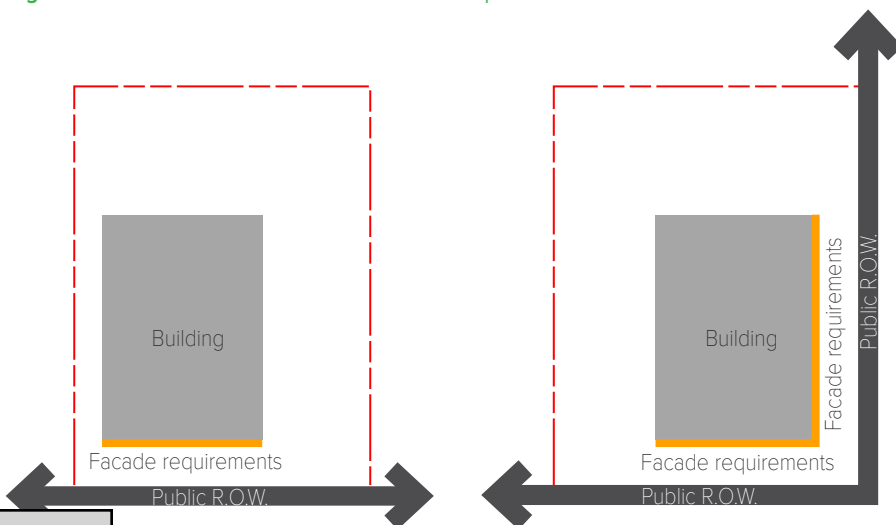
Currently architectural standards emphasize material changes and vertical articulation that generally create a complex aesthetic/appearance while increasing construction costs. In addition, all four sides of a building need to meet the materiality and articulation requirements which increase costs.

In order to encourage affordable/attainable housing and create a more simplified building aesthetic the architectural recommendations from the Fort Collins R-D-R, River Downtown Redevelopment Zone District should be referenced for the North College Avenue TOD Overlay Zone.

## RECOMMENDATIONS:

- Reference Fort Collins R-D-R, River Downtown Redevelopment Zone District Architectural Design Guidelines
- Focus on street facing elevations for facade requirements (Figure 31).
- Reduce requirements for building articulation along horizontal planes.

Figure 31: Location of Architectural Facade Requirements





# CREATE INCENTIVES TO PRESERVE EXISTING COMMERCIAL BUILDINGS AND RENTAL RATES

Community outreach has indicated a preference to preserve the existing businesses and commercial diversity that is due to the lower rents that are more common in this area. There is concern that redevelopment will increase rent costs and increase the likelihood that existing businesses could be displaced.

On properties where it is desired to preserve existing commercial buildings for the types of existing uses in the area, flexibility should be provided in order to maintain the existing building and allow for new development to occur.

## RECOMMENDATIONS:

- Continue to allow case-by-case consideration of requirements for property upgrades “to the extent reasonably feasible”. Example of such would be adaptive re-use of an existing hotel/motel becoming multi-family
- Capture lower commercial rental rate in development agreement, similar to affordable housing deed restrictions

Figure 32: Possible Redevelopment while Retaining Existing Businesses



Item 4.





MAX SOUTHBOUND

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# Strategies for Preserving & Increasing Affordability

# Strategies for Preserving & Increasing Affordability

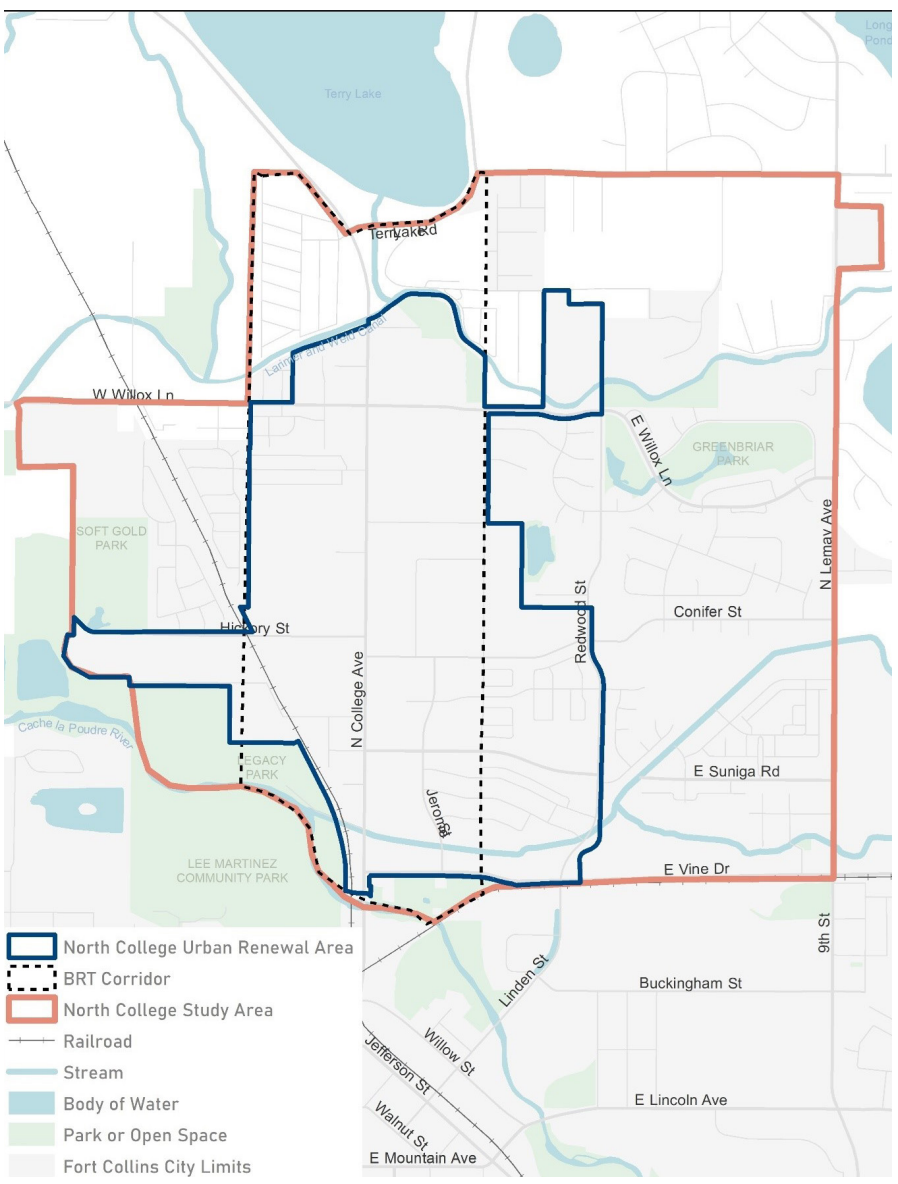
Currently the North College area is one of the most affordable neighborhoods in the city with a diverse population, including a higher percentage of Hispanic residents (44 percent) in comparison to the rest of Fort Collins' as a whole (12 percent).

The new growth occurring on the corridor has raised concerns among existing residents and businesses about the impacts of gentrification and displacement. These issues were identified through the public input gathered by this project.

This section addresses land use and development implementation strategies to improve opportunities for TOD in the North College corridor. The study area is largely contained in the North College Urban Renewal Plan Area (URA) (Figure 33) which has a focus on addressing infrastructure deficiencies and promoting redevelopment of underutilized land. Over the last 15 years, there has been a significant amount of private infrastructure investment and related private development.

Previous studies conducted by the URA as well as this TOD land use analysis have identified additional redevelopment sites with the potential for TOD-supportive medium to high density housing. The development of these properties is currently inhibited by infrastructure deficiencies, particularly the

Figure 33: North College Urban Renewal Area



lack of regional stormwater detention and the lack of local street access on the west side of North College Avenue. Addressing these infrastructure deficiencies should therefore be a priority to continuing redevelopment and growth in the corridor.

The implementation recommendations therefore seek to balance the objectives of supporting additional development and density with protecting existing affordable housing, supporting locally owned businesses, and providing future opportunities for low- and middle-income residents and employers.

## AFFORDABLE HOUSING STRATEGIES AND INCENTIVES

The additional strategies for encouraging new development while maintaining and increasing affordable housing in the corridor are outlined below. As an overarching goal, it is recommended that the City establish an affordable housing goal for the study area that can be applied to future development proposals and requests for financial assistance. **An overall goal of 30 percent affordable at 80 percent AMI or below for for-sale housing and 60 percent AMI or below for rental housing is recommended,** which would be support strategies outlined in the Housing Strategic Plan. The 30 percent goal is based on the on the existing housing stock in the area which is 32 percent affordable which includes the mobile home parks and the Village on Redwood. This 30 percent affordable goal aims to maintain the current levels of affordability in the area into the future.

### RECOMMENDATIONS:

#### Preservation of Mobile Home Parks

The City has already taken an important step in maintaining the affordable housing inventory in the corridor by rezoning the existing Hickory mobile home park to Manufactured

Housing District (MH). The other mobile home park in the North College area, North College Mobile Home Park, is currently zoned as Low Density Mixed-Use. To help maintain the existing affordable housing inventory in the corridor, the North College Mobile Home Park is also recommended to be rezoned to MH. This zoning action would give greater protection to this inventory of affordable housing and would require a landowner or developer to rezone the property if it were to propose redevelopment.

#### Land Bank

Another important step towards affordable housing was the acquisition of a 5-acre parcel at 1475 North College Avenue by the Fort Collins Land Bank to be held for a future affordable housing development. The Land Bank Program was established in 2001 to purchase properties in the path of development that, due to a lack of infrastructure or other constraints, could be acquired at a discount; and when the properties appreciate in value five or more years later, sell them below market value to allow for the development of affordable housing. The program can sell properties at a maximum of 90 percent of market value, although many land bank properties have sold at a much higher discount. The North College Avenue site in the BRT Corridor is expected to redevelop into 75 affordable housing units in the future. This property lacks access to North College Avenue and will need to be aggregated with other properties or gain easement access, or access to the recommended realignment of Mason Street, before development can occur.

The existing City Land Bank Program can be used to acquire additional properties for affordable development. As noted, the corridor is one of the more affordable areas of the city and some properties may not be currently feasible for development given existing infrastructure constraints. There may therefore be opportunities to acquire additional properties at a discounted price for future development.

### CASE STUDY WHEAT RIDGE URA AFFORDABLE HOUSING

In recent years, URAs throughout the state have been using URA funds to support the development of affordable housing. URAs have started to make it a priority to provide gap financing for projects within their boundaries that include affordable housing. A recent example took place in Wheat Ridge, CO where Renew Wheat Ridge, the City's URA program, provided TIF funds to support the conversion of an older 108-room hotel into 97 multifamily units for workforce housing. The new residential development, Prospect Park Apartments, includes studio, 1-, and 2-bedroom units at rental rates below market rate for the local workforce. It also has residential amenities with a fitness room, co-working space, storage units, and dog park. The developer received financial gap assistance from the URA to provide the additional improvements and amenities. The City and the developer worked together to create an affordable housing development that met the standards of the City with below market rents, exterior improvements, and residential amenities. The hotel conversion cost approximately \$10.7 million to develop and received \$400,000 in public subsidy as a TIF reimbursement.

# NORTH COLLEGE URBAN RENEWAL AUTHORITY

The North College Urban Renewal Authority (URA) was established in 2004 and encompasses most of the North College MAX BRT Corridor. The URA has 7 years left to generate and collect tax increment financing (TIF) dollars from new development and redevelopment within the URA boundaries. The URA has approximately \$20 million of TIF funds that must be used before the URA expires in 2029 to support specific priorities within the plan area. Any remaining funds at expiration will be remitted back to each taxing entity. The URA is not a durable long-term source of funding, but it can support specific projects and goals before its expiration.

The North College URA adopted a Community Investment Plan in 2020 that provides guidance on how to invest unpledged TIF dollars through the duration of the URA. The Plan identifies three main priority areas:

- Complete, Vibrant Neighborhood
- Community Hub
- Infrastructure Improvements

Each priority area includes an investment plan with short-, medium-, and long-term strategies and a recommended revenue allocation. Specific recommendations from the Community Investment Plan also support affordable housing strategies and incentives included in this section such as, small business support, acquire property for redevelopment, repayments fund community objectives, forge development partnerships, continue and complete infrastructure projects, and fund legacy projects.

The following sections provide specific actions recommended for the URA in support of the Community Investment Plan and redevelopment that includes affordable housing.

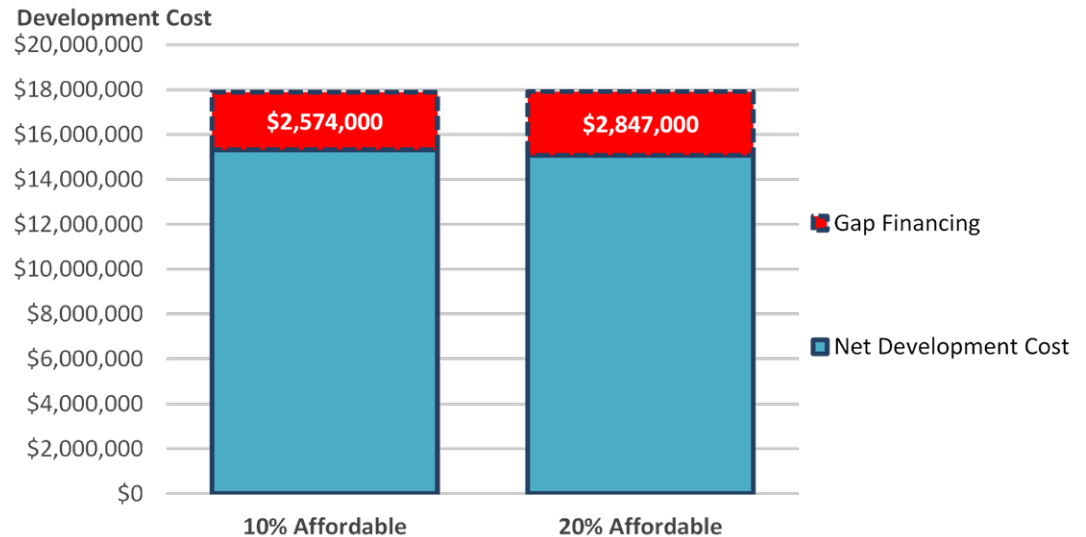
## RECOMMENDATIONS:

### Gap Financing for Affordable Housing

The City of Fort Collins URA has prioritized commercial and mixed-use developments. It is recommended that the North College URA provide gap financing for more residential developments that meet the affordable housing goals for the corridor.

The amount of gap financing required for residential projects with a percentage of affordable units is estimated below in **Figure**

Figure 34: Estimated Gap Financing Required for Affordability



Source: Economic & Planning Systems

**34.** The estimates are based on a 5-story multifamily project with 65 rental units. Two scenarios were tested with 10% affordable units (7 units) and 20 percent affordable units (13 units). Both scenarios apply the TOD Overlay recommendations of increased density to 5-stories and parking reductions for affordable housing developments. Each scenario requires a subsidy to reach a developer return within industry standards. The 10 percent affordable scenario requires approximately \$2.6 million in subsidy or \$40,000 per unit, which is about 13 percent of the total development costs. The 20 percent affordable scenario requires approximately \$2.9 million in subsidy or \$44,000 per unit, which is about 16 percent of the total development costs.

### Key Infrastructure Projects

The west side of North College Avenue has various detriments for development due to the lack of key infrastructure. Regional stormwater improvements are needed to allow for new development of significant density and scale. Additionally, there are multiple sites that lack street frontage or connection to North College Avenue and require street connections or easements. The URA could provide funding to support stormwater, and street connections to help catalyze development on the west side of North College Avenue. The proposed Mason Street Extension is a key infrastructure project that would improve access for parcels west of North College with a future intersection at Bristlecone Drive with a traffic signal on North College Avenue. Additionally, the City owns a parcel west of North College Avenue that has plans for stormwater improvements that would benefit surrounding properties in the area. It is recommended to continue to invest in regional stormwater solutions and street accessibility improvements for the west side of North College Avenue.

### New URA Plan

The City should consider creating a new urban renewal plan in the North College corridor to implement the recommendations of the existing URA plan and this study beyond its

iration. The expected growth over

the 2020-2045 time period will not support BRT investment unless development forecasts and area densities are increased. The feasibility of a new urban renewal area and plan should be explored through discussions with each taxing entity. With the revised state statute, C.R.S. 31-25-107 (3.5), each taxing entity must agree to inclusion in the tax increment financing (TIF) and a county impact report is required. Additionally, a new blight study and plan is required to establish a new URA. It is recommended to focus on areas of the corridor where redevelopment is desired, require significant infrastructure investment, and have plans for development.

### Metro Districts

Larger development projects may seek to use a metro district to pay for project infrastructure costs. Fort Collins has modified its metro district service plan policies to require districts to provide “extraordinary public benefits” to be approved. These benefits can fall into the categories of Environmental Sustainability, Critical Public Infrastructure, Smart Growth Management, and Strategic Priorities, and for which there is an overall scoring system. This last category includes items such as Affordable Housing, Infill Redevelopment and Economic Health Outcomes that are applicable to the goals of this plan. A number of recently approved metro districts successfully gained affordable housing at 80 percent AMI or below (listed below). All of these developments were approved by a different iteration of the City’s metro district service plan policies, but illustrate how affordable housing goals can be met.

- Montava - 4,400 units with 10 percent being affordable (440 units)
- Waterfield - 498 units with 10 percent being affordable (50 units)
- Northfield - 442 units with 15 percent being affordable (63 units)

Additional projects in the corridor seeking metro district approvals should be required to provide affordable housing consistent with the recommended area goals.

## CASE STUDY - OLDE TOWN ARVADA URA

The Arvada Urban Renewal Authority was created in 1981 and the City Center Plan Area was designated at that time. The Plan addressed building, façade, and streetscape improvements in the historic Olde Town commercial district. The Plan also assembled 26 acres of blighted land next to Olde Town that was redeveloped with infill housing. The City Center URA Plan Area expired in 2006. The City formed the Olde Town Station URA Plan Area in 2009 to address development and infrastructure needs in anticipation of the opening of the RTD Commuter Rail line and Olde Town station. The focus of the new URA was station improvements including a P3 with City, URA, and RTD to build a parking structure at the station and to support the transit-oriented development on the former RTD surface parking lot as well as adjacent private properties. Establishing the new URA required a blight study to define a boundary of eligible properties. It is a much smaller plan area but does overlap with a portion of the previous plan area.



## CASE STUDY - ENGLEWOOD SMALL BUSINESS GRANTS

The City of Englewood has a Business Initiation grant program that provides grants of up to \$5,000 for a storefront business in a commercial district. The City also provides a Business Acceleration Grant of up to \$10,000 for permanent improvements to existing businesses in operation for 2+ years. In both cases, applicants must complete a business training program with SBDC and develop a business plan.

## LOCAL COMMERCIAL STRATEGIES AND INCENTIVES

This section addresses strategies and incentives for commercial development, specifically balancing redevelopment and revitalization of commercial properties with the preservation of locally owned and operated retail and service businesses. A particular challenge is the preservation of local small businesses along North College Avenue, which has been magnified and compounded by the pandemic. Locally owned and locally serving retail, restaurants, and service businesses support local households and the quality of life in the community. The following strategies and incentives are recommended to help support local businesses in the area.

### RECOMMENDATIONS:

#### New and Emerging Business Grants

Most of the available grants and loans are focused on improvements to commercial properties. It is more challenging to provide incentives to individual businesses. The primary sources of small business assistance are Small Business Development Centers (SBDC). SBDCs are a partnership of state (Colorado Office of Economic Development and International Trade), federal (Small Business Administration), and local (chambers and economic development corporations) organizations. Larimer SBDC is in Fort Collins and serves Larimer County. Some cities also provide small startup grants while others establish a revolving loan program (RLP). Fort Collins had a RLF that was established a few months prior to the pandemic, however it was suspended at that time. It is recommended the City consider bringing this program back or refocus it as grants instead of loans similar to the City of Englewood program described in the case study on this page.

#### Building Improvement and Redevelopment Incentives

The City and/or URA can provide grants and loans to local property owners and businesses for site and building improvements. This funding could be used for property improvements such as streetscapes, walkways, landscaping, façade repairs and enhancements, new signage, and other building upgrades to enhance the state of repair and aesthetics of businesses in the area. In 2017 and 2018, the URA offered a façade improvement program that no one took advantage of. If this or a similar program is brought back, additional promotion and education would be needed to encourage its use and effectiveness. Additionally, public assistance can be provided to support redevelopment projects including property acquisitions and gap financing using tax increment financing (TIF) to make a desirable project feasible.

#### Multicultural Business & Entrepreneur Center

The Multicultural Business & Entrepreneur Center (MBEC) is a free bilingual (English & Spanish) center that provides business owners and entrepreneurs easy access to business service providers, resources, mentorship and specialty training. It also connects them with critical resources to create, launch and grow a business in Fort Collins.

#### Capital Projects Business Liaison

This is a new position at the city who will work on the construction toolkit and help provide coordination and consistency across the city when it comes to projects that impacts businesses.

#### Commercial Lease Strategies

Commercial lease strategies can be used by property owners to support local businesses and mitigate the impact of high lease rates on tenants. These strategies would need to

be encouraged and potentially subsidized by the City to support and preserve economic development. Commercial lease strategies include percentage rent leases, graduated lease rates, and short-term leases.

#### *Percentage Rent Leases*

The rent paid by the tenant is based on a percentage of the sales made by the business. This often includes a base rental rate that is a reduced triple net (NNN) lease rate and can cover taxes, insurance, and maintenance. In addition to the base rate, a percentage of the revenue from sales above a set base level is paid as rent. This lease strategy works best for businesses with revenue tied directly to sales such as restaurants and clothing stores.

#### *Graduated Lease Rates*

A graduated lease can attract and support new businesses. The graduate lease structure increases rental rates as the business grows and becomes more viable. For example, a base rate in year 1 covers the costs of space (utilities, taxes, insurance, and maintenance) and then the rental rate increases annually as the business grows.

#### *Short Term Leases*

A short-term lease is typically for six months to a year and is great for pop-up businesses or incubator/start-up businesses. The rental rate is much lower than the market rate and is usually provided while recruiting a longer-term tenant.

#### *Flexible Incubator Space*

A business incubator space for local businesses was an idea that came from previous outreach done by the city to inform future Urban Renewal Authority investments. A flexible business incubator could provide space for new local businesses to get started or could be a temporary space for businesses that are displaced by redevelopment in the North College area. For displaced businesses the space could serve as a temporary location until they are able to move back to their original location once redevelopment is finished. A business incubator could be a space owned and managed by the city or an existing non-profit or could a program of rent subsidies for local businesses displaced by redevelopment until they can return to a permanent space.







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# Summary of Recommendations & Tracking Performance

# Summary of Recommendations & Tracking Performance



**Table 4** displays a summarized list of all the recommendations included in this plan organized by the subject of recommendation and whether the recommendation is near-, mid-, or long-term.

**Table 4:** Summary of All Recommendations

Recommendation Type	Phase	Recommendation
Transportation	Near-Term	 <p>Fixed-route Transit Realignments:</p> <ul style="list-style-type: none"> <li>• Create new high-frequency bus route on North College Avenue within existing general-purpose lanes at 15-minute frequency</li> <li>• Realign route 8 on Blue Spruce Drive, Redwood Street, and Linden Street at 30-minute frequency</li> <li>• Eliminate route 81</li> </ul>
		 <p>Micro-transit Zone</p>
		 <p>Consolidate existing local bus stops into new MAX stations at signalized intersections (with basic amenities such as shelters, benches, trash cans, and pedestrian scale lighting)</p>
		 <p>New shared use path on the west side of North College Avenue (between the canal and Hibdon Court)</p>
		 <p>Adopt amendments to the Mason Street realignment identified in the Master Streets Plan</p>
		 <p>New signals: Suniga Road, Bristlecone Drive</p>
		 <p>Improved bicycle and pedestrian crossings: Conifer Street/Red Cedar Circle/Jerome Street, Suniga Road/Jerome Street, Vine Drive/Jerome Street, Bristlecone Drive/Red Cedar Circle, Hickory Street/Mason Street</p>
		 <p>New buffered or protected bike lanes: interim protected bike lanes on North College Avenue; Jerome Street, Blue Spruce Drive, and Bristlecone Drive</p>
	Mid-Term	 <p>Business Access Transit (BAT) lanes on North College Avenue</p>
		 <p>Increase bus frequency and service hours: MAX on North College Avenue with 15-minute frequency and route 8 with 15-minute frequency</p>
		 <p>Creation of mobility hub near Willox Lane turnaround</p>
		 <p>Shared-use paths for the length of North College Avenue on both sides of the roadway</p>
		 <p>Fully built MAX stations with multimodal options</p>
		 <p>Bus turnaround north of Terry Lake Road</p>
		 <p>Construct medians south of Conifer Street</p>
Long-Term	 <p>Increase bus frequency to 10-minutes; re-evaluate feasibility and benefits of interlining MAX on North College Avenue with MAX on Mason Street</p>	

Recommendation Type	Phase	Recommendation
Development Requirements	Near-Term	Establish North College area specific TOD Overlay
		Modify residential setback from College Ave
		Increase building height allowance
		Establish connectivity requirements
		Establish outdoor space requirements
		Establish requirements for building dominant block faces
		Adjust Architectural Standards
Strategies for Preserving & Increasing Affordability	Near-Term	Identify opportunities to use the Urban Renewal Authority's financing tools to encourage affordable development in the area
		Require metro districts created for large developments to provide specific and considerable public benefits
		Rezone the North College Mobile Home Park to the Manufactured Housing District
		Continue to leverage the city's existing land bank
		Establish an affordable housing goal for the study area
		Encourage and subsidize commercial lease strategies where appropriate
		Develop new and emerging business grants for local businesses
		Provide incentives for building improvements and redevelopments for local businesses



## TRACKING PERFORMANCE

As the recommendations in the North College MAX BRT Plan are implemented, tracking the performance of improvements will be important. Tracking different performance measures will help ensure the project is addressing community concerns and serving community needs. Performance measures should measure the effectiveness of improvements achieving the corridor vision and addressing the identified need, both of which are included in the beginning of this document. The following is a list of potential performance measures the City of Fort Collins can track over time to ensure improvements are addressing the needs they were intending to and providing a direction for adjustments if they are not performing up to expectations.

- **Mode-share**

Tracking the percentage of trips by mode made to, from, and within the North College area can be an effective way to measure how convenient and comfortable the multi-modal transportation network is and how well development is serving active modes of transportation. The city can create a target for each mode to see how well improvements to transportation and land use are helping reduce the proportion of people driving alone and increasing the proportion of people using active modes and people taking transit. Changes in mode-share not only reflect the effectiveness of transportation infrastructure but also how the density, urban design, and land use mix of nearby development support transit ridership and active mode use.

- **Crash History**

Improvements to safety in the area can be monitored by tracking the number of crashes in the study area and identifying if they go down significantly after improvements are implemented. This performance measure should also look at the number of crashes involving people using active modes and the number of crashes that resulted in serious injury or death. Tracking crashes by these additional measures will provide more information

about the safety challenges occurring at each location and how well improvements address the different safety concerns.

- **Speed and Reliability of Transit**

Monitoring changes to speed and reliability of bus routes can provide important information about when additional transit improvements are needed (like BAT lanes) and whether implemented projects are successful in improving transit performance. Tracking speed and reliability is very important for people choosing to use transit so monitoring this metric is tied closely to understanding changes in ridership numbers.

- **Surveys**

Regularly surveying transit riders, residents, and employees through on-board surveys or travel surveys can provide valuable information on how well the existing transit system is serving transportation needs, as well as how comfortable and convenient it is to ride. Items to ask transit riders could include:

- » Things that are working well about current transit services
- » Improvements they would like to see to the transit system
- » Challenges they experience accessing transit
- » Needed service changes or new connections they would like to see

- **Affordability**

The city could track the efficacy of different affordability policies by tracking prices of for sale and for rent homes and retail space in the North College area and creating targets for the proportions of property that fall into different affordability ranges. This would allow the city to understand if adopted policies and new developments are helping create a healthy mix of options for people of different income levels wanting to live or operate a business in the area. An overall goal of 20 percent affordable at 80 percent AMI or below for-sale housing and 60 percent AMI or below for rental housing is recommended.



# Appendix A

# Public Engagement Summaries

# Appendix B

# Existing Conditions Report

# Appendix C

# Alternatives Analysis Report

# Appendix D

# North College Roadway Design Cutsheets

## Appendix E

# Conceptual Estimate of Project Cost for North College Reconstruction



# AGENDA ITEM SUMMARY

City Council

## STAFF

Beth Rosen, Grants Compliance and Policy Manager  
Ingrid Decker, Legal

## SUBJECT

**First Reading of Ordinance No. 032, 2023, Authorizing the Release of Restrictive Covenants on Property at 1947 Phia Way Developed by Fort Collins Habitat for Humanity.**

## EXECUTIVE SUMMARY

The purpose of this item is to obtain authorization from Council to release the Agreement of Restrictive Covenants Affecting Real Property on the single-family home located at 1947 Phia Way, which was developed by Fort Collins Habitat for Humanity. The development of this home was initially assisted with funding from the Department of Housing and Urban Development (HUD). At the time of completion, the project no longer met the HUD requirements, triggering a HUD mandated repayment of the funds and cancellation of the project.

## STAFF RECOMMENDATION

Staff recommends adoption of the Ordinance on First Reading.

## BACKGROUND / DISCUSSION

On September 1, 2020, the City of Fort Collins entered into a Development Contract for HOME Investment Partnership (HOME) funding with Fort Collins Habitat for Humanity. The contract provided \$80,000 in HOME funding to support the construction costs of a single-family home built in partnership with the Geometry in Construction program at Poudre High School (PHS). The contract funding was secured by a Promissory Note, Deed of Trust and Agreement of Restrictive Covenants ensuring the home would be transferred to an income eligible buyer and remain affordable for a period of 20 years.

At the time of contracting, an income eligible homeowner had been selected through Habitat’s rigorous selection process. The buyer began working with Habitat to complete the necessary sweat equity hours required by Habitat’s program. Unfortunately, construction on the home was delayed for the 2020/2021 school year due to the Covid pandemic. PHS students resumed work on the home when they returned to school in the Fall of 2021. It was moved to a permanent foundation at Harmony Cottages in the summer of 2022 where the selected homeowner worked alongside volunteers to complete the home on site. In October of 2021, the City paid \$75,000 of the contracted funds towards eligible construction related costs. The \$5,000 balance was retained until unit completion and final verification of occupancy by the HOME-eligible buyer.

The home was eventually completed in January 2023 and Habitat updated the income verification of the buyer as required by HUD. At that time, the household no longer met the HOME program income

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requirements (although the household income is still below the area median income). This triggered the mandatory repayment of the \$75,000 to the City's line of credit with HUD and a cancellation of the project. The Deed of Trust was released upon repayment of the funds. The Release of the Agreement of Restrictive Covenants is the final outstanding item related to the cancellation the project.

**CITY FINANCIAL IMPACTS**

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The \$75,000 in repaid HOME funds will go into the Spring 2023 Competitive Process to be re-allocated to another affordable housing project. Habitat for Humanity continues to build affordable home ownership units and has submitted an application requesting funding to support the development of 4 new units at Harmony Cottages.

**BOARD / COMMISSION / COMMITTEE RECOMMENDATION**

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None.

**PUBLIC OUTREACH**

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None.

**ATTACHMENTS**

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1. Ordinance for Consideration

ORDINANCE NO. 032, 2023  
OF THE COUNCIL OF THE CITY OF FORT COLLINS  
AUTHORIZING THE RELEASE OF RESTRICTIVE COVENANTS ON PROPERTY  
AT 1947 PHIA WAY DEVELOPED BY FORT COLLINS HABITAT FOR HUMANITY

WHEREAS, on September 1, 2020, the City entered into a Development Contract with Fort Collins Habitat for Humanity (“Habitat”), through which Habitat received from the City a loan of \$80,000 in HOME Investment Partnership (HOME) funding from the federal Department of Housing and Urban Development (HUD) to support the cost of constructing a single-family home (the “Project”) at 1947 Phia Way in Fort Collins (the “Property”) for an income-eligible homeowner; and

WHEREAS, the HOME funding was secured by a promissory note, deed of trust, and an Agreement of Restrict Covenants on the Property ensuring the home would be transferred to an income-eligible buyer and remain affordable for 20 years (the “Covenant”); and

WHEREAS, Habitat constructed the project in partnership with the Geometry in Construction program at Poudre High School, which began work on the project offsite, but construction was delayed for the 2020-21 school year because of the Covid pandemic; and

WHEREAS, the home was moved to the Property in the summer of 2022 and the selected homeowner and volunteers worked to complete the home on site; and

WHEREAS, by the time the home was completed in January 2023 the homeowner no longer met HUD’s HOME income requirements, which triggered a mandatory repayment of the HOME funds by Habitat to the City, which has been completed; and

WHEREAS, the City will add the repaid HOME funding to the funds distributed through the Social Sustainability’s annual competitive process; and

WHEREAS, with the funding repaid the City has no reason to burden the Property with the Covenant, and staff has requested that the City Council authorize release of the Covenant; and

WHEREAS, the City’s right under the Covenant to restrict the use of the Property constitutes an interest in real property owned by the City that the City would be giving up by releasing the Covenant; and

WHEREAS, Section 23-111(a) of the City Code states that the City Council is authorized to sell, convey or otherwise dispose of any interest in real property owned by the City, provided that the City Council first finds, by ordinance, that such sale or other disposition is in the best interests of the City.

NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF FORT COLLINS as follows:



Section 1. That the City Council hereby makes and adopts the determinations and findings contained in the recitals set forth above.

Section 2. That the City Council hereby finds that releasing the Covenant on the Property on the terms and conditions described herein is in the best interests of the City.

Section 3. That the City Council hereby authorizes the City Manager to execute such documents as are necessary to release the Property from the Covenant on terms and conditions consistent with this Ordinance, along with such other terms and conditions as the City Manager, in consultation with the City Attorney, determines are necessary and appropriate to protect the interests of the City or effectuate the purposes of this Ordinance.

Introduced, considered favorably on first reading, and ordered published this 7th day of March, 2023 and to be presented for final passage on the 21st day of March, 2023.

\_\_\_\_\_  
Mayor

ATTEST:

\_\_\_\_\_  
City Clerk

Passed and adopted on final reading on this 21st day of March, 2023.

\_\_\_\_\_  
Mayor

ATTEST:

\_\_\_\_\_  
City Clerk



# AGENDA ITEM SUMMARY

City Council

## STAFF

Paul S. Sizemore, Director of Community Development & Neighborhood Services  
Brad Yatabe, Legal

## SUBJECT

**First Reading of Ordinance 033, 2023, Extending the Moratorium on Certain Activities of State Interest Designated in Ordinance No. 122, 2021.**

## EXECUTIVE SUMMARY

The purpose of this item is the First Reading of an ordinance that extends the length of a moratorium previously imposed through Ordinance No. 122, 2021, and further extended with Ordinance No. 139, 2022, on two designated activities of state interest. The proposed Ordinance extends the length of the existing moratorium for three months beyond March 31, 2022, or until City Council adopts guidelines for the administration of the two designated activities. Extending the moratorium allows staff to reengage with stakeholders and develop policy decision points for Council’s consideration along with first reading of the version-three 1041 regulations, May 2, 2023.

## STAFF RECOMMENDATION

Staff recommends adoption of the Ordinance on First Reading.

## BACKGROUND / DISCUSSION

During the Council meeting on February 7, 2023, the Council unanimously adopted a motion to postpone first reading of the 1041 regulations until May 2, 2023. This continuation by Council requires an extension of the Moratorium, and by extending the moratorium by three months through the end of June 30, 2023, staff has additional time to reengage stakeholders on the current version-three of the draft 1041 regulations. The City has received numerous requests from public entities that may be subject to the proposed 1041 regulations for additional time to review and comment on the regulations, including requests made at the January 25 Planning and Zoning Commission meeting and the Council February 7 meeting.

### Procedure for the Designation of Areas and Activities and Adoption of Guidelines

In order to exercise 1041 powers, the Colorado Revised Statutes require the City to designate the areas and activities to be regulated and adopt guidelines to administer the designated areas and activities. The designation of areas and activities may occur only after a noticed public hearing where Council must consider, at a minimum, the intensity of current and foreseeable development pressures. Council must specify the boundaries of any designated area, why the designated area or activity is of state interest, the dangers from uncontrolled development of the area or conduct of such activity, and the advantages of developing such area or activity in a coordinated manner. The City may adopt guidelines, and regulations for carrying out such guidelines, for administering designated areas and activities that are more stringent than the criteria listed in the applicable state statutes.

Once the City holds a public hearing and initially designates an area or activity to be of state interest, no person may engage in development within the designated area or conduct the designated activity until the City has finally determined the designation and guidelines. In other words, a moratorium goes into effect on development within the initially designated area or on the initially designated activity until the City makes a final determination on the designation and the applicable guidelines.

To the extent a person proposes to engage in development in an area of state interest or conduct an activity of state interest that the City has not previously designated and for which guidelines have not been adopted, the City is authorized to hold a public hearing to designate such area or activity and to adopt guidelines under which to review the proposal. In other words, the City has an opportunity to exercise 1041 powers over proposals for areas and activities not previously anticipated as requiring regulations.

### **Alignment with Citywide Policy**

In terms of policy alignment, both City Plan and the Strategic Plan identify policies and objectives that aim to direct development in a way that ensures compatibility between adjacent land uses, minimize infrastructure and resource needs, and protect historic and natural resources. Currently, the City's Land Use Code provides a limited local review process for public agency projects. As such, adopting 1041 regulations would offer the City greater authority over public development projects that qualify as areas or activities of statewide interest per House Bill 74-1041 and help the City achieve its stated policy objectives.

### **CITY FINANCIAL IMPACTS**

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There are no financial impacts to City resources.

### **BOARD / COMMISSION / COMMITTEE RECOMMENDATION**

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During the Council meeting on February 7, 2023, the Council unanimously adopted a motion to postpone first reading of the 1041 regulations until May 2, 2023.

During the Planning and Zoning Commission hearing on January 25, 2023, the Commission unanimously adopted the recommendation:

*The Planning and Zoning Commission recommend that City Council NOT ADOPT the proposed 1041 regulations until the public has sufficient time to review staff's Version 3 and to comment fully on its impact. The Planning and Zoning Commission believes the proposed regulation is directionally correct; however, additional input is needed by affected parties on at least the following areas:*

- *Potential consequences of the proposed regulation, as currently written*
- *The extent to which the regulation could legally extend to impacts created by components of the project outside the jurisdictions but that affect the natural resources and natural areas of Fort Collins*
- *Whether the scope of projects to be regulated is appropriate, relative to what would be considered material in the scope of such projects.*

*This recommendation could require that more time be allowed between first and second readings, or that the current moratorium be extended, if necessary. This decision is based upon the agenda materials, the information and materials presented during the work session and this hearing, and the Commission discussion on this item.*

### **PUBLIC OUTREACH**

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Staff will implement an engagement plan with stakeholders during the three-month extension.

## ATTACHMENTS

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1. Ordinance for Consideration

ORDINANCE NO. 033, 2023  
OF THE COUNCIL OF THE CITY OF FORT COLLINS  
EXTENDING THE MORATORIUM ON CERTAIN ACTIVITIES OF  
STATE INTEREST DESIGNATED IN ORDINANCE NO. 122, 2021

WHEREAS, pursuant to Colorado Revised Statutes (“C.R.S.”) Section 24-65.1-101 et seq., City Council adopted Ordinance No. 122, 2021, designating two activities of state interest: (1) the site selection and construction of major new domestic water and sewage treatment systems and major extensions of existing domestic water and sewage treatment systems; and (2) the site selection of arterial highways and interchanges and collector highways (the two designated activities hereafter referred to as the “Designated Activities”); and

WHEREAS, pursuant to C.R.S. Section 24-65.1-404(4) and the City’s power to impose a moratorium on development activity pursuant to its home rule powers granted under Article XX of the Colorado Constitution, City Council imposed a moratorium with certain exceptions (the “Moratorium”) on conducting the Designated Activities until December 31, 2022, or until City Council has finally determined and adopted guidelines for the administration of the Designated Activities; and

WHEREAS, to provide additional time for the drafting and consideration of guidelines for the administration of the Designated Activities, City Council thereafter extended the Moratorium for a three-month period through the end of March 31, 2022, pursuant to Ordinance No. 139, 2022; and

WHEREAS, City Council has received significant public input from entities that may be subject to the City’s proposed 1041 regulations requesting that the City allow for additional time for such entities to review and comment on the regulations; and

WHEREAS, to provide additional time for the drafting and consideration of guidelines for the administration of the Designated Activities, City Council finds it is in the best interest of the City to extend the Moratorium for a three-month period through the end of June 30, 2023, or until City Council has finally determined and adopted guidelines for the administration of the Designated Activities.

NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF FORT COLLINS as follows:

Section 1. That the City Council hereby makes and adopts the determinations and findings contained in the recitals set forth above.

Section 2. That the City Council hereby extends the Moratorium on the same terms as set forth in Ordinance No. 122, 2021, for an additional three-month period through the end of June 30, 2023, or until City Council has finally determined and adopted guidelines for the administration of the Designated Activities.

Introduced, considered favorably on first reading and ordered published this 7th day of March, 2023, and to be presented for final passage on the 21st day of March, 2023.

\_\_\_\_\_  
Mayor

ATTEST:

\_\_\_\_\_  
City Clerk

Passed and adopted on final reading this 21st day of March, 2023.

\_\_\_\_\_  
Mayor

ATTEST:

\_\_\_\_\_  
City Clerk



## AGENDA ITEM SUMMARY

City Council

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### STAFF

Mariel Miller, Water Conservation Manager  
Kerri Ishmael, Senior Analyst, Grant Administration  
Eric Potyondy, Legal

### SUBJECT

**First Reading of Ordinance No. 034, 2023, Making Supplemental Appropriations from the Colorado Water Conservation Board Grant and Water Fund Reserves and Authorizing Transfers of Appropriations for the Water Efficiency Plan Update.**

### EXECUTIVE SUMMARY

The purpose of this item is to support updating the City's Water Efficiency Plan by end of 2024 by:

- Appropriating \$160,000 of unanticipated grant revenue, awarded by the Colorado Water Conservation Board, to the Water Fund
- Appropriating \$65,795 from the Water Fund reserves
- Utilizing matching funds in the amount of \$126,705 from existing 2023 appropriations into this new grant project

### STAFF RECOMMENDATION

Staff recommends adoption of the Ordinance on First Reading.

### BACKGROUND / DISCUSSION

The State requires Fort Collins Utilities and other water providers to update a Water Efficiency Plan every seven years. Fort Collins Utilities adopted the 2015 Water Efficiency Plan in 2016 (Attachment 2), which requires an update in 2023. Staff received approval from the State to extend the update to allow for more time to complete the plan. In preparation for this update, staff requested a one-time, two-year enhancement offer pursuant to Budget Offer 1.42 (Attachment 3). Council approved this offer as part of the 2023-2024 Adopted Budget, with \$100,000 being appropriated as part of the current 2023 fiscal year budget (and \$150,000 as part of the 2024 budget). Implications to year two of Offer 1.42 will be addressed during the 2024 Budget Revision process.

The Colorado Water Conservation Board (CWCB) recently awarded a Water Plan Grant to Fort Collins Utilities (Board's approval is reflected in meeting minutes in Attachment 4) to support updating the required Water Efficiency Plan by 2024. The award was based on total project costs of \$352,500, with the CWCB providing \$160,000 in funds and the remaining \$192,500 being provided by Fort Collins Utilities as grant match. The details of Utilities' grant match (Water Fund) over the projected two-year period are as follows:

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- \$144,965 for consultant costs as cash match.
- \$47,535 for personnel costs as in-kind match.

This is \$105,035 less than requested from Budget Offer 1.42, over the two-year period.

The Water Efficiency Plan update will improve the existing plan. Grant funds will primarily be used to pay for consultants to help develop new plan elements, including the following:

- Model climate and water savings – evaluate potential for water savings under a range of current and potential conditions, including climate, population, and population density.
- Facilitate focus groups and meetings to identify One Water strategies – identify demand management strategies, further advance cross-departmental collaboration, and gather input on meaningful water demand goal(s) by engaging with internal City staff who influence the way water is used and/or work in the water field.
- Work with community partners on inclusive public engagement – identify demand management strategies, gather public input on meaningful water demand goal(s), and develop relationships with engaged community members to facilitate understanding and opportunities between the Utilities Water Conservation team and our community, especially marginalized communities.
- Analyze demand management strategies for equity – Perform equity gap analysis of current and potential water demand management strategies, to identify gaps or barriers to water efficiency opportunities, so that equity can be considered along with water savings efficacy and cost when prioritizing demand management strategies.

As presented in Attachment 5, Budget and Schedule for the Water Plan Grant, as approved by the CWCB, both the CWCB and Fort Collins Utilities will share costs for Task 1 through Task 4 on a cost share basis of 52.47/47.53%, respectively. These costs are for third-party consultant costs. In addition, Fort Collins Utilities will provide personnel time as described in Task 5. Costs for personnel time will be covered 100% by Fort Collins Utilities.

**CITY FINANCIAL IMPACTS**

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This item appropriates \$225,795 in project costs for updating the 2024 Water Efficiency Plan from:

- \$160,000 in unanticipated grant revenue
- \$65,795 in Water Fund reserves to be used towards the required matching funds

Additionally, required matching funds in the amount of \$126,705 have already been appropriated in the 2023 Water Fund in the Water Conservation operating budget. The total project cost is \$352,500.

This grant from CWCB is a reimbursement type grant, meaning Water Fund expenses will be reimbursed up to \$160,000.

**BOARD / COMMISSION / COMMITTEE RECOMMENDATION**

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N/A

**PUBLIC OUTREACH**

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N/A



## ATTACHMENTS

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1. Ordinance for Consideration
2. 2015 Water Efficiency Plan
3. 2023-2024 Budget Offer 1.42 – Utilities Water Efficiency Plan Update
4. Colorado Water Conservation Board Minutes
5. State Approved Budget and Schedule for the Water Plan Grant

ORDINANCE NO. 034, 2023  
OF THE COUNCIL OF THE CITY OF FORT COLLINS  
MAKING SUPPLEMENTAL APPROPRIATIONS FROM THE COLORADO WATER  
CONSERVATION BOARD GRANT AND WATER FUND RESERVES  
AND AUTHORIZING TRANSFERS OF APPROPRIATIONS  
FOR THE WATER EFFICIENCY PLAN UPDATE

WHEREAS, the City owns and operates Fort Collins Utilities (“Utilities”), which includes a water utility that provides water to customers in its service area; and

WHEREAS, water conservation and efficiency is a tool Utilities uses, primarily through the Utilities Water Conservation Division, to manage and reduce the demand for water service by Utilities customers, which is beneficial to the City, the water utility, and its ratepayers by, among other reasons, helping to ensure that the demand for water does not exceed supplies; and

WHEREAS, in 2016, pursuant to the Colorado Water Conservation Act of 2004 (“Act”), Utilities adopted the 2015 Water Efficiency Plan (“Plan”) as an update to the City’s 2010 Water Conservation Plan; and

WHEREAS, the Act requires the City to update its State approved water efficiency plan and required minimum plan elements every seven years, however, the Colorado Water Conservation Board (“CWCB”) recently granted the City an extension to update the City’s Plan in 2024; and

WHEREAS, in anticipation of updating the Plan, Utilities requested a one-time two-year budget enhancement of \$250,000 (Offer 1.42) (\$100,000 in 2023 and \$150,000 in 2024), which Council adopted as part of the City’s 2023-24 Approved Budget; and

WHEREAS, after Council adopted the 2023-24 Budget, the City received a Water Plan Grant from CWCB in support of updating the Plan by 2024; and

WHEREAS, CWCB awarded said grant in the amount of \$160,000 based on a total project cost of \$352,500 and pursuant to certain terms and conditions, including a local match requirement, memorialized in a purchase order issued by the State of Colorado; and

WHEREAS, said \$160,000 grant funds will provide funding to support third-party consultant expenses in 2023 and 2024; and

WHEREAS, said local match requirement is \$192,500 and includes \$144,965 for third-party consultant expenses and \$47,535 for personnel costs in 2023 and 2024; and

WHEREAS, City staff recommends that Council appropriate from new revenue or other funds in the Water Fund the sum of \$160,000 to be expended in the Water Fund for the Water Efficiency Plan Update project; and

WHEREAS, City staff recommends that Council approve transfer of unexpended and unencumbered appropriated amounts of \$126,705 from the Water Conservation operating budget in the Water Fund to the Water Efficiency Plan Update Project in the Water Fund therein to be expended for the plan update; and

WHEREAS, City staff recommends that Council appropriate from prior year reserves in the Water Fund the sum of \$65,795 in the Water Fund for the Water Efficiency Plan Update project; and

WHEREAS, these appropriations totaling \$225,795 and transfer of funds totaling \$126,705 benefit public health, safety and welfare of the citizens of Fort Collins, the water utility, and its ratepayers, and serves the public purpose of helping to ensure that monies in the Water Fund are efficiently applied to manage the demand for water within allocated supplies, which will reduce shortages and other adverse impacts; and

WHEREAS, Article V, Section 9 of the City Charter permits the City Council, upon recommendation of the City Manager, to make a supplemental appropriation by ordinance at any time during the fiscal year, provided that the total amount of such supplemental appropriation, in combination with all previous appropriations for that fiscal year, do not exceed the current estimate of actual and anticipated revenues and all other funds to be received during the fiscal year; and

WHEREAS, the City Manager has recommended the appropriation described herein and determined that this appropriation is available and previously unappropriated from the Water Fund and will not cause the total amount appropriated in the Water Fund to exceed the current estimate of actual and anticipated revenues and all other funds to be received in this Fund during this fiscal year; and

WHEREAS, Article V, Section 10 of the City Charter authorizes the City Council, upon recommendation by the City Manager, to transfer by ordinance any unexpended and unencumbered appropriated amount or portion thereof from one fund or capital project to another fund or capital project, provided that the purpose for which the transferred funds are to be expended remains unchanged, the purpose for which the funds were initially appropriated no longer exists, or the proposed transfer is from a fund or capital project in which the amount appropriated exceeds the amount needed to accomplish the purpose specified in the appropriation ordinance; and

WHEREAS, the City Manager has recommended the transfer of \$126,705 from the Water Conservation operating budget in the Water Fund to the Water Efficiency Plan Update Project in the Water Fund and determined that the purpose for which the transferred funds are to be expended remains unchanged; and

WHEREAS, Article V, Section 9 of the City Charter permits the City Council, upon the recommendation of the City Manager, to make supplemental appropriations by ordinance at any time during the fiscal year such funds for expenditure as may be available from reserves accumulated in prior years, notwithstanding that such reserves were not previously appropriated; and

WHEREAS, the City Manager has recommended the appropriation described herein and determined that this appropriation is available and previously unappropriated from the Water Fund and will not cause the total amount appropriated in the Water Fund to exceed the current estimate of actual and anticipated revenues and all other funds to be received in this Fund during this fiscal year; and

WHEREAS, Article V, Section 11 of the City Charter authorizes the City Council to designate in the ordinance when appropriating funds for a federal, state or private grant, that such appropriation shall not lapse at the end of the fiscal year in which the appropriation is made, but continue until the earlier of the expiration of the federal, state or private grant or the City's expenditure of all funds received from such grant; and

WHEREAS, the City Council wishes to designate the appropriation herein for the Colorado Water Conservation Board grant as an appropriation that shall not lapse until the earlier of the expiration of the grant or the City's expenditure of all funds received from such grant.

NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF FORT COLLINS as follows:

Section 1. That the City Council hereby makes and adopts the determinations and findings contained in the recitals set forth above.

Section 2. That there is hereby appropriated from new revenue or other funds in the Water Fund the sum of ONE HUNDRED SIXTY THOUSAND DOLLARS (\$160,000) to be expended in the Water Fund for the Water Efficiency Plan Update project.

Section 3. That the unexpended and unencumbered appropriated amount of ONE HUNDRED TWENTY-SIX THOUSAND SEVEN HUNDRED FIVE DOLLARS (\$126,705) is authorized for transfer from the Water Conservation operating budget in the Water Fund to the Water Efficiency Plan Update project in the Water Fund and appropriated therein to be expended for the plan update.

Section 4. That there is hereby appropriated from prior year reserves in the Water Fund the sum of SIXTY-FIVE THOUSAND SEVEN HUNDRED NINETY-FIVE DOLLARS (\$65,795) to be expended in the Water Fund for the Water Efficiency Plan Update project.

Section 5. That the appropriation herein for the Colorado Water Conservation Board grant is hereby designated, as authorized in Article V, Section 11 of the City Charter, as an appropriation that shall not lapse at the end of this fiscal year but continue until the earlier of the expiration of the grant or the City's expenditure of all funds received from such grant.

Introduced, considered favorably on first reading, and ordered published this 7th day of March 2023, and to be presented for final passage on the 21st day of March 2023.

\_\_\_\_\_  
Mayor

ATTEST:

\_\_\_\_\_  
City Clerk

Passed and adopted on final reading on the 21st day of March 2023.

\_\_\_\_\_  
Mayor

ATTEST:

\_\_\_\_\_  
City Clerk

City of Fort Collins

2015

Water

Efficiency

Plan



Item 7.

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## ACRONYM LIST

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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)

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## 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.<sup>1</sup> 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

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<sup>1</sup> <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.<sup>2</sup> 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.<sup>3</sup> 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)<sup>4</sup>. 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.

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<sup>2</sup> 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.

<sup>3</sup> 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.

<sup>4</sup> <http://www.fcgov.com/utilities/what-we-do/water/water-supply-demand/>

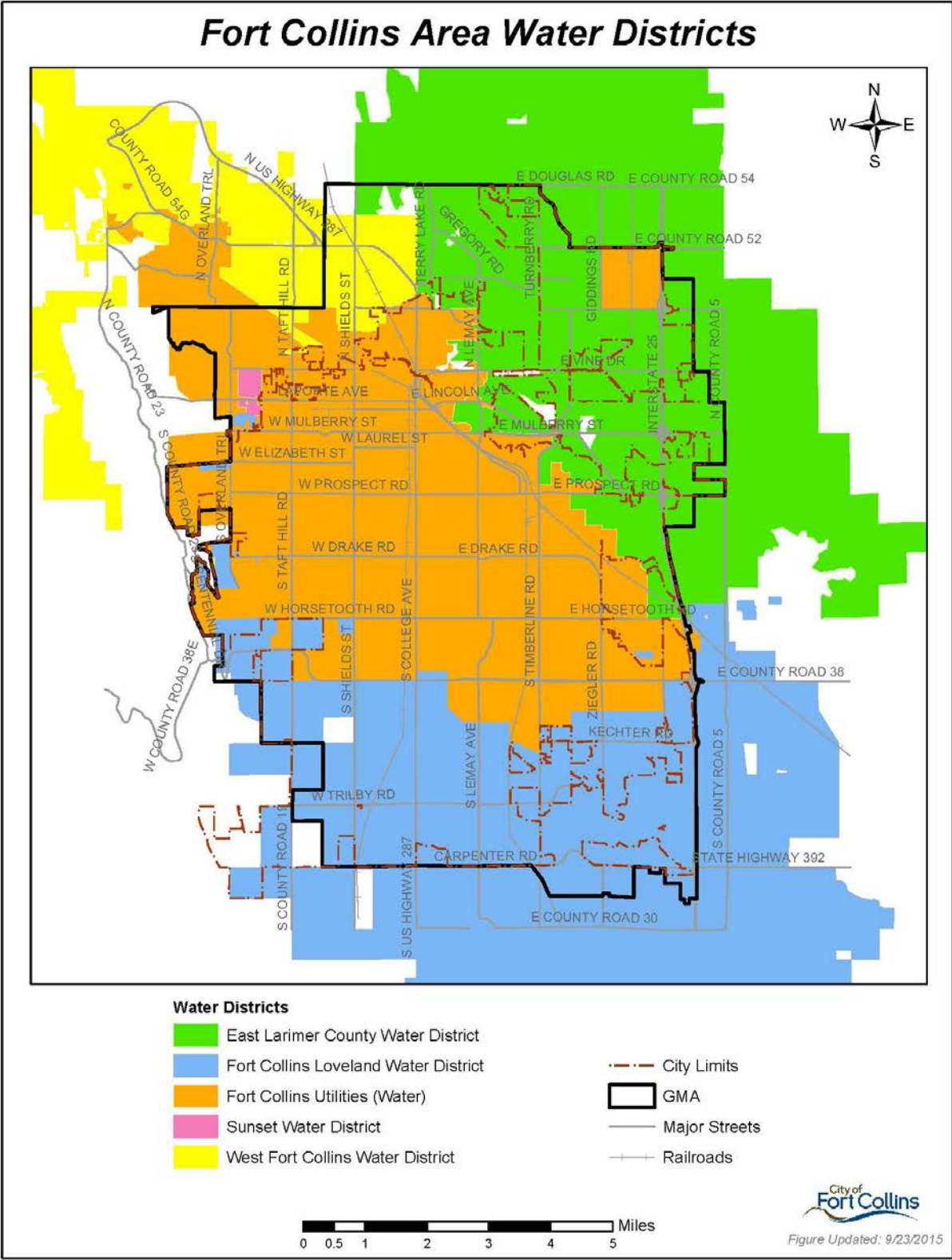


Figure 1.1: Water Service Area and surrounding Water District boundaries

## 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".<sup>5</sup> 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.<sup>6</sup> 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.<sup>7</sup>

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.<sup>8</sup>

<sup>5</sup> 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>

<sup>6</sup> 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.

<sup>7</sup> 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.

<sup>8</sup> 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.

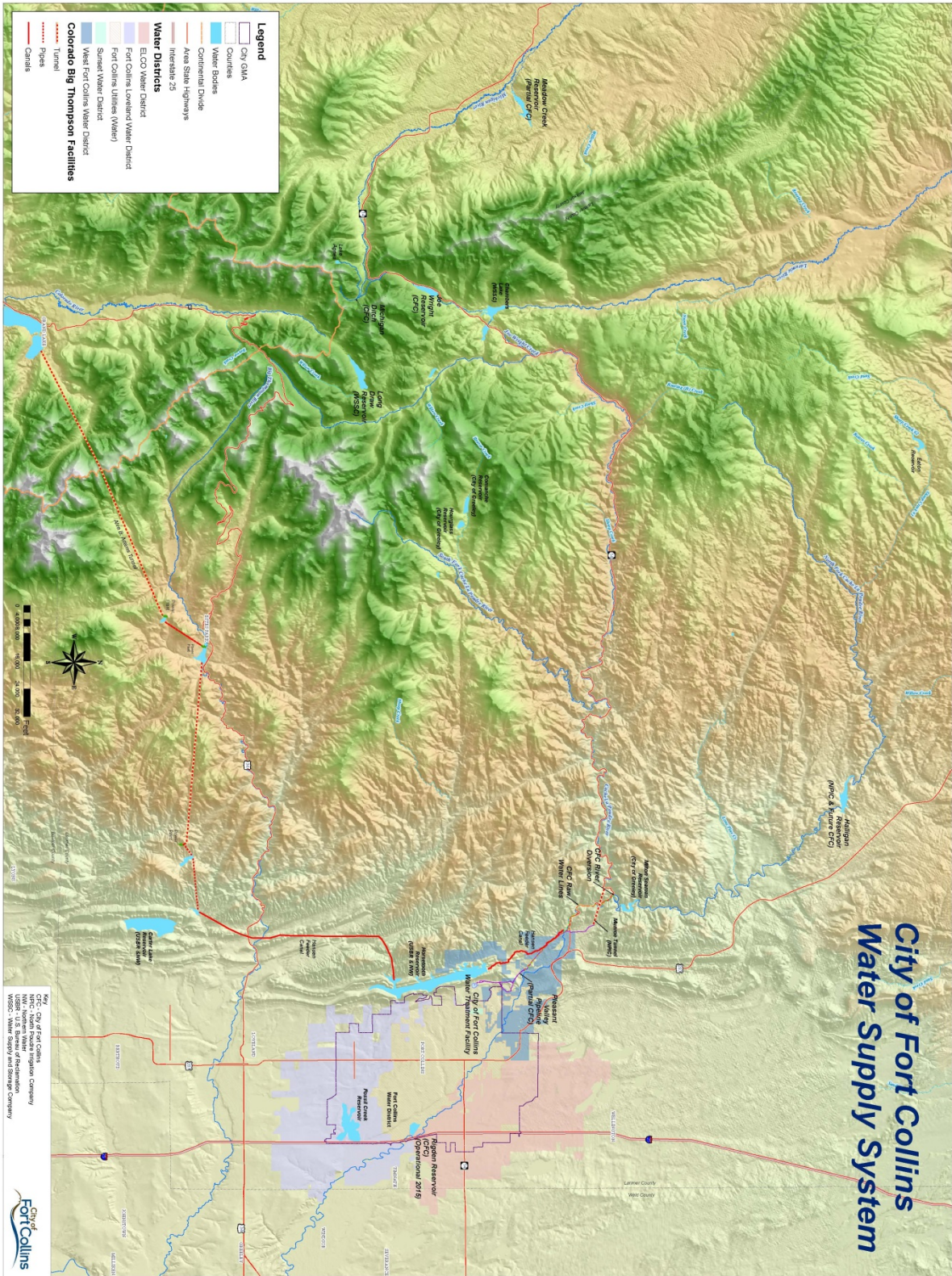


Figure 1.2 City of Fort Collins Utilities Water Supply System Map



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.<sup>9</sup> 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**

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

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.

<sup>9</sup> 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.

<sup>10</sup> These sources are only partially available for municipal use.

<sup>11</sup> The Southside ditches refer to Arthur, Larimer No. 2, New Mercer, and Warren Lake irrigation companies.

<sup>12</sup> These are relatively small contributors to the overall raw yield and include shares in Chaffee Ditch, Boxelder Irrigation Ditch Company, Lake Canal Company, Loudon 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.<sup>13</sup> 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)<sup>14</sup>. 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.<sup>15</sup> 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.<sup>16</sup>

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).

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<sup>13</sup> This refers to the total amount of water used, not to the total amount of water feasibly available in a given year.

<sup>14</sup> 2012 Water Supply and Demand Management Policy (2014 Report).

<sup>15</sup> The current water supply factor is 1.92. This equation is used to determine the residential RWR is as follows:  
RWR = 1.92 x [(0.18 x Number of Dwelling Units) + (1.2 x Net Acres)]

<sup>16</sup> 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.<sup>17</sup> 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

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<sup>17</sup> 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”.<sup>18</sup>

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.<sup>19</sup> 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**

<b>Future Need/Challenge</b>	<b>Yes</b>	<b>No</b>
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

<sup>18</sup> <http://cwcb.state.co.us/environment/climate-change/Pages/main.aspx>

<sup>19</sup> 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.<sup>20</sup> 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.

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<sup>20</sup> 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.<sup>21</sup> 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 to 1960 and about 40% were built prior to 1980.<sup>22</sup>

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.<sup>23</sup>

### 2.2 HISTORICAL WATER DEMANDS

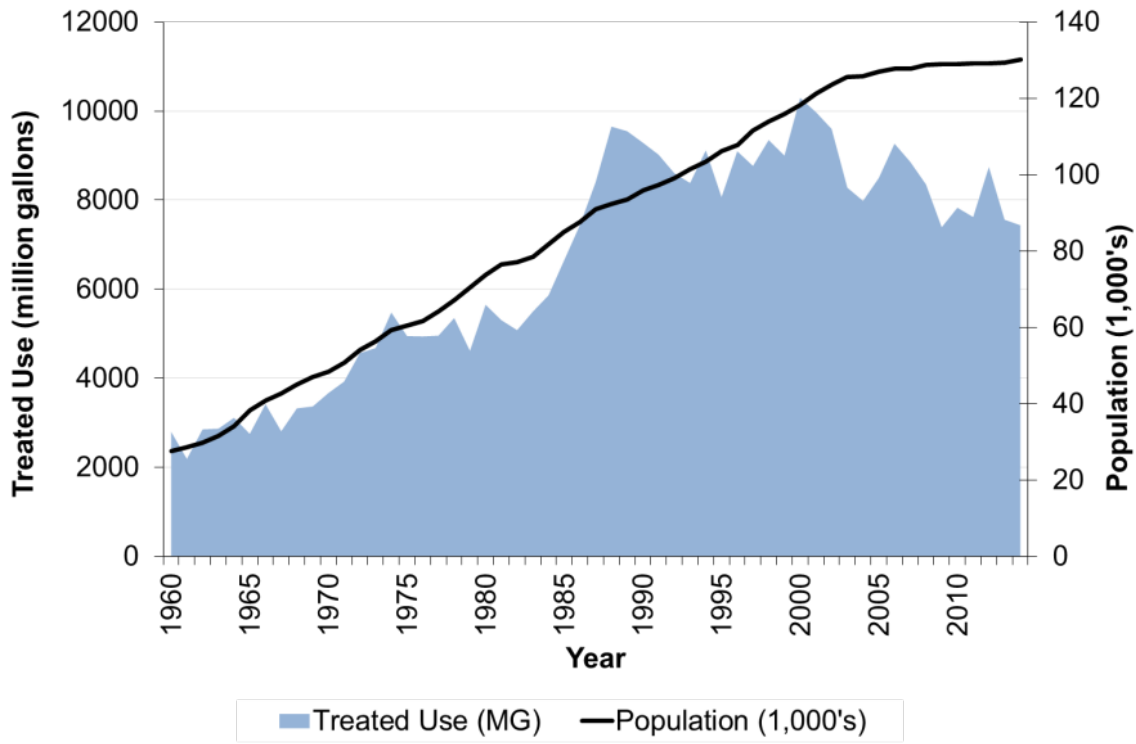
Up until the early 2000s, the Utilities’ service area population growth was largely matched by an increase in total water demands. Like many other Colorado communities, the 2002-03 drought spurred the City of Fort Collins to rethink its water use. While the population continues to grow, water demands 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.

<sup>21</sup> As of 2014, the Utilities’ service area provided treated water to about 130,200 residents.

<sup>22</sup> 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.

<sup>23</sup> The Fort Collins AB Brewery is home to the world-famous Budweiser Clydesdales West Coast Team.

### Treated water use and population, 1960 - 2014 Fort Collins Utilities



**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.

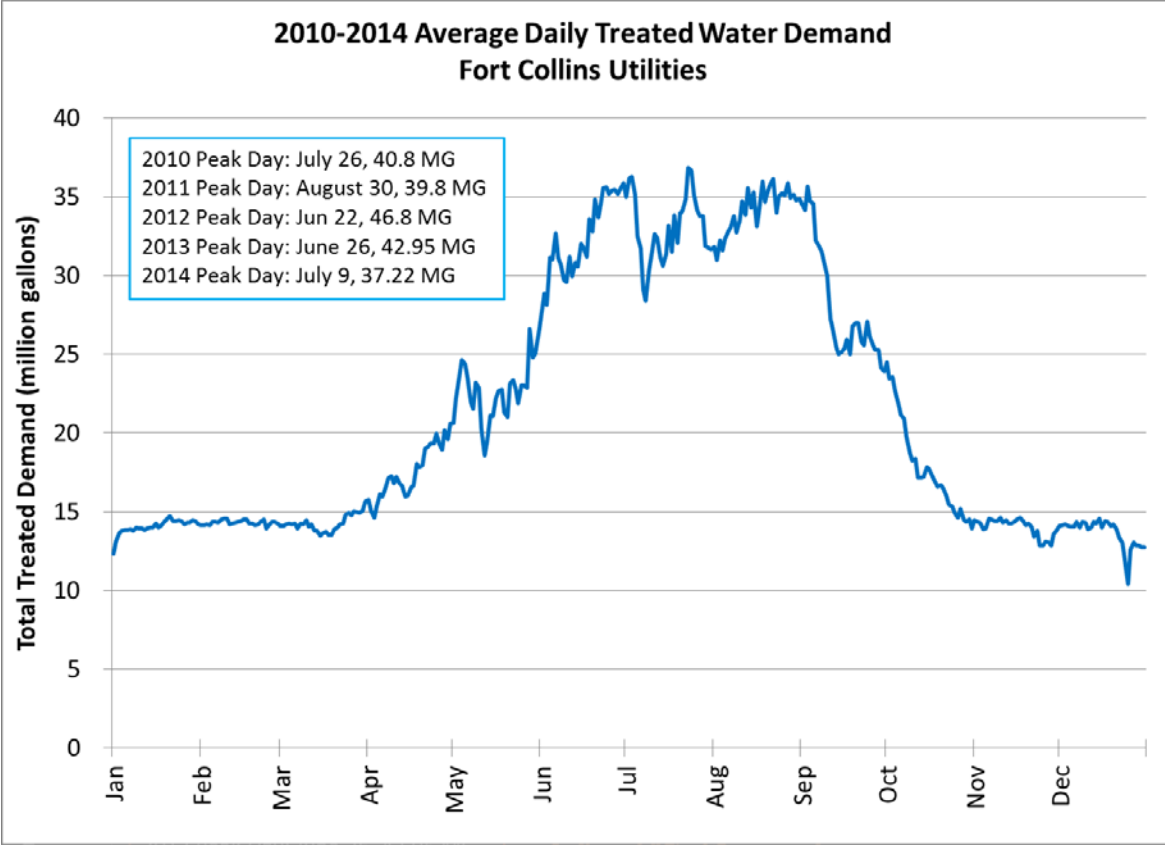


Figure 2.2 Average daily treated water demand

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**

Customer Category	2014			
	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
<b>Total</b>	<b>6,731</b>	<b>34,298</b>	<b>560.9</b>	<b>196,251</b>

\*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.

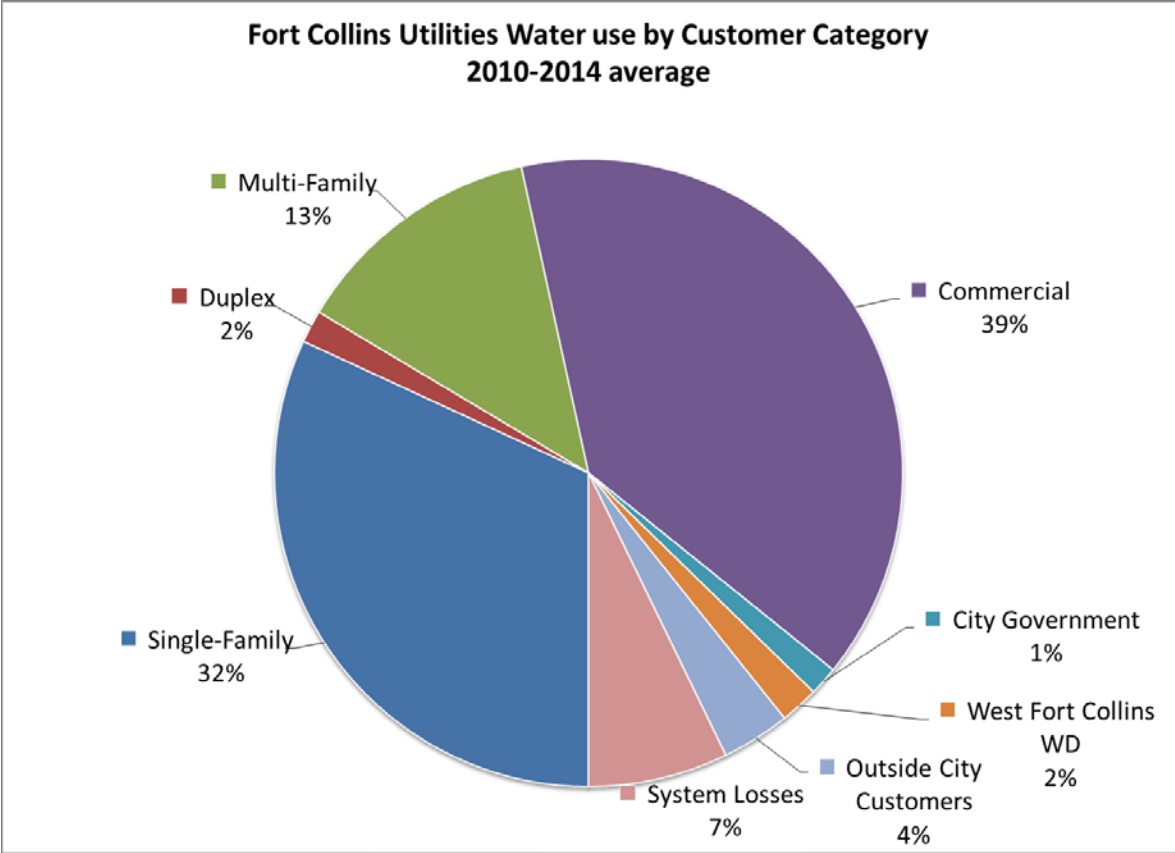


Figure 2.3 Water use by customer category, 2010-2014 average

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:

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

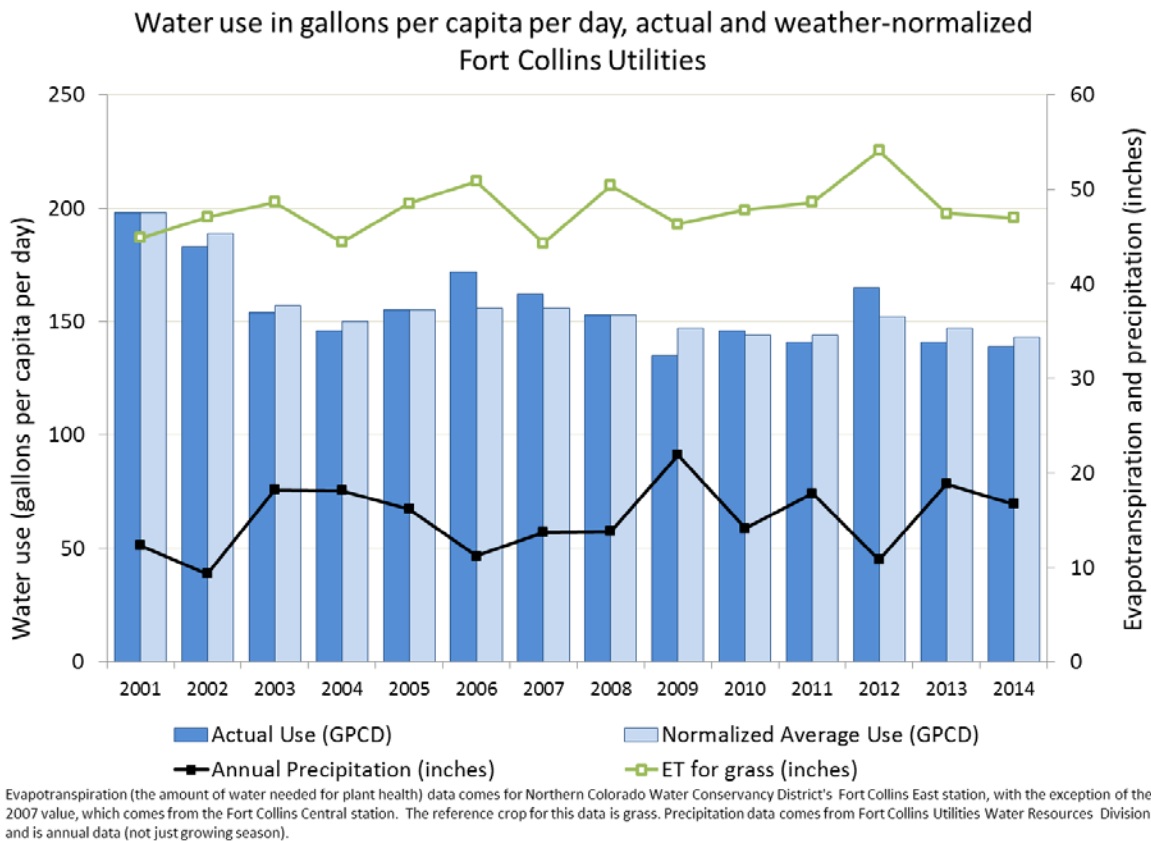
These calculations exclude large contractual customers (LCU) and other sales or exchange arrangements to produce a value that is somewhat more comparable to other municipalities.<sup>24</sup>

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

<sup>24</sup> 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.<sup>25</sup> 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.

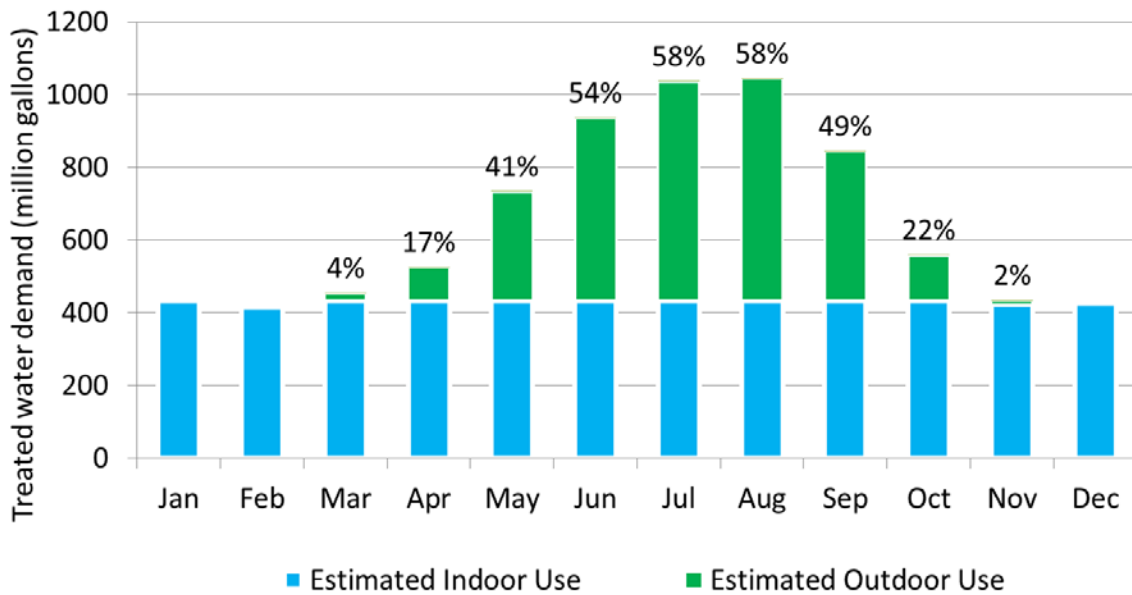


**Figure 2.4 Water use in gallons per capita per day and weather data**

<sup>25</sup> 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 2.5 illustrates 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.

**Estimated Indoor and Outdoor Use**  
2010-2014 average, Fort Collins Utilities



Note: Indoor use from March to October is estimated to be the average of the winter months (Winter Quarterly Average), December through February.

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

Fort Collins Utilities participated in a single-family end use study in 2012.<sup>26</sup> 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

<sup>26</sup> 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.

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### 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 led 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.<sup>27</sup> 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.

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### 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.

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<sup>27</sup> 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**

<b>Foundational Activities</b>	<b>Educational Activities</b>
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)
<b>Target Technical Assistance and Incentives</b>	Watershed tours (2012)
Clothes washer rebates (2003)	Xeriscape Demonstration Garden (1986)
Commercial facility assessments (2004)	<b>Ordinances and Regulations</b>
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)	<b>Other Activities</b>
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.

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### 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).

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### 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<sup>28</sup>.

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

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### 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.<sup>29</sup>

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<sup>28</sup> For more information on the Planning Demand Level, see Section 1.2.

<sup>29</sup> 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.<sup>30</sup> 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.

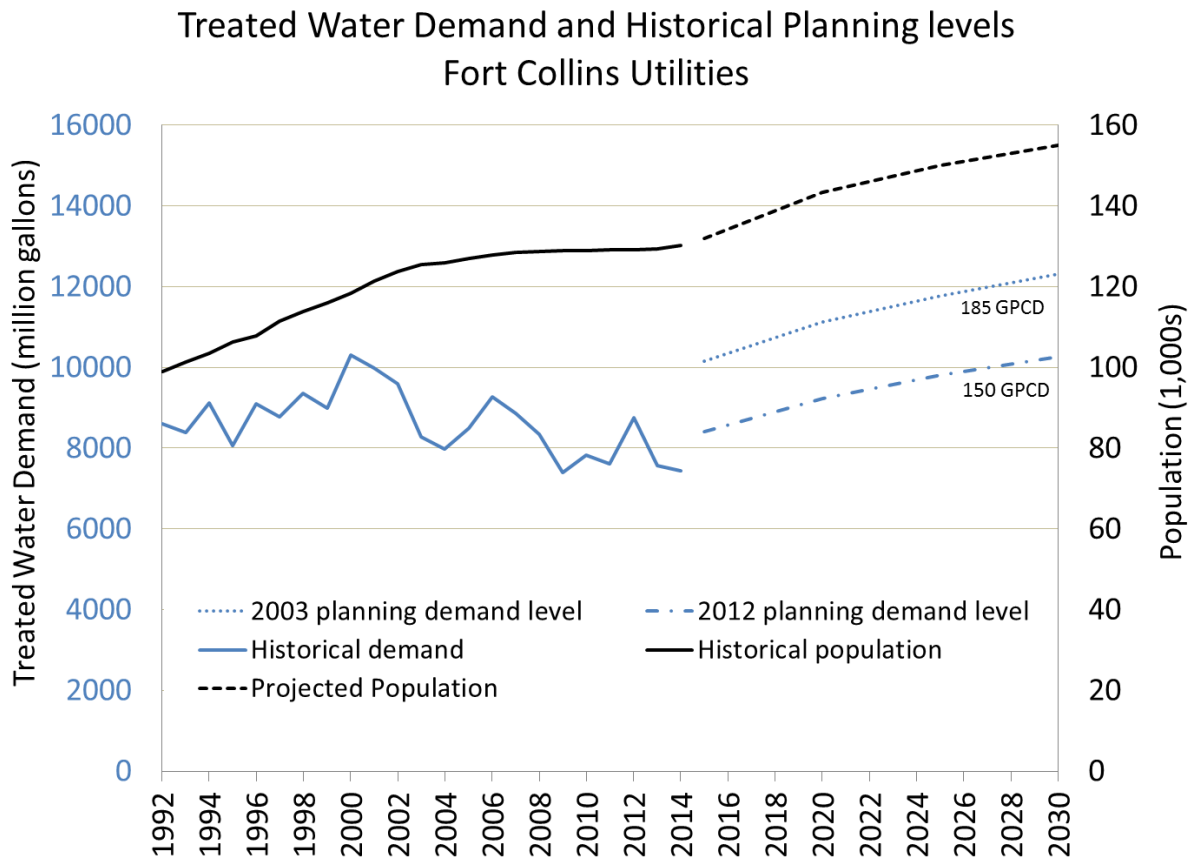


Figure 2.6 Treated water demand, historical planning levels, and population

<sup>30</sup> 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)<sup>31</sup>: 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)<sup>32</sup>: 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)<sup>33</sup>: 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.

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

<sup>32</sup> 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>

<sup>33</sup> [http://www.fcgov.com/utilities/img/site\\_specific/uploads/ORDINANCE\\_NUMBER\\_088\\_July\\_2014\\_Water\\_Supply\\_Shortage\\_Response\\_Plan.pdf](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.

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#### 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.<sup>34</sup> 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

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<sup>34</sup> <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.<sup>35</sup>
- 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.<sup>36</sup>
- Delay of capital expansion projects: Decreased wastewater flows have delayed the expansions of the Drake Water Reclamation Facility treatment capacity from 2010 to 2028.

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<sup>35</sup> These costs may also represent larger environmental costs as run-off from landscapes can affect water quality and ecosystem health.

<sup>36</sup> 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 1<sup>st</sup>, 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 per day) are much lower than the system-wide GPCD; however, during the summer irrigation months, it may be significantly higher. For customers in multi-family or multi-business units that are not sub-metered, there is no way to connect to the single system-wide goal. 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. Chapter 4 describes the strategies for achieving this goal.

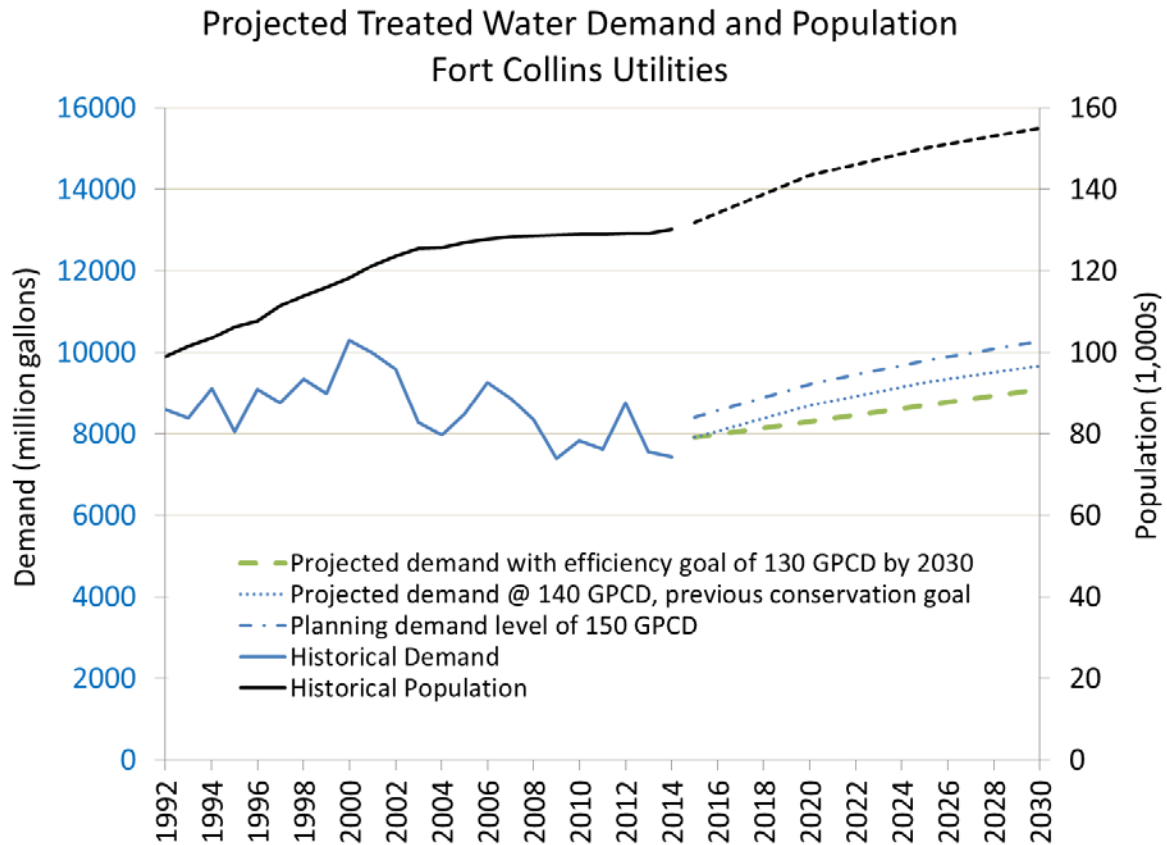


Figure 3.1 Water efficiency goal, demand and population

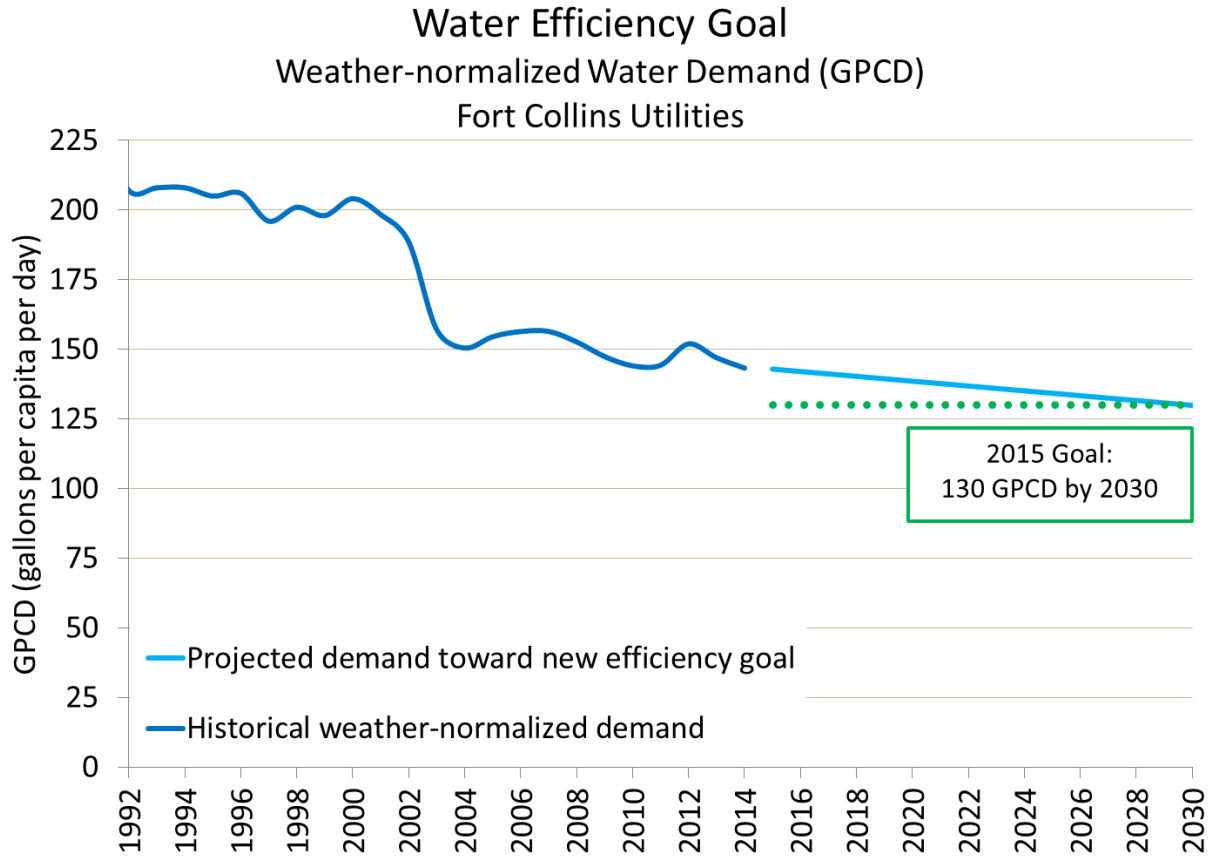


Figure 3.2 Historical GPCD and New Efficiency Goal



## 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 fixture 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<sup>37</sup>, 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

<sup>37</sup> <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.

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#### 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?

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#### 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		
<p><b>Benefits</b></p> <ul style="list-style-type: none"> <li>• Increased customer understanding of water use</li> <li>• Greater connectivity to customers</li> <li>• Increased customer benefits through web portal information and tools</li> <li>• Less confusion and fewer bill surprises</li> </ul>	<p><b>Potential Activities</b></p> <ul style="list-style-type: none"> <li>• Monitor My Use &amp; High Bill/Use Alerts</li> <li>• Improved leak detection</li> <li>• Near real-time identification of savings and inefficiencies</li> <li>• Craft easy-to-understand, targeted water-savings actions based on data and use patterns</li> </ul>	<p><b>Example:</b> 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.</p>
Promote and support greater outdoor water efficiency		
Aligns with City Plan Strategic Objectives: 1.11, 4.6, 4.7, 4.8, 7.5		
<p><b>Benefits</b></p> <ul style="list-style-type: none"> <li>• Reduced peak season and peak day demands, which impact system capacity needs and long-term planning</li> <li>• Customer benefits through lower bills, increased aesthetics and home value</li> <li>• Fewer wasting water issues/complaints</li> </ul>	<p><b>Potential Activities</b></p> <ul style="list-style-type: none"> <li>• Residential and Commercial sprinkler audit programs</li> <li>• Xeriscape Incentive Program</li> <li>• Customer and Contractor training series</li> <li>• Interactive demonstrations</li> <li>• Educational Water budget tool</li> </ul>	<p><b>Example:</b> 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.</p>
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		
<p><b>Benefits</b></p> <ul style="list-style-type: none"> <li>• Increased efficiency of development</li> <li>• New development will lead by example</li> <li>• Less waste from pursuing retrofits of new development</li> <li>• Reduced impact of population growth</li> </ul>	<p><b>Example Activities</b></p> <ul style="list-style-type: none"> <li>• Landscape requirements and incentives for new development</li> <li>• Contractor education and trainings</li> <li>• New and re-development plan review requirements</li> <li>• Require WaterSense appliances and fixtures</li> </ul>	<p><b>Example:</b> 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.</p>

Expand commercial and industrial sector strategies		
Aligns with City Plan Strategic Objectives: 3.5, 3.6, 4.7, 4.8, 5.10		
<b>Benefits</b> <ul style="list-style-type: none"> <li>Increased water savings due to scale of projects</li> <li>Enhanced business partnerships</li> <li>Support ClimateWise program</li> <li>Enable greater economic health</li> </ul>	<b>Example Activities</b> <ul style="list-style-type: none"> <li>Custom commercial rebate program</li> <li>Benchmarking</li> <li>Targeted industry-specific campaigns and outreach</li> <li>Address tenant/owner incentive misalignment</li> </ul>	<b>Example:</b> 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		
<b>Benefits</b> <ul style="list-style-type: none"> <li>Customer has greater understanding of role in the water system</li> <li>Increased customer understanding and support of Utilities' actions and decisions</li> <li>Increased cooperation during difficult conditions</li> </ul>	<b>Example Activities</b> <ul style="list-style-type: none"> <li>Improved and expanded messaging strategies</li> <li>Identify new approaches to education and outreach</li> <li>Develop innovative methods to strengthen K-12 water literacy curriculum</li> </ul>	<b>Example:</b> In 2014 we began providing Home Water Report to select customers; these display usage information, comparisons 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.<sup>38</sup> 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.

<sup>38</sup> 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.<sup>39</sup>
- **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.<sup>40</sup>

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<sup>39</sup> 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>

<sup>40</sup> 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	Example Actions
<ul style="list-style-type: none"> <li>• Decisions supported by data</li> <li>• Improved accuracy of water savings estimates</li> <li>• Increased overall portfolio effectiveness</li> <li>• Increased program savings and reach through use of behavioral science principles</li> </ul>	<ul style="list-style-type: none"> <li>• Targeted and tailored programs</li> <li>• Marketing and Communications</li> <li>• Streamlined, consistent program tracking and reporting</li> <li>• Develop and monitor targeted metrics to support targeted goals</li> </ul>

#### Cultivate new and bolster existing community and statewide partnerships

Benefits	Example Actions
<ul style="list-style-type: none"> <li>• Greater trust in the Utilities</li> <li>• Expanded capacity and reach through project partners</li> <li>• Support economic health</li> <li>• Stronger network of conservation partners</li> </ul>	<ul style="list-style-type: none"> <li>• Expand conservation support for nearby water districts</li> <li>• Expand work with higher education institutions</li> <li>• Increase public-private projects, like an industry-specific water efficiency conference</li> <li>• Participate in and contribute to statewide conservation efforts, (e.g. Colorado WaterWise, Colorado Foundation for Water Education)</li> </ul>

#### Coordinate and support symbiotic efforts within Utilities and across the City

Benefits	Example Actions
<ul style="list-style-type: none"> <li>• Improved consistency and reduced redundancy across City efforts</li> <li>• Simplified processes for customers</li> <li>• Greater synergies in the water-energy nexus space</li> </ul>	<ul style="list-style-type: none"> <li>• Resource Conservation unification in Utilities</li> <li>• Collaborate with efforts of Environmental Services, Planning, Natural Areas, Community Engagement, Nature in the City, Housing and Development, Parks, among others</li> <li>• Partnerships with the neighboring water districts.</li> </ul>

### 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.

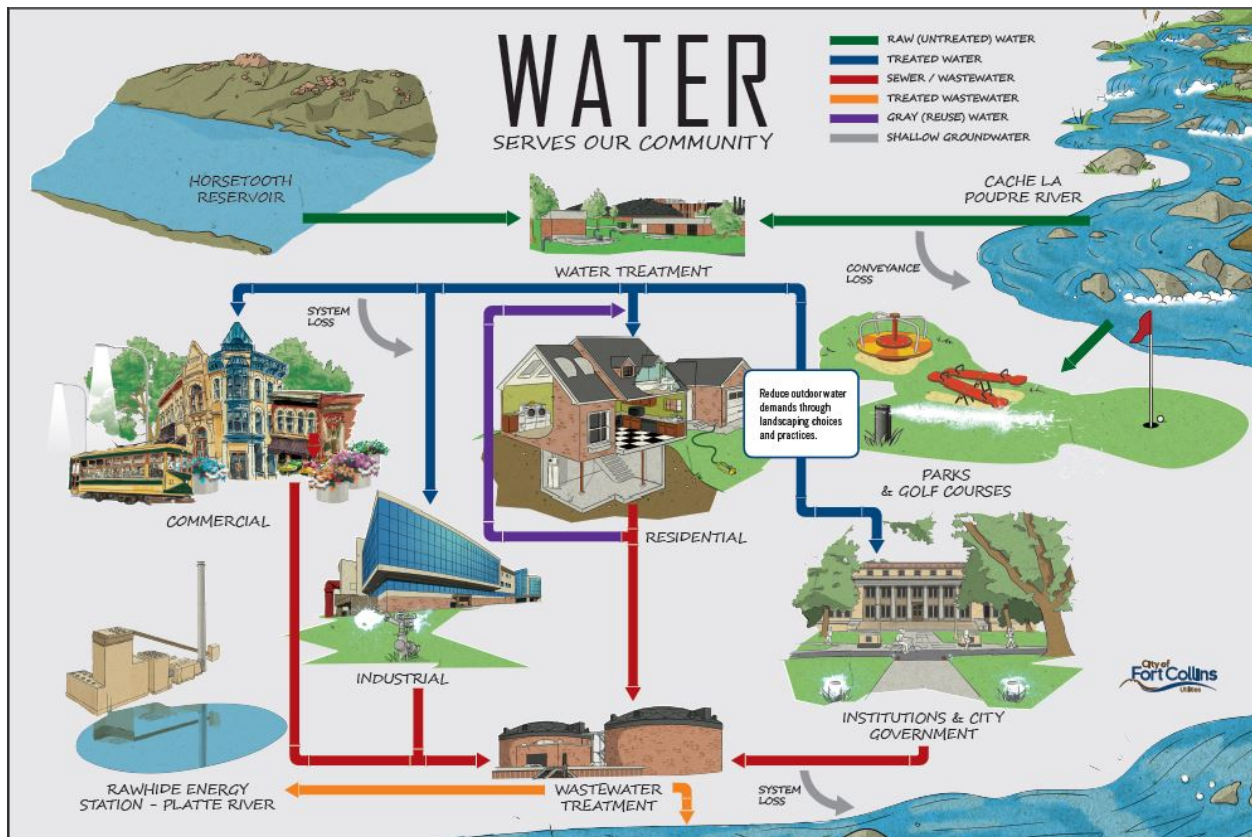


Figure 3 Diagram of Water Sources, Key Infrastructure and Customers

### 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.<sup>41</sup>
- 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.<sup>42</sup> 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.<sup>43</sup>
- 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.

<sup>41</sup> 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.

<sup>42</sup> 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.

<sup>43</sup> 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.<sup>44</sup>
  - 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.

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<sup>44</sup> 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/conserves/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)<sup>45</sup>: 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.<sup>46</sup>
- 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.<sup>47</sup>

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<sup>45</sup> <http://www.fcgov.com/utilities/community-education>

<sup>46</sup> The Utilities implements a similar program (Home Energy Reports) for electric customers.

<sup>47</sup> <http://www.fcgov.com/gardens/>

Ordinances and Regulations

- Green building codes (2011)<sup>48</sup>: 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)<sup>49</sup> – 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.<sup>50</sup>
- 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.<sup>51</sup>
- 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.<sup>52</sup>
- 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.<sup>53</sup>

<sup>48</sup> <http://www.fcgov.com/enviro/green-building.php>

<sup>49</sup> <http://www.fcgov.com/planning/streetscapedesign.php>

<sup>50</sup> <http://www.fcgov.com/building/codes.php>

<sup>51</sup> City Ordinance No. 089, last updated in 2014.

<sup>52</sup> <http://www.fcgov.com/sustainability/goals.php>

<sup>53</sup> City Ordinance No. 088, last updated in 2014.

Other Activities

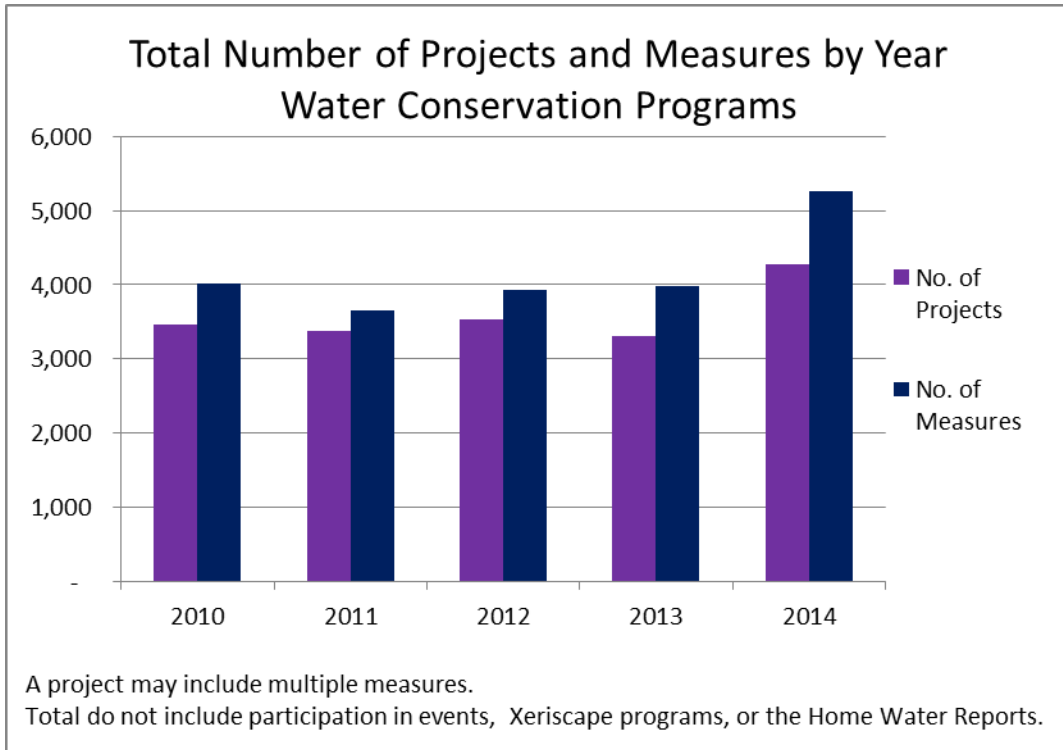
- Backwash water recycling (2003): Backwash water recycling equipment at the water treatment facility treats backwash water and recycles it to the beginning of the treatment process.
- Large customer reuse (1985) – Treated wastewater from the Drake Water Reclamation Facility is pumped to Rawhide Power 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.<sup>54</sup>

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

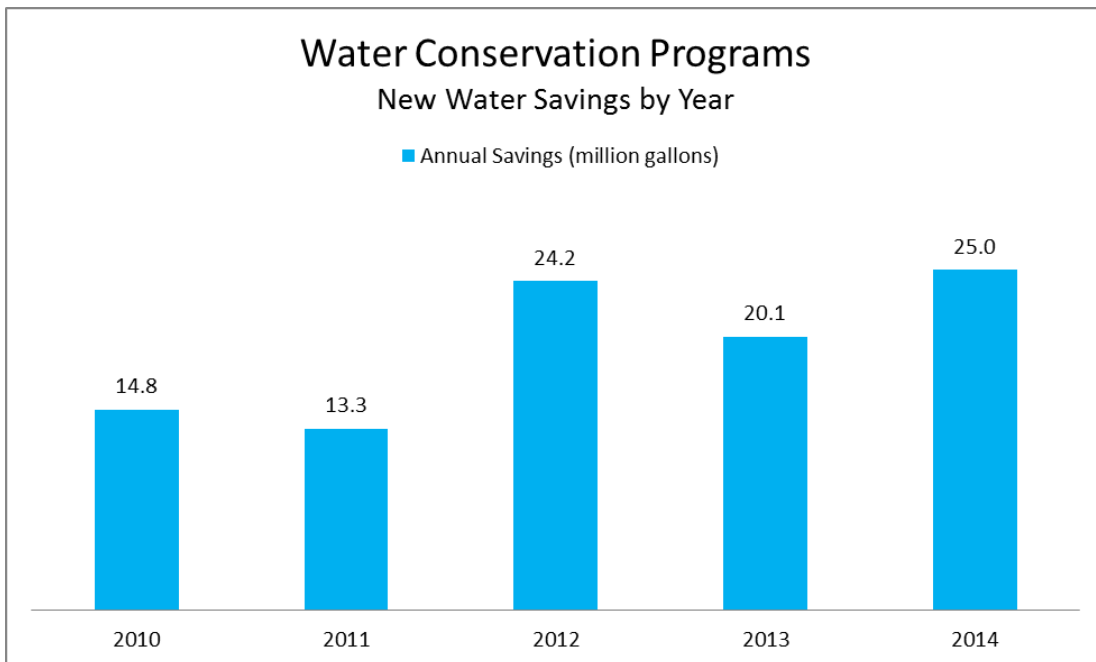
Program	2010	2011	2012	2013	2014
Clothes Washers	1249	1366	993	971	1058
Commercial Clothes Washer	--	--	0	1	0
Commercial Dishwasher	--	--	0	1	0
Commercial Facility Water Assessments	81	77	93	268	281
Commercial Kitchen Info Program	--	--	32 nozzles, 72 aerators	16 rebates, 79 items	--
Commercial Restroom	--	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

<sup>54</sup> 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.

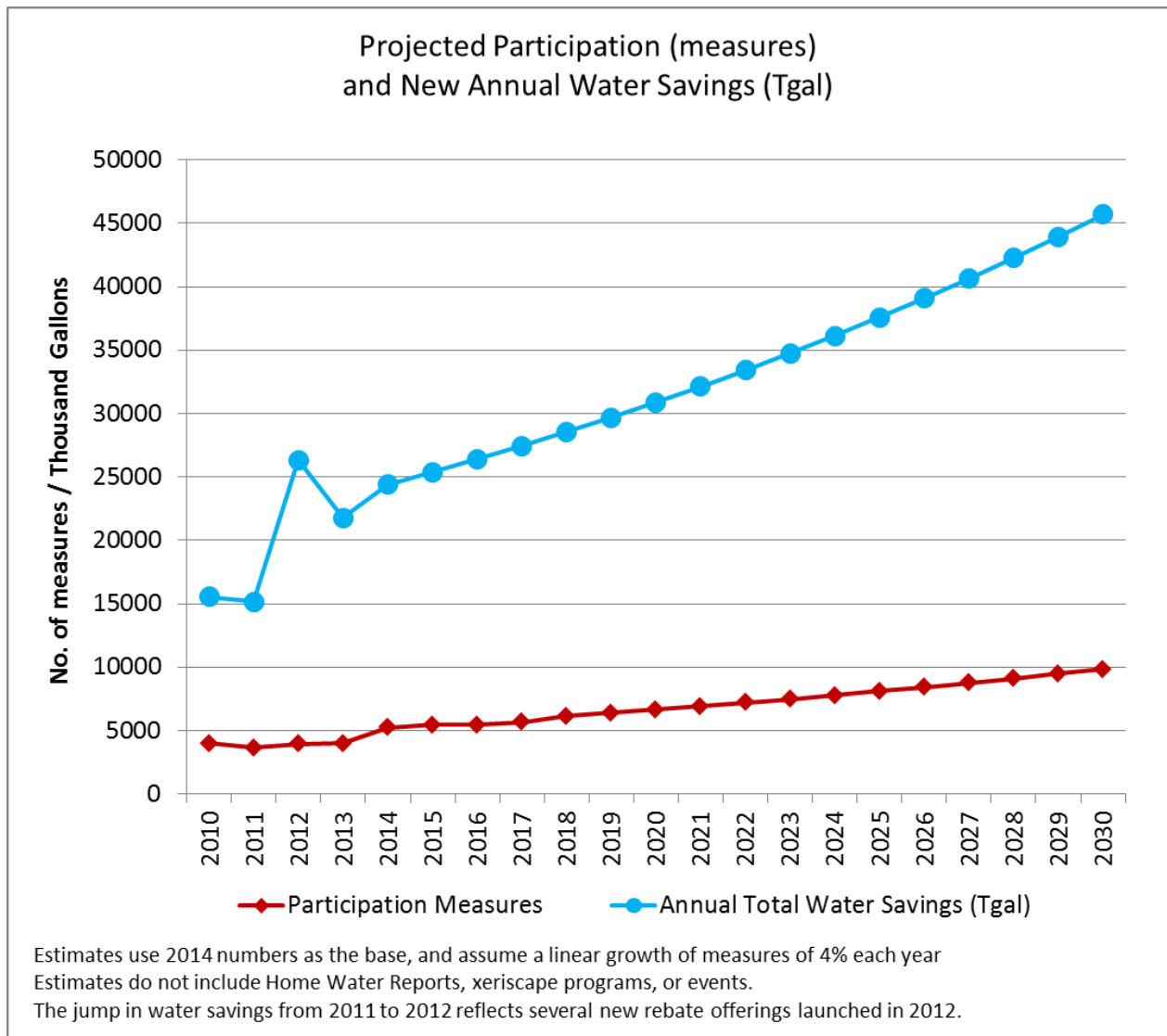


Below is a graph of the estimated new annual water savings in million gallons. These totals do not reflect savings from Xeriscape programs, Home Water Reports, or events.





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.



**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.<sup>55</sup>

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.

<sup>55</sup> <http://www.fcgov.com/citymanager/pdf/strategic-plan-2015.pdf>



## City of Fort Collins

### 2023 - 2024 Offer Narratives

#### Environmental Health



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

#### **Offer Type: 1-Time Enhancement**

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

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

#### **Offer Summary**

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

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

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

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

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

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



## Offer 1.42: Utilities: Water Efficiency Plan Update

### Offer Type: 1-Time Enhancement

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

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

### Additional Information

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



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

**Offer Type: 1-Time Enhancement**

### **Impact to Ongoing Expenses**

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

### **Scalability and explanation**

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

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

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

### **Links to Further Details:**

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

### **Linkage to Strategic Objectives**

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

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



## Offer 1.42: Utilities: Water Efficiency Plan Update

### Offer Type: 1-Time Enhancement

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

### Performance Metrics

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

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

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

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

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

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

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

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

### Differences from Prior Budget Cycles



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

***Offer Type: 1-Time Enhancement***

- Not applicable

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

- Not applicable

**Offer Profile**

Offer Owner: mamiller

Financial Lead: lasmith

Lead Department: Utilities Strategic Planning



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

*Offer Type: 1-Time Enhancement*

**Enhancement to Programs and Services**

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



**DRAFT****Summary Minutes and Record of Decisions****September 20 & 21, 2022 Board Meeting**

A regular meeting of the Colorado Water Conservation Board (CWCB) convened at Fort Lewis College in Durango and virtually on zoom. The meeting was called to order by Chair Jackie Brown. 8 voting members were present at the call to order, so a quorum was present (at least 6 required). Voting members present were: Robert Sakata, Paul Bruchez, Greg Felt, Celene Hawkins, Steven Anderson, Jessica Brody, and Heather Dutton, and ex-officio voting member Dan Gibbs, Executive Director of the Department of Natural Resources. Non-voting ex officio members present or represented were: Scott Steinbrecher, Attorney General's Office; Robert Harris, Colorado Parks and Wildlife; Kate Greenberg, Department of Agriculture; Kevin Rein, State Engineer and Rob Genualdi, Division Engineer, Division 7, and Rebecca Mitchell, Colorado Water Conservation Board Director. Counsel to the Board, Jen Mele, was also in attendance.

On the second day, the meeting was called to order by Chair Jaclyn Brown. 8 voting members were present at the call to order, so a quorum was present (at least 6 required). The voting members present were: Paul Bruchez, Jessica Brody, Steven Anderson, Robert Sakata, Greg Felt, Celene Hawkins, Jaclyn Brown, and Heather Dutton. Non-voting ex officio members present or represented were: Robert Harris, Colorado Parks and Wildlife; Kate Greenberg, Department of Agriculture; Kevin Rein, State Engineer; and Rebecca Mitchell, Colorado Water Conservation Board Director. Counsel to the Board, Jen Mele, was also in attendance.

**Wednesday, September 20, 2022**

**1 Review /Approve Agenda**

A motion to approve the agenda was made by Greg Felt, which was seconded by Heather Dutton. The motion was approved unanimously (8-0).

**2 Review and Approve July 20 & 21, 2022 Board Meeting Minutes**

A motion to approve the July 2022 Board minutes with the following corrections; add Paul Bruchez to the list of attendees at call to order on page 1, was made by Robert Sakata, which was seconded by Greg Felt. The motion was approved unanimously (8-0).

**3 Approve and/or Remove Consent Agenda Items**

A motion to approve the Consent Agenda Items CA1a-e, 2a, 3a-c, 4a-c, 5a-d and 5g-j was made by Greg Felt, which was seconded by Steve Anderson. The motion was approved unanimously (8-0). Consent agenda item 5e was moved to the end of the agenda on day 1 for more discussion, Celene Hawkins disclosed that her employer is a part of the project on CA 5e.

**1. Statements of Opposition**

*Stream & Lake Protection Section*

*Staff recommends the Board ratify CWCB's filing of the following Statements of Opposition:*

- a. Case No. 22CW3030 (Water Division 4): Application of Wolf Land Company, LP
- b. Case No. 22CW3042 (Water Division 5): Application of Red Mountain Ranch Partnership, LLLP
- c. Case No. 22CW3050 (Water Division 5): Application of Two Creeks Holdings LLC
- d. Case No. 22CW3053 (Water Division 5): Application of NamuRanch LLC
- e. Case No. 22CW3059 (Water Division 5): Application of Blue River Valley Ranch Lakes Association

**2. Change of Grantee**

*Water Supply Planning Section*

a. Arkansas Basin - Arkansas River Watershed Collaborative - Basin Implementation Plan  
Education & Outreach

**3. Water Supply Reserve Fund Application Grant**

*Water Supply Planning Section*

Offerings  
a. **Basin** - Rio Grande  
**Applicant** - Colorado Master Irrigator  
**Name of Water Activity** - Master Irrigator Program - Expanded Course  
SLV  
**Account Request** - \$94,112.50

and BH  
b. **Basin** - South Platte  
**Applicant** - Coalition for the Poudre River Watershed  
**Name of Water Activity** - Phase 2 - Fish Passage Design for the Whitney  
Eaton Reach of the Cache la Poudre River  
**Account Request** - \$72,970

c. **Basin** - Yampa/White/Green  
**Applicant** - Nicholas & Ann Charchalis  
**Name of Water Activity** - Drescher Dam Rehabilitation - Phase 2  
**Account Request** - \$62,440

**4. Floodplain Designations**

*Watershed and Flood Protection Section*

- a. "Flood Insurance Study, Jefferson County and Incorporated Areas", by FEMA, dated August 2022
- b. "Flood Hazard Area Delineation, Cherry Creek Minor Tributaries in Arapahoe County", by Dewberry, dated October 2021
- c. "Flood Hazard Area Delineation, Weaver Creek", by Olsson, dated November 2021

**5. Water Plan Grants**

*Operations Section*

**Agricultural Projects, a-c**

a. **Applicant** - Crawford Clipper Ditch Company

**Project - CCDC Upper West Lateral Pipeline and Water Optimization Project**

- b. Applicant - Terrace Irrigation Company**  
**Project - Terrace Irrigation Water Efficiency Project**
- c. Applicant - Delta County**  
**Project - Miners Trail - Short Ditch Extension**

**Conservation & Land Use Planning, d**

- d. Applicant - Louviers Water and Sanitation District**  
**Project - Louviers Water and Sanitation - Water Service Meter Replacement**

**Watershed Health & Recreation, f - j**

- f. Applicant - Colorado Youth Corps Association**  
**Project - 3 total projects - Project 1) Rio Grande National Forest Beaver Characterization, Restoration, and Reintroduction Project. Project 2) Alamosa Riparian Park Revegetation. Project 3) John Griffin Regional Park Fire Mitigation Project Phase 2**
- g. Applicant - Conservation Resource Center**  
**Project - Private Lake and Reservoir Protection Initiative: Using Conservation Easements & Tax Credits to promote State Water Plan and Private Land Conservation Goals in the Arkansas, Rio Grande, and South Platte Water Basins**
- h. Applicant - American Rivers**  
**Project - Uncompahgre River Multi-Benefit Project**
- i. Applicant - River Science**  
**Project - River Watch: Collaboration and Outreach for Strategic Macroinvertebrate Data**
- j. Applicant - Lyons Ute Hwy, LLC**  
**Project - Lyons Water Plant Stream Restoration**

<b>4</b>	<b>Directors' Reports</b>
<b>4a.</b>	DNR Executive Director/IBCC Director - Dan Gibbs
<b>4b.</b>	CWCB Director - Rebecca Mitchell

- 4c. Agriculture Commissioner – Kate Greenberg
- 4d. State Engineer - Kevin Rein and Rob Genualdi
- 4e. Colorado Parks and Wildlife Director – Robert Harris
- 4f. Water Resource and Power Development Authority – Keith McLaughlin

**5 Request for Authorization to Proceed to Trials in Stipulated Opposition Cases:**

**5a Case No. 18CW3193 (Water Division 1): Application of City of Loveland**

**Action:** Report by CWCB staff member Colin Watson. A motion to approve the staff recommendation was made by Celene Hawkins, which was seconded by Heather Dutton. The motion was approved unanimously (8-0).

**Staff Recommendation:** Pursuant to ISF Rule 8j., Staff recommends that the Board authorize Staff to participate at trial, as necessary, to defend CWCB’s stipulation in each of the cases identified in Table 1. Table 1.

Item	Div.	Case No.	Applicant	Trial Date (No. of Days)	CWCB Stipulation Date	CWCB Statement of Opposition Date
5.a.	1	18CW3193	City of Loveland	October 10, 2022 (8 days)	January 22, 2020	January 30, 2019
5.b.	1	18CW3230	The Consolidated Mutual Water Company	October 24, 2022 (10 days)	April 26, 2022	February 27, 2019

**5b Case No. 18CW3230 (Water Division 1): Application of The Consolidated Mutual Water Company**

**Action:** Report by CWCB staff member Colin Watson. A motion to approve the staff recommendation was made by Celene Hawkins, which was seconded by Heather Dutton. The motion was approved unanimously (8-0).

**Staff Recommendation:** Pursuant to ISF Rule 8j., Staff recommends that the Board authorize Staff to participate at trial, as necessary, to defend CWCB’s stipulation in each of the cases identified in Table 1.

Item	Div.	Case No.	Applicant	Trial Date (No. of Days)	CWCB Stipulation Date	CWCB Statement of Opposition Date
5.a.	1	18CW3193	City of Loveland	October 10, 2022 (8 days)	January 22, 2020	January 30, 2019

5.b.	1	18CW3230	The Consolidated Mutual Water Company	October 24, 2022 (10 days)	April 26, 2022	February 27, 2019
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**6 Proposed Acquisitions for Instream Flow Use**  
*Stream and Lake Protection Section*

**6a Proposed Water Use Agreement with Colorado River District to Lease Ruedi Reservoir Water for Winter Intream Flow Use in the Fryingpan River, Water Division 5 (Pitkin and Eagle Counties)**

**Action:** Report by CWCB staff member Pete Conovitz.

*This is an informational item with no Board action required.*

**6b Cottonwood Irrigating Ditch No. 1 Expedited Loan of Water from Colorado Parks and Wildlife for Instream Flow Use on Cottonwood Creek, Water Division 2 (Chaffee County)**

**Action:** Report by CWCB staff member Pete Conovitz. A motion to approve the staff recommendation was made by Greg Felt, which was seconded by Steve Anderson. The motion was approved unanimously (8-0).

**Staff Recommendation:** Staff recommends that the Board ratify the CWCB Director’s decision to accept Colorado Parks and Wildlife’s offer of an expedited temporary loan of water for instream flow use on Cottonwood Creek in Water Division 2.

**7 Water Plan Grants**  
*Operations Section*

**Agricultural Projects, a-d**

- a. Applicant - Colorado Rio Grande Restoration Foundation  
 Project - Farmers Union Canal Diversion and Headgate
  
- b. Applicant - Colorado Ag Water Alliance  
 Project - Agricultural Drought Resilience & Innovative Water Conservation

**Action:** Report by CWCB staff member Nora Flynn. Heather Dutton disclosed that she sits on the Board of the Colorado Rio Grande Restoration Foundation. Robert Sakata disclosed that he is a member of the CO Food Vegetables Association which is a part of CAWA. Celene Hawkins disclosed that her employer the Nature Conservancy is a partner on the CAWA application is providing match funding. Paul Bruchez disclosed that he gave presentations to the CAWA group but was not part of the

application process. A motion to approve the staff recommendation was made by Heather Dutton, which was seconded by Greg Felt. The motion was approved unanimously (8-0).

**Staff Recommendation:** Staff recommends Board approval of agenda item 7a., \$600,000 to the Colorado Rio Grande Restoration Foundation for the Farmers Union Canal Diversion and Headgate Improvement Project. Staff recommends Board approval of agenda item 7b.\$183,700 to the Colorado Ag Water Alliance for the Agricultural Drought Resilience & Innovative Water Conservation Project.

**Conservation & Land Use Planning, c-i**

- c. Applicant - Resource Central  
Project - Resource Central Landscape Change Program
  
- d. Applicant - San Miguel Watershed Coalition  
Project - Integrated Hydrological Modeling of the San Miguel Watershed: A modern tool for water resource evaluations
  
- e. Applicant - Pacific Institute for Studies in Development, Environment, and Security  
Project - Diversifying Colorado’s Water Portfolio: The Potential for Stormwater Capture and Use to Contribute to a Water Resilient Future
  
- f. Applicant - Fort Collins Utilities  
Project - Xeriscape Incentive Program Expansion
  
- g. Applicant - Fort Collins Utilities  
Project - Fort Collins Utilities Water Efficiency Plan Update
  
- h. Applicant - University of Colorado Denver  
Project - Examining the use of recycled water in agricultural production in Colorado
  
- i. Applicant - Aspen Global Change Institute Inc  
Project - Roaring Fork Watershed - Evaluation of Soil

**Action:** Report by CWCB staff member Kevin Reidy. A motion to approve the staff recommendation was made by Jessica Brody, which was seconded by Robert Sakata. The motion was approved unanimously (8-0).

**Staff Recommendation:** Staff recommends the following Board action for activities listed in the following table regarding Colorado’s Water Plan Grant Program funding.

Applicant	Project Name	Grant Request Amount	Staff Recommendation
c. Resource Central	Resource Central Landscape Change Program	\$110,070	\$110,070
d. San Miguel Watershed Coalition	Integrated Hydrological Modeling of the San Miguel Watershed: A modern tool for water resource evaluations	\$150,000	\$150,000
e. Pacific Institute for Studies in Development, Environment, and Security	Diversifying Colorado's Water Portfolio: The Potential for Stormwater Capture and Use to Contribute to a Water Resilient Future	\$209,744.75	\$209,744.75
f. Fort Collins Utilities	Xeriscape Incentive Program Expansion	\$100,000	\$100,000
g. Fort Collins Utilities	Fort Collins Utilities Water Efficiency Plan Update	\$200,000	\$160,000
h. - University of Colorado Denver	Examining the use of recycled water in agricultural production in Colorado	\$150,000	\$150,000
i. Aspen Global Change Institute Inc.	Roaring Fork Watershed - Evaluation of Soil Moisture for Water Planning	\$140,683	\$140,683
Total Recommended for Approval			\$1,020,497.75

**Water Storage & Supply, j-p**

- j. Applicant - Deutsch Domestic Water Company, Inc  
Project - DDWC Water Storage and Efficiency Improvements
  
- k. Applicant - City of Grand Junction  
Project - Gunnison River Reservoirs Project
  
- l. Applicant - Upper Arkansas Water Conservancy District



Project - Round Mountain Reservoir #2 Construction Project

- m. Applicant - Huerfano County Water Conservancy District  
Project - 90% Design, Bruce Canyon Reservoir
- n. Applicant - North Poudre Irrigation Company  
Project - The Park Creek Enlargement Modification
- o. Applicant - Farmers Reservoir & Irrigation Company  
Project - Standley Lake Spillway Raise Evaluation
- p. Applicant - Dominion Water & Sanitation District  
Project - Design and Construction of Regional Rainwater

**Action:** Report by CWCB staff member Matt Stearns. Greg Felt disclosed that he is the Director of the Upper Arkansas Water Conservancy District and a Chaffee County Commissioner. A motion to approve the staff recommendation was made by Celene Hawkins, which was seconded by Jessica Brody. The motion was approved unanimously (8-0).

**Staff Recommendation:** Staff recommends the following Board action for activities listed in the following table regarding Colorado’s Water Plan Grant Program funding.

Applicant	Project Name	Grant Request Amount	Staff Recommendation
j. Deutsch Domestic Water Company, Inc.	DDWC Water Storage and Efficiency Improvements	\$585,000	Approve \$585,000
k. City of Grand Junction	Gunnison River Reservoirs Projects	\$263,949	Approve \$263,949
l. Upper Arkansas Water Conservancy District	Round Mountain Reservoir #2 Construction Project	\$500,000	Approve \$500,000
m. Huerfano County Water Conservancy District	90% Design, Bruce Canyon Reservoir	\$172,500	Approve \$172,500
n. North Poudre Irrigation Company	The Park Creek Enlargement Modification	\$100,000	Approve \$100,000
o. Farmers Reservoir & Irrigation Company	Standley Lake Spillway Raise Evaluation	\$204,406	Approve \$204,406

p. Dominion Water & Sanitation District	Design and Construction of Regional Rainwater	\$200,000	Approve \$200,000
Total Recommended for Approval			\$2,025,855

**Watershed Health & Recreation, q-r**

- q. Applicant - Colorado Parks & Wildlife - Denver  
Project - Kemp Breeze State Wildlife Area Habitat
  
- r. Applicant - Colorado State University  
Project - Recovery and Resilience of the Cache la Poudre

**Action:** Report by CWCB staff member Chris Sturm. Jessica Brody disclosed that her employer Denver Water is providing resources for agenda item 7q. A motion to approve the staff recommendation was made by Robert Sakata, which was seconded by Heather Dutton. The motion was approved unanimously (8-0).

**Staff Recommendation:** Staff recommends the following Board actions for activities regarding the Colorado Water Plan Grant Program funding for the Watershed Health & Recreation category. Project approval is contingent upon the applicants’ abilities to resolve issues and additional needs discussed below.

Applicant	Project Name	Grant Request Amount	Staff Recommendation
q. Colorado Parks and Wildlife	Denver Kemp Breeze SWA Habitat Restoration	\$870,000	\$870,000
r. Colorado State University	Recovery and Resilience of the Poudre	\$472,520	\$315,171
Total Recommended for Approval			\$1,185,171

**8 Financial Matters – Construction Fund and Severance Tax Perpetual Base Fund**  
*Finance Section*

**8a. Financial Projections and Cash Management Report**

**Action:** Report by CWCB staff member Kirk Russell.

*This is an informational item with no Board action required.*

**9 Change to Existing Loan**  
*Finance Section*

**9a. Genesee Water and Sanitation District, Genesee Reservoir No. 1 Enlargement Project**

**Action:** Report by CWCB staff member Cole Bedford. A motion to approve the staff recommendation was made by Robert Sakata, which was seconded by Heather Dutton. The motion was approved unanimously (8-0).

**Staff Recommendation:** Staff recommends the Board approve a loan not to exceed \$5,555,000 (\$5,500,000 for Project costs and \$55,000 for the 1% service fee) to the Genesee Water and Sanitation District for costs related to the Genesee Reservoir No. 1 Enlargement, from the Construction Fund. This is an increase of \$1,313,000 (\$1,300,000 for Project costs and \$13,000 for the 1% service fee). The loan term shall remain 40 years at 2.50% per annum. Security for the loan shall be in compliance with CWCB Financial Policy #5.

**10 Water Project Loans**  
*Finance Section*

**10a Morrisania Water Supply Company – Ditch Rehabilitation Project**

**Action:** Report by CWCB staff member Cole Bedford. A motion to approve the staff recommendation was made by Paul Bruchez, which was seconded by Steve Anderson. The motion was approved unanimously (8-0).

**Staff Recommendation:** Staff recommends the Board approve a loan not to exceed \$141,400 (\$140,000 for project costs and \$1,400 for the 1% service fee) to the Morrisania Water Supply Company for costs related to the Headgate Rehabilitation and Pipeline Installation Project, from the Severance Tax Perpetual Base Fund. The loan term will be 20 years at an interest rate of 2.45% per annum. Security for the loan shall be in compliance with CWCB Financial Policy #5.

**10b Smith and Emmons Ditch Company – Diversion Structures Replacement Project**

**Action:** Report by CWCB staff member Cole Bedford. A motion to approve the staff recommendation was made by Robert Sakata, which was seconded by Jessica Brody. The motion was approved unanimously (8-0).

**Staff Recommendation:** Staff recommends the Board approve a loan not to exceed \$414,100 (\$410,000 for project costs and \$4,100 for the 1% service fee) to the Smith and Emmons Ditch Company for costs related to the Diversion Structures Replacement Project, from the Severance Tax Perpetual Base Fund. The loan term will be 30 years at an interest rate of 3.90% per annum. Security for the loan shall be in compliance with CWCB Financial Policy #5.

**10c Town of Keenesburg – Alluvial Water Rights Extension Project**

**Action:** Report by CWCB staff member Joshua Godwin. A motion to approve the staff recommendation was made by Robert Sakata, which was seconded by Paul Bruchez. The motion was approved unanimously (8-0).

**Staff Recommendation:** Staff recommends the Board approve a loan not to exceed \$2,121,000 (\$2,100,000 for project costs and \$21,000 for the 1% service fee) to the Town of Keenesburg, operating by and through its water activity enterprise, for costs related to the Alluvial Water Rights Extension Project, from the Severance Tax Perpetual Base Fund. The loan term will be 30 years at an interest rate of 2.70% per annum. Security for the loan shall be in compliance with CWCB Financial Policy #5.

**10d Uncompahgre Valley Water Users Association – Taylor Park**

**Action:** Report by CWCB staff member Cole Bedford. Steve Pope addressed the Board. Jackie Brown disclosed that her employer Tri State Generation & Electric Assoc. supplies power to the partner company of this applicant. A motion to approve the staff recommendation was made by Steve Anderson, which was seconded by Heather Dutton. The motion was approved unanimously (8-0).

**Staff Recommendation:** Staff recommends the Board approve a loan not to exceed \$1,701,850 (\$1,685,000 for project costs and \$16,850 for the 1% service fee) to the Uncompahgre Valley Water Users Association for costs related to the Taylor Park Hydro Powerplant Project, from the Severance Tax Perpetual Base Fund. The loan term will be 30 years at an interest rate of 2.00% per annum. Security for the loan shall be in compliance with CWCB Financial Policy #5. Staff additionally recommends the following loan contract condition: 1. Prior to disbursement of funds, the Association shall provide documentation that all funding is secured and adequate to cover the Project cost estimate.

**10e North Poudre Irrigation Company – Park Creek Expansion Project**

**Action:** Report by CWCB staff member Cole Bedford. Jack Byers addressed the Board. A motion to approve the staff recommendation was made by Robert Sakata, which was seconded by Heather Dutton. The motion was approved unanimously (8-0).

**Staff Recommendation:** Staff recommends the Board approve a loan not to exceed \$6,544,800 (\$6,480,000 for project costs and \$64,800 for the 1% service fee) to the North Poudre Irrigation Company for costs related to the Park Creek Expansion Project, from the Severance Tax Perpetual Base Fund. The loan term will be 30 years at an interest rate of 2.55% per annum. Security for the loan shall be in compliance with CWCB Financial Policy #5.

**11 Attorney General’s Report, Legal Briefing, and Executive Session**

**Action:** Report by Attorney General staff member Scott Steinbrecher and Counsel to the Board, Jen Mele. A motion to go into Executive Session was made by Jessica Brody, which was seconded by Steve Anderson. The motion was approved unanimously (8-0).

**12 Executive Session**

**12a** Colorado River Interstate Matters

**12b** 21CW3064 Cow Creek ISF Application

**12c** Assisting Basin Roundtables

**Report from Executive Session**

**13**

**Action:** Report by Counsel to the Board, Jen Mele. A motion to go out of Executive Session was made by Celene Hawkins, which was seconded by Heather Dutton. The motion was approved unanimously (8-0)

**14 Colorado River Interstate Matters**

*Interstate, Federal, and Water Information Section*

**Action:** Report by CWCB staff members Amy Ostdiek and Michelle Garrison.  
*This is an informational item with no Board action required.*

**CA Engagement & Innovation Activities**

**item  
5e**

- e. Applicant - Roaring Fork Conservancy**
- Project - Exploring social and environmental controls on the scalability of water conservation program**

**Action:** Report by CWCB staff member Amy Ostdiek. A motion to approve the staff recommendation was made by Paul Bruchez, which was seconded by Steve Anderson. The motion was approved unanimously (8-0).

**Thursday, September 21, 2022**

<b>15</b>	<b>Basin Directors' Reports</b>
<b>15a</b>	Rio Grande River Basin Director's Report – <i>Heather Dutton</i>
<b>15b</b>	Yampa-White River Basin Director's Report – <i>Jackie Brown</i>
<b>15c</b>	Colorado River (Mainstem) Basin Director's Report – <i>Paul Bruchez</i>
<b>15d</b>	San Juan/San Miguel-Dolores River Basin Director's Report – <i>Celene Hawkins</i>
<b>15e</b>	Gunnison River Basin Director's Report – <i>Steve Anderson</i>
<b>15f</b>	North Platte River Basin Director's Report – <i>Absent</i>
<b>15g</b>	South Platte River Basin Director's Report – <i>Robert Sakata</i>
<b>15h</b>	Arkansas River Basin Director's Report – <i>Greg Felt</i>
<b>15i</b>	City and County of Denver Director's Report – <i>Jessica Brody</i>
<b>16</b>	<b>Program Guidance for the Special Release of the Colorado Watershed Restoration Program</b> <i>Watershed and Flood Protection Section</i>
	<p><b>Action:</b> Report by CWCB staff member Chris Sturm. A motion to approve the staff recommendation was made by Heather Dutton, which was seconded by Robert Sakata. The motion was approved unanimously (8-0).</p> <p><b>Staff Recommendation:</b> Staff recommends that the Board Approve the Program Guidance for the Special Release of the Colorado Watershed Restoration Program. Introduction The Colorado Watershed Restoration Program (CWRP) is designed to provide capacity building, planning, engineering, and project implementation funding for stream restoration and watershed protection efforts. It also provides technical assistance for design review, engineering analysis, pre wildfire preparedness, post wildfire hazard analysis, fluvial hazard zone mapping development, construction oversight, adaptive management, and monitoring. The Board first approved the CWRP guidance document and application in September 2008. The Board approved revisions to the program in May 2012 and July 2015 before merging it with the Watershed Health and Recreation category of the Colorado Water Plan grant program in May of 2022. The program dispersed over \$15.5 million from 2009-2022, and it leveraged over \$46 million in match funding. The Board also approved a Special Release of the Colorado Watershed Restoration Program in October 2013 to address planning needs associated with the</p>

September 2013 Front Range floods. Another Special Release was approved in March 2021 to disperse funds appropriated for fire recovery. Total funding administrated through the Special Releases of CWRP exceed \$100 million.

**17 Wildfire Ready Watersheds Update**  
*Watershed and Flood Protection Section*

**Action:** Report by CWCB staff member Chris Sturm.

*This is an informational item with no Board action required.*

**18 Water Supply Reserve Fund Applications – September 2022 Board Meeting**  
*Water Supply Planning Section*

**18a. Basin - Arkansas**  
**Applicant -** Cross Creek Metropolitan District  
**Name of Water Activity -** Hale Reservoir Renovation - Cross Creek Park  
**Account Request -** \$100,000

**Action:** Report by CWCB staff member Ben Wade. A motion to approve the staff recommendation was made by Greg Felt, which was seconded by Steve Anderson. The motion was approved unanimously (8-0).

**Staff Recommendation:** Staff recommends approval of up to \$100,000 from the Arkansas Basin Account to help fund the project: Hale Reservoir Renovation – Cross Creek Park. Project approval is contingent upon the applicants’ abilities to resolve issues and additional needs discussed below.  
**Water Activity Summary:** The applicant proposes to achieve five goals with this project including: 1) rehabilitate Hale Reservoir dam, increasing the size of the lake and surrounding wetlands; 2) create a non-potable irrigation source for the park’s multi-use fields; 3) increase and improve environmental attributes and habitat; 4) create recreational amenities that allow open space access without damaging habitat; and 5) address and correct water quality and flood hazard issues with stormwater mitigation infrastructure.

**18b. Basin - Yampa/White/Green**  
**Applicant -** Bear River Reservoir Company  
**Name of Water Activity -** Stillwater Reservoir Repairs & Upgrades  
**Account Request -** \$139,500

**Action:** Report by CWCB staff member Ben Wade. A motion to approve the staff recommendation was made by Heather Dutton, which was seconded by Paul Bruchez. The motion was approved unanimously (8-0).

**Staff Recommendation:** Staff recommends approval of up to \$139,500 from the Yampa/White/Green Basin Account to help fund the project: Stillwater Reservoir Repairs & Upgrades. Project approval is contingent upon the applicants’ abilities to resolve issues and additional needs discussed below.

**Water Activity Summary:** If approved, WSRF funds would assist both phases of the applicant’s proposal. The first phase, involves the applicant obtaining accurate cost estimates for the alternatives to mitigate seepage from the left abutment of Stillwater Reservoir. The cost estimates will enable the applicant to select the most efficient and effective repair projects from a list of alternatives already presented to them that are acceptable to the Division of Dam Safety/Division of Water Resources (DWR). This will allow the applicant to develop a detailed design plan for submission to DWR for final approval of the repair projects. The second phase is to replace the outlet's hydraulic power unit, hydraulic reservoir and hydraulic lines with the recommended upgrades and encase the new lines in conduit. These upgrades to the original 1939 equipment will ensure that the outlet system has optimal capability for safe and efficient operation now and for the foreseeable future.

**19 Water Supply Reserve Fund Criteria & Guidelines Update**

*Water Supply Planning Section*

**Action:** Report by CWCB staff member Ben Wade. A motion to approve the staff recommendation with the Boards suggested edits was made by Celene Hawkins, which was seconded by Heather Dutton. The motion was approved unanimously (8-0).

**Staff Recommendation:** Staff recommends the Colorado Water Conservation Board (CWCB) approve of the revised 2023 Water Supply Reserve Fund Criteria and Guidelines (Guidelines).

**20 House Bill 22-1151 turf Replacement Program Update**

*Water Supply Planning Section*

**Action:** Report by CWCB staff member Russ Sands.

*This is an informational item with no Board action required.*

**21 Water Plan Update**

*Water Supply Planning Section*

**Action:** Report by CWCB staff member Russ Sands. Molly Mugglestone, Josh Kuhn, and Abby Burk addressed the Board during public comment.

*This is an informational item with no Board action required.*

**22 Table Topic - Innovative, Drought Resilient Agriculture**

*Focusing on farming and geography in the Southwest and Rio Grande Basins*

Board members Celene Hawkins, Paul Bruchez, and Heather Dutton organized speakers from their basins to talk about innovative, drought resilient agriculture. Sheldon Rockey with Rockey Farms, Sara Jones with Jones Family Farm, Tessa Peters with the Land Institute, Mike Preston with Weenuch-u



Development Corporation, Jay Loschert with Montezuma Land Conservancy, and Jude Schuenemeyer with Montezuma Orchard Restoration Project addressed the Board.

*This is an informational item with no Board action required.*

**ADJOURN**

A motion to adjourn the September 2022 Board meeting was made by Steve Anderson, which was seconded by Greg Felt. The motion was approved unanimously (8-0).



**COLORADO**  
Colorado Water  
Conservation Board  
Department of Natural Resources

**Colorado Water Conservation Board**

**Water Plan Grant - Exhibit C  
Budget Template Instructions**

**\*\* Please select the most appropriate budget template for your project from the worksheet tabs below. A general budget template is provided, as well as templates for studies, construction, and engineering projects.\*\***

Empty area for content.



**COLORADO**  
 Colorado Water Conservation Board  
 Department of Natural Resources

**Colorado Water Conservation Board**

**Water Plan Grant - Exhibit C**

**Budget and Schedule**

Prepared Date: 1/26/2023

Name of Applicant: City of Fort Collins, Fort Collins Utilities

Name of Water Project: Fort Collins Utilities Water Efficiency Plan Update

Project Start Date: 1/1/2023

Project End Date: 12/31/2024

Task No.	Task Description	Task Start Date	Task End Date	Grant Funding Request	Match Funding	Total
1	Model Climate and Water Savings	1/1/2023	6/1/2024	\$ 115,423.08	\$ 104,576.92	\$220,000
2	Engage with staff to identify one water strategies	3/1/2023	6/1/2023	\$7,870	\$7,130	\$15,000
3	Inclusive Public Engagement	6/1/2023	1/1/2024	\$20,968	\$18,997	\$39,965
4	Analyze strategies for equity	6/1/2023	1/1/2024	\$15,740	\$14,260	\$30,000
5	Updating and Finalizing the Water Efficiency Plan	1/1/2023	12/31/2024	\$0	\$47,535	\$47,535
<b>Total</b>				<b>\$160,000</b>	<b>\$192,500</b>	<b>\$352,500</b>

**Matching Fund Requirements**

Water Plan Grant requests require matching funds. A minimum of 50% match is required for all construction projects and a minimum of 25% match is required for all plans or studies. Greater weight will be given to projects with a higher match. Project costs may consist of a combination of in-kind and cash match, but no more than half of the match may be in the form of in-kind services. Applicants should identify match as pending or secure and provide evidence of matching funds (such as an award letter). Matching funds must be secured within one year of application date.

% based on Task		
	CWCB	CITY
1	52.47%	47.53%
2	52.47%	47.53%
3	52.47%	47.53%
4	52.47%	47.53%
5	0.00%	100.00%

% based on Total project costs		
	CWCB	CITY
	45.4%	54.6%

NOTE: Total project costs = \$352,500, with CWCB and City share of costs being 45.4% and 54.6%, respectively. Based on City's match including in-kind staff time associated with 100% of costs for Task 5, CWCB and City share of costs for Task 1 through 4 = 52.47% and 47.53%, respectively.



**Colorado Water Conservation Board**  
**Water Plan Grant - Detailed Budget Estimate**  
 Fair and Reasonable Estimate

Prepared Date: 2/1/2023  
 Name of Applicant: Fort Collins Utilities  
 Name of Water Project: Fort Collins Utilities Water Efficiency Plan Update

**EXAMPLE A: Study or Project Coordination**

Task 1 -Model Climate and Water Savings					Item			Total		
Sub-task	Item	Hourly Rate	# Hours	Sub-total	Item Cost	Quantity	Sub-total	Total	CWCB Funds	Matching Funds
	Consultant	\$200	1,100	\$220,000.00	\$ -	0.00	\$ -	\$ 220,000.00	\$ 115,423.08	\$ 104,576.92
<b>TOTAL</b>								<b>\$ 220,000.00</b>		
Task 2 -Engage with staff to identify one water strategies					Item			Total		
Sub-task	Item	Hourly Rate	# Hours	Sub-total	Item Cost	Quantity	Sub-total	Total	CWCB Funds	Matching Funds
	Consultant	\$ 200.00	75	\$ 15,000.00			\$ -	\$ 15,000.00	\$ 7,869.76	\$ 7,130.24
<b>TOTAL</b>								<b>\$ 15,000.00</b>		
Task 3 -Inclusive Public Engagement					Item			Total		
Sub-task	Item	Hourly Rate	# Hours	Sub-total	Item Cost	Quantity	Sub-total	Total	CWCB Funds	Matching Funds
	Consultants (community consu	\$ 100.00	200	\$ 20,000.00			\$ -	\$ 20,000.00	\$ 10,493.01	\$ 9,506.99
	Engagement Consultant	\$ 150.00	133.1	\$ 19,965.00			\$ -	\$ 19,965.00	\$ 10,474.64	\$ 9,490.36
<b>TOTAL</b>								<b>\$ 39,965.00</b>	<b>\$ 20,967.65</b>	<b>\$ 18,997.35</b>
Task 4 -Analyze strategies for equity					Item			Total		
Sub-task	Item	Hourly Rate	# Hours	Sub-total	Item Cost	Quantity	Sub-total	Total	CWCB Funds	Matching Funds
	Consultant	\$ 200.00	150	\$ 30,000.00			\$ -	\$ 30,000.00	\$ 15,739.51	\$ 14,260.49
<b>TOTAL</b>								<b>\$ 30,000.00</b>		<b>\$ 30,000.00</b>
Task 5 - Finalize the Water Efficiency Plan					Item			Total		
Sub-task	Item	Hourly Rate	# Hours	Sub-total	Item Cost	Quantity	Sub-total	Total	CWCB Funds	Matching Funds
	City Staff personnel time (in-kind contribution - APPROXIMATE AVERAGE HOURLY RATE USED)	\$ 42.00	1131.7857	\$ 47,535.00			\$ -	\$ 47,535.00	\$ -	\$ 47,535.00
<b>TOTAL</b>								<b>\$ 47,535.00</b>		
<b>TOTAL</b>								<b>\$ 352,500.00</b>	<b>\$ 160,000.00</b>	<b>\$ 192,500.00</b>

Item:	Copies & Printing (Black & White)	Copies & Printing (Color)	Materials and Final Report Production Lump Sum	Lodging and Meals Per Diem	Travel Expenses (Airfare and Car Rental) Lump Sum	Mileage	Total
Units:	No.	No.				Miles	
Project Initiation							\$0
Report, Conclusions and Recommendations						0	\$0
<b>Total Units:</b>			0	0	0	0	\$0
<b>Total Cost:</b>			\$0	\$0	\$0	\$0	\$0



## AGENDA ITEM SUMMARY

City Council

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### STAFF

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Katie Donahue, Natural Areas Director  
Matt Parker, Natural Areas Sr. Supervisor  
Eric Potyondy, Legal

### SUBJECT

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**First Reading of Ordinance No. 035, 2023, Authorizing the City Manager to Execute Agreements, Conveyances, and Other Documents to Incorporate the Spring Cañon Waste Way Ditch.**

### EXECUTIVE SUMMARY

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The purpose of this item is to approve the City's conveyance of its 2/12ths fractional ownership of the Spring Cañon Waste Way Ditch (Ditch) to a newly formed and incorporated Spring Cañon Wasteway Ditch Company (Ditch Company), and thereby receive 2/12ths share of the Ditch Company. This item would also authorize the City Manager to execute related agreements needed to form the Ditch Company. This administrative restructuring of the Ditch and water right ownership will allow for a variety of efficiencies including easier shareholder transfers, providing a single point of contact, and improving coordination of Ditch maintenance.

### STAFF RECOMMENDATION

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Staff recommends adoption of the Ordinance on First Reading.

### BACKGROUND / DISCUSSION

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The Natural Areas Department became a 2/12th owner of the Ditch and its water right with the acquisition of Eagle View Natural Area in 2002. The other 10/12ths are owned by four others along the Ditch. This Ditch and its water right are not part of Fort Collins Utilities' water supply system. The Ditch begins diverting seepage and other water near Zach Elementary and continues to the east along Eagle View Natural Area south of Fossil Creek Reservoir, later passing under I-25.

Unlike most ditches in the region, this Ditch is not "incorporated." This means that its owners own fractional interests of the Ditch and water right. This makes coordination for work on the Ditch cumbersome because work on the Ditch must generally be approved by all of the owners. Even simple projects can thus confront a need for more and more complicated paperwork and agreements. Further, the unincorporated nature of the Ditch makes it more difficult to protect the City's and other owners' interest in the Ditch. When outside entities desire to do a project that could affect the Ditch, there is no single clear point of contact for the owners. For instance, it is difficult for outside entities to pursue mutually beneficial arrangements with the Ditch because there are so many decisionmakers involved. This can also result in projects proceeding without needed approvals.

There are a few recent projects that have become particularly challenging due to the Ditch's unincorporated status. For instance, routine maintenance work has been slowed by the need for numerous approvals from the various owners. Also, a developer is developing land east of I-25 (east of the City's GMA) that has historically been served by the Ditch. The developer desires to modify the Ditch and convey its interests to the other owners (including the City), all of which is far more complex due to the current ownership structure.

By contrast, most ditches in the region are incorporated. This means that the ditches and water rights are held by a ditch company for the benefit of the shareholders, which own the company. Ditch companies are governed by a board of directors and benefit from well-established legal and governance principles, thus providing internal organization for the owners and a single point of contact for non-owners. Ditch companies are basically a common and beneficial way that ditch owners organize themselves.

The recent challenges facing the Ditch have prompted conversations for the Ditch owners to pursue incorporation. This would involve each of the owners conveying their ownership interest in the Ditch and water right to the Ditch Company that will be formed for this purpose, in exchange for shares in the Ditch Company. Because this would involve the conveyance of City-owned property, City Council approval is required. However, this would be a unique transaction because, although there would be a conveyance, the City would still own the same amount of the Ditch and its water right; it would just be structured differently. Consequently, the City would receive a value in an amount equal to or greater than the fair market value of the Ditch and its water right because the City will retain the same proportional ownership, with the added benefits discussed above.

### **CITY FINANCIAL IMPACTS**

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Staff expect minimal financial impacts to the City associated with increased administrative duties. Staff will attend and/or conduct an annual shareholder meeting, with potential board responsibilities.

### **BOARD / COMMISSION / COMMITTEE RECOMMENDATION**

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On February 8, 2023, the Land Conservation and Stewardship Board voted unanimously to recommend City Council's approval of the Ordinance. An excerpt from the meeting minutes is attached.

### **PUBLIC OUTREACH**

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No public outreach accompanied this administrative pursuit.

### **ATTACHMENTS**

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1. Ordinance for Consideration
2. Map of the Spring Cañon Waste Way Ditch
3. Water Right Decree (excerpts)
4. Land Conservation and Stewardship Board Minutes, February 8, 2023

ORDINANCE NO. 035, 2023  
OF THE COUNCIL OF THE CITY OF FORT COLLINS  
AUTHORIZING THE CITY MANAGER TO EXECUTE AGREEMENTS,  
CONVEYANCES, AND OTHER DOCUMENTS TO INCORPORATE  
THE SPRING CAÑON WASTE WAY DITCH

WHEREAS, the Spring Cañon Waste Way Ditch, a.k.a. Spring Cañon Waste Way Ditch (“Ditch”) is located in southeast Fort Collins, diverting water from a draw in the NE1/4 of Section 1, Township 6 North, Range 68 West of the 6<sup>th</sup> P.M., just south of Zach Elementary School, and continuing in a southeasterly direction; and

WHEREAS, a water right with an appropriation date of July 22, 1875, was decreed to the Ditch by the Larimer County District Court in Civil Action 2031 in the decree dated April 22, 1922 (“Water Right”); and

WHEREAS, the Ditch, Water Right, and associated structures and property and other legal rights, including easements (together, “Ditch Rights”) have historically been owned by various persons and entities as fractional interests, without these Ditch Rights being held by a mutual ditch company, which is a more common ownership model in this region; and

WHEREAS, as part of the City’s 2002 acquisition of the land and other property that became Eagle View Natural Area, the City acquired a 2/12th interest in the Ditch Rights; and

WHEREAS, the City currently uses the Water Right and water from the Ditch to irrigate Eagle View Natural Area; and

WHEREAS, the City’s portion of the Ditch Rights are not associated with the City’s water utility; and

WHEREAS, the City and the other fractional owners of the Ditch Rights (“Co-Owners”) periodically need to coordinate with respect to internal and external matters, including: maintenance of the Ditch, including paying for such maintenance; actions to protect the Ditch and Water Right; and consideration and execution of potential arrangements related to the Ditch and Water Right; and

WHEREAS, the historical and current fractional ownership model for the Ditch Rights makes this internal and external coordination among the City and the Co-Owners difficult for various reasons, including a lack of structure for decision making; and a lack of established principles related to ditch matters; and

WHEREAS, changing the ownership structure of the Ditch Rights from the historical and current fractional ownership model to a mutual ditch company model would benefit the City and the Co-Owners in various ways, including: providing internal organization among the City and the Co-Owners; a financial structure for maintenance and other costs; an established body of law (*see, e.g., Colorado Revised Statute Section 7-42-101 et seq.; Jacobucci v. Dist. Court, 541 P.2d 667,*

189 Colo. 380 (1975) (summarizing mutual ditch company law)); and a single point of contact for external matters; and

WHEREAS, the City and the Co-Owners desire to pursue the creation of a mutual ditch company to hold title to the Ditch Rights, which would require the City and the Co-Owners to execute agreements and other documents to establish the company and conveyances and associated agreements to convey their ownership interests in the Ditch Rights to the newly-formed mutual ditch company in exchange for shares of stock in the company that represent the City’s and the Co-Owners’ current proportional ownership interest in the Ditch Rights (“Incorporation Documents”); and

WHEREAS, Section 23-111(a) of the City Code authorizes City Council to sell, convey, or otherwise dispose of any interest in real property owned by the City, provided that City Council first finds, by ordinance, that such sale or other disposition is in the best interests of the City; and

WHEREAS, the execution of Incorporation Documents is in the best interest of the City because of the benefits described above; and

WHEREAS, the execution of Incorporation Documents will result in the City receiving a value in an amount equal to or greater than the fair market value of the Ditch Rights because the City will retain the same proportional ownership of the Ditch Rights, with the added benefits described above.

NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF FORT COLLINS as follows:

Section 1. That City Council hereby makes and adopts the determinations and findings contained in the recitals set forth above.

Section 2. That City Council finds, pursuant to Section 23-111(a) of the City Code, that the execution of Incorporation Documents and conveyance of the City’s interest in the Ditch Rights to a newly-formed mutual ditch company to hold title to the Ditch Rights is in the best interests of the City.

Section 3. That City Council finds, pursuant to Section 23-114 of the City Code, that the execution of Incorporation Documents will result in the City receiving stock of equal or greater value than the fair market value of the property interests conveyed.

Section 4. That City Council authorizes the City Manager to execute Incorporation Documents as described in this Ordinance and such other documents as may be necessary to carry out the transactions contemplated by this Ordinance, on terms and conditions consistent with this Ordinance, together with such additional terms and conditions as the City Manager, in consultation with the City Attorney, determines are necessary or appropriate to protect the interests of the City.



Introduced, considered favorably on first reading and ordered published this 7th day of March, 2023, and to be presented for final passage on the 21st day of March, 2023.

\_\_\_\_\_  
Mayor

ATTEST:

\_\_\_\_\_  
City Clerk

Passed and adopted on final reading this 21st day of March, 2023.

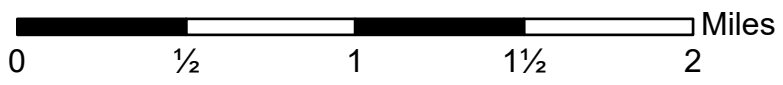
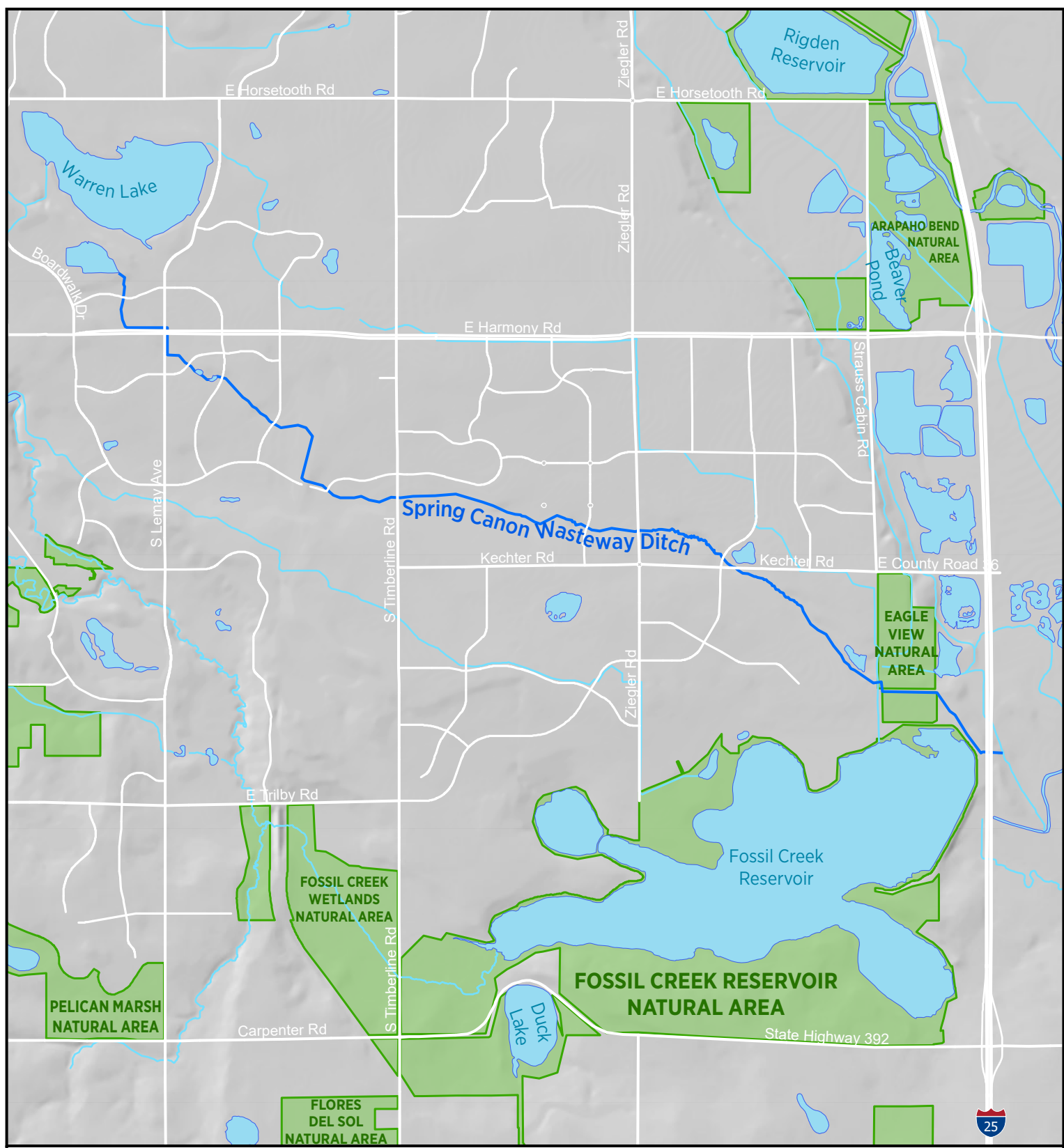
\_\_\_\_\_  
Mayor

ATTEST:

\_\_\_\_\_  
City Clerk

# Spring Canon Wasteway Ditch

## City of Fort Collins



— Spring Canon Wasteway Ditch  
— Natural Areas



## DITCH NO. 75.

## THE SPRING CANON WASTE WAY DITCH,

Gehart C. Mathiesen, Samuel C. Mathiesen  
and Peter C. Mathiesen, Claimants.

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In accordance with the findings: That the Spring Canon Waste Way Ditch diverts water from an unnamed draw which heads in the northwest quarter of section 1, township 6, north range 69 west of the 6th P.M., and also certain seepage and waste water all tributary to the Cache la Poudre river; that the headgate is located at a point North 45° 35' west 2845 feet from the east quarter corner of section 9, township 6, north range 68 west of the 6th P.M., from which point the general course of the ditch is southeasterly; that the carrying capacity is 12.8 cubic feet per second; that the work of construction commenced July 22, 1895, and was prosecuted with due diligence to completion; that the water has been used since construction for the irrigation of about 365 acres of land in the south half of the northwest quarter, the north half of the southwest quarter and the south half of the southeast quarter of section 10, and the northeast quarter of section 15, township 6, north range 68 west; that water to the capacity of the ditch is not necessary for the irrigation of these lands; that the maximum amount which has been beneficially applied for irrigation is 4.5 cubic feet per second; that an appropriation of 4.5 cubic feet, or so much thereof as may be necessary for the irrigation of the lands described, was made as of date July 22, 1895.

IT IS ORDERED, ADJUDGED AND DECREED, that The Spring

Canon Waste Way Ditch be awarded a priority for the diversion from an unnamed draw, which heads in the northwest quarter of section 1, township 9 north range 69 west of the 6th P.M., and also certain seepage and waste water, all of which is tributary to the Cache la Poudre river, as of date July 22, 1895, to the amount of 4.5 cubic feet per second, or so much thereof as may be necessary for the irrigation of the lands described, said priority being No. 114.

It is further Ordered by the Court that the residue of the costs and expenses of taking and extending the evidence herein and hearing thereon not heretofore paid, and the costs and expenses of the Clerk of this Court in filing, indexing and recording the findings and decree of the Court herein, and making certified copies thereof to be lodged with the State Engineer and Division Engineer as by law provided, as well as the costs and expenses of re-writing said findings and decree in order to have the same conform numerically to the preceding decrees in said Water District and to unify the several decrees herein amounting to \$ 1394<sup>05</sup>, which amount is hereby allowed and approved by the Court and said amount, together with all other unpaid costs of this proceeding, is hereby ordered to be paid by the Counties of Larimer and Weld, being all the Counties in said Water District No. 3, in equal amounts as by law provided, said costs and expenses to be certified by the Clerk of this Court to the respective counties for allowance and payment by the Boards of County Commissioners of said counties and when so paid to said Clerk he shall apply the same in the paying of said costs and allowances aforesaid.

IT IS FURTHER ORDERED BY THE COURT that all the evidence heretofore taken by the referee in this matter and by him extended and filed in this Court, including all the exhibits being parts of said evidence and all the evidence taken before the Court or its commissioner subsequent to the filing of the report of said referee and extended and filed in this Court with the exhibits and all the exceptions and objections of any party or claimant made and filed herein, together with the rulings of the court thereon and the exceptions thereto, be and the same are hereby made a general bill of exceptions herein, and any party or parties aggrieved by any finding of the court or any provision of

this decree or by any ruling of the Court herein are hereby granted one year from the date of the entering of this decree in which to make and tender a particular bill of exceptions involving such matters as shall set forth and show wherein they have been aggrieved and which they may desire to have reviewed by the Supreme Court and the special bill of exceptions of any party deeming themselves to be aggrieved by any finding ruling or decree of this court may be made from what is herein described as a general bill of exceptions and when so made may be thereupon tendered, signed and sealed by the Judge of this Court who has made and entered this Decree, or in his absence or death, by any Judge of said Court and when so tendered, signed and sealed shall be filed herein as of this day.

Done in open Court.

By the Court

*Neil F. Graham*  
\_\_\_\_\_  
Judge.

STATE OF COLORADO, )  
 COUNTY OF LARIMER. ) SS.

I, Frank D. Abbott, Clerk of the District Court of the 8th Judicial District of the State of Colorado, within and for the County of Larimer and as such Clerk, custodian of the files and records of said Court, do hereby certify the above and foregoing to be a true, correct and complete copy of the Decree filed and entered of record in a certain cause lately pending in said Court entitled "In the Matter of the Adjudication of Priorities of Right to the Use of Water for Irrigation in Water District No. 3, Division No. 1, State of Colorado, No. 2031", as the same now remains on file and of record in my office.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seal of said court in my office at Fort Collins, Larimer County, Colorado, this 30<sup>th</sup> day of June, A.D. 1922.

Frank D. Abbott  
 Clerk.



# AGENDA

CITY OF FORT COLLINS • BOARDS AND COMMISSIONS



## Land Conservation & Stewardship Board

Regular Meeting/Hybrid in person/ Zoom

1745 Hoffman Mill Road/Main Office Conference Room

February 8, 2023

**Public Participation (Phone):** If you do not have access to the internet, call the Board Staff Liaison, Katie Donahue, at 970-416-8067.

Please indicate that you want to participate in the Board public participation by phone and give your name and phone number. If you get a voicemail message, please leave the same information.

Once you have given this information (in person or by message), a staff person will provide you with the phone number and code that will allow you access to the Zoom meeting. As listed above, the meeting will be available beginning at 5:30 pm . For public comments, the Chair will ask participants to click the “Raise Hand” button to indicate you would like to speak at that time – phone participants will need to hit \*9 to do this. Staff will be moderating the Zoom session to ensure all participants have an opportunity to address the Committee. Once you join the meeting: **keep yourself on muted status.**

**Documents to Share:** If residents wish to share a document or presentation, the Staff Liaison needs to receive those materials via email by 24 hours before the meeting.

Individuals uncomfortable or unable to access the Zoom platform or unable to participate by phone are encouraged to participate by emailing general public comments you may have to Katie Donahue, [kdonahue@fcgov.com](mailto:kdonahue@fcgov.com). The Staff Liaison will ensure the Board receives your comments. If you have specific comments on any of the discussion items scheduled, please make that clear in the subject line of the email and send 24 hours prior to the meeting.

### CALL TO ORDER: 5:30 PM

1. ROLL CALL & INTRODUCTIONS
2. AGENDA REVIEW
3. COMMUNITY MEMBER PARTICIPATION
4. APPROVAL OF MINUTES
5. ACTION ITEM

Annual election of board officers	LCSB	5 min
Spring Cañon Waste Way Ditch	Matt Parker	15 min

February 8, 2023

# MINUTES

CITY OF FORT COLLINS • BOARDS AND COMMISSIONS



## Land Conservation & Stewardship Board

February 8, 2023

### Regular Meeting – Excerpt

#### Spring Cañon Waste Way Ditch

**Matt Parker, Senior Supervisor Resource Management** began by introducing Justin Fredrickson, Agricultural Technician II, highlighting his integral role in the department's conservation agriculture efforts and his knowledge of Natural Areas water operations. Matt Parker then provided a brief background of the Spring Cañon Waste Way Ditch and the rationale for incorporation.

The Natural Areas Department became a 2/12<sup>ths</sup> owner of the Spring Cañon Waste Way Ditch and its water rights with the acquisition of Eagle View Natural Area in 2002. The other 10/12<sup>ths</sup> are owned by four others along the Ditch. Unlike most ditches in the region, this Ditch is not "incorporated." This means that its owners own fractional interests of the Ditch and water right. This makes coordination for work on the Ditch cumbersome because work on the Ditch must generally be approved by all of the owners. The City and other owners would like to make an administrative change to a ditch company to help address these challenges.

Matt Parker shared map with the LCSB to both locate the ditch and point out it does not come off the river or creek, rather it is formed by natural seepage and from other wastewater. It flows generally south each across Eagle View Natural Area.

#### Discussion

Vice Chair Cunniff asked if there was any water quality issue, i.e., nitrates or phosphates, since the source of water is primarily run-off. Matt Parker stated he is not aware of any issue. He then confirmed for Member Piesman there is no input to the ditch from the Larimer County landfill outflow. Matt Parker and Justin Fredrickson listed the other fractional owners as Island Lake Marine, Forestar Development and Southwinds Ranch.

Several Board members asked about potential risks associated with incorporation and the potential for Natural Areas' interests being overruled. Matt Parker stated the risk is small because fractional owners act on their own behalf while company members are obligated to act on behalf of the ditch. In response to Vice Chair Cunniff's concern about bank maintenance, Matt Parker explained the ditch is largely free of trees as it runs along Eagle View, but that Natural Areas would ardently protect the trees on the west side of the property. Justin Fredrickson noted the added benefit of liability protection as a company member.

Member Kramer asked if there was any opportunity with this ditch to add to in-stream flow of the Poudre River. Matt pointed out the terminus is at the Arthur Ditch, so no direct connection to the river, but he was not sure. Matt Parker pointed out that Natural Areas is interested in securing water rights that make economic sense and are tied to natural areas managed land.

***Member Piesman made a motion that the Land Conservation and Stewardship Board recommend the City to pursue the incorporation of the Spring Cañon Waste Way Ditch, including conveying the city's interest in the ditch and water rights in exchange for shares in the ditch company. Chair Elson seconded the motion. The motion was approved unanimously, 7-0.***

## AGENDA ITEM SUMMARY

City Council




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### STAFF

Richard Thorp, Lead Specialist, Utilities Water Quality Services Division  
 Jill Oropeza, Director, Utilities Water Quality Services Division  
 Eric Potyondy, Legal

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### SUBJECT

**Resolution 2023-024 Adopting the Water Quality Management Policy for City-Owned Lakes and Stormwater Basins in the Growth Management Area.**

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### EXECUTIVE SUMMARY

The lakes and stormwater basins (together, “urban lakes”) that the City owns are important resources that provide a range of benefits to the Fort Collins community. There are significant challenges associated with managing water quality in the City’s urban lakes. A project team has been working over the last two years to address these challenges by developing the City of Fort Collins Urban Lakes Water Quality Management Policy (“Policy”) and associated Guidance Document (“Guidance”). The Policy provides a framework for the City’s water quality operational and management decisions for its urban lakes and the Guidance provides technical resources to assist City staff with implementing the Policy. Development of the Policy and Guidance were informed by feedback received as part of an extensive stakeholder engagement process, and the Water Commission, Land Conservation and Stewardship Board, Natural Resources Advisory Board, and Parks and Recreation Board have formally recommended that City Council adopt the Policy.

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### STAFF RECOMMENDATION

Staff recommends adoption of the Resolution.

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### BACKGROUND / DISCUSSION

The City’s urban lakes include all ponds, lakes, irrigation reservoirs, and stormwater basins where surrounding and underlying land is owned by the City and that are located within the City’s Growth Management Area (GMA). The City’s urban lakes are important resources to the Fort Collins community, providing recreational opportunities, wildlife habitat, irrigation water storage, stormwater infrastructure, and other benefits. City-owned urban lakes do not include privately-owned waterbodies, the City’s drinking water reservoirs, or the Poudre River and other flowing surface waters.

Water quality is a term used to describe the chemical, physical, and biological characteristics of water relative to management goals. Managing water quality in the City’s urban lakes has become increasingly challenging due to factors including the absence of an accurate inventory of City-owned urban lakes and undefined management jurisdictions, roles and responsibilities. Furthermore, pollution associated with urban growth and development, wildfires, land use practices, climate change, and other factors are

contributing to more frequent and apparent water quality impacts in urban lakes such as algae blooms, sedimentation, fish kills, and increases in water-borne pathogens.

To begin to address some of these challenges, a project team consisting of staff from Natural Areas, Parks, Utilities, the City Attorney's Office, and SWCA Environmental Consultants developed the Policy and the associated Guidance. The City's project team used a series of focused meetings and facilitated workshops to develop the Policy and Guidance. The Policy and Guidance were further informed by information gathered during engagement with several stakeholder groups as described in the Public Outreach section below.

The Policy articulates the City's commitment to preserving the value of these important resources and provides a framework for the City's urban lakes water quality operational and management decisions.

The Policy includes:

- a background, vision and purpose to provide a rationale for why Policy was developed;
- definitions for several key terms;
- a description of the City's urban lakes water quality management scope, including jurisdiction;
- expectations regarding urban lakes water quality management and management plans;
- communication between departments and the community; and
- staff accountability regarding Policy implementation, including future Policy and Guidance updates.

The Guidance (attached) is intended to serve as a technical resource to assist City staff with implementing the Policy. The Guidance includes a complete inventory of City-owned urban lakes within the GMA and a summary of known water quality-related information. For each City-owned lake, management categories were assigned based on departmental management goals. Urban lakes were then ranked based on relative water quality risk. A Geographical Information System (GIS) geodatabase was developed as part of this effort to manage information related to all City-owned urban lakes and their related attributes. This tool will facilitate future updates and mapping needs related to urban lakes management. And lastly, the Guidance includes a list of targeted best management practices (BMPs) for mitigating water quality issues in the City's urban lakes.

It is important to note that the Guidance is not intended to be a comprehensive water quality management plan for the City's urban lakes. Urban lakes management plans, including prioritization, water quality monitoring, best practices implementation and other specific management elements will be developed on a case-by case basis by managing departments.

It is also worth noting that numerous lakes and stormwater basins in the GMA are privately owned. As stated above, the Policy does not apply to them. Nevertheless, the Policy and Guidance may be informative and helpful to the owners of those urban lakes in their owners' water quality management decisions.

## **CITY FINANCIAL IMPACTS**

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There are no anticipated direct financial impacts associated with adopting the Policy. However, managing departments will likely incur future costs associated with developing management plans and implementing pollution mitigation BMPs.

## **BOARD / COMMISSION / COMMITTEE RECOMMENDATION**

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### **Land Conservation and Stewardship Board Regular Meeting, January 11, 2023**

The Land Conservation and Stewardship Board unanimously recommended Council approve the Water Quality Management Policy for City urban lakes and stormwater basins in the Growth Management Area, and fully fund all of the proposed management actions that are recommended in the policy.

### **Water Commission Regular Meeting, January 19, 2023**

The Water Commission unanimously recommended City Council approve the Urban Lakes Water Quality Management Policy.

### **Natural Resources Advisory Board Regular Meeting, January 18, 2023**

The Natural Resources Advisory Board unanimously supported Council consider adoption of this item.

### **Parks and Recreation Board Regular Meeting, January 25, 2023**

The Parks and Recreation Board recommended City Council adopt this policy as soon as reasonably possible.

## **PUBLIC OUTREACH**

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Policy and Guidance development was informed by feedback from three stakeholder groups, including internal and external urban lakes water quality management subject matter experts; several City advisory boards and Water Commission; and the community at-large.

Community engagement included:

1. **Urban Lakes Water Quality Management Subject Matter Experts (SMEs)** were interviewed and/or surveyed during April and May of 2021 to better understand known water concerns in City-owned urban lakes. SMEs included City staff; local private lakes managers; ecological consultants; scientists with Colorado Parks and Wildlife and Colorado State University; and others.
2. **City Advisory Boards and Water Commission** were engaged during September of 2021 to solicit feedback on the project team's Policy development approach. City Advisory Boards included the Land Conservation and Stewardship Board, Natural Resource Advisory Board, Parks and Recreation Board and Water Commission. The project team presented final drafts of the Policy and Guidance to these City Advisory Boards in January 2022 and requested a formal motion from each board to recommend that City Council adopt the Policy (see Board and Commission Recommendations above).

The **Community at-large** was also engaged to better understand the diverse range of perspectives in our community regarding water quality in City-owned Urban Lakes.

Engagement efforts were designed to be equitable and inclusive in order to reach community members whose voices are often underrepresented in City processes. The project team's engagement approach included the development of an urban lakes water quality survey; the use of a social media campaign and the creation of project informational websites, where the survey was posted. All engagement materials were developed in both English and Spanish.

The project team also engaged community members directly at City-owned urban lakes and using focused meetings. Urban lakes managed by each department were selected for engagement based on vulnerability indicators analyzed as part of the City's 2021 Equity and Opportunity Assessment Study. Vulnerability indicators included: housing, education, income and race and ethnicity. Lakes selected for engagement included Overland Park Pond and Sheldon Lake (Parks); Arapaho Bend Ponds, North Shields Pond and Riverbend Ponds (Natural Areas); Avery and Manhattan Ponds (Utilities); and Rigden Reservoir (Utilities/Natural Areas).

The project team conducted 30 community engagement events at the City's urban lakes listed above between May and June of 2022. A total of 437 people were observed engaged in various activities at these lakes. The project team directly engaged with 1,444 people at engagement events and a total of 273 surveys were completed.

Engagement results indicated that the City's urban lakes are important to many in our community and support recreational, wildlife habitat, provide natural beauty, intrinsic and other values. The community engagement survey helped staff to document our community's urban lakes water quality priorities and concerns. Engaging with community members at select urban lakes provided additional insight through observation of activities and direct feedback. Nearly half of people surveyed reported that they have been negatively impacted by water quality issues in some City-owned urban lakes and avoid these areas. Survey respondents expressed support and appreciation for the development of the City's urban lakes water quality management Policy and Guidance.

## **ATTACHMENTS**

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1. Resolution for Consideration
2. Resolution Exhibit A
3. Urban Lakes Water Quality Management Guidance
4. Land Conservation and Stewardship Board, January 11, 2023, Meeting Minutes Excerpt
5. Natural Resources Advisory Board, January 18, 2023, Meeting Minutes Excerpt
6. Water Commission, January 19, 2023, Draft Meeting Minutes Excerpt
7. Parks and Recreation Board, January 25, 2023, Draft Meeting Minutes Excerpt
8. Letter of Recommendation from Colorado Parks and Wildlife
9. Triple Bottom Line Scan Summary

RESOLUTION 2023-024  
OF THE COUNCIL OF THE CITY OF FORT COLLINS  
ADOPTING THE WATER QUALITY MANAGEMENT POLICY FOR CITY-OWNED  
LAKES AND STORMWATER BASINS IN THE GROWTH MANAGEMENT AREA

WHEREAS, as development and urbanization have continued and increased in the Fort Collins Growth Management Area (“GMA”), new and existing water quality challenges in lakes and stormwater basins have arisen and intensified; and

WHEREAS, the City recognizes the importance of managing water quality in lakes and stormwater basins to support management goals for the benefit of community, ecosystems, and downstream water quality; and

WHEREAS, such management can also implement the City’s triple bottom line approach to consider social, economic, and environmental impacts, as well as supporting and furthering various City plans and objectives related to water quality; and

WHEREAS, the City has some degree of control and influence over the water quality of the lakes and stormwater basins it owns, which are currently managed by various City departments and service areas, and would benefit from having an adopted policy regarding the management of water quality in such lakes and stormwater basins; and

WHEREAS, City staff created the “City of Fort Collins Water Quality Management Policy for City-Owned Lakes and Stormwater Basins in the Growth Management Area,” attached hereto as Exhibit A (“Policy”), to provide a foundational framework for the City’s operational and management decisions related to water quality in City-owned lakes and stormwater basins; and

WHEREAS, numerous lakes and stormwater basins in the GMA are privately owned, and the Policy may be informative and helpful to the owners of those lakes and stormwater basins in their owners’ water quality management decisions; and

WHEREAS, the Land Conservation and Stewardship Board, Natural Resources Advisory Board, Parks and Recreation Board, and Water Commission have each endorsed the Policy and recommend Council adoption.

NOW, THEREFORE, BE IT RESOLVED BY THE COUNCIL OF THE CITY OF FORT COLLINS as follows:

Section 1. That the City Council hereby makes and adopts the determinations and findings contained in the recitals set forth above.

Section 2. That City of Fort Collins Water Quality Management Policy for City-Owned Lakes and Stormwater Basins in the Growth Management Area, attached hereto as Exhibit “A,” is hereby adopted.

Passed and adopted at a regular meeting of the Council of the City of Fort Collins this 7th day of March, 2023.

\_\_\_\_\_  
Mayor

ATTEST:

\_\_\_\_\_  
City Clerk



## City of Fort Collins

### Water Quality Management Policy for City-Owned Lakes and Stormwater Basins in the Growth Management Area

#### Background

As development and urbanization have continued and increased in the Fort Collins Growth Management Area (“GMA”), new and existing water quality challenges in lakes and stormwater basins have arisen and intensified. Examples of these challenges include: pollution associated with urban growth, development, and land use practices; climate change; and other factors that can lead to water quality impacts such as sedimentation, fish kills, algal blooms, and water-borne pathogens.

The City of Fort Collins (“City”) recognizes the importance of managing water quality in lakes and stormwater basins to support management goals for the benefit of community, ecosystems, and downstream water quality. Such management can also implement the City’s triple bottom line approach to consider social, economic, and environmental impacts, as well as supporting and furthering various City plans and objectives related to water quality. Numerous lakes and stormwater basins in the GMA are privately owned. By comparison, the City has some degree of control and influence over the water quality of the lakes and stormwater basins it owns.

This City of Fort Collins Water Quality Management Policy for City-Owned Lakes and Stormwater Basins in the Growth Management Area (“Policy”), and the associated Guidance Document, have been created to provide a foundational framework for the City’s operational and management decisions related to water quality in City-owned lakes and stormwater basins.

This Policy was developed using an integrated One Water approach by an inter-departmental team of City staff, including the Managing Departments listed below. The Policy’s content was further informed by feedback from key stakeholder groups, which included: urban lakes and water quality management subject matter experts; the City’s Land Conservation and Stewardship Board, Natural Resources Advisory Board, Parks and Recreation Board, and Water Commission; and members of the Fort Collins community.

#### Vision and Purpose of the Policy

The City’s vision is that water quality in City-owned lakes and stormwater basins in the GMA supports management goals while also maintaining or improving aesthetics. To that end, the purpose of this Policy is to provide a foundational framework for the City’s operational and management decisions related to water quality management in City-owned lakes and stormwater basins.

#### Key Terms

The following describes and discusses several key terms used throughout this Policy.

*City-owned lakes and stormwater basins* refers to lakes and stormwater basins where the City owns the surrounding and underlying land and thus manages the water in them.

*Fort Collins Growth Management Area (“GMA”)* is as defined in Section 1-2 of the Fort Collins Municipal Code, being the Fort Collins Urban Growth Area as defined in Article XIII of the Charter of the City, namely, that geographic area within and adjacent to the City identified by the Intergovernmental Agreement between the City and Larimer County as that area identified for annexation and urbanization by the City, including the Urban Growth Area as it exists on March 5, 1985, together with any amendments or changes thereto.

*Guidance Document* refers to a separate document the City has developed and will update as a technical resource intended to support City staff in implementing this Policy. The Guidance Document provides Managing Departments with management tools, including<sup>1</sup>:

- Inventory of all City-owned lakes and stormwater basins;
- Certain water quality-related information for City-owned lakes and stormwater basins;
- Management categorization for City-owned lakes and stormwater basins, based on management goals of the respective Managing Departments;
- Assistance with management prioritization; and
- Best management practices for water quality management.

*Lakes* refer to basins and depressions that are generally filled with water. For the purposes of this Policy, lakes include: on- and off-stream reservoirs filled with water diverted from the stream; ponds used to manage water for irrigation and other uses; unlined gravel pits that have filled in with groundwater; and other basins and depressions that are generally filled with water.

*Managing Departments* refer to the components of the City organization that manage the City-owned lakes and stormwater basins. The current Managing Departments are Natural Areas, Parks, and Fort Collins Utilities.

*Stormwater Basins* refer to areas that are designed to collect precipitation runoff, including snowmelt. Stormwater basins include both: stormwater detention basins/ponds, which are designed to temporarily detain stormwater, generally for less than 72 hours; and stormwater retention basins/ponds, which are designed to detain or store stormwater runoff for longer than 72 hours. Stormwater retention basins/ponds may also be lakes. Although stormwater basins do not always have water in them, they can influence water quality and are thus included in this Policy.

*Water quality* refers to the physical, chemical and biological characteristics of water. Numerous human and natural factors can influence water quality.

*Water quality management* refers to the use of pollution prevention and/or mitigation best practices to address water quality management goals.

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<sup>1</sup> In this Policy, “include” signifies a list that is not necessarily exhaustive.

## Scope and Applicability of this Policy

This Policy applies only to City-owned lakes and stormwater basins in the GMA. Nothing in this Policy is intended to conflict with any applicable laws, including: the City Charter and City Code; Colorado state law, including permits and approvals issued thereunder; federal law, including permits and approvals issued thereunder; and applicable agreements and other contractual arrangements. To the extent that there is such a conflict, the applicable law controls.

This Policy does not apply to lakes and stormwater basins in the GMA that are not City-owned. For example, this Policy does not apply to lakes and stormwater basins owned by homeowners associations, or lakes owned by ditch or reservoir companies in which the City owns shares. The owners of such other lakes and stormwater basins are free to consider this Policy and the Guidance Document, in their discretion, in their management of their structures.

This Policy does not apply to lakes and stormwater basins that are outside of the GMA. This includes reservoirs the City owns that are outside of the GMA (e.g., Joe Wright Reservoir). Those lakes and stormwater basins are generally located outside of the urban environment and face challenges distinct from those addressed in this Policy. The water quality challenges of those lakes and stormwater basins are thus addressed separately. The owners of such other lakes and stormwater basins are free to consider this Policy and the Guidance Document, in their discretion, in their management of those structures.

## Management

Each Managing Department will manage water quality in their lakes and stormwater basins to address their own management goals. Specifically, Managing Departments will:

1. Identify which City-owned lakes and stormwater basins they are responsible for, relying on the inventory in the Guidance Document. If more than one Managing Department is responsible for a lake or stormwater basin, the responsible Managing Departments will work together on all aspects of management.
2. Identify the management goals for their lakes and stormwater basins based on their uses and purposes. This may include a consideration of the categories of types of lakes and stormwater basins and their various uses and purposes, as described in the Guidance Document.
3. Determine which of their City-owned lakes and stormwater basins should be prioritized for water quality management or other related actions.
4. Determine whether to act (or not act) on water quality issues.<sup>2</sup>
5. Develop water quality management plans as necessary for prioritized City-owned lakes and stormwater basins (as discussed below).
6. Collaborate with other Managing Departments where responsibilities, projects, or other actions related to water quality management overlap with or will affect other departments.
7. Communicate internally within the City organization and externally to the Fort Collins community (as discussed below).

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<sup>2</sup> How Managing Departments staff and otherwise resource their actions are not addressed in this Policy.

## Management Plans

Managing Departments will develop water quality management plans for individual lakes and stormwater basins, as necessary, to address their water quality management goals. These plans may be separate, standalone documents, or may be integrated into other plans or other documents related to their lakes and stormwater basins. These plans should include:

- statement of the Managing Department's goals and priorities for their lakes and stormwater basins;
- consideration of the analyses, recommendations, and other aspects of the Guidance Document;
- water quality-related goals for their lakes and stormwater basins;
- water quality management practices for their lakes and stormwater basins;
- a communication strategy (as discussed below); and
- other items appropriate to further the Managing Department's goals and priorities.

## Communication

Consistent with their communication strategy, Managing Departments will communicate internally within the City organization and externally with the Fort Collins community regarding water quality of lakes or stormwater basin. This will include communications regarding: water quality data; any public health risks; and non-routine maintenance work. Communications will be made pursuant to applicable City policies. Managing Departments will periodically communicate internally to improve interdepartmental alignment regarding water quality management practices.

## Policy and Guidance Document Updates

An inter-departmental team from all of the Managing Departments (minimum 1 staff member from each) will be established to ensure proper implementation of this Policy and to periodically revise and update the Policy and Guidance Document as needed.

The team will annually review the Guidance Document to identify and address data errors, necessary updates, and other opportunities for improvement, including:

- Adding any City-owned lakes and stormwater basins to the inventory;
- Updating lake-specific water quality information; and
- Adding or updating water quality management practices.



City of Fort Collins

# URBAN LAKES WATER QUALITY MANAGEMENT

Guidance

**PREPARED BY:**

Natural Areas  
Parks  
Fort Collins Utilities

**WITH ASSISTANCE FROM:**

SWCA Environmental

**UPDATED:**

Date: 12/21/2022

## ACKNOWLEDGEMENTS

The City's Urban Lakes Water Quality Management Guidance was developed by a diverse project team consisting of City staff from the Natural Areas, Parks and Utilities Departments and SWCA Environmental Consultants using a One Water Approach. The project team would like to acknowledge the importance of the feedback and recommendations received from the Land Conservation and Stewardship Board, Natural Resource Advisory Board, Parks and Recreation Board and the Water Commission. The project team also acknowledges the important role that subject matter experts and the general public played in the development of this project. Subject matter experts included representatives from Colorado Parks and Wildlife, Aquatic Associates, Colorado State University, Warren Lake HOA, Rigden Farm HOA, Richards Lake HOA, Fairway Estates HOA and Lake Sherwood Corporation.

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## GLOSSARY OF TERMS

**Algae** – Aquatic plant-like organisms that contain chlorophyll.

**Algae blooms** – Excessive growths of algae caused by excessive nutrients.

**Anoxia** – The absence of oxygen.

**Aquatic habitat** – Area of a lake providing food, shelter and other resources for organisms.

**Aquatic nuisance species** – Plants or animals that can cause water quality issues in lakes.

**Benthic Sediment** – The sediment at the bottom of a lake.

**Benthos** – Organisms that live on or within benthic sediment in lakes.

**Best management practice (BMP)** – Industry standards, or practices, used to manage natural resources, such as lakes.

**Bioaugmentation** – A technique whereby bacteria are added to contaminated water to help treat a water quality issue.

**Biological Oxygen Demand (BOD)** – A measurement of the amount of oxygen that is consumed by microorganisms.

**Contaminants of Emerging Concern (COCs and CECs)** – Compounds for which water quality standards do not currently exist, such as certain personal care products, pharmaceuticals, pesticides, insect repellants and sunscreen.

**Cyanobacteria (Blue-green algae)** – Photosynthetic bacteria that can form blooms similar to algae and that can be toxic to both aquatic organisms, humans and other animals.

**Detritus** – Decomposing organic matter in aquatic systems.

**Dissolved oxygen (DO)** – A measure of the amount of oxygen dissolved in water.

**Ecology** – The study of how organisms interact with their environments.

**Epilimnion** – The uppermost layer of a lake that is stratified chemically and/or physically.

***Escherichia coli (E. coli)*** – A species of bacteria that occurs in the intestines of warm-blooded animals.

**Eutrophication** – Excess nutrients (nitrogen and/or phosphorus) in a lake.

**Geographic information system (GIS)** – A computer-based software platform used for analyses of geospatial data.

**Growth Management Area (GMA)** – An area within which the City's future growth is limited, as agreed upon by the City of Fort Collins and Larimer County.

**Heavy metals** – A group of metals often considered toxic to aquatic organisms in high concentrations.

**Invasive species** – Any species present in a lake that is considered non-native.

**Lake productivity** – A lake's ability to support algae and plants.

**Littoral zone** – A narrow, often shallow zone along the edge of a lake.

**Macrophytes** – Aquatic plants that can be seen with the eye that have roots and differentiated tissues.

**Morphometry** (of lakes) – The physical characteristics of a lake including surface area, maximum depth, mean depth, shoreline characteristics, and volume.

**Nutrient loading** – Influx of nutrients from the surrounding watershed are into a waterbody.

**Nutrients** – Nitrogen and phosphorus.

**One Water approach** - is an integrated planning and implementation approach to managing finite water resources for long-term resilience and reliability.

**pH** – A measurement of how acidic or basic a water is on a scale of 0 (most acidic) through 14 (most basic).

**Photosynthesis** – A chemical reaction whereby energy from sunlight and chlorophyll are used to convert water and carbon dioxide into carbohydrates, which are used by plants as food. Oxygen is produced as a by-product of this reaction.

**Phytoplankton** – Community of free-floating microscopic algae and cyanobacteria in a lake.

**Residence time** – The amount of time water remains in a lake before it is completely renewed by inflows of new water.

**Salinity** – A measure of the concentration of dissolved salts in water.

**Shoreline** – Shoreline is defined as the margin of land along the edge of a lake.

**Stormwater runoff** – Overland surface flow during and following precipitation events; stormwater runoff can convey pollutants from roadways, parking lots and other impermeable surfaces into lakes.

**Stratification** (of lakes) – Process by which different chemical and physical horizontal layers form seasonally in some lakes.

**Thermal stratification** – The formation of horizontal temperature zones or layers in some lakes.

**Thermocline** – The narrow zone of rapid temperature change in thermally stratified lakes.

**Total Dissolved Solids (TDS)** – A measure of the total concentration minerals, metals, salts, and organic materials dissolved in water.

**Total Suspended Solids (TSS)** – The total concentration of minerals, metals, salts, and organic materials suspended (not dissolved) in water.

**Turbidity** – A measurement of the relative clarity of water; lower values translate to high clarity and higher low clarity.

**Urban Lakes** – City-owned lakes, reservoirs and ponds located within the City's Growth Management Area (GMA).

**Vegetation buffer** – An urban lakes best management practice consisting of planting or maintaining vegetation along the edge of a lake to intercept pollutants that would otherwise enter a lake.

**Water quality issue** – A physical, chemical, or biological stressor impacting a lake.

# 1.0 INTRODUCTION

## 1.1 Background

The City of Fort Collins (Fort Collins) is located 65 miles north of Denver and is part of the northernmost extension of Colorado’s Front Range urban corridor. Fort Collins currently has a population of approximately 175,000 people (2020 census) and is projected to grow by an additional 70,000 residents by the year 2040 (City of Fort Collins 2019; World Population Review 2021).

Concerns regarding Fort Collins’ rapid growth and development and the potential for suburban sprawl led to the development of a Growth Management Area (GMA) Intergovernmental Agreement between the City and Larimer County in 2000 (City of Fort Collins 2019; City of Fort Collins and Larimer County, 2008). The GMA is an agreed upon zoning district within which urban growth and development is allowed (**Figure 1.1**).

Fort Collins’ rapid urban growth and development can significantly impact environmental resources by reducing air quality; overcrowding parks and natural areas; and degrading water quality in the City’s streams and lakes.

**FORT COLLINS’ RAPID URBAN GROWTH AND DEVELOPMENT CAN SIGNIFICANTLY IMPACT ENVIRONMENTAL RESOURCES.**

## 1.2 Fort Collins’ Urban Lakes

Fort Collins’ urban lakes are defined as lakes and stormwater basins where the City owns the surrounding and underlying land and thus manages the water in them. The oldest of the City’s urban lakes were originally constructed during the 1800s for the purpose of diverting and storing water for irrigated agriculture (Duggan 2005). Many of the City’s urban lakes are either relic ditch or reservoir features from this early period or abandoned gravel mine pits that have been reclaimed as lakes, but the City has also continued to construct new urban lakes over the years. The City’s urban lakes are diverse in age, form and function and provide a broad range of beneficial uses to our community; including providing recreational opportunities, serving as wildlife habitat, storing irrigation water, serving as elements of the City’s stormwater infrastructure and other uses.

## 1.3 Urban Lakes Water Quality Management Challenges

Managing water quality in the City’s urban lakes presents a range of challenges for City staff. For example, prior to the development of this project, a comprehensive list of all City-owned urban lakes and the City department responsible for managing each lake was lacking. In addition, the City’s urban lakes jurisdiction had not been clearly defined, which led to some uncertainty in terms of water quality management scope and priorities.

City staff have become increasingly concerned with water quality issues impacting the City’s urban lakes. Many of these lakes have physical characteristics that impact water quality, such as being relatively small, shallow, and lacking inlets and/or outlets to renew water. In addition, physical, chemical and biological pollution associated with urban growth and development, land use practices, climate change and other factors can lead to water quality issues such as algae blooms, elevated concentrations of water-borne pathogens, nuisance odors and fish kills.

The City’s urban lakes are managed to meet a variety of objectives and are impacted to varying degrees by water quality pollution. Where should the City’s finite urban lakes water quality management resources be focused? This is ultimately a

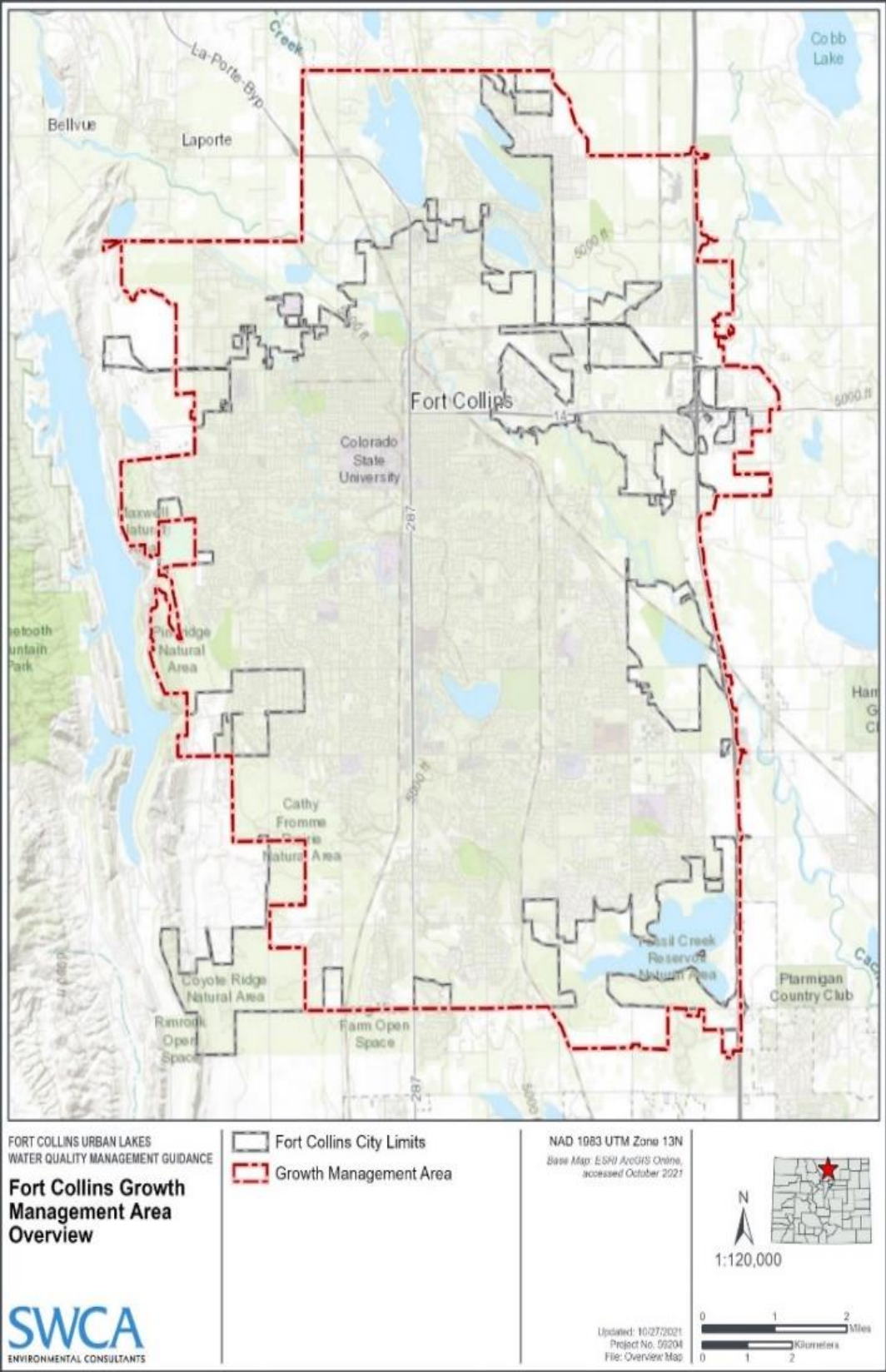


Figure 1.1 Map showing Fort Collins' City Limits and Growth Management Area (GMA) (Source: City of Fort Collins 2005).

decision for each managing department. However, combining information about each lake’s management objectives, known water quality history and relative risk of future water quality degradation can assist managers in making these decisions.

Once an urban lake water quality issue has been identified and prioritized for more focused management, the question then becomes: what measures can be taken to mitigate the issue? A comprehensive reference of urban lakes water quality best practices to both reduce water pollution and to mitigate existing water quality impacts would be beneficial.

**Algae Blooms**

The City’s urban lakes naturally contain aquatic communities, including macroinvertebrates, fish, plants, algae and other organisms. Algae are plant-like organisms containing chlorophyll that can be separated into three broad categories: filamentous, planktonic and macroalgae. As with plants, the growth of algae can be greatly influenced by environmental conditions. Many of the City’s Urban Lakes are small and shallow, receive abundant sunlight and are relatively stagnant. Lakes with these physical conditions are prone to algae blooms, especially when enriched by nutrient (nitrogen and phosphorus) pollution.

...ALGAE BLOOMS CAN PRESENT SIGNIFICANT WATER QUALITY MANAGEMENT CHALLENGES IN THE CITY’S URBAN LAKES.

While algae are important components of lake aquatic communities, algae blooms can present significant water quality management challenges in the City’s urban lakes. Algae blooms can range in severity from the level of management nuisance to a significant community health threat. Algae blooms can harm other aquatic organisms and can lead to fish kills, odors and can negatively impact community usage. Some species of macroalgae called cyanobacteria can produce dangerous neurotoxins called cyanotoxins during harmful algae blooms (HABS). However, it is important to note that not all algae blooms are caused by cyanobacteria and not all cyanobacteria blooms are HABS. Algae blooms have been identified by City staff and stakeholder groups during Policy and Guidance development (see Section 2 below) as the most significant urban lakes water quality concern.

The mechanisms by which nutrients enter the City’s urban lakes are varied and complex and include permitted wastewater discharge; permitted stormwater discharges; non-point pollution from urban landscapes; agricultural runoff; wildlife and pet waste; atmospheric deposition; and internal loading from lakebed sediments and other sources. The Best Management Practices (BMPS) Toolbox in Attachment 7 of this Guidance lists several suggested best practices to assist managers with reducing nutrient input to lakes and addressing algae blooms.

# 2.0 ADDRESSING URBAN LAKES WATER QUALITY CHALLENGES

## 2.1 Stormwater Management

### Stormwater Infrastructure Maintenance

The City’s Stormwater Maintenance Division is responsible for removing debris from several irrigation system trash racks associated with ditches that have been placed underground by the City. Local irrigation companies also regularly remove debris from open ditches throughout the City for the purpose of delivering water to shareholders. The City is currently in the process of hiring a contractor to remove homeless encampment debris from the City’s stormwater infrastructure.

## MS4 Program

The City of Fort Collins implements several programs and practices designed to reduce the discharge of pollutants to local water bodies via the storm sewer system. These programs are implemented in accordance with Colorado Discharge Permit System General Permit for Stormwater Discharges Associated with Municipal Separate Storm Sewer Systems (MS4), a practice-based permit under which the city is authorized to discharge.

Programs and activities, as they relate to urban lakes management and water quality protection, are as follows:

1. **Public Education and Outreach** – a public education program to promote behavior change by the public to reduce pollutants in discharges from the MS4. Staff take a multi-pronged approach, from school-age and adult programs to social media to address the impacts of stormwater discharges on water bodies, the steps that can be taken to reduce pollutants in stormwater runoff, and water quality impacts associated with spills and improper disposal of waste. Topics include nutrient sources such as yard waste and fertilizer use, as well as other pollutant sources and reduction practices.
2. **Illicit Discharge Detection and Elimination** – a program to effectively prohibit pollutant discharges to the MS4, which includes municipal code Section 26-498 and enforcement procedures. Staff respond to reports of spills, dumping, and illegal connections to ensure pollutant sources are stopped and mitigated.
3. **Construction Sites Runoff Control** - a program to reduce or prevent the discharge of pollutants to the MS4 from applicable construction activities. Construction sites are required to implement sediment and erosion control and pollution prevention practices in accordance with the city's Stormwater Criteria Manual; staff implement a plan review and inspection program to verify compliance with the requirements.
4. **Post-Construction Stormwater Management** – a program to reduce the discharge of pollutants to the MS4 from applicable development sites after development is completed. New and redeveloped sites are required to install permanent stormwater quality treatment measures, such as Low Impact Development (LID) that meets the city's Stormwater Design Criteria; staff must ensure proper design, installation, and long-term operation and maintenance of these measures.
5. **Pollution Prevention/Good Housekeeping for Municipal Operations** – a program to prevent or reduce water quality impacts from pollutants being discharged to the MS4 from municipal facilities and operations. Staff implement a program to provide staff training, Municipal Facility Runoff Control Plans, inspections, and Standard Operating Procedures including the storage and application of fertilizers.

## 2.2 Urban Lakes Water Quality Management Policy

A project team consisting of staff from Natural Areas, Parks and Utilities Departments, the City Attorney's Office and SWCA Environmental Consultants (SWCA) addressed the above urban lakes management concerns by developing an Urban Lakes Water Quality Management Policy (see Attachment 1 for Policy) using an integrated One Water Approach. The purpose of the Policy is to provide a foundational framework for the City's operational and management decisions related to water quality management in City-owned lakes and stormwater basins and to support implementation of the Guidance.

The project team conducted community engagement to better understand urban lake water quality concerns and inform policy development. Community engagement included:

1. **Urban Lakes Water Quality Management Subject Matter Experts (SMEs)** were interviewed and/or surveyed during April and May of 2021 to better understand known water concerns in City-owned urban lakes (see Attachment 2). SMEs included City staff; local private lakes managers; ecological consultants; scientists with Colorado Parks and

Wildlife and Colorado State University; and others. Information from this effort was used to both develop the Guidance (see Section 5.1 below) and inform Policy development.

SME feedback included:

- Nutrient pollution, algae blooms, odors, and low oxygen concentrations were the primary water quality concerns
- A technical resource is needed to assist City staff with managing urban lakes water quality and implementing the Policy

2. **City Advisory Boards** were engaged during September of 2021 to solicit feedback on the project team's Policy development approach, including community engagement. City Advisory Boards included the Land Conservation and Stewardship Board; Natural Resource Advisory Board; Parks and Recreation Board; and Water Commission.

City Advisory Board feedback included:

- City-owned Urban Lakes and the City's management jurisdiction should be defined in the Policy
- Recommended improving urban lakes water quality-related communication with community members
- Suggested increasing transparency with how City-owned lakes are managed
- Should be made clear that the Guidance is meant to support implementation of the Policy

The project team presented final drafts of the Policy and Guidance to these City Advisory Boards in January 2022 and requested a formal motion from each board to recommend that City Council adopt the Policy.

3. The **Community at large** was engaged to better understand the diverse perspectives in our community regarding water quality in City-owned Urban Lakes. Engagement efforts were designed to be equitable and inclusive, to better understand the diverse perspectives in our community, with a focus on community members whose voices are often underrepresented during City processes.

The project team's engagement approach included the development of an urban lakes water quality survey; the use of a social media campaign and the creation of project informational websites, where the survey was posted. All engagement materials were developed in both English and Spanish.

City staff also engaged community members directly at targeted lakes and in using focused meetings with some groups. Targeted lakes, representing each department were selected using vulnerability indicators included in the City's 2021 Equity and Opportunity Assessment Study (City of Fort Collins, 2001b). Vulnerability indicators included housing, education, income and race and ethnicity. Targeted lakes included Overland Park Pond and Sheldon Lake (Parks); Arapaho Bend Ponds, North Shields Pond and Riverbend Ponds (Natural Areas); Avery Pond (Utilities); and Rigden Reservoir (Utilities/Natural Areas).

The project team conducted 30 community engagement events at targeted lakes between May and June of 2022. A total of 437 people were observed engaged in various activities at targeted lakes. The project team directly engaged with 1,444 people at engagement events and a total of 273 surveys were completed.

The majority of survey respondents (87%) identified as white, which is 2021 US census where 85% of people in Fort Collins identified as white. Respondent age varied greatly, with the exception of minimal participation in the 15–19-year-old range. Household income also varied greatly, with the most common responses (35%) indicating between \$75,000- \$150,000 household income. 15% of respondents indicated some college or an associate's degree, while 76% of respondents indicated an education level of Bachelor degree or higher.

What did we learn from community members regarding City-owned urban lakes?

- The City's urban lakes are highly valued assets to our community;

- Wildlife viewing, aesthetic, intrinsic and accessibility were the most commonly reported values;
- Hiking/walking, dog walking, wildlife viewing and fishing were the most commonly reported activities;
- Algae, odors and fish kills were the most common water quality concerns; and  
Nearly half of survey respondents reported that water quality had negatively impacted their experience and altered their patterns of usage.

## THE CITY'S URBAN LAKES ARE HIGHLY VALUED ASSETS TO OUR COMMUNITY

In summary, the City's urban lakes are important to many in our community and support wildlife habitat, provide natural beauty, intrinsic and other values. The community engagement survey helped staff to document our community's urban lakes water quality priorities and concerns. Engaging with community members at select urban lakes provided additional insight through observation of activities and direct feedback. It is concerning that nearly half of people surveyed have been negatively impacted by water quality issues in some City-owned urban lakes and avoid these areas. Survey respondents expressed support and appreciation for the development of an urban lakes water quality management Policy and Guidance.

The City's project team used a series of focused meetings and facilitated workshops to create a draft Policy. The Policy was recommended for adoption by the City Advisory Boards above and was ultimately adopted by City Council on ?, 2023. The Policy is included in Attachment 1. The policy includes:

- a background, vision and purpose to provide a rationale for why Policy was developed;
- definitions for several key terms;
- a description of the City's urban lakes water quality management scope, including jurisdiction;
- expectations regarding urban lakes water quality management and management plans;
- communication between departments and the community; and
- staff accountability regarding Policy implementation, including future Policy and Guidance updates.

### 2.4 Urban Lakes Water Quality Management Guidance

The project team developed this Urban Lakes Water Quality Management Guidance as a technical resource to assist City staff with implementing the Policy. The Guidance is not intended to serve as a prescriptive water quality management plan for the City's urban lakes. Rather, water quality in urban lakes is complex and management plans should be developed on a case-by-case basis.

This Guidance includes a complete inventory of all City-owned Urban lakes within the growth management area, as well as a summary of known water quality issues. Urban lakes management categories were developed based on departmental management goals and lakes were prioritized for management based on relative water quality risk. And lastly, a list of effective best management practices (BMPs) for mitigating water quality in urban lakes was developed. A suggested Guidance implementation approach is included in Section 3.0 below under 'How to Use this Guidance'. A detailed description of how each element of Guidance was developed is described in Section 5.0.

## 3.0 HOW TO USE THIS GUIDANCE

### 3.1 City-owned Lakes Managers

This Guidance provides City staff with an inventory of City-owned urban lakes within the City's GMA and which lakes are



under Natural Areas, Parks and Utilities management jurisdiction – where known. The Guidance also includes a summary of what is known about water quality in each of the City’s Urban Lakes. This information can be accessed using Geodatabase tables in Appendix B of this document and the Map Book in Appendix C; using the Urban Lakes Map Package with ArcGIS Geographic Information System Software; and/or using Urban Lakes KMZ files with Google Earth.

The City owns hundreds of Urban Lakes that have either been specifically designed or adapted to meet a range of management goals, which can have water quality implications. Lakes have therefore been sorted into detention and retention lakes based on hydrologic regime and then further separated into management categories based on primary and secondary management goals.

Managing departments have the daunting task of determining which lakes within their jurisdiction should be prioritized for focused water quality management. In an effort to assist with these decisions, the project team developed a risk rank geospatial model that ranks retention lakes from low-high priority based on water quality risk.

And lastly, the Guidance contains a diverse toolbox of BMPs to assist managers with mitigating urban lakes water quality issues. BMPs include those designed to reduce pollution loading to lakes and others designed to mitigate existing water quality issues (see Appendix F).

### 3.2 Private Lakes Managers

Fort Collins’ private lakes managers face many of the same water quality management challenges as those documented for the City’s Urban Lakes. As such, there exists an opportunity for private lakes managers and City staff to share information on BMPs that have been successfully implemented to mitigate water quality issues. The City’s project team engaged several local private lakes managers along with other local subject matter experts during Guidance development to identify urban lakes water quality challenges and appropriate BMPs. The project team anticipates that the BMP Toolbox in Attachment F of the Guidance will be particularly useful for assisting private lakes managers with managing water quality issues on private lakes.

## 4.0 ALIGNMENT WITH THE CITY AND STRATEGIC PLANS

Fort Collins’ [City Plan](#) (City of Fort Collins 2019) lists Environmental Health as a key outcome area, which is supported by several policies and principles. The Urban Lakes Water Quality Management Policy and Guidance align with the Environmental Health principles listed below:

**Principle ENV 1** – Conserve, create and enhance ecosystems and natural spaces within Fort Collins, the GMA and the region.

**Principle ENV 6** – Manage water resources in a manner that enhances and protects water quality, supply and reliability.

The Policy and Guidance further aligns with the [City’s Strategic Plan](#) by addressing the following strategic objectives:

**Strategic Objective 4.5** – Protect and enhance natural resources on City-owned properties and throughout the community.

**Strategic Objective 4.6** – Sustain and improve the health of the Cache la Poudre River and all watersheds within the City.

## 5.0 METHODS - HOW WAS THIS GUIDANCE DEVELOPED?

The project team developed this Guidance using the process summarized in Figure 5.1 below, including urban lakes data and information gathering; data analyses; development of a geographic information system geodatabase; and development of urban lakes water quality management tools. Detailed methods for each step of the Guidance development process are provided in subsections below.

## 5.1 Data and Information Gathering

An important first step in Guidance development was to gather existing water quality data and other information regarding the City's Urban Lakes. This process involved conducting subject matter expert (SME) interviews and surveys and a literature review.

### Subject Matter Expert Interviews and Surveys

Internal (City staff) and external (non-City staff) subject matter expert (SME) interviews and surveys were conducted to gather data and other information about the City's urban lakes. SWCA conducted five 1-hour virtual interviews with SMEs selected by the City's project team. Three of the interviews were conducted with small groups of City staff (four to six attendees) from Parks, Utilities and Natural Areas Departments. The remaining two interviews were conducted with Colorado Parks and Wildlife (CPW) and Aquatic Associates, LLC staff. External SME surveys were also conducted to gather additional water quality related data and other information. The survey was sent to 12 external SME representatives from local ditch companies, Colorado State University, private lake homeowners associations (HOAs) within Fort Collins and local non-profits. In instances where there were incomplete responses to interview or survey questions or clarification was needed, SWCA conducted brief follow-up interviews or sent additional questions by email. Interview and survey structure and questions are included in Appendix A. In order to maintain anonymity, a complete list of individuals involved in the SME interviews and surveys is not provided herein.

Interviews and surveys helped inventory City-owned lakes; yielded information about lake-specific physical characteristics and water quality information; documented available water quality data sources; management objectives; and water quality best practices that have been implemented. Water quality information and data, including water quality issues and best management practices, were added to the geodatabase.

### Literature Review

A literature review was conducted by SWCA to identify peer-reviewed literature and online-published news articles on urban lake water quality issues along Colorado's Front Range. Search terms included word combinations such as "Colorado urban lakes water quality," "Colorado urban lakes," "lake algae Colorado," and "Colorado lake fish kills." Resulting articles and news events were reviewed for water quality issues and best practices that may be applicable to the City's urban lakes. Results of the literature review were used to help develop a baseline inventory of urban lake water quality issues for this Guidance.

### Inventory of City-Owned Urban Lakes

Data and information obtained during subject matter expert interviews and surveys and from the project team were used to develop a detailed inventory of City-owned lakes within the City's Growth Management Area (GMA).

### Inventory of Water Quality Best Management Practices

An inventory of urban lakes water quality best practices (BMPs) was developed to provide lakes managers with a toolbox of relevant BMPs. BMPs can be grouped into two broad categories: those used to mitigate existing urban lakes water quality issues and those used reduce the risk of future issues occurring. The inventory of BMPs was compiled using information obtained during SME interviews and surveys and was augmented with additional BMPs as suggested by the project team.

## 5.2 Data Analyses

Water quality related information were used to conduct a series of analyses including an inventory of known water quality issues impacting the City's lakes; the creation of management categories; and the development of a process to assist managers with prioritizing lakes for management.

### Water Quality Issues Analysis

The Water Quality Issues Analysis (WBI) included an inventory of current, historic and potential future water quality impacts to the City's urban lakes. The project team compiled this information using SME interviews and surveys and the literature review described above. The inventory provides a description of each issue, causes, management challenges, recommended pollution mitigation best practices and other information.

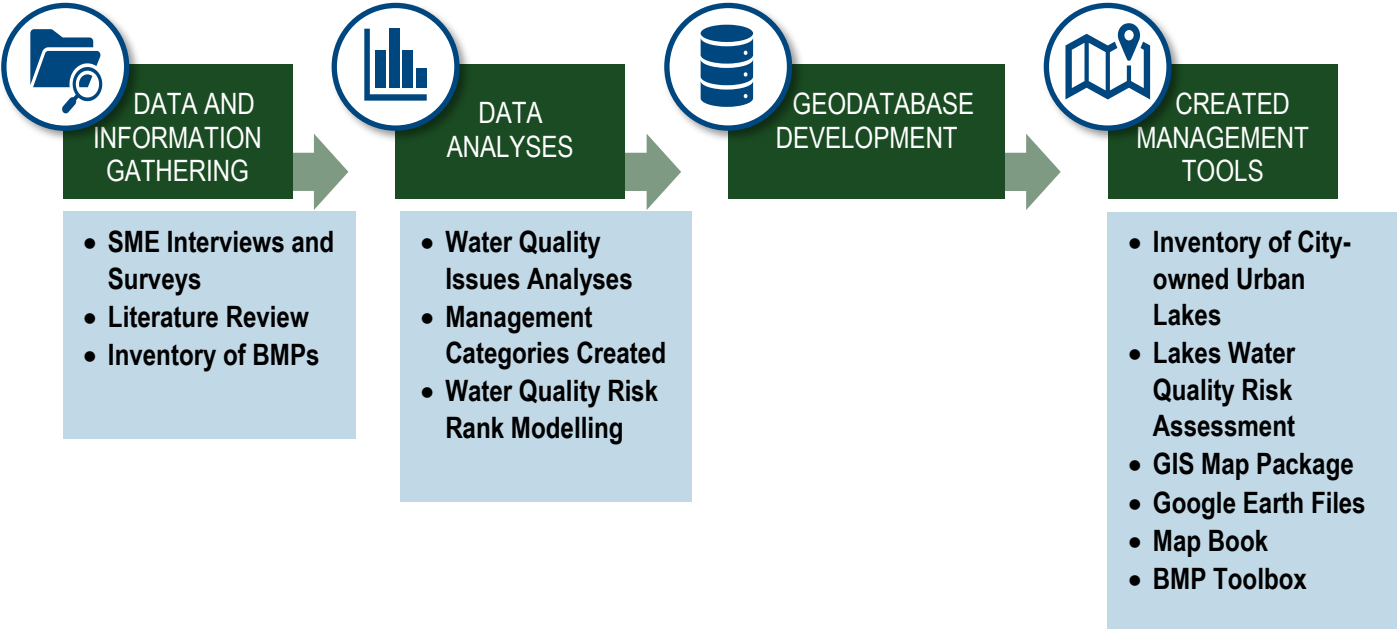


Figure 5.1. Graphic showing the process used for developing the City's Urban Lakes Water Quality Management Guidance.

### Management Categorization

The City's urban lakes have been designed and are currently managed to achieve a range of goals, which can impact water quality to varying degrees. It is therefore useful for the City's urban lakes to be grouped into discrete management categories to better anticipate and mitigate water quality issues.

The project team used information obtained during SME interviews and surveys to develop a draft list of potential management categories for the City's urban lakes. The draft list was further refined using additional feedback from City staff from Natural Areas, Parks and Utilities Departments into a final list of urban lakes management categories.

Because many of the City's urban lakes are managed to achieve more than one management goal, primary and secondary management categories were assigned by the project team for each urban lake, where applicable.

**Table 5.1** Table showing Water Quality Risk Rank Geospatial modelling scoring ranges, ranking categories and descriptions

WATER QUALITY RISK RANK GEOSPATIAL MODELLING		
Score	Risk Rank	Description
0.1-0.25	Low	Lakes with low risk of water quality issues
0.251-0.50	Medium	Lakes with medium risk of water quality issues
0.51-1.0	High	Lakes with high risk of water quality issues

### Water Quality Risk Rank Model

City staff are tasked with managing the water quality of many urban lakes with limited resources. Which lakes should managers focus resources to address the highest water quality risks and achieve the greatest impact? The project team attempted to address this question by developing a Risk Rank Geospatial Model (Model) to help guide managers.

The Model combines a variety of lake water quality criteria, including primary and secondary management category; lake surface area; existing water quality issues; adjacent land use within 200 feet of the lake; estimated water residence time; groundwater connection to the Poudre River; and whether each lake is on the Colorado Department of Public Health and Environment’s 303(d) List of Impaired and Threatened Waters.

These model inputs were broken out into separate categories, such as “yes” or “no” for existing water quality issues or “vacant,” “residential,” or “industrial” for adjacent land uses. The project team assigned a relative numeric value, or ‘weight’ to each model factor based on the level of urban lakes water quality management concern. For example, “vacant” land received a lower score than “commercial” because developed lots would be expected to present a greater water quality risk to adjacent lakes due to elevated risk of nutrient, pathogen and other pollutant loading.

Risk Rank Model scores were calculated for each lake by summing individual criteria scores (Table 5.1). Lake scores ranged from 0 to 1, with higher values near 1 representing lakes with a higher relative water quality risk. Scores were separated into three discrete bins corresponding to low (0.1–0.25), medium (0.251–0.5) and high (0.51–1.0) water quality risk. Lakes having no data for one or more criteria were not assessed. Model inputs; criteria descriptions, weights and supporting rationale; and calculated scores can be found in Attachment B.

Model risk rankings were validated using desktop analyses on a subset of 20 randomly selected lakes to ensure that the model was accurately calibrated. Minor adjustments were made to the numeric scores and weights as needed.

### Geodatabase

The project team developed a geographic information system (GIS) geodatabase and an associated Map Package of City-owned Urban Lakes within the GMA. The geodatabase includes individual lake physical, chemical, biological and other water quality information collected during SME interviews and surveys and literature review. The metadata associated with the Risk Rank Model are also included in the Geodatabase.

### 5.3 Management Tools

The project team developed several tools to assist City staff with managing water quality in the City’s Urban Lakes. These tools included an inventory of all City-owned lakes within the GMA (see Section 6.3); a water quality risk assessment (see Section 6.2.3); a Geographic Information System Map Package and Google Earth Files; a Map Book; and BMP Toolbox.

### GIS Map Package, Google Earth Files and Map Book

An Urban Lakes Geographic Information System Map Package was developed to provide the City’s lakes managers with interactive mapping tools in addition to what is provided in this Guidance. In addition to the Map Package, Google Earth KMZ files were also created, providing managers with the option to use Google Earth as an additional urban lakes management tool. And lastly, a Map Book including all of the City’s Urban Lakes was developed as an additional reference for managers.

### Best Management Practices Toolbox

The BMP Toolbox includes a list of more than 50 BMPs and additional supporting information for each, including a brief description of the BMP; water quality issue(s) being targeted; applicable lake conditions; any potential negative outcomes; relevant permitting and water rights for managers to consider; any potential BMP co-benefits, approximate costs, including operations and maintenance costs per year; and additional resources. A description of these attributes can be found in the *BMP Analysis Summary* below.

## 6.0 RESULTS - WHAT DID WE LEARN?

This section provides a summary of what was learned during the data and information gathering and analyses phases of the Guidance development process and the tools that have been developed to assist City staff with managing Urban Lakes water quality.

### 6.1 Inventory of City-owned Urban Lakes

City-owned urban lakes were sorted into two broad categories: detention and retention lakes. Detention lakes typically only hold water temporarily (<72 hours) and are mostly used to achieve specific stormwater management objectives. In contrast, retention lakes are characterized by holding water for longer periods of time (>72 hours) (**Figure 6.1**). Both categories of lakes were inventoried in this Guidance; however, the development of water quality management tools focused on retention lakes only.

**Table 6.1.** Table listing the number of detention and retention lakes managed by Natural Areas, Parks and Utilities Departments, and the total number of City-owned lakes.

CITY-OWNED URBAN LAKES			
	Detention Lakes	Retention Lakes	Total Lakes
Natural Areas	4	50	54
Parks	27	28	55
Utilities	87	7	94
Natural Areas/Utilities	0	3	3
Unknown	38	60	98
	<b>156</b>	<b>148</b>	<b>304</b>

There are a total of 461 lakes within the City’s Growth Management Area; including 304 City-owned Urban Lakes and 157 that are not City-owned. The City’s Urban Lakes include 148 detention lakes and 156 detention lakes (**Table 6.1; Figures 6.1 and 6.2**). The distribution of retention vs detention lakes under management by Natural Areas, Parks and Utilities Departments differs widely. Natural Areas primarily manages retention ponds, whereas Utilities manages mostly stormwater detention ponds. Parks manages roughly equal numbers of retention and detention ponds. It’s important to note that a managing

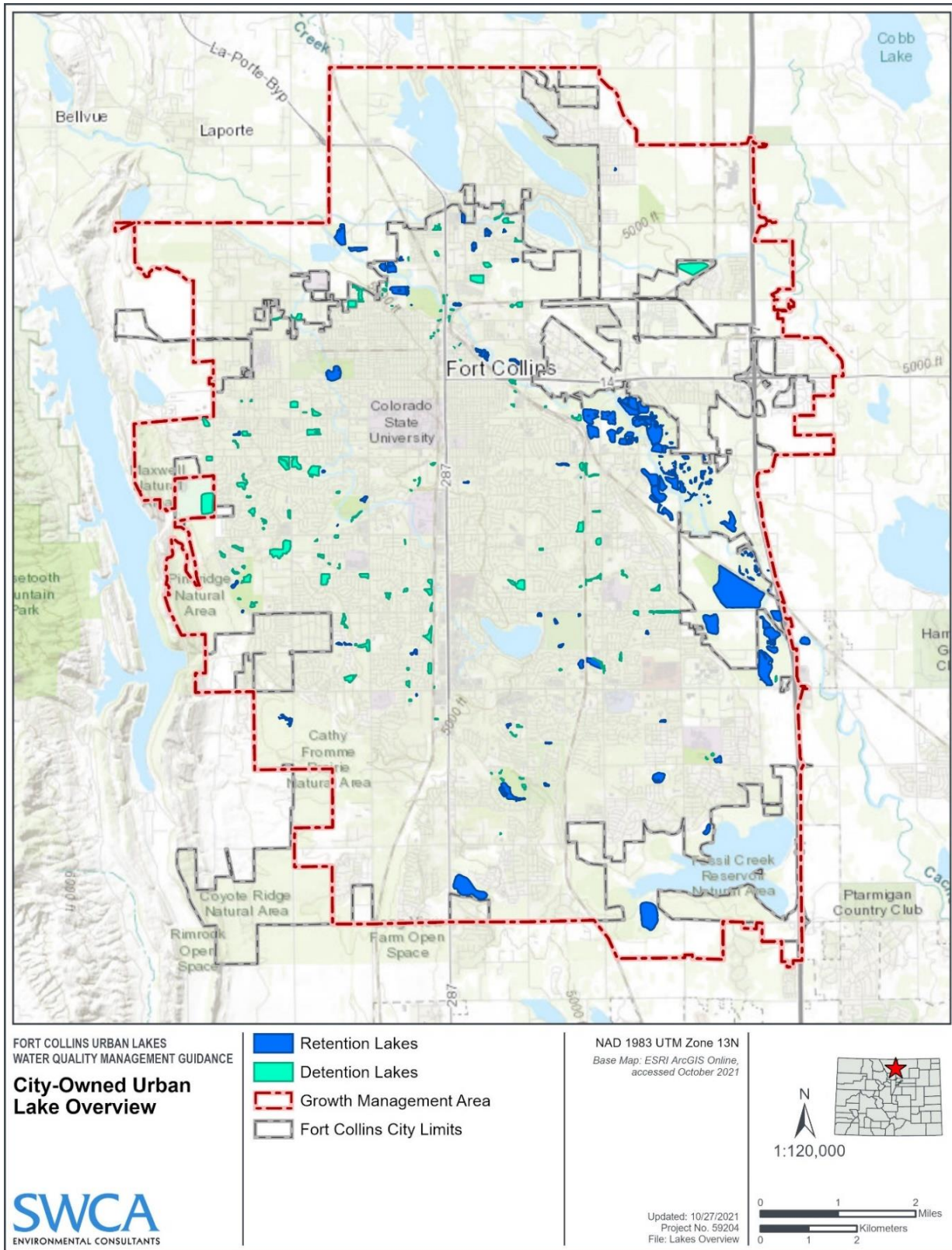


Figure 6.1. City of Fort Collins City-owned retention and detention lakes within the Fort Collins Growth Management Area (Source: City of Fort Collins 2005).

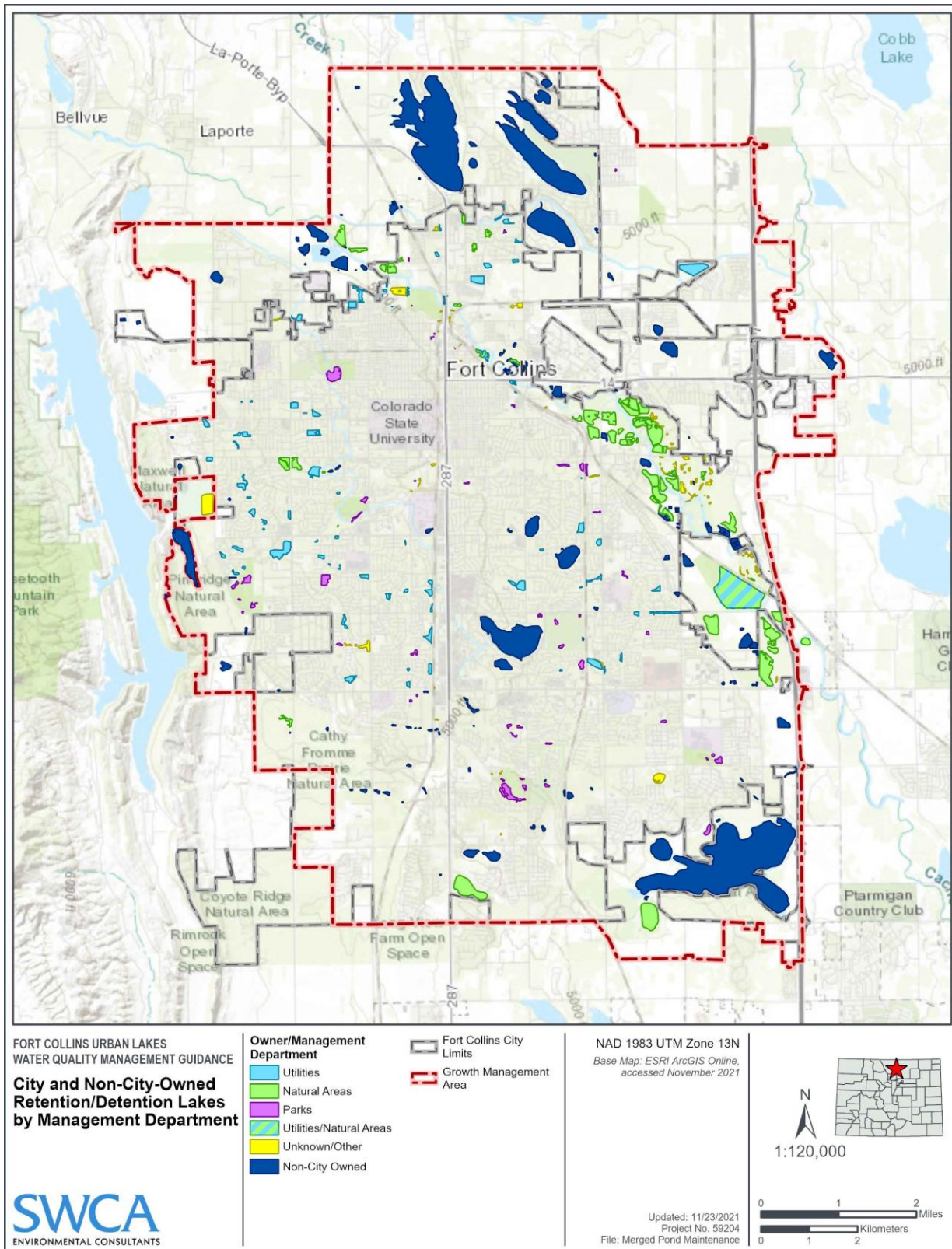


Figure 6.2. Map showing City-owned Urban Lakes within the GMA and managing department.

department has not currently been identified for 98, or 32% of City-owned lakes. A full list of City-owned detention and retention lakes, along with unique identification numbers (MXASSETNUM) and other data and information can be found in Attachment C. A detailed Mapbook of all City-owned Urban Lakes can be found in Attachment D.

## 6.2 Water Quality Issues

The water quality issues analyses resulted in 49 unique urban lakes water quality issues (Attachment E). Issues range from specific pollutants to physical causes of water quality degradation. Additional information includes a description of each issue; potential cause(s), management challenges and reference materials are also provided as management resources. Information regarding known urban lakes water quality issues is included in the Geodatabase and Urban Lakes attribute tables in Attachment C.

## 6.3 Management Categories

There were nine unique management categories created for this Guidance; these included: Golf Course, Wildlife, Fisheries, Stormwater/Flood Control, Ornamental, Recreation, Water Storage, Sediment Retention and Other/Urban. The City's retention lakes were assigned primary and secondary management categories based on departmental management objectives (**Table 6.2**). The majority of the City's retention lakes are managed to provide wildlife habitat, to serve as stormwater infrastructure features or as storage reservoirs. The most common departmental management categories were Wildlife, Storage and Stormwater/Flood Control for Natural Areas, Parks and Utilities, respectively.

## 6.4 Urban Lakes Geodatabase

The Urban Lakes Guidance Geographic Information System (GIS) Geodatabase contains an attribute table with detailed information about City-owned retention lakes. Managers are able to use the attribute table to quickly identify individual lakes using a unique identification number (MXASSETNUM) that is referenced in the City's Maximo Asset Management System as well as lake names, when available. Additional lake-specific information includes lake physical characteristics; managing department and assigned management categories; water quality issues referenced in see Appendix E; BMPs referenced in Appendix F that have been implemented and level of effectiveness; and additional notes to help inform managers. A complete copy of the Urban Lakes Geodatabase attribute table is included for reference in Appendix C. Please note that many of the City's urban lakes have little or no attribute data beyond a MXASSETNUM.

## 6.5 Map Package and Google Earth Geospatial Files

The Urban Lakes Geodatabase was used to develop an Urban Lakes GIS Map Package that can be used with Geographic Information System Software and KMZ lakes files that can be used with Google Earth. The Map Package and KMZ files contain the same lake specific attributes contained in Appendix A, providing managers with several options for accessing this information. The Risk Rank Model results (see below) can be viewed by lakes managers using the Map Package and .KMZ files in Google Earth.

## 6.6 Urban Lakes Water Quality Risk Rank Model

The Urban Lakes Water Quality Risk Rank Model was developed to help the City's lakes managers identify which retention lakes are at low, medium and high risk for water quality issues. The model identified 19 retention lakes that are considered the highest priority based on known water quality history, adjacent land use and other risk factors (**Table 6.2**). A full listing of prioritization ranks for retention lakes is available in Attachment C and a map of these lakes is included in **Figure 6.3**. There were 58 lakes that could not be assessed because necessary data to run the model were lacking.



**Table 6.2.** Table summarizing urban lakes primary and secondary management categories for retention lakes managed by Natural Areas, Parks, Utilities and Utilities/Natural Areas Departments. The number of retention lakes managed by each department is shown in parentheses.

<b>URBAN LAKE MANAGEMENT CATEGORIES</b>				
	<b>Natural Areas (50)</b>	<b>Parks (28)</b>	<b>Utilities (7)</b>	<b>Utilities/ Natural Areas (3)</b>
Golf Course		1		
Wildlife	50			2
Fisheries	11			
Stormwater/Flood Control	27	2	5	2
Ornamental				
Recreation	10			
Storage		27	2	1
Sediment Retention				
Other/Urban		1		

**Table 6.3.** Table summarizing City-owned urban lakes that are considered the highest priority for management based on risk rank water quality modelling.

<b>HIGH PRIORITY URBAN LAKES</b>		
<b>Lake Name</b>	<b>Managing Department</b>	<b>Priority</b>
Prospect Ponds North	Natural Areas	High
Merganser Pond (Prospect Ponds)	Natural Areas	High
Catfish Pond (Prospect Ponds)	Natural Areas	High
Heron Pond	Natural Areas	High
Cathy Fromme Pond	Natural Areas	High
Blackbird Pond (Cattail Chorus)	Natural Areas	High
Sunfish Pond (McMurry)	Natural Areas	High
Duck Lake	Natural Areas	High
Little and Big Bass Ponds (Arapaho Bend)	Natural Areas	High
I-25 Pond (Arapahoe Bend)	Natural Areas	High
Homestead Pond	Natural Areas	High
Edora Park Pond	Parks	High
Spring Creek Park Pond	Parks	High
Spring Creek Dog Park Pond	Parks	High
Portner Reservoir #2	Parks	High
Portner Reservoir #3	Parks	High
Sheldon Lake	Parks	High
Fossil Creek Community Park Pond #1	Parks	High
Troutman Park Pond - East	Parks	High

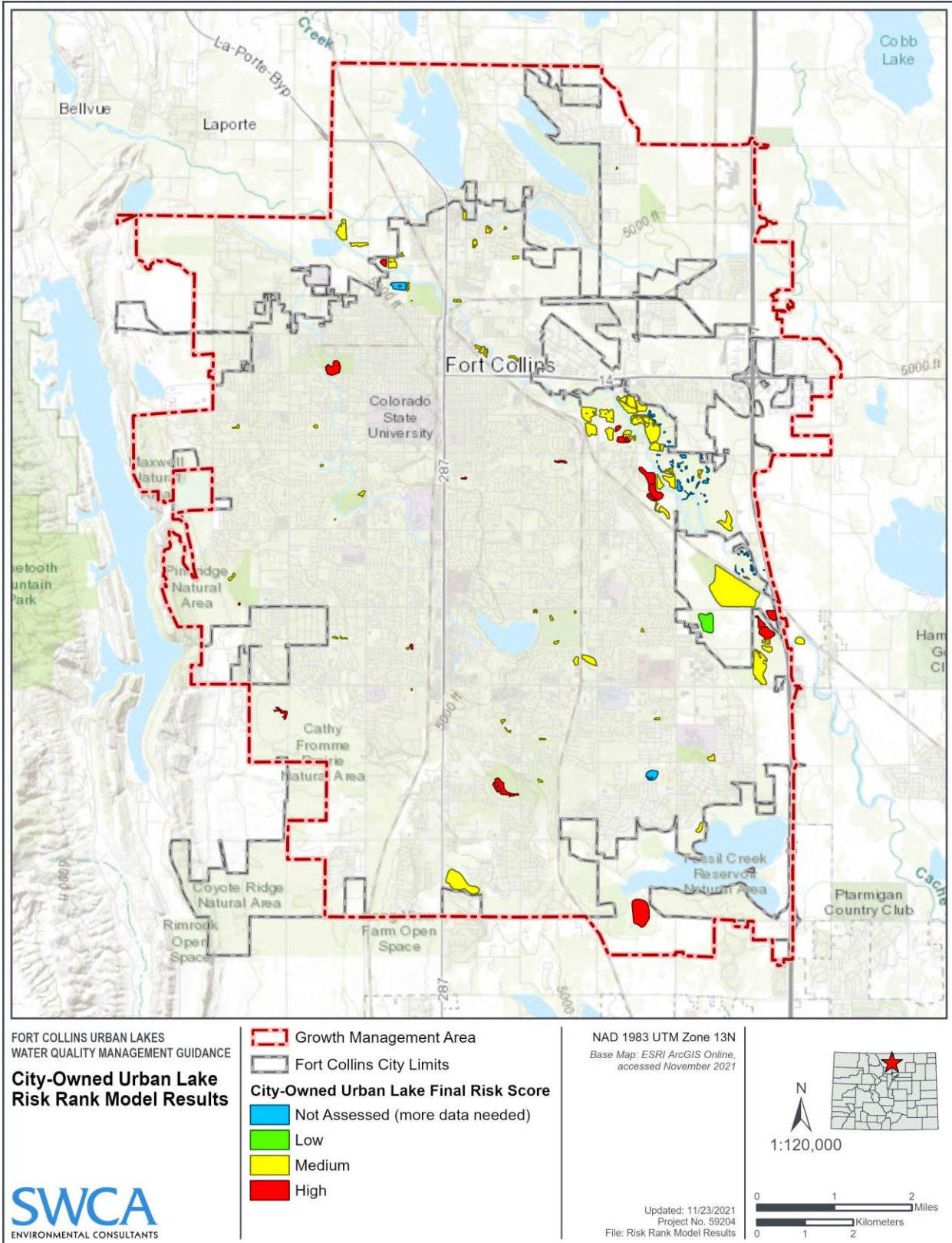


Figure 6.3. Map showing water quality risk rankings, from low to high, for the City’s urban retention lakes.

## 6.7 Best Management Practices Toolbox

The BMP inventory that was conducted as part of Guidance development was used to create a BMP Toolbox (Appendix F). The BMP Toolbox includes 51 unique BMPs, including those currently used by City staff, and others that were suggested by SMEs or identified by the project team. BMPs include those that are designed to mitigate existing water quality issues and those that are reduce the risk of future water quality issues. BMPs are designed to target water quality issues such as algae blooms, macrophytes, sedimentation, water-borne pathogens, low dissolved oxygen, nutrient loading and other management challenges. Each BMP is detailed in the BMP Toolbox; including a description on the BMP, treatment mechanism, targeted pollutants, cost estimates for implementation, references and other information.

## 7.0 FUTURE RECOMMENDATIONS

This Guidance is meant to provide a starting point for City staff tasked with managing Urban Lakes water quality – including a lakes inventory and management tools. An important next step for managers will be to prioritize lakes for management based on information in this Guidance and other resources and to develop specific management plans with targeted mitigation strategies as necessary.

This Guidance is intended to be iterative and should be updated periodically to maintain an accurate inventory of the City's Urban Lakes, water quality issues impacting these important resources and the latest BMPs. The Geodatabase, .KMZ map files and Risk Rank Model should also be updated as necessary over time to add new lakes or edit attributes of existing lakes.

The Guidance has been primarily developed to support the City's Urban Lakes management. However, it will be shared with the public and will likely be particularly useful for private lakes managers. It is recommended that the City also develop a webpage containing the Guidance and other information about the City's Urban Lakes and ways our community can help reduce water quality impacts. It is further recommended that the City develop an interactive webmap that allows the public to learn more about Urban Lakes water quality concerns.

And lastly, the Urban Lakes Water Quality Management Policy and Guidance were developed using a cross-departmental One Water Approach. The process ultimately aligned Natural Areas, Parks, Utilities and provided an opportunity for increased communication, teamwork, the identification of co-benefits, and overall integration of resource management. It is the hope of the project team that this project serves as another strong example of the potential benefits of adopting a City-wide One Water Framework.

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# ATTACHMENT 1 – URBAN LAKES WATER QUALITY MANAGEMENT POLICY

## City of Fort Collins

### Water Quality Management Policy for City-Owned Lakes and Stormwater Basins in the Growth Management Area

#### Background

As development and urbanization have continued and increased in the Fort Collins Growth Management Area (“GMA”), new and existing water quality challenges in lakes and stormwater basins have arisen and intensified. Examples of these challenges include: pollution associated with urban growth, development, and land use practices; climate change; and other factors that can lead to water quality impacts such as sedimentation, fish kills, algae blooms, and water-borne pathogens.

The City of Fort Collins (“City”) recognizes the importance of managing water quality in lakes and stormwater basins to support management goals for the benefit of community, ecosystems, and downstream water quality. Such management can also implement the City’s triple bottom line approach to consider social, economic, and environmental impacts, as well as supporting and furthering various City plans and objectives related to water quality. Numerous lakes and stormwater basins in the GMA are privately owned. By comparison, the City has some degree of control and influence over the water quality of the lakes and stormwater basins it owns.

This City of Fort Collins Water Quality Management Policy for City-Owned Lakes and Stormwater Basins in the Growth Management Area (“Policy”), and the associated Guidance Document, have been created to provide a foundational framework for the City’s operational and management decisions related to water quality in City-owned lakes and stormwater basins.

This Policy was developed using an integrated One Water approach by an inter-departmental team of City staff, including the Managing Departments listed below. The Policy’s content was further informed by feedback from key stakeholder groups, which included: urban lakes and water quality management subject matter experts; the City’s Land Conservation and Stewardship Board, Natural Resources Advisory Board, Parks and Recreation Board, and Water Commission; and members of the Fort Collins community.

#### Vision and Purpose of the Policy

The City’s vision is that water quality in City-owned lakes and stormwater basins in the GMA supports management goals while also maintaining or improving aesthetics. To that end, the purpose of this Policy is to provide a foundational framework for the City’s operational and management decisions related to water quality management in City-owned lakes and stormwater basins.

#### Key Terms

The following describes and discusses several key terms used throughout this Policy.

*City-owned lakes and stormwater basins* refers to lakes and stormwater basins where the City owns the surrounding and underlying land and thus manages the water in them.

*Fort Collins Growth Management Area (“GMA”)* is as defined in Section 1-2 of the Fort Collins Municipal Code, being the Fort Collins Urban Growth Area as defined in Article XIII of the Charter of the City, namely, that geographic area within and adjacent

to the City identified by the Intergovernmental Agreement between the City and Larimer County as that area identified for annexation and urbanization by the City, including the Urban Growth Area as it exists on March 5, 1985, together with any amendments or changes thereto.

*Guidance Document* refers to a separate document the City has developed and will update as a technical resource intended to support City staff in implementing this Policy. The Guidance Document provides Managing Departments with management tools, including<sup>1</sup>:

- Inventory of all City-owned lakes and stormwater basins;
- Certain water quality-related information for City-owned lakes and stormwater basins;
- Management categorization for City-owned lakes and stormwater basins, based on management goals of the respective Managing Departments;
- Assistance with management prioritization; and
- Best management practices for water quality management.

*Lakes* refer to basins and depressions that are generally filled with water. For the purposes of this Policy, lakes include: on- and off-stream reservoirs filled with water diverted from the stream; ponds used to manage water for irrigation and other uses; unlined gravel pits that have filled in with groundwater; and other basins and depressions that are generally filled with water.

*Managing Departments* refer to the components of the City organization that manage the City-owned lakes and stormwater basins. The current Managing Departments are Natural Areas, Parks, and Fort Collins Utilities.

*Stormwater Basins* refer to areas that are designed to collect precipitation runoff, including snowmelt. Stormwater basins include both: stormwater detention basins/ponds, which are designed to temporarily detain stormwater, generally for less than 72 hours; and stormwater retention basins/ponds, which are designed to detain or store stormwater runoff for longer than 72 hours. Stormwater retention basins/ponds may also be lakes. Although stormwater basins do not always have water in them, they can influence water quality and are thus included in this Policy.

*Water quality* refers to the physical, chemical and biological characteristics of water. Numerous human and natural factors can influence water quality.

*Water quality management* refers to the use of pollution prevention and/or mitigation best practices to address water quality management goals.

### **Scope and Applicability of this Policy**

This Policy applies only to City-owned lakes and stormwater basins in the GMA. Nothing in this Policy is intended to conflict with any applicable laws, including: the City Charter and City Code; Colorado state law, including permits and approvals issued thereunder; federal law, including permits and approvals issued thereunder; and applicable agreements and other contractual arrangements. To the extent that there is such a conflict, the applicable law controls.

This Policy does not apply to lakes and stormwater basins in the GMA that are not City-owned. For example, this Policy does not apply to lakes and stormwater basins owned by homeowners associations, or lakes owned by ditch or reservoir companies in which the City owns shares. The owners of such other lakes and stormwater basins are free to consider this Policy and the Guidance Document, in their discretion, in their management of their structures.

This Policy does not apply to lakes and stormwater basins that are outside of the GMA. This includes reservoirs the City owns that are outside of the GMA (e.g., Joe Wright Reservoir). Those lakes and stormwater basins are generally located outside of the urban environment and face challenges distinct from those addressed in this Policy. The water quality challenges of those

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<sup>1</sup> In this Policy, "include" signifies a list that is not necessarily exhaustive.

lakes and stormwater basins are thus addressed separately. The owners of such other lakes and stormwater basins are free to consider this Policy and the Guidance Document, in their discretion, in their management of those structures.

### Management

Each Managing Department will manage water quality in their lakes and stormwater basins to address their own management goals. Specifically, Managing Departments will:

1. Identify which City-owned lakes and stormwater basins they are responsible for, relying on the inventory in the Guidance Document. If more than one Managing Department is responsible for a lake or stormwater basin, the responsible Managing Departments will work together on all aspects of management.
2. Identify the management goals for their lakes and stormwater basins based on their uses and purposes. This may include a consideration of the categories of types of lakes and stormwater basins and their various uses and purposes, as described in the Guidance Document.
3. Determine which of their City-owned lakes and stormwater basins should be prioritized for water quality management or other related actions.
4. Determine whether to act (or not act) on water quality issues.<sup>2</sup>
5. Develop water quality management plans as necessary for prioritized City-owned lakes and stormwater basins (as discussed below).
6. Collaborate with other Managing Departments where responsibilities, projects, or other actions related to water quality management overlap with or will affect other departments.
7. Communicate internally within the City organization and externally to the Fort Collins community (as discussed below).

### Management Plans

Managing Departments will develop water quality management plans for individual lakes and stormwater basins, as necessary, to address their water quality management goals. These plans may be separate, standalone documents, or may be integrated into other plans or other documents related to their lakes and stormwater basins. These plans should include:

- statement of the Managing Department’s goals and priorities for their lakes and stormwater basins;
- consideration of the analyses, recommendations, and other aspects of the Guidance Document;
- water quality-related goals for their lakes and stormwater basins;
- water quality management practices for their lakes and stormwater basins;
- a communication strategy (as discussed below); and
- other items appropriate to further the Managing Department’s goals and priorities.

### Communication

Consistent with their communication strategy, Managing Departments will communicate internally within the City organization and externally with the Fort Collins community regarding water quality of lakes or stormwater basin. This will include communications regarding: water quality data; any public health risks; and non-routine maintenance work. Communications will be made pursuant to applicable City policies. Managing Departments will periodically communicate internally to improve interdepartmental alignment regarding water quality management practices.

### Policy and Guidance Document Updates

An inter-departmental team from all of the Managing Departments (minimum 1 staff member from each) will be established to ensure proper implementation of this Policy and to periodically revise and update the Policy and Guidance Document as needed.

<sup>2</sup> How Managing Departments staff and otherwise resource their actions are not addressed in this Policy.

The team will annually review the Guidance Document to identify and address data errors, necessary updates, and other opportunities for improvement, including:

- Adding any City-owned lakes and stormwater basins to the inventory;
- Updating lake-specific water quality information; and
- Adding or updating water quality management practices.



## ATTACHMENT 2 – SUBJECT MATTER EXPERT (SME) INTERVIEW AND SURVEY QUESTIONS

### SME Interview Questions

- What is your role and background in managing water quality issues?
- Are there any lakes represented in the GMA that are not highlighted but should be?
- Which Urban Lakes do you manage?
- What are their surrounding land uses?
- What are their major uses?
- Are there known water quality issues in the waterbodies that you manage? Are their historic, current, and future water quality concerns in these waterbodies?
- What are the causes of these water quality issues?
- Are there known BMPs implemented at the lakes that you manage? Do you know of historic, current, or emerging/potential BMPs that were used or would be helpful in managing these water quality issues?
- Are there any BMPs that you would like to try to manage water quality issues?
- Were the BMPs that have been used to treat water quality issues effective?
- What Management Categories would you place the lakes that you manage into:
  - Golf Course
  - Wildlife
  - Fisheries
  - Stormwater/Flood Control
  - Ornamental
  - Recreation
  - Storage
  - Sediment Retention
  - Other/Urban
- 1. Who else would you recommend that we reach out to for this project?
- 2. Do you have any water quality or BMP data for the urban lakes within the GMA that you would be willing to share?

### SME Survey Questions

1. Are you a lake manager or do you support the management of lakes?
2. What are the three most critical water quality issues that trigger management action for you?

3. What are the other water quality issue(s)?
4. What are the main sources of pollution for the water quality issues you listed in #2? Such as livestock inputs, urban development, rangeland use, agriculture, stormwater runoff, pet waste, low flow, no lake inlet/outlet, etc.
5. Of the lake water quality best management practices (BMPs) that you use, what are the three most common or effective? BMPs are tools used to manage urban lake water quality. Though there are many, examples include hand-pulling aquatic nuisance species, using biochar to remove nutrients, developing wetland habitat to sequester pollutants, and providing pet waste bags and bins to avoid/reduce animal waste from entering the waterbody.
6. Are there other water quality BMPs that you would prefer to use, and if so what are they?
7. When you consider your ability to effectively manage water quality in urban lakes, what resources limit your success? These may be factors such as knowledge, data, sampling technicians (i.e., work force), funding, red tape, stakeholder buy-in, etc.
8. When getting buy-in or opinions about urban lake policy, which groups or organizations in the community are most important to talk with? Please list them below.
- What are three key pieces of literature or resources you would recommend on urban lake water quality management and/or BMPs? Please provide as much citation information as possible. Such as books, articles, manuals, online databases, web platforms, etc.

## ATTACHMENT 3 - URBAN LAKES WATER QUALITY RISK RANK MODEL

MODEL INPUT	DATA SOURCE	CRITERIA	DESCRIPTION	REASONING	SCORE	WEIGHT	VALUE SCORE
Adjacent Land Use (within 200ft)	City Geodatabase	Vacant	Land zoned as vacant that may be developed or undeveloped.	Vacant lands include all lands classified as vacant by the City.	0.5	0.1	0.05
		Residential	Land zoned as residential, that may have single family or multi-family structures, and may have lawns.	Residential lands include all single, duplex, and multi-family areas, supplementary, support, and HOA lands, support shelters, and senior citizen housing.	0.5		0.05
		Public	Public use lands, which may include parks, open space, other.	Public lands include BLM, cemeteries, religious buildings, childcare centers and education facilities (including grade school and colleges/universities), county admin and housing, parks and rec land, conservation lands, municipality buildings, emergency infrastructure, and others.	0.5		0.05
		Industrial	Industrial land that may include all structures, storage yards, and waste facilities associated with industrial operations.	Industrial lands that include construction, manufacturing, industrial condos, and warehouses.	0.25		0.025

MODEL INPUT	DATA SOURCE	CRITERIA	DESCRIPTION	REASONING	SCORE	WEIGHT	VALUE SCORE
		Commercial	Commercial land that may include all structures, storage yards, parking, lawns, and features associated with commercial operations.	Commercial lands that include businesses, residential, multi-use, or recreational use.	0.5		0.05
		Agriculture	Agricultural land that may include all structures, storage yards, waste areas, fields, and pastures that may be associated with crop or livestock farming.	Agriculture lands that include dry, irrigated, grazed, hay meadow, waste, or support infrastructure for agriculture.	1		0.1
Primary Management Category	City Geodatabase	Stormwater/Flood Control/Floodplain Expansion	Lake or pond used primarily for managing stormwater runoff, flood control, and/or floodplain expansion	Ponds used for stormwater, flood control, and floodplain expansion appear to have more water quality issues related to runoff, and therefore higher likelihood of having water quality issues.	1	0.05	0.05
		Wildlife	Lake or pond managed primarily for wildlife, other than just fisheries.	Ponds managed for wildlife may have more native aquatic vegetation, cycling of nutrients, and healthier system cycling, which may reduce potential for water quality issues.	0.25		0.0125
		Stormwater	Lake or pond managed primarily for stormwater without specificity, such as flood control, floodplain expansion, or water quality.	Ponds used for stormwater, flood control, and floodplain expansion appear to have more water quality issues related to runoff, and therefore higher likelihood of having water quality issues.	1		0.05

MODEL INPUT	DATA SOURCE	CRITERIA	DESCRIPTION	REASONING	SCORE	WEIGHT	VALUE SCORE
		Native Fisheries	Lake or pond managed primarily for native fisheries	Ponds managed for native fisheries appear to have populations of native aquatic vegetation, cycling of nutrients, and overall monitoring, which may reduce potential for water quality issues.	0.25		0.0125
		Storage/Irrigation	Lake or pond used primarily for storage and/or storage for irrigation use	Ponds used for storage and irrigation appear to have more water quality issues related to runoff, sedimentation, residence time, and/or nutrient loading, and therefore have a higher likelihood of having water quality issues.	1		0.05
		Stormwater/Water Quality	Lake or pond used primarily for managing stormwater runoff and water quality of downstream waterbodies.	Ponds used for stormwater and water quality appear to have more water quality issues related to runoff, and therefore higher likelihood of having water quality issues.	0.5		0.025
		Recreation	Lake or pond used primarily for recreational human use, such as swimming, boating, fishing, etc.	Ponds used for recreation are more likely to be monitored for water quality and therefore are less likely to have ongoing water quality issues.	0.25		0.0125
Secondary Management Category	City Geodatabase	Stormwater/Flood Control/Floodplain Expansion	Lake or pond used primarily for managing stormwater runoff, flood control, and/or floodplain expansion	Ponds used for stormwater, flood control, and floodplain expansion appear to have more water quality issues related to runoff, and therefore higher likelihood of having water quality issues.	1	0.025	0.025
		Wildlife	Lake or pond managed primarily for wildlife, other than just fisheries.	Ponds managed for wildlife may have more native aquatic vegetation, cycling of nutrients, and healthier system cycling, which may reduce potential for water quality issues.	0.25		0.00625

MODEL INPUT	DATA SOURCE	CRITERIA	DESCRIPTION	REASONING	SCORE	WEIGHT	VALUE SCORE
		Stormwater	Lake or pond managed primarily for stormwater without specificity, such as flood control, floodplain expansion, or water quality.	Ponds used for stormwater, flood control, and floodplain expansion appear to have more water quality issues related to runoff, and therefore higher likelihood of having water quality issues.	1		0.025
		Native Fisheries	Lake or pond managed primarily for native fisheries.	Ponds managed for native fisheries appear to have populations of native aquatic vegetation, cycling of nutrients, and overall monitoring, which may reduce potential for water quality issues.	0.25		0.00625
		Non-native Fisheries	Lake or pond managed primarily for non-native fisheries.	Ponds managed for non-native fisheries may have populations of native aquatic vegetation, cycling of nutrients, and overall monitoring, which may reduce potential for water quality issues. However, some non-native fish can exacerbate water quality issues.	0.3		0.0075
		Storage/Irrigation	Lake or pond used primarily for storage and/or storage for irrigation use	Ponds used for storage and irrigation appear to have more water quality issues related to runoff, sedimentation, residence time, and/or nutrient loading, and therefore have a higher likelihood of having water quality issues.	1		0.025
		Stormwater/Water Quality	Lake or pond used primarily for managing stormwater runoff and water quality of downstream waterbodies.	Ponds used for stormwater and water quality appear to have more water quality issues related to runoff, and therefore higher likelihood of having water quality issues.	0.5		0.0125

MODEL INPUT	DATA SOURCE	CRITERIA	DESCRIPTION	REASONING	SCORE	WEIGHT	VALUE SCORE
		Recreation	Lake or pond used primarily for recreational human use, such as swimming, boating, fishing, etc.	Ponds used for recreation are more likely to be monitored for water quality and therefore are less likely to have ongoing water quality issues.	0.25		0.00625
Lake Size (surface area)	City Geodatabase	Very Large	>30 acres	Very large ponds likely have less residence time, less relative surface area for evaporative loss, solar insulation, and provide greater opportunity for dilution for chemicals, nutrients, etc. They are therefore less likely to have water quality issues.	0.25	0.1	0.025
		Large	6-29 acres	Large ponds likely have less residence time, less relative surface area for evaporative loss, solar insulation, and provide greater opportunity for dilution for chemicals, nutrients, etc. They are therefore less likely to have water quality issues.	0.5		0.05
		Medium	1-5 acres	Medium ponds likely have greater residence time, greater relative surface area for evaporative loss, solar insulation, and can easily become concentrated with chemicals, nutrients, etc. They are therefore less likely to have water quality issues.	0.75		0.075
		Small	<1 acre	Small ponds likely have greater residence time, greater relative surface area for evaporative loss, solar insulation, and can easily become concentrated with chemicals, nutrients, etc. They are therefore less likely to have water quality issues.	1		0.1

MODEL INPUT	DATA SOURCE	CRITERIA	DESCRIPTION	REASONING	SCORE	WEIGHT	VALUE SCORE
Known Water Quality Issues?	City Geodatabase	Yes	Known water quality issues present.	If a known water quality issue already exists, a pond is automatically designated as being prone to water quality issues.	1	0.225	0.225
		No	No known water quality issues present		0		0
Residence time contributor?	City Geodatabase	Yes	Pond water residence time is a contributor to water quality issues.	Ponds with greater residence time are more likely to have water quality issues. If residence time is a contributor to water quality issues, this has been identified by SMES.	1	0.2	0.2
		No	Pond water residence time is not a contributor to water quality issues.	Ponds with less residence time are less likely to have water quality issues. If residence time is a contributor to water quality issues, this has been identified by SMES.	0		0
303d Listed Lake?	EPA 303d Listed Impaired Waters	Yes	The pond is 303d listed.		1	0.2	0.1
		No	The pond is not 303d listed.		0		0
Within Poudre River alluvium soil layer?	NRCS Soils Layer	Yes	The pond overlaps with the Poudre River alluvium soil layer.	Based on SME input, there appears to be some correlation with connectivity to the Poudre and water quality issues. Those with greater connectivity have greater turnover, and therefore fewer water quality issues.	0	0.05	0
		No	The pond does not overlap with the Poudre River alluvium soil layer.	Based on SME input, there appears to be some correlation with connectivity to the Poudre and water quality issues. Those with greater connectivity have greater turnover, and therefore fewer water quality issues.	1		0.05



Item 9.

MODEL INPUT	DATA SOURCE	CRITERIA	DESCRIPTION	REASONING	SCORE	WEIGHT	VALUE SCORE
Within Poudre River groundwater layer?		Yes	The pond overlaps with the Poudre River groundwater layer.	Based on SME input, there appears to be some correlation with connectivity to the Poudre and water quality issues. Those with greater connectivity have greater turnover, and therefore fewer water quality issues.	0	0.05	0
		No	The pond does not overlap with the Poudre River groundwater layer.	Based on SME input, there appears to be some correlation with connectivity to the Poudre and water quality issues. Those with greater connectivity have greater turnover, and therefore fewer water quality issues.	1		0.05

# ATTACHMENT 4 – URBAN LAKES GEODATABASE AND ATTRIBUTE TABLE

Attachment 4 Table 1. Geodatabase Attribute Table for Fort Collins' Urban Retention Lakes. Unknown and &lt;Null&gt; represent lake attributes where there is currently no information available.

MXASSETNUM	FACILITY ID	NAME	AKA	DEPTH (FEET)	VOLUME	OWNED BY	MAINTAINED BY	PRIMARY MANAGEMENT CATEGORY	SECONDARY MANAGEMENT CATEGORY	ADJACENT LAND USE	WATER QUALITY ISSUE(S)	CAUSE(S) OF WATER QUALITY ISSUE(S)	DOES LAKE RESIDENCE TIME CONTRIBUTE TO WATER QUALITY ISSUES?	CURRENT BMPS	HISTORIC BMPS	BMPS SUCCESSFUL? (Y/N/U)	INVASIVE SPECIES PRESENT? (Y/N/U)	NOTES	FINAL RISK SCORE	RISK RANK
10216270	<Null>	Port of Entry Pond - Arapaho Bend	<Null>	Unknown	Unknown	City of Fort Collins	Natural Areas	Wildlife	Stormwater/ Flood Control/ Floodplain Expansion	Natural ecology	Unknown	Unknown	No	Maintain vegetation buffer; herbicide buffer	Monitored for turbidity, metals, nutrients, etc.	Unknown	No	Receives river water during spring runoff	0.3125	Medium
10216282	sw10574	Heatheridge Pond 1	Red Fox Meadows	Unknown	Unknown	City of Fort Collins	Natural Areas	Wildlife	Stormwater/ Flood Control/ Floodplain Expansion	Natural ecology	Unknown	Unknown	Yes	Maintain vegetation buffer; herbicide buffer	Unknown	Unknown	No	<Null>	0.375	Medium
10216283	sw9383	Song Sparrow Pond - Cattail Chorus	Spring Creek Trail Orthopedic Pond 2	Unknown	Unknown	City of Fort Collins	Natural Areas	Wildlife	Stormwater/ Flood Control/ Floodplain Expansion	Natural ecology	occasional algae blooms	Unknown	No	Maintain vegetation buffer; herbicide buffer	Unknown	Unknown	No	<Null>	0.35	Medium
10216292	<Null>	Rolland Moore Pond	<Null>	Unknown	Unknown	City of Fort Collins	Parks and Trails	Storage/ Irrigation	None	Park/Golf Course	algae blooms; fish kills; weeds; grasscarp	Unknown	No	Aeration; water quality monitoring; 20-30-ft buffer	Unknown	Yes	No	<Null>	0.3625	Medium
10216293	<Null>	Artist Point Pond - Cottonwood Hollow	<Null>	shallow	Unknown	City of Fort Collins	Natural Areas	Wildlife	Stormwater/ Flood Control/ Floodplain Expansion	Natural ecology	occasional algae blooms	Unknown	No	Maintain vegetation buffer; herbicide buffer	Unknown	Unknown	No	water levels fluctuate massively; have control structure - let the water levels rise in the spring and then release it as there are calls on the river	0.325	Medium
10216308	<Null>	Gadwell Pond - Kingfisher	Kingfisher Park Pond - North	shallow	Unknown	City of Fort Collins	Natural Areas	Wildlife	Recreation	Natural ecology	fish kills	shallow; water levels get low	No	Habitat restoration	Unknown	Unknown	No	Restoration in 2018 to lower banks on north and west side of the pond and establish wetland habitat	0.30625	Medium
10216348	<Null>	Wiper Pond - Riverbend Ponds	<Null>	Unknown	Unknown	City of Fort Collins	Natural Areas	Wildlife	Recreation	Natural ecology	occasional algae blooms	Unknown	No	Maintain vegetation buffer; herbicide buffer	Unknown	Unknown	No	10.83 ac	0.30625	Medium
10443765	<Null>	Resource Recovery Farm Pond - Running Deer	<Null>	5	Unknown	City of Fort Collins	Natural Areas	Wildlife	Stormwater/ Flood Control/ Floodplain Expansion	Natural ecology	Unknown	Unknown	No	Maintain vegetation buffer; herbicide buffer	Monitored for turbidity, metals, nutrients, etc.	Unknown	No	<Null>	0.3	Medium
10217862	sw10215	Edora Park	Edora Park	N/A	N/A	City of Fort Collins	Parks and Trails	Storage/ Irrigation	None	N/A	extremely silted in, depth/ capacity, nutrient loading; odor when pond is low	extremely silted in after 2012 flood	N/A	N/A	Jason Stutsman did quick assessment above silt bed when doing restoration work.	N/A	N/A	RETENTION cfarnes *MOVE TO Retention	0.5625	High
10216409	<Null>	Trout Pond - Riverbend Ponds	<Null>	Unknown	Unknown	City of Fort Collins	Natural Areas	Wildlife	Recreation	Natural ecology	fish kills	cold temperatures; low DO	No	Maintain vegetation buffer; herbicide buffer	Unknown	Unknown	No	9.27 ac, north near walkway, 2 connected by fishing dock	0.30625	Medium
10217810	sw20240	Parks & Rec Westfield Park Pond	Parks & Rec Westfield Park Pond	Unknown	Unknown	City of Fort Collins	Parks and Trails	Stormwater/ Flood Control/ Floodplain Expansion	None	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	confirmed retention by City	0.3875	Medium

MXASSETNUM	FACILITY ID	NAME	AKA	DEPTH (FEET)	VOLUME	OWNED BY	MAINTAINED BY	PRIMARY MANAGEMENT CATEGORY	SECONDARY MANAGEMENT CATEGORY	ADJACENT LAND USE	WATER QUALITY ISSUE(S)	CAUSE(S) OF WATER QUALITY ISSUE(S)	DOES LAKE RESIDENCE TIME CONTRIBUTE TO WATER QUALITY ISSUES?	CURRENT BMPS	HISTORIC BMPS	BMPS SUCCESSFUL? (Y/N/U)	INVASIVE SPECIES PRESENT? (Y/N/U)	NOTES	FINAL RISK SCORE	RISK RANK
10216421	<Null>	Wood Duck Pond - Magpie Meander	Magpie Meander Natural Area Pond 2	Unknown	Unknown	City of Fort Collins	Natural Areas	Wildlife	Non-native Fisheries	Natural ecology	occasional algae blooms	Unknown	No	Maintain vegetation buffer; herbicide buffer	Unknown	Unknown	No	<Null>	0.3575	Medium
10216428	<Null>	Various Ponds - Running Deer	Running Deer Natural Area	Unknown	Unknown	City of Fort Collins	Natural Areas	Wildlife	Stormwater/ Flood Control/ Floodplain Expansion	Natural ecology	fish kills	cold temperatures; low DO	No	Maintain vegetation buffer; herbicide buffer	Unknown	Unknown	No	<Null>	0.325	Medium
10216463	<Null>	Skunk Pond - Prospect Ponds	Prospect Ponds - North	Unknown	Unknown	City of Fort Collins	Natural Areas	Wildlife	Recreation	Urban	periodic algae blooms; fish kills; low DO; nutrients	Part of 3 pond complex, northernmost pond on private land fed directly by feedlot with documented fish kills; nutrients; eutrophication; low DO; can be very deep to very shallow; inversion-related fish kills	No	Unknown	Unknown	Unknown	No	old gravel pit; no longer stocked with fish due to poor fishery until mitigation is done or cows are gone; IS THIS PRIVATE OR CITY OWNED? Kyle Battige (CPW) mentioned northern-most pond in complex was on private property, maybe he meant just the feedlot w	0.53125	High
10216899	sw26369	Miramont Park Pond	<Null>	Unknown	Unknown	City of Fort Collins	Parks and Trails	Stormwater/ Water Quality	None	Residential/ Lawns	Unknown	Unknown	No	20-30-ft buffer	Unknown	Unknown	No	<Null>	0.3875	Medium
10217901	sw16201	North College Market PI Pond	North College Market PI Pond	Unknown	Unknown	City of Fort Collins	Natural Areas	Wildlife	None	Urban	Unknown	Unknown	Unknown	Maintain vegetation buffer; herbicide buffer	Unknown	Unknown	No	confirmed retention by City	0.35	Medium
10217320	sw22579	Utilities Pond #1	Utilities Pond #1	Unknown	Unknown	City of Fort Collins	Utilities	Stormwater/ Flood Control/ Floodplain Expansion	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	wetland; confirmed retention by City; THIS IS THE 1st wetland that treats sw runoff from 700 Wood Street, NE of the light & power transformer yard.	0.3375	Medium
10217527	sw22580	Utilities Pond #2	Utilities Pond #2	Unknown	Unknown	City of Fort Collins	Utilities	Stormwater/ Water Quality	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	wetland; confirmed retention by City; This is the 2nd wetland that treats sw runoff from 700 Wood Street, NE of the light & power transformer yard.	0.3625	Medium
10216111	sw9378	Heron Pond - Cattail Chorus	Cache la Poudre Industrial Park Pond 3	Unknown	Unknown	City of Fort Collins	Natural Areas	Wildlife	Stormwater/ Flood Control/ Floodplain Expansion	Natural ecology	occasional algae blooms	Unknown	No	Maintain vegetation buffer; herbicide buffer	Unknown	Unknown	No	<Null>	0.525	High
10216114	sw11785	Spruce Pond - Udall	Udall Pond #2	Unknown	Unknown	City of Fort Collins	Utilities/Natural Areas	Stormwater/ Water Quality	Wildlife	Unknown	algae blooms	hot and dry; feedlot that drains to pond	Unknown	Sediment grates	Unknown	Unknown	Unknown	<Null>	0.34375	Medium

MXASSETNUM	FACILITY ID	NAME	AKA	DEPTH (FEET)	VOLUME	OWNED BY	MAINTAINED BY	PRIMARY MANAGEMENT CATEGORY	SECONDARY MANAGEMENT CATEGORY	ADJACENT LAND USE	WATER QUALITY ISSUE(S)	CAUSE(S) OF WATER QUALITY ISSUE(S)	DOES LAKE RESIDENCE TIME CONTRIBUTE TO WATER QUALITY ISSUES?	CURRENT BMPS	HISTORIC BMPS	BMPs SUCCESSFUL? (Y/N/U)	INVASIVE SPECIES PRESENT? (Y/N/U)	NOTES	FINAL RISK SCORE	RISK RANK
10216117	sw24093	English Ranch Park	English Ranch Park	Unknown	Unknown	City of Fort Collins	Parks and Trails	Storage/Irrigation	None	Residential/Lawns	algae blooms	Unknown	No	Water quality monitoring; cut back willows and vegetation; 20-30-ft buffer	Unknown	Unknown	No	<Null>	0.4125	Medium
10216118	sw11528	Nokomis Pond Evergreen 3	Goose Hollow	Unknown	Unknown	City of Fort Collins	Natural Areas	Wildlife	Recreation	Residential/Lawns	Unknown	Unknown	Yes	Maintain vegetation buffer; herbicide buffer	Unknown	Unknown	No	<Null>	0.35625	Medium
10216123	sw9379	Confluence Pond - Cattail Chorus	Spring Creek Trail Orthopedic Pond 3	Unknown	Unknown	City of Fort Collins	Natural Areas	Wildlife	Stormwater/Flood Control/Floodplain Expansion	Natural ecology	occasional algae blooms	Unknown	No	Maintain vegetation buffer; herbicide buffer	Unknown	Unknown	No	<Null>	0.325	Medium
10216124	sw10354	Spring Creek Park Pond	Spring Park Pond	Unknown	Unknown	City of Fort Collins	Parks and Trails	Storage/Irrigation	None	Park/Golf Course	algae blooms	Unknown	No	Aeration; water quality monitoring; 20-30-ft buffer	Unknown	Unknown	No	<Null>	0.5875	High
10216126	sw19003	Cathy Fromme Natural Area Retention Pond	Cathy Fromme Natural Area Retention Pond	Unknown	Unknown	City of Fort Collins	Natural Areas	Wildlife	Stormwater/Flood Control/Floodplain Expansion	Natural ecology	occasional algae blooms	Unknown	Yes	Maintain vegetation buffer; herbicide buffer	Unknown	Unknown	No	<Null>	0.575	High
10216127	sw19831	Portner Reservoir	Pond 3 of Fossil Creek Community Park	Unknown	Unknown	City of Fort Collins	Parks and Trails	Storage/Irrigation	None	Park/Golf Course	Unknown	Unknown	No	20-30-ft buffer	Unknown	Unknown	No	<Null>	0.6125	High
10216129	sw13660	Warren Park Pond	Warren Park Pond	Unknown	Unknown	City of Fort Collins	Parks and Trails	Storage/Irrigation	None	Park/Golf Course	Unknown	Unknown	No	20-30-ft buffer	Unknown	Unknown	No	<Null>	0.3875	Medium
10216130	sw23593	Twin Silo Park Pond	Fossil Ridge Irrigation/Detention Pond	Unknown	Unknown	City of Fort Collins	Parks and Trails	Storage/Irrigation	None	Unknown	none	Unknown	No	Water quality monitoring; 20-30-ft buffer	Unknown	Unknown	No	<Null>	0.4125	Medium
10216137	sw15197	Mountain Ridge Farm Detention Pond 1	Mountain Ridge Farm Detention Pond 1	Unknown	Unknown	City of Fort Collins	Homeowners Association	Stormwater/Flood Control/Floodplain Expansion	None	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	<Null>	0.3625	Medium
10216142	sw18093	Portner Reservoir	Pond 2 of Fossil Creek Park -- Portner Res	Unknown	Unknown	City of Fort Collins	Parks and Trails	Storage/Irrigation	None	Park/Golf Course	fish kills due to cyanobacteria; odor issues; macrophyte musk grass; cyanobacteria blooms; low DO; anoxic; shallow, misshapen bottom so prone to fish kills;	aerators caused sediment to come from bottom and killed fish.	No	Aeration; water quality monitoring; 20-30-ft buffer	Unknown	Unknown	No	<Null>	0.5875	High
10216149	sw8752	West Coy Pond - Gustav Swanson	Coy Ditch Pond A	Unknown	Unknown	City of Fort Collins	Natural Areas	Wildlife	Stormwater/Flood Control/Floodplain Expansion	Park/Golf Course	Unknown	Unknown	Unknown	Maintain vegetation buffer; herbicide buffer	Unknown	Unknown	No	dying pond, used to be fed by the diversion off of the river into Coy Ditch but that diversion was removed in 2018 and the ditch is not in use	0.35	Medium

MXASSETNUM	FACILITY ID	NAME	AKA	DEPTH (FEET)	VOLUME	OWNED BY	MAINTAINED BY	PRIMARY MANAGEMENT CATEGORY	SECONDARY MANAGEMENT CATEGORY	ADJACENT LAND USE	WATER QUALITY ISSUE(S)	CAUSE(S) OF WATER QUALITY ISSUE(S)	DOES LAKE RESIDENCE TIME CONTRIBUTE TO WATER QUALITY ISSUES?	CURRENT BMPS	HISTORIC BMPS	BMPS SUCCESSFUL? (Y/N/U)	INVASIVE SPECIES PRESENT? (Y/N/U)	NOTES	FINAL RISK SCORE	RISK RANK
10216151	sw9013	Sheldon Lake	Sheldon Lake; City Park Pond	Unknown	Unknown	City of Fort Collins	Parks and Trails	Storage/Irrigation	None	Park/Golf Course	odor; eutrophication; sediment loading, algae growth; cyanobacteria; fish kills	fish kills due to cold temperatures for too long	No	Aeration; water quality monitoring; 20-30-ft buffer	drained and dredged after 2013 floods	Yes	No	Basil may have water quality data. Riprap buffer	0.5625	High
10216153	sw9381	Blackbird Pond - Cattail Chorus	Spring Creek Trail Icon Pond	Unknown	Unknown	City of Fort Collins	Natural Areas	Wildlife	Stormwater/Flood Control/Floodplain Expansion	Natural ecology	occasional algae blooms	Unknown	No	Maintain vegetation buffer; herbicide buffer	Unknown	Unknown	No	Has rare aquatic plants species: <i>Wolffia borealis</i> (G5 S1, List A CFC) and <i>Lemna minuta</i> (List C CFC)	0.525	High
10216159	sw9380	Wigeon Ponds - Cattail Chorus	Veeco Instruments Pond	Unknown	Unknown	City of Fort Collins	Natural Areas	Wildlife	Stormwater/Flood Control/Floodplain Expansion	Natural ecology	occasional algae blooms	Unknown	No	Maintain vegetation buffer; herbicide buffer	Unknown	Unknown	No	<Null>	0.525	High
10216161	sw9373	Goldeneye Pond - Kingfisher	<Null>	Unknown	Unknown	City of Fort Collins	Natural Areas	Wildlife	Stormwater/Flood Control/Floodplain Expansion	Natural ecology	occasional algae blooms	Unknown	No	Unknown	Unknown	Unknown	No	<Null>	0.3	Medium
10216162	sw9752	Overland Park	Overland Park	Unknown	Unknown	City of Fort Collins	Utilities	Storage/Irrigation	None	Unknown	Unknown	Unknown	Unknown	Aeration; water quality monitoring	Unknown	Unknown	Unknown	<Null>	0.3875	Medium
10216163	sw17280	Courtyard @ Miramont Detention Pond	Courtyard @ Miramont Detention Pond	Unknown	Unknown	City of Fort Collins	Parks and Trails	Storage/Irrigation	None	Unknown	Unknown	Unknown	No	20-30-ft buffer	Unknown	Unknown	No	See Miramont in Detention Ponds. This flows to Miramont Detention Pond	0.3875	Medium
10216165	sw16644	Timberline Sump	Timberline Sump	Unknown	Unknown	City of Fort Collins	Utilities	Stormwater/Flood Control/Floodplain Expansion	None	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	<Null>	0.3125	Medium
10216166	sw14200	Catfish Pond - Prospect Ponds	Prospect Ponds - South	Unknown	Unknown	City of Fort Collins	Natural Areas	Wildlife	Recreation	Natural ecology	fish kills; algae blooms; low DO; nutrients	Nutrients from Merganser Pond, Part of 3 pond complex, northernmost pond on private land fed directly by feedlot with documented fish kills; nutrients; eutrophication; low DO	No	Maintain vegetation buffer; herbicide buffer	Unknown	Unknown	No	12.74 ac, attached to Merganser pond through culvert Part of 2 pond complex, northernmost pond on private land fed directly by feedlot with documented fish kills; nutrients; eutrophication; low DO; can be very deep to very shallow; inversion-related fish	0.50625	High
10216169	sw8753	East Coy Pond - Gustav Swanson	Coy Ditch Pond B	Unknown	Unknown	City of Fort Collins	Natural Areas	Wildlife	Stormwater/Flood Control/Floodplain Expansion	Park/Golf Course	Unknown	Unknown	Unknown	Maintain vegetation buffer; herbicide buffer	Unknown	Unknown	No	dying pond, used to be fed by the diversion off of the river into Coy Ditch but that diversion was removed in 2018 and the ditch is not in use	0.35	Medium

MXASSETNUM	FACILITY ID	NAME	AKA	DEPTH (FEET)	VOLUME	OWNED BY	MAINTAINED BY	PRIMARY MANAGEMENT CATEGORY	SECONDARY MANAGEMENT CATEGORY	ADJACENT LAND USE	WATER QUALITY ISSUE(S)	CAUSE(S) OF WATER QUALITY ISSUE(S)	DOES LAKE RESIDENCE TIME CONTRIBUTE TO WATER QUALITY ISSUES?	CURRENT BMPS	HISTORIC BMPS	BMPS SUCCESSFUL? (Y/N/U)	INVASIVE SPECIES PRESENT? (Y/N/U)	NOTES	FINAL RISK SCORE	RISK RANK
10216175	sw8405	Evergreen Pond 3rd	Evergreen Pond 3rd	Unknown	Unknown	City of Fort Collins	Utilities	Stormwater/ Flood Control/ Floodplain Expansion	None	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	<Null>	0.3375	Medium
10216187	sw16174	Ridgeview Park Pond	Coventry Detention Pond	Unknown	Unknown	City of Fort Collins	Parks and Trails	Storage/ Irrigation	None	Unknown	Unknown	Unknown	No	20-30-ft buffer	Unknown	Unknown	No	<Null>	0.4125	Medium
10216193	sw12933	Ross Open Space Detention Pond	Ross Open Space Detention Pond	Unknown	Unknown	City of Fort Collins	Natural Areas	Wildlife	Stormwater/ Flood Control/ Floodplain Expansion	Natural ecology	Unknown	Unknown	Yes	Maintain vegetation buffer; herbicide buffer	Unknown	Unknown	No	Has rare aquatic plants species: <i>Acorus calamus</i> , <i>Sagittaria brevirostra</i> , and <i>Carex lenticularis</i>	0.35	Medium
10216194	sw14199	Merganser Pond - Prospect Ponds	Prospect Ponds - East	Unknown	Unknown	City of Fort Collins	Natural Areas	Wildlife	Recreation	Urban	fish kills; algae blooms	Nutrients from feed lot to the north; Part of 3 pond complex, northernmost pond on private land fed directly by feedlot with documented fish kills; nutrients; eutrophication; low DO; can be very deep to very shallow; inversion-related fish kills	No	Maintain vegetation buffer; herbicide buffer	Unknown	Unknown	No	13.42 ac, Part of 3 pond complex, northernmost pond on private land fed directly by feedlot with documented fish kills; nutrients; eutrophication; low DO; can be very deep to very shallow; inversion-related fish kills old gravel pit; no longer stocked with	0.50625	High
10216200	sw19830	Pond 1 of Fossil Creek Community Park	Pond 1 of Fossil Creek Community Park	Unknown	Unknown	City of Fort Collins	Parks and Trails	Storage/ Irrigation	None	Park/Golf Course	algae blooms	Unknown	No	Aeration; water quality monitoring; 20-30-ft buffer	Unknown	Unknown	No	<Null>	0.6125	High
10216203	sw11786	Moose Pond - Udall	Udall Pond #3	Unknown	Unknown	City of Fort Collins	Utilities	Stormwater/ Flood Control/ Floodplain Expansion	None	Unknown	algae blooms	hot and dry; feedlot that drains to pond	Unknown	Sediment grates	Unknown	Unknown	Unknown	<Null>	0.3125	Medium
10216207	sw8439	Sunfish Pond - McMurry	McMurry Natural Areas Pond 2	Unknown	Unknown	City of Fort Collins	Natural Areas	Wildlife	Stormwater/ Flood Control/ Floodplain Expansion	Natural ecology	Infrequent algae blooms	Unknown	No	Maintain vegetation buffer; herbicide buffer	Lowered banks to increase high water flow.	Yes	No	Receives river water during spring runoff	0.525	High
10216196	sw11783	Goose Pond - Udall	Udall Pond #1	Unknown	Unknown	City of Fort Collins	Utilities/ Natural Areas	Stormwater/ Flood Control/ Floodplain Expansion	Wildlife	Unknown	algae blooms	hot and dry; feedlot that drains to pond	Unknown	Sediment grates; Drain every 3-5 years and pull sediment out.	Unknown	Unknown	Unknown	<Null>	0.31875	Medium
10216208	sw11769	Red Wing Pond - Redwing Marsh	Red Wing Marsh Natural Area	Unknown	Unknown	City of Fort Collins	Natural Areas	Wildlife	Recreation	Urban	Unknown	Unknown	Yes	Maintain vegetation buffer; herbicide buffer	Unknown	Unknown	No	<Null>	0.35625	Medium
10216210	sw9382	Chorus Frog Pond - Cattail Chorus	Spring Creek Trail Orthopedic North 1	Unknown	Unknown	City of Fort Collins	Natural Areas	Wildlife	Stormwater/ Flood Control/ Floodplain Expansion	Natural ecology	occasional algae blooms	Unknown	No	Maintain vegetation buffer; herbicide buffer	Unknown	Unknown	No	Has rare aquatic plants species: <i>Wolffia borealis</i> (G5 S1, List A CFC) and <i>Lemna minuta</i> (List C CFC)	0.325	Medium

MXASSETNUM	FACILITY ID	NAME	AKA	DEPTH (FEET)	VOLUME	OWNED BY	MAINTAINED BY	PRIMARY MANAGEMENT CATEGORY	SECONDARY MANAGEMENT CATEGORY	ADJACENT LAND USE	WATER QUALITY ISSUE(S)	CAUSE(S) OF WATER QUALITY ISSUE(S)	DOES LAKE RESIDENCE TIME CONTRIBUTE TO WATER QUALITY ISSUES?	CURRENT BMPS	HISTORIC BMPS	BMPS SUCCESSFUL? (Y/N/U)	INVASIVE SPECIES PRESENT? (Y/N/U)	NOTES	FINAL RISK SCORE	RISK RANK
10216216	sw15476	Canvasback Pond - Kingfisher	Cache la Poudre Industrial Park Pond; Kingfisher Park Pond - South	Unknown	Unknown	City of Fort Collins	Natural Areas	Wildlife	Recreation	Natural ecology	fish kills; algae blooms	chemicals from beef packaging plant; nutrients from "Bath Garden Nursery", pots and trash in ponds; steep slopes and poor habitat	No	Maintain vegetation buffer; herbicide buffer	Unknown	Unknown	No	old gravel pit	0.30625	Medium
10216226	<Null>	Sterling Pond - North Shields	<Null>	Unknown	Unknown	City of Fort Collins	Natural Areas	Wildlife	Stormwater/ Flood Control/ Floodplain Expansion	Natural ecology	occasional algae blooms	Unknown	No	Maintain vegetation buffer; herbicide buffer	restoration	Unknown	No	Restoration done in 2014 to lower banks on the south side and let the river flood the pond. Only happens occasionally, bank levels couldn't be made lower	0.5	Medium
10216817	<Null>	Pelican Pond - Cottonwood Hollow	Pelican Marsh	9.75	Unknown	City of Fort Collins	Natural Areas	Wildlife	Stormwater/ Flood Control/ Floodplain Expansion	Natural ecology	occasional algae blooms	Unknown	No	Maintain vegetation buffer; herbicide buffer	Unknown	Unknown	No	<Null>	0.3	Medium
10216836	<Null>	Milne East Pond - Riverbend Ponds	<Null>	8	Unknown	City of Fort Collins	Natural Areas	Wildlife	Recreation	Natural ecology	fish kills	shallow	No	Maintain vegetation buffer; herbicide buffer	Unknown	Unknown	No	2.01 ac, really clear sometimes; no longer stocked due to fish kills	0.33125	Medium
10216837	<Null>	Bluegill - Riverbend Ponds	<Null>	<Null>	<Null>	City of Fort Collins	Natural Areas	Wildlife	<Null>	Natural ecology	Unknown	Unknown	No	Maintain vegetation buffer; herbicide buffer	<Null>	<Null>	No	<Null>	0.3	Medium
10216266	<Null>	Topminnow	<Null>	Unknown	Unknown	City of Fort Collins	Natural Areas	Wildlife	Native Fisheries	Residential/ Lawns	None	Unknown	No	Water elevation controlled via pump	Unknown	Yes	No	Unlined, receives groundwater, pump outlets to HT outfall channel or Rigden Res.	0.14375	Low
10216845	<Null>	Big Pond - Riverbend Ponds	<Null>	5.5	Unknown	City of Fort Collins	Natural Areas	Wildlife	Non-native Fisheries	Natural ecology	turbidity	giant carp; shallow	No	Maintain vegetation buffer; herbicide buffer	Unknown	Unknown	No	38.25 ac, rare plant species present: <i>Azolla mexicana</i> (List A CFC), <i>Ruppia cirrhosa</i> (List A CFC)	0.2825	Medium
10216842	<Null>	Unnamed Pond	Unnamed Pond Receives Storm Runoff from Drake Treatment Facility	Unknown	Unknown	City of Fort Collins	Natural Areas	Wildlife	None	Unknown	low DO; nutrients	<Null>	Unknown	Some vegetation buffer	Unknown	Unknown	Unknown	old gravel pit	0.5	Medium
10216411	<Null>	Collindale Golf Course Pond - Northeast	Unnamed Pond at Northeast Corner of Collindale Golf Course	Unknown	Unknown	City of Fort Collins	Parks and Trails	Storage/ Irrigation	None	Park/Golf Course	Unknown	Unknown	No	20-30-ft buffer	Unknown	Unknown	No	0.36 ac	0.4125	Medium



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10216859	<Null>	South Ridge Golf Course Pond - North	Unnamed Pond at North End of South Ridge Golf Course	Unknown	Unknown	City of Fort Collins	Parks and Trails	Storage/Irrigation	Stormwater/Flood Control/Floodplain Expansion	Park/Golf Course	Unknown	Unknown	No	20-30-ft buffer	dredged near hole #5; put liner and anchor trench in near hole #9	Unknown	No	0.75 ac, receives sw runoff from development to the south. Near hole #?	0.4375	Medium
10216150	sw16643	Golden Meadows	Golden Meadows Park Pond	Unknown	Unknown	City of Fort Collins	Parks and Trails	Storage/Irrigation	None	Residential/Lawns	cyano-bacteria, fish kills; blue-green algae	Unknown	No	Sludge/mulch eliminators; aeration equipment; water quality monitoring; 20-30-ft buffer	Unknown	Yes	No	<Null>	0.3875	Medium
10216849	<Null>	South Ridge Golf Course Pond - South	Unnamed Pond at South End of South Ridge Golf Course	Unknown	Unknown	City of Fort Collins	Parks and Trails	Storage/Irrigation	Storage/Irrigation	Park/Golf Course	Unknown	Unknown	No	20-30-ft buffer	dredged near hole #5; put liner and anchor trench in near hole #10	Unknown	No	1.08 ac, near hole #? There is also an asset just upstream of this but not in this database; Asset# 102167590, 0.23 Ac	0.4375	Medium
10216109	sw15468	Troutman Park Pond - East	Troutman Park	Unknown	Unknown	City of Fort Collins	Parks and Trails	Storage/Irrigation	None	Park/Golf Course	Unknown	Unknown	No	20-30-ft buffer	Unknown	Unknown	No	<Null>	0.5875	High
10216110	sw15468	Troutman Park Pond - West	Troutman Park	Unknown	Unknown	City of Fort Collins	Parks and Trails	Storage/Irrigation	None	Park/Golf Course	Unknown	Unknown	No	20-30-ft buffer	Unknown	Unknown	No	<Null>	0.4125	Medium
10216717	<Null>	Snapper Pond - Arapaho Bend	<Null>	Unknown	Unknown	City of Fort Collins	Natural Areas	Wildlife	Non-native Fisheries	Natural ecology	occasional algae blooms	<Null>	No	Maintain vegetation buffer; herbicide buffer	<Null>	<Null>	No	<Null>	0.3325	Medium
10216513	<Null>	Duck Lake - Fossil Creek Reservoir	<Null>	4	Unknown	City of Fort Collins	Natural Areas	Wildlife	Stormwater/Flood Control/Floodplain Expansion	Agriculture (other)	severe odor; becomes anoxic; e. coli; warm temperature	Mud Lake (odor issues) feeds to Duck Lake, feedlot and corn fields drain to lake; nutrient loading; shallow; small outlet; no flushing; shallow; waterfowl major source of nutrient loading; sulfur in benthic bottom;	Yes	Sonde taking measurements; water quality monitoring (Aquatic Associates); aeration	biochar	Yes	No	More known by Mark Sears and Tami; not yet implemented in other lakes	0.525	High
10216580	<Null>	Muskrat Pond - Cottonwood Hollow	<Null>	Unknown	Unknown	City of Fort Collins	Natural Areas	Wildlife	Stormwater/Flood Control/Floodplain Expansion	Natural ecology	occasional algae blooms	Unknown	No	Maintain vegetation buffer; herbicide buffer	Unknown	Unknown	No	5.87 ac	0.5	Medium
10216674	<Null>	Beaver Pond - Arapaho Bend	<Null>	Unknown	Unknown	City of Fort Collins	Natural Areas	Wildlife	Non-native Fisheries	Natural ecology	occasional algae blooms	Unknown	No	Maintain vegetation buffer; herbicide buffer	Unknown	Unknown	No	34.8 ac	0.4825	Medium

MXASSETNUM	FACILITY ID	NAME	AKA	DEPTH (FEET)	VOLUME	OWNED BY	MAINTAINED BY	PRIMARY MANAGEMENT CATEGORY	SECONDARY MANAGEMENT CATEGORY	ADJACENT LAND USE	WATER QUALITY ISSUE(S)	CAUSE(S) OF WATER QUALITY ISSUE(S)	DOES LAKE RESIDENCE TIME CONTRIBUTE TO WATER QUALITY ISSUES?	CURRENT BMPS	HISTORIC BMPS	BMP SUCCESSFUL? (Y/N/U)	INVASIVE SPECIES PRESENT? (Y/N/U)	NOTES	FINAL RISK SCORE	RISK RANK
10216501	<Null>	Cottonwood Glen Pond	<Null>	Unknown	Unknown	City of Fort Collins	Parks and Trails	Storage/Irrigation	None	Park/Golf Course	algae blooms; macrophytes	farms use algaecide	No	No-mow buffer around lake; pest management; water quality monitoring; 20-30-ft buffer	copper sulfide	Unknown	No	<Null>	0.3875	Medium
10216507	<Null>	Little and Big Bass Ponds - Arapaho Bend	<Null>	Unknown	Unknown	City of Fort Collins	Natural Areas	Wildlife	Non-native Fisheries	Natural ecology	occasional algae blooms	Unknown	No	Maintain vegetation buffer; herbicide buffer	Unknown	Unknown	No	18.6 ac, big bass pond receives river water during spring runoff	0.5075	High
10216557	<Null>	Robert Benson Lake - Pelican Marsh	Robert Benson Reservoir	Unknown	Unknown	City of Fort Collins	Natural Areas	Storage/Irrigation	Wildlife	Natural ecology	algae blooms	shallow	Yes	Maintain vegetation buffer; herbicide buffer	water quality monitoring	Unknown	No	College and 287	0.36875	Medium
10216474	<Null>	Collindale Golf Course Pond - Southwest	Golden Meadows Pond	Unknown	Unknown	City of Fort Collins	Parks and Trails	Storage/Irrigation	None	Park/Golf Course	Unknown	Unknown	No	20-30-ft buffer	Unknown	Unknown	No	1.11 ac, named Golden Meadows Pond in View	0.3875	Medium
10216481	<Null>	Greenbriar Park Pond	<Null>	Unknown	Unknown	City of Fort Collins	Parks and Trails	Storage/Irrigation	None	Park/Golf Course	Unknown	Unknown	No	20-30-ft buffer	Unknown	Unknown	No	0.53 ac	0.4125	Medium
10216496	<Null>	Rigden Reservoir	<Null>	22	1,900 acre-feet	City of Fort Collins	Utilities/Natural Areas	Storage/Irrigation	None	Other (specify in Notes)	cyanobacteria and algae blooms	some wastewater treatment plant effluent and nutrient loading	Unknown	5 solar bees; 2 delivery systems for minimizing capture of wastewater treatment plant effluent; temporal management (avoid storing during poor water quality (e.g., take spring runoff on receding limb of hydrograph, avoid late season high-temperature water	Unknown	Unknown	Unknown	133.14 ac, collecting water quality data since 2016; anoxic at bottom; ask Donnie about BMPs; water quality issues dependent on how they operate the reservoir	0.35	Medium
10216632	<Null>	North Shields Pond	<Null>	Unknown	Unknown	City of Fort Collins	Natural Areas	Wildlife	Stormwater/Flood Control/Floodplain Expansion	Natural ecology	occasional algae blooms	Unknown	No	Maintain vegetation buffer; herbicide buffer	Unknown	Unknown	No	Pond and water levels may be shrinking. Has rare plant species: <i>Spirodela polyrrhiza</i> (List A CFC), <i>Carex lasiocarpa</i> (G5 S2, list A CFC), <i>Cyperus bipartitus</i> (list A CFC)	0.5	Medium
10216398	<Null>	I-25 Pond - Arapaho Bend	<Null>	Unknown	Unknown	City of Fort Collins	Natural Areas	Wildlife	Stormwater/Flood Control/Floodplain Expansion	Natural ecology	occasional algae blooms	Unknown	No	Maintain vegetation buffer; herbicide buffer	Unknown	Unknown	No	7.83 ac	0.5375	High

MXASSETNUM	FACILITY ID	NAME	AKA	DEPTH (FEET)	VOLUME	OWNED BY	MAINTAINED BY	PRIMARY MANAGEMENT CATEGORY	SECONDARY MANAGEMENT CATEGORY	ADJACENT LAND USE	WATER QUALITY ISSUE(S)	CAUSE(S) OF WATER QUALITY ISSUE(S)	DOES LAKE RESIDENCE TIME CONTRIBUTE TO WATER QUALITY ISSUES?	CURRENT BMPS	HISTORIC BMPS	BMPS SUCCESSFUL? (Y/N/U)	INVASIVE SPECIES PRESENT? (Y/N/U)	NOTES	FINAL RISK SCORE	RISK RANK
10216365	<Null>	Collindale Golf Course Pond - Northwest	Fort Collins Golf Course Pond	Unknown	Unknown	City of Fort Collins	Parks and Trails	Storage/Irrigation	None	Park/Golf Course	Unknown	Unknown	No	20-30-ft buffer	Unknown	Unknown	No	1.12 ac, named Fort Collins Golf Course Pond in View	0.3875	Medium
10216177	sw17699	Harmony Park Pond 5015 Corbett Drive	Preston Jr. High Detention Pond	Unknown	Unknown	City of Fort Collins	Parks and Trails	Storage/Irrigation	None	Park/Golf Course	Unknown	Unknown	No	20-30-ft buffer	Unknown	Unknown	No	was unable to open vector map; see MAX HARMONY DETENTION in Detention Ponds, same or different?	0.4375	Medium
10216280	sw19384	Fossil Lake Irrigation Pond	Fossil Lake Irrigation Pond; Fossil Creek Lake Park; Fossil Creek Lake at Portner Reservoir	Unknown	Unknown	City of Fort Collins	Parks and Trails	Storage/Irrigation	None	Residential/Lawns	fish kills due to cyanobacteria; odor issues; macrophyte musk grass; cyanobacteria blooms; low DO; anoxic; shallow, misshapen bottom so prone to fish kills;	aerators caused sediment to come from bottom and killed fish.	No	Aeration; water quality monitoring; 20-30-ft buffer	Unknown	Unknown	No	<Null>	0.4125	Medium
10216487	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	Not Assessed (more data needed)
10216103	sw9376	Dragonfly Pond - Kingfisher	Cattail Chorus Ponds	Unknown	Unknown	City of Fort Collins	Natural Areas	Wildlife	Stormwater/Flood Control/Floodplain Expansion	Natural ecology	occasional algae blooms	Unknown	No	Maintain vegetation buffer; herbicide buffer	Unknown	Unknown	No	<Null>	0.3375	Medium
10216827	<Null>	Turtle Pond - Riverbend Ponds	<Null>	Unknown	Unknown	City of Fort Collins	Natural Areas	Storage/Irrigation	Non-native Fisheries	Natural ecology	fish kills; low DO; odor	very small; cold temperatures; quick turnover of anoxic layer; low DO; sulfur	No	Considering aeration	sink holiday trees for fish habitat	Unknown	No	2.87 ac. All Riverbend Ponds have some sort of turbidity in them, but this one is crystal clear.	0.37	Medium
10228230	<Null>	Lee Martinez Farm Pond	<Null>	Unknown	Unknown	City of Fort Collins	Parks and Trails	Storage/Irrigation	None	Unknown	Unknown	Unknown	No	20-30-ft buffer	Unknown	Unknown	No	<Null>	0.3875	Medium
10216589	<Null>	Whitetail Pond - Arapaho Bend (E of I-25)	Unnamed in View	Unknown	Unknown	City of Fort Collins	Natural Areas	Wildlife	Stormwater/Flood Control/Floodplain Expansion	Natural ecology	occasional algae blooms	Unknown	No	Maintain vegetation buffer; herbicide buffer	Unknown	Unknown	No	5.6 ac	0.5	Medium
10216642	<Null>	Cormorant Pond - Arapaho Bend	<Null>	Unknown	Unknown	City of Fort Collins	Natural Areas	Wildlife	Non-native Fisheries	Natural ecology	occasional algae blooms	Unknown	No	Maintain vegetation buffer; herbicide buffer	Unknown	Unknown	No	2.94 ac	0.3325	Medium
10216147	sw8438	McMurry Pond 1 - McMurry	McMurry Natural Area Pond 1	5.5	Unknown	City of Fort Collins	Natural Areas	Wildlife	Stormwater/Flood Control/Floodplain Expansion	Natural ecology	Infrequent algae blooms	Unknown	No	Maintain vegetation buffer; herbicide buffer	Unknown	Unknown	No	Receives river water during spring runoff. Has rare plant species: <i>Lysimachia thyrsiflora</i> (G5 S1, List A CFC)	0.5	Medium

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10216180	sw9333	Avery Pond	<Null>	4	Unknown	City of Fort Collins	Utilities	Stormwater/ Flood Control/ Floodplain Expansion	None	Unknown	algae blooms; fish kills; odor	low water levels = low DO; inlet from local neighborhood	Unknown	Copper sulfide last year for algae	Unknown	Unknown	Unknown	Parks and Wildlife manages fisheries here.	0.3625	Medium
10216361	<Null>	Milne West Pond - Riverbend Ponds	<Null>	8.3	Unknown	City of Fort Collins	Natural Areas	Wildlife	Recreation	Natural ecology	occasional algae blooms	Unknown	No	Maintain vegetation buffer; herbicide buffer	Unknown	Unknown	No	7.02 ac	0.30625	Medium
10216480	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	0	Not Assessed (more data needed)
10216534	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	0	Not Assessed (more data needed)
10216581	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	0	Not Assessed (more data needed)
10216789	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	0	Not Assessed (more data needed)
10216816	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	0	Not Assessed (more data needed)
10216243	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	0	Not Assessed (more data needed)
10216356	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	0	Not Assessed (more data needed)
10216368	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	0	Not Assessed (more data needed)
10216470	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	0	Not Assessed (more data needed)

MXASSETNUM	FACILITY ID	NAME	AKA	DEPTH (FEET)	VOLUME	OWNED BY	MAINTAINED BY	PRIMARY MANAGEMENT CATEGORY	SECONDARY MANAGEMENT CATEGORY	ADJACENT LAND USE	WATER QUALITY ISSUE(S)	CAUSE(S) OF WATER QUALITY ISSUE(S)	DOES LAKE RESIDENCE TIME CONTRIBUTE TO WATER QUALITY ISSUES?	CURRENT BMPS	HISTORIC BMPS	BMPS SUCCESSFUL? (Y/N/U)	INVASIVE SPECIES PRESENT? (Y/N/U)	NOTES	FINAL RISK SCORE	RISK RANK
10216582	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	0	Not Assessed (more data needed)
10443961	<Null>	Cresent Park	Maple Hill Park	Unknown	Unknown	City of Fort Collins	Parks and Trails	Storage/Irrigation	None	Residential/Lawns	Unknown	Unknown	No	Aeration; water quality monitoring; 20-30-ft buffer	Unknown	Unknown	No	2401 Bar Harbor; confirmed retention by City	0.4125	Medium
10216819	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	0	Not Assessed (more data needed)
10216820	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	0	Not Assessed (more data needed)
10216821	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	0	Not Assessed (more data needed)
10216822	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	0	Not Assessed (more data needed)
10216823	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	0	Not Assessed (more data needed)
10216829	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	0	Not Assessed (more data needed)
10216831	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	0	Not Assessed (more data needed)
10216834	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	0	Not Assessed (more data needed)
10216818	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	0	Not Assessed (more data needed)

MXASSETNUM	FACILITY ID	NAME	AKA	DEPTH (FEET)	VOLUME	OWNED BY	MAINTAINED BY	PRIMARY MANAGEMENT CATEGORY	SECONDARY MANAGEMENT CATEGORY	ADJACENT LAND USE	WATER QUALITY ISSUE(S)	CAUSE(S) OF WATER QUALITY ISSUE(S)	DOES LAKE RESIDENCE TIME CONTRIBUTE TO WATER QUALITY ISSUES?	CURRENT BMPS	HISTORIC BMPS	BMPS SUCCESSFUL? (Y/N/U)	INVASIVE SPECIES PRESENT? (Y/N/U)	NOTES	FINAL RISK SCORE	RISK RANK
10216841	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	0	Not Assessed (more data needed)
10216853	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	0	Not Assessed (more data needed)
10216613	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	0	Not Assessed (more data needed)
10216828	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	0	Not Assessed (more data needed)
10216835	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	0	Not Assessed (more data needed)
10216198	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	0	Not Assessed (more data needed)
10216238	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	0	Not Assessed (more data needed)
10216307	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	0	Not Assessed (more data needed)
10216317	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	0	Not Assessed (more data needed)
10216322	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	0	Not Assessed (more data needed)
10216359	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	0	Not Assessed (more data needed)

MXASSETNUM	FACILITY ID	NAME	AKA	DEPTH (FEET)	VOLUME	OWNED BY	MAINTAINED BY	PRIMARY MANAGEMENT CATEGORY	SECONDARY MANAGEMENT CATEGORY	ADJACENT LAND USE	WATER QUALITY ISSUE(S)	CAUSE(S) OF WATER QUALITY ISSUE(S)	DOES LAKE RESIDENCE TIME CONTRIBUTE TO WATER QUALITY ISSUES?	CURRENT BMPS	HISTORIC BMPS	BMPS SUCCESSFUL? (Y/N/U)	INVASIVE SPECIES PRESENT? (Y/N/U)	NOTES	FINAL RISK SCORE	RISK RANK
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10216371	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	0	Not Assessed (more data needed)
10216475	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	0	Not Assessed (more data needed)
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10216579	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	0	Not Assessed (more data needed)
10216612	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	0	Not Assessed (more data needed)
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10216656	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	0	Not Assessed (more data needed)
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10216239	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	0	Not Assessed (more data needed)
10216286	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	0	Not Assessed (more data needed)

MXASSETNUM	FACILITY ID	NAME	AKA	DEPTH (FEET)	VOLUME	OWNED BY	MAINTAINED BY	PRIMARY MANAGEMENT CATEGORY	SECONDARY MANAGEMENT CATEGORY	ADJACENT LAND USE	WATER QUALITY ISSUE(S)	CAUSE(S) OF WATER QUALITY ISSUE(S)	DOES LAKE RESIDENCE TIME CONTRIBUTE TO WATER QUALITY ISSUES?	CURRENT BMPS	HISTORIC BMPS	BMPS SUCCESSFUL? (Y/N/U)	INVASIVE SPECIES PRESENT? (Y/N/U)	NOTES	FINAL RISK SCORE	RISK RANK
10216318	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	0	Not Assessed (more data needed)
10216319	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	0	Not Assessed (more data needed)
10216325	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	0	Not Assessed (more data needed)
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10216393	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	0	Not Assessed (more data needed)



MXASSETNUM	FACILITY ID	NAME	AKA	DEPTH (FEET)	VOLUME	OWNED BY	MAINTAINED BY	PRIMARY MANAGEMENT CATEGORY	SECONDARY MANAGEMENT CATEGORY	ADJACENT LAND USE	WATER QUALITY ISSUE(S)	CAUSE(S) OF WATER QUALITY ISSUE(S)	DOES LAKE RESIDENCE TIME CONTRIBUTE TO WATER QUALITY ISSUES?	CURRENT BMPS	HISTORIC BMPS	BMPS SUCCESSFUL? (Y/N/U)	INVASIVE SPECIES PRESENT? (Y/N/U)	NOTES	FINAL RISK SCORE	RISK RANK
10216419	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	0	Not Assessed (more data needed)
10216420	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	0	Not Assessed (more data needed)
10216431	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	0	Not Assessed (more data needed)
10216464	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	0	Not Assessed (more data needed)
10216664	<Null>	Homestead Pond	<Null>	5.5	Unknown	City of Fort Collins	Natural Areas	Wildlife	Stormwater/ Flood Control/ Floodplain Expansion	Urban	Unknown	Unknown	No	Unknown	Used to be golf course converted to Natural Area.	Unknown	No	<Null>	0.55	High
10216204	sw22580	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	0	Not Assessed (more data needed)
10214213	sw23793	Spring Canyon Dog Park Pond	Dog Park Pond	<Null>	<Null>	City of Fort Collins	Parks and Trails	Storage/ Irrigation	Urban/Other	<Null>	E. coli, other potential enteric pathogens based to complaints from dog owners, algae when water is retained, but downstream WQ pond is being designed so dog park pond can be operated as designed.	dog waste, pond is filled with raw water from Dixon reservoir and may contain pathogens due to wildlife	No	draining and refilling with fresh water; water quality monitoring; 20-30ft buffer	<Null>	<Null>	No	For dog swimming. See SPRING CANYON COMMUNITY PARK and SPRING CANYON COMMUNITY PARK POND C in Detention Ponds. Is this the same as one of those? NO - This drains to #10217953 (SP CAN COMM PARK POND);	0.6125	High

## Fort Collins Detention Lakes

MXASSETNU M	POINT_X	POINT_Y	NAME	MAINTAINED BY
10217064	- 105.0916 2	40.541164	5 OAKS VILLAGE	Utilities (FC)
10217462	- 105.0897 4	40.595261	700 WOOD EAST POND	Utilities (FC)
10217202	- 105.0899 3	40.595266	700 WOOD ST WEST POND	Utilities (FC)
10218011	- 105.0762 9	40.597136	740 N. COLLEGE FUTURE DETENTION BASIN	Utilities (FC)
10217686	- 105.0687 8	40.600115	ASPEN HEIGHTS DETENTION	Utilities (FC)
10224037	- 105.1095 5	40.57189	AVERY PARK POND	Utilities (FC)
10224452	- 105.0757 8	40.593117	AZTLAN GRAVEL PARKING	Colorado State University
10225478	- 105.0758 6	40.592564	AZTLAN MID PAVER	Colorado State University
10225477	- 105.0759 5	40.59292	AZTLAN NORTH PAVER	Colorado State University
10225480	- 105.0757 7	40.592574	AZTLAN PARKING DETENTION	Colorado State University
10225479	- 105.0758 6	40.592265	AZTLAN SOUTH PAVER	Colorado State University
10216989	- 105.1180 8	40.593096	BELLWETHER DETENTION POND C	Homeowners Association
10217805	- 105.0872 5	40.542215	BLUE MESA	Utilities (FC)
10217884	- 105.0612 5	40.543412	BOLTZ POND CHANNEL	Utilities (FC)
10217102	- 105.1254 5	40.559947	BROWN FARM POND # 2	Utilities (FC)
10217036	- 105.1245 6	40.557178	BROWN FARM POND # 3	Utilities (FC)
10216933	- 105.1269 5	40.562391	BROWN FARM POND #1	Utilities (FC)
10217502	- 105.0496 5	40.526985	CAPE COD	Utilities (FC)
10217090	- 105.0397 3	40.528002	CARIBOU APARTMENTS POND 2	Homeowners Association

<b>MXASSETNU M</b>	<b>POINT_X</b>	<b>POINT_Y</b>	<b>NAME</b>	<b>MAINTAINED BY</b>
10216901	- 105.0411 6	40.528901	CARIBOU APARTMENTS POND 3	Homeowners Association
10216190	- 105.1089 5	40.551679	CEDAR VILLAGE	Utilities (FC)
10217772	- 105.0795 6	40.590088	CIVIC CENTER POND	Parks and Trails (FC)
10217329	- 105.0409	40.563199	COMMUNITY RECYCLING DETENTION	Operations Services (FC)
10217868	- 105.0750 7	40.594413	CSU ENGINES POND	Homeowners Association
10217887	- 105.0258 2	40.54189	DAKOTA RIDGE 2ND	Utilities (FC)
10217263	- 105.1260 2	40.571724	DEERFIELD POND	Utilities (FC)
10217195	- 105.0778 5	40.594275	DISCOVERY MUSEUM NORTH POND	Operations Services (FC)
10216980	- 105.0783 5	40.592458	DISCOVERY MUSEUM SOUTH POND	Operations Services (FC)
10217440	- 105.0975 4	40.597438	EAST POND GRANADA HEIGHTS	Utilities (FC)
10217521	- 105.0604 3	40.576466	EAST SIDE PARK POND	Parks and Trails (FC)
10217728	- 105.0539 8	40.549507	EASTBOROUGH	Utilities (FC)
10217294	- 105.0271 3	40.537551	ENGLISH RANCH #1	Utilities (FC)
10217694	- 105.0251 8	40.537524	ENGLISH RANCH #2	Utilities (FC)
10217963	- 105.0231 7	40.537528	ENGLISH RANCH #3	Utilities (FC)
10217789	- 105.0211 9	40.537511	ENGLISH RANCH #4	Utilities (FC)
10217397	- 105.0440 5	40.562818	EPIC DETENTION POND	Utilities (FC) Maybe Parks?
10217120	- 105.1167 5	40.565994	FAIRBROOK POND	Natural Areas (FC)
10217134	- 105.1161 9	40.566806	FAIRBROOKE POND A	Natural Areas (FC)
10217636	- 105.1283 3	40.569941	FLEETWOOD COURT	Utilities (FC)

<b>MXASSETNUM</b>	<b>POINT_X</b>	<b>POINT_Y</b>	<b>NAME</b>	<b>MAINTAINED BY</b>
10217047	- 105.0595 3	40.506808	FLEETWOOD CT DETENTION POND	Utilities (FC)
10217582	- 105.1127	40.59339	FORNEY POND	Utilities (FC)
10217447	- 105.1088 5	40.575386	FORT RAM	Utilities (FC)
10217644	- 105.0668 3	40.507816	FOSSIL CREEK 1	Homeowners Association
10218037	- 105.0646 5	40.507965	FOSSIL CREEK 2	Homeowners Association
10217258	- 105.0589 1	40.505314	FOSSIL CREEK COMMUNITY PARK EAST	Parks and Trails (FC)
10217748	- 105.0641 7	40.506602	FOSSIL CREEK COMMUNITY PARK WEST	Parks and Trails (FC)
10217640	- 105.0309 5	40.537408	FOX MEADOWS DETENTION POND	Utilities (FC)
10217978	- 105.0734 4	40.587752	GARAGE ALLEY NORTH RG	Operations Services (FC)
10217346	- 105.0732	40.587976	GARAGE ENTRANCE NORTH RG	Operations Services (FC)
10217076	- 105.0732 9	40.587892	GARAGE ENTRANCE SOUTH RG	Operations Services (FC)
10216911	- 105.0730 6	40.588066	GARAGE JEFFERSON RG	Operations Services (FC)
10217937	- 105.0995 7	40.595707	GLADIOLA FARM	Utilities (FC)
10217707	- 105.1140 5	40.577077	GLENMOOR DETENTION BASIN	Utilities (FC)
10217021	- 105.0615 2	40.610869	GREENBRIAR NORTH	Utilities (FC)
10217732	- 105.0589	40.607145	GREENBRIAR SOUTH	Utilities (FC)
10217129	- 105.0802 1	40.565656	GRIFFIN PLAZA DETENTION	Colorado State University
10216902	- 105.1175 5	40.549975	HAMSHIRE DETENTION POND	Utilities (FC)
10217169	- 105.0974 1	40.596173	HANNA	Utilities (FC)
10217337	-105.016	40.60168	HARTSHORN PROPERTY (CRUMB POND) .	Utilities (FC)
10434337	- 105.0525 3	40.576058	HOFFMAN MILL DETENTION	Streets (FC)

<b>MXASSETNUM</b>	<b>POINT_X</b>	<b>POINT_Y</b>	<b>NAME</b>	<b>MAINTAINED BY</b>
10434134	- 105.0524	40.576191	HOFFMAN MILL SAND FILTER	Streets (FC)
10217977	- 105.0599	40.578994	HOUSKA DETENTION POND	Utilities (FC)
10217352	- 105.1138 3	40.5661	KANE POND	Natural Areas (FC)
10217186	- 105.1040 7	40.552356	KENSINGTON SOUTH POND	Utilities (FC)
10218010	- 105.1269 2	40.577817	KIMBALL	Utilities (FC)
10217504	- 105.0816 2	40.527547	LARKBOROUGH	Utilities (FC)
10218068	- 105.0731	40.584933	LIBRARY PARK DETENTION	Operations Services (FC)
10216972	- 105.0605 4	40.580836	LOCUST OUTFALL	Utilities (FC)
10217850	- 105.0856 4	40.60403	MAGPIE MEANDER NATURAL AREA POND 1	Parks and Trails (FC)
10217945	- 105.1155 8	40.556644	MANCHESTER DETENTION POND	Utilities (FC)
10217429	- 105.0816 8	40.533716	MANHATTAN POND	Utilities (FC)
10216969	- 105.0805 8	40.523973	MAX HARMONY DETENTION	Operations Services (FC)
10217763	- 105.1114 4	40.575579	MCALLISTER	Utilities (FC)
10217243	- 105.0779	40.609731	MCDONALDS DETENTION POND 2	Utilities (FC)
10217345	- 105.0864 8	40.521629	MCGRAW ELEMENTARY NORTH POND	Parks and Trails (FC)
10217544	- 105.0812 3	40.54366	MEADOWLARK HEIGHTS A	Utilities (FC)
10218012	- 105.0815 4	40.541888	MEADOWLARK HEIGHTS B	Utilities (FC)
10217609	- 105.0399 3	40.550817	MEADOWS EAST	Utilities (FC)
10217198	- 105.1349 7	40.567187	MILLER DET BASIN/ OLD SUBSTATION	Utilities (FC)
10216899	- 105.0612 7	40.514951	MIRAMONT PARK DETENTION POND	Parks and Trails (FC)
10217577	- 105.0745 5	40.587234	MOUNTAIN AVE POND	Parks and Trails (FC)

<b>MXASSETNUM</b>	<b>POINT_X</b>	<b>POINT_Y</b>	<b>NAME</b>	<b>MAINTAINED BY</b>
10217434	- 105.0996 8	40.532142	MOUNTAIN RIDGE FARM DETENTION POND 2	Homeowners Association
10217147	- 105.0971 7	40.53191	MOUNTAIN RIDGE FARM DETENTION POND 3	Homeowners Association
10217403	- 105.0770 3	40.596009	N COLLEGE IMPROVEMENTS SOUTH POND	Utilities (FC) Not sure witch one this is referring
10217220	- 105.0771	40.596934	N COLLEGE RD IMPROVEMENTS NORTH POND	Utilities (FC) Not sure witch one this is referring
10216221	- 105.0444 7	40.542457	NELSON FARM	Utilities (FC)
10217340	- 105.0446 3	40.573919	NIX FARM DETENTION POND	Natural Areas (FC)
10217799	- 105.0600 4	40.516557	OAKRDIGE WEST DETENTION POND	Parks and Trails (FC)
10217941	- 104.9969 5	40.52477	PARK N RIDE POND	Colorado Department of Transportation
10217399	- 105.0442 9	40.553533	PARKWOOD EAST	Utilities (FC)
10217638	- 105.1245 1	40.577895	PEAR COURT	Utilities (FC)
10217734	- 105.0623 9	40.61376	PHEASANT RIDGE NORTH	Utilities (FC)
10217653	- 105.0636 3	40.611512	PHEASANT RIDGE SOUTH	Utilities (FC)
10217620	- 105.0396 6	40.556465	POLICE BUILDING POND 1 EAST	Parks and Trails (FC)
10217113	- 105.0406 7	40.556426	POLICE BUILDING POND 2 WEST	Parks and Trails (FC)
10224036	- 105.1357 1	40.573874	PONDS AT OVERLAND NORTH DETENTION	Utilities (FC)
10217904	- 105.1281 6	40.550411	QUAIL HOLLOW #1	Utilities (FC)
10217986	- 105.1319 8	40.549183	QUAIL HOLLOW #2	Utilities (FC)
10217768	- 105.1268 8	40.546875	QUAIL HOLLOW #3	Utilities (FC)
10217778	-105.129	40.545926	QUAIL HOLLOW #4- -CATTAILS.	Utilities (FC)
10217811	- 105.0990 1	40.556279	RAINTREE DETENTION POND A	Parks and Trails (FC)

MXASSETNUM	POINT_X	POINT_Y	NAME	MAINTAINED BY
10217070	- 105.1092 9	40.564688	RED FOX MEADOWS. CIPO OUTFALL.	Utilities (FC)
10217580	- 105.0663 7	40.602695	REDWOOD POND	Utilities (FC)
10217656	- 105.1012	40.525849	REGENCY	Utilities (FC)
10217313	- 105.1100 2	40.563657	RIDGEWOOD POND	Utilities (FC)
10217004	- 105.1356 1	40.55881	RODEO ARENA	Colorado State University
10217157	- 105.1070 3	40.544454	ROSSBOROUGH PARK	Parks and Trails (FC)
10216909	- 105.1002 5	40.555329	SENIOR CENTER DETENTION	Parks and Trails (FC)
10218019	- 105.0915 1	40.598255	SERVICE CENTER	Utilities (FC)
10217191	- 105.0910 9	40.599258	SERVICE CENTER NORTH	Utilities (FC)
10217117	- 105.1078 7	40.548747	SILVERPLUME	Utilities (FC)
10217864	- 105.1035 6	40.546471	SILVERPLUME DETENTION POND NO. 2	Utilities (FC)
10217124	- 105.1034	40.547051	SILVERTON CT.	Utilities (FC)
10217720	- 105.0591 1	40.542902	SOUTH LEMAY	Utilities (FC)
10216993	- 105.0647 6	40.496553	SOUTH TRANSFORT DETENTION	Operations Services (FC)
10217068	- 105.0141 8	40.51011	SOUTHEAST COMMUNITY PARK	Parks and Trails (FC)
10217953	- 105.1280 6	40.540931	SPRING CANYON COMMUNITY PARK POND	Parks and Trails (FC)
10217426	- 105.1247 1	40.539795	SPRING CANYON COMMUNITY PARK POND C	Parks and Trails (FC)
10217568	- 105.1260 9	40.544615	SPRING CANYON COMMUNITY PARK.	Parks and Trails (FC)
10217386	- 105.0427 9	40.564514	SPRING CREEK DIASTER MITIGATION EAST POND	Parks and Trails (FC)
10217627	- 105.0438 5	40.56487	SPRING CREEK DIASTER MITIGATION WEST POND	Parks and Trails (FC)

MXASSETNUM	POINT_X	POINT_Y	NAME	MAINTAINED BY
10217309	- 105.0338 6	40.54471	STEWART CASE PARK	Parks and Trails (FC); joint management w/ESD
10217655	- 105.0586 4	40.595001	STREETS FACILITY PARK	Streets (FC)
10217267	- 105.0603 9	40.594994	STREETS FACILITY POND 2	Streets (FC)
10217115	- 105.0911 7	40.541459	SUNDISK	Utilities (FC)
10216938	- 105.0389 8	40.527005	SUNSTONE EIGHTH DETENTION POND	Utilities (FC)
10216990	- 105.0348 8	40.529172	SUNSTONE FIFTH DETENTION POND	Utilities (FC)
10217985	- 105.1059	40.547276	TELLURIDE COURT DETENTION POND	Utilities (FC)
10217566	-105.04	40.544207	TIMBERLINE APARTMENTS	Utilities (FC)
10217946	- 105.0420 4	40.543655	TIMBERLINE VILLAGE POND	Utilities (FC)
10217158	- 105.0801 7	40.518071	TRANSIT CENTER	Operations Services (FC)
10217039	- 105.0785 7	40.590537	TRANSIT CENTER DETENTION POND	Operations Services (FC)
10217947	- 105.0788 1	40.609665	UNION PLACE POND	Homeowners Association
10217966	- 105.0968	40.598406	Unnamed Pond	Parks and Trails (FC)
10225449	- 105.0127	40.510785	Unnamed Pond	Parks and Trails (FC)
10217286	- 105.0803 5	40.589138	UTILITIES ADMIN DETENTION 1	Parks and Trails (FC)
10217308	- 105.0802 8	40.589471	UTILITIES ADMIN DETENTION 2	Parks and Trails (FC)
10216925	- 105.0798 2	40.589538	UTILITIES ADMIN DETENTION 3	Parks and Trails (FC)
10217114	- 105.0921 5	40.597344	VEHICLE STORAGE	Utilities (FC)
10217141	- 105.0973 3	40.544995	WAGON WHEEL	Utilities (FC)
10217932	- 105.0748 1	40.587499	WALNUT NW POND	Homeowners Association
10217385	- 105.0746 2	40.587359	WALNUT SE POND	Homeowners Association



<b>MXASSETNUM</b>	<b>POINT_X</b>	<b>POINT_Y</b>	<b>NAME</b>	<b>MAINTAINED BY</b>
10217104	- 105.0811 2	40.538731	WARREN FARMS	Utilities (FC)
10217163	- 105.0837 7	40.562005	WATER QUALITY POND A 1A	Operations Services (FC)
10217010	- 105.0847 6	40.562675	WATER QUALITY POND A 1B	Parks and Trails (FC)
10217154	- 105.0856 8	40.560798	WATER QUALITY POND A 3B	Operations Services (FC)
10217249	- 105.0787	40.604897	WEST OF ADDRESS	Utilities (FC)
10217588	- 105.0985 9	40.598751	WEST POND GRANADA HEIGHTS	Utilities (FC)
10218064	- 105.1024 4	40.536543	WESTFIELD PARK PUD	Utilities (FC)
10218002	- 105.0835 7	40.562908	WETLANDS BASIN A1	Operations Services (FC)
10217384	- 105.0869 4	40.527493	WILLOW PARK DETENTION POND/ TABLE MOUNTAIN POND	Utilities (FC)
10217234	- 105.1035 4	40.56059	WINFIELD	Utilities (FC)
10217029	- 105.0873	40.551224	WOOD WEST DETENTION POND	Utilities (FC)
10217557	- 105.0869 9	40.524743	WOODLANDS WAY DETENTION POND	Utilities (FC)
10217602	- 105.1216	40.555341	WYANDOTTE # 1	Utilities (FC)
10218025	- 105.1219	40.554005	WYANDOTTE # 2	Utilities (FC)

# ATTACHMENT 5 – MAPBOOK OF CITY-OWNED URBAN LAKES

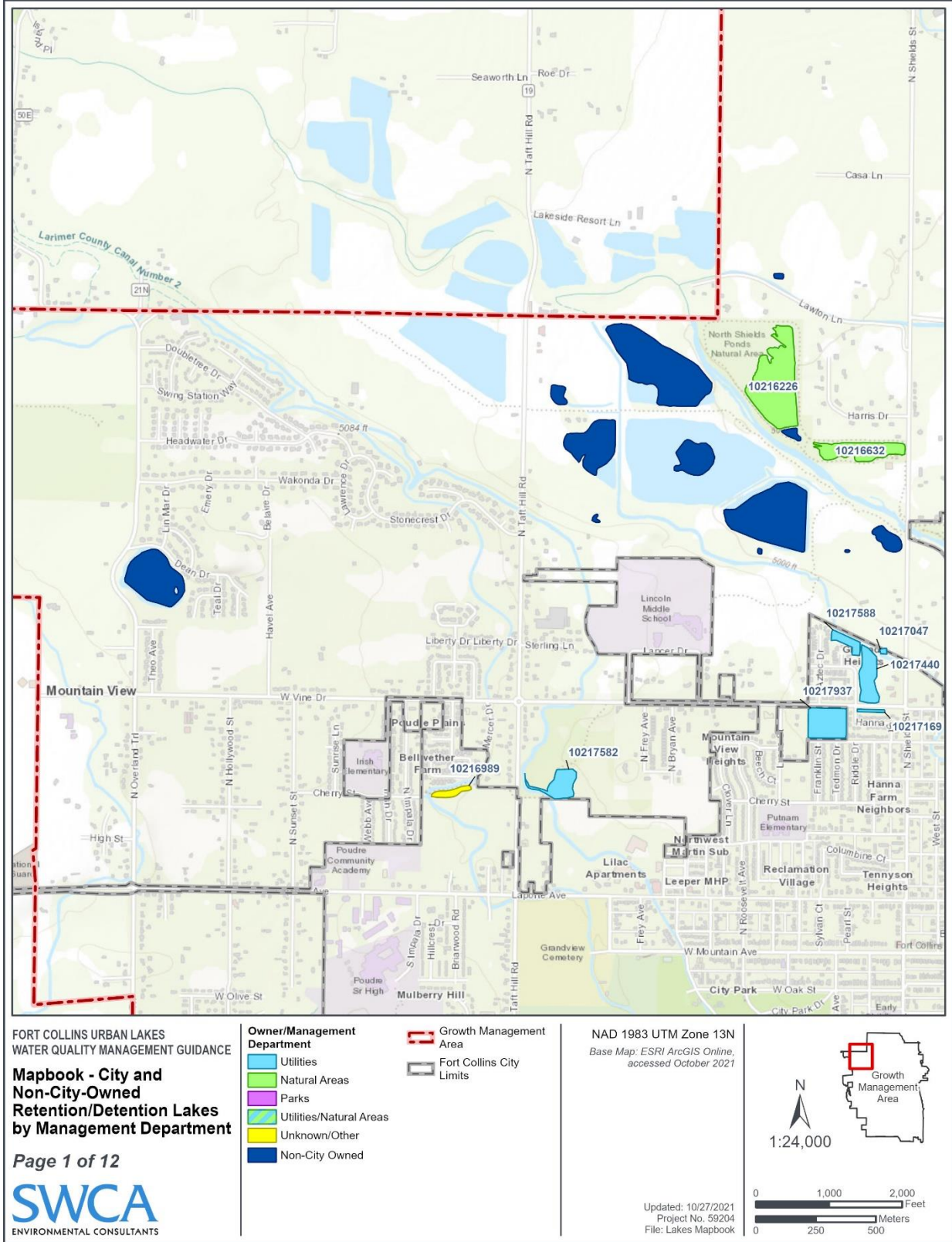


Figure 5-1. Fort Collins' urban lakes, managing department and MAXASSETNUM (image 1 of 12).

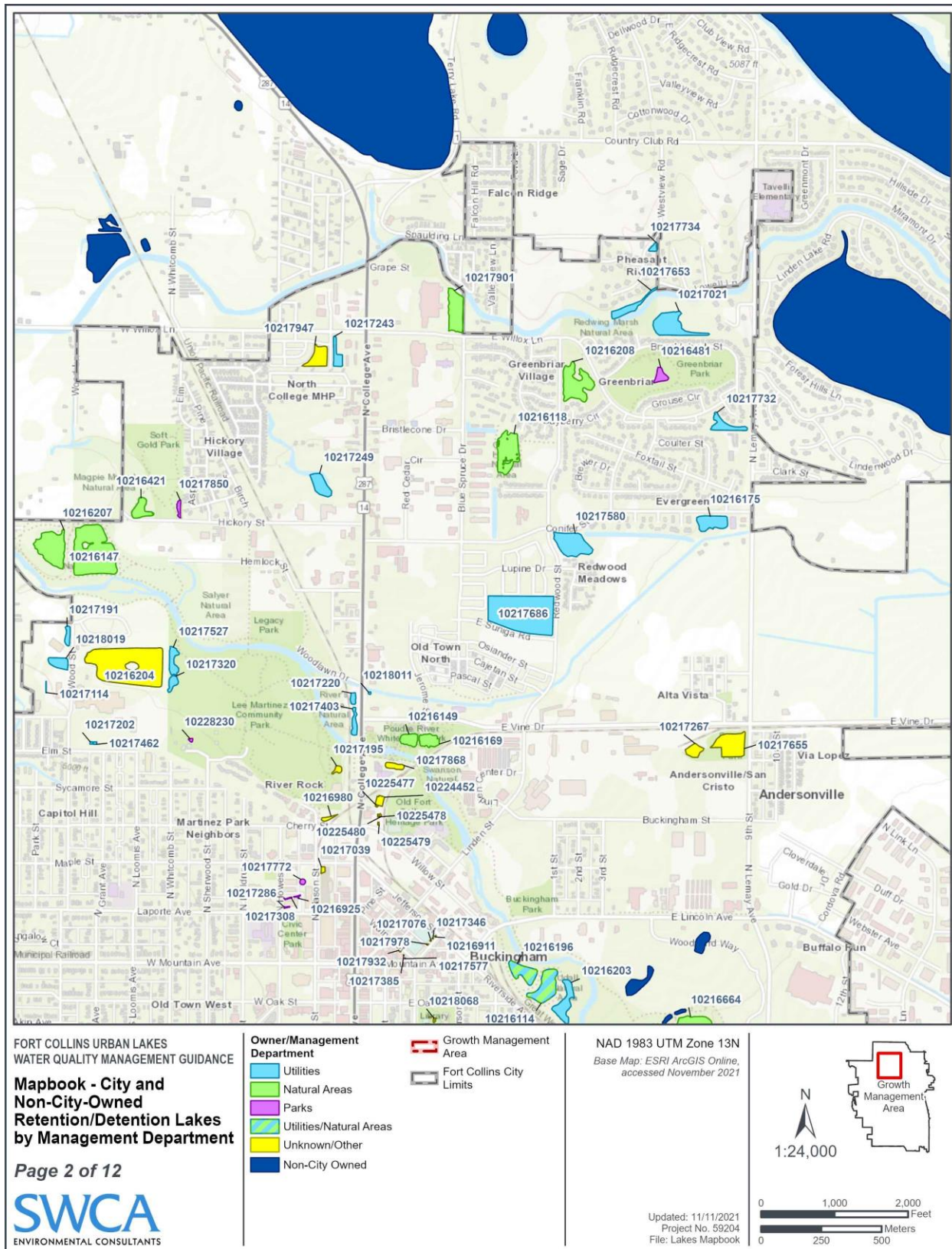


Figure 5-2. Fort Collins' urban lakes, managing department and MAXASSETNUM (image 2 of 12).  
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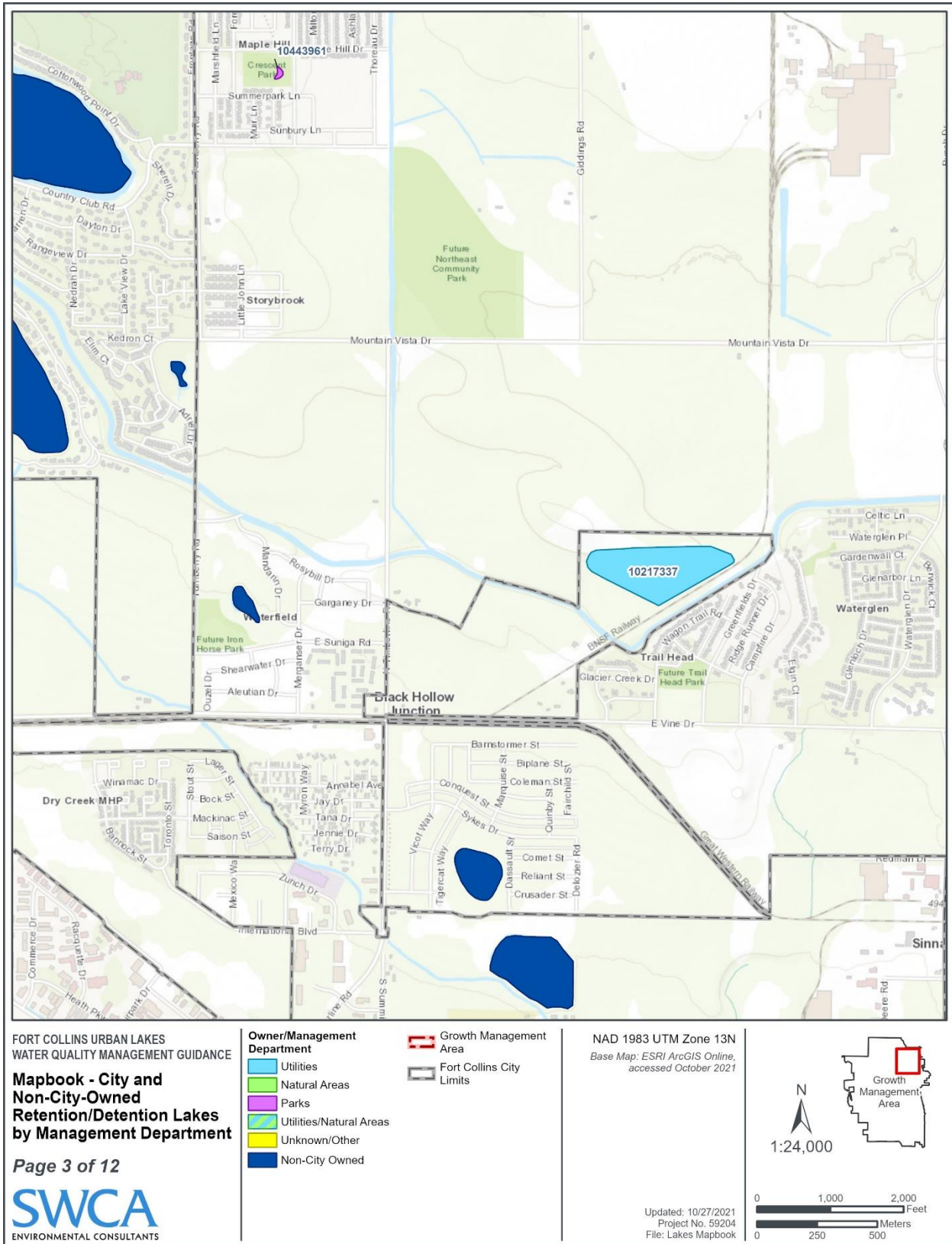


Figure 5-3. Fort Collins' urban lakes, managing department and MAXASSETNUM (image 3 of 12).  
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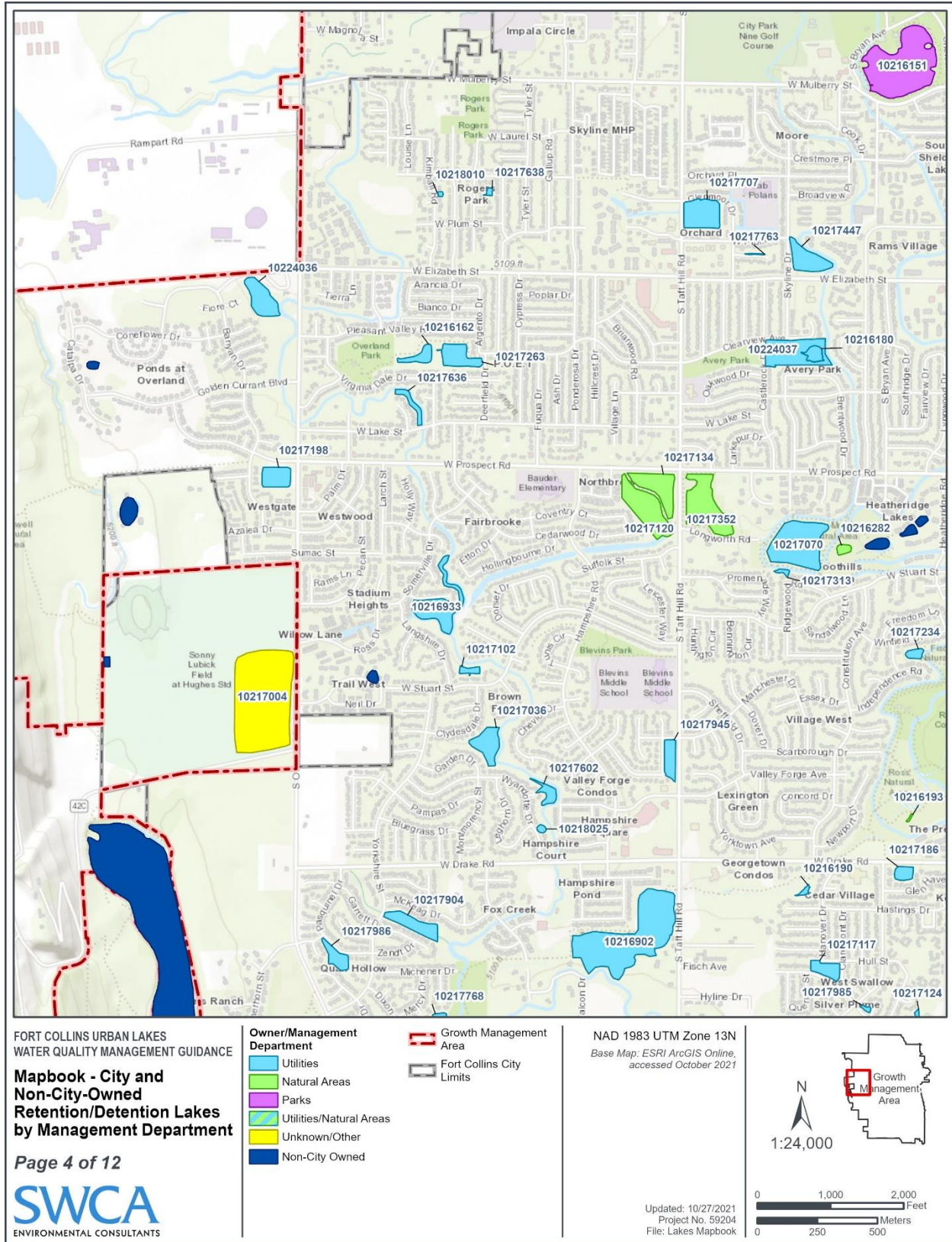


Figure 5-4. Fort Collins' urban lakes, managing department and MAXASSETNUM (image 4 of 12).

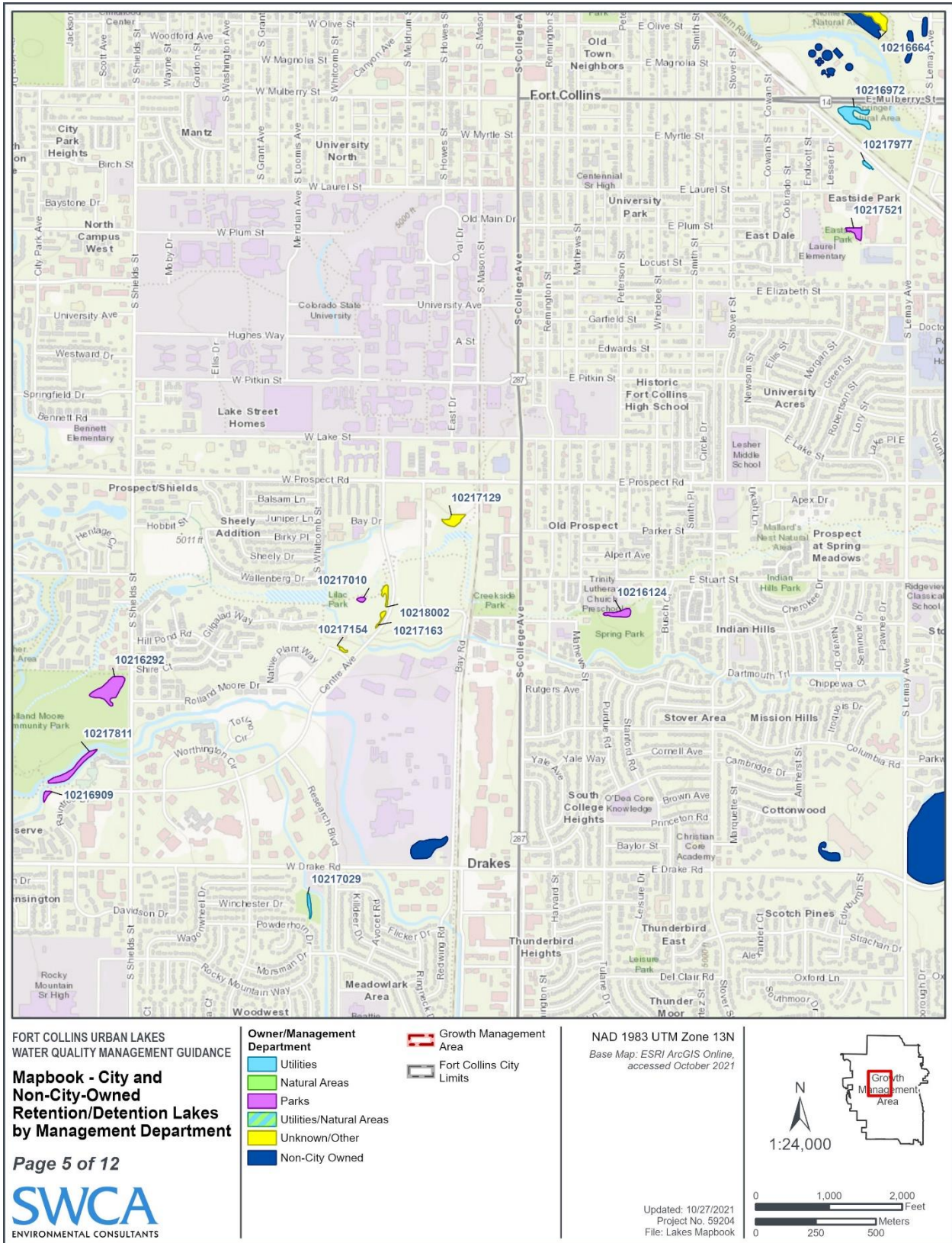


Figure 5-5. Fort Collins' urban lakes, managing department and MAXASSETNUM (image 5 of 12).  
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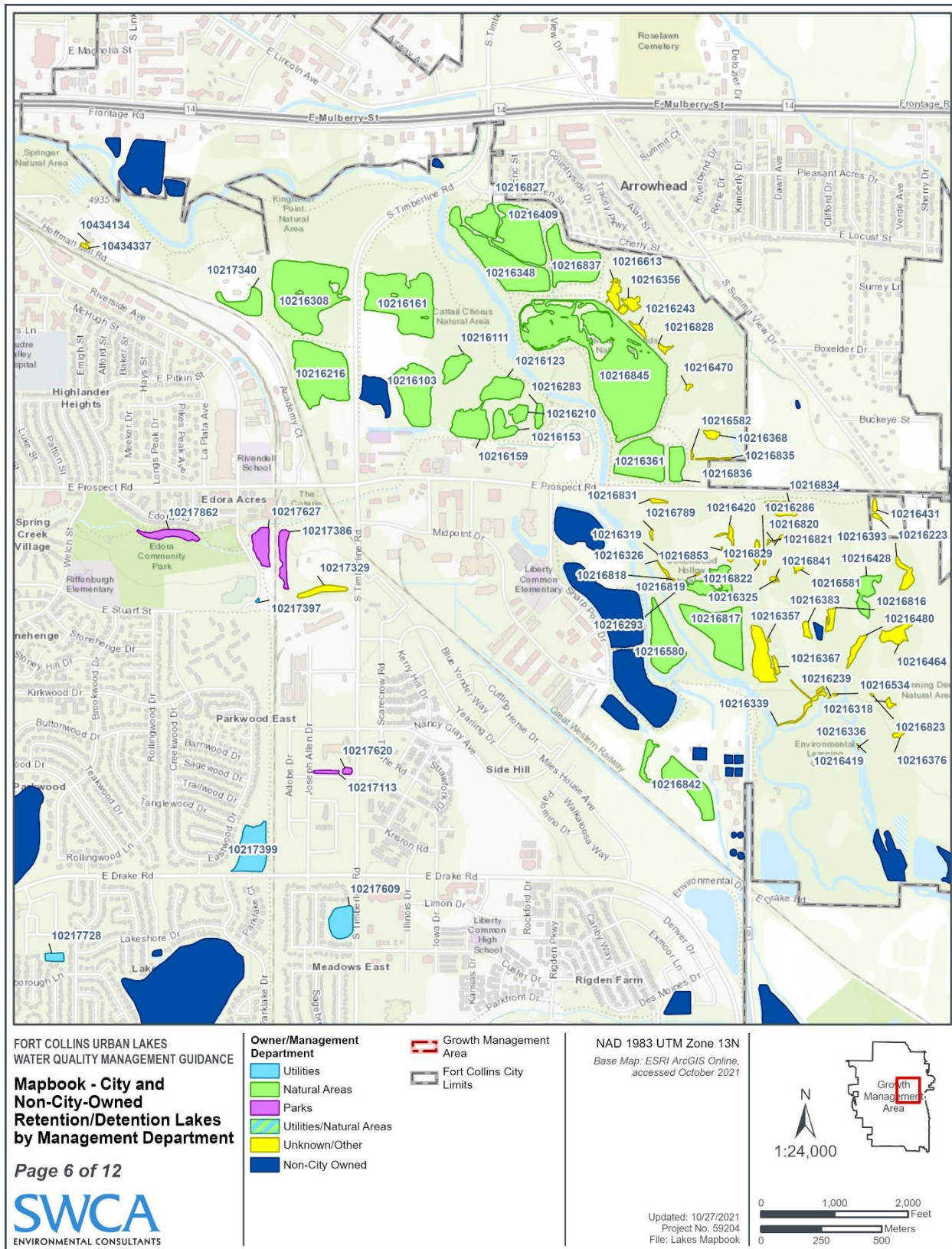


Figure 5-6. Fort Collins' urban lakes, managing department and MAXASSETNUM (image 6 of 12).  
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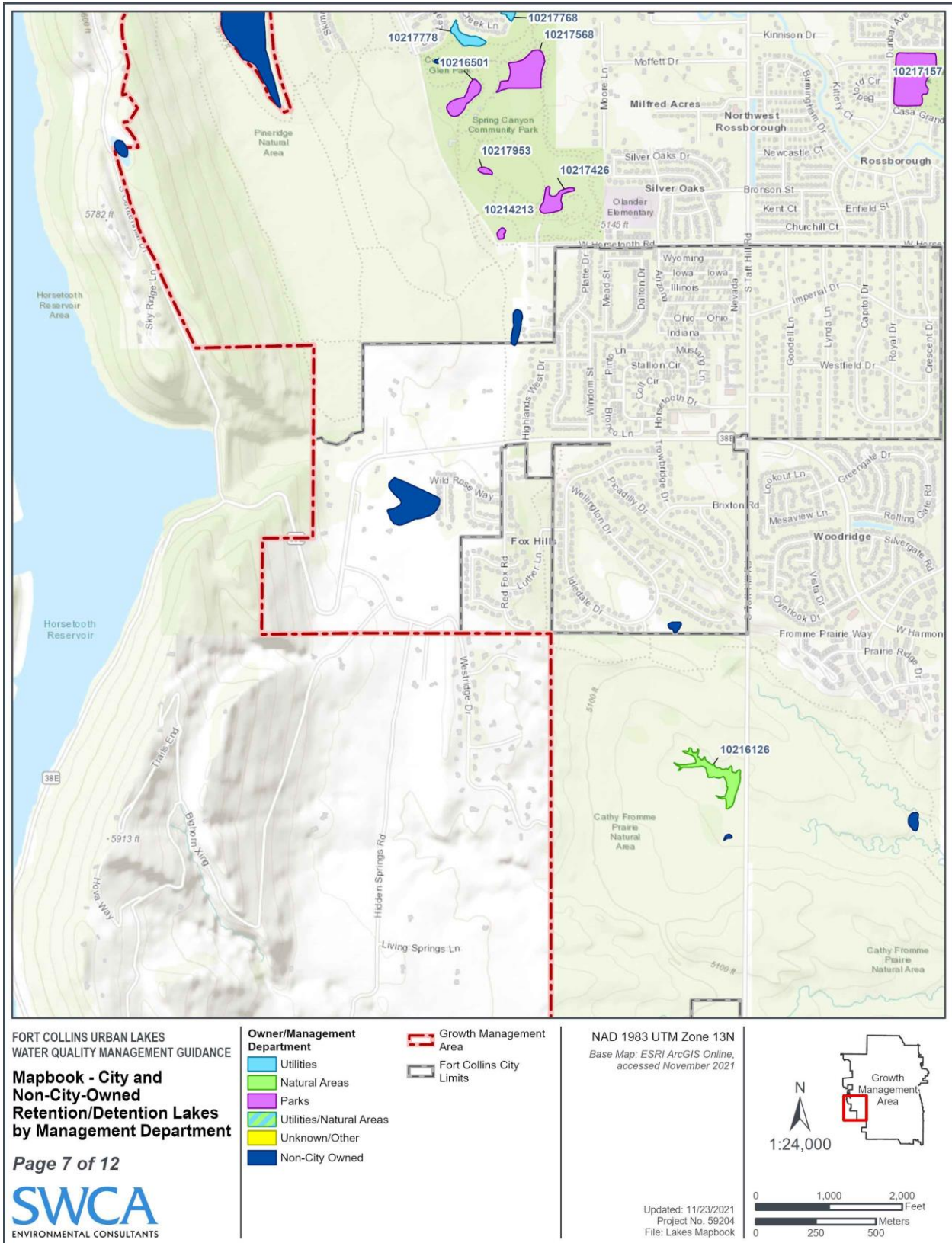


Figure 5-7. Fort Collins' urban lakes, managing department and MAXASSETNUM (image 7 of 12).  
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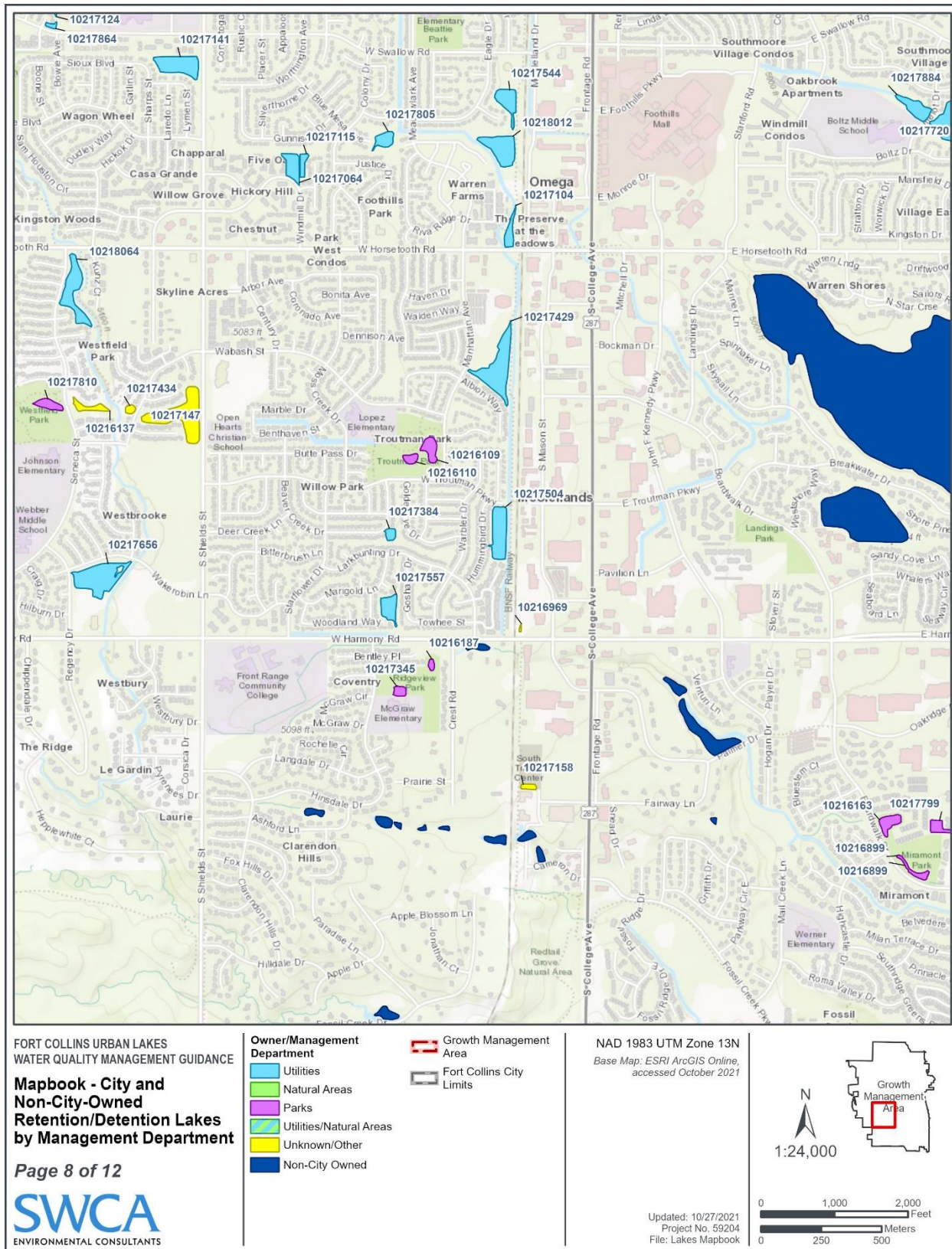


Figure 5-8. Fort Collins' urban lakes, managing department and MAXASSETNUM (image 8 of 12).  
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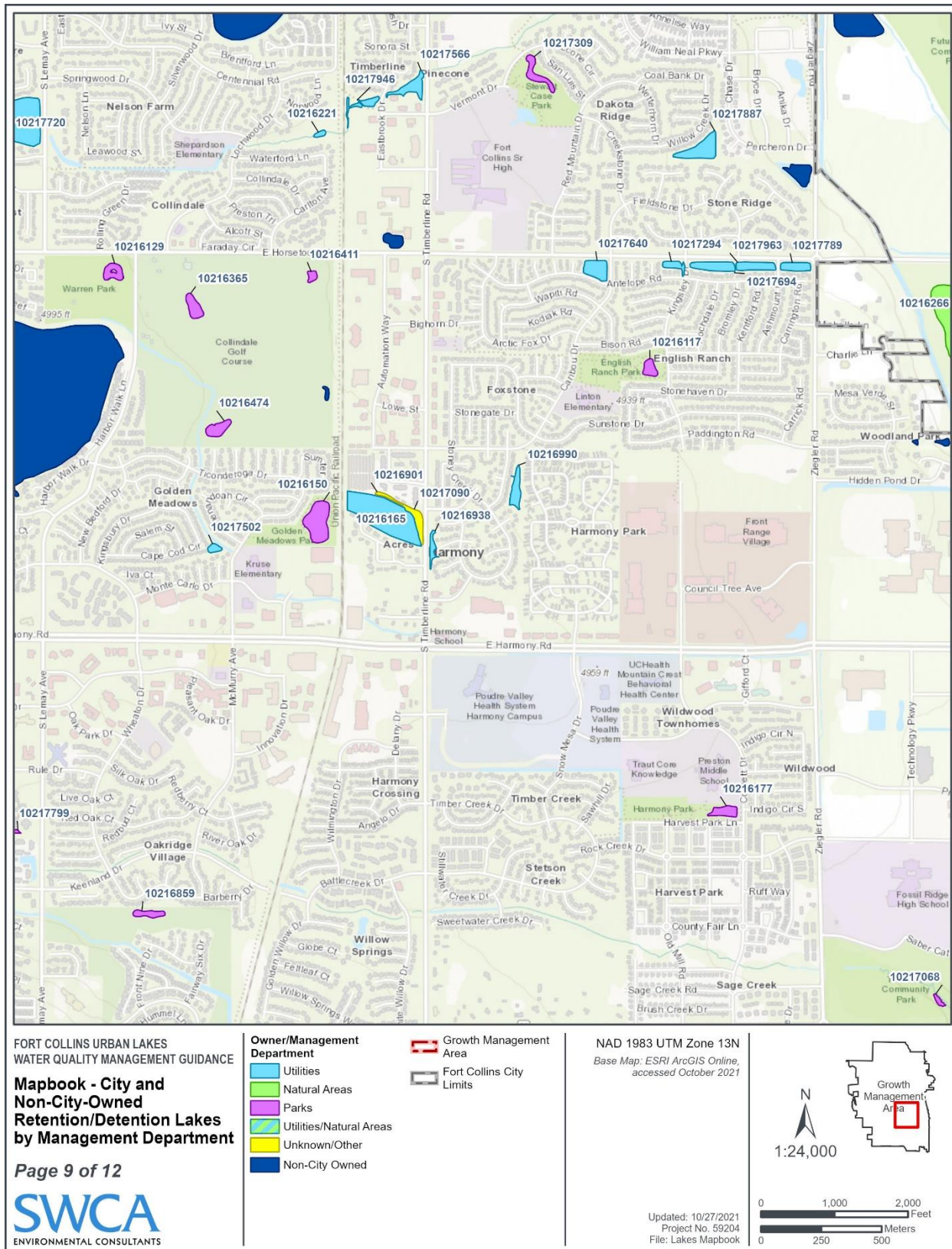


Figure 5-9. Fort Collins' urban lakes, managing department and MAXASSETNUM (image 9 of 12).  
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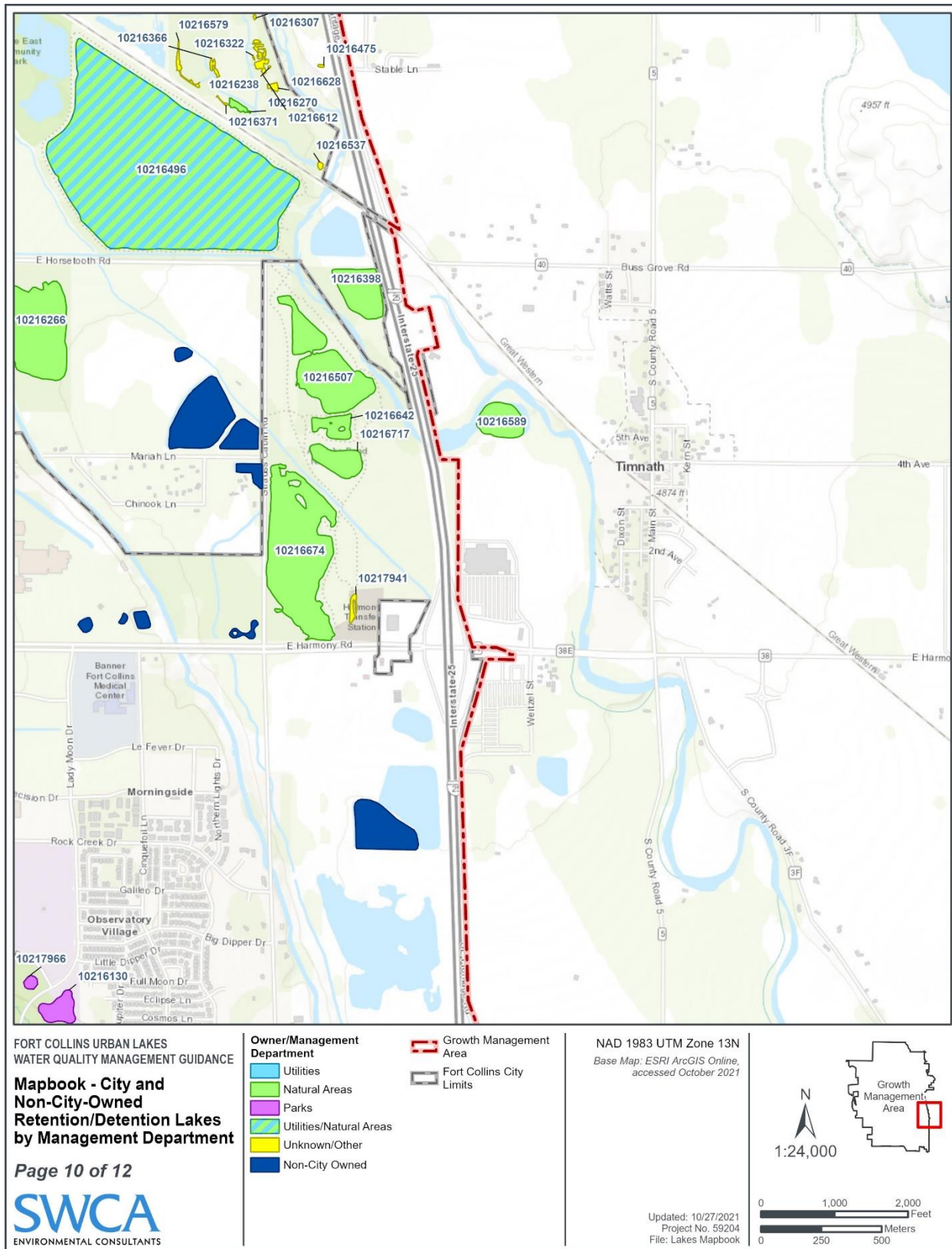


Figure 5-10. Fort Collins' urban lakes, managing department and MAXASSETNUM (image 10 of 12).  
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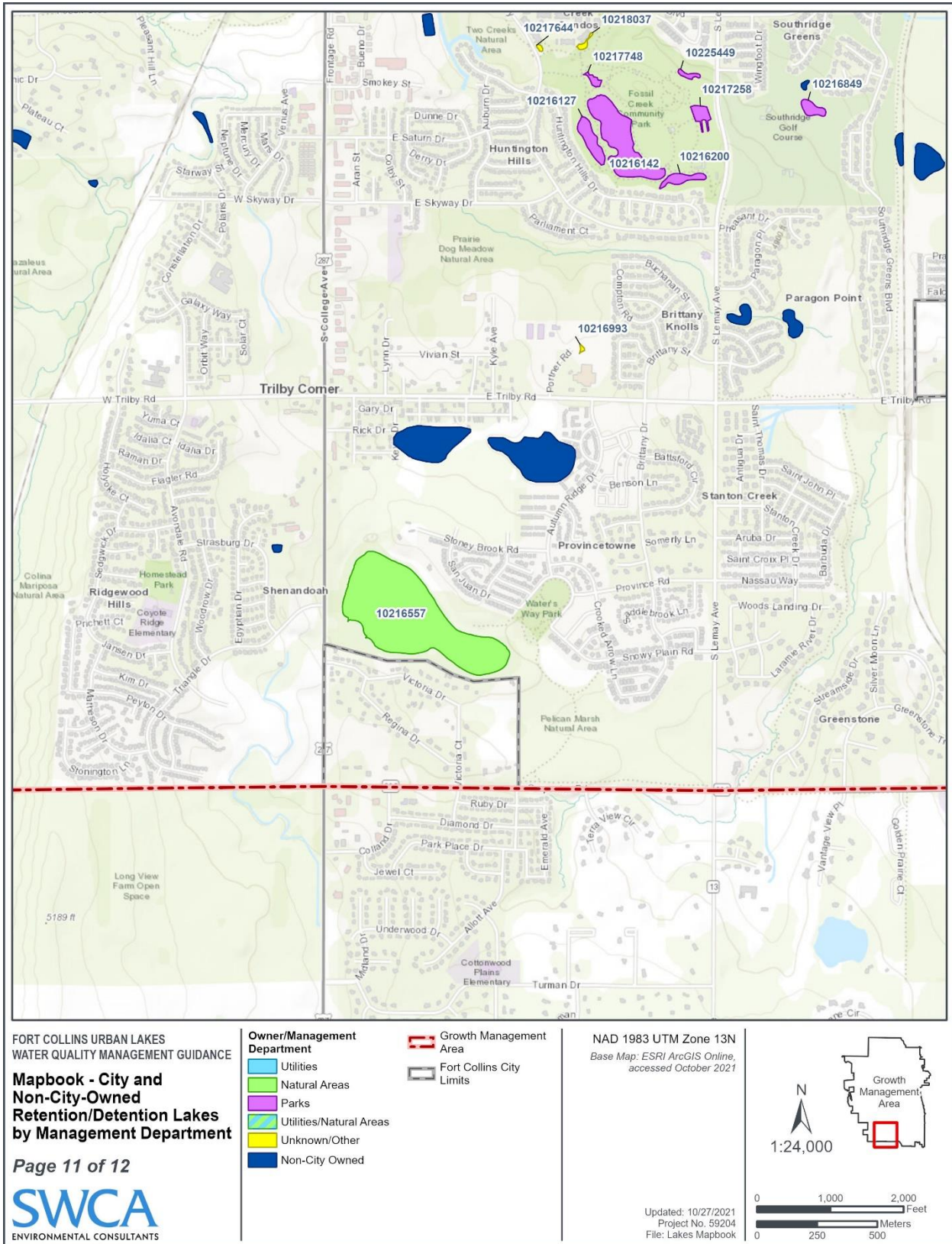


Figure 5-11. Fort Collins' urban lakes, managing department and MAXASSETNUM (image 11 of 12).  
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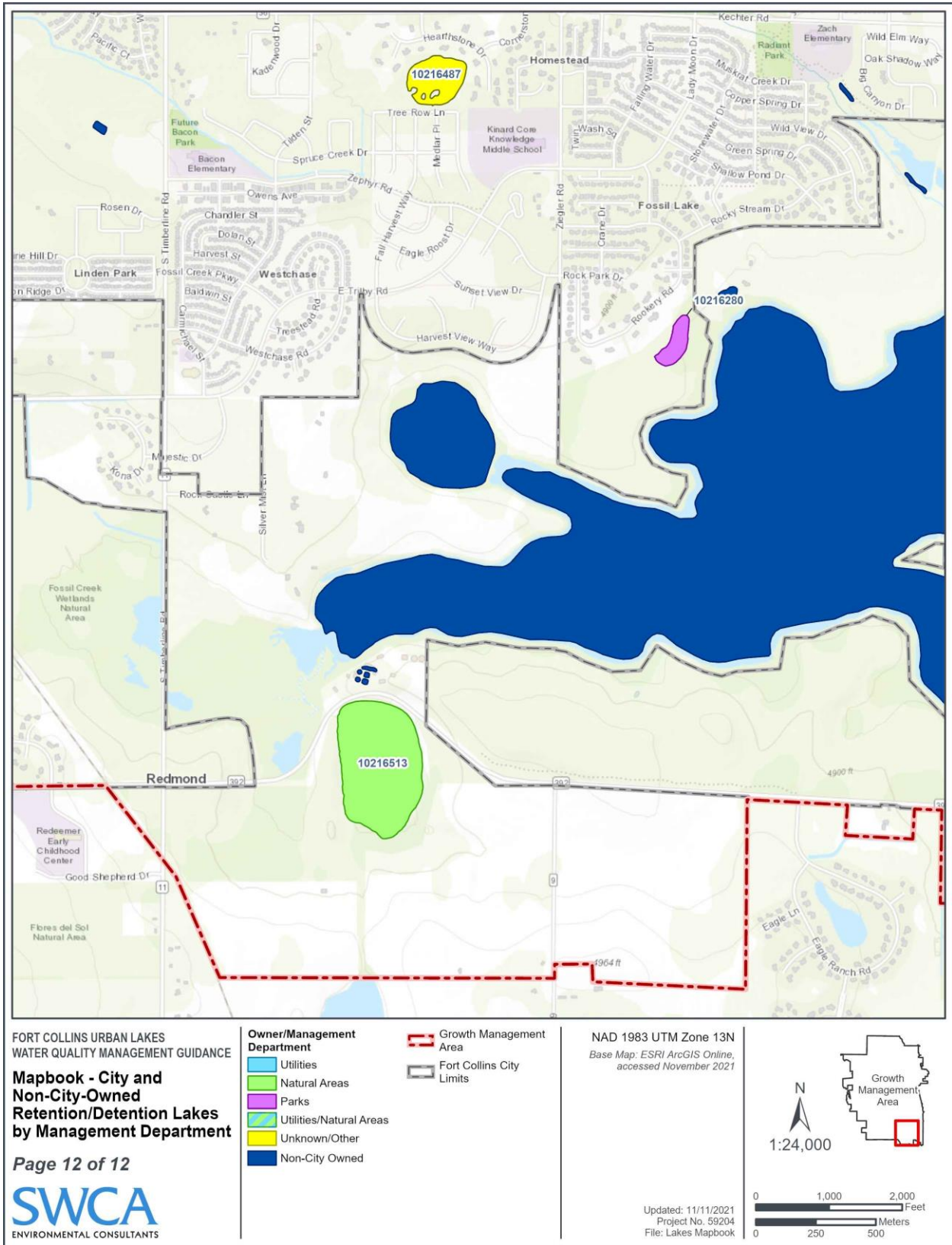


Figure 5-12. Fort Collins' urban lakes, managing department and MAXASSETNUM (image 12 of 12).  
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# ATTACHMENT 6 – WATER QUALITY ISSUES DATABASE

UNIQUE ID	WATER QUALITY ISSUE	DESCRIPTION	CAUSE(S)	RESULTS/CHALLENGES	ADDITIONAL RESOURCES	REFERENCES
WQ-01	clarity	A water quality issue that negatively affects the users senses and perception of the body of water. These issues can potentially lead to ill effects on aquatic life and users.	Turbidity	Turbid water tend to look dirty and uninviting to users. Turbid water can limit plant growth, cause stress to aquatic species and can be a sign that nutrient rich sediment has been agitated.	<a href="http://sedifilt.com/drinking_water/aesthetic_water_quality_problems.html">http://sedifilt.com/drinking_water/aesthetic_water_quality_problems.html</a>	GSR1 (who.int)
WQ-02	cleanliness	A water quality issue that negatively affects the users senses and perception of the body of water. These issues can potentially lead to ill effects on aquatic life and users.	Garbage, lack of maintenance	Keeping lakes and lakes and their surroundings clean requires input from both the users and the maintenance staff. Garbage can kill aquatic life, clog outlet works and give the water body a bad look.	<a href="http://sedifilt.com/drinking_water/aesthetic_water_quality_problems.html">http://sedifilt.com/drinking_water/aesthetic_water_quality_problems.html</a>	GSR1 (who.int)
WQ-03	odor	A water quality issue that negatively affects the user's senses and perception of the body of water. These issues can potentially lead to ill effects on aquatic life and users.	Stagnant water, eutrophication, wastewater treatment effluent	Water bodies that have unpleasant odor will not be a desirable place for human interaction with the water, in turn leaving the area without any stewards.	<a href="http://sedifilt.com/drinking_water/aesthetic_water_quality_problems.html">http://sedifilt.com/drinking_water/aesthetic_water_quality_problems.html</a>	GSR1 (who.int)
WQ-04	algae blooms	Excessive algae growth.	Eutrophication	Algae blooms can reduce water clarity, inhibit other plant growth, deplete oxygen, result in fish die-off, odor, and/or decrease aesthetics.	Managing Lakes and Reservoirs, 2001.	Wetzel, R. G. (2015). Limnology: Lake and river ecosystems. San Diego etc.: Academic Press, an imprint of Elsevier.
WQ-06	algae blooms	Excessive algae growth coupled with the byproduct of cyanotoxins that reach dangerous concentrations.	Eutrophication	HABs will result in water bodies being closed to recreation and can be a liability to the managing parties of the lake or lake. HABs can last for long periods of time and can be costly to difficult and costly to monitor and treat if the underlying issues are not addressed.	<a href="#">Toxic algae blooms spotted in lake on Colorado's Front Range   OutThere Colorado</a>	<a href="#">Facts about Cyanobacterial harmful algae blooms for POISON CENTER PROFESSIONALS. (2018, August 24). Retrieved from https://www.cdc.gov/habs/materials/factsheet-cyanobacterial-habs.html</a>
WQ-07	aquatic nuisance species-animals	Organisms that disrupt the ecological balance of a water body, causing damage and impairing the functional uses of the lake.	External introduction	Any ANS that is introduced to a water body will have some type of negative affect to the aquatic environment. Either out competing local species or becoming over populated to the point creating major and expensive fixes.	<a href="#">NZ mudsnail (fws.gov)</a>	<a href="#">State of Colorado Aquatic Nuisance Species Management Plan</a>
WQ-08	aquatic nuisance species-plants	Unchecked growth or infestation of aquatic weeds and invasive species that interferes with the functionality and health of the lake.	External introduction	ANS, plants, can take over a water body by enveloping the surface area with overgrowth while outcompeting beneficial species and impacting DO. The species can be costly to treat and require extensive efforts to eradicate.	<a href="#">9 Nuisance Aquatic Weed and Algae Species to Look Out For in Your lake (solitudelakemanagement.com)</a>	<a href="#">Biology and Control of Aquatic Plants</a>
WQ-09	contaminants of concern (COCs)	Chemicals and toxins that can pose health risks to humans and aquatic life, that have standardized water quality standards.	External introduction	Certain COCs can cause harm to aquatic species, giving them birth defects or inhibiting successful spawning. COCs can also cause health risks to humans. As well as being highly persistent even in small quantities.	<a href="https://www.epa.gov/fish-tech/contaminants-emerging-concern-fish-fact-sheets">https://www.epa.gov/fish-tech/contaminants-emerging-concern-fish-fact-sheets</a>	<a href="#">Contaminants of Emerging Concern including Pharmaceuticals and Personal Care Products   Water Quality Criteria   US EPA</a>
WQ-10	contaminants of emerging concern (CECs)	Chemicals and toxins that can pose health risks to humans and aquatic life, that are yet to have standardized water quality standards.	Wastewater treatment effluent	CECs often entire our water bodies after being digested and passed by humans. Substances such as birth control, acetaminophen and prescription drugs are commonly found and unregulated in wastewater effluent.	<a href="https://www.epa.gov/fish-tech/contaminants-emerging-concern-fish-fact-sheets">https://www.epa.gov/fish-tech/contaminants-emerging-concern-fish-fact-sheets</a>	<a href="#">Contaminants of Emerging Concern including Pharmaceuticals and Personal Care Products   Water Quality Criteria   US EPA</a>
WQ-11	Escherichia coli (E. coli)	Coliform bacteria associated with waste from warm blooded animals (humans, cattle, geese etc.).	Waterfowl feces; septic leaks, pet waste, other warm-blooded wildlife, wastewater treatment effluent.	E. coli can cause digestive tract issues with both humans and their pets. When E. coli exceeds water quality standards for recreational use, water bodies need to be shut down and can cause issues with further managing a successful lake our lake that is meant to be used.	<a href="#">E. coli fouls 100 Colorado waterways. But managers aren't sure how big the threat is to people playing in streams. (coloradosun.com)</a>	<a href="#">Lake Management (denvergov.org) Shiga toxin producing E. coli (STEC) including E. coli 0157:H7, Colorado Communicable Disease Manual. (2004, November 08). Retrieved from https://drive.google.com/file/d/11Y6ABRk5NBycv8MDuReDQa1k_3-ZQZog/view</a>
WQ-13	Escherichia coli (E. coli)	Coliform bacteria associated with waste from warm blooded animals (humans, cattle, geese etc.).	Agricultural runoff	E. coli can cause digestive tract issues with both humans and their pets. When E. coli is present, water bodies need to be shut down and can cause issues with further managing a successful lake our lake that is meant to be used.	<a href="#">E. coli fouls 100 Colorado waterways. But managers aren't sure how big the threat is to people playing in streams. (coloradosun.com)</a>	<a href="#">Shiga toxin producing E. coli (STEC) including E. coli 0157:H7, Colorado Communicable Disease Manual. (2004, November 08). Retrieved from https://drive.google.com/file/d/11Y6ABRk5NBycv8MDuReDQa1k_3-ZQZog/view</a>



UNIQUE ID	WATER QUALITY ISSUE	DESCRIPTION	CAUSE(S)	RESULTS/CHALLENGES	ADDITIONAL RESOURCES	REFERENCES
WQ-14	heavy metals	Introduction or mobilization of heavy metals in concentrations that are harmful to aquatic species.	Stormwater runoff; metal foundries and smelting; mining; natural causes such as rock weathering, post-fire runoff.	Fish kills can be caused by acute and chronic heavy metal concentrations in water. Certain heavy metals are also regulated at low quantities for human health.	<a href="#">State and federal officials determine fish kill in Left Hand Creek is related to Captain Jack Mine site   Department of Public Health &amp; Environment (colorado.gov).</a> <a href="#">After the Napa Fires, Toxic Ash Threatens Soil, Streams, and San Francisco Bay   WIRED</a>	<a href="https://www.kmizeolite.com/wp-content/uploads/2016/12/Reddy_Heavy-Metal-from-Urban-Runoff-1.pdf">https://www.kmizeolite.com/wp-content/uploads/2016/12/Reddy_Heavy-Metal-from-Urban-Runoff-1.pdf</a>  <a href="#">Water quality after wildfire. (n.d.). Retrieved from https://www.usgs.gov/mission-areas/water-resources/science/water-quality-after-wildfire?qt-science_center_objects=0#qt-science_center_objects: Code of Colorado Regulations (state.co.us)</a>
WQ-16	herbicides	Any substance used to control unwanted plants species.	Runoff; direct application of algaecides to water bodies; herbicides applied to tree canopy above water body or along water's edge.	Herbicides that are not meant for aquatic use can cause harm for both aquatic plant and animal species. They can also remain in sediment and become a problem with turnover and mixing events.	<a href="#">Environmental Indicators of Pesticide Leaching and Runoff from Farm Fields   NRCS (usda.gov)</a>	<a href="https://www.nalms.org/nalms-position-papers/use-of-herbicides-in-lakes/">https://www.nalms.org/nalms-position-papers/use-of-herbicides-in-lakes/</a>
WQ-17	residence time	High flow (also known as short residence time) can lead to other water body impairments.	Too much in-flow, too short of residence time; nearby irrigation/water runoff increased; inline irrigation flows	High flow through a lake or lake can create unbalance in all the systems that the lake and its managers try to keep balanced. From microorganisms to aquatic life, high flows and flushing events can disrupt these systems and cause unwanted cascading events.	<a href="#">Hydraulic Flushing – hcb (itrcweb.org)</a>	Wetzel, R. G. (2015). Limnology: Lake and river ecosystems. San Diego etc.: Academic Press, an imprint of Elsevier.
WQ-18	residence time	Low flow (also known as long residence time) can lead to other water body impairments.	Not enough in-flow, too long of residence time; nearby irrigation/water runoff reduced	Low flow can cause high temperatures, low DO and other issues such as anoxia and odors. Low flow can be difficult to address during the late summer early fall season when water supply becomes stressed and limited.	<a href="#">Water Quality Risks to Lakes and Rivers   National Climate Assessment (globalchange.gov)</a>	Wetzel, R. G. (2015). Limnology: Lake and river ecosystems. San Diego etc.: Academic Press, an imprint of Elsevier.
WQ-19	low dissolved oxygen	Dissolved oxygen limits below benchmarks.	High Biological Oxygen Demand (BOD); organic pollution; nutrient enrichment; aquatic plant overgrowth; runoff carrying urban pollutants (i.e., pet waste, fertilizers, grass clippings, etc.)	High BOD can affect all forms of aquatic life. From fish kills to upsetting the balance of microorganisms. High BOD can be a short-term problem, from a storm event, or it can be caused by a more persistent issue.	<a href="#">Why are there dead fish in Denver's lakes? Experts weigh in — The Know (denverpost.com)</a>	Wetzel, R. G. (2015). Limnology: Lake and river ecosystems. San Diego etc.: Academic Press, an imprint of Elsevier; Code of Colorado Regulations (state.co.us)
WQ-20	low dissolved oxygen	Dissolved oxygen limits below benchmarks.	High temperatures	When water temperature increases, the molecular ability of the water to hold dissolved oxygen molecules decreases. This means that increasing water temperatures mean less dissolved oxygen for aquatic life. This is a physical parameter that would need to be mitigated with shade or supplemental oxygen.	<a href="#">Why are there dead fish in Denver's lakes? Experts weigh in — The Know (denverpost.com)</a>	Wetzel, R. G. (2015). Limnology: Lake and river ecosystems. San Diego etc.: Academic Press, an imprint of Elsevier; Code of Colorado Regulations (state.co.us)
WQ-21	low dissolved oxygen-anoxia	Dissolved oxygen below 0.5 milligrams per liter.	High Biological Oxygen Demand (BOD) and/or high temperatures; organic pollution; nutrient enrichment; aquatic plant overgrowth; runoff carrying urban pollutants (i.e., pet waste, fertilizers, grass clippings, etc.)	Absence of oxygen; anaerobic reactions lead to buildup of ammonia, hydrogen sulfide, carbonaceous gases; iron; manganese; phosphorus; habitat impairment.	<a href="#">Course Handout on Limnology.doc (mtu.edu)</a>	Code of Colorado Regulations (state.co.us)
WQ-22	low water level	Low or nearly absent water levels; can be stagnant water.	Not enough in-flow, too long of residence time; nearby irrigation water or runoff reduced; waterbodies lacking an inlet or outlet	Low water levels can aid in increasing water temperatures and lower DO. Low water levels can also expose aquatic vegetation with both positive and or negative outcomes, depending on the management priorities.	<a href="#">Climate Change Impacts On Lakes – North American Lake Management Society (NALMS)</a>	Wetzel, R. G. (2015). Limnology: Lake and river ecosystems. San Diego etc.: Academic Press, an imprint of Elsevier.
WQ-23	aquatic nuisance species-insect	A nuisance insect from the order Diptera, that present a public health threat through the transmission of pathogens and viruses.	Standing / stagnant water	Lakes and lakes are ideal breeding grounds for mosquitoes. Even with aquatic predators and moving water, stagnant water around the lake's perimeter can still aid in hatching of mosquitoes.	<a href="#">Controlling Mosquitoes at the Larval Stage   Mosquito Control   US EPA</a>	<a href="#">Biology and Control of Aquatic Plants</a>

UNIQUE ID	WATER QUALITY ISSUE	DESCRIPTION	CAUSE(S)	RESULTS/CHALLENGES	ADDITIONAL RESOURCES	REFERENCES
WQ-24	aquatic nuisance species-insect	A nuisance insect from the order Diptera, that present a public health threat through the transmission of pathogens and viruses.	Flood water	Rain events and high flow events of leave enough water for mosquito larva to hatch into adults. Mitigating these waters can be cumbersome and may require both physical design to limit stagnate waters and larvicides. Stormwater design criteria also include a draw-down time in order to treat stormwater runoff, so difficult to fully eliminate standing water.	<a href="#">Controlling Mosquitoes at the Larval Stage   Mosquito Control   US EPA</a>	<a href="#">Biology and Control of Aquatic Plants</a>
WQ-25	nutrients	High levels of phosphorus or nitrogen.	Waterfowl feces	1) Goose droppings contain nitrogen and phosphorus and can result in nutrient loading to the lakes directly or through runoff from nearby surfaces. Direct point-source loading may require permitting, and when from surfaces, it is considered a non-point source of pollution. 2) Washing goose droppings off into a water body is prohibited by municipal code and MS4 regulations. 3) Fecal contamination can contribute to exceedances of the state recreational water quality standard. 4) Aesthetics, goose droppings can be unsightly and raise public concern over contact issues.	<a href="#">Goose Manual-Habitat-Modification.pdf (maine.gov)</a>	<a href="#">Lake Management (denvergov.org)</a>
WQ-26	nutrients	High levels of phosphorus or nitrogen.	Agricultural runoff	Mitigating agricultural runoff is a challenge because the source occurs on private lands within the watershed where lake managers have no control. Education and outreach are the best methods to try and limit the negative effects of excess nutrients coming off of agricultural lands.	<a href="#">Colorado Regulation 85 &amp; Water Quality FAQs (colostate.edu)</a>	Wetzel, R. G. (2015). Limnology: Lake and river ecosystems. San Diego etc.: Academic Press, an imprint of Elsevier.
WQ-27	nutrients	High levels of phosphorus or nitrogen.	Wastewater treatment effluent	Colorado regulation 85 is now in place to help mitigate point source nutrient discharge. However, low levels of nutrients can still accumulate in lakes and lakes causing management problems.	<a href="#">Code of Colorado Regulations (state.co.us)</a>	Wetzel, R. G. (2015). Limnology: Lake and river ecosystems. San Diego etc.: Academic Press, an imprint of Elsevier.
WQ-28	nutrients	High levels of phosphorus or nitrogen.	Turf Maintenance / Fertilizer	Turf maintenance is easier to adjust for lake managers, as the caretakers of the turf are often working for the same entity as the lake. Having a holistic plan in place to take care of the turf and limit the negative effects to adjacent waterbodies can be effective. Regulation 85 requires the City, through its MS4 permit, to address fertilizer storage and application practices and can be a part of the turf management plan.	<a href="#">Maintaining Waterfront Turf to Preserve Water Quality (E0011) - MSU Extension</a>	Wetzel, R. G. (2015). Limnology: Lake and river ecosystems. San Diego etc.: Academic Press, an imprint of Elsevier.
WQ-29	odor	Rotten smell.	Decomposition of organic material, low DO.	Organic material will inevitably end up in lakes and lakes. Their decomposition can lead to low DO and issues with odor. The season experienced in Colorado provide a recurring source of detritus that should be considered with management strategies.	<a href="#">lake and Lake Odors - Why Your Water Smells Bad and How to Fix It (ezinearticles.com)</a>	Wetzel, R. G. (2015). Limnology: Lake and river ecosystems. San Diego etc.: Academic Press, an imprint of Elsevier.
WQ-31	parasites	Protozoa that can cause severe gastrointestinal issues when ingested by humans.	External introduction	Protozoa can be introduced from upstream sources and fecal matter. This can cause problems in recreation waters and the water becomes unsafe for human contact due to the chance of the protozoa being digested by the users.	<a href="https://www.cdc.gov/healthywater/drinking/public/water_diseases.html">https://www.cdc.gov/healthywater/drinking/public/water_diseases.html</a>	<a href="#">Indicators for waterborne pathogens. (2004). Washington: National Academies Press.</a>
WQ-32	pesticides	Any substance used to control unwanted animal species.	Runoff	Pesticides used outside of lake management can persist in the watershed and be introduced through storm run-off. These substances can cause harm to aquatic life, they can be hard to identify, and can be difficult to remove from the system.	<a href="https://www.epa.gov/npdes/pesticide-permitting">https://www.epa.gov/npdes/pesticide-permitting</a>	<a href="https://www.epa.gov/sdwa/human-health-benchmarks-pesticides-drinking-water">https://www.epa.gov/sdwa/human-health-benchmarks-pesticides-drinking-water</a>

UNIQUE ID	WATER QUALITY ISSUE	DESCRIPTION	CAUSE(S)	RESULTS/CHALLENGES	ADDITIONAL RESOURCES	REFERENCES
WQ-33	pH	Acute or chronic pH levels outside of the suitable range for healthy aquatic life.	Stormwater runoff; natural causes such as decomposition of limestone, anthropogenic sources such as chemicals added to raise pH, post-fire runoff, lake mixing.	Fish kills; organism die-off.	Managing high pH in freshwater lakes   The Fish Site	<a href="#">COR400000 stormwater DISCHARGE. (n.d.). Retrieved from https://cdphe.colorado.gov/cor400000-stormwater-discharge; Code of Colorado Regulations (state.co.us)</a>  <a href="#">Water quality after wildfire. (n.d.). Retrieved from https://www.usgs.gov/mission-areas/water-resources/science/water-quality-after-wildfire?qt-science_center_objects=0#qt-science_center_objects; Code of Colorado Regulations (state.co.us)</a>  Wetzel, R. G. (2015). Limnology: Lake and river ecosystems. San Diego etc.: Academic Press, an imprint of Elsevier; Code of Colorado Regulations (state.co.us)
WQ-36	pH	Reduced or fluctuating water pH below 7.	Acid rain	Changes to pH-mediated water quality and ecological processes; habitat impairment.	<a href="#">Acid Rain and Water (usgs.gov)</a>	<a href="#">What is Acid Rain?   Acid Rain   US EPA</a>
WQ-37	salinity	The amount of dissolved salts in a body of water.	Agricultural runoff	Salinity itself is often not harmful to aquatic life in low quantities. However, in acute situations, salts will interact with the water chemistry and can bring quick and drastic changes to pH, heavy metal mobilization, and other secondary effects. Chronic saline levels that exceed certain thresholds will also play a role in health effects to aquatic life and vegetation.	<a href="#">Filtering agricultural runoff with constructed and restored wetlands - Rural California Report (cirsinc.org)</a>	Urban salinity – causes and impacts (nsw.gov.au)
WQ-38	salinity	The amount of dissolved salts in a body of water with concentrations linked to Chloride, an anion formed from Chlorine.	Road salts	Road salts are applied either as a liquid or solid as a de-icer to make roadways safe during the winter months. These salts often make their way to our waterways. In large amounts these salts can bring unwanted effects to a managed lake. Fish kills, pH changes, vegetation degradation and other effects are possible.	<a href="#">Comparison of Contributions to Chloride in Urban Stormwater from Winter Brine and Rock Salt Application   Environmental Science &amp; Technology (acs.org)</a>	Haake, D. M., & Knouft, J. H. (n.d.). Comparison of contributions to chloride in Urban Stormwater from Winter brine and rock SALT APPLICATION. Environmental Science and Technology. doi:10.1021/acs.est.9b02864.s001
WQ-39	sediment-sedimentation	Sediment suspended in water column settles to the bottom and builds over time.	Erosion and runoff of sediments from construction in stormwater runoff or sediment mobilized by storms or flushing into streams and waterways, that usually settle out in lower-flow waters, such as lakes and lakes.	Loss of lake/lake depth and storage capacity; undesirable sediment composition; nutrient loading; habitat loss	<a href="#">Effects of Sediment on the Aquatic Environment:   NRCS (usda.gov)</a>	Wetzel, R. G. (2015). Limnology: Lake and river ecosystems. San Diego etc.: Academic Press, an imprint of Elsevier.
WQ-40	sediment-water interactions	Sediments interaction with the water and its contribution to a negative water quality issue.	Wetted perimeter of the lake being in constant contact with the water causing for biological and chemical interactions.	Sediment can act as a sponge to a multitude of constituents. It then can have prolonged interactions with the water, both year-round and during mixing events. The effects are dependent on the constituents that are stored and the surrounding water chemistry.	<a href="#">Effects of Sediment on the Aquatic Environment:   NRCS (usda.gov)</a>	Wetzel, R. G. (2015). Limnology: Lake and river ecosystems. San Diego etc.: Academic Press, an imprint of Elsevier.
WQ-41	polluted stormwater runoff	Stormwater coming into contact with, dissolving, and/or carrying fecal, chemical, nutrient, sediment, or other pollutants into waterbodies.	Warm-blooded animal waste, anthropogenic sources, such as pesticides, fertilizers, metals, petroleum products, organic matter, sediment, and mining activities. Urbanization with increased impervious surfaces allow stormwater to carry anthropogenic and natural sources to water bodies.	Excessive waste from any source can be harmful to water bodies and cause a variety of water quality issues. Storm sewers can be acute point source contributors, and stormwater runoff from surrounding surfaces can be non-point source contributors. The effects can have health concerns to recreational users and wildlife. Managers should be aware of the potential risk posed by stormwater pollution from surrounding areas. Stormwater design criteria is required for new and re-development.	Keep It Clean Partnership   Stormwater Pollution Prevention » Scoop the Poop	Environmental Contamination by Dog's Feces: A Public Health Problem? (nih.gov)
WQ-42	temperature-cold	Prolonged cold ambient air temperatures can lead to lake/lake ice-over.	Cold temperatures	In shallow lakes where substantial volumes of ice-free water are un-available, ice-over can result in decreased DO resulting in fish kills.	<a href="#">Climate Change Impacts On Lakes – North American Lake Management Society (NALMS)</a>	Wetzel, R. G. (2015). Limnology: Lake and river ecosystems. San Diego etc.: Academic Press, an imprint of Elsevier.

UNIQUE ID	WATER QUALITY ISSUE	DESCRIPTION	CAUSE(S)	RESULTS/CHALLENGES	ADDITIONAL RESOURCES	REFERENCES
WQ-43	temperature-high	Temperatures that promote eutrophication, low DO and are harmful to aquatic species.	Shallow lake	Shallow lakes can absorb more radiation energy, especially if the benthic surface is retaining solar heat. These lakes are much more susceptible to low DO and even temperatures by themselves that will harm aquatic life.	World's Leading Aquatic Scientific Societies Urgently Call for Cuts to Global Greenhouse Gas Emissions – North American Lake Management Society (NALMS)	Wetzel, R. G. (2015). Limnology: Lake and river ecosystems. San Diego etc.: Academic Press, an imprint of Elsevier.
WQ-44	temperature-high	Temperatures that promote eutrophication, low DO and are harmful to aquatic species.	Warming climate, long residence time; shallow, small lake/lake size; no shading	With fully allocated river systems and a climate that is currently trending towards warmer temperatures, lake managers are facing difficult problems. In some instances, fish species and vegetation choices may need to change to reflect these new conditions. This may also necessitate more mechanical intervention to keep water clean and oxygenated.  When water temperature gets too high or is too high for too long, algae productivity may increase, DO may drop, fish may die due to low DO or heat stress.	Climate Change: Global Temperature   NOAA Climate.gov  <u>Climate Change Impacts On Lakes – North American Lake Management Society (NALMS)</u>	Wetzel, R. G. (2015). Limnology: Lake and river ecosystems. San Diego etc.: Academic Press, an imprint of Elsevier.
WQ-46	turbidity	High levels of suspended solids in the water column.	Stormwater runoff; sediment from construction in stormwater runoff, or sediment mobilized by intense storms or flushing irrigation flows.	Stormwater can resuspend settled sediment creating for turbid water conditions. High turbidity can make breathing harder for fish as they filter dirty water through their gills during the oxygen exchange. These turbidity events can also add to increased temperature, nutrient releases, and heavy metal mobilizations. Lake managers never know what stormwater will bring in. Having good control of your sediment / sludge and microorganisms can help lessen the impacts of these flashy events.	<u>Turbidity and Water (usgs.gov)</u>	<u>5.5 turbidity. (2012, March 06). Retrieved from <a href="https://archive.epa.gov/water/archive/web/html/vms55.html">https://archive.epa.gov/water/archive/web/html/vms55.html</a></u>
WQ-47	turbidity	High levels of suspended solids in the water column.	Post-fire runoff	Post-fire runoff can bring different problems to a lake than normal urban run-off. Depending on the location of the fire, there can be high concentrations of mercury, heavy metals, ash, and organic carbons. Lakes higher in the watershed will be more prone to negative impacts and managers should try to have a proactive plan in place should post-fire runoff become a potential concern.	<u>Turbidity and Water (usgs.gov)</u>	<u>Water quality after wildfire. (n.d.). Retrieved from <a href="https://www.usgs.gov/mission-areas/water-resources/science/water-quality-after-wildfire?qt-science_center_objects=0#qt-science_center_objects">https://www.usgs.gov/mission-areas/water-resources/science/water-quality-after-wildfire?qt-science_center_objects=0#qt-science_center_objects</a></u>
WQ-48	turbidity	High levels of suspended solids in the water column.	Mixing	Mixing events can be caused from turnovers in larger lakes and high winds in smaller lakes. Suspending sediments re-introduce dormant issues.	<u>Turbidity and Water (usgs.gov)</u>	Wetzel, R. G. (2015). Limnology: Lake and river ecosystems. San Diego etc.: Academic Press, an imprint of Elsevier.
WQ-49	aquatic nuisance species-macrophyte	Cattails have filled in all or a significant portion of the lake and have formed a monoculture.	Cattail populations are left to overgrow or are receiving nutrient inputs that support excessive growth.	Once cattails have reached this level of overgrowth, few other plants species can coexist with them and little to no open water is left in the lake. Thick stands may also lower available DO.		

# ATTACHMENT 7 – BEST MANAGEMENT PRACTICES (BMPS) TOOLBOX

UNIQUE ID	BMP	DESCRIPTION	BMP TYPE	BMP MECHANISM	TARGET WATER BODY ISSUE	APPLICABLE LAKE CONDITIONS	POTENTIAL CONCERNS	PERMITTING AND WATER RIGHTS	CO-BENEFIT(S)	CAPITAL COSTS	O&M COSTS PER YEAR (ADJUSTED FOR 20-YEAR BMP LIFESPAN)	ADDITIONAL RESOURCE(S)	REFERENCE(S)
BMP_01	Aeration	Mechanical addition/maintenance of oxygen levels.	Capital Improvement/Maintenance	Mechanical	low dissolved oxygen; algae blooms; low quality fish habitat; nutrients	Any lake or lake that has low dissolved oxygen.	May harm cold water fisheries; interfere with recreation; resuspend benthic sediments	CWA Section 401	aesthetics; mitigate odor	\$90-100k	\$5-30k		<a href="http://aquatics.org/bmpchapters/3.4%20Cultural%20and%20Physical%20Control%20of%20Aquatic%20Weeds.pdf">http://aquatics.org/bmpchapters/3.4%20Cultural%20and%20Physical%20Control%20of%20Aquatic%20Weeds.pdf</a> ; <a href="https://www.epa.gov/sites/production/files/2015-04/documents/nutrient-economics-report-2015.pdf">https://www.epa.gov/sites/production/files/2015-04/documents/nutrient-economics-report-2015.pdf</a>
BMP_02	Aquatic Algaecide	A chemical treatment applied with a specific technique at specific times to target a specific problem with an aquatic plant.	Maintenance	Chemical	aquatic nuisance species-plants	Any lake or lake with excessive algae growth that does not have any aquatic species that would be negatively impacted by application of algaecide.	Low DO event after application; mortality of desirable vegetation	Application permitting may be required; CDPHE Aquatic Pesticides Permit (General Permit COG860000); NPDES permits; CWA Section 401; applicator may need to be licensed.	Increased biodiversity Lowered BOD Increased aesthetics	\$100-3k	Variable depending on treatment frequency.	<a href="https://www.thelakequy.com/category/aquatic-algicides">https://www.thelakequy.com/category/aquatic-algicides</a>	<a href="http://solitudelakemanagement.com">Debunking Myths: A Professional's Take on Herbicides and Algaecides (solitudelakemanagement.com)</a>
BMP_03	Aquatic Dye	EPA-registered dyes or surface covers used to limit light penetration and restrict the depth at which rooted plants can grow.	Maintenance	Chemical	aquatic nuisance species-plants; aquatic invasive species-plants; algae blooms	Generally used for golf courses and artificial aesthetic lakes.	May make water look artificial; downstream impacts; permit may be required; limits access in recreational lakes; increased surface water temperature due to solar absorption of dye; impacts to desirable species	Application permitting may be required; CDPHE Aquatic Pesticides Permit (General Permit COG860000); NPDES permits; CWA Section 401; applicator must be licensed?	Aesthetics; limit vegetation growth	\$10-300	Variable depending on treatment frequency.		<a href="https://aquaticcontrol.com/product-category/lake-dyes/">https://aquaticcontrol.com/product-category/lake-dyes/</a>
BMP_04	Aquatic Herbicide	A chemical treatment applied with a specific technique at specific times to target a specific problem with algae growth. Aquatic Herbicides can be categorized as contact or systematic.  Contact herbicides tend to result in rapid injury or death of the contacted plant tissues.  Systematic herbicides are translocated throughout the plant tissue and roots once taken up by the plant.	Maintenance	Chemical	aquatic nuisance species-plants	When a certain aquatic plant species can be targeted with a specific herbicide, without impacting other aquatic resources.	Low DO event after application  Contact: Do not use on emergent plant without expert advice.  Systematic: Concentration and time of exposure are crucial for proper application.	Application permitting may be required; CDPHE Aquatic Pesticides Permit (General Permit COG860000); NPDES permits; CWA Section 401; applicator must be licensed?	Increased biodiversity Lowered BOD Increased aesthetics	\$15-30k	Variable depending on treatment frequency.	<a href="https://www.epa.gov/sites/production/files/2015-04/documents/nutrient-economics-report-2015.pdf">https://www.epa.gov/sites/production/files/2015-04/documents/nutrient-economics-report-2015.pdf</a>	<a href="http://solitudelakemanagement.com">Debunking Myths: A Professional's Take on Herbicides and Algaecides (solitudelakemanagement.com)</a> ; <a href="https://www.sfei.org/sites/default/files/biblio_files/PestAlternatives_review.pdf">https://www.sfei.org/sites/default/files/biblio_files/PestAlternatives_review.pdf</a>

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BMP_05	Artificial Habitat Structures	Implementing a variety of structures that create space for aquatic life to hide, rest and feed.	Capital Improvement/Main tenance	Mechanical	aquatic habitat	Placement in areas that will not endanger or interfere recreationists or lake/lake maintenance.	Endangerment or interference with recreationists or maintenance activities.	CPW may require permit; CWA Section 401	targets invasive plants; allows for more biodiversity	\$100-3k	\$0	<a href="https://www.solitudelake.com/blog/helpful-tips-when-installing-artificial-habitat/">Fish Habitat — lake King, Inc.; https://www.solitudelake.com/blog/helpful-tips-when-installing-artificial-habitat/</a>	<a href="#">Fish Habitat Management   Solitude Lake Management</a>
BMP_06	Barley Extract	Similar to barley straw but in a concentrated liquid. This liquid works the same as barley straw, however it is faster acting. The concentrate needs to be precisely measured otherwise it can become harmful to the aquatic life in the lake.	Maintenance	Biological	algae blooms	Any lake with a known volume and controlled residence time, as the application is fast acting and needs to be precise.	Increasing oxygen demand; if used in large quantities it could be harmful to fisheries; classified as a home remedy, not a true pesticide	CDPHE permitting may be required; CPW may require permit; CWA Section 402	increased biodiversity; increased aesthetics; low maintenance; long term efficacy; eco-friendly	\$10-\$100	Variable depending on treatment frequency.	<a href="https://www.thelakeguy.com/product/the-lake-guy-barley-extract/water-garden-fish-lakes-natural-barley-treatments;">https://www.thelakeguy.com/product/the-lake-guy-barley-extract/water-garden-fish-lakes-natural-barley-treatments;</a> <a href="https://www.thelakeguy.com/product/the-lake-guy-barley-extract/water-garden-fish-lakes-natural-barley-treatments?p=PPCGO OGA&amp;qclid=Cj0KCQjwp86EBhD7ARIsAFkgakgKPHJiauYNdLvUWitbDmUY1d4eOa8plMz7-HrhX5sE4xb4WlqLH8aAlhNEALw_wcB">https://www.thelakeguy.com/product/the-lake-guy-barley-extract/water-garden-fish-lakes-natural-barley-treatments?p=PPCGO OGA&amp;qclid=Cj0KCQjwp86EBhD7ARIsAFkgakgKPHJiauYNdLvUWitbDmUY1d4eOa8plMz7-HrhX5sE4xb4WlqLH8aAlhNEALw_wcB</a>	<a href="#">How to Use lake Barley Straw for Algae (Does it Actually Work?) - lake Informer</a>
BMP_07	Barley Straw	Bundles of barley straw are suspended in the lake, near the surface. As a by-product of the slow decomposition of the straw, low levels of hydrogen peroxide are released into the water. Hydrogen peroxide limits or prevents the growth of algae. It does not kill or remove pre-existing algae. Barley straw works best in a well oxygenated lakes without other underlying water quality issues. For this reason, barley straw is better suited as a preventative method. In other words, it is better suited as an algaestat than an algaecide. This method works best when deployed in the spring and allowed to work throughout the summer.	Maintenance	Biological	algae blooms	Any lake known to have algae blooms, in the summer as barley straw works slow and is best used as a preventative measure	Increasing oxygen demand; if used in large quantities it could be harmful to fisheries; classified as a home remedy, not a true pesticide	CPW may require permit; CWA Section 403	increased biodiversity; increased aesthetics; low maintenance; long term efficacy; eco-friendly	\$100-1k	Variable depending on treatment frequency.	<a href="#">FS1171: lake and Lake Management Part VI: Using Barley Straw to Control Algae (Rutgers NJAES)</a>	<a href="#">How to Use lake Barley Straw for Algae (Does it Actually Work?) - lake Informer</a>

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BMP_08	Benthic Barriers	Used for localized control of benthic aquatic plants. Blocks sunlight needed for photosynthesis, good in areas <1 acre. Deeper than 4ft often requires scuba diver installation. May impact fish and other benthic organisms.	Maintenance	Mechanical	aquatic nuisance species-plants; aquatic invasive species-plants	target areas < 500 square feet	Lack of natural aquatic vegetation. Repairs and cost of installation	Application permitting may be required; CWA Section 402 or 404.	Control muck, sediment, turbidity. Can give more control over many factors driving lake health.	\$6k+/acre; \$14k-26,200/acre	Variable depending on treatment frequency.	http://www.apms.org/japm/vol50/2-17716%20p101-105%20APMdj.pdf; https://lakestewardsofmaine.org/wp-content/uploads/2018/01/Benthic-Barriers.pdf; https://www.epa.gov/sites/production/files/2015-04/documents/nutrient-economics-report-2015.pdf	<a href="http://aquatics.org/bmplayers/3.4%20Cultural%20and%20Physical%20Control%20of%20Aquatic%20Weeds.pdf">http://aquatics.org/bmplayers/3.4%20Cultural%20and%20Physical%20Control%20of%20Aquatic%20Weeds.pdf</a>
BMP_09	Biocide	Chemicals/substances added to inhibit/eliminate target species.	Maintenance	Chemical	algae blooms; vascular plants; Aquatic Nuisance Species - Insect; fish kills	Any size lake that has a specific species that is a nuisance in its current setting.	may impact water quality; oxygen levels; released/available nutrients; impact desirable species; downstream impacts; may result in decaying vegetation/algae mass.	Application permitting may be required; CDPHE Aquatic Pesticides Permit (General Permit COG860000); NPDES permits; CWA Section 401; applicator must be licensed?	Increase biodiversity. Site specific application. Control of overgrowth can help aquatic habitat and overall health of the lake.	Variable; cost dependent on type, manufacturer costs, shipping, application time, and monitoring strategy.	Variable depending on treatment frequency and monitoring strategy.		<a href="#">BiocidesforIndustrial Use.pdf (anl.gov)</a>
BMP_10	Biocontrol - Classical	Use of natural enemy (biocontrol agent) of the nuisance specie (target) from their native range are introduced to control the nuisance specie. Biocontrol agents are usually insects.	Maintenance	Biological	aquatic nuisance species-plants; aquatic invasive species-plants	Anywhere where there is a specific species that can be targeted by a native bio-control measure.	Establishment of the biocontrol agent and suppression of the target species are not guaranteed; the introduced agent may impact species that are not the target	Application permitting may be required; CPW approval may be required	Less expensive option, if suitable. No maintenance. Increased bug abundance can help the food abundance for fisheries.	Variable; cost dependent on type, manufacturer or rearing costs, shipping and delivery, application time, and monitoring strategy.	Variable depending on treatment frequency and monitoring strategy.		<a href="#">Introduction - Biological Control: Management Methods - Managing Invasive Plants (fws.gov)</a>
BMP_11	Biocontrol - Non-classical	Use of a non-natural enemy (biocontrol agent) of the nuisance specie (target) are introduced to control the nuisance specie. Biocontrol agents are usually insects.	Maintenance	Biological	aquatic nuisance species-plants; aquatic invasive species-plants	Non-classical bio-control can be harder to find matches for insects and species to be controlled. However, when the insect to be used will not prove to become a nuisance, the conditions are then met.	Establishment of the biocontrol agent and suppression of the target species are not guaranteed; the introduced agent may impact species that are not the target	Application permitting may be required; CPW approval may be required	Less expensive option, if suitable. No maintenance. Increased bug abundance can help the food abundance for fisheries.	Variable; cost dependent on type, manufacturer or rearing costs, shipping and delivery, application time, and monitoring strategy.	Variable depending on treatment frequency and monitoring strategy.		<a href="#">3.6 Introduction to Biological Control of Aquatic Weeds.pdf (aquatics.org)</a>



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BMP_12	Biomanipulation	Targeted manipulation of ecological interactions to alter ecosystem processes.	Maintenance	Biological	algae blooms; vascular plants; fish kills; aquatic nuisance species-animals; habitat enhancement	lakes or lakes where making adjustments to biological interactions with have positive cascading affects. Lakes or lakes that have time to adjust and see results of manipulation, which can take longer than other options	introduced species may impact water quality; ecosystem functions; unintended migration; introduced species impact on lake users; impacts on non-target desirable species; impact longevity	Application permitting may be required; CPW approval may be required	A more natural option that can restore ecological balance and long-term success of lake health. Can reduce management inputs, when implemented properly.	\$1k-10k	Variable depending on treatment frequency and monitoring strategy.		Reference: <a href="https://www.epa.gov/sites/production/files/2015-04/documents/nutrient-economics-report-2015.pdf">https://www.epa.gov/sites/production/files/2015-04/documents/nutrient-economics-report-2015.pdf</a>
BMP_13	Biopesticides	Biopesticides include naturally occurring substances that control pests (biochemical pesticides), microorganisms that control pests (microbial pesticides), and pesticidal substances produced by plants containing added genetic material (plant-incorporated protectants) or PIPs with less risk to non-target organisms.	Maintenance	Biological	aquatic nuisance species-insects; sludge/muck; algae blooms	lake and lakes that would be sensitive to chemical applications. Areas that are more sensitive to flow through conditions or other conditions not conducive to chemical applications.	Slower rate of target species control compared to conventional pesticides, shorter persistence in the environment, susceptibility to unfavorable environmental conditions.	Application permitting may be required; CDPHE Aquatic Pesticides Permit (General Permit COG860000); NPDES permits; CWA Section 401; applicator must be licensed?	Can be targeted applications that are low maintenance. Can use plant or insects, so your options can be tailored.	Variable; cost dependent on type, manufacturer costs, shipping, application time, and monitoring strategy.	Variable depending on treatment frequency and monitoring strategy.	<a href="https://www.pctonline.com/article/make-way-for-biopesticides/">https://www.pctonline.com/article/make-way-for-biopesticides/</a> ; <a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3130386/">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3130386/</a>	Biopesticides   pesticides   US EPA
BMP_14	Cattle Fencing	Cattle fencing can help ensure that grazing livestock is deterred from any overgrazing or degradation to riparian areas surrounding lakes.	Capital Improvement	Mechanical	water quality	Any surface water body that can be accessible to any livestock.	May limit or impede human access to water resources. Primary water resource for cattle may need to be implemented elsewhere.	Permitting may be required if there is a land use, ownership issue.	Re-establish riparian habitat, maintain a health buffer zone, limit disturbances and nutrient loading.	\$1600-2,500	\$100-\$500		<a href="#">ConfProceeding (tamu.edu)</a>
BMP_15	Chemical Treatments - Other	Addition of chemicals to adjust pH, oxidize compounds, flocculate and settle solids, or affect chemical habitat features.	Maintenance	Chemical	particulate settling; algae blooms; pH; oxidation; disinfection	water quality impacts; impact sediment-water interactions; sediment pollutant release; impact desirable species and habitat; impact community assemblages; may require permitting	Chemicals can persist in water bodies which can be of concern to downstream entities, the fishery if people consume their catches or human contact of water.	Application permitting may be required; CDPHE Aquatic Pesticides Permit (General Permit COG860000)	Chemicals can be tailored for specific goals. Many chemicals adjust major baseline factors affecting overall aquatic health. Restoring base line conditions can help all aspects of lake health.	Variable; dependent on chemical type.	Variable depending on treatment frequency and monitoring strategy.		<a href="https://www.sfei.org/sites/default/files/biblio_files/PestAlternatives_review.pdf">https://www.sfei.org/sites/default/files/biblio_files/PestAlternatives_review.pdf</a>

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BMP_16	Circulation	Mechanical movement of water to enhance mixing and/or prevent stratification.	Maintenance	Mechanical	stagnation; stratification; low-to-no mixing; low surface aeration; algae blooms	Bodies of water that can have access to electrical connections to run pumps. Lake where consistent turnover will not affect aquatic organisms that do better with seasonal stratification.	Resuspension of benthic sediment; may disrupt habitat or lifecycles of desirable species; may interfere with recreation;	Water rights should be considered.	Increased Dissolved Oxygen, less algae formation, optional chance to use UV light for disinfection during circulation process.	\$200-100k	Variable depending on equipment selected and maintenance schedule. Consider costs of electricity and winterization.		<a href="https://www.epa.gov/sites/production/files/2015-04/documents/nutrient-economics-report-2015.pdf">https://www.epa.gov/sites/production/files/2015-04/documents/nutrient-economics-report-2015.pdf</a>
BMP_17	Drainage Management	Create swales or other graded areas to promote stormwater infiltration to avoid direct discharge into water bodies.	Capital Improvement	Mechanical	sediment-sedimentation; nutrients; pesticides	Land around lake is large enough for drainage management structures.	Water being diverted needs a safe path to travel without harming others. Infrastructure may require maintenance.	USACE Section 404; CWA Section 401	Mitigate incoming water and any constituents that may be coming with it.	\$3k-7k/acre	\$500-\$1,500		<a href="https://www.epa.gov/sites/production/files/2015-04/documents/nutrient-economics-report-2015.pdf">https://www.epa.gov/sites/production/files/2015-04/documents/nutrient-economics-report-2015.pdf</a> ; <a href="http://www.malvern.org/wp-content/uploads/2013/03/vegswale.pdf">http://www.malvern.org/wp-content/uploads/2013/03/vegswale.pdf</a>
BMP_18	Drawdown - Full	Physically remove all water from lake.	Maintenance	Mechanical	infrastructure	lakes that need heavy maintenance or have conditions that cannot be managed through other means.	Ability to refill waterbody in a timely manner.	CWA Section 401; CPW Permit to kill fish, if drawdown will cause mortality in natural waters; Water rights should be considered.	Can allow for a whole new lake with great conditions to be established. A time to introduce new habitat, new riparian zones and more depth.	\$200-\$500 (generally just labor)	Variable depending on ease of opening outlet or need to pump out and haul water. \$ to \$\$\$	<a href="http://ricelake.homestead.com/files/Facts_about_lake_drawdowns.htm">http://ricelake.homestead.com/files/Facts_about_lake_drawdowns.htm</a>	<a href="https://cfpub.epa.gov/si/public_record_report.cfm?Lab=ORD&amp;dirEntryID=33336">https://cfpub.epa.gov/si/public_record_report.cfm?Lab=ORD&amp;dirEntryID=33336</a>
BMP_19	Drawdown - Partial	Expose submerged species to freezing or drying conditions. Best for species that propagate by root structures or fragmentation. Maintain draw down for at least 6-8 weeks.	Maintenance	Mechanical	aquatic nuisance species-plants; aquatic invasive species-plants	lakes that have issues that will be accessed with partial drawdown and a bank slope that allows partial drawdown access while also keeping the rest of the aquatic health in good shape.	Ability to refill waterbody in a timely manner.	CWA Section 401; CPW Permit to kill fish, if drawdown will cause mortality in natural waters; water rights should be considered.	sediment compaction; changes in substrate composition; reduce damage to structures; allow for shoreline cleanup access	\$200-\$500 (generally just labor)	Variable depending on ease of opening outlet or need to pump out and haul water.	<a href="http://ricelake.homestead.com/files/Facts_about_lake_drawdowns.htm">http://ricelake.homestead.com/files/Facts_about_lake_drawdowns.htm</a>	<a href="http://aquatics.org/bmpchapters/3.4%20Cultural%20and%20Physical%20Control%20of%20Aquatic%20Weeds.pdf">http://aquatics.org/bmpchapters/3.4%20Cultural%20and%20Physical%20Control%20of%20Aquatic%20Weeds.pdf</a>
BMP_20	Dredging - Excavation	Several feet of lake bottom sediment are removed through machine excavation, especially from shallow lakes and lakes that have filled with silt and organic matter over time.	Maintenance	Mechanical	variable depth; sediment-sedimentation; nutrients; improve habitat; low dissolved oxygen; algae blooms; FE control; MN control; rooted plant control	Excavation can be applied to any lake as long as budget is not restrictive. All lakes and lakes lose depth to sediment over time. Maintaining optimal depth in a lake may require excavation.	Increased turbidity; downstream impacts; suspend possible contaminants; disposal of dredged material; biotic community composition; desirable species; desirable habitats; impact longevity	CPW; USACE Section 404; CWA Section 401	aquatic weed control	\$250k+	Variable depending on treatment frequency.	<a href="https://www.epa.gov/sites/production/files/2015-04/documents/nutrient-economics-report-2015.pdf">https://www.epa.gov/sites/production/files/2015-04/documents/nutrient-economics-report-2015.pdf</a>	Interview w/Aquatic Associates; <a href="http://aquatics.org/bmpchapters/3.2%20Developing%20a%20Lake%20Management%20Plan.pdf">http://aquatics.org/bmpchapters/3.2%20Developing%20a%20Lake%20Management%20Plan.pdf</a>

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BMP_21	Dredging - Vacuum / Suction	Vacuum dredging can help remove sediment from a lake or lake with less disturbance than excavation. This requires either a dredging barge or suction truck with enough power to dislodge sediment.	Maintenance	Mechanical	sludge/muck	lakes with a benthic make up that is conducive to suction, i.e., muck, fine sands, small rocks.	Dredging can be expensive and depth limited if suction is from lake edges. Suction barges require boat ramp infrastructure.	CPW; USACE Section 404; CWA Section 401	Removal of built-up nutrients, heavy metals and reduction of suspended particles.	\$250k+; diver dredging: \$1,100-2k	Variable depending on treatment frequency.		Interview w/Aquatic Associates; <a href="https://www.sfei.org/sites/default/files/biblio_files/PestAlternatives_review.pdf">https://www.sfei.org/sites/default/files/biblio_files/PestAlternatives_review.pdf</a>
BMP_22	Erosion Control	Treatments that reduce the amount of erosion and associated sedimentation from areas surrounding or upstream of a lake. Controlling erosion helps prevent the increase in sedimentation. Erosion control can also stabilize and increase the efficacy of riparian and littoral zones.	Capital Improvement/Main tenance	Mechanical	sediment-sedimentation; nutrients; contaminants of concern (COCs)	Hillslopes, roads or channels that are accessible for mitigation efforts.	Erosion control often requires continually upkeep and sediment management if sediment is captured upstream of lake.	USACE Section 404; CWA Section 401	Maintain lake depth, less contamination from sediment transported constituents.	\$500-\$6k; variable depending on treatment used. \$1-2/ft (for things like straw wattles, biodegradable mesh, and silt fence) + installation labor cost	Variable depending on treatment used and maintenance frequency.		<a href="https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1002/2015WR018014">https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1002/2015WR018014</a>  <a href="https://www.uwsp.edu/cnr/ap/UWEXLakes/Documents/programs/LakeShoreTraining/21.0_developing_a_cost_estimate/2006_erosion_control_costs_mn.pdf">https://www.uwsp.edu/cnr/ap/UWEXLakes/Documents/programs/LakeShoreTraining/21.0_developing_a_cost_estimate/2006_erosion_control_costs_mn.pdf</a>
BMP_23	Fish Introduction - Catfish	Catfish have a wide variety of species that have a wide range of benefits to lakes and lakes. They can help with vegetation overgrowth issues. They are adapted to warmer waters, making them ideal inhabitants for urban areas. They can increase the productivity of a recreational fishery.	Maintenance	Biological	aquatic nuisance species-plants; low productivity	lakes that can handle a large aquatic fish species that will become a key part to ecological balance in the lake.	May not be permitted in water bodies with sensitive species; may increase turbidity	CWA Section 401; CPW Stocking Permit	Increased fishing opportunities, outcompete unwanted fish species, can handle increasing water temperatures.	\$1k-10k	Variable	<a href="https://www.epa.gov/sites/production/files/2015-04/documents/nutrient-economics-report-2015.pdf">https://www.epa.gov/sites/production/files/2015-04/documents/nutrient-economics-report-2015.pdf</a>	<a href="http://www.dunnsfishfarm.com/fish_pricing.htm">http://www.dunnsfishfarm.com/fish_pricing.htm</a>
BMP_24	Fish Introduction - Grass carp (Ctenopharyngodon idella Cuvier and Valenciennes)	Fish species native to Russia and China with high lake grass herbivory capability. Can be bred to be non-reproductive.	Maintenance	Biological	aquatic nuisance species-plants; aquatic invasive species-plants	lakes that can handle a large aquatic fish species that will become a key part to ecological balance in the lake.	Only stock in closed systems; DO NOT stock in open systems connected to other lakes, lakes, streams, or rivers. Lake conditions must meet requirements for carp survival; increase in algae; decrease in water clarity; not allowed in some states or may require permit	CWA Section 401; CPW Stocking Permit	reintroduce nutrients held in vegetation to water column; increase algae	\$45-\$125/acre	Variable depending on treatment frequency.		<a href="https://www.sfei.org/sites/default/files/biblio_files/PestAlternatives_review.pdf">https://www.sfei.org/sites/default/files/biblio_files/PestAlternatives_review.pdf</a>

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BMP_25	Flooding	Flooding target areas to aid or eliminate species.	Maintenance	Biological	aquatic nuisance species-plants; access for maintenance/constant; access for dredging; sediment-sedimentation; rooted plant control; fish productivity;	lakes that have access to enough water upstream required to meet project goals for a controlled flooding event.	downstream impacts; flood storage; impacts to nutrient levels; DO; pH; sloughing; erosion; compaction; odor; access and public safety; impacts to desirable species and habitat; connectivity with groundwater/wells; aesthetics	CWA Section 401; CPW Permit to kill fish, if flooding will cause mortality in natural waters or introduce unwanted species into other water bodies; Water rights should be considered.	Can allow for a rebalance of aquatic life, restore a functioning system that requires less input.	\$500-\$25k/acre, depending on water source, gravitational piping or pumping.	Variable depending on treatment frequency.		<a href="https://www.mass.gov/files/documents/2016/08/sd/eutrophication-and-aquatic-plant-management-in-massachusetts-final-generic-environmental-impact-report-mattson.pdf">https://www.mass.gov/files/documents/2016/08/sd/eutrophication-and-aquatic-plant-management-in-massachusetts-final-generic-environmental-impact-report-mattson.pdf</a>
BMP_26	Flushing	Increasing flow while decreasing residence time to reduce or minimize the concentrations of any unwanted substance(s).	Maintenance	Mechanical	residence time; pollutants; contaminants of concern (COCs); algae blooms	N/A	water supply quantity/quality variability; downstream impacts; may resuspend benthic sediments; may impact fish productivity and/or habitat; recreator safety; could cause un-natural turn over event	Water rights and downstream water quality regulations should be considered.	minimizes detention, response to pollutants may be reduced	\$500-\$25k/acre, depending on water source, gravitational piping or pumping.	Variable depending on treatment frequency.		<a href="https://www.mass.gov/files/documents/2016/08/sd/eutrophication-and-aquatic-plant-management-in-massachusetts-final-generic-environmental-impact-report-mattson.pdf">https://www.mass.gov/files/documents/2016/08/sd/eutrophication-and-aquatic-plant-management-in-massachusetts-final-generic-environmental-impact-report-mattson.pdf</a>
BMP_27	Hydro-Raking and Rotovation	Disruption of sediments and disruption of aquatic rooted plants.	Maintenance	Mechanical	aquatic nuisance species-plants; aquatic invasive species-plants; unwanted features/structures	Not practical for some smaller lakes	DO NOT use on vegetation that spreads by fragmentation; may disrupt fish or benthic organisms; increased turbidity; sediment-water interactions; may resuspend benthic sediments; may impact habitat;	CPW; USACE Section 404; CWA Section 401; certified operator may be required	where there is severe weed infestation, this technique could be appropriate	\$2k-10k; \$1,200-\$2k per acre; mechanical cutting: \$100-11,000/acre	Variable depending on treatment frequency.		<a href="https://www.solitudelakemanagement.com/blog/hydro-raking-restore-open-water-prolong-dredging/">https://www.solitudelakemanagement.com/blog/hydro-raking-restore-open-water-prolong-dredging/</a> ; <a href="https://www.sfei.org/sites/default/files/biblio_files/PestAlternatives_review.pdf">https://www.sfei.org/sites/default/files/biblio_files/PestAlternatives_review.pdf</a>
BMP_28	Lining - Natural	Seal the bottom of the lake/lake with bentonite, sands, gravel, or other natural sealants.	Capital Improvement	Mechanical	rooted plant growth; sediment-water interactions; algae blooms; recreation appeal	N/A	sealant impact on water column; impact longevity	CPW may require permit	retains water and nutrients	\$25-50k	\$0		<a href="https://www.homeadvisors.com/cost/landscape/lake-liner-prices/">https://www.homeadvisors.com/cost/landscape/lake-liner-prices/</a> <a href="https://reader.elsevier.com/reader/pii/S136403212030006X?token=73D47C8159BD642011F22A94C7D27A14F0C53B5AE966671F48CD4A07D0F8A090CF7BF3D2F76FA66EDCD9A00E98F3F58&amp;originRegion=us-east-">https://reader.elsevier.com/reader/pii/S136403212030006X?token=73D47C8159BD642011F22A94C7D27A14F0C53B5AE966671F48CD4A07D0F8A090CF7BF3D2F76FA66EDCD9A00E98F3F58&amp;originRegion=us-east-</a>

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													<a href="#">1&amp;originCreation=20210702210528</a>
BMP_29	Lining - Synthetic	Seal the bottom of the lake/lake with a synthetic barrier to help prevent water loss and vegetation growth.	Capital Improvement	Mechanical	water loss; aquatic nuisance species-plants	Not practical for some larger lakes.	sealant impact on water column; impact longevity; challenges associated with high groundwater (e.g., floating liner if groundwater is high and lake surface is low); loss of inflows from groundwater	CPW may require permit	retains water and nutrients	\$3k-8k/acre	\$0		<a href="https://www.lakemanagementinc.net/lake-liner-lifespan/">https://www.lakemanagementinc.net/lake-liner-lifespan/</a>  <a href="https://www.homeadvisor.com/cost/landscape/install-a-lake/">https://www.homeadvisor.com/cost/landscape/install-a-lake/</a>
BMP_30	Microbe Treatment	There are seven groups of microbes; bacteria, archaea, protozoa, algae, fungi, viruses, and parasites. The most common means of lake treatment utilizing microbes is the use of beneficial bacteria. This bacteria can help the overall health of most lakes by aiding in clarity, sludge reduction and purification.	Maintenance	Biological	nutrients	N/A	could increase bacteria in water if incorrect microbes used for treatment	Application permitting may be required; CDPHE Aquatic Pesticides Permit (General Permit COG860000)	Decrease need for algaecides	\$50-1k	Variable depending on treatment frequency.		Interview w/Aquatic Associates; <a href="https://www.aquascapenc.com/product">https://www.aquascapenc.com/product</a>  <a href="https://aosts.com/role-microbes-microorganisms-used-wastewater-sewage-treatment/">https://aosts.com/role-microbes-microorganisms-used-wastewater-sewage-treatment/</a>
BMP_31	Nutrient Reduction - Biochar	Biochar is charcoal produced from biomass. It is a stable solid, rich in carbon and has properties that allow biochar to absorb nutrients that come into contact with the material.	Maintenance	Biological	nutrients	N/A	erosion and potential reduction in nutrient and pesticide use efficiency	Application permitting may be required.	reduces nitrogen leaching into groundwater and runoff into surface water. Extremely absorbent.	\$50-\$500	Variable depending on treatment frequency and monitoring strategy.	<a href="#">Biochar: Filter and Physically Excess lake nutrients (solitudelakemanagement.com)</a>	<a href="https://extension.psu.edu/using-biochar-for-water-quality">https://extension.psu.edu/using-biochar-for-water-quality</a> ; <a href="https://farm-energy.extension.org/biochar-prospects-of-commercialization/">https://farm-energy.extension.org/biochar-prospects-of-commercialization/</a>

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BMP_32	Nutrient Reduction - Buffered Liquid Alum	Alum (aluminum sulfate) is a non-toxic chemical treatment for lakes that precipitates out a floc when applied to the water, allowing for the alum to bind with phosphate. The aluminum phosphate compound is insoluble in water and drops out of the water column onto the benthic surface.	Maintenance	Chemical	nutrients	N/A	potential toxicity on aquatic species	Application permitting may be required, NPDES permits; CWA Section 401; applicator must be licensed?	Cheaper than other methods.	\$280-\$700/acre	0	<a href="#">Alum Brochure.doc (wi.gov)</a> ; <a href="https://www.pca.state.mn.us/water/lake-protection-and-management">https://www.pca.state.mn.us/water/lake-protection-and-management</a>	Interview w/Aquatic Associates; <a href="https://www.epa.gov/sites/production/files/2015-04/documents/nutrient-economics-report-2015.pdf">https://www.epa.gov/sites/production/files/2015-04/documents/nutrient-economics-report-2015.pdf</a>
BMP_33	Nutrient Reduction - Phoslock®	Phoslock® is a patented product that binds free reactive phosphorus (FRP). This compound settles out of the water column, similar to the alum application.	Maintenance	Chemical	nutrients	N/A	can act as a source of NH4+	Application permitting may be required; NPDES permits; CWA Section 401; applicator must be licensed?	management of blue green algae blooms	\$400-1k	Variable depending on treatment frequency.	<a href="#">Phoslock   SePRO Corporation</a>	Interview w/Aquatic Associates <a href="https://www.sciencedirect.com/science/article/pii/S2589914721000086">https://www.sciencedirect.com/science/article/pii/S2589914721000086</a>
BMP_34	Nutrient Supplementation	Addition of nutrients to increase productivity or alter nutrient ratios.	Maintenance	Chemical	low productivity; algae blooms; improve fish habitat	N/A	water quality impacts; may change sedimentation rate; food web structure; shifts to undesirable algae composition; decreased water clarity	303d and/or 401 compliance may be required.	can improve forage conditions for microzooplankton	\$30-\$500	Variable depending on treatment frequency.	<a href="https://www.thelakeguy.com/">https://www.thelakeguy.com/</a>	<a href="https://fisheries.org/docs/books/x54034xm/14.pdf">https://fisheries.org/docs/books/x54034xm/14.pdf</a>
BMP_35	Pet Waste Program	Install pet waste stations for local citizens to gather and dispose of pet waste before it enters the lake.	Capital Improvement/Maintenance/Administrative	Biological	Escherichia coli (E. coli)	N/A	would require maintenance	Permitting may be required depending on land use and/or ownership.	reduces nutrients and pathogenic bacteria that could enter the water	\$70-\$350 per station	\$500-\$1k		<a href="https://www.epa.gov/sites/production/files/2015-04/documents/nutrient-economics-report-2015.pdf">https://www.epa.gov/sites/production/files/2015-04/documents/nutrient-economics-report-2015.pdf</a> ; <a href="file:///C:/Users/jennifer.mccarty/OneDrive%20-%20SWCA/Desktop/jra-cost-memo-june-update.pdf">file:///C:/Users/jennifer.mccarty/OneDrive%20-%20SWCA/Desktop/jra-cost-memo-june-update.pdf</a>
BMP_36	Phytoremediation	Create natural water quality buffer areas near to or in lakes, such as wetland habitat, using plants to remove, stabilize, and/or destroy contaminants.	Capital Improvement	Biological	contaminants of concern (COCs); contaminants of emerging concern (CECs); sediment-sedimentation; fish habitat	lakes large enough to accommodate or near to available space that may be converted for phytoremediation.	requires some maintenance, not as disruptive to the natural ecosystem	USACE Section 404; CWA Section 401	does not generate contaminated secondary waste, enhances soil fertility, low cost	\$9-300/m3; \$2k-6k	\$1k-\$3k		<a href="https://www.lrrb.org/pdf/200523.pdf">https://www.lrrb.org/pdf/200523.pdf</a> ; <a href="https://www.pca.state.mn.us/sites/default/files/p-gen3-13x.pdf">https://www.pca.state.mn.us/sites/default/files/p-gen3-13x.pdf</a> ; <a href="https://www.epa.gov/sites/production/files/2015-04/documents/nutrient-economics-report-2015.pdf">https://www.epa.gov/sites/production/files/2015-04/documents/nutrient-economics-report-2015.pdf</a> ; <a href="https://www.pca.state.mn.us/sites/default/files/p-gen3-13x.pdf">https://www.pca.state.mn.us/sites/default/files/p-gen3-13x.pdf</a>

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BMP_37	Sediment Treatment	Chemicals/substances added to alter sediment features to limit plant growth or control chemical exchange reactions.	Maintenance	Chemical	sediment-water interactions; nutrients; algae blooms	N/A	impact on water column; impact longevity; may impact benthic and water column biota;	Herbicide and pesticide chemical application to waterbodies requires a City Pesticide Discharge Permit. Other application permitting may be required; NPDES permits; CWA Section 401; applicator must be licensed?	Can reduce internal P loading.	Variable depending on treatment type.	Variable depending on treatment type and application frequency.		<a href="#">Effects of alum treatment on water quality and sediment in the Minneapolis Chain of Lakes, Minnesota (tandfonline.com)</a>
BMP_38	Shredder Boat and Removal Harvester	Used on larger lakes to cut up surface or shallow water vegetation.	Maintenance	Mechanical	aquatic nuisance species-plants; aquatic invasive species-plants	Not practical for smaller lakes.	Not practical for smaller lakes; DO NOT use on vegetation that spreads by fragmentation; may disrupt fish or other organisms	CWA Section 401; may require CPW approval	Can remove large amounts of aquatic vegetation in short amount of time.	Variable depending on type of shredder boat/harvester used and treatment frequency.	Variable depending on type of shredder boat/harvester used and treatment frequency.		<a href="http://www.ijetjournal.org/Volume2/Issue2/IJET-V2I2P14.pdf">http://www.ijetjournal.org/Volume2/Issue2/IJET-V2I2P14.pdf</a>
BMP_39	Sludge Reducer	A combination of beneficial bacteria and enzymes that help accelerate the solubilization and digestion of organic solids.	Maintenance	Biological	sludge/muck	N/A	water has to be at least 60 degrees to apply	Herbicide and pesticide chemical application to waterbodies requires a City Pesticide Discharge Permit. Other application permitting may be required; NPDES permits; CWA Section 401; applicator must be licensed?	not consumed by the water column, low maintenance	\$50-\$300	Variable depending on treatment frequency.		Interview w/Aquatic Associates; <a href="https://webbsonline.com/Item/40017">https://webbsonline.com/Item/40017</a>
BMP_40	Supplemental Flow	Supplement flow with increased flow from inlet or other source.	Maintenance	Mechanical	low dissolved oxygen; algae blooms, sludge/muck, aquatic nuisance species-plants	N/A	has the potential to change water temperature and effect aquatic life present in waterbodies	CWA Section 401; Water rights should be considered	has the potential to improve water quality depending on the quality of the water being used	Variable depending on water source.	Variable depending on water source and treatment frequency.		<a href="http://www.leginfo.ca.gov/pub/15-16/bill/sen/sb_0551-0600/sb_564_bill_20160916_chaptered.pdf">http://www.leginfo.ca.gov/pub/15-16/bill/sen/sb_0551-0600/sb_564_bill_20160916_chaptered.pdf</a>

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BMP_41	UV Light	UV is an effective, safe and environmentally friendly way to disinfect water. UV can be used to limit algae growth, eliminate E.coli, eliminate parasites and treat recycled water, incoming water or discharged waters.	Capital Improvement	Mechanical	algae blooms	Best for aesthetic lakes and free-floating algae.	Not ideal for stormwater or irrigation lakes or stringy or immobile algae that would not flow through a filter. Flow must be precise to allow enough time for UV treatment of passing water. Additional piping for pumping increases initial cost of unit and requires routine maintenance. Bulbs and tubing prone to breakage during routine maintenance.	Device must be regulated under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)	May increase aeration.	\$25k-\$250k per unit.	\$1k+ per unit	<a href="https://homeguides.sfgate.com/waterfall-uv-light-installation-59283.html">https://homeguides.sfgate.com/waterfall-uv-light-installation-59283.html</a>	<a href="#">An-Introduction-to-UV-Wastewater-Disinfection-eBook-FINAL.pdf</a> (trojanuv.com); <a href="https://www.buyultraviolet.com/ecologic-lake-lake-reclamation-systems">https://www.buyultraviolet.com/ecologic-lake-lake-reclamation-systems</a>  <a href="https://www.epa.gov/sites/production/files/2020-10/documents/uvlight-complianceadvisory.pdf">https://www.epa.gov/sites/production/files/2020-10/documents/uvlight-complianceadvisory.pdf</a>
BMP_42	Vegetation - Littoral Zone Bioaugmentation	Plant a mixture of productive plants that thrive in the littoral zone.	Capital Improvement	Biological	water quality; aquatic habitat; sediment-sedimentation; organic material, nutrients; pesticides	lakes big enough to accommodate plants. Avoid areas where plants may conflict with recreation.	Access to water	May require CPW approval	Restore littoral plant communities; increase carbon storage.	\$1-6k	\$300-\$400	<a href="https://www.colliercountyfl.gov/your-government/divisions-for/natural-resources/littoral-zones">https://www.colliercountyfl.gov/your-government/divisions-for/natural-resources/littoral-zones</a> ; <a href="https://www.broward.org/NatureScape/CreateNatureScape/Documents/landscaping_on_edge.pdf">https://www.broward.org/NatureScape/CreateNatureScape/Documents/landscaping_on_edge.pdf</a> ; <a href="https://www.nrem.iastate.edu/bmpcostools/files/page/files/2016%20Cost%20Sheet%20for%20Riparian%20Buffer%20or%20Filter%20Strip.pdf">https://www.nrem.iastate.edu/bmpcostools/files/page/files/2016%20Cost%20Sheet%20for%20Riparian%20Buffer%20or%20Filter%20Strip.pdf</a>	<a href="#">Quantifying the Effect of a Vegetated Littoral Zone on Wet Detention Lake Pollutant Load Reduction (2005)</a> (ucf.edu); <a href="https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1002/2015WR018014">https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1002/2015WR018014</a>



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BMP_43	Vegetation - Selective Harvesting	Hand cutting, pulling and selective harvesting are highly selective vegetation removal techniques that target easily identified species. They are usually used to target new infestations with low plant density (generally less than 500 stems per acre). These methods can be used to remove more dense plant growth over small areas, but benthic barriers or suction harvesting may be more effective. These methods can also be used as important follow-up to herbicide treatment.	Maintenance	Mechanical	aquatic nuisance species-plants; aquatic invasive species-plants; algae blooms	Not practical for larger lakes or larger effected areas.	root pieces and fragments left by self-propagating plants may exacerbate the problem; hand-pulling can disturb sediment and make it difficult to identify other plants; DO NOT use hand rakes for weed control without expert guidance; sediment-water interactions; resuspension of benthic sediments; may disturb desirable organisms and habitats	CWA Section 401; certification required if SCUBA used	in shallow waters, it requires little skill or equipment and can therefore be cost-effective. Can be used to target specific weeds in an area.	\$500-\$2,400/acre	Variable depending on treatment frequency.		
BMP_44	Vegetation - Riparian Bioaugmentation	Implementation of a riparian buffer or vegetative zone adjacent to inlets and lakes. No-mow buffers can improve water quality and reduce nutrients to lake. Riparian ecosystems can be established through seed planting, transplanting or a combination.	Capital Improvement	Biological	water quality; aquatic habitat; sediment-sedimentation; organic material, nutrients; pesticides; Escherichia coli (E. coli)	N/A	Establishing vegetation Maintenance and upkeep	USACE Section 404; CWA Section 401	Sediment control Ecological habitat Increased aesthetics; geese control	\$1-6k	\$200-\$400	<a href="#">Chapter 6-7-1.pdf (stormwaterpa.org)</a>	<a href="#">Riparian buffer width, vegetative cover, and nitrogen removal effectiveness: A review of current science and regulations (epa.gov); https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1002/2015WR018014</a>
BMP_45	Vegetation - Tree Bioaugmentation	Planting trees can help with bank stabilization, shade and aesthetics of lakes and lakes.	Capital Improvement	Biological	restore riparian plant communities; sediment-sedimentation; organic material; nutrients; pesticides	N/A	short term increased sediment during planting that could add sediment to the waterbody	Non-WOTUS do not require a permit; visual obstruction permissions may be required.	Restore riparian plant communities; increase carbon storage.	\$300-11k	\$300-\$500 per acre		<a href="https://www.parklandcounty.com/en/live-and-play/resources/Documents/PRC/iceheave/Shortline-Stabilization-Sample-Plans.pdf">https://www.parklandcounty.com/en/live-and-play/resources/Documents/PRC/iceheave/Shortline-Stabilization-Sample-Plans.pdf</a>
BMP_46	water quality Monitoring	Implement water quality monitoring to determine baseline and changing water quality standards for adaptive and responsive management.	Maintenance	N/A	any	All	can be expensive to develop and maintain over a long period of time, requires long period of time to draw conclusions from data	N/A	can provide more data than is currently available, are able to target areas of concern to monitor over a short or long period of time	Variable depending on monitoring type and frequency.	Variable depending on monitoring type and frequency.		<a href="https://www.usgs.gov/centers/umid-water/science/lake-monitoring-and-research?qt-science_center_objects=0#qt-science_center_objects">https://www.usgs.gov/centers/umid-water/science/lake-monitoring-and-research?qt-science_center_objects=0#qt-science_center_objects</a>

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BMP_47	Weed rollers	Rollers can be up to 30 feet long and sit on the lake bottom powered by an electric motor. Travel forward and reverse in up to a 270-degree arc around a pivot point. Typically installed at the end of a dock. Plants become wrapped around the roller and are dislodged from the sediment. Roller motion disrupts and compresses the bottom sediments, which prevents plants from becoming re-established.	Maintenance	Mechanical	aquatic nuisance species-plants; aquatic invasive species-plants	Not practical for smaller lakes.	Not practical for large areas; may disrupt fish and other benthic organisms; may require permit	CPW; USACE Section 404; CWA Section 401; certified operator may be required	Compresses benthic sediment	\$2k/acre	Variable depending on treatment frequency.		<a href="https://www.sfei.org/sites/default/files/biblio_files/PestAlternatives_review.pdf">https://www.sfei.org/sites/default/files/biblio_files/PestAlternatives_review.pdf</a>
BMP_48	Forebay Construction	Sediment capture area upstream along inlet waterway to target waterbody where sediment settles out prior to entering the waterbody. May include road access for easy dredging and maintenance of forebay. Reduces sediment maintenance of waterbody.	Capital Improvement/Maintenance	Mechanical	sediment-sedimentation; nutrients; pesticides	N/A	requires periodic dredging, invasive weeds can become an issue to downstream water quality	USACE Section 404; CWA Section 401	can help to trap the incoming sediments and prolong the benefits of dredging	\$1,000-\$2,000/acre	\$800-\$4,000		<a href="https://www.mass.gov/files/documents/2016/08/sd/eutrophication-and-aquatic-plant-management-in-massachusetts-final-generic-environmental-impact-report-mattson.pdf">https://www.mass.gov/files/documents/2016/08/sd/eutrophication-and-aquatic-plant-management-in-massachusetts-final-generic-environmental-impact-report-mattson.pdf</a>
BMP_49	Hypolimnetic Withdrawal	Damming surface water outflow and withdrawing hypolimnetic water.	Capital Improvement/Maintenance	Mechanical	low dissolved oxygen-anoxia; nutrients	lakes that have an outlet that may be modified to drain hypolimnetic water or access for pumping hypolimnetic water.	summer drawdown, disruption of stratification, and downstream water quality. Effectiveness requires long-term use of this BMP	CWA Section 401; CPW Permit to kill fish if withdrawal will cause mortality in natural waters; water rights should be considered.		\$3k-45k for withdrawal pipes	\$50-1k		<a href="https://upstreamtechnologies.us/docs/SAFL-Baffle_Vs_Forebay.pdf">https://upstreamtechnologies.us/docs/SAFL-Baffle_Vs_Forebay.pdf</a> ; <a href="https://www.epa.gov/sites/production/files/2015-04/documents/nutrient-economics-report-2015.pdf">https://www.epa.gov/sites/production/files/2015-04/documents/nutrient-economics-report-2015.pdf</a> page III-13
BMP_50	SAFL Baffle	Stormwater pretreatment system that filters sediment from inflowing water prior to entering downstream waterbodies.	Capital Improvement/Maintenance	Mechanical	sediment-sedimentation	N/A	N/A	USACE Section 404; CWA Section 401		\$670/acre	\$500-\$1,000		<a href="https://upstreamtechnologies.us/docs/SAFL-Baffle-Design-Guide.pdf">https://upstreamtechnologies.us/docs/SAFL-Baffle-Design-Guide.pdf</a>
BMP_51	Landscape Fertilizer Application	Best practice to provide education to the public related to landscape fertilizer application to reduce nutrient runoff to waterways.	Education	Chemical	Nutrients	N/A	N/A			Variable	Variable		<a href="https://extension.colostate.edu/docs/pubs/garden/xcm222.pdf">https://extension.colostate.edu/docs/pubs/garden/xcm222.pdf</a>

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BMP_52	Polyfluoroalkyl substances (PFAS)	Background information	Education	N/A	PFAS	N/A	Toxicity to aquatic life	N/A		N/A	N/A		<a href="https://www.epa.gov/pfas/pfas-explained">https://www.epa.gov/pfas/pfas-explained</a> <a href="https://cdphe.colorado.gov/pfas-water">https://cdphe.colorado.gov/pfas-water</a>

Item 9.

# MINUTES

CITY OF FORT COLLINS • BOARDS AND COMMISSIONS



## Land Conservation & Stewardship Board January 11, 2023 Regular Meeting – Excerpt

### Urban Lakes Water Quality Management Policy and Guidance

**Richard Thorp, Watershed Program Manager** explained the Water Quality Management Policy is meant to be a framework for the City's urban lake's water quality operational management decisions and is restricted to City owned lakes within the Fort Collins Growth Management Area (GMA) and specifically excludes private lakes. The Guidance is meant to be a technical resource to support City staff in implementing the policy. Because the Guidance will be available to the general public, it may be useful for private lake management as they face similar water quality issues. Richard clarified the Guidance is not meant to serve as a prescriptive plan across the City's lakes. His brief presentation covered the project background, scope, and timeline milestones. He reported the draft policy was informed by community engagement including subject matter experts, and feedback from advisory boards and commissions. He noted the cross-department team processed the previous feedback from the LCSB gathered during the September 2021 meeting. The policy was drafted during a series of focused meetings and facilitated workshops. Richard Thorp described the types of community outreach conducted at targeted lakes which was used to better understand the community's concerns around water quality and how the community was using the urban lakes. The project team was intentional in gathering diverse perspectives and was guided by demographic vulnerability indicators including housing stability, and income and education levels. Outreach efforts were administered in English and Spanish. The main takeaway for the team was the community truly treasures these resources as opportunities for recreation, to view wildlife and the existence of wildlife habitat. The community's water quality concerns were algal blooms, fish kills and odors. Richard Thorp closed his presentation with a high-level overview of the major elements of the policy. He will be meeting with additional advisory boards and commissions and seeking a formal motion from each to recommend City Council adopt the Policy. The project team anticipates City Council will adopt the Policy during Q1 or Q2 of 2023. After the policy has been adopted, the Policy and Guidance will be finalized.

### Discussion

In response to Member Kley, Richard Thorp stated the project team will be presenting to the Natural Resources Advisory Board, Parks and Recreation Board, and the Water Commission. Vice Chair Cunniff noted the policy is focused on water quality, not erosion or other impacts. He asked if the project team had considered using bellwether species as an indicator of water quality. As an example, he stated a decline in amphibian population can be an early indicator of a problem. Richard Thorp responded by pointing to the Best Management Practices (BMPs) included in the Guidance which takes a different approach: monitoring for invasive or problem species as indicators.

Member Culver voiced concern that restoration is not included in the Guidance. She stated she always considers restoration when looking at lakes and ponds, and preventative measures to avoid algal blooms and problem species. She noted, given the community's high value in wildlife and habitat, this seems like a missed opportunity to include restoration goals. Member Culver also spoke about impact of homeless camps in watershed and potential water contamination. She acknowledged the City and non-profit organizations are addressing the homeless issue but

# MINUTES

CITY OF FORT COLLINS • BOARDS AND COMMISSIONS



## **Land Conservation & Stewardship Board January 11, 2023 Regular Meeting – Excerpt**

wanted to recognize the health and safety risks associated with transient camps. Richard Thorp reported the homeless issue did not come up during outreach, although there was concern regarding trash and discarded fishing line. Richard explained the BMPs are focused on mitigation and/or risk reduction of existing impacts like algal blooms. The development of a water quality management plan could address restoration including the buffer zone adjacent to a lake but that falls outside of the scope of this project.

Member Piesman asked what are the BMPs for keeping something like Duck Lake from happening. Richard Thorp pointed out that most of the lakes in Fort Collins are shallow and man-made; and as they age are prone to certain water quality issues like accumulation of nutrient load and sediment build up. Mitigation buffers, controlling nutrient load, and flow-through would help to prevent these kinds of issues occurring at Duck Lake. He restated BMPs are focused on dealing with existing issues.

Member Kramer commented that the Guidance seems to address lakes in isolation. He asked if recommendations could be added to the appendices to communicate with adjacent landowners and to utilize basin analysis mapping to determine pollution/contamination sources. Vice Chair Cunniff supported Member Kramer's comments to add a recommendation to develop relationships with surrounding property owners and use mapping tools to inform future policy. Richard Thorp explained budget limitations prevented the project team from doing a land use or basin analysis to understand risk factors that can contribute to water quality issues. He supports preemptively partnering with landowners to mitigate risk factors but stressed this would be a department management decision.

Member Kley asked for the definition of "one water approach." Richard Thorp explained it is a collaborative planning and implementation approach; an inter-departmental process as well as reaching out to subject matter experts and the general community. Member Kley followed by asking if there are different management recommendations since the lakes may serve different purposes for Parks, Natural Areas, and Utilities. Richard Thorp stated the project team intentionally separated the lakes into different bands to avoid false comparisons and to recognize the different uses.

Chair Elson appreciated information gathered from multiple sources and asked for clarification as to the function of the Guidance. Richard Thorp explained it is meant to serve as a guiding resource for staff and is not a prescriptive tool; it is a resource for starting a management process. Member Kramer suggested the general public or those with less technical knowledge might benefit from a flow chart to correctly apply BMPs. Richard Thorp understood the interest, but the project team decided it would do more harm than good. Member Piesman reminded everyone of the impact of global warming, and the need to consider rising temperatures and declining rainfall when updates are made to the Guidance document.

Several members asked about baseline and/or ongoing monitoring of every lake to understand what is going on. Richard Thorp referred to the Guidance as starting point for City departments to develop a management policy for their respective lakes and ponds. While the project team is supportive of regular sampling, this action would fall under specific management plans adopted by individual departments. Member Culver asked if sampling requirements to establish a

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## **Land Conservation & Stewardship Board January 11, 2023 Regular Meeting – Excerpt**

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baseline could be added to the motion. Jill Oropeza explained the policy is not a management plan for any lake; it is a framework to address water quality within the GMA. Monitoring and sampling would be part of management plans developed by individual departments.

Member Lopez asked if PFAS are included in the Water Quality Issues Database (Guidance, Attachment 6). She voiced concern about potential run-off into urban lakes, especially given the recent and extensive fire-fighting activities in Colorado. Richard Thorp answered they were not on the list but agreed to add them.

Vice Chair Cunniff reminded the LCSB their concerns, as recorded in the meeting minutes, would be shared with Council. Chair Elson restated the requested motion is for the Policy only, not the Guidance.

***Member Piesman made a motion that the Land Conservation and Stewardship Board advise Council to approve the Water Quality Management Policy for City urban lakes and stormwater basins in the Growth Management Area. Member Kramer seconded the motion.***

***Vice Chair Cunniff amended the motion to include: the Land Conservation and Stewardship Board recommends that Council fully fund all of the proposed management actions that are recommended in the policy. Member Kramer seconded the amendment. The motion and amendment were approved unanimously, 8-0.***

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## NATURAL RESOURCES ADVISORY BOARD

### TYPE OF MEETING - REGULAR - EXCERPT

January 18, 2023 6:00 – 8:00 pm  
Via Zoom

- a. **Urban Lakes Water Quality Management Policy and Guidance Update** – Richard Thorp (Lead Specialist and Watershed Program Manager, Utilities) updated the Natural Resources Advisory Board on the project team’s Policy development approach and shared final drafts of the Policy and Guidance. The project team is seeking a formal motion from the Natural Resources Advisory Board to recommend that City Council adopt the final draft Policy. (Action)
- Discussion | Q + A
    - Barry – **Q** – I found it hard to evaluate or give a thumbs up/down because of a lack of detail. For instance, I am interested specifically in the water quality metrics that are being measured and how they compare with Environmental Protection Agency (EPA) standards for water quality thresholds. That is data information. An example that’s recently appeared in the media about polyfluoroalkyl substances found in all the fish that were sampled by a variety of agencies including Parks and Wildlife and in every case the fish exceeded the EPA standards by a huge amount suggesting that there were human health issues particularly with people who would consume those fish. I only live a block away from City Park and the lake and I can tell you lots of people catch those fish and keep them presumably to consume them. It is hard for me to judge whether it got the appropriate rigger or not to protect community welfare without information on what exactly is being measured and how the current measurements compare to EPA water quality thresholds. Richard – **A** – That is a good question, Barry. To be clear the actual measurements of water quality would be management plan specific. That is not what is intended with the guidance at all. It is supposed to summarize information hat is known and supposed to provide some basic tools for managers as a starting point. So specific measures, we are not adding water quality criteria to the guidelines or anything like that. It is well beyond the scope of this project. Barry – **Comment** – I guess I am saying I think that is what should be included. As a citizen that is what I want to see. What are you measuring? Why are you measuring these metrics? What are your thresholds for triggering a response that you are not meeting federal water quality standards? I mean those are things for me that I want to see. Richard – **Comment** – I agree and that is where the rubber meets the road. It is again outside of the scope of this guidance. These are really good questions for the managing departments that are managing specific lakes. The managing departments are going to be tasked with determining what to measure and



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## NATURAL RESOURCES ADVISORY BOARD

### TYPE OF MEETING – REGULAR - EXCERPT

how to prioritize certain lakes for management and I think that should be communicated with them.

- Dawson – **Q** – Going off that, the managing areas are Natural Areas, Parks and groups like that, that we can find in the final draft of the Guidance Documents? Richard – **A** – Exactly. There are three managing departments. For example, Natural areas is going to be prioritizing what lakes they want to put resources to, developing specific management plans for those lakes and for water quality issues that they are concerned with, and then going from there.
- Danielle – **Q** – One of the things that I think is noticeable is the two predominate issues identified by public were fish kills, algal blooms, and odors associated with these events. I remember a large fish kill, in 2019 or 2020 in the Poudre River and there was a lot of misinformation round it being caused by chemicals or a variety of things and a lack of understanding of the importance of climate change and warmer temperatures causing and driving these events. The key aspect of managing these events is managing expectations, public education that people recognize is part of our warming future. One mitigation option that does hold a lot of potential, is increase shade cover. Beavers are one of the most powerful tools in ecosystem engineers to increase shade cover that can then decrease water temperatures and prevent these events from happening. The second is increasing tree canopy. I am wondering if these actions are something that are potentially on the table, something that is being discussed, and if not if there is opportunity for the Board to recommend these features. Richard – **A** – Part of the guidance development is we pulled together contemporary best practices for some of that, like sedimentation, algal bloom, and lot of the primary water quality issues we face. By no means is the Best Management Practice Tool and the Guidance supposed to be all encompassing. I think that gets back to this developing specific management plans for the issues you are facing. We have 304 urban lakes within the City that the City owns. To develop a plan that captures the issues of all those lakes is just really not possible or practical. So specific things like introducing beavers is not necessarily within our Best Management Practices, and that is something that certainly might be considered by one of the departments. I assume you are taking about lakes too and not just the Poudre. Danielle – **Comment** – Yes, It would apply for all water bodies. Obviously, the Poudre Rivering systems are better suited or preferred by the beaver but here are some successful examples from isolated lakes as well. Richard – **Comment** – That is a good point. The best practices that we do include are meant to be a starting point and then you know there is a possibility City Staff, that has been tasked with managing these resources are going to need to reach out to

# MINUTES

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## NATURAL RESOURCES ADVISORY BOARD

### TYPE OF MEETING – REGULAR - EXCERPT

consultants for additional help for particularly challenging situations.

- Matt – **Comment** – Barry, I appreciate what you are saying, and I get it. I get where you are going with that. It might not be analogist, but I would refer back to our discussion on the guardians of the river and feel like this is a foundational policy and item because the alternative staff has been dealing with in the past is no guidance and no guardrails about who is responsible for what lakes and who is responsible in the City for these things. I think what I hear Richard saying is that this can be an interim process. This provides a toolbox that is foundational. It can be reviewed maybe someday with the aspirational goal to get where you are at with specific measurements. I don't disagree with that, but I feel like it is a really solid foundation and I appreciate the applicability in scope section how it divided out who is responsible for what. I thought the toolbox was a good start for staff and private lake managers. I appreciate the work. Barry – **Comment** – I must say to that after reading the reports about the PFAS found in all fish samples throughout Colorado in rivers and lakes the magnitude with which they exceeded EPA standards suggested to me a sense of urgency of moving quickly to monitoring those indicators and those monitoring state variables that are tied directly to the EPA water quality thresholds.
- Dawson – **Q** – So the question on the table is if the Board will show support going forward with this draft. Richard, when thinking about that is there a way in which we showcase that through a memo, vote, or just on record here for the Council? Richard – **A** – I think the latter, just basically going on record. Then we can putt and submit that as part of our materials to Council and include the full minutes as an attachment. Dawson – **Q** – Honore is the best practice of this process to do a vote of support? Honore – **Q** – That is a good question. Richard what have you seen on other boards? Richard – **A** – We have only gone to one other Board with this ask and they put it to a vote of we support this final draft policy with a motion, second and that sort of thing. Honore – **Comment** – Nice and clean in the record of the minutes that way.
- Dawson motions and Matt seconds to put forward support of this draft going forward to the City. Motion passed unanimously. 8-0

# MINUTES

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## **DRAFT MINUTES** WATER COMMISSION

### REGULAR MEETING

January 19, 2023, 5:30-7:30 p.m.

Hybrid in person at 222 LaPorte Ave and online via Zoom

### **EXCERPT FROM UNAPPROVED MINUTES**

#### 6. NEW BUSINESS

##### d. Regular Items

*(Attachments available upon request)*

##### i. City of Fort Collins Urban Lakes Water Quality Management Policy and Guidance Update

Richard Thorp, Watershed Program Manager, Utilities Water Quality Services

The project manager met with Water Commission on September 16, 2021 to provide an update on the development of the City's Urban Lakes Water Quality Management Guidance and to seek feedback on the project team's Urban Lakes Water Quality Policy development approach. Mr. Thorp used Water Commission's feedback to inform development of the final draft policy. This follow-up presentation provided an overview of the project team's policy development approach and shared final drafts of the policy and guidance. Staff requested Water Commission recommend City Council formally adopt the policy. Council is scheduled to address this item on March 7.

##### Discussion Highlights

Mr. Thorp mentioned the formation of an interdepartmental team of Utilities, Parks and Natural Areas departments to review and exchange information and discuss common problems such as algal blooms.

Commissioners commented and on inquired about various related topics including: emphasizing the need for clear expectations of which staff will manage the project and ensure accountability; suggestion for a letter of support from Colorado Parks and Wildlife (CPW)(staff responded that CPW was consulted); Rigden Reservoir is one example of a project managed by more than one department (Utilities and Natural Areas); One Water approach; budget for mitigation (no funding at this time; Water Quality Services Director Jill Oropeza stated this is the first step in acknowledging issues of public health concerns, expressing commitment to addressing them, and assessing priorities; etc.

# MINUTES

CITY OF FORT COLLINS • BOARDS AND COMMISSIONS



## **DRAFT MINUTES** WATER COMMISSION

### REGULAR MEETING

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**Commissioner Kahn moved** that the Water Commission recommend City Council approve the Urban Lakes Water Quality Management Policy.

**Commissioner Radin seconded** the motion.

**Vote on the Motion: it passed unanimously, 9-0**

*This is an excerpt from draft unapproved meeting minutes that will be approved by the Water Commission on Feb. 16, 2023.*

DRAFT

# MINUTES

CITY OF FORT COLLINS • BOARDS AND COMMISSIONS



## Parks and Recreation Boards

### TYPE OF MEETING – Regular

January 25<sup>th</sup>, 2023

413 S Bryan

#### 1. CALL TO ORDER

Ken Christensen called to order at 5:36 PM

#### 2. ROLL CALL

- List of Board Members Present
  - Ken Christensen
  - Bob Kingsbury
  - Mike Novell
  - Nick Armstrong
  - Meghan Willis
  - Joshua Durand
  
- List of Board Members Absent – Excused or Unexcused; if no contact with Chair has been made
  - Jon Corley
  - Paul Baker
  - Marica Richards (excused)
  
- List of Staff Members Present
  - LeAnn Williams Recreation Director (remote)
  - Mike Calhoon Parks Director
  - Matt Day Sr. Landscaping Architect
  - Jen Scott Business Support II
  
- List of Guests
  - Richard Thorp Utilities Lead Specialist, Sciences
  - Jill Oropeza Utilities Director, Sciences
  - Sylvia Tatman-Buruss CMO Sr. Project Manger
  - Morgan Lommele Kearns & West (remote)
  - Caitilin Sheridan Kearns & West (remote)

#### 3. AGENDA REVIEW

- Changes announced at the meeting by the Chair

#### 4. CITIZEN PARTICIPATION

# MINUTES

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## Parks and Recreation Board

- No Citizen Participation

### 5. APPROVAL OF MINUTES

**Ken Christensen motioned to Approve November-December Minutes- Nick Armstrong motion to Approve and Meghan Willis seconded.**

#### UNFINISHED BUSINESS

Sustainable Funding Initiative Update Mike Calhoon

Ongoing effort over the last 14 months with four initiatives that lack funding from three departments. The four initiatives are Our Climate Future, Affordable Housing, Transportation Master Plan, and Parks and Recreation Infrastructure Replacement Program.

The Sustainable Funding Initiative team will be presenting their funding portfolios (area of taxation e.g., property taxes, fee, sales tax, special tax) on February 2<sup>nd</sup> and will be looking for guidance from Council on which ones should be pursued.

Board can discuss to advocate for funding for this program. To discuss why to have this funding with more robust stories e.g. 10% of people that utilize the Parks come from 100 miles away.

Next Steps are Finance Committee

### 6. NEW BUSINESS

#### BOARD ELECTIONS

Ken Christensen Chair

Nick Armstrong Co-Chair

Mike Novell Secretary

**Ken Christensen made motion and Nick Armstrong seconded the motion.**

*Urban Lakes Policies Presentation* Richard Thorp Utilities Project Manager and Jill Oropeza

First- Policy Development Approach

Framework for City's Urban Lakes water quality operational and management decisions

# MINUTES

CITY OF FORT COLLINS • BOARDS AND COMMISSIONS



## Parks and Recreation Board

City-owned lakes within growth management areas

Excludes private waters, drinking water reservoirs, and Cache la Poudre River.

### Guidance

Technical resources to support policy implementation

Available to private lakes managers

Not a prescriptive water quality management plan

### Second-Final Draft Policy

Sharing drafts with Final Guidance and Policy with advisory board and seeking formal support of the policy

Adoption of policy from City Council

Finalize Guidance and Policy

### Questions

How did you pick shareholders?

Community engagement included a focus on lake users with site visits in targeted areas for hard-to-reach populations, surveys were distributed in person and online along with the Colorado Parks and Wildlife, and several Boards and the Water Commission.

Can we swim in these Lakes?

No-Concerns around the cost of testing and lifeguards.

In testing what is the qualifications of a violation?

This depends on the body of water are what it is used for.

Ken Christensen motioned to Recommend the City Council adopt this policy as soon as reasonably possible.

**Present board members all in favor-Motion passed**

# MINUTES

CITY OF FORT COLLINS • BOARDS AND COMMISSIONS



## Parks and Recreation Board

*Hughes Stadium Presentation* Sylvia Tatman-Burruss, Sr. Policy & Project Manager  
Kearns & West Morgan Lommele (remote) Caitlin Sheridan (remote)

2016 Hughes stadium closed

2021 Citizens voted to rezone the site for “parks, recreations, open lands, natural areas, wildlife rescue and restoration”. City rezoned the parcel as “Public Open Lands”.

2022-Currently City is developing scenarios for the use of the site

2023 City anticipates acquiring site from CSU

No current funding for scenarios which would be helpful for Council to address how to use the land.

Meeting with multiple boards, neighbors, and Indigenous people for input.

Focus groups have noted the desire for: maintain the connections to nature, feeling of being in open spaces, maintain community character, become a regional destination for biking, wildlife rehabilitation, and opportunity to use the land by Indigenous Peoples.

Continue outreach and discussion of community desires.

Board feels the importance of fully engaging and advocating for the Indigenous People in their interest for this space. Bring Indigenous People in as consultants.

### Questions

Tying into the Parks Master Plan- gaps

What is allowed from the Master Plans to fill in the gaps for the space.

What are the steps to include Indigenous community in the process.

Diversity, equity, and inclusion team with the City to engage with Indigenous people. Create a process February is to go over multiple properties.

What is the timeline for the project?

Unsure- funding, what are the needs of the community.

Transparency is key.



# MINUTES

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## Parks and Recreation Board

### 7. BOARD MEMBER REPORTS

*FC Bikes* Update Marcia Richards (presented by Ken Christensen)

*FC Moves*

Parks Forever Card

Active Modes Plan/Policy Approved

Recommend Connecting access to Trails

Bike City Rating

2018 Fort Collins was 1<sup>st</sup>

2019 Fort Collins was 2<sup>nd</sup>

2022 Fort Collins is 43<sup>rd</sup>.

The drop in position due to increase in participation in the Bike City Rating program (International).

### 8. OTHER BUSINESS

#### **RECREATION Update**– LeAnn Williams

Registration system RFP to go out

Record amount of registration

8 New Employees

2 vacancies

ADA Bathroom at the Farm

Northside Program Funded for Renovations this Fall 2023

#### **PARK PLANNING AND DEVELOPMENT Update**– Matt Day

Dovetail

East Maintenance Facility

In punchlist process

Mail Creek Still working with Engineering and Railroad to connect Trails

I25 and Poudre River Trail

Montava

# MINUTES

CITY OF FORT COLLINS • BOARDS AND COMMISSIONS



## Parks and Recreation Board

WatersEdge (ongoing)

CAPRA Certification Process is ongoing

David Kemp is starting with us February 6<sup>th</sup> as the Senior Trails Planner and he will be coordinating closely with FC moves

### **PARKS Update – Mike Calhoon**

Ice Rink Opened at City Park

Every Wednesday Unhoused Encampment cleanup

Restructure Park Planning

## **9. ADJOURNMENT**

Time Ended 8:23 PM



# COLORADO

## Parks and Wildlife

Department of Natural Resources

Northeast Aquatics Section  
317 West Prospect Rd  
Fort Collins, CO 80526

February 14, 2023

City of Fort Collins City Council

City of Fort Collins Urban Lakes Water Quality Management Policy and Guidance

Dear City of Fort Collins City Council,

Colorado Parks and Wildlife (CPW) would like to provide this letter of support for the City of Fort Collins Urban Lakes Water Quality Management Policy and Guidance. CPW appreciates being consulted as a subject matter expert, speaking to the relationship between fisheries management and water quality. Input was provided by CPW to inform City of Fort Collins staff and consultants as to where negative impacts to fisheries have been observed due to water quality issues.

CPW appreciates the City of Fort Collins acknowledging the importance of water quality and taking steps to improve water quality as it is critical to managing successful fisheries.

Sincerely,

Kyle Battige

Area 4 Aquatic Biologist



**Project: Fort Collins' Urban Lakes Water Quality Management Policy and Guidance**

### Project Description

A project team consisting of staff from Natural Areas, Parks and Utilities Departments, the City Attorney's Office and SWCA Environmental Consultants (SWCA) addressed urban lakes water quality management concerns by developing an Urban Lakes Water Quality Management Policy. The purpose of the Policy is to provide a foundational framework for the City's operational and management decisions related to water quality management in City-owned lakes and stormwater basins. The project team developed an Urban Lakes Water Quality Management Guidance as a technical resource to assist City staff with implementing the Policy.

## IMPACTS WITH MEDIUM TO HIGH CONFIDENCE



### Environmental

#### Positive

- ENV 1 - Will improve plant and animal communities. Fewer fish kills and algae blooms.
- ENV 4 - City will more easily be able to adapt to climate-related water quality impacts; healthy urban lakes can serve as refuge spaces for community during periods of high heat.
- ENV 6 - Will improve water quality in City's Urban Lakes, outlet streams and groundwater.
- ENV 9 - Policy and Guidance to be shared with community; and will help staff communicate water quality drivers and threats to community.
- ENV 10 - Will enhance regional watershed planning and collaboration; aligns with City's Strategic Objectives 4.5 and 4.6

#### Negative

- NA



### Economic

#### Positive

- ECON 1 - Healthy Urban Lakes may increase tourism and benefit local businesses.
- ECON 2 - Healthy Urban Lakes will improve the quality of recreational access.
- ECON 7 - Managing urban lakes water quality will reduce some costs associated with future stormwater infrastructure retrofits and maintenance.

#### Negative

- NA



### Social

#### Positive

- SS1 - Project will help improve access to nature and physical activity within the City.
- SS2 - Urban lakes are popular places for community members to interact; healthier lakes will encourage increased usage.
- SS3 - Managing water quality in urban lakes will reduce the frequency and severity of algae blooms and other human health-related issues

#### Negative

- NA

### Tradeoffs / Mitigations

#### Tradeoffs

- NA

#### Mitigations

- NA

**Key Alignment:** This project is most aligned with the environmental category. It is expected to improve water quality management of the City's urban lakes for the benefit of the environment and community members.

Project: **Fort Collins' Urban Lakes Water Quality Management Policy and Guidance**



Discussion

This project is expected to positively impact water quality and improve the overall environmental health of City-owned urban lakes. The management framework and tools provided by this project will likely result in reduced frequency and severity of algae blooms and other water quality issues. Improving urban lakes water quality will benefit plant and animal communities utilizing these resources as habitat. Development of the Policy and Guidance have been informed using feedback received during a community engagement process. The Guidance will be available to the general public as an educational and technical resource. The Policy and Guidance will improve environmental health by supporting ongoing water quality-related planning and collaboration and.

The City of Fort Collins is known for its public access to natural resources and recreation. Improving urban lakes water quality could enhance the City's brand and increase tourist visitation. Increases in visitation and usage at local lakes could indirectly benefit local businesses and the City's overall economic health. The economic health of the City will likely benefit from this project by reducing the need to replace and maintain stormwater infrastructure. And lastly, the project will positively benefit social health within the City by improving access to natural spaces, physical activity and social connection.

The Policy and Guidance also align with the City's Strategic Plan by addressing the following strategic objectives:

**Strategic Objective 4.5** – Protect and enhance natural resources on City-owned properties and throughout the community.

**Strategic Objective 4.6** – Sustain and improve the health of the Cache la Poudre River and all watersheds within the City

## AGENDA ITEM SUMMARY

City Council



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### STAFF

Nina Bodenhamer, Director, City Give  
Ted Hewitt, Legal

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### SUBJECT

**Second Reading of Ordinance No. 026, 2023, Appropriating Philanthropic Revenue Received Through City Give for The Gardens on Spring Creek for General Operations as Designated by the Donor.**

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### EXECUTIVE SUMMARY

The purpose of this Ordinance, adopted 5-1 (Nay: Ohlson) on First Reading on February 21, 2023, is to request appropriation of \$100,000 in philanthropic revenue received through City Give for The Gardens on Spring Creek for general operations as designated by the donor.

In 2019, City Give, a formalized enterprise-wide initiative was launched to create a transparent, non-partisan governance structure for the acceptance and appropriations of charitable gifts.

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### STAFF RECOMMENDATION

Staff recommends adoption of the Ordinance on Second Reading.

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### BACKGROUND / DISCUSSION

The Gardens on Spring Creek is the community botanic garden of Fort Collins, Colorado. The 18-acre site opened in 2004 and has a history of generous philanthropic community support. Following a two-year, \$6 million expansion project, The Gardens now offers an expanded Visitor's Center and gift shop, Butterfly House, Everitt Pavilion and Great Lawn, along with five acres of new gardens.

The purpose of this item is to request appropriation of \$100,000 in philanthropic revenue received through City Give for The Gardens on Spring Creek for general operations as designated by the donor. In a continued investment in capital improvements, The Gardens on Spring Creek secured a \$100,000 philanthropic award from Nutrien designated for exterior capital improvements of the Outdoor Teaching Kitchen. Nutrien's generosity will be acknowledged onsite at The Gardens on Spring Creek via terms and details outlined in a Gift Agreement per City Give policy.

Nutrien is a Canadian fertilizer company and a leading global provider of agricultural products, services, and solutions. Nutrien has offices across Colorado including Nutrien Ag Solutions in Greeley and a corporate campus in Loveland with approximately 3,000 employees.

**CITY FINANCIAL IMPACTS**

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This Ordinance will appropriate \$100,000 in philanthropic revenue received through City Give for The Gardens on Spring Creek and expended in the Cultural Services and Facilities Fund. The funds have been received and accepted per the City Give Administrative and Financial Policy.

The City Manager has also determined that these appropriations are available and previously unappropriated from the designated funds and will not cause the total amount appropriated in these funds to exceed the current estimate of actual and anticipated revenues and all other funds to be received in these funds during fiscal year 2023.

**BOARD / COMMISSION / COMMITTEE RECOMMENDATION**

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None.

**PUBLIC OUTREACH**

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None.

**ATTACHMENTS**

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First Reading attachments not included.

1. Ordinance for Consideration

ORDINANCE NO. 026, 2023  
OF THE COUNCIL OF THE CITY OF FORT COLLINS  
APPROPRIATING PHILANTHROPIC REVENUE RECEIVED THROUGH  
CITY GIVE FOR THE GARDENS ON SPRING CREEK FOR  
GENERAL OPERATIONS AS DESIGNATED BY THE DONOR

WHEREAS, Nutrien has generously donated \$100,000 to the City of Fort Collins to support The Gardens on Spring Creek (“The Gardens”); and

WHEREAS, the \$100,000 donation is designated for exterior capital improvements of the Outdoor Teaching Kitchen at The Gardens; and

WHEREAS, Nutrien’s generosity will be acknowledged onsite at The Gardens via terms and details outlined in a Gift Agreement per City Give policy; and

WHEREAS, this appropriation benefits public health, safety and welfare of the citizens of Fort Collins and serves the public purpose of improving a public cultural facility; and

WHEREAS, Article V, Section 9 of the City Charter permits the City Council, upon recommendation of the City Manager, to make a supplemental appropriation by ordinance at any time during the fiscal year, provided that the total amount of such supplemental appropriation, in combination with all previous appropriations for that fiscal year, do not exceed the current estimate of actual and anticipated revenues and all other funds to be received during the fiscal year; and

WHEREAS, the City Manager has recommended the appropriation described herein and determined that this appropriation is available and previously unappropriated from the Cultural Services and Facilities Fund and will not cause the total amount appropriated in the Cultural Services and Facilities Fund to exceed the current estimate of actual and anticipated revenues and all other funds to be received in this Fund during this fiscal year.

NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF FORT COLLINS as follows:

Section 1. That the City Council hereby makes and adopts the determinations and findings contained in the recitals set forth above.

Section 2. That there is hereby appropriated from new philanthropic revenue in the Cultural Services and Facilities Fund the sum of ONE HUNDRED THOUSAND DOLLARS (\$100,000) to be expended in the Cultural Services and Facilities Fund by The Gardens on Spring Creek for general operations of The Gardens on Spring Creek.



Introduced, considered favorably on first reading, and ordered published this 21st day of February 2023, and to be presented for final passage on the 7th day of March 2023.

\_\_\_\_\_  
Mayor

ATTEST:

\_\_\_\_\_  
City Clerk

Passed and adopted on final reading this 7th day of March, 2023.

\_\_\_\_\_  
Mayor

ATTEST:

\_\_\_\_\_  
City Clerk

# AGENDA ITEM SUMMARY

City Council



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## STAFF

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Travis Storin, Chief Financial Officer,  
Jason Licon, Northern Colorado Regional Airport Director  
Ryan Malarky, Legal

## SUBJECT

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**Second Reading of Ordinance No. 031, 2023 Appropriating Prior Year Reserves for a Capital Contribution of \$1,000,000 for Construction of a New Public Terminal Facility at the Northern Colorado Regional Airport.**

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## EXECUTIVE SUMMARY

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The purpose of this Ordinance, adopted 5-1 (Nay: Ohlson) on First Reading on February 21, 2023, is to appropriate an anticipated \$1,000,000 capital contribution for the construction of a new public terminal facility (Project) at the Northern Colorado Regional Airport (Airport). Total Project costs are estimated to be \$25,000,000, and this Ordinance's adoption by the end of February helps to secure the anticipated \$21,000,000 of federal funding. At the suggestion of the Council Finance Committee, staff has developed a series of performance indicators to use as terms and conditions of the City contribution.

The Ordinance has been revised between first and second reading to add a new sixth recital listing the performance indicators for the Project that City staff identified. These indicators were not explicitly included in the changes to the Ordinance read into the record at first reading and approved by Council. These performance indicators are: (i) the Project achieve LEED Silver building certification; (ii) the Project include a public art commitment at 1% of the non-federal funding; (iii) the terminal's carbon footprint be no greater than 198 metric tons of carbon dioxide equivalent; (iv) the terminal have enhanced accessibility; and (v) the Airport achieve by 2028 no less than 33,000 bus or air passengers annually utilizing the terminal.

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## STAFF RECOMMENDATION

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Staff recommends adoption of the Ordinance on Second Reading.

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## BACKGROUND / DISCUSSION

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The Airport, which is jointly owned by the Cities of Fort Collins and Loveland, is seeking additional funding to complete the total need for the \$25M Project. This new terminal will replace the inadequate, temporary facilities used for growing multi-modal transportation segment, charters, and future airline services. The new terminal will include two airline gates, Denver International Airport (DIA) transportation, and transit access.

The current terminal was constructed in 1989 for 19 passenger aircraft. This facility does not meet current or future capacity needs nor accessibility standards. The existing building will be repurposed for TSA, airline, and Airport office space and the modular structure will be decommissioned. The new 19,400 square

port terminal would support two airline gates, transportation to and from DIA, transit, and Transportation Network Company (rideshare) access, and future expansion. The facility is being designed to a LEED Silver level of sustainability.

The total cost of the Project is being funded by Federal Funds (\$21M), Airport Capital Reserves (\$2M), City of Loveland contribution (\$1M), and this request for a City of Fort Collins Contribution of (\$1M). This will give the Project the total needed to complete the work.

The current Airport Master Plan was adopted by both Cities in 2020. Beginning in January 2021, the Airport conducted public design charrettes and other outreach regarding the Project. Phase 1 of the Project was an expansion of the aircraft parking apron for \$3M, which was 100% federally funded and completed in October 2021. Due to funding shortfalls, a major design change of the Project was completed in October 2022 to reduce the overall cost burden.

Current phase 2 estimates construction costs of \$18.5M and terminal facility soft costs of \$3.5M. Design is anticipated to be completed in April 2023, followed by contractor bidding concluding in May 2023. Construction is scheduled to start in June 2023 and conclude in October 2024.

A portion of the federal funding associated with the Project is contingent on the contributions from the Cities of Loveland and Fort Collins, combined with Airport reserves, to meet the local match obligation of \$4M and trigger the release of federal funds. This federal funding associated with the Project is time-limited to be spent by July 2024, which the Project schedule accommodates.

At the recommendation of Council Finance Committee. City and Airport staff collaboratively developed a series of performance indicators to be used as conditions for the City’s capital contribution. This team recommends inclusion of the following:

Condition	Baseline / Current State	Target State	Timeline
1) Leadership in Energy and Environmental Design (LEED) Silver building certification	N/A	Yes	1Q 2025
2) Public art commitment at 1% of non-federal contributions	No	Yes	1Q 2025
3) Carbon Footprint of Building	236 MTCO2e	198 MTCO2e	1Q 2025
4) Number of annual outbound passengers served (bus and air)	18,000	33,000	YE 2028
5) Enhanced accessibility	Partial	Fully	1Q 2025

\*Loveland and Fort Collins each pay \$183,395 per year on a ground lease of Airport property for use by the Northern Colorado Law Enforcement Training Center, and each City carries insurance coverage for the property and liabilities of the Airport.

Staff recommends adoption of this Ordinance based on strategic objectives 3.1 and 6.4, which read: *Collaborate with local and regional partners to achieve economic resilience in Northern Colorado; and Support and invest in regional transportation connections.*

Should the Council adopt this Ordinance, staff will negotiate and execute an intergovernmental agreement (IGA) with the City of Loveland for this capital contribution and to include in the IGA the proposed performance indicators and any others Council may request as milestones when some or all of the contribution would be repaid by Loveland to the City if the performance indicators are not met.

As proposed in the Ordinance, the IGA with Loveland would provide:

- (1) if either of the performance indicators for Silver LEED, and building carbon foot-print are not achieved by March 31, 2025, the City shall be repaid \$150,000 of the capital contribution for each performance indicator not achieved within the agreed timeframe;
- (2) if the Airport's annual outbound passengers served by air and bus utilizing the new facility are not 33,000 or more passengers for the calendar year 2028, the City shall be repaid \$200,000.

As written above, if none of the performance indicators are satisfied, the City would receive total repayments of \$500,000. There is no payback amount specifically assigned to achievement of the public art commitment and the enhanced accessibility performance indicators, but their timely achievement will be required in the IGA.

The Ordinance authorizes the City Manager to sign the IGA without further action by the City Council. It also authorizes the City Manager to agree in the IGA, in consultation with the City Attorney, to modification of the repayment and credit conditions so long as such modifications do not remove or significantly change any of the performance indicators and they do not substantially change the timing or amounts of the credit and repayment obligations. In addition, the Ordinance provides that the City Manager may agree to such other terms and conditions in the IGA as she determines, in consultation with the City Attorney, are necessary or appropriate to protect the interests of the City.

It also needs to be noted that because of TABOR, Loveland's financial obligations under the IGA will be subject to annual appropriation by Loveland's City Council of the needed funds.

### **CITY FINANCIAL IMPACTS**

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The proposed contribution would come from General Fund reserves. While year-end financial statements are still in a draft stage and have yet to undergo the external audit, preliminary figures show an increase in General Fund reserves of approximately \$9M. These funds are available for any municipal purpose through supplemental appropriations, the 2024 budget revision cycle (to be conducted in late summer 2023), and the 2025-2026 BFO cycle.

### **BOARD / COMMISSION / COMMITTEE RECOMMENDATION**

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Council Finance Committee did not reach a recommendation to the Council, instead directing staff to bring the item for discussion with the full Council.

### **PUBLIC OUTREACH**

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None.

### **ATTACHMENTS**

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1. Ordinance for Consideration

ORDINANCE NO. 022, 2023  
OF THE COUNCIL OF THE CITY OF FORT COLLINS  
APPROPRIATING PRIOR YEAR RESERVES FOR A CAPITAL CONTRIBUTION OF  
\$1,000,000 FOR CONSTRUCTION OF A NEW PUBLIC TERMINAL FACILITY  
AT THE NORTHERN COLORADO REGIONAL AIRPORT

WHEREAS, the City of Fort Collins (the “City”) and the City of Loveland (“Loveland”) jointly own the Northern Colorado Regional Airport (the “Airport”); and

WHEREAS, the Airport is currently undertaking a project to construct a new public terminal facility (the “Project”) for the purpose of growing multi-modal transportation, charters, and future airline services; and

WHEREAS, the Project is estimated to have a total cost \$25,000,000, with \$21,000,000 from federal funding, of which \$1,590,000 is contingent upon a local match of \$175,000; and

WHEREAS, the Project is dependent upon a local contribution obligation of \$4,000,000, of which \$2,000,000 will come from the Airport’s capital reserves and \$1,000,000 is proposed to be contributed each by the City and Loveland; and

WHEREAS, City Council’s Finance Committee recommended that City staff collaborate with Airport staff to develop a series of performance indicators for the Project; and

WHEREAS, City staff has identified the following performance indicators: (i) no later than March 31, 2025, the Project shall achieve LEED Silver building certification; the Project shall include a public art commitment at 1% of non-federal funding contributions to the Project; and the carbon footprint of the building shall be no greater than 198 metric tons of carbon dioxide equivalent; and enhanced accessibility to the building will be provided; and (ii) by year-end 2028, the Airport shall achieve no less than 33,000 bus or air passengers annually that directly utilize the new terminal facility (collectively, the “Performance Indicators”); and

WHEREAS, this Ordinance directs the City Manager to negotiate and execute an intergovernmental agreement with Loveland for this capital contribution that addresses the Performance Indicators, but leaves to the City Manager the discretion as to how they will be addressed in the intergovernmental agreement with the goal being the timely funding of the Project; and

WHEREAS, in addition to appropriating the identified funds, this Ordinance is intended to provide a public position of support for the Project to allow for the release of federal funding; and

WHEREAS, this appropriation benefits the public health, safety and welfare of the residents of Fort Collins and serves the public purpose of providing funding for the construction of a new public terminal facility at the Airport with the intent of growing multi-modal transportation, charters, and future airline services that Fort Collins residents will be able to access; and

WHEREAS, Article V, Section 9 of the City Charter permits the City Council, upon the recommendation of the City Manager, to make supplemental appropriations by ordinance at any time during the fiscal year such funds for expenditure as may be available from reserves accumulated in prior years, notwithstanding that such reserves were not previously appropriated; and

WHEREAS, the City Manager has recommended the appropriation described herein and determined that this appropriation is available and previously unappropriated from the General Fund and will not cause the total amount appropriated in the General Fund to exceed the current estimate of actual and anticipated revenues and all other funds to be received in this Fund during this fiscal year.

NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF FORT COLLINS as follows:

Section 1. That the City Council hereby makes and adopts the determinations and findings contained in the recitals set forth above.

Section 2. That there is hereby appropriated from prior year reserves in the General Fund the sum of ONE MILLION DOLLARS (\$1,000,000) to be expended in the General Fund for a capital contribution for the Project, the construction of a new public terminal facility at the Northern Colorado Regional Airport.

Section 3. That the City Manager is directed to negotiate an intergovernmental agreement with Loveland for this capital contribution and is authorized to enter into and sign it on the City's behalf. The City Manager is further authorized to enter into the agreement on such terms and conditions concerning the Performance Indicators as the City Manager determines are in the best interest of the City for the timely funding of the Project.

Introduced, considered favorably on first reading, and ordered published this 21st day of February 2023, and to be presented for final passage on the 7th day of March 2023.

\_\_\_\_\_  
Mayor

ATTEST:

\_\_\_\_\_  
City Clerk

Passed and adopted on final reading on the 7th day of March 2023.

\_\_\_\_\_  
Mayor

ATTEST:

\_\_\_\_\_  
City Clerk