

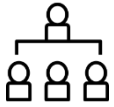
# Water and Sewer Board

## Regular Meeting

City Council Chambers – City Center South

1001 11<sup>th</sup> Avenue – Greeley, Colorado

December 20, 2023 at 2:00 p.m.



Regular meetings of the Water and Sewer Board are held **in person** on the 3rd Wednesday of each month in the City Council Chambers, 1001 11<sup>th</sup> Avenue, Greeley, Colorado.



Members of the public may attend and provide comment during public hearings.



Written comments may be submitted by US mail or dropped off at the

Water and Sewer office located at 1001 11<sup>th</sup> Avenue, 2nd Floor, Greeley,



CO 80631 or emailed to [wsadmin@greeleygov.com](mailto:wsadmin@greeleygov.com). All written

comments must be received by 10:00 a.m. on the date of the meeting.

Meeting agendas and minutes are available on the City's meeting portal at [Greeley-co.municodemeetings.com/](https://greeley-co.municodemeetings.com/)

### IMPORTANT – PLEASE NOTE

This meeting is scheduled as an **in-person session only**. If COVID, weather, or other conditions beyond the control of the City dictate, the meeting will be conducted virtually and notice will be posted on the City's MuniCode meeting portal by 10:00 a.m. on the date of the meeting (<https://greeley-co.municodemeetings.com/>).

In the event it becomes necessary for a meeting to be held virtually, use the link below to join the meeting. Virtual meetings are also livestreamed on YouTube at <https://www.youtube.com/CityofGreeley>.

For more information about this meeting or to request reasonable accommodations, contact the administrative team at 970-350-9801 or by email at [wsadmin@greeleygov.com](mailto:wsadmin@greeleygov.com)



**December 20, 2023 at 2:00 PM**  
**1001 11th Avenue, City Center South, Greeley, CO 80631**

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## Agenda

1. Roll Call      \_\_\_\_\_ Chairman Harold Evans      \_\_\_\_\_ Vice Chairman Mick Todd  
                         \_\_\_\_\_ Ms. Cheri Witt-Brown      \_\_\_\_\_ Mr. Fred Otis  
                         \_\_\_\_\_ Mr. Joe Murphy      \_\_\_\_\_ Mr. Tony Miller  
                         \_\_\_\_\_ Mr. Manuel Sisneros      \_\_\_\_\_ Mayor John Gates  
                         \_\_\_\_\_ Mr. Raymond Lee      \_\_\_\_\_ Ms. Debbie Reid
2. Approval of Minutes
3. Approval of the Agenda
4. Welcome New Employees and Promotions
5. 2024 Board Meeting Dates
6. Development Code Water Policy Update
7. Approve 2024 Rates and Fees Resolution
8. W&S Technology Enablement Initiatives Update
9. Watershed and Wildfire Recovery 2023 Projects Update
10. Legal Report
11. Director's Report
12. Such Other Business That May Be Brought Before the Board Added to This Agenda by Motion of the Board.
13. Adjournment



If, to effectively and fully participate in this meeting, you require an auxiliary aid or other assistance related to a disability, please contact the Water and Sewer Department administrative staff at 970-350-9801 or [wsadmin@greeleygov.com](mailto:wsadmin@greeleygov.com)

**City of Greeley  
Water and Sewer Board  
Minutes of November 15, 2023  
Regular Board Meeting**

Chairman Harold Evans called the Water and Sewer Board meeting to order at 2:00 p.m. on Wednesday, November 15, 2023.

**1. Roll Call**

The Clerk called the roll and those present included:

Board Members:

Chairman Harold Evans, Vice Chairman Mick Todd, Fred Otis, Cheri Witt-Brown, Tony Miller, Joseph Murphy, Manuel Sisneros, and Deputy City Manager Don Tripp on behalf of City Manager Raymond Lee

Water and Sewer Department staff:

W&S Director Sean Chambers, Deputy Director Water Resources Ty Bereskie, Deputy Director of Utility Billing and Customer Service Erik Dial, Chief Engineer Adam Prior, Administrative Assistant III Crystal Sanchez, Office Manager Gigi Allen, Civil Engineer I Keri Fishlock, Civil Engineer IV Rebecca Andrus, Plans Examiner Derek Hannon, Rates and Budget Analyst Virgil Pierce, Water Resource Administrator II Alex Tenant

Legal Counsel:

Supervising Senior Environmental and Water Attorney Jerrae Swanson, Senior Environmental and Water Resources Attorney Dan Biwer, Environmental & Water Resources Attorney I Arthur Sayre and Counsel to Water & Sewer Board Attorney Carolyn Burr

Guests:

Greeley City Council member Deb DeBoutez, Chief Financial Officer Rodney Rhoades (joined virtually), Finance Administrative Assistant III Laura Delp, James Sutherland of Wingfoot Water Resources

**2. Approval of Minutes**

Ms. Witt-Brown made a motion, seconded by Vice Chairman Todd, to approve the October 18, 2023 Water and Sewer Board meeting minutes. The motion carried 7-0.

**3. Approval of the Agenda**

Item #5, Lead Service Line Prohibition Code Changes will be an update and will not be recommended to Council at this time.

**4. Welcome New Employees and Promotions**

Sean Chambers provided an introduction of new Water and Sewer Department employees starting this month as well as announced department promotions.

**5. Update on Lead Service Line Prohibition Code Changes**

Adam Prior and Keri Fishlock discussed how the EPA's Lead and Copper Rule Revisions (LCCR) require the city to develop an inventory of all public and private water service line materials and remove lead service lines. The city is offering a free program to replace customer service lines that are found to contain lead. The City is proposing a new ordinance to prohibition lead service lines, require removal of lead service lines, and comply with LCCR Regulations.

**6. Development Code Water Policy Update**

Erik Dial discussed with the Water and Sewer Board proposed changes to Title 20 of the Municipal Code. Most of the changes proposed align code with current practices and procedures but staff proposed a limited number of changes to fees charged that deserve Board deliberation. Staff discussed the changes to what was presented to the Board in September and October and sought additional feedback. Staff expect to bring the code changes to the Board in December for recommendation to City Council.

**7. Customer Information System (CIS) Update**

Erik Dial updated the Water and Sewer Board on the status of the Customer Information System (CIS) replacement project. The limitations of Greeley's current CIS and the enhanced customer service functionality a new CIS will provide were discussed.

Rodney Rhoades left the meeting at 2:57 pm

**8. Water Supply Update**

Alex Tennant provided a presentation and memorandum to the W&S Board on current water supply, 2023 weather summary, 2023 agricultural water rental summary, and the drought forecast through the end of the year.

**9. Severance IGA Concept**

The town of Severance approached the city about constructing an emergency water interconnect from Greeley. The original proposal infrastructure had limited benefits or justifications for the extensive time and resources to complete the interconnect. Staff has reviewed the 2021



Transmission and Distribution Master Plans, City of Greeley Comprehensive Plan, and worked in collaboration with the Town to adjust the infrastructure concepts to provide mutual benefits for Greeley and Severance. Staff discussed the original and revised concepts for an emergency interconnect with Severance and associated master plan considerations for expansion of Greeley's water system.

Alex Tennant left the meeting at 3:45 pm

**10. Legal Report**

Based on staff and outside counsel review of the September 2023 Water Division 1 Resume, staff and water counsel recommend that the Water and Sewer Board file a statement of opposition by the end of November 2023 to the following water court application:

1. **Case No. 23CW3112:** Applicant, Hartford Investments, LLC, is seeking to appropriate 340 acre feet of conditional storage rights with the right to continuously fill and refill their storage structures any time the water rights are in priority. This water would be for use at a new 570 acre residential community north of Windsor named "Prairie Song." The proposed storage rights are off the Lake Canal Ditch, which is upstream of New Cache and other junior water rights. Staff recommends participating in this case to ensure that the proposed storage rights meet all of the requirements of new appropriations and that the terms of any decree ensure that the junior, conditional rights do not injure Greeley's water rights.

Vice Chairman Todd moved that the Board authorize filing a statement of opposition in Case No. 23CW3112 and for staff and legal counsel to seek resolution of issues raised by this case consistent with Water and Sewer Board Resolution No. 3-15. Seconded by Mr. Miller. Motion carries 7-0.

**11. Director's Report**

Sean Chambers provided a summary overview of several items of Board interest:

1. Northern Water Conservancy District Board fills vacancy and elects new president
2. Noteworthy month for water leaks, particularly in areas with 1960's era cast iron lines
3. City of Greeley and Colorado Water Industry Education and Advocacy Events Calendar
  - a. **CWCB's C-9 Statewide Water Basins Roundtable Summit** – November 14<sup>th</sup>  
Broomfield  
<https://engagecwcb.org/c9-summit>
  - b. **Northern Colorado Water Conservancy District's Fall Symposium** – Nov. 15<sup>th</sup> at  
the Embassy Suites – Loveland, CO  
<https://www.northernwater.org/NorthernWaterevents>

- c. **Colorado Ag Water Alliance Agricultural Water Summit** – Nov. 17-18<sup>th</sup> at Larimer Co. Fairgrounds, Loveland, CO  
[www.coagwater.org/summit](http://www.coagwater.org/summit)
- d. **West Greeley Conservation District Ag Symposium** – Nov. 29 – 30<sup>th</sup> at Island Grove Park, Greeley  
<https://www.wgcd.org/>
- e. **South Platte Basin Water Forum** – November 30<sup>th</sup> at Aims Community College Welcome Center  
<https://www.southplatteforum.org/>
- f. **Water Stewardship and Innovation Summit** – Dec. 4<sup>th</sup> Denver CO – Black & Vetch and Google collaboration  
Draft agenda is attached.
- g. **Colorado River Water User Association (CRWUA) Annual Meeting** – Dec. 13 – 15<sup>th</sup>  
<https://www.crwua.org/welcome.html>
- h. **Colorado Water Congress Annual Meeting & Legislative Breakfast** – Jan. 31- Feb 2<sup>nd</sup> at Aurora-Denver Conference Center  
<https://www.cowatercongress.org/advocacy/>

**15. Such Other Business That May Be Brought Before the Board Added to This Agenda by Motion of the Board**

No other business was brought before the Board

**16. Adjournment**

Chairman Evans adjourned the meeting at 4:02 p.m.

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Harold Evans, Chairman

Raymond Lee, Board Secretary



## Water & Sewer Agenda Summary

December 20, 2023

Key Staff Contact: Sean Chambers, Water & Sewer Director

### Title:

Welcome New Employees and Promotions

### Summary:

New Hires: Andrew D'Amico – Plant Operator D

Promotions: Brent Stanfield – WTRF Lab Supervisor  
Callie Covington – WTRF Lab Coordinator  
Brian Cobb - Plant Operator A  
Megan Kramer - Water Resource Administrator II

### Recommended Action:

Informational Only

### Recommended Motion:

N/A

### Attachments:

None



## Water & Sewer Agenda Summary

December 20, 2023

Key Staff Contact: Sean Chambers, Water & Sewer Director

### Title:

2024 Board Meeting Dates

### Summary:

Board Meetings will be set and noticed for the following dates. Except Wednesday June 26th and Wednesday, November 13th, all other meeting dates are set for the 3rd Wednesday monthly. The June 2024 meeting is being set for the 4th Wednesday to avoid a holiday conflict with Juneteenth 2024 and the November 2024 is being set for the 2nd Wednesday to avoid a conflict with Thanksgiving. Board meetings are set for City Council Chambers at 1001 11th Avenue, Greeley, CO 80631, and meetings of the Board are set to commence at 2:00 p.m. unless otherwise noticed.

January 17, 2024  
February 21, 2024  
March 20, 2024  
April 17, 2024  
May 15, 2024  
June 26, 2024  
July 17, 2024  
August 21, 2024  
September 18, 2024  
October 16, 2024  
November 13, 2024  
December 18, 2024

### Recommended Action:

Staff recommends Board approve 2024 dates

### Recommended Motion:

### Attachments:

None



## Water & Sewer Agenda Summary

December 20, 2023

Key Staff Contact: Erik Dial, Deputy Director of Utility Finance

### Title:

Development Code Water Policy Update

### Summary:

Staff will discuss with the Water and Sewer Board proposed changes to Title 20 of the Municipal Code. Most of the changes proposed are aligning code with current practices and procedures but staff is proposing a limited number of changes to fees charged that deserve Board deliberation. Staff will discuss the changes to what was presented to Board monthly since September and seek additional feedback. Additionally, Community Development leadership will be introduced and will discuss with the Board the development trends impacting Greeley and Northern Colorado.

The draft code revisions have been included in the Board packet for review, but not action. Staff expects to bring the code changes to the Board in January for recommendation to City Council.

### Recommended Action:

None

### Recommended Motion:

None

### Attachments:

1. Water Dev Code Update - December
2. 2023.12.13 W and S Dev Code-Draft Ordinance



# **Municipal Code Title 20 Update Policy Discussion**

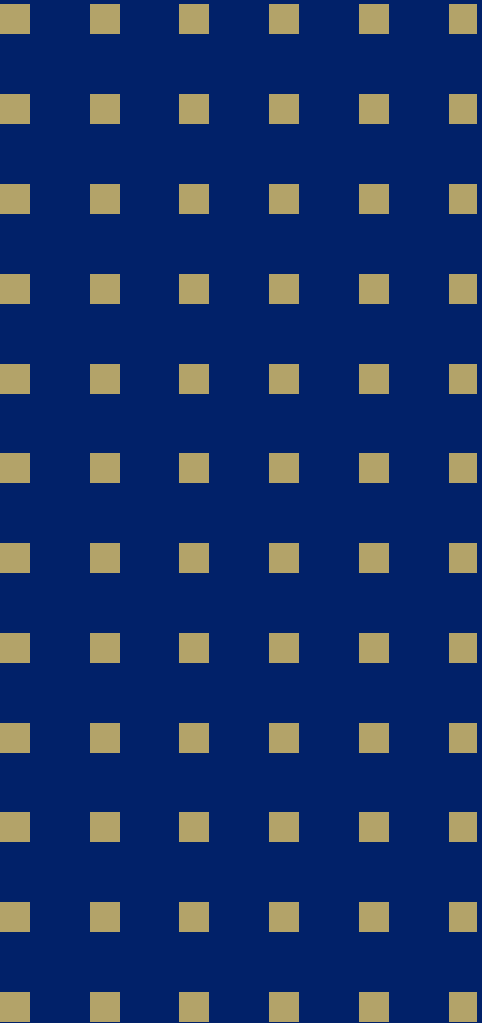
**Water & Sewer Board  
December 20, 2023**

# Agenda



- Development Trends – Community Development Leadership
- Outstanding Policy Issues
  - Tap and Service Configuration
  - Large Lot Raw Water Requirement
- Plant Investment Fee Discussion



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# Development Trends



# Development Trends

- Community Development Director Brian McBroom and Deputy Directory of Community Development Don Threewitt introduction
- 2024 Growth and Development report/dashboard: March 2024
- Housing Needs Assessment: completed in 2023

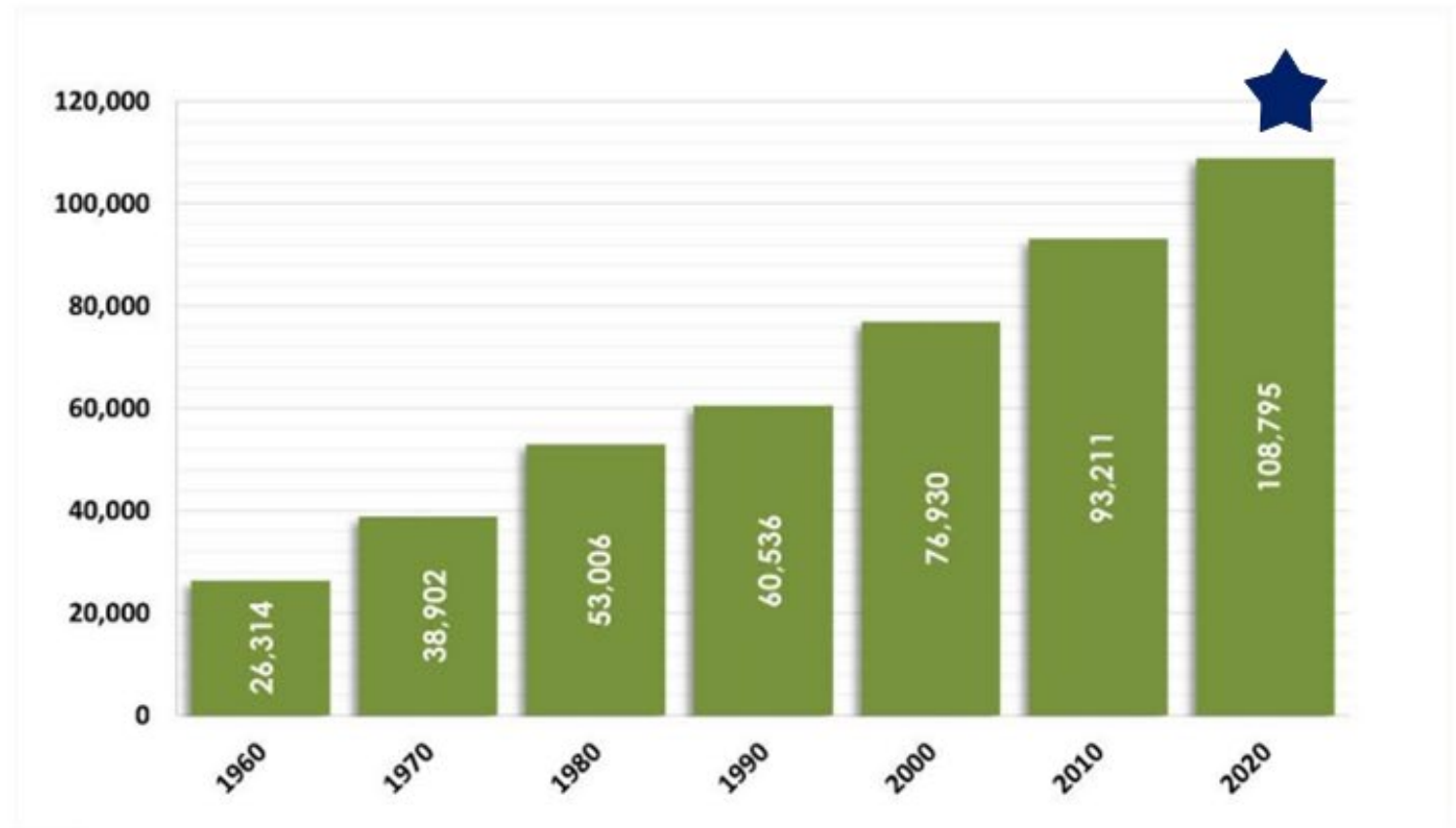
# Growth Influences

- Water (Terry Ranch)
- Nearby growth moratoriums (water)
- Available land
- Market demand (product flexibility)
- Financing
- Metro migration
  - Affordability/remote work/quality of life

# Population

- Greeley's growth is projected to match historic trends and grow steadily at about a **1.81% rate**
- The City's 2020 projection was in line with the reported Census Bureau calculation
- Forecast 2023: 113,703
- Forecast 2027: 122,161

Figure 1: Census Population Decennial 1960-2020



★ Fun Fact: a 1964 City Report placed in a 1969 Time Capsule projected Greeley's 2020 population to be 108,325, a difference of just 470 persons

# Residential Trends

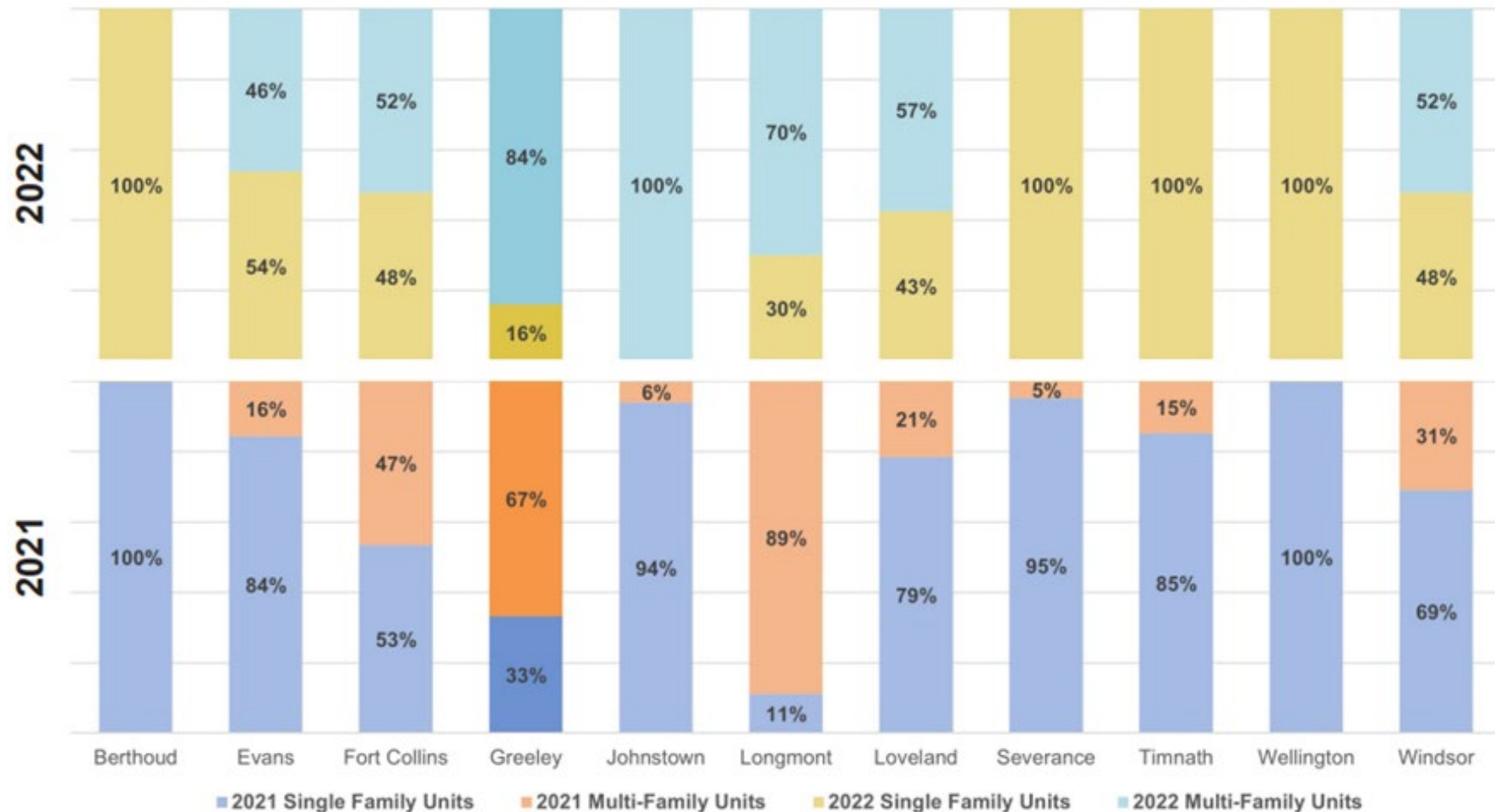


Figure 8: Residential building permit activity for Northern Colorado in 2021 and 2022.

# Looking Forward

- Potential legislative changes enabling condominiums
- Housing initiatives and incentives development
- Interest rate relief anticipated mid-summer 2024 – rapid uptick
- Continued/increased in-migration [4<sup>th</sup> most popular city for Denver relocations]

# Looking Forward

- **Multi-generational housing models**

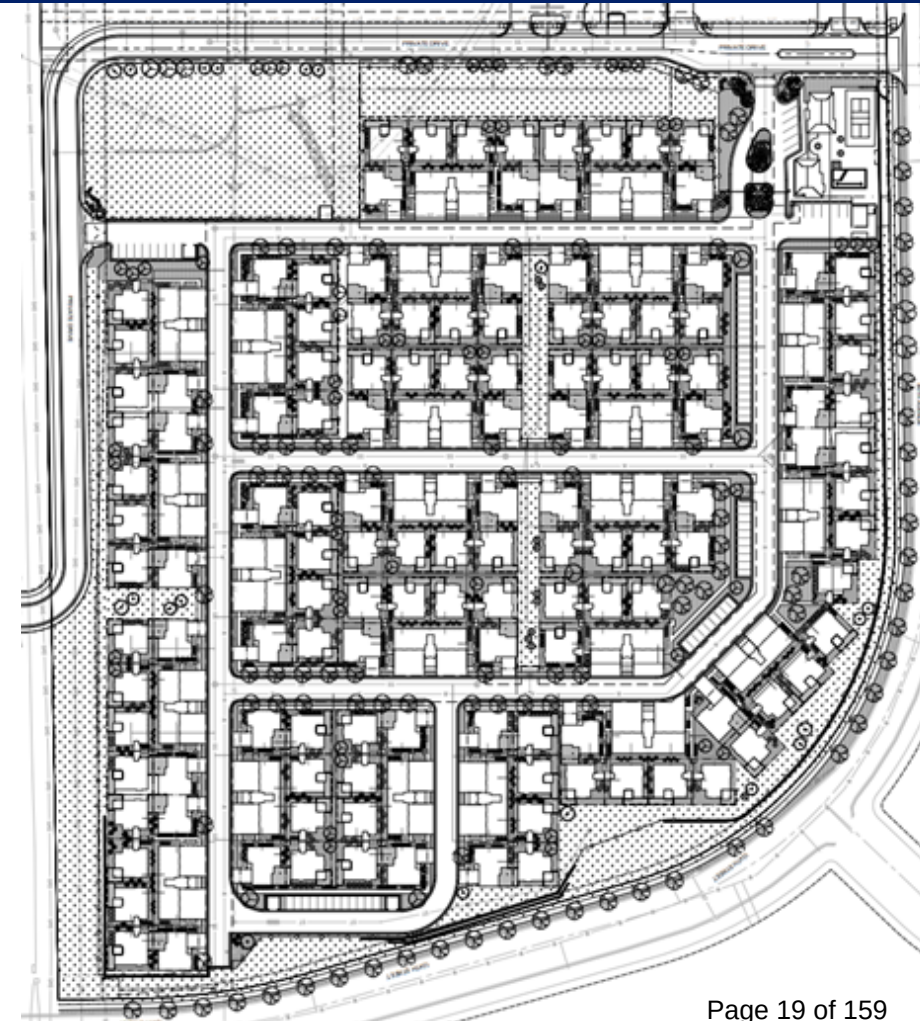
- 1 in 5 American families now live with extended family members in one household
- Greeley's person/household count edged up from 2.7 to 2.74 in the last Census

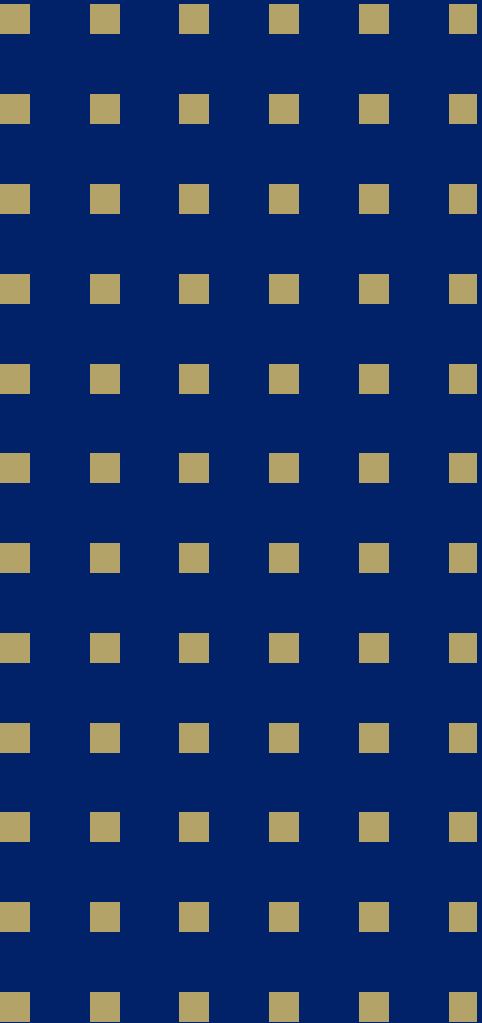
- **New Development Code Options**

- Smaller lots, "micro-housing options, Accessory Dwelling Units
- Mixed-use zones and buildings

- **Single-family Home Investors**

- New single-family homes purchased by investors as rental properties
- "Build-to-rent" communities (one lot, mixed housing types, all rentals)



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# Tap and Service Configuration





# Row House Scenarios

Single Lot 6 DUs



No master meter allowed

Proposed Graduated PIFs  
Water PIF = \$36,300  
Sewer PIF = \$41,400  
Total PIF = \$77,700

Single Lot 18 DUs

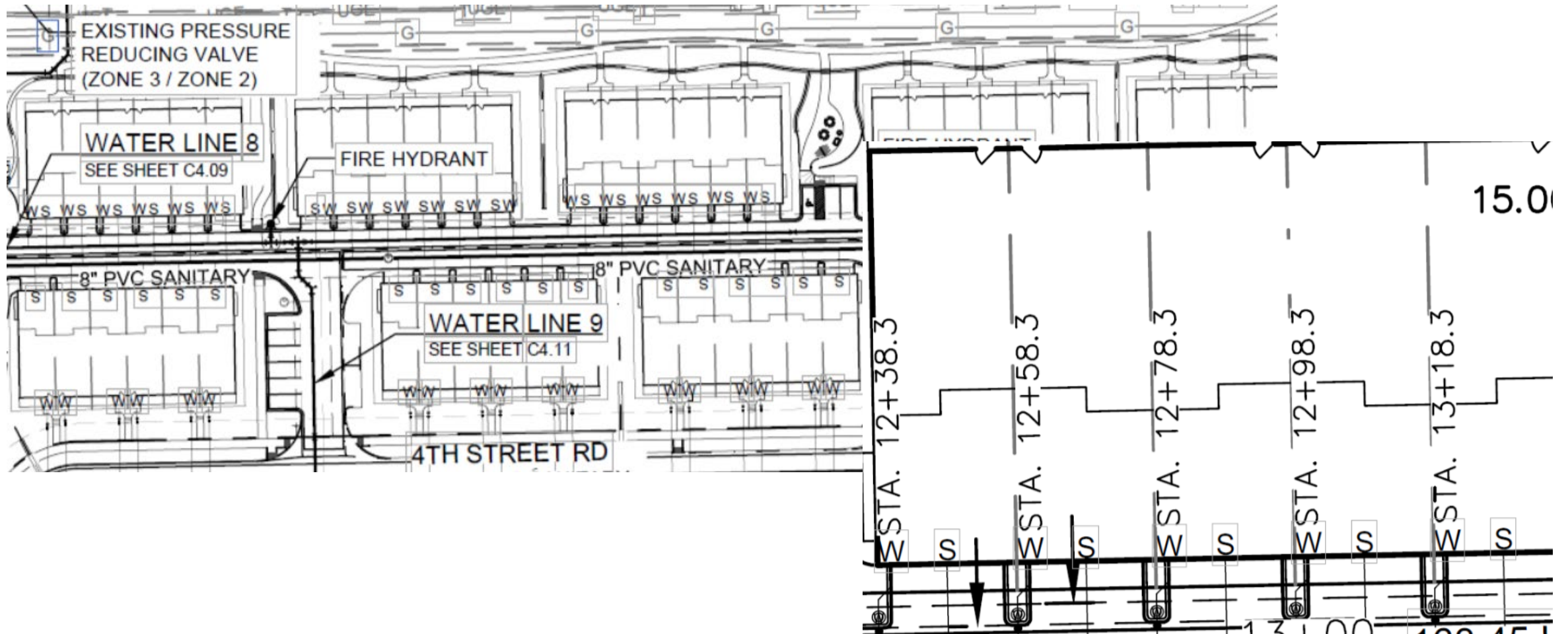
PIFs per Building  
Water PIF = \$40,300  
Sewer PIF = \$23,000  
Total PIF = \$63,300



Single meter per building allowed

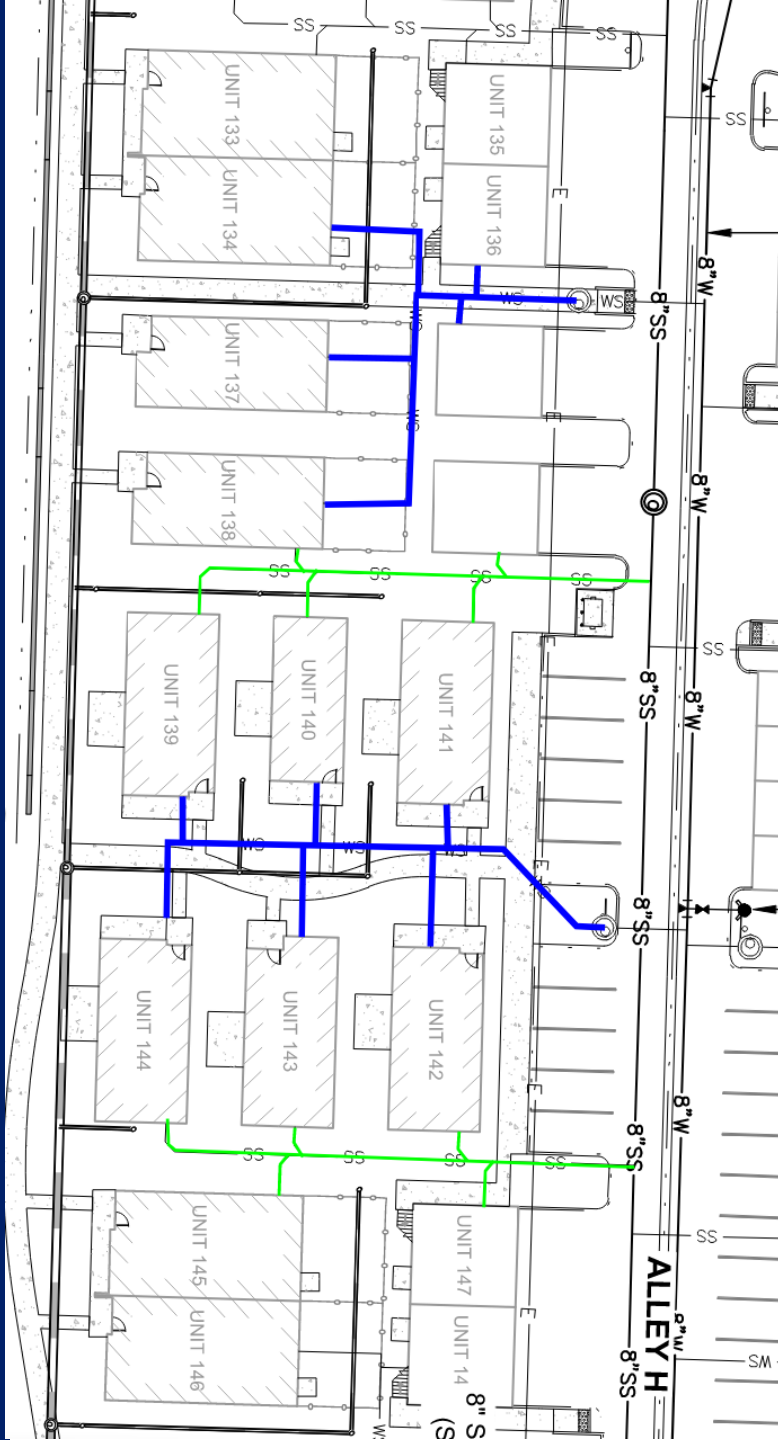


# Row House Example – Separate Lots





# Single Family and Duplexes Example – Single Lot

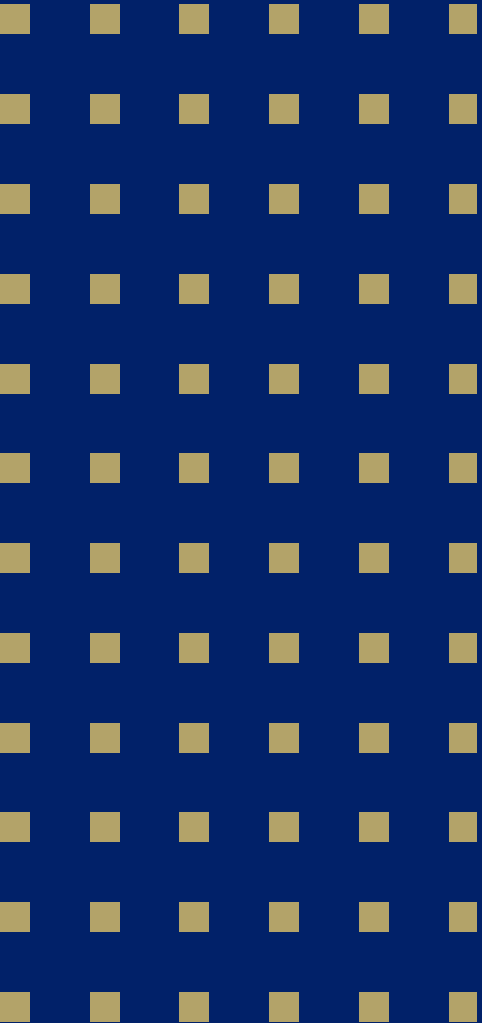


- Recently proposed project for residential land within Boomerang Links
- Highlighted lines are proposed private services
- Each master meter serves a cluster of about six units
- Individual services would require spurs of City owned mains between each cluster

# Alternative Metering Options & Challenges



- Indoor
  - Replacements difficult
    - Customers don't respond
  - Risk
  - Cellular signal blocked
- Meter box in driveways
  - Freeze issues
  - Repairs impactful
  - Cellular signal blocked or endpoint damaged

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# Outstanding Policy Issues



# Large Lot (Currently 1 Acre or Larger) Dedication



- Current standard requires a service commitment agreement
  - Allows for dedication based on “developed” area
  - This creates inequities for large lots compared to large, but still under 1 acre lots

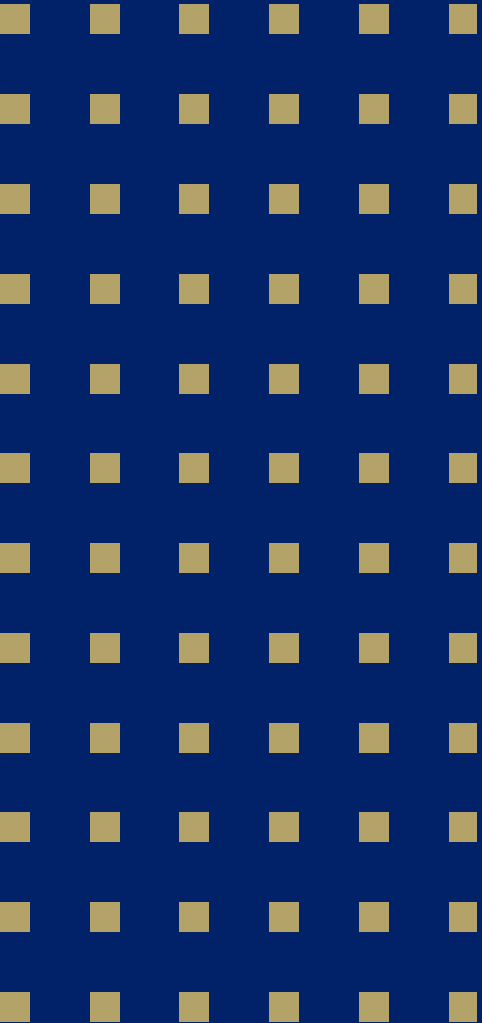
| Lot Size                        | Raw Water Required (AF) |
|---------------------------------|-------------------------|
| 2.5 Acres – 0.3 Acres developed | 0.90                    |
| 0.33 Acres                      | 0.99                    |
| 0.50 Acres                      | 1.50                    |
| 0.75 Acres                      | 2.25                    |



# Large Lot Raw Water Dedication

- Options
  - Reinstate the large lot exemption code language prior to 2021
    - Any lot 1 acre or larger dedicates 3 acre feet
  - Redefine what a large lot is
    - Proposal: reduce large lot definition to 0.5 acre or more
    - Any lot 0.5 acre or more dedicates 1.5 acre feet

| Lot Size                                  | Raw Water Required (AF) |
|-------------------------------------------|-------------------------|
| 0.5 acre lot – developed space irrelevant | 1.50                    |
| 0.33 Acres                                | 0.99                    |
| 0.75 Acres                                | 1.50                    |
| 2.50 Acres                                | 1.50                    |

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# Plant Investment Fees





# Plant Investment Fees

| Residential Lot Type | Lot Size (s.f.)  | Potable Irrigation | Common Space Non-Potable | House to House Non-Potable |
|----------------------|------------------|--------------------|--------------------------|----------------------------|
| Row House            | >1000 s.f.       | 50%                | 50%                      | 50%                        |
| Small Format         | 1,500-3000 s.f.  | 50%                | 50%                      | 50%                        |
| Small Lot            | 3,000-4,500 s.f. | 60%                | 60%                      | 50%                        |
| Medium Lot           | 4,500-6,000 s.f. | 70%                | 70%                      | 50%                        |
| Standard Lot         | 6,000-13,000     | 100%               | 75%                      | 50%                        |
| Estate Lot           | >13,000          | 100%               | 100%                     | 50%                        |

Plant investment fee schedule included in annual rate resolution

# Small Lot Water PIF Comparison



|                | Proposed Mixed Development | 6,000 SF Standard Lots | 8,000 SF Standard Lots |
|----------------|----------------------------|------------------------|------------------------|
| Total Lot Area | 16.1 Acres                 | 16.1 Acres             | 16.1 Acres             |
| Dwelling Units | 174                        | 116                    | 87                     |
| Water PIFs     | \$1,289,860                | \$1,403,600            | \$1,052,700            |
| Sewer PIFs     | \$1,200,600                | \$800,400              | \$600,300              |
| Total PIFs     | \$2,490,460                | \$2,204,000            | \$1,653,000            |

- Proposed graduated water plant investment fee (PIF) compared to traditional single family development
  - (From a current development proposal)
- The mix between water and sewer PIFs will change but amount collected is generally higher for denser developments

# Future Steps



- Additional W&S Board feedback
  - Code revisions to Board for approval next month
  - Code changes to City Council in February/March
  - Sewer PIF study with rate consultant in 2024
- 
- Graduated Water PIF revisions included in 2024 Rate Resolution

# Thank you

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**CITY OF GREELEY, COLORADO**  
**ORDINANCE NO. \_\_\_\_\_, 2024**

**AN ORDINANCE AMENDING TITLE 20, CHAPTERS 2, 3, AND 5 OF THE GREELEY  
MUNICIPAL CODE RELATING TO WATER AND SEWER SERVICE**

WHEREAS, the City of Greeley, Colorado ("City") is a home rule municipality empowered pursuant to Sections 1 and 6 of Article XX of the Colorado Constitution to, inter alia, construct, purchase, acquire, lease, add to, maintain, conduct, and operate water works and everything required therefor, within or without its territorial limits, for the use of the City; and

WHEREAS, Section 17-1 of the Greeley City Charter authorizes the Greeley Water and Sewer Board ("Board") to qualify the Water and Sewer functions and operations as an "enterprise" as that term is contained in Article X, Section 20 of the Colorado Constitution, and to provide for every function and operation of an enterprise, including but not limited to, bond issuance and all other necessary and ordinary functions of the Water and Sewer operations; and

WHEREAS, various Sections within Title 20 of the Greeley Municipal Code set forth the requirements and regulations related to the initiation and use of water and sewer services from the City; and

WHEREAS, City Water and Sewer staff and legal counsel previously prepared and presented to the Board various corrections and modifications to Title 20 that relate to the initiation and use of water and sewer service based on recommended policy changes; and

WHEREAS, after receiving and incorporating its feedback, City Water and Sewer staff and legal counsel presented Appendix A, attached hereto and incorporated herein, on [date] to the Board and the Board approved and recommended City Council adopt the same.

**NOW THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF GREELEY,  
COLORADO:**

Section 1. That Section 20-19 contained in Chapter 2 of Title 20 of the Greeley Municipal Code shall be amended as shown on Appendix A.

Section 2. That Section 20-87 contained in Chapter 3 Article II of Title 20 of the Greeley Municipal Code shall be amended as shown on Appendix A.

Section 3. That Section 20-88 contained in Chapter 3 Article II of Title 20 of the Greeley Municipal Code shall be amended as shown on Appendix A.

Section 4. That Section 20-120 contained in Chapter 3 Article III Division 1 of Title 20 of the Greeley Municipal Code shall be amended as shown on Appendix A.

Section 5. That Section 20-121 contained in Chapter 3 Article III Division 1 of Title 20 of the Greeley Municipal Code shall be amended as shown on Appendix A.

Section 6. That Section 20-154 contained in Chapter 3 Article III Division 2 of Title 20 of the Greeley Municipal Code shall be amended as shown on Appendix A.

Section 7. That Section 20-159 contained in Chapter 3 Article III Division 2 of Title 20 of the Greeley Municipal Code shall be amended as shown on Appendix A.

Section 8. That Section 20-160 contained in Chapter 3 Article III Division 2 of Title 20 of the Greeley Municipal Code shall be amended as shown on Appendix A.

Section 9. That Section 20-161 contained in Chapter 3 Article III Division 2 of Title 20 of the Greeley Municipal Code shall be amended as shown on Appendix A.

Section 10. That Section 20-251 contained in Chapter 3 Article III Division 5 of Title 20 of the Greeley Municipal Code shall be amended as shown on Appendix A.

Section 11. That Section 20-252 contained in Chapter 3 Article III Division 5 of Title 20 of the Greeley Municipal Code shall be amended as shown on Appendix A.

Section 12. That Section 20-253 contained in Chapter 3 Article III Division 5 of Title 20 of the Greeley Municipal Code shall be amended as shown on Appendix A.

Section 13. That Section 20-254 contained in Chapter 3 Article III Division 5 of Title 20 of the Greeley Municipal Code shall be amended as shown on Appendix A.

Section 14. That Section 20-257 contained in Chapter 3 Article III Division 5 of Title 20 of the Greeley Municipal Code shall be amended as shown on Appendix A.

Section 15. That Section 20-260 contained in Chapter 3 Article III Division 5 of Title 20 of the Greeley Municipal Code shall be amended as shown on Appendix A.

Section 16. That Section 20-261 contained in Chapter 3 Article III Division 5 of Title 20 of the Greeley Municipal Code shall be amended as shown on Appendix A.

Section 17. That Section 20-262 contained in Chapter 3 Article III Division 5 of Title 20 of the Greeley Municipal Code shall be amended as shown on Appendix A.

Section 18. That Section 20-263 contained in Chapter 3 Article III Division 5 of Title 20 of the Greeley Municipal Code shall be amended as shown on Appendix A.

Section 19. That Section 20-264 contained in Chapter 3 Article III Division 5 of Title 20 of the Greeley Municipal Code shall be amended as shown on Appendix A.

Section 20. That Section 20-267 contained in Chapter 3 Article III Division 5 of Title 20 of the Greeley Municipal Code shall be amended as shown on Appendix A.

Section 21. That Section 20-269 contained in Chapter 3 Article III Division 5 of Title 20 of the Greeley Municipal Code shall be amended as shown on Appendix A.

Section 22. That Section 20-295 contained in Chapter 3 Article IV Division 1 of Title 20 of the Greeley Municipal Code shall be amended as shown on Appendix A.

Section 23. That Section 20-299 contained in Chapter 3 Article IV Division 1 of Title 20 of the Greeley Municipal Code shall be amended as shown on Appendix A.

Section 24. That Section 20-322 contained in Chapter 3 Article IV Division 2 of Title 20 of the Greeley Municipal Code shall be amended as shown on Appendix A.

Section 25. That Section 20-323 contained in Chapter 3 Article IV Division 2 of Title 20 of the Greeley Municipal Code shall be amended as shown on Appendix A.

Section 26. That Section 20-324 contained in Chapter 3 Article IV Division 2 of Title 20 of the Greeley Municipal Code shall be amended as shown on Appendix A.

Section 27. That Section 20-326 contained in Chapter 3 Article IV Division 2 of Title 20 of the Greeley Municipal Code shall be amended as shown on Appendix A.

Section 28. That Section 20-327 contained in Chapter 3 Article IV Division 2 of Title 20 of the Greeley Municipal Code shall be amended as shown on Appendix A.

Section 29. That Chapter 3 Article V of Title 20 of the Greeley Municipal Code shall be relocated from Article V to Article IV as Division 3 and amended as shown on Appendix A.

Section 30. That Section 20-355 contained in Chapter 3 Article V of Title 20 of the Greeley Municipal Code shall be amended as shown on Appendix A.

Section 31. That Section 20-361 contained in Chapter 3 Article V of Title 20 of the Greeley Municipal Code shall be amended as shown on Appendix A.

Section 32. That Section 20-365 contained in Chapter 3 Article V of Title 20 of the Greeley Municipal Code shall be amended as shown on Appendix A.

Section 33. That Section 20-665 contained in Chapter 5 of Title 20 of the Greeley Municipal Code shall be amended as shown on Appendix A.

Section 34. That Section 20-666 contained in Chapter 5 of Title 20 of the Greeley Municipal Code shall be amended as shown on Appendix A.

Section 35. That Section 20-667 contained in Chapter 5 of Title 20 of the Greeley Municipal Code shall be amended as shown on Appendix A.

Section 36. That Section 20-668 contained in Chapter 5 of Title 20 of the Greeley Municipal Code shall be amended as shown on Appendix A.

Section 37. That Section 20-670 contained in Chapter 5 of Title 20 of the Greeley Municipal Code shall be amended as shown on Appendix A.

Section 38. Except as explicitly modified on Exhibit A, all other provisions of Title 20 of the Greeley Municipal Code shall remain in full force and effect.

Section 39. This Ordinance shall take effect on the fifth day following its final publication, as provided by Section 3-16 of the Greeley City Charter.

**PASSED AND ADOPTED, SIGNED AND APPROVED ON THIS \_\_\_\_ DAY OF \_\_\_\_\_, 2024**

**ATTEST**

**THE CITY OF GREELEY, COLORADO**

By: \_\_\_\_\_  
City Clerk

By: \_\_\_\_\_  
Mayor



**APPENDIX A**  
**ORDINANCE AMENDING TITLE 20, CHAPTERS 2,3, AND 5 OF THE GREELEY  
MUNICIPAL CODE RELATING TO WATER AND SEWER SERVICE**

Section 1. That Section 20-19 contained in Chapter 2 of Title 20 of the Greeley Municipal Code be amended to read as follows:

Sec. 20-19. ~~Enterprise defined~~ Definitions.

~~For the purposes of this chapter, the term "enterprise" means a government-owned business operated according to the accepted principles and procedures established by the governmental accounting standards board for an enterprise fund operation, authorized to issue its own revenue bonds and receiving under ten percent of annual revenue in grants from all state and local governments combined. The following words, terms, and phrases, when used in chapters 2 and 3 of this title, shall have the meanings ascribed to them in this section, except where otherwise defined in a specific article or the context clearly indicates a different meaning:~~

*Building drain* means the building and all of the plumbing and piping that conveys sanitary sewage from the building to a point five feet outside the foundation wall.

*Building sewer* means that portion of the sanitary sewer line that extends from five feet outside the foundation wall to the public sewer, including the sewer tap on the public sewer or other point of discharge.

*Director*, unless otherwise specified, means the director of the city water and sewer department or their authorized designee.

*Discharge* means any person that discharges or causes the discharge of domestic wastewater directly or indirectly to the publicly owned treatment works (POTW).

*Enterprise* means a government-owned business operated according to the accepted principles and procedures established by the governmental accounting standards board for an enterprise fund operation, authorized to issue its own revenue bonds and receiving under ten percent of annual revenue in grants from all state and local governments combined.

*Individual (private) wastewater disposal system* means a septic tank or similar self-contained receptacle or facility that collects and/or treats or otherwise disposes of domestic wastewater and which is not connected to the POTW.

*Industrial wastewater or nondomestic wastewater* means water carrying wastes from any process or activity of industry, manufacturing, trade, or business; from development of any natural resource; or from animal operations or contaminated stormwater or leachate from solid waste facilities.

*Natural outlet* means any outlet into a watercourse, pond, ditch, lake or other body of surface water or groundwater.

Off-premises sewer means a gravity public sanitary sewer constructed to serve a property that is not contiguous to an existing sewer and which crosses other private property or properties. The term "off-premises sewer" does not include a sewer in the interior or on the perimeter of the property initially served.

Person means any individual, partnership, co-partnership, firm, company, corporation, association, joint stock company, trust, estate, governmental entity or other legal entity, or their legal representatives, agents or assigns. The term "person" includes all federal, state and local government entities.

Public sanitary sewer means a sewer in which all owners of abutting properties have equal rights, which is placed in a public right-of-way or dedicated easement, which was constructed according to city specifications for public sanitary sewers applicable at the time of its installation or accepted as substantially equivalent in writing by the city.

Publicly owned treatment works (POTW) means the treatment works as defined by section 212 of the Act (33 USC 1292) that is owned by the city. The term "publicly owned treatment works (POTW)" includes any devices or systems used in the collection, storage, treatment, recycling and reclamation of domestic or nondomestic wastewater and any conveyances that carry such wastewater but excludes the building drain and building sewer.

Sanitary sewer means a pipe, conduit and appurtenances to which stormwaters, surface waters and groundwaters are not intentionally admitted, for the collection, transportation, pumping and treatment of domestic and nondomestic wastewater.

Storm sewer means a sewer designed to carry only stormwaters, surface runoff, street wash waters and drainage.

Stormwater means stormwater runoff, snow melt runoff and surface runoff and drainage.

Section 2. That Section 20-87 contained in Chapter 3 Article II of Title 20 of the Greeley Municipal Code be amended to read as follows:

Sec. 20-87. Appeals.

If ~~any person or entity~~ wishes to appeal any decision of the director ~~of water and sewer~~ pursuant to the provisions of this title, that person ~~or entity~~ shall file a written request with the director asking that the director's decision be reduced to writing and submitted for review by the water and sewer board, such review shall be considered as soon as reasonably possible. Appeals of decisions by the water and sewer board, excluding matters pertaining to the minimum water and sanitary sewer rates, shall be submitted in writing to the city clerk and considered by the city council.

Section 3. That Section 20-88 contained in Chapter 3 Article II of Title 20 of the Greeley Municipal Code be amended to read as follows:

Sec. 20-88. Violations; penalties.

Any person ~~or entity~~ convicted of violating any provision of this title related to the tapping of water or sewer mains, installing water service lines, meters, or other infrastructure, and taking and using water or sewer service through any of the same, shall be punishable as provided in chapter 9 of title 1 of this Code.

Section 4. That Section 20-120 contained in Chapter 3 Article III Division 1 of Title 20 of the Greeley Municipal Code be amended to read as follows:

Sec. 20-120. Tapping for water without authority unlawful.

It is unlawful for any person ~~or entity~~ to make a service connection with any water pipe or main of the waterworks without authorization from the director ~~of water and sewer~~, or for any person ~~or entity~~ so authorized to install a tap or other service connection to the waterworks contrary to the provisions of this title.

Section 5. That Section 20-121 contained in Chapter 3 Article III Division 1 of Title 20 of the Greeley Municipal Code be amended to read as follows:

Sec. 20-121. Certain water usage, turning on water unlawful.

(a) It is unlawful for any person ~~or entity~~ to use water through a tap or other service connection with any water pipe or main of the waterworks in a manner contrary to the provisions of this title.

(b) It is unlawful for any person ~~or entity~~ to turn on water service to a property, or to otherwise use water through a tap or other service connection to a property, when the director ~~of water and sewer~~ has directed that water service to such property be turned off.

(c) The director ~~of water and sewer~~ has the authority to designate water enforcement officials for the city.

Section 6. That Section 20-154 contained in Chapter 3 Article III Division 2 of Title 20 of the Greeley Municipal Code be amended to read as follows:

Sec. 20-154. Service line failure; computation of charges.

If any person ~~or entity~~ discovers a leak or other failure in its service line, and the director ~~of water and sewer~~ finds that such leak or service line failure directly caused artificially elevated charges in a particular billing period, the customer person may be charged based upon its average consumption for the same period in the two years immediately preceding the leak or service line failure, and accordingly billed at the current rates.

Section 7. That Section 20-159 contained in Chapter 3 Article III Division 2 of Title 20 of the Greeley Municipal Code be amended to read as follows:

Sec. 20-159. Extra charges for connections to public water; computation.

(a) ~~All~~Any persons ~~desiring requesting~~ water service for a buildings located on property abutting a public water line shall ~~be required to~~ pay an extra charge to reimburse the person that built the public water line if all of the following circumstances exist:

- (1) The section of the public water line ~~on which that abuts~~ the property ~~abuts~~ was constructed ~~in accordance with~~ according to city specifications and requirements and with prior approval by the city, at the expense of ~~one or more private another~~ persons;
- (2) The section of the public water line was constructed along the entire frontage of the property of the person ~~who that~~ paid for such construction;
- (3) The person ~~against whom the~~ to be assessed the extra charge ~~is to be assessed~~ applied for water service within ten years of the completion of the construction; and
- (4) The ~~building property~~ to be served with water service is ~~located on land which~~ was owned at the time of construction by a person ~~who that~~ did not participate in the cost of construction;
- (5) The person to be assessed the extra charge, or their predecessor in interest, was notified through certified mail by the person requesting reimbursement of the opportunity to share in the cost of constructing the public water line prior to such construction; and
- (6) A document was recorded against the property to be served that provides notice of the extra charge that may be assessed if the property receives future water service.

(b) If circumstances consistent with subsections (a)(1)-(6) above exist, an extra charge will be assessed. The amount assessed will be based on the section of public water line that abuts the subject property and calculated by prorating the construction cost, without interest or other charges, against the frontage of all property abutting the section of public water line involved.

Section 8. That Section 20-160 contained in Chapter 3 Article III Division 2 of Title 20 of the Greeley Municipal Code be renumbered and deleted/repealed as follows:

Sec. 20-1601. ~~Computation of extra charges~~ – Reserved.

~~As to each property for which water service is applied for, the extra charge with respect to that application for service will be computed with reference to the construction costs of the section of public water line on which the property abuts. In each case, the extra charge will be computed by prorating the construction cost, without interest or other charges, against the frontage of all property abutting on the section of public water line involved.~~

Section 9. That Section 20-161 contained in Chapter 3 Article III Division 2 of Title 20 of the Greeley Municipal Code be renumbered and amended to read as follows:

Sec. 20-1640. Private payment for public water; reimbursement.

~~Private-Any persons who that pays for the constructions of sections of a public water lines and who desire may request partial reimbursement for such payment shall deliver by submitting a written document request to the director of water and sewer setting forth. The request for reimbursement must be submitted within 12 months of the city's acceptance of the public water line and include documentation establishing: (i) the total construction cost, with including proof of payment, (ii) the frontage of the property abutting on the section of public water line involved, including the initial property served, and setting forth (iii) the name and address of an individual, bank or other organization~~the person authorized to receive payments from the city pursuant to this section. ~~The director may approve a request for reimbursement o~~Only if the public water lines was constructed by with prior approval of the director of water and sewer or designee and completed within 12 months of approval and in strict accordance with city standard specifications for water line construction will be considered for reimbursement. ~~The director may not consider or issue reimbursement for any section of the public water line that was constructed within the public right-of-way that abuts the initial property. As extra charges are paid to the city pursuant to sections 20-122 and 20-123 20-159, the city shall transmit such payments to such authorized individual, bank or other organization~~person. The city shall have no responsibility to see that such individual, bank or other organizationperson properly deals with such funds. The city shall not recognize any recipients or claimants other than the named individual, bank or other organizationperson.

Section 10. That Section 20-251 contained in Chapter 3 Article III Division 5 of Title 20 of the Greeley Municipal Code be amended to read as follows:

Sec. 20-251. Initiation of water service; service commitment agreements.

- (a) Any person ~~or entity~~ seeking water service from the city shall make a request for such service within the associated land use or development application process required by title 24 of this Code. If the person ~~or entity~~ seeking water service is not pursuing a land use or development application, the request shall be made in writing to the director of water and sewer. It is unlawful for a person ~~or entity~~ to take and use water service from the city without first obtaining authorization from the director of water and sewer.
- (b) Requests for water service made through the land use or development application process required by title 24 of this Code shall be forwarded to the director of water and sewer. All requests for water service shall include the information necessary to determine all applicable fees and rates for such service. The director of water and sewer shall not authorize any such water service until all required information is received and all required fees are paid.
- (c) All applicants granted authorization for water service to nonresidential lots and residential lots with more than four units within the city limits shall execute a service commitment agreement to be recorded with the county clerk and recorder setting forth the details and parameters of the potable and non-potable components of such service, including the person ~~or entity~~ to whom which service is granted, the date upon which service shall commence, the specific location at which the tap(s) or service connection(s) shall be made, the permitted size of the tap(s) or service connection(s), a description of the property to which service will be provided, the permissible uses of water on the property, and the annual allotment associated with the water service.

(d) All applicants granted authorization for water service to large parcel single-family residential lots, as described in section 20-257, ~~that are required to install a separate and additional landscape irrigation tap and service line for the service of non-potable water~~ shall execute a service commitment agreement to be recorded with the county clerk and recorder setting forth the details and parameters of ~~the~~any non-potable component of such service, including the person ~~or entity to whom~~which service is granted, the date upon which service shall commence, the specific location at which the tap(s) or service connection(s) shall be made, the permitted size of the tap(s) or service connection(s), a description of the property to which service will be provided, the permissible uses of water on the property, and the annual allotment associated with the non-potable component of the water service.

Section 11. That Section 20-252 contained in Chapter 3 Article III Division 5 of Title 20 of the Greeley Municipal Code be amended to read as follows:

Sec. 20-252. Taps and service lines required; potable and non-potable service.

(a) Except as provided in (a)(1) through (3) below, Each detached residential building, multi-unit residential building, and nonresidential building on a single lot shall be served by a minimum of one separate water tap and service line for the service of potable water. Buildings with mixed residential and nonresidential uses shall be served by separate potable water taps for the residential and non-residential components of the development.

(1) An accessory dwelling as defined under section 24-403(b) does not require a potable water tap and service line separate from the principal dwelling if it complies with all standards established under that section and any other requirement under title 24.

(2) A mobile home or similar small-format dwelling unit as defined under section 24-1301 does not require a potable water tap and service line separate from other units if all units sharing a potable water tap and service line are located within the same mobile home community, or other small format housing project, and comply with all standards and requirements established under title 24 for such communities or projects.

(3) A nonresidential accessory building or structure as defined under section 24-1301 does not require a potable water tap and service line separate from the primary nonresidential building or structure if it complies with all standards and requirement under title 24.

(b) A separate and additional landscape irrigation tap and service line shall be required for the service of non-potable water to all residential detached estate lots with an area of 13,000 square feet or more.

(c) A separate, ~~and~~ additional landscape irrigation tap and service line shall be required for the service of ~~non-potable~~ water to the irrigated common space associated with all nonresidential lots and residential lots with more than four units ~~within the city limits~~, including, without limitation, commercial, industrial, and group housing (apartment buildings, condominiums, nursing homes, hotels, and motels). The landscape irrigation tap shall use non-potable water if such irrigated common space totals two acres in area or more.

(d) ~~The director of water and sewer, or his designee, has the authority to grant a temporary or permanent variance to the landscape irrigation tap requirements in this section upon a finding, in their sole discretion, that immediate connection of the subject property to the non-potable water system is not feasible, or that the subject property can be served by a single tap due to minimal landscaping irrigation demand. The grant of such a variance may include any terms and conditions deemed appropriate by the director or his designee in their sole discretion.~~

Section 12. That Section 20-253 contained in Chapter 3 Article III Division 5 of Title 20 of the Greeley Municipal Code be amended to read as follows:

Sec. 20-253. Service line extensions prohibited.

(a) ~~Except as provided under Section 20-252, it is unlawful for a person or entity to extend a service line from one building or lot to serve any other another buildings, lots or premises contrary to the requirements of this section. Notwithstanding the foregoing, the director of water and sewer has the discretionary authority to grant variances when appropriate for accessory uses on the same property or an adjoining lot. or lot. Upon written request, the director may grant a variance for any new or existing service line extension upon a finding in their sole discretion that separating or installing a new separate water tap and service line is not feasible. If granted, a variance shall not alter the maintenance responsibility of the extended or shared service line. The extended or shared service line shall not constitute a public water line and the director shall not perform any maintenance or repair on an extended or shared service line.~~

(b) ~~A prohibited service line extension that was installed prior to September 1, 2019, may remain in effect so long as it does not create a sanitation, public health or public nuisance problem. If, in the discretion of the director of water and sewer, a prohibited service line extension creates a sanitation, public health or public nuisance problem, the subject property owner shall separate the compound tap at their own expense. Unless the director grants a variance, all existing service line extensions must be separated at the expense of the building or lot owner to which the service line was extended, including all fees applicable to the initiation of water service. Plant investment fees that would otherwise be due and payable for a new water tap and service line shall be waived if there is no increase in water service to the subject building or lot.~~

(c) ~~The owner of a property to which a new water service line is installed after the associated separation of a compound tap shall be required to pay all fees applicable to the initiation of water service to the subject property, including, without limitation, the costs required to install another water tap and service line. Plant investment fees that would otherwise be due and payable for a new water service line installed pursuant to this section shall be waived upon a written finding of the director of water and sewer that there will be no increase in water service to the subject property.~~

(d) ~~The use of a common service line by abutting property owners shall not alter the maintenance responsibility of the users of the common service line. The common service shall not constitute a public responsibility and the director of water and sewer shall not perform maintenance or repair on the separate or combined service lines that may serve abutting properties.~~

Section 13. That Section 20-254 contained in Chapter 3 Article III Division 5 of Title 20 of the Greeley Municipal Code be amended to read as follows:

Sec. 20-254. Water rights dedication; amounts and criteria.

(a) All applicants for water service within the city limits shall (i) dedicate to the city water rights, if any, that the city, in its sole discretion, can use in its potable water supply system or non-potable irrigation system and (ii) if the applicant cannot satisfy the raw water dedication requirements through the dedication of water rights, shall furnish to the city a cash-in-lieu fee (or satisfy the same pursuant to subsection (e)) to fulfill all or the remainder of the dedication requirement associated with a request for water service as a prerequisite to and as part of the consideration for city water service to the subject lot. All water rights approved for dedication shall be conveyed to the city on or before the date the final plat for the development is approved. All cash-in-lieu fees shall be due and payable to the city no later than the date on which the building permit is issued.

(b) The city has determined (i) that the water rights represented by shares of stock in the Greeley and Loveland Irrigation Company and the Seven Lakes Reservoir Company, and rights in the Loveland and Greeley Reservoir Company (Lake Loveland) can be used within its potable water supply system and non-potable irrigation system and (ii) that the water rights represented by units of Colorado-Big Thompson Project Water can be used within its potable water supply system. The water rights represented by shares of stock in the Greeley Irrigation Company can only be used within non-potable irrigation systems. Therefore, the city will accept such water rights only in satisfaction of the raw water dedication requirements associated with non-potable water service on property historically irrigated by the subject water rights. The city shall use the following yield values to determine the amount of raw water transferred by an applicant toward the satisfaction of any raw water dedication requirement:

| Company                                                    | Yield/Share          |
|------------------------------------------------------------|----------------------|
| The Greeley & Loveland Irrigation Company                  | 8 acre-feet/share    |
| The Seven Lakes Reservoir Company                          | 8 acre-feet/share    |
| The Loveland and Greeley Reservoir Company (Lake Loveland) | 20 acre-feet/right   |
| Colorado-Big Thompson Project Water (C-BT)                 | 0.75 acre-feet/unit  |
| Greeley Irrigation Company (Greeley No. 3 Canal)           | 10.3 acre-feet/share |

(c) Except for water rights represented by units of Colorado-Big Thompson Project Water, the city will not accept the dedication of any water rights under subsection (b) for use within its potable water supply system unless the director of water and sewer determines that the subject water rights meet the requisite criteria under Colorado law for conversion of the water to municipal use by the city, including, without limitation, that: (i) the water rights have a history of use on the property being developed; (ii) the property being developed was historically and consistently irrigated under the ditch system from which such water rights are being dedicated; (iii) the owner and all lienholders of the property being developed execute a restrictive covenant in a form acceptable to the city requiring the cessation of irrigation on the historically irrigated property with the subject water rights except under conditions authorized by the city; and (iv) the applicant provides any documents and materials reasonably required by the city to ensure consistency with any prior decrees, including but not limited to, decrees adjudicating changes of the Greeley and Loveland Irrigation Company, the Seven Lakes Reservoir Company, the Loveland and Greeley Reservoir Company (Lake Loveland), and the Greeley Irrigation Company water rights.



(d) An applicant for water service may dedicate any water rights identified in subsection (b) as usable within the city non-potable irrigation system, including water rights that satisfy the requirements of subsection (c), in satisfaction of the applicant's raw water dedication requirement associated with non-potable service. An applicant may request that the city accept or permit the use of (i) water rights other than the water rights identified in subsection (b) or (ii) water rights that do not satisfy the requirements of subsection (c) in satisfaction of the applicant's raw water dedication requirement associated with non-potable service. The city, in its sole discretion, may accept or permit the use of such water rights based on certain terms and conditions set by the director of water and sewer but only in satisfaction of the raw water dedication requirement associated with non-potable water service on property that has been historically irrigated by the subject water rights.

(e) On or before December 31, 2099, an applicant for water service, ~~who~~that is also the registered owner of a certificate issued by the department to evidence one or more raw water dedication credits, may redeem such credit(s) in whole or in part (but only in whole numbers) toward the satisfaction of any cash-in-lieu fee obligation associated with the applicant's request for water service in accordance with sections 20-255, 20-256, 20-257, and 20-260. One raw water dedication credit represents the equivalent of, but not an interest in, one acre-foot of raw water that an applicant would otherwise have to satisfy by furnishing to the city a cash-in-lieu fee.

(f) Applicants for water service to residential lots with four units or less within the city limits shall dedicate raw water and, if the applicant cannot dedicate raw water, furnish to the city any applicable cash-in-lieu fee in accordance with section 20-255 in the amount of three acre-feet per acre, or fraction thereof, of property to which water service will be provided. Streets, rights-of-way, driveways, sidewalks, outbuildings, and any other part of the lot that has been or will be developed shall be included in the calculation of the total gross acreage of the property, regardless of whether such areas have been dedicated to public use. The city may, in its sole discretion, exclude area(s) from the total gross acreage ~~provided that~~if irrigating such area is legally prohibited by plat or deed.

(g) Applicants for water service to nonresidential lots and residential lots with more than four units within the city limits, including, without limitation, commercial, industrial, and group housing (apartment buildings, condominiums, nursing homes, hotels, and motels), shall dedicate raw water and, if the applicant cannot dedicate raw water, furnish to the city the applicable cash-in-lieu fee in accordance with section 20-256 in the amount of the water service demand for the subject lot. The potable water service demand for nonresidential lots and residential lots with more than four units shall be determined by multiplying the total units proposed by the applicant by the average unit use, as set forth in the business category and water use table below. The potable water service demand for industrial lots and commercial lots of a type not specifically identified in the business category and water use table below shall be determined by the director of water and sewer on a case-by-case basis, utilizing the projected volume of total water use by the subject lot.

| Business Category and Water Use |       |                                                    |
|---------------------------------|-------|----------------------------------------------------|
| Category                        | Units | Average Unit Use<br>(Gallons Per Unit<br>Per Year) |
| Auto service and repair         | SF    | 12                                                 |
| Car wash                        | Bay   | 1,350,000                                          |

|                                                                  |                                         |        |
|------------------------------------------------------------------|-----------------------------------------|--------|
| Childcare                                                        | SF                                      | 47     |
| Church                                                           | SF                                      | 4.5    |
| Grocery store                                                    | SF                                      | 20     |
| Gas station without car wash                                     | SF                                      | 93     |
| Hospital                                                         | SF                                      | 21     |
| Hotel/motel                                                      | Room                                    | 30,300 |
| Medical office                                                   | SF                                      | 25     |
| Office                                                           | SF                                      | 14     |
| Recreation with pool                                             | SF                                      | 122    |
| Recreation without pool                                          | SF                                      | 25     |
| Residential (greater than 4 units)                               | Unit                                    | 35,500 |
| Restaurant (outdoor seating areas 50%)                           | SF                                      | 188    |
| Retail                                                           | SF                                      | 16     |
| School                                                           | SF                                      | 11     |
| Warehouse                                                        | SF                                      | 5      |
| Industrial and other commercial                                  | Demand determined on case-by-case basis |        |
| "SF" = Square feet of gross floor space within the building area |                                         |        |

(h) Applicants for water service to nonresidential lots and residential lots with more than four units within the city limits, including, without limitation, commercial, industrial, and group housing (apartment buildings, condominiums, nursing homes, hotels, and motels), for which a separate and additional landscape irrigation tap and service line is required in accordance with section 20-252, shall also dedicate raw water and, if the applicant cannot dedicate raw water, furnish to the city the applicable cash-in-lieu fee in accordance with section 20-256 in the amount of the landscape irrigation demand for the subject lot. Landscape irrigation demand shall be determined based on (i) the total gross acreage of property to which water service will be provided and (ii) the type of landscape as set forth in the landscape water use table below. Landscape plans with more than 75 percent high water use vegetation are assumed to be entirely high water use and shall be calculated as such. Streets, rights-of-way, driveways, sidewalks, outbuildings and any other impervious part of the lot that has been or will be developed shall be included in the calculation of the total gross acreage of property, regardless of whether such areas have been dedicated to public use. The city may, in its sole discretion, exclude area(s) from the total gross acreage provided that if irrigating such area(s) is legally prohibited by plat or deed.

| Landscape Water Use                        |                                        |
|--------------------------------------------|----------------------------------------|
| Water Use                                  | Dedication Requirement                 |
| High water use (>14 gals/sf annual use)    | 3 acre-feet/acre                       |
| Medium water use (10—14 gal/sf annual use) | 2.33 acre-feet/acre                    |
| Low water use (<10 gals/sf annual use)     | 1.67 acre-feet/acre                    |
| No irrigation                              | No raw water requirement for landscape |

(i) Any owner of a privately owned non-potable irrigation system that seeks to connect such system to the city non-potable system shall be considered an applicant for water service under this title 20. All such applicants shall dedicate raw water and, if the applicant cannot dedicate raw water, furnish to the city the applicable cash-in-lieu fee, in the amount of the landscape irrigation demand for the subject lot(s), as determined in accordance with the methodology in subsection (h). The acceptance and

connection of any such system to the city non-potable system is subject to approval by the director of water and sewer, and to any terms and conditions deemed appropriate by the director or his designee in their sole discretion.

Section 14. That Section 20-257 contained in Chapter 3 Article III Division 5 of Title 20 of the Greeley Municipal Code be amended to read as follows:

Sec. 20-257. Exception for large parcel single-family residential.

(a) The water rights dedication and cash-in-lieu fee requirements set forth in sections 20-254 through 20-256 shall not apply to applications for water service to a large parcel single-family residential lot, defined as a parcel of property exceeding one acre that contains only one detached single-family residence.

(b) All applicants for water service to a large parcel single-family residential lot shall dedicate raw water and, if the applicant cannot dedicate raw water, furnish to the city the applicable cash-in-lieu fee in accordance with subsection (c) in the amount of the water service demand for the subject lot. The water service demand for large parcel single-family residential lots shall be determined by (i) the total gross acreage, or fraction thereof, of property to which water service will be provided and (ii) the type of landscape as set forth in the landscape water use table in section 20-254(h) above. Landscape plans with more than 75 percent high water use vegetation are assumed to be entirely high water use and shall be calculated as such. Streets, rights of way, driveways, sidewalks, outbuildings and any other part of the lot that has been or will be developed shall be included in the calculation of the total gross acreage of property, regardless of whether such areas have been dedicated to public use. The city may, in its sole discretion, exclude area(s) from the total gross acreage, provided that irrigating such area(s) is legally prohibited by plat or deed. set at 3 acre-feet of water, except in instances where the property is irrigated by a private non-potable system. If the property is irrigated by a private non-potable system, then the potable water service demand shall be set at 60,000 gallons of water.

(c) Any applicant for large parcel single-family residential water service pursuant to this section that cannot satisfy the requirement of subsection (b) through the dedication of water rights shall furnish to the city a cash-in-lieu fee to fulfill all or the remainder of the dedication requirement associated with its request for water service.

(d) The cash-in-lieu fee for large parcel single-family residential water service pursuant to this section shall be set by resolution of the water and sewer board and calculated as the cash equivalent of the calculated water service demand using the fair market value of water per acre-foot.

Section 15. That Section 20-260 contained in Chapter 3 Article III Division 5 of Title 20 of the Greeley Municipal Code be amended to read as follows:

Sec. 20-260. Raw water surcharge and supplemental cash in lieu of raw water; exception.

(a) A customer whose metered water use in a calendar year exceeds its annual allotment shall be required to pay a raw water surcharge on the volume of potable or non-potable water used in excess of such allotment, as set forth in its service commitment agreement.

(b) ~~Nonresidential and large multi-unit residential customers who~~that initiated water service prior to ~~the enactment of the ordinance codified in this section~~ March 15, 1989, and have not executed a service commitment agreement shall be entitled to an annual allotment in accordance with the raw water dedicated or cash in lieu of raw water it paid upon initiation of service. Any such customer whose metered water use in a calendar year exceeds its annual allotment shall be required to pay a raw water surcharge on the volume of water used in excess of such allotment.

(c) ~~Large parcel single family residential customers shall be entitled to an annual allotment equal to the water service demand calculated in accordance with section 20-257. Any such customer whose metered water use in a calendar year exceeds its annual allotment shall be required to pay a raw water surcharge on the volume of water used in excess of such allotment.~~

(~~d~~c) The raw water surcharge applicable to customers pursuant to this section under (a) and (b) shall be set by resolution of the water and sewer board. Any customer whose metered water use in a calendar year exceeds its annual allotment may also furnish to the city a separate supplemental cash-in-lieu fee to increase its annual allotment. Any such supplemental cash-in-lieu fee shall be calculated using the fair market value of water per acre-foot, as set by the water and sewer board and in place when the raw water surcharge payment is due and payable, and shall result in a corresponding increase to the annual allotment for that customer, ~~whether as determined in accordance with this section or as set forth in its service commitment agreement.~~

(d) The raw water surcharge applicable to customers pursuant to this section shall be set by resolution of the water and sewer board. Any customer whose metered water use in a calendar year exceeds its annual allotment may also furnish to the city a separate supplemental cash-in-lieu fee to increase its annual allotment. Any such supplemental cash-in-lieu fee shall be calculated using the fair market value of water per acre-foot, as set by the water and sewer board and in place when the raw water surcharge payment is due and payable, and shall result in a corresponding increase to the annual allotment for that customer, whether as determined in accordance with this section or as set forth in its service commitment agreement. If a customer pays the supplemental cash-in-lieu fee, the raw water surcharge due and payable under section (a) or (b) will be reduced by an amount equal to the supplemental cash-in-lieu fee paid.

(e) Any customer who initiates or modifies its water service on or after the enactment of the ordinance codified in this section March 15, 1989, and whose metered water use in a calendar year exceeds the annual allotment set forth in its service commitment agreement in any two consecutive calendar years shall be required to pay a supplemental cash-in-lieu fee to increase its annual allotment in the amount of the average volume of water used above the annual allotment over the two consecutive calendar years, as described in subsection (d) of this section. After a customer pays the supplemental cash-in-lieu fee, the raw water surcharge due and payable under section (a) and (b) will be reduced by an amount equal to the supplemental cash-in-lieu fee paid.

(f) Any customer whose metered water use during its first full calendar year of water service exceeds its annual allotment shall be exempt from the raw water surcharge and supplemental cash-in-lieu fee requirements of this section for that first year only.

Section 16. That Section 20-261 contained in Chapter 3 Article III Division 5 of Title 20 of the Greeley Municipal Code be amended to read as follows:

Sec. 20-261. Credit for raw water supplies dedicated or cash in lieu of raw water paid; existing taps.

(a) An applicant for water service shall not be required to dedicate raw water or pay a cash-in-lieu fee if the raw water dedication or cash in lieu of raw water requirement for the subject property was satisfied in full prior to ~~the enactment of the ordinance codified in this section~~ March 15, 1989.

Notwithstanding the foregoing, any such applicant that seeks to initiate new water service, change the type of water service, or expand or change the use of a nonresidential development shall be subject to the water rights dedication and cash-in-lieu fee requirements set forth in sections 20-254 through 20-257.

(b) Any customer that seeks to abandon an existing water tap in favor of a smaller or larger tap to serve the same property shall be entitled to a credit against the water rights dedication and cash-in-lieu fee requirements set forth in sections 20-254 through 20-257. Such credit shall be equal to the raw water previously dedicated or cash-in-lieu fee previously paid for development of the subject property. If there are no records to evidence the previous dedication of water rights or payment of cash-in-lieu fee for the subject property, such credit for nonresidential customers shall be equal to the then current cash-in-lieu fee value associated with the abandoned tap, but shall not include credit for any fire flow diameter associated with the abandoned tap. All other customers shall receive a 3 acre-feet per acre credit, except customers with a tap size of 2" or greater. For a tap size of 2" or greater the customer will receive a credit equal to the customer's annual average water use for the proceeding five years of actual use.

(c) Any credit issued for an abandoned tap pursuant to this section shall not exceed the cash-in-lieu fee due and payable for the replacement tap; the city shall not be required to provide cash refunds for any such credit.

Section 17. That Section 20-262 contained in Chapter 3 Article III Division 5 of Title 20 of the Greeley Municipal Code be amended to read as follows:

Sec. 20-262. Plant investment fees for water service; inside and outside the city.

(a) All applicants for water service, whether inside or outside the city limits, shall furnish to the city a water plant investment fee as a prerequisite to, and as a part of the consideration for, city water service to the subject property. The water plant investment fee for residential shall be based on the single-family residential lot type and nonresidential and multi-unit residential shall be based on the diameter of the potable water tap as a prerequisite to, and as a part of the consideration for, city water service to the subject property. The water plant investment fee shall be the minimum amount set by resolution of the water and sewer board, unless subsequently increased by resolution of the city council. The diameter of a service line water tap installed for non-potable service or fire suppression purposes shall not be considered when calculating plant investment fees due pursuant to this section.

(b) Upon approval of the director ~~of water and sewer~~, plant investment fees may be based on the volume of a customer's annual allotment rather than the diameter of the potable water tap. When the director ~~of water and sewer~~ authorizes a plant investment fee based on the volume of a customer's

annual allotment, then the schedule of tap fees set by resolution of the water and sewer board shall be applied in accordance with the size of service line.

(c) ~~The plant investment fee associated with a request for water service shall be reduced by up to 50 percent for the following residential lot types to which separate and additional landscape irrigation taps and service lines are installed and connected to the city non-potable system. Reductions are not aggregated for the installation of taps and service lines for both common space and house-to-house non-potable water service.~~

| Plant Investment Fee Reduction Percentages  |                     |                          |                            |
|---------------------------------------------|---------------------|--------------------------|----------------------------|
| Residential Building Type                   | Lot Size            | Common Space Non-Potable | House to House Non-Potable |
| Row House                                   | >1,000 s.f.         | 50%                      | N/A                        |
| Detached House (Small Format)               | 1,500 — 3,000 s.f.  | 50%                      | 50%                        |
| Detached or Multi-Unit House (Small Lot)    | 3,000 — 4,500 s.f.  | 40%                      | 50%                        |
| Detached or Multi-Unit House (Medium Lot)   | 4,500 — 6,000 s.f.  | 30%                      | 50%                        |
| Detached or Multi-Unit House (Standard Lot) | 6,000 — 13,000 s.f. | 25%                      | 50%                        |
| Detached House (Estate Lot)                 | >13,000 s.f.        | N/A                      | 50%                        |

Section 18. That Section 20-263 contained in Chapter 3 Article III Division 5 of Title 20 of the Greeley Municipal Code be amended to read as follows:

Sec. 20-263. Installation costs for water service.

(a) In addition to the water plant investment fee requirement set forth in section 20-262, an applicant for water service shall pay for all meters, labor and other materials required to tap the potable and non-potable water systems, ~~to install service pipes, and to trench and repair the street,~~ as such costs are determined by the director of water and sewer.

(b) All costs shall be paid by the applicant in advance of such work and no later than the time at which a building permit is issued by the city for the subject property.

Section 19. That Section 20-264 contained in Chapter 3 Article III Division 5 of Title 20 of the Greeley Municipal Code be amended to read as follows:

Sec. 20-264. Water plant investment fee credits and exchange; renovations.

(a) Any customer that seeks to abandon an existing potable water tap in favor of a smaller or larger tap to serve the same property shall be entitled to a credit against the water plant investment fee requirement set forth in section 20-262, unless the abandoned tap has been inactive for a period of 10 or more consecutive years at any time. Such credit shall be equal to the then current plant investment fee value associated with the abandoned tap but shall not include credit for any fire flow diameter associated with the abandoned tap. Any credit issued for an abandoned tap pursuant to this section shall not exceed

the water plant investment fee due and payable for the replacement tap; the city shall not be required to provide cash refunds for any such credit.

(b) Any tap abandoned pursuant to this section shall be turned off at the main, and the costs associated with turning off the abandoned tap shall be borne by the person or entity requesting the change of service.

(c) Any customer that renovates one or more residential units that were constructed prior to January 20, 1959, and is accordingly required to replace an existing tap that serves such residential units to comply with the current minimum tap size requirements established by the water and sewer board shall not be required to furnish an additional water plant investment fee if the renovation does not increase the number or size of the residential units, and the use of the subject property is not changed.

Section 20. That Section 20-267 contained in Chapter 3 Article III Division 5 of Title 20 of the Greeley Municipal Code be deleted/repealed as follows:

~~Sec. 20-267. Transfer of water rights upon annexation – Reserved.~~

~~Any petitioners requesting annexation of their property to the city shall agree, as a prerequisite to receiving approval of such annexation and on behalf of themselves and all successors in interest to the property to be annexed, to comply with this chapter at no cost to the city, before receiving the approval of the annexation.~~

Section 21. That Section 20-269 contained in Chapter 3 Article III Division 5 of Title 20 of the Greeley Municipal Code be amended to read as follows:

Sec. 20-269. Meters required for water service; specifications and exceptions.

(a) It is unlawful for any person or entity to take, receive, or use any water from the city waterworks for any purpose whatsoever, unless such water is measured through a meter. This requirement shall not apply to residential fire sprinkling lines which are two inches or less in diameter and which serve only the fire suppression system.

(b) Failure to install a meter before water is used is punishable under chapter 9 of title 1 of this Code and shall result in the water being turned off to the property until a meter is installed and all penalties and fines are paid in full.

(c) All meters installed shall be of a type, size and design approved by the director of water and sewer. There shall be only one meter for each water tap installed, and each meter shall be of the same size as the associated water tap. The director of water and sewer shall have the discretion to adjust meter size requirements based on AWWA standards.

(d) Each meter shall be placed under the direction of the director of water and sewer, and each new meter shall be installed outside in a code meter pit/vault. Each meter shall be supplied with a stopcock on the inlet side of the yoke. Existing meters inside buildings must have a stopcock on both sides of the meter. All meters shall be located where accessible for inspection and/or repair at any time during business hours. Meters previously installed inside buildings shall be relocated outside to code meter

pits/vaults when the building is remodeled, plumbing systems are modified, accessibility becomes limited, or as otherwise directed by the director of water and sewer.

Section 22. That Section 20-295 contained in Chapter 3 Article IV Division 1 of Title 20 of the Greeley Municipal Code be deleted/repealed as follows:

Sec. 20-295. Definitions – Reserved.

(a) — ~~Definitions. The following words, terms and phrases, when used in this article, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:~~

~~*Act* means the Federal Water Pollution Control Act, also known as the Clean Water Act, as amended, 33 USC 1251—1387.~~

~~*Building drain* means all of the building/plumbing/piping that conveys sanitary sewage from the building to a point five feet outside the foundation wall.~~

~~*Building sewer* means that portion of the sanitary sewer line that extends from five feet outside the foundation wall to the public sewer, including the sewer tap on the public sewer or other point of discharge.~~

~~*City* means the City of Greeley, Colorado.~~

~~*Direct discharge* means discharge of treated or untreated wastewater directly to state waters.~~

~~*Director*, unless otherwise specified, means the director of the city water and sewer department or his authorized designee.~~

~~*Discharge* means any person who discharges or causes the discharge of domestic wastewater directly or indirectly to the publicly owned treatment works (POTW).~~

~~*Domestic wastewater* means a combination of liquid wastes (sewage) which may include chemicals, household wastes, human excreta, animal or vegetable matter in suspension or solution or other solids in suspension or solution which are discharged from a dwelling, building or other structure.~~

~~*Environmental Protection Agency or EPA* means the United States Environmental Protection Agency.~~

~~*Garbage* means solid wastes from the domestic and commercial preparation, cooking and dispensing of food, the processing of food by products, the processing of agricultural products and the handling, storage and sale of produce.~~

~~*Individual (private) wastewater disposal system* means a septic tank or similar self-contained receptacle or facility that collects and/or treats or otherwise disposes of domestic wastewater and which is not connected to the POTW.~~



~~*Industrial wastewater or nondomestic wastewater* means water carrying wastes from any process or activity of industry, manufacturing, trade or business, from development of any natural resource or from animal operations, or contaminated stormwater or leachate from solid waste facilities.~~

~~*Natural outlet* means any outlet into a watercourse, pond, ditch, lake or other body of surface water or groundwater.~~

~~*Off-premises sewer* means a gravity public sanitary sewer constructed to serve a property that is not contiguous to an existing sewer and which crosses other private property or properties. The term "off-premises sewer" does not include a sewer in the interior or on the perimeter of the property initially served.~~

~~*Person* means any individual, partnership, co-partnership, firm, company, corporation, association, joint stock company, trust, estate, governmental entity or other legal entity, or their legal representatives, agents or assigns. The term "person" includes all federal, state and local government entities.~~

~~*Public sanitary sewer* means a sewer in which all owners of abutting properties have equal rights, which is placed in a public right-of-way or dedicated easement, which was constructed according to city specifications for public sanitary sewers applicable at the time of its installation or accepted as substantially equivalent in writing by the city.~~

~~*Publicly owned treatment works (POTW)* means the treatment works as defined by section 212 of the Act (33 USC 1292) that is owned by the city. The term "publicly owned treatment works (POTW)" includes any devices or systems used in the collection, storage, treatment, recycling and reclamation of domestic or nondomestic wastewater and any conveyances that carry such wastewater but excludes the building drain and building sewer.~~

~~*Sanitary sewer* means a pipe, conduit and appurtenances to which stormwaters, surface waters and groundwaters are not intentionally admitted, for the collection, transportation, pumping and treatment of domestic and nondomestic wastewater.~~

~~*Storm sewer* means a sewer designed to carry only stormwaters, surface runoff, street wash waters and drainage.~~

~~*Stormwater* means stormwater runoff, snow melt runoff and surface runoff and drainage.~~

~~*Subdivider or developer* means any person who develops plans to improve, or who improves, undeveloped land for the purpose of industrial, commercial or residential use; or who redevelops land or property for industrial, commercial or residential use.~~

~~*User* means any person who contributes, causes or permits the contribution of wastewater into the city's POTW.~~

~~(b) — The following abbreviations, when used in this article, shall mean:~~

~~*CWA* means Clean Water Act, 33 USC 1251—1387.~~

~~EPA means U.S. Environmental Protection Agency.~~

~~POTW means publicly owned treatment works.~~

~~USC means United States Code.~~

Section 23. That Section 20-299 contained in Chapter 3 Article IV Division 1 of Title 20 of the Greeley Municipal Code be amended to read as follows:

Sec. 20-299. Connection to sanitary sewer and service line required.

(a) The owner of any houses, buildings or property used for human occupancy, employment, recreation or other purposes situated within the city and abutting any street, alley or right-of-way in which there is now located or may in the future be located a public sanitary sewer of the city, is required, at his ~~their~~ expense, to install suitable toilet facilities therein and connect such facilities directly with a proper public sanitary sewer in accordance with the provisions of this article within 90 days after date of receiving official notice to do so, provided that if the public sanitary sewer is within 400 feet of the property. Except as provided in (a)(1) through (3) below, each detached residential building, multi-unit residential building, and nonresidential building on a single lot shall be served by a minimum of one sanitary sewer line. Where a public sanitary sewer is not available, the owner shall connect the building sewer to an individual wastewater disposal system that complies with applicable plumbing codes and county health department codes and regulations.

(1) An accessory dwelling as defined under section 24-403(b) does not require a sanitary sewer line separate from the principal dwelling if it complies with all standards established under that section and any other requirement under title 24.

(2) A mobile home or similar small-format dwelling unit as defined under section 24-1301 does not require a sanitary sewer line separate from other units if all units sharing the sanitary sewer line are located within the same mobile home community, or other small format housing project, and comply with all standards and requirements established under title 24 for such communities or projects.

(3) A nonresidential accessory building or structure as defined under section 24-1301 does not require sanitary sewer line separate from the primary nonresidential building or structure if it complies with all standards and requirements under title 24.

(b) If a public sanitary sewer is constructed within 400 feet of a property that is served by an individual wastewater disposal system, the owner of the property shall connect, at their expense, to the POTW in accordance with the provisions of this article within 90 days of receiving notice to do so. Upon connection, the owner shall then abandon any septic tanks, cesspools and similar private sewage disposal facilities and fill them with suitable material as required by county department of public health and environment at their expense.

Section 24. That Section 20-322 contained in Chapter 3 Article IV Division 2 of Title 20 of the Greeley Municipal Code be amended to read as follows:

Sec. 20-322. ~~Conditions invoking reimbursement~~Extra charges for connections to public sewer; calculation.

(a) Property benefiting from sanitary service can be either contiguous or noncontiguous to the existing public sanitary sewer system. Noncontiguous development requires the construction of an off-premises sewer. The measurement of the off-premises sewer shall be from the point it departs the initially served property to the point of connection to the existing public system. ~~All~~Any persons ~~desiring~~requesting sanitary sewer service for property abutting or in the drainage area of an off-premises sanitary sewer line shall ~~be required~~pay an extra charge to reimburse the ~~party~~person that built the sanitary sewer, if all of the following circumstances exist:

- (1) The off-premises sewer was constructed according to city specifications and requirements and with prior approval by the city, at the expense of ~~one or more private~~another persons;
- (2) The person ~~against whom the reimbursement is to be assessed~~ the extra charge requests approval applied for an additional sewer line extensions or services that connects to the off-premises sewer either directly or indirectly within five ~~ten~~ years of the completion of the construction. ~~The initial five-year period may be renewed for an additional five-year period by action of the water and sewer board upon petition by the person or persons who paid for such initial construction. The petition for renewal shall be prior to the lapse of a five-year period, or such renewal shall not be allowed.~~
- (3) The property to be served by the sanitary sewer service was owned at the time of construction of the off-premises sewer by a person ~~or persons who~~that did not share the cost of construction;
- (4) ~~The property owners against whom the reimbursement may~~ person to be assessed the extra charge, or their predecessors in interest, were notified through certified mail by ~~the initial developer~~the person requesting reimbursement of their opportunity to share in the cost of construction ~~ing of the off-premises sewer prior to such construction;~~ and
- (5) A document ~~is~~was recorded for ~~each property against whom the reimbursement is to be assessed~~ the property to be served that provides notice of the ~~reimbursement due~~extra charge that will be assessed if that property receives future sewer service.

(b) If circumstances consistent with subsections (a)(1)-(5) above exist, then an extra charge will be assessed. The amount assessed will be based on the total area of the property to be served by the off-premises sewer and calculated by prorating the construction costs against the area to be served based either on the frontage, flow capacity, drainage area or other equitable basis. If allocated on a drainage area basis, then the costs shall be allocated on a gross acreage and include all rights-of-way, stormwater facilities, parks and other private land that may be dedicated to a public purpose within each tract. The extra charge shall be due prior to the approval of plans for construction of additional sewer extensions or when service taps are requested, whichever comes first.

Section 25. That Section 20-323 contained in Chapter 3 Article IV Division 2 of Title 20 of the Greeley Municipal Code be renumbered and deleted/repealed as follows:

Sec. 20-3234. ~~Computation of reimbursement for connections to public sewer.~~ – Reserved.

~~The area subject to the reimbursement procedure described in section 20-322 shall consist of land tracts that the director determines benefit from the off-premises sewer. The director shall proportionally allocate costs to the land area on a frontage, flow capacity, drainage area or other equitable basis if all conditions of section 20-322 are met. The director shall calculate the allocations on gross acreage if allocated on a drainage area basis and shall include all rights-of-way, stormwater facilities, parks and other private land that may be dedicated to public purposes within each tract. In each case, the director shall compute reimbursement by prorating the construction cost, without additional charges other than interest, against the property served by the off-premises sewer. The reimbursement shall be paid prior to the approval of plans for construction of additional sewer extensions or when service taps are requested, whichever comes first. The interest shall apply to the first five-year period, and it shall be equal to that of five-year U.S. treasury bills at the time of construction.~~

Section 26. That Section 20-324 contained in Chapter 3 Article IV Division 2 of Title 20 of the Greeley Municipal Code be renumbered and amended to read as follows:

Sec. 20-3243. Reimbursement procedure for private payment.

~~Private~~A persons who~~that pays to construct sections of public sanitary an off-premises sewer and who desire~~ may request partial reimbursement for such payment shall deliver by submitting a written document request to the director setting forth. The request for reimbursement must be submitted within 12 months of the city's acceptance of the public sanitary sewer and include documentation establishing: (1) the total construction cost, including proof of payment, (ii) the total area to be served by the public sanitary sewer, including the initial property served, and (iii) the name and address of an individual, ~~bank or other organization~~the person authorized to receive payments from the city pursuant to this article. The director shall consider for may approve a request for reimbursement only those if the public sanitary sewer lines was constructed with his prior approval and in strict accordance with city standards and specifications for sanitary sewer line construction. The director may not consider or issue reimbursement for the prorated cost of the sanitary sewer attributable or allocated to the initial property served. As extra charges are paid to the city pursuant to sections 20-322 and 20-323, the city shall transmit such payments to such authorized ~~an individual, bank or other organization~~person. The city shall not recognize any recipients or claimants other than the authorized ~~an individual, bank or other organization~~person. The city shall have no other organizational involvement and shall have no responsibility to see that such ~~an individual, bank or other organization~~person properly manages such funds.

Section 27. That Section 20-326 contained in Chapter 3 Article IV Division 2 of Title 20 of the Greeley Municipal Code be amended to read as follows:

Sec. 20-326. Sewer plant investment fee credits and exchange; renovations.

(a) Any customer that seeks to abandon an existing water tap in favor of a smaller or larger tap to serve the same property shall be entitled to a credit against the sewer plant investment fee requirement set forth in section 20-325, unless the abandoned tap has been inactive for a period of 10 or more consecutive years at any time. Such credit shall be equal to the then current sewer plant investment fee value associated with the abandoned tap but shall not include credit for any fire flow diameter associated with the abandoned tap. Any credit issued for an abandoned tap pursuant to this section shall be capped at the sewer plant investment fee due and payable for the replacement tap; the city shall not be required to provide cash refunds for any such credit.

(b) An additional sewer plant investment fee shall not be required in the following circumstances:

(1) Any ~~When a customer that renovates one or more residential units that were constructed prior to January 20, 1959, and is accordingly required to replace an existing water tap that serves such residential units to comply with the current minimum tap size requirements established by the water and sewer board, shall not be required to furnish an additional sewer plant investment fee if provided that the renovation does not increase the number or size of the residential units, and the use of the subject property is not changed;~~ or

(2) When a customer corrects an unlawful service line extension under section 20-253 and is accordingly required to construct a new water tap and service line, provided that the use of the subject property is not changed.

Section 28. That Section 20-327 contained in Chapter 3 Article IV Division 2 of Title 20 of the Greeley Municipal Code be amended to read as follows:

Sec. 20-327. Installation costs; advance payment required.

In addition to paying the plant investment fees provided for in section 20-325, the applicant for sanitary sewer service shall pay for all labor and materials required to installing the tap onto the sewer main, ~~to install the service pipes and lines, and to perform all trenching and street repairs.~~ All costs shall be paid by the applicant in advance of such work and no later than the time at which a building permit is issued by the city for the subject property.

Section 29. That Article V of Chapter 3, Title 20 of the Greeley Municipal Code shall be relocated and established as Division 3 of Article IV and amended to read as follows:

~~ARTICLE V~~ Division 3. – Restrictions and Requirements.

Section 30. That Section 20-355 contained in Article V of Chapter 3, Title 20 of the Greeley Municipal Code shall be relocated from Article V to Division 3 of Article IV and deleted/repealed to read as follows:

Sec. 20-355. ~~Registration of water wells-~~ Reserved.

~~The owner of any water wells within the city shall register such well with the water and sewer department. The owner shall provide the following information for each well: location; depth; casing, if~~

any; production in gallons per minute; the date of completion; the type of use; and whether the well has been permitted by the state engineer.

Section 31. That Section 20-361 contained in Article V of Chapter 3, Title 20 of the Greeley Municipal Code shall be relocated from Article V to Division 3 of Article IV and amended to read as follows:

Sec. 20-361. Maintenance of public and private sewers.

(a) The property owner, at ~~his~~their expense, shall install the service line from the ~~property line~~ public sanitary sewer to the structure to be served in accordance with section 20-~~322~~299. The property owner shall hold the city harmless for any loss or damage that may directly or indirectly result from installing service line or the malfunction of any private sewer.

(b) The owner of any property connecting to the public sanitary sewer shall be responsible for maintaining the service line from the public sanitary sewer tap to the structure to be served. The owner shall keep the service line for which ~~he is~~they are responsible in good condition and shall repair or replace at ~~his~~their expense any portions thereof which, in the reasonable opinion of the director, no longer function properly. The owner shall complete all repairs or replacements within 30 days after notification of the need for same by the director. The owner shall be responsible for returning the public right-of-way and the street to acceptable city standards as determined by the city.

(1) Failure to maintain the service line is a code violation pursuant to chapter 10 of title 1 of this Code. Should the director determine that the owner of any property has failed to maintain the service line (including repair or replacement when needed), the director ~~or the director's designee~~ may issue a notice of violation in accordance with chapter 10 of title 1 of this Code.

(2) If the director determines that the failure of the property owner to maintain the service line (including repair or replacement when needed) poses an imminent risk to the health, safety or welfare of the community, the director may take action necessary to limit such risk, including, but not limited to, making entry on the property pursuant to section 20-85 or causing the shut-off or disconnection of the water supply.

(c) If the owner desires to disconnect ~~his~~their ~~premises~~property from the public sanitary sewer, ~~he shall not be permitted to remove that portion of the service line between the main and the property line, but at his expense shall excavate, sever and tightly cap the service line from the property line to the premises, but shall leave in place all of the service line from the main to such cap then the owner shall remove and abandon the service line in accordance with the city's adopted design and construction standards. The city shall not approve any new services to replace existing services the property until the old service lines are excavated and properly capped. Such cap shall be sufficient to prevent the escaping of sewer gas or the infiltration of water and tree roots has been properly abandoned.~~

Section 32. That Section 20-365 contained in Article V of Chapter 3, Title 20 of the Greeley Municipal Code shall be relocated from Article V to Division 3 of Article IV and deleted/repealed as follows:

Sec. 20-365. ~~Connection to available public sewer required~~ - Reserved.

~~The owner of an individual wastewater disposal system shall connect at his expense to the POTW in accordance with the provisions of this chapter when the public sanitary sewer runs within 400 feet of the owner's property line. Such owner shall then abandon at his expense any septic tanks, cesspools and similar private sewage disposal facilities and fill them with suitable material as required by county department of public health and environment.~~

Section 33. That Section 20-665 contained in Chapter 5 of Title 20 of the Greeley Municipal Code be amended to read as follows:

Sec. 20-665. Condition of fire hydrants; interference prohibited.

All public fire hydrants shall be under the control of and shall be kept in repair by the director of water and sewer. In case of fire, the member of the fire department and such other persons as the director of water and sewer shall authorize shall have free access to ~~such~~ all public and private fire hydrants. No other person shall open or operate any public fire hydrant without permission of the director of water and sewer or draw therefrom or obstruct the approach thereto.

Section 34. That Section 20-666 contained in Chapter 5 of Title 20 of the Greeley Municipal Code be amended to read as follows:

Sec. 20-666. Testing hydrants; defects.

The water and sewer director shall make periodic tests of all public fire hydrants and keep such records of testing and flushing as required by the approved city records retention schedule.

Section 35. That Section 20-667 contained in Chapter 5 of Title 20 of the Greeley Municipal Code be amended to read as follows:

Sec. 20-667. Additional fire hydrants.

Each year the city council shall budget funds, as it deems necessary, to install additional public fire hydrants in areas of the city determined to be deficient in public fire hydrants according to current fire safety standards and as displayed on the official map provided for at section 20-670.

Section 36. That Section 20-668 contained in Chapter 5 of Title 20 of the Greeley Municipal Code be amended to read as follows:

Sec. 20-668. Fire protection fee established.

There is created a fire protection fee which will be collected from each individual who is within the zone of influence of a public fire hydrant provided by the city in its effort to enhance fire protection. The zone of influence of a public fire hydrant shall include those properties to be served by that public fire hydrant as set forth by the fire department, as mandated by the uniform fire code and the resolutions of the city council, as adopted by the city council from time to time. Individuals whose properties are located

within the redevelopment district boundary as established by the planning commission and adopted by the city council are exempt from the payment of the fire protection fee.

Section 37. That Section 20-670 contained in Chapter 5 of Title 20 of the Greeley Municipal Code be amended to read as follows:

Sec. 20-670. Map of hydrants.

The city manager is directed to keep an official map which will have displayed on it those public and private fire hydrants which have been installed ~~by the city~~ to meet current fire safety standards and the properties which are within the zone of influence of those hydrants. The official map will also have represented on it those hydrants required to be placed by the current fire code and city council resolutions.





# Water & Sewer Agenda Summary

December 20, 2023

Key Staff Contact: Virgil Pierce, Rates and Budget Analyst

## **Title:**

Approve 2024 Rates and Fees Resolution

## **Summary:**

The 2024 Rate Resolution and Appendices are included for the Board's review. The water and sewer rates and fees were developed in response to the 2024 budget that the Board recommended to the City Manager at the July 2023 meeting.

Residential water rates are increasing 3.5% and residential sewer rates are increasing 9%. Residential water customers are the only customers on a tiered water budget rate structure.

Plant investment fees are updated annually for water and sewer. The water plant investment fee is increased to \$12,900 for a ¾" tap, an increase from the 2023 fee of \$12,100. The sewer plant investment fee is increasing to \$7,500 for a ¾" tap, an increase from the 2023 fee of \$6,900.

Using the pricing method approved by the Board at the July 2018 meeting, the cash-in-lieu of raw water fee will increase from \$44,000 to \$51,500 per acre-foot. The new cash-in-lieu price will take effect on March 1, 2024. Water and Sewer Board Resolution 2, 2020 allows the cash-in-lieu fee to be recalculated as necessary, but no less than once per year. Staff will bring forward future adjustments to the cash-in-lieu fee for Board review if necessary, in 2024.

## **Recommended Action:**

Approve the Resolution Adopting Rates, Fees, and Chargers for Water and Sewer Services in 2024.

## **Recommended Motion:**

"I move that the Board approve the Resolution to Adopt Rates, Fees, and Charges for Water and Sewer Services in 2024."

## **Attachments:**

1. 2024 Rate Adoption Presentation
2. 2024 Rate Adoption Bill Comparison Charts
3. 2024 Rate Resolution

# 2024 Water and Sewer Rate Adoption

---

Water & Sewer Board | December 20, 2023

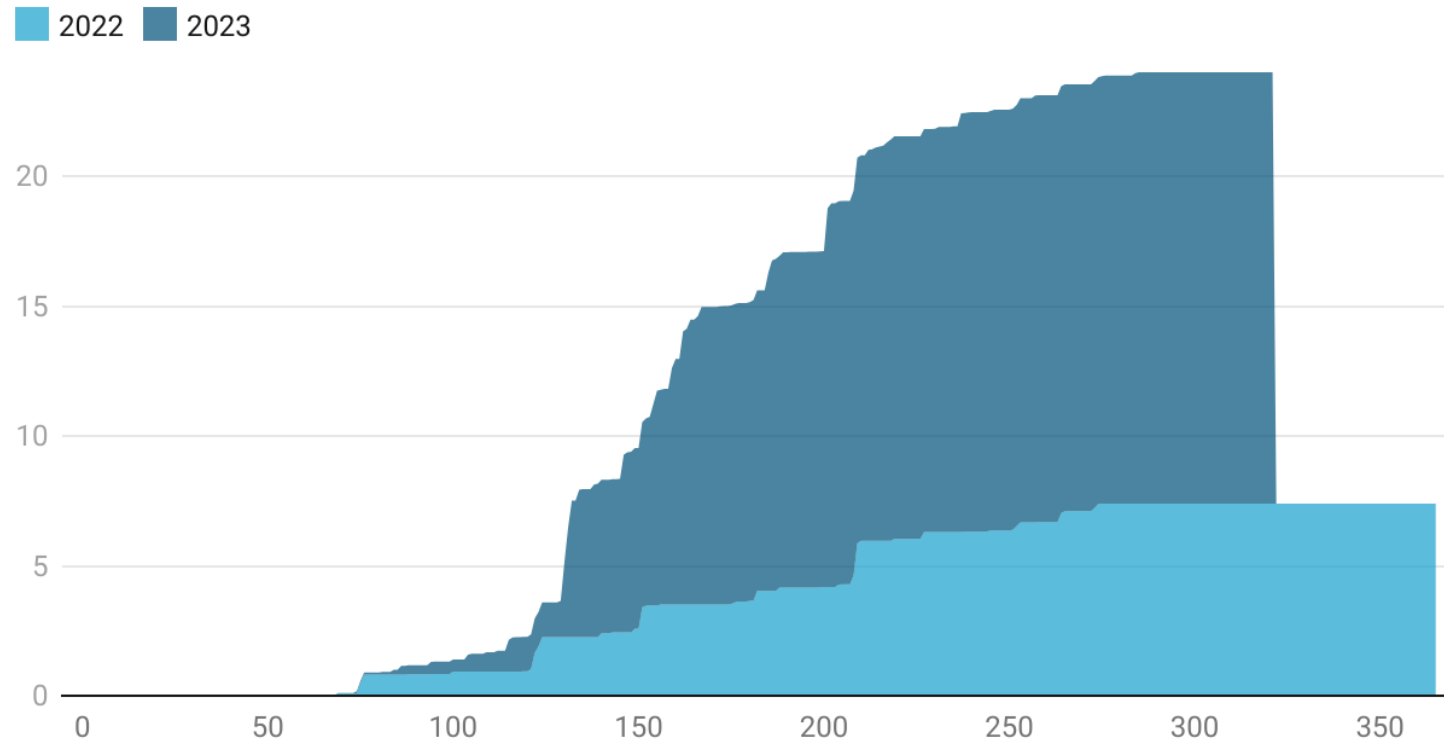


# 2023 Revenue Update



## 2023 and 2022 Greeley Rainfall

Cumulative rainfall totals in inches.



The rate resolution attached is intended to cover the 2024 Budget and 2024-2033 Capital Investment Plan that were recommended by the Water and Sewer Board in July and approved by City Council in October.

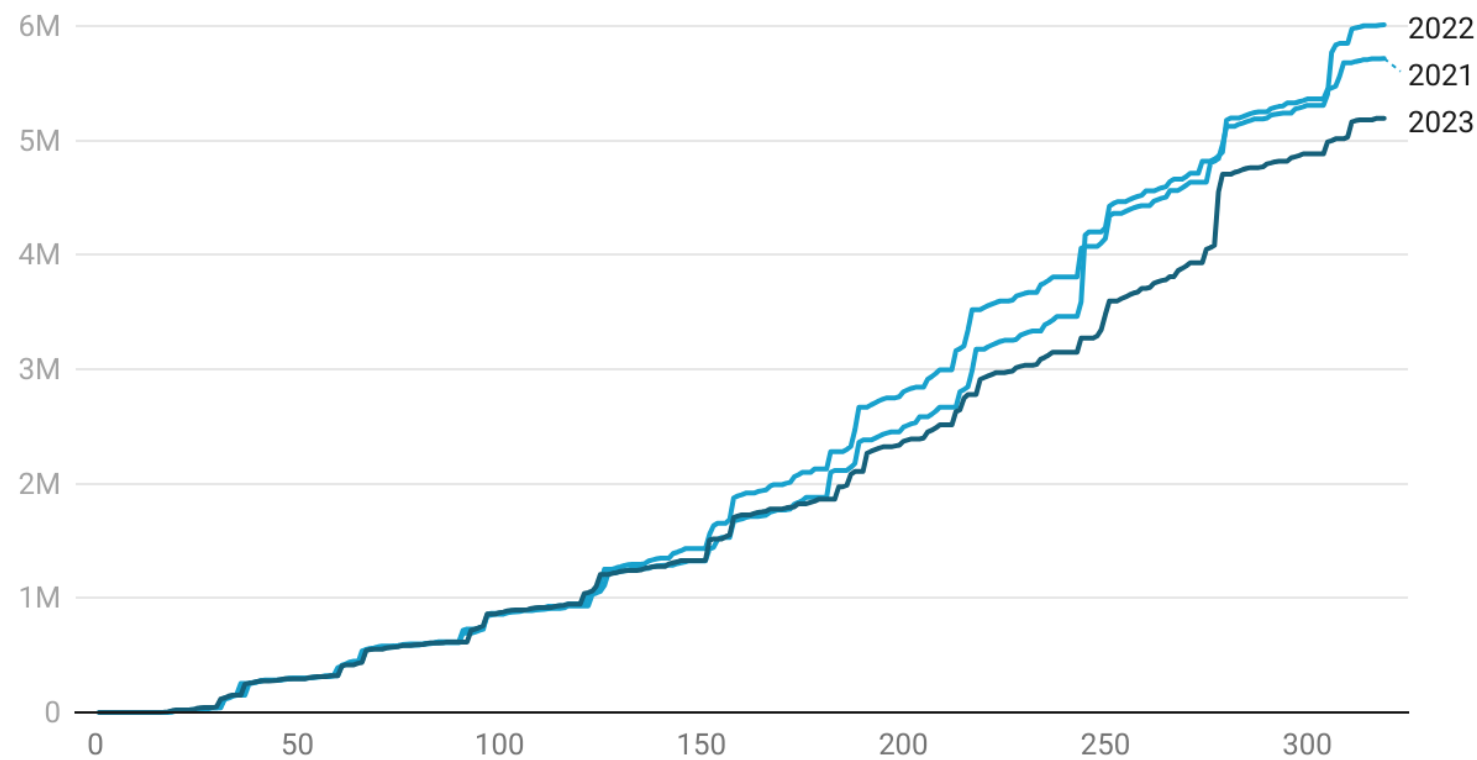
The 2024 water rate increase proposed in the resolution includes a 0.5% increase beyond the tentative increase given to board in July. This was added in response to the impact on rate revenue collection arising from the record setting wet summer.

# 2023 Revenue Update



## Cumulative Metered Consumption

in 1,000 of gallons.

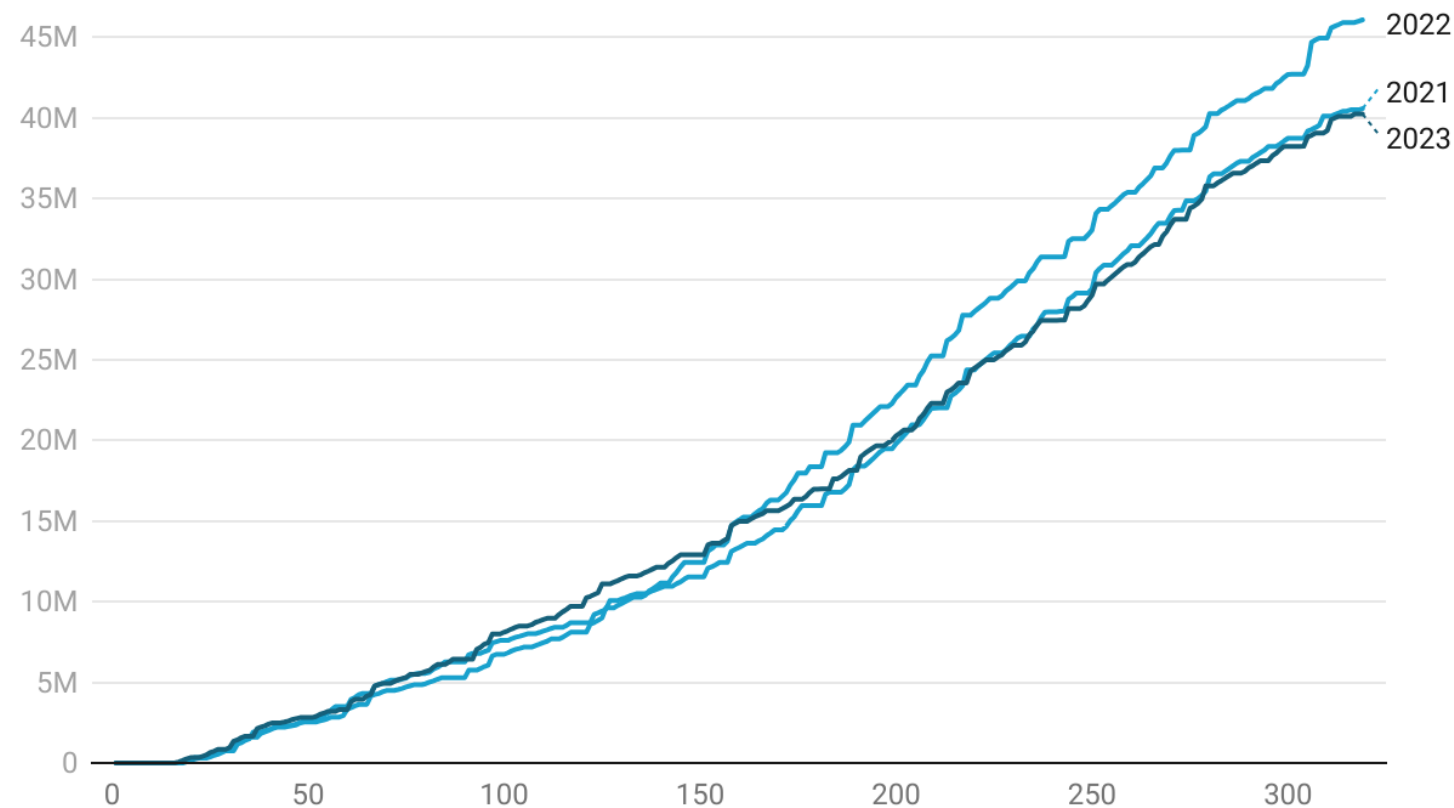


A significant part of the city's water consumption is related to outdoor uses and we saw that clearly in the meter reads for 2023.

# 2023 Revenue Update



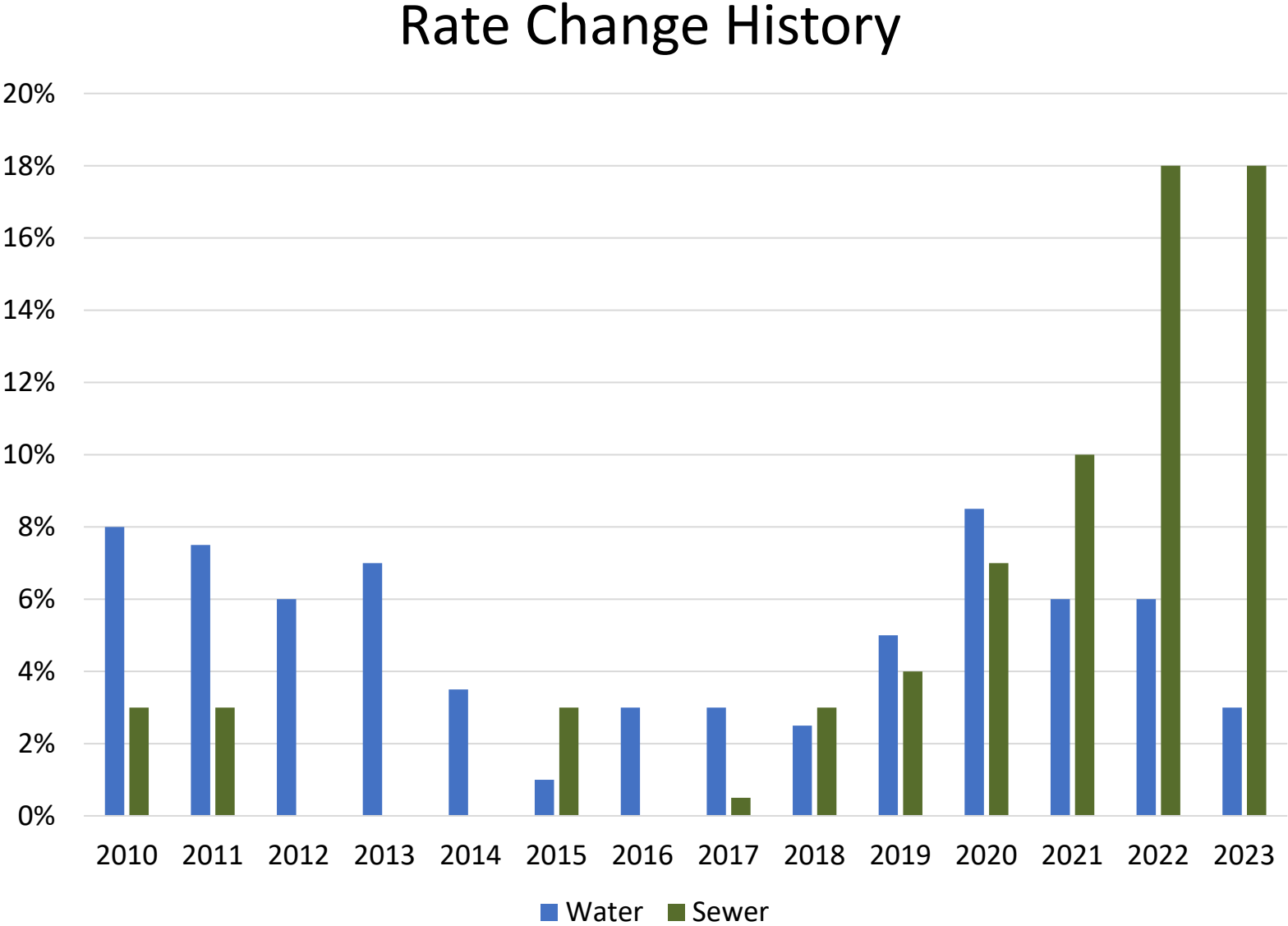
## Cumulative Water Bills



While total revenues for 2023 are meeting forecasts due to miscellaneous revenue sources, the rate revenue collected is lower than forecasted by \$4M.

Board will receive an update in early 2024 with the status of revenues and expenditures for 2023.

Recent Rate  
Change History



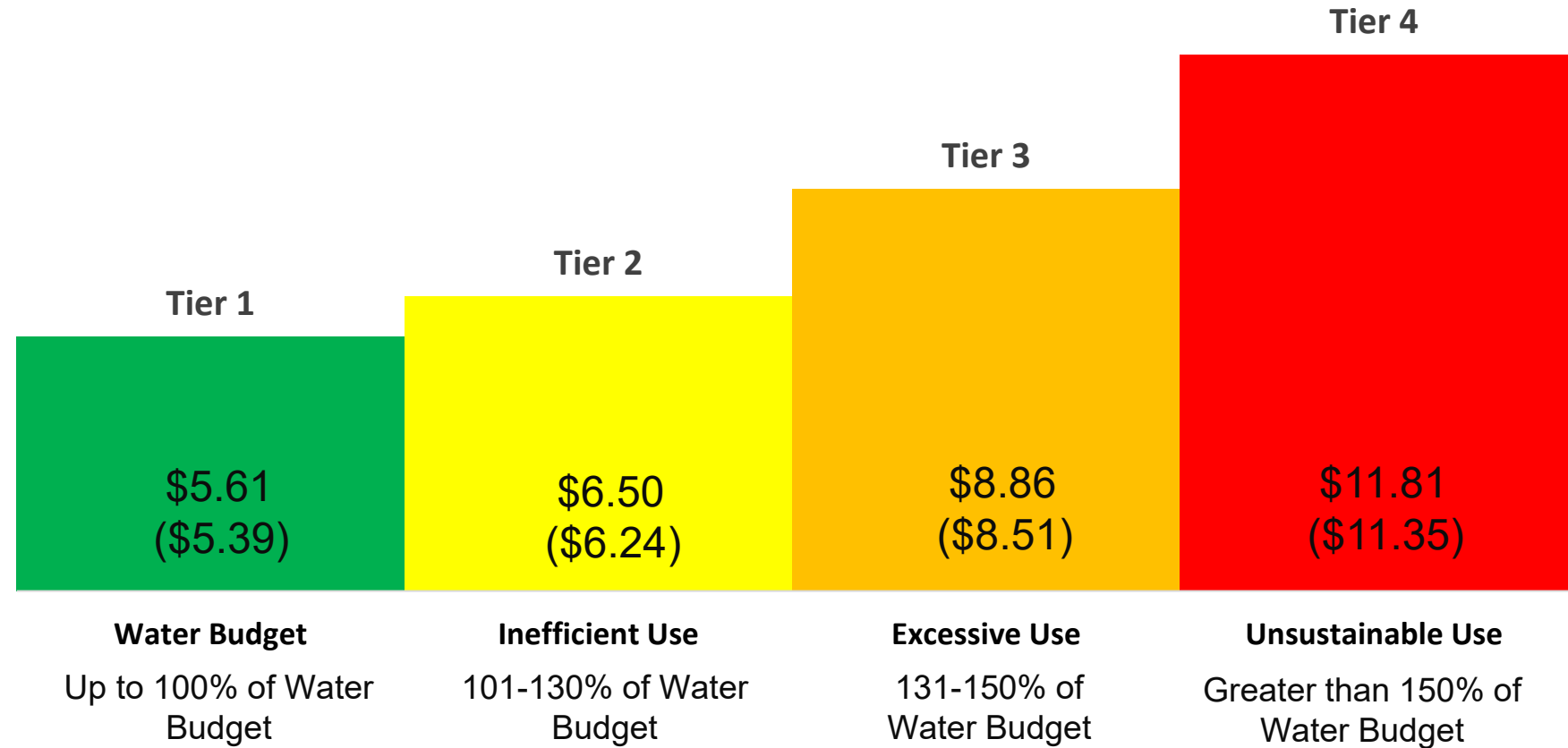


# Rate Increases and Customer Bill Impacts



# Residential Water Budget Rate Structure

Rate Structure for Greeley SFR customers in 2024 (2023 Rate)



- Monthly Service Charge \$17.75 from \$17.50
- Uniform Residential Volumetric Rate \$5.88 from \$5.64



# 2024 Water Rate Changes

| Customer Class      | Existing Rate / kgal | % Increase | Proposed Rate / kgal |
|---------------------|----------------------|------------|----------------------|
| Inside Residential  | \$ 5.64              | 3.5%       | \$ 5.88              |
| Inside Commercial   | \$ 5.60              | 1.5%       | \$ 5.69              |
| Inside Industrial   | \$ 4.52              | 5.5%       | \$ 4.77              |
| Outside Residential | \$ 11.62             | 0.5%       | \$ 11.66             |
| Outside Commercial  | \$ 11.54             | 0.5%       | \$11.58              |
| Outside Industrial  | \$ 3.98              | 3.5%       | \$ 4.12              |
| City of Evans       | \$ 4.96              | 8.5%       | \$ 5.39              |
| Town of Windsor     | \$ 5.31              | 5.5%       | \$ 5.61              |
| Town of Milliken    | \$ 6.05              | 5.5%       | \$ 6.39              |

# 2024 Sewer Rate Changes – Inside City

| Customer Class | Existing Rate / kgal | % Increase | Proposed Rate / kgal |
|----------------|----------------------|------------|----------------------|
| Single Family  | \$ 4.03              | 9%         | \$ 4.46              |
| Multi-Family   | \$ 4.08              | 9%         | \$ 4.46              |
| Commercial 1   | \$ 4.10              | 8%         | \$ 4.43              |
| Commercial 2   | \$ 5.72              | 10%        | \$ 6.31              |
| Commercial 3   | \$ 7.33              | 11%        | \$ 8.15              |
| Commercial 4   | \$ 8.95              | 11%        | \$ 9.95              |
| Commercial 5   | \$ 10.58             | 11%        | \$ 11.76             |

Wastewater Monthly Service Charge is increasing from \$16.70 to \$18.00 per month.

# 2024 Sewer Rate Changes – Industrial

| Customer Class      | Existing Rate / kgal | % Increase | Proposed Rate / kgal |
|---------------------|----------------------|------------|----------------------|
| Industrial SIC 2013 | \$ 22.34             | 36%        | \$ 30.39             |
| Industrial SIC 7218 | \$ 10.54             | 49%        | \$ 15.72             |
| Industrial SIC 2873 | \$ 47.90             | 23%        | \$ 59.01             |
| Industrial SIC 4212 | \$ 3.40              | - 1%       | \$ 3.34              |
| Industrial SIC 2034 | \$ 7.44              | 30%        | \$ 9.68              |
| Industrial SIC 2047 | \$ 19.38             | 73%        | \$ 33.54             |
| Industrial SIC 5169 | \$ 3.88              | 73%        | \$ 6.78              |
| Industrial SIC 7542 | \$ 8.16              | 13%        | \$ 9.23              |

# 2024 Sewer Rate Changes – Outside City

| Customer Class          | Existing Rate / kgal | % Increase | Proposed Rate / kgal |
|-------------------------|----------------------|------------|----------------------|
| Single Family (outside) | \$ 6.13              | 8%         | \$ 6.64              |
| Multi-Family (outside)  | \$ 5.32              | 8%         | \$ 6.64              |
| Commercial 1 (outside)  | \$ 5.62              | 8%         | \$ 6.08              |
| Commercial 2 (outside)  | \$ 7.45              | 10%        | \$ 8.23              |
| Commercial 3 (outside)  | \$ 9.36              | 10%        | \$ 10.32             |
| Commercial 4 (outside)  | \$ 11.23             | 12%        | \$ 12.59             |
| Commercial 5 (outside)  | \$ 12.70             | 12%        | \$ 14.22             |

2024  
Single Family  
Residential Bill  
Impacts

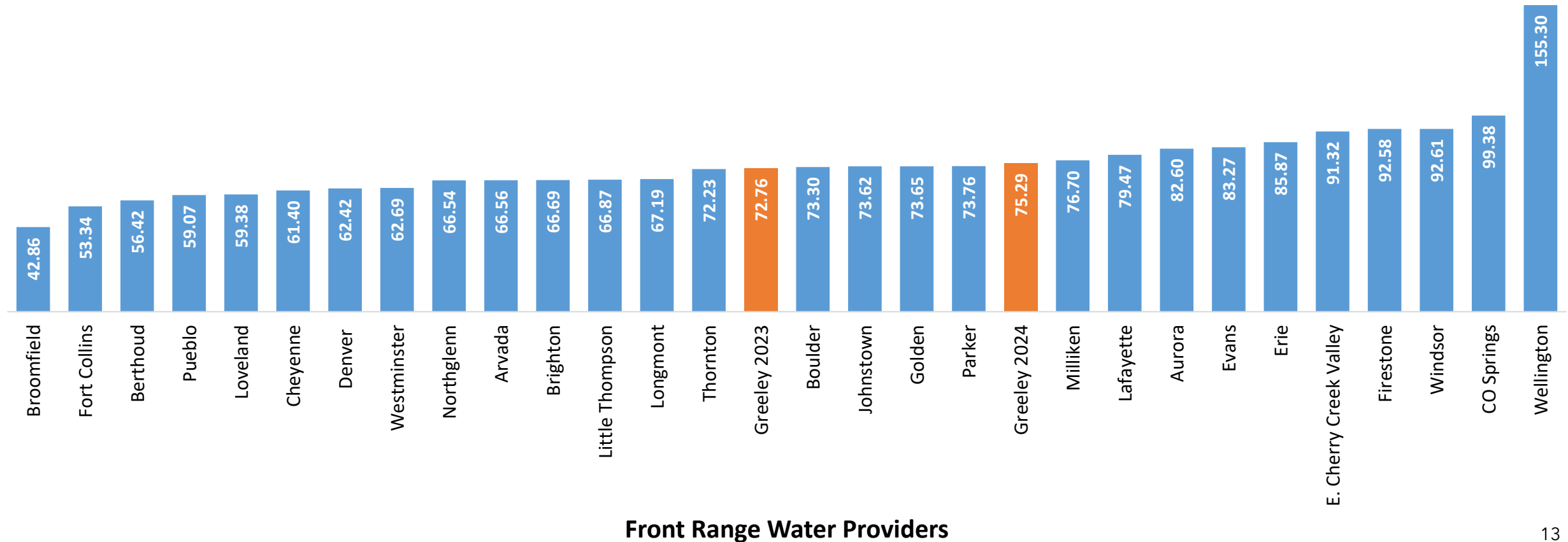
Impact of rate increases for a typical single family residential customer:

| Average Monthly Bill      | 2023            | 2024            | Change          | Percent Change |
|---------------------------|-----------------|-----------------|-----------------|----------------|
| Water                     | \$ 72.76        | \$ 75.29        | +\$ 2.53        | 3.5%           |
| Sewer                     | \$ 30.81        | \$ 33.61        | +\$ 2.80        | 10.0%          |
| <b>Total W&amp;S</b>      | <b>\$103.57</b> | <b>\$108.90</b> | <b>+\$ 5.33</b> | <b>5.1%</b>    |
| Stormwater                | \$ 13.97        | \$ 16.48        | +\$ 2.51        | 18.0%          |
| <b>Total Utility Bill</b> | <b>\$117.54</b> | <b>\$125.38</b> | <b>+\$ 7.84</b> | <b>6.7%</b>    |

# Bill Comparisons

## Single Family Monthly Water Bill Comparison

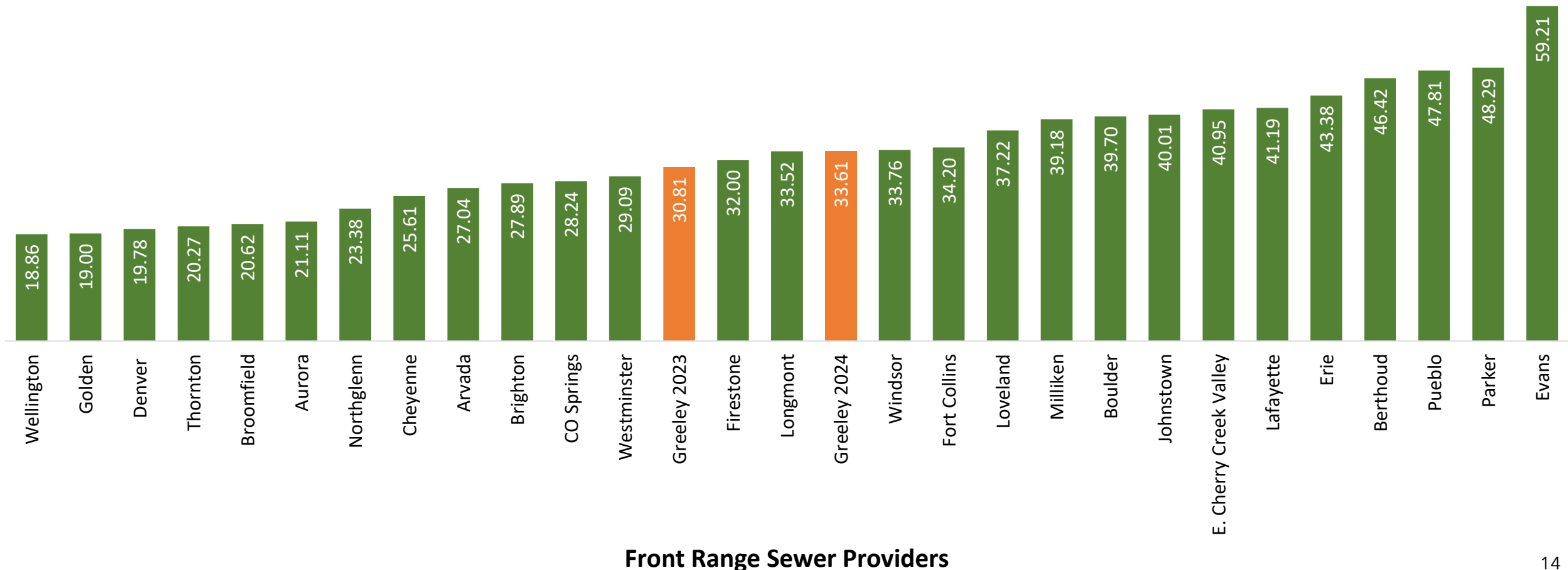
Assumes water use of 10,000 gallons per month



# Bill Comparisons

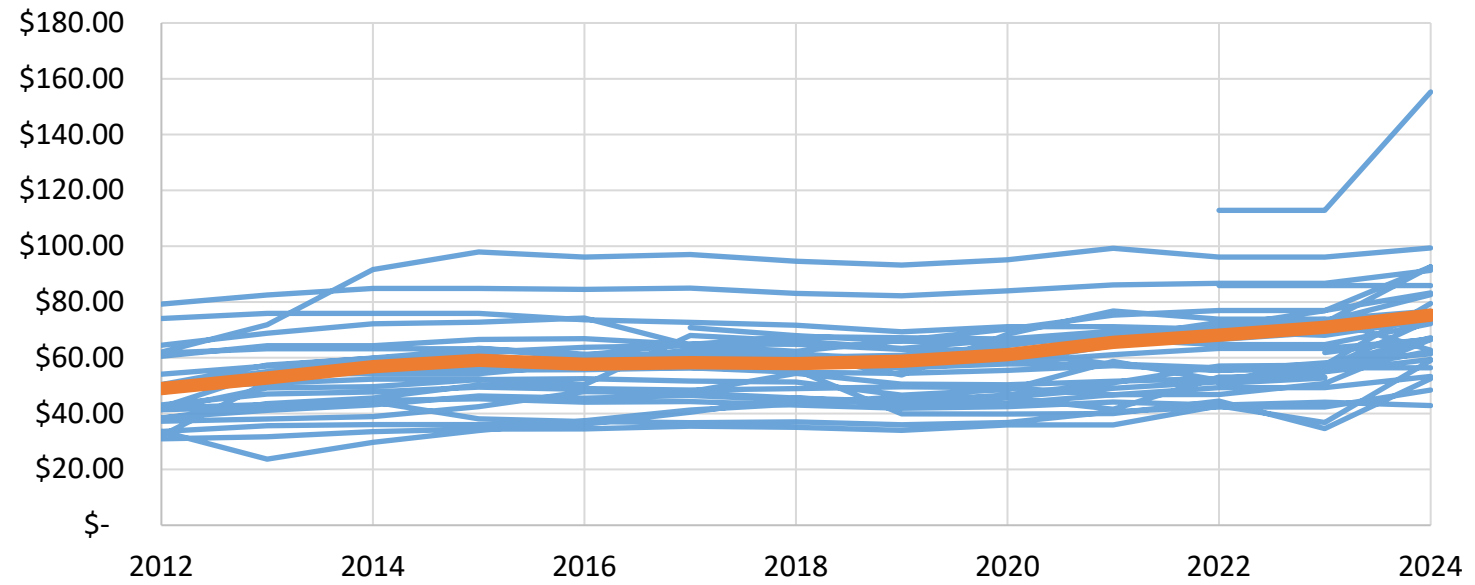
## Single Family Monthly Sewer Bill Comparison

Assumes 3,500 gallons average winter consumption.

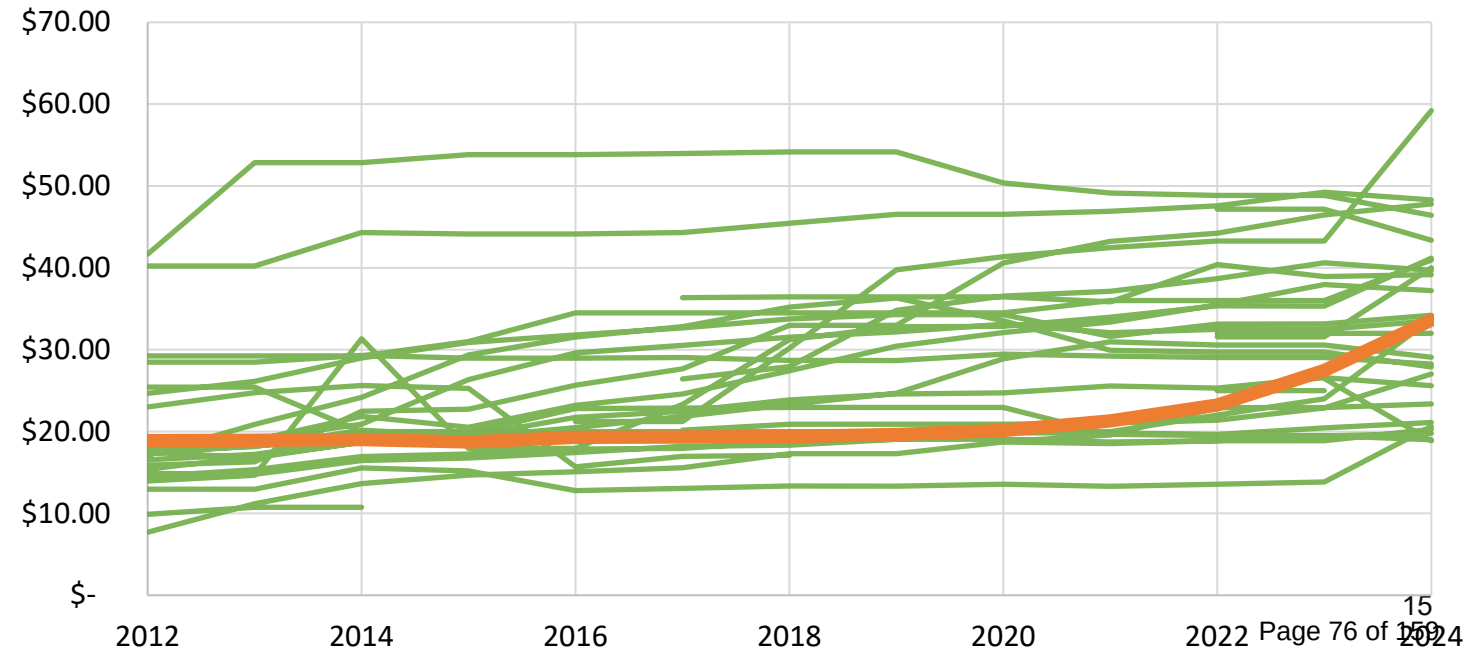


# Bill Comparison History

## Greeley Water Bill Comparison History



## Greeley Sewer Bill Comparison History





# 2024-2033 Residential PROJECTED Bill Impacts

Projected Water and Sewer Combined Bill - 2024-2033



For this customer: the average effective annual increase of their total bill over 2024-2033 is projected to be:

- Water -- 5.0%
- Sewer – 3.8%
- Combined Water and Sewer – 4.6%





# Plant Investment Fees



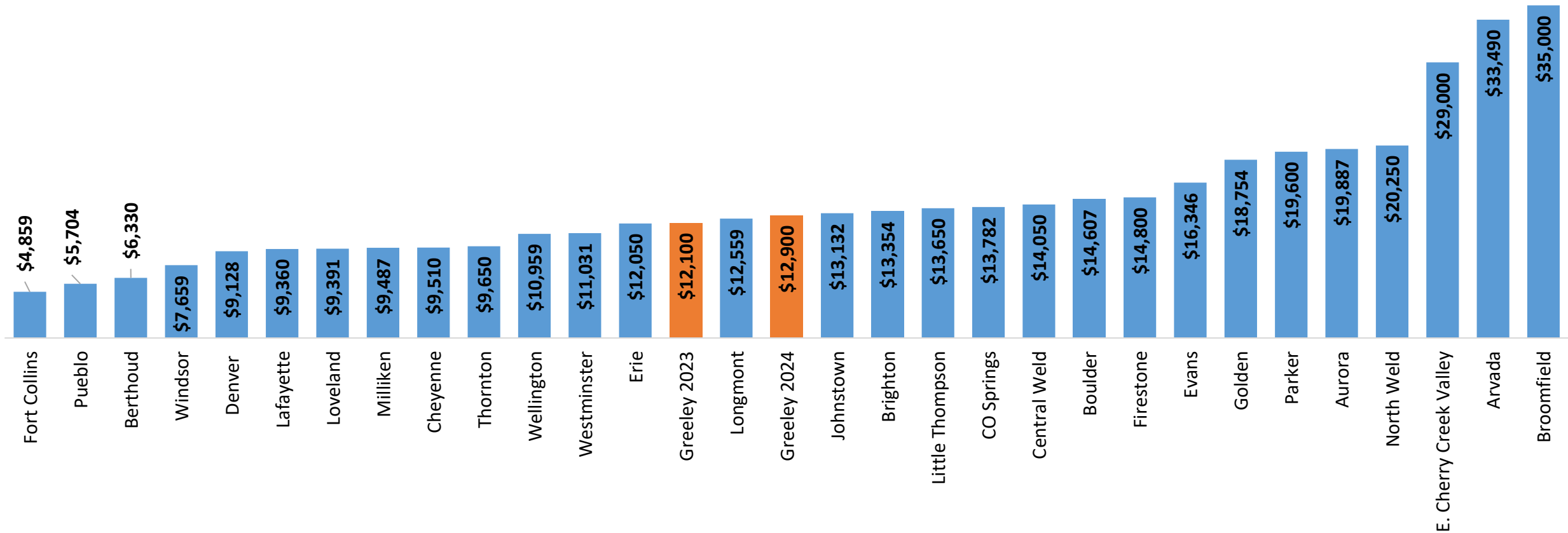
# Plant Investment Fees

|       | 2023     | 2024     | Change  | % Change |
|-------|----------|----------|---------|----------|
| Water | \$12,100 | \$12,900 | \$800   | 7%       |
| Sewer | \$6,900  | \$7,500  | \$600   | 8%       |
| Total | \$19,000 | \$20,400 | \$1,400 | 7%       |

# Plant Investment Fees

## Water Plant Investment Fee

3/4" Tap

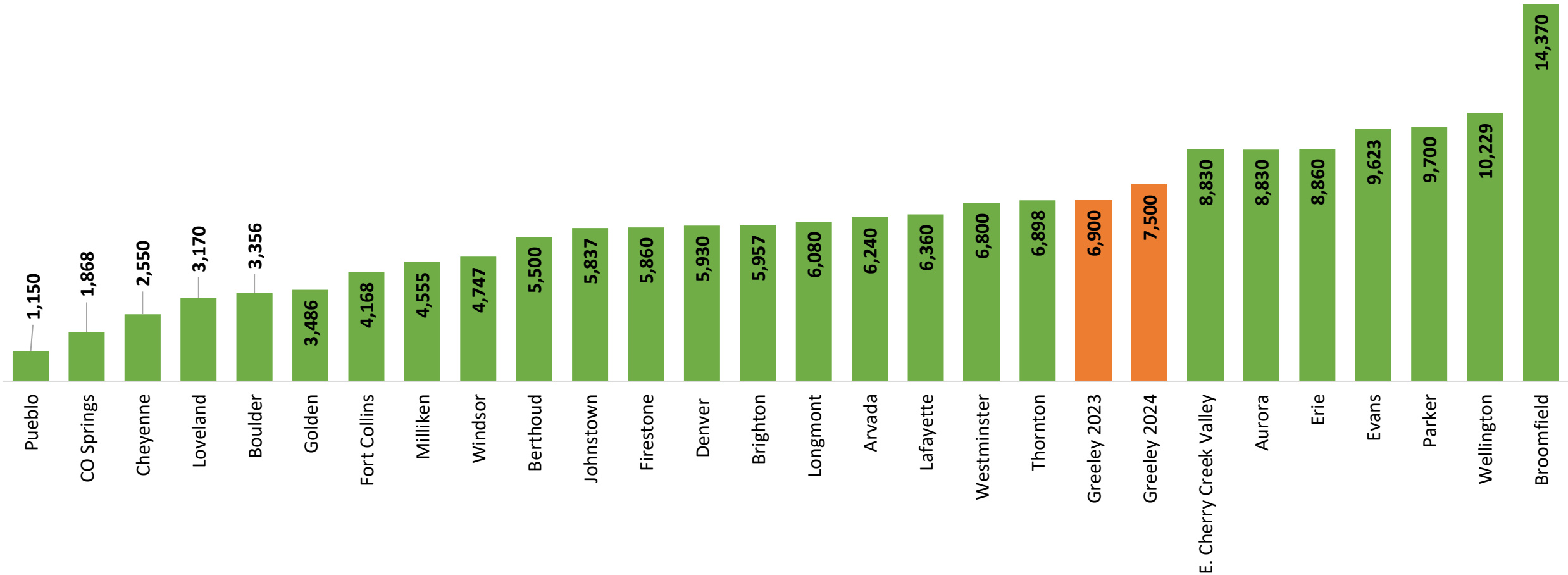


Front Range Water Providers

# Plant Investment Fees

## Sewer Plant Investment Fee

3/4" Tap



Front Range Wastewater Treatment Providers

# Cash-in-Lieu

## 2023 Summary:

- 2023 CIL was set at \$44,000
- YTD Raw Water Sales: \$756,469
- Taps that paid cash-in-lieu: 19 taps in 15 permits.
- Volume of Water Sold: 38.9 AF

| 2024 Cash-in-lieu Fee |              |                       |          |
|-----------------------|--------------|-----------------------|----------|
| Water Portfolio Value | Storage Cost | New Fee per Acre-Foot | Increase |
| \$44,000              | \$7,500      | \$51,500              | 17%      |

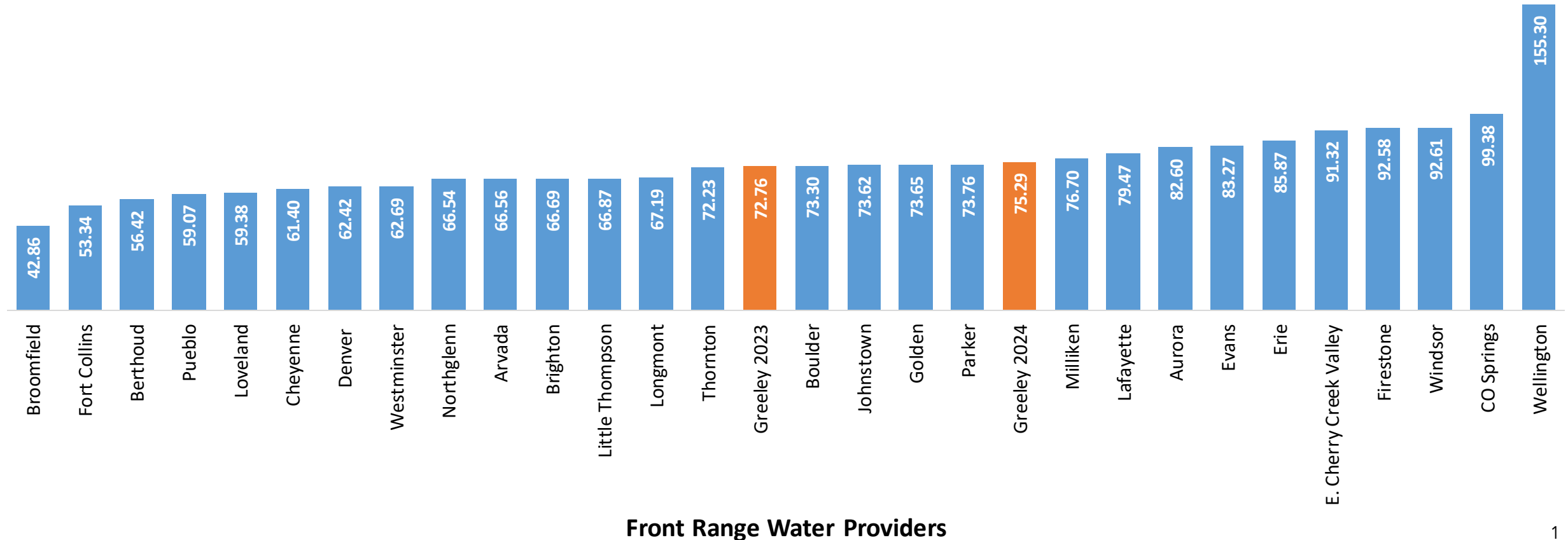


**Questions?**

# Bill Comparisons

## Single Family Monthly Water Bill Comparison

Assumes water use of 10,000 gallons per month

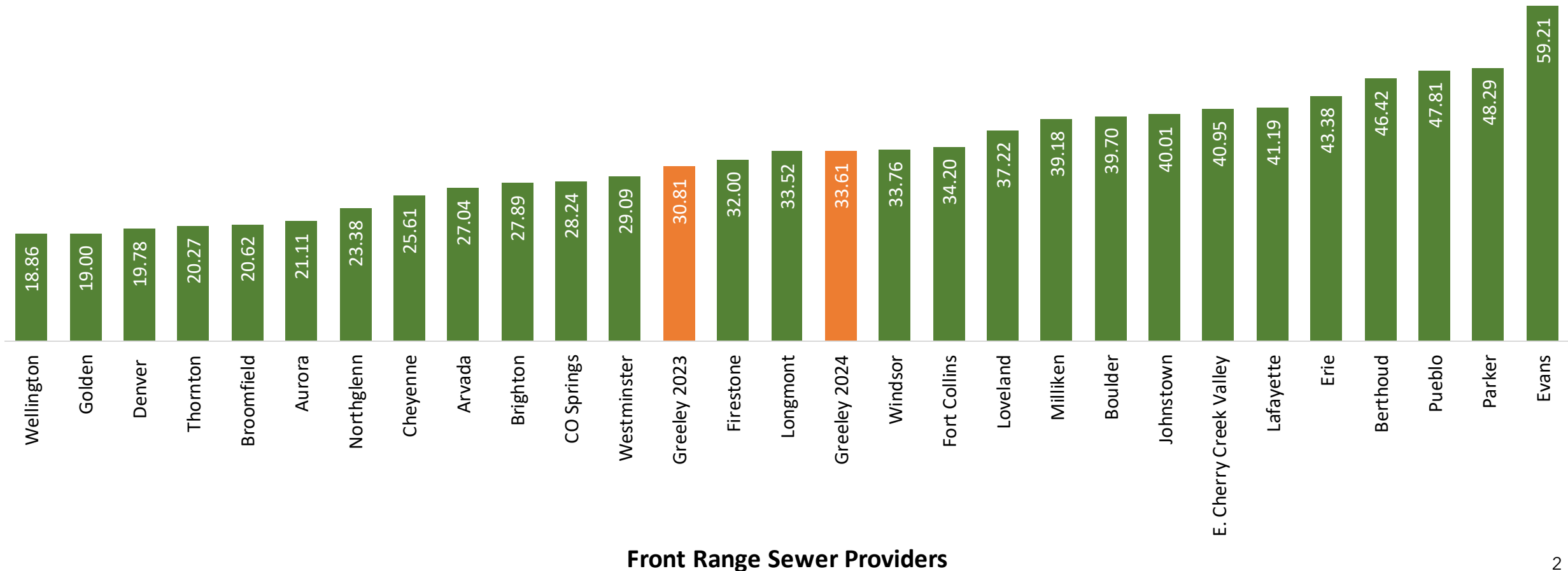




# Bill Comparisons

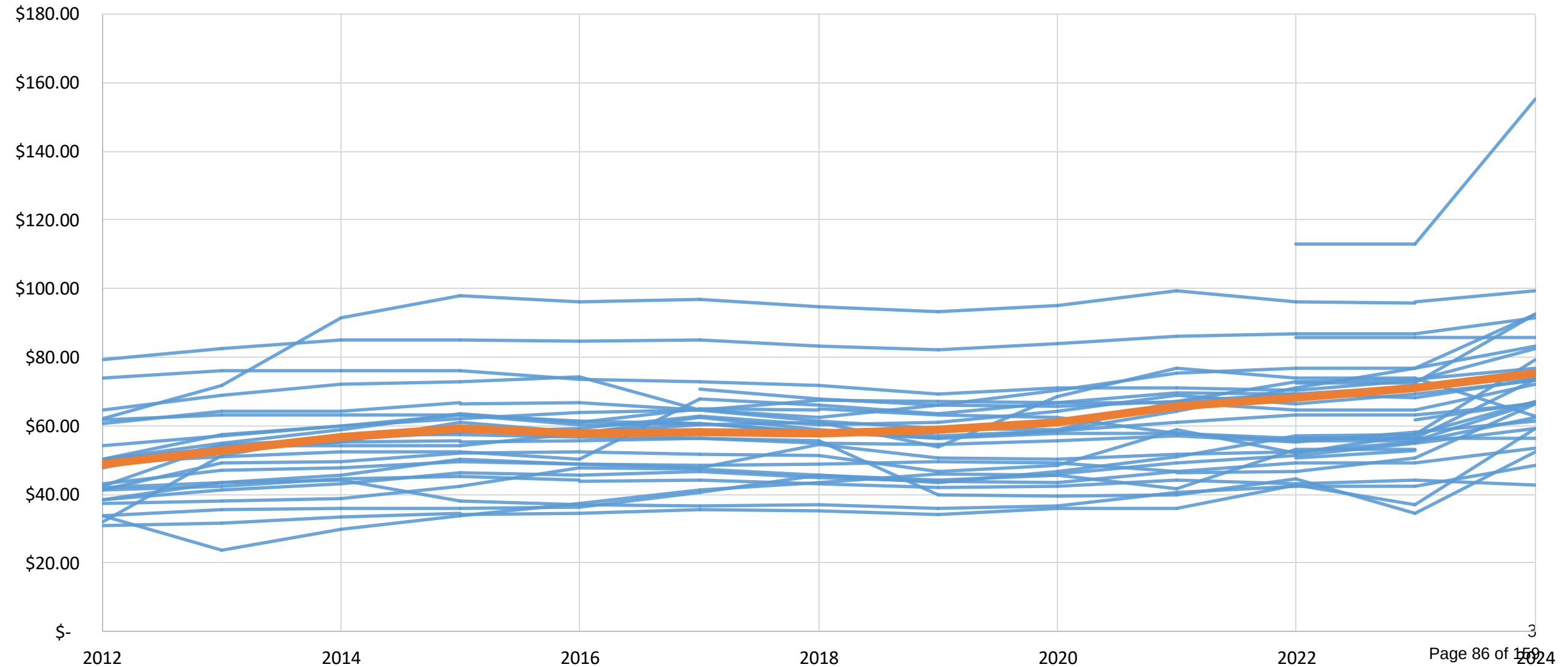
## Single Family Monthly Sewer Bill Comparison

Assumes 3,500 gallons average winter consumption.



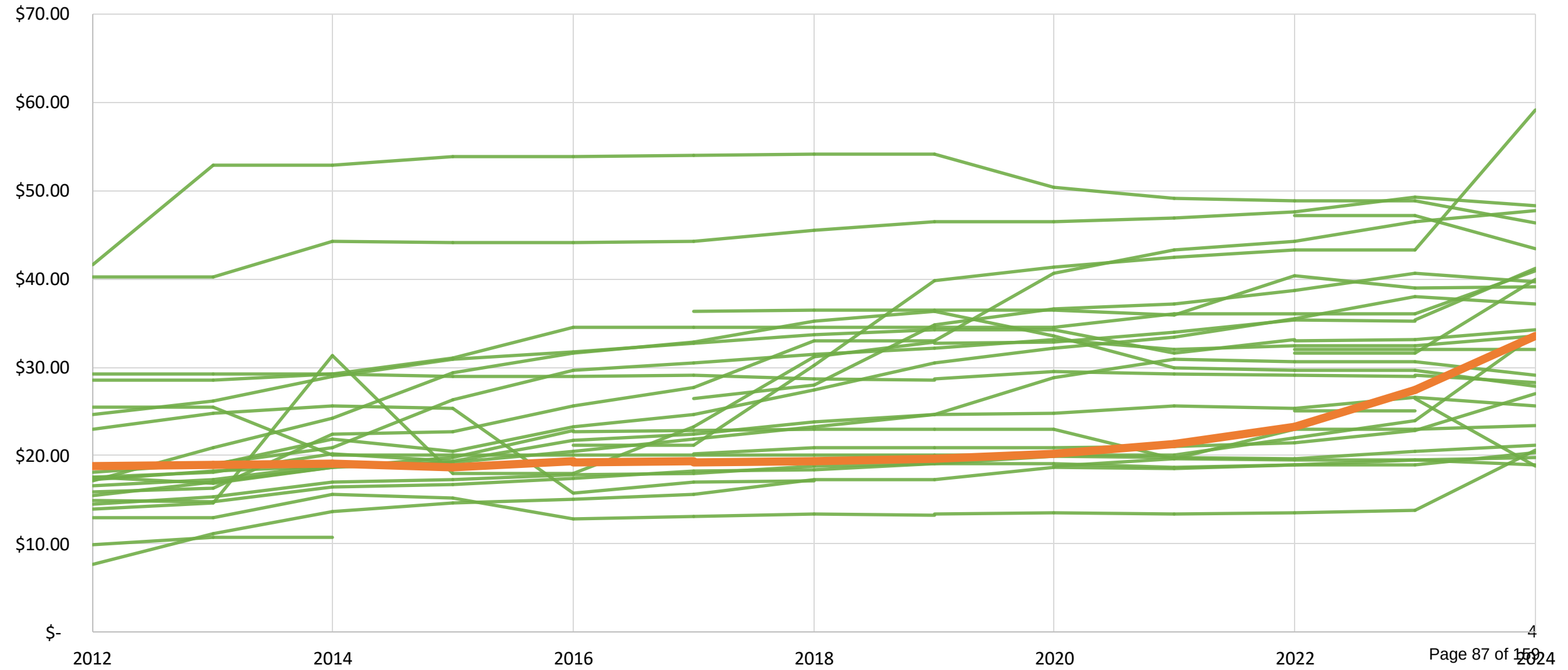
# Bill Comparison History

Greeley Water Bill Comparison History



# Bill Comparison History

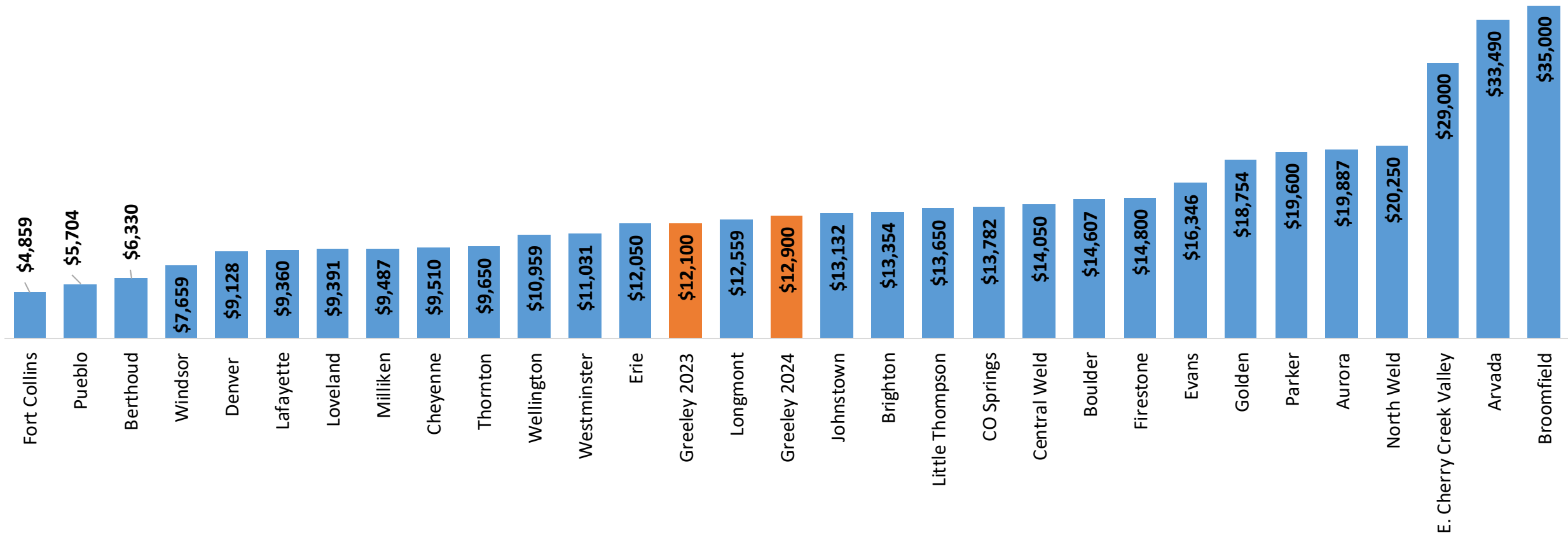
Greeley Sewer Bill Comparison History



# Plant Investment Fees

## Water Plant Investment Fee

3/4" Tap

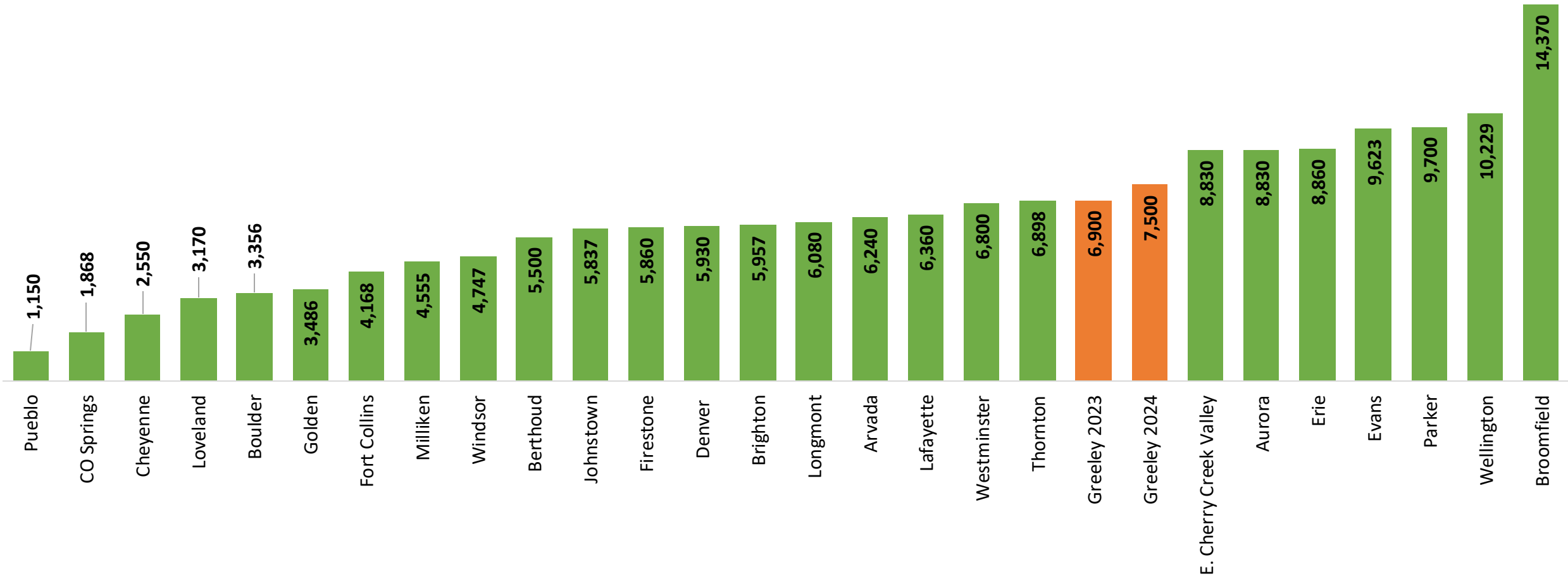


Front Range Water Providers

# Plant Investment Fees

## Sewer Plant Investment Fee

3/4" Tap



Front Range Wastewater Treatment Providers

**CITY OF GREELEY, COLORADO  
ACTING BY AND THROUGH ITS WATER AND SEWER BOARD**

**RESOLUTION \_\_\_, 2023**

**A RESOLUTION ADOPTING RATES, FEES, AND CHARGES FOR WATER AND SEWER SERVICES IN 2024**

WHEREAS, the City of Greeley ("City") is a Colorado home rule municipality empowered pursuant to Sections 1 and 6 of Article XX of the Colorado Constitution to, *inter alia*, construct, purchase, acquire, lease, add to, maintain, conduct, and operate water works and everything required therefor, within or without its territorial limits, for use of the City; and

WHEREAS, Section 17-4 of the City Charter and Sections 20-27 and 20-30 of the Greeley Municipal Code authorize and require the Water and Sewer Board ("Board") to, *inter alia*, annually establish minimum water and sewer rates by resolution, which must be sufficient to include expenditures for all operations and maintenance of the water and sewer system, all debt service, and additions to a reserve account in sufficient amounts to offset depreciation to the water and sewer system; and

WHEREAS, Section 17-4 of the City Charter and Section 20-30 of the Greeley Municipal Code authorize and require the Board to acquire, develop, convey, lease, and protect water and sewer assets, supplies, and facilities; and

WHEREAS, Section 20-28 of the Greeley Municipal Code authorizes the Board to adopt minimum rates, fees and charges the Board deems necessary to cover the costs of inspections, tap installations, operations, maintenance and extensions of the water and sanitary sewer systems; and

WHEREAS, Sections 20-27 and 20-255 through 20-258 of the Greeley Municipal Code requires the Board to determine the fair market value of water, upon which value the fee for cash-in-lieu of raw water (i.e., the cash equivalent of raw water required to be dedicated for development within the City) is based; and

WHEREAS, the Board has advised the City Council of its long-term capital improvement plans, pursuant to Section 17-7 of the City Charter; and

WHEREAS, the Board's long-term capital improvement plan for water and wastewater contains extensive new construction and rehabilitation within the next five years; and

WHEREAS, the Board's long-term water storage and water acquisition plans contemplate the acquisition of new water supplies, as well as the construction and expansion of water storage infrastructure; and

WHEREAS, the Board's 10-year Financial Plan for funding operations, construction, water acquisition, and replacement programs calls for rate increases over the next several years to accomplish the programs anticipated;

**NOW THEREFORE, BE IT RESOLVED BY THE WATER AND SEWER BOARD OF GREELEY, COLORADO:**

Section 1. The water rates for 2024 shall be as shown in Appendix A to this resolution.

Section 2. The sewer rates for 2024 shall be as shown in Appendix B to this resolution.

Section 3. The water and sewer fees and charges for 2024 shall be as shown in Appendix C to this resolution.

Section 4. Water and sewer rate increases shall be allocated among the various customer classes in accordance with their service demand as determined by the City's rate model and shown in the attached rate appendices.

Section 5. The 2024 cash-in-lieu of raw water fee shall be as shown in Appendix A of this resolution, but may be adjusted thereafter periodically by the Water and Sewer Board by motion.

Section 6. The 2024 plant investment fees for water shall be as shown in Appendix A of this resolution.

Section 7. The 2024 plant investment fees for sewer shall be as shown in Appendix B of this resolution.

Section 8. The new water and sewer rates, and all other fees and charges not described in Section 9 below, shall take effect on January 1, 2024.

Section 9. The new plant investment fees and cash-in-lieu of raw water fee shall take effect on March 1, 2024 to provide the public with at least 45 days' notice of the new fees.

Section 10. Any specific reference in this resolution and the appendices to the Greeley Municipal Code shall be deemed applicable to any and all successor sections in the event the Code is revised after adoption of this resolution.

**PASSED AND ADOPTED, SIGNED AND APPROVED THIS \_\_\_\_ DAY OF DECEMBER 2023.**

**ATTEST**

**CITY OF GREELEY  
WATER AND SEWER BOARD**

---

**Raymond C. Lee III  
Secretary to the Board**

---

**Harold Evans  
Chairman, Water and Sewer Board**

## **APPENDIX A**

### **2024 WATER RATES AND FEES**

#### **A. WITHIN THE CITY OF GREELEY**

##### Customer Class

##### Rate per 1,000 Gallons

Inside the City Single-Family Residential Water Budget

|                                          |         |
|------------------------------------------|---------|
| Tier One ( $\leq 100\%$ of Water Budget) | \$5.61  |
| Tier Two (101-130% of Water Budget)      | \$6.50  |
| Tier Three (131-150% of Water Budget)    | \$8.86  |
| Tier Four ( $> 150\%$ of Water Budget)   | \$11.81 |

Inside the City Residential not on Water Budget

\$5.88

Inside the City Commercial

\$5.69

Inside the City Industrial

\$4.77

In addition, the following service charges shall be billed regardless of the volume of water consumed.

##### Service Charges for Monthly Billed Period:

| <u>Meter Size</u> | <u>Inside City</u> |
|-------------------|--------------------|
| 5/8"              | \$17.75            |
| 3/4"              | \$17.75            |
| 1"                | \$18.35            |
| 1½"               | \$24.75            |
| 2"                | \$27.35            |
| 3"                | \$81.75            |
| 4"                | \$95.75            |
| 6"                | \$121.45           |
| 8"                | \$155.25           |
| 10"               | \$199.95           |
| 12"               | \$258.75           |



## B. OUTSIDE THE CITY OF GREELEY

| <u>Customer Class</u>                                        | <u>Rate per 1,000 Gallons</u> |
|--------------------------------------------------------------|-------------------------------|
| Outside the City Residential                                 | \$11.66                       |
| Outside the City Commercial                                  | \$11.58                       |
| Sharkstooth Pipeline Company (Contributed Water Rights)      | \$5.39                        |
| Mountain View Meadows (Not Contributed Water Rights)         | \$10.24                       |
| Agriculture Special Contract (Greeley-Loveland by Agreement) | \$5.88                        |
| Kodak Alaris                                                 | \$4.12                        |
| Town of Windsor                                              | \$5.61                        |
| City of Evans                                                | \$5.39                        |
| Town of Milliken                                             | \$6.39                        |

### Former North Weld County Water Service Area

#### Outside the City Single-Family Residential Water Budget

|                                         | <u>Rate per 1,000 Gallons</u> |
|-----------------------------------------|-------------------------------|
| Tier One ( $\leq$ 100% of Water Budget) | \$5.61                        |
| Tier Two (101-130% of Water Budget)     | \$6.50                        |
| Tier Three (131-150% of Water Budget)   | \$8.86                        |
| Tier Four ( $>$ 150% of Water Budget)   | \$11.81                       |

|                                                  |        |
|--------------------------------------------------|--------|
| Outside the City Residential not on Water Budget | \$5.88 |
| Outside the City Commercial                      | \$5.69 |

In addition, the following service charges shall be billed regardless of the volume of water consumed.

### Service Charges for Monthly Billed Period:

| <u>Meter Size</u> | <u>Outside City</u> |
|-------------------|---------------------|
| 5/8"              | \$17.75             |
| 3/4"              | \$17.75             |
| 1"                | \$18.35             |
| 1½"               | \$24.75             |
| 2"                | \$27.35             |
| 3"                | \$81.75             |
| 4"                | \$95.75             |
| 6"                | \$121.45            |
| 8"                | \$155.25            |
| 10"               | \$199.95            |
| 12"               | \$258.75            |

**C. RAW WATER PREREQUISITE**

Raw water dedication is a prerequisite to receiving water service pursuant to City of Greeley Municipal Code Sections 20-254 and 20-257, regardless of whether the service requested is for treated or non-potable water.

**D. RAW WATER SURCHARGE FOR CERTAIN TREATED WATER USERS**

All non-residential customers, large multi-family residential customers, and large parcel single-family residential customers who use more water in a calendar year (based upon billing records) than their annual allotment, as set forth in Section 20-260 of the Greeley Municipal Code, shall be assessed a raw water surcharge of \$15.23 per 1,000 gallons on the volume of water used in excess of the annual allotment. This surcharge is based on the fair market value of water and cash-in-lieu of raw water fee.

**E. RAW WATER SURCHARGE FOR NON-POTABLE USERS**

All non-potable customers, residential or commercial, who use more water in a calendar year than the amount of raw water contributed (based upon billing records) shall be assessed a raw water surcharge of \$7.39 per 1,000 gallons on the excess usage. This surcharge is based on the market price for Greeley and Loveland Irrigation Company shares.

**F. NON-POTABLE SERVICE**

The non-potable water usage rate shall be \$4.12 per 1,000 gallons for the volume of water used. A monthly service charge based on meter size, as given in the table, shall be assessed on every non-potable account during the period of its operation, regardless of the volume of water used.

| <b>Meter Size</b> | <b>Non-Potable Monthly Service Charge</b> |
|-------------------|-------------------------------------------|
| 3/4" and 5/8"     | \$17.75                                   |
| 1"                | \$18.35                                   |
| 1.5"              | \$24.75                                   |
| 2" and larger     | \$27.35                                   |

The City reserves the right to decide which customers will be allowed to receive non-potable water, depending on location, cost, and budgetary considerations.

**G. TURN-ON CHARGE**

The turn-on charge is hereby established at \$55.00. This charge is applicable to all turn-ons, including, but not limited to:

- 1. Non-payment shut-off and turn-on;

2. Emergency and non-emergency repairs except in the case of a meter failure or meter repair;
3. Lawn taps, except in the case of multiple lawn taps on the same property, only one charge will be required per service call.

No charge will be assessed for the turn-on and turn-off of non-potable service.

#### **H. WATER SOLD FROM HYDRANTS AND BULK WATER STATIONS**

A lease agreement for hydrant meter rental is required. No lease agreement is required for using the bulk water stations. Charges and fees for the use of fire hydrants and bulk water stations shall be as follows:

1. \$11.66 per 1,000 gallons sold from either a hydrant meter or one of the city's bulk water stations.
2. Deposit for hydrant meters: \$2,000
3. Hydrant meter rentals will be a flat \$150 fee per lease agreement.
4. Fee for replacement of damaged, missing, or unreturned hydrant meter: \$2,000 (retained deposit); in addition, missing or unreturned hydrant meters will be charged for 200,000 gallons of water usage.
5. Fee for replacement of unreturned wrench: \$50.
6. Customers who damage a fire hydrant will be held responsible for the cost of repair or replacement of the fire hydrant.

#### **I. PLANT INVESTMENT FEE SCHEDULE FOR WATER**

1. **Minimum Plant Investment Fees Based on Tap Size:** The following are minimum plant investment fees for treated water service.

| <u>Tap Size</u> | <u>Water Plant Investment Fee</u> |
|-----------------|-----------------------------------|
| 3/4"            | \$12,900                          |
| 1"              | \$21,500                          |
| 1½"             | \$43,000                          |
| 2"              | \$68,800                          |
| 3"              | \$150,500                         |
| 4"              | \$258,000                         |
| 6"              | \$537,500                         |

#### **J. PLANT INVESTMENT FEE REDUCTION FOR LOW-WATER USE POTABLE IRRIGATION (MULTI-FAMILY AND NON-RESIDENTIAL)**

Applicants for water service to non-residential lots and multi-family residential lots with more than four units that are required to install a separate and additional potable landscape irrigation tap  $\frac{3}{4}$ " or 1" in size shall receive a seventy-five (75) percent reduction to the plant investment fee associated with such irrigation tap if the irrigated area contains 75% or more of low water use landscape, as defined in City of Greeley Municipal Code Section 20-254. Applicants for water service to non-residential lots and multi-family residential lots with more than four units that are required to install a separate and additional potable landscape irrigation tap 1  $\frac{1}{2}$ " in size or larger shall be responsible for the full plant investment fee associated with such irrigation tap regardless of the water use landscape.

#### **K. CASH-IN-LIEU OF RAW WATER**

The cash-in-lieu of raw water fee is a fair market value of water determination based on the cost of the water rights portfolio that Greeley has secured to date and the current cost of developing new water storage projects. The cash-in-lieu of raw water fee is \$51,500 per acre-foot of water and can be adjusted periodically by the Water and Sewer Board by motion.

#### **L. NON-AGRICULTURAL RAW WATER RENTAL**

The City of Greeley manages a non-agricultural water rental program that provides annual excess water supplies to certain non-agricultural water users. Non-agricultural rentals can be made to supply augmentation, industrial water needs, homeowner association irrigation, or other uses unrelated to agriculture. Raw water rental rates are evaluated and adjusted annually. Interested parties should contact the City of Greeley Water Resources department for current prices.

## APPENDIX B

### 2024 SANITARY SEWER RATES AND FEES

#### A. RESIDENTIAL SANITARY SEWER RATES – WITHIN THE CITY OF GREELEY.

1. a. **Single Family Metered Rate**; applicable to all residential users receiving metered water in which not more than one family unit is housed on the same lot or in the same building: \$18.00 per billing period plus \$4.46 per thousand gallons of water use per billing period, not to exceed winter billing period consumption.  
  
b. All new single family units which receive metered water will be assessed for 3,000 gallons of water at \$4.46 per thousand gallons plus \$18.00 per billing period until the end of their first complete winter billing period. At that time, the winter billing consumption volume will be used to calculate the sewer bill.  
  
c. All single-family units with metered consumption less than 1,000 gallons in their most recent winter billing period shall be billed for actual consumption in subsequent billing periods, not to exceed an amount equal to 3,000 gallons of consumption.
2. a. **Single Family Flat Rate**; applicable to all residential users not receiving City water in which not more than one family unit is housed on the same lot or in the same building: \$18.00 per billing period plus 3,000 gallons at \$4.46 per thousand.
3. a. **Multi-Family Metered Rate**; applicable to all residential users receiving metered water in which two or more family units are housed on the same lot or in the same building: \$18.00 per sewer connection plus \$4.46 per thousand gallons of water use per billing period, not to exceed winter billing period consumption.  
  
b. All new multi-family units which receive metered water will be assessed for 12,000 gallons of water at \$4.46 per thousand gallons plus \$18.00 per billing period until the end of their first complete winter billing period. At that time, the winter billing consumption volume will be used to calculate the sewer bill.
4. a. **Multi-Family Flat Rate**; applicable to all residential users not receiving City water in which two or more family units are housed on the same lot or in the same building: \$18.00 per sewer connection plus 12,000 gallons at \$4.46 per thousand.

#### B. COMMERCIAL SANITARY SEWER RATES – WITHIN THE CITY OF GREELEY.

1. **Class I Commercial Rate**; applicable to car washes, cleaners, laundromats, schools, colleges, churches, retail stores, offices, beauty shops, financial institutions, membership organizations without dining facilities, service stations (without repair), motels (without dining), and bed and breakfasts which provide a

continental breakfast: \$18.00 per sewer connection per billing period plus \$4.43 per thousand gallons of water use per billing period.

2. **Class II Commercial Rate;** applicable to bars and taverns (without dining), service stations (with repair), animal clinics, hospital/convalescent homes, photo finishing, light manufacturing, retail stores (with dining), convenience stores, and bed and breakfasts which cook a daily breakfast: \$18.00 per sewer connection per billing period plus \$6.31 per thousand gallons of water use per billing period.
3. **Class III Commercial Rate;** applicable to restaurants, hotels (with dining), bars and taverns (with dining), membership organizations (with dining): \$18.00 per sewer connection per billing period plus \$8.15 per thousand gallons of water use per billing period.
4. **Class IV Commercial Rate;** applicable to food markets, butchers, bakers, and food manufacturing: \$18.00 per sewer connection per billing period plus \$9.95 per thousand gallons of water use per billing period.
5. **Class V Commercial Rate;** applicable to mortuaries and miscellaneous heavy commercial manufacturing: \$18.00 per sewer connection per billing period plus \$11.76 per thousand gallons of water user per billing period.

**C. RESIDENTIAL SANITARY SEWER RATES – OUTSIDE THE CITY OF GREELEY.**

1.
  - a. **Single Family Metered Rate;** applicable to all residential users receiving metered water in which not more than one family unit is housed on the same lot or in the same building: \$18.00 per billing period plus \$6.64 per thousand gallons of water use per billing period, not to exceed winter billing period consumption.
  - b. All new single family units which receive metered water will be assessed for 3,000 gallons of water at \$6.64 per thousand gallons plus \$18.00 per billing period until the end of their first complete winter billing period. At that time, the winter billing consumption volume will be used to calculate the sewer bill.
  - c. All single-family units with metered consumption less than 1,000 gallons in their most recent winter billing period shall be billed for actual consumption in subsequent billing periods, not to exceed an amount equal to 3,000 gallons of consumption.
2.
  - a. **Single Family Flat Rate;** applicable to all residential users not receiving City water in which not more than one family unit is housed on the same lot or in the same building: \$18.00 per billing period plus 3,000 gallons at \$6.64 per thousand.
3.
  - a. **Multi-Family Metered Rate;** applicable to all residential users receiving metered water in which two or more family units are housed on the same lot or in the same building: \$18.00 per sewer connection plus \$6.64 per thousand gallons of water use per billing period, not to exceed winter billing period consumption.

- b. All new multi-family units which receive metered water will be assessed for 12,000 gallons of water at \$6.64 per thousand gallons plus \$18.00 per billing period until the end of their first complete winter billing period. At that time, the winter billing consumption volume will be used to calculate the sewer bill.
4.
  - a. **Multi-Family Flat Rate**; applicable to all residential users not receiving City water in which two or more family units are housed on the same lot or in the same building: \$18.00 per sewer connection plus 12,000 gallons at \$6.64 per thousand.

**D. COMMERCIAL SANITARY SEWER RATES – OUTSIDE THE CITY OF GREELEY.**

1. **Class I Commercial Rate**; applicable to car washes, cleaners, laundromats, schools, colleges, churches, retail stores, offices, beauty shops, financial institutions, membership organizations without dining facilities, service stations (without repair), motels (without dining), and bed and breakfasts which provide a continental breakfast: \$18.00 per sewer connection per billing period plus \$6.08 per thousand gallons of water use per billing period.
2. **Class II Commercial Rate**; applicable to bars and taverns (without dining), service stations (with repair), animal clinics, hospital/convalescent homes, photo finishing, light manufacturing, retail stores (with dining), convenience stores, and bed and breakfasts which cook a daily breakfast: \$18.00 per sewer connection per billing period plus \$8.23 per thousand gallons of water use per billing period.
3. **Class III Commercial Rate**; applicable to restaurants, hotels (with dining), bars and taverns (with dining), membership organizations (with dining): \$18.00 per sewer connection per billing period plus \$10.32 per thousand gallons of water use per billing period.
4. **Class IV Commercial Rate**; applicable to food markets, butchers, bakers, and food manufacturing: \$18.00 per sewer connection per billing period plus \$12.59 per thousand gallons of water use per billing period.
5. **Class V Commercial Rate**; applicable to mortuaries and miscellaneous heavy commercial manufacturing: \$18.00 per sewer connection per billing period plus \$14.22 per thousand gallons of water user per billing period.

**E. INDUSTRIAL SANITARY SEWER RATES.**

1. **SIC 2013 Rate**; applicable to prepared food manufacturers: \$18.00 per sewer connection per billing period plus \$30.39 per thousand gallons of sewer flow per billing period.

2. **SIC 2034 Rate**; applicable to dehydrated food producers: \$18.00 per sewer connection per billing period plus \$9.68 per thousand gallons of sewer flow per billing period.
3. **SIC 2047 Rate**; applicable to dog and cat food manufacturers: \$18.00 per sewer connection per billing period plus \$33.54 per thousand gallons of sewer flow per billing period.
4. **SIC 2873 Rate**; applicable to nitrogenous fertilizer producers: \$18.00 per sewer connection per billing period plus \$59.01 per thousand gallons of sewer flow per billing period.
5. **SIC 4212 Rate**; applicable to transportation equipment services providers: \$18.00 per sewer connection per billing period plus \$3.34 per thousand gallons of sewer flow per billing period.
6. **SIC 5169 Rate**; applicable to chemical and allied products manufacturers: \$18.00 per sewer connection per billing period plus \$6.78 per thousand gallons of sewer flow per billing period.
7. **SIC 7218 Rate**; applicable to industrial laundries: \$18.00 per sewer connection per billing period plus \$15.72 per thousand gallons of sewer flow per billing period.
8. **SIC 7542 Rate**; applicable to truck washes: \$18.00 per sewer connection per billing period plus \$9.23 per thousand gallons of sewer flow per billing period.

**F. WASTEWATER PLANT INVESTMENT FEE.**

The following minimum plant investment fee schedule for sewer taps is hereby established.

| <u>Water Tap Size</u> | <u>Wastewater Plant Investment Fee</u> |
|-----------------------|----------------------------------------|
| 3/4"                  | \$ 7,500                               |
| 1"                    | \$12,500                               |
| 1½"                   | \$25,000                               |
| 2"                    | \$40,000                               |
| 3"                    | \$87,500                               |
| 4"                    | \$150,000                              |
| 6"                    | \$312,500                              |

An individual structure that contains more than one living unit (whether apartment, townhouse, mobile home, or condominium) may be served by a single tap.



## **APPENDIX C**

### **2024 WATER AND SEWER DEPARTMENT MISCELLANEOUS FEES AND CHARGES**

#### **A. Water charges for meter failure or leak adjustments**

1. Varies – Water charge will be based on the average consumption for the same period in two prior years and billed at the 2024 rates.

#### **B. Water tap installation fees**

1.  $\frac{3}{4}$ " = \$205
2. 1" = \$225
3. 1  $\frac{1}{2}$ " = \$315
4. 2" = \$420
5. 4"-12" = \$540

#### **C. Sewer tap installation fees**

1. 4" tap into sewer service line = \$280
2. 6" tap into sewer service line = \$290
3. Taps are not permitted into sewer mains (diameters of 15" or greater) unless approved by the Water and Sewer Department. Fees are based on the installation costs of what is needed.

#### **D. Water / Sewer tapping cancellation fee**

1. When less than 24 hours' notice is given to City of Greeley staff to cancel an appointment to tap a water or sewer line, a tapping cancellation fee of \$90.00 will be assessed.

#### **D. Wastewater acceptance rate (hauled wastewater)**

1. \$0.066/gallon

#### **E. Water and sewer line crossing permits**

1. Permit fee = \$50 per application
2. Inspection fee = \$100 per crossing

#### **G. Construction cost recovery**

1. Cost recovery for water and sewer assets will vary according to the development or site

#### **H. Engineering design review fee**

1. Varies – Review fee will be based on the length of the review and the cost of the engineer

#### **I. Water Meter Fees**

1. Varies – The meter fees are a pass-through cost. The customer will pay the cost the City of Greeley pays to purchase the meters.

#### **J. Tampering Fee**

1. In addition to any repair or replacement costs incurred by the City, a \$200 fee will be assessed when water and sewer assets are damaged by a customer.

#### **K. Publications**

1. Printed - \$25
2. Electronic – Free

**L. Other fees and charges**

1. Fees may be charged as necessary for special circumstances outside the normal fee schedule. Such fees will vary.



## Water & Sewer Agenda Summary

December 20, 2023

Key Staff Contact: Ty Bereskie, Deputy Director Water Resources, Adam Prior, Chief Engineer

**Title:**

W&S Technology Enablement Initiatives Update

**Summary:**

Staff will provide a presentation updating the board on technology enablement efforts staff are leading or engaging in.

**Recommended Action:**

None

**Recommended Motion:**

None

**Attachments:**

1. 12\_11\_23\_Tech\_Enablement\_Board\_Presentation\_Combined



# **W&S Technology Enablement Initiatives Update**

**December 20, 2023**

# Introduction



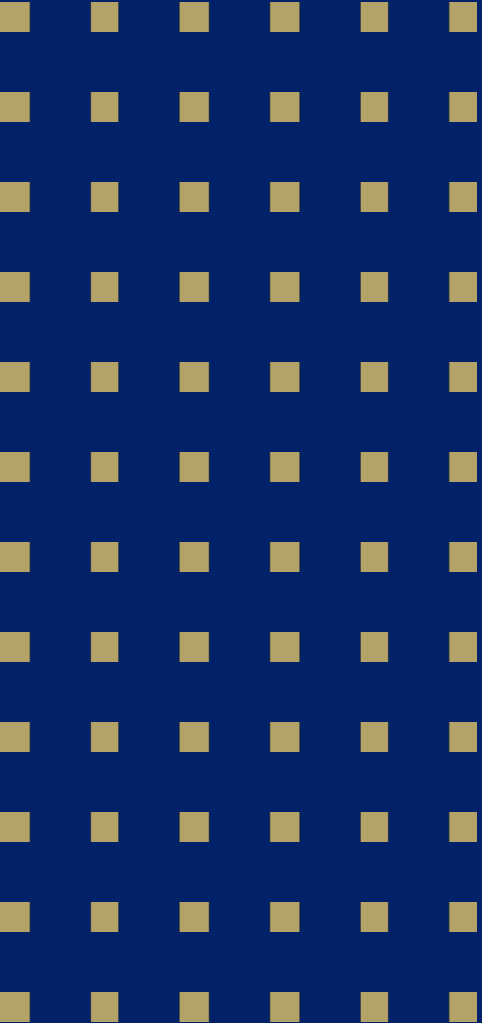
- W&S Staff are engaged in or leading many technology and data-centric efforts throughout the City.
- Continually pursuing opportunities to increase efficiency, improve processes, better inform decision-making, and stay up to date on best management practices



# Agenda



- W&S Data Empowerment
- Water Resource Planning
- Asset Management
- T&D Tech Enablement

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# W&S Data Empowerment

# W&S Data Empowerment Group

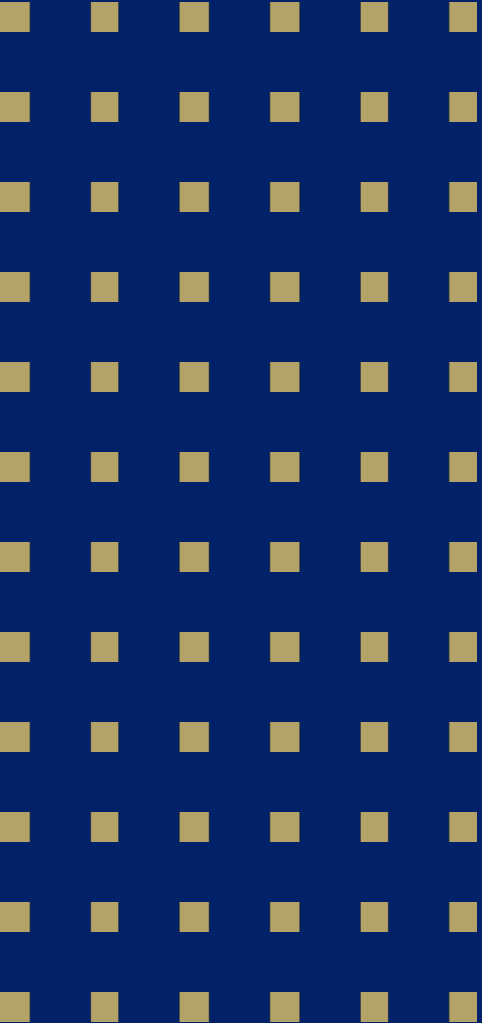
- Initiative started in January 2023, goal of bringing together staff with technical skills and data fluency
- Facilitate sharing of techniques/tools and successes
- Conversations pushed us to formalize an approach to creating a cohesive data strategy for the entire department
- Working with Carollo Engineering to develop a scope for a data roadmap for the Department.





# 2024 Data Roadmap Scope

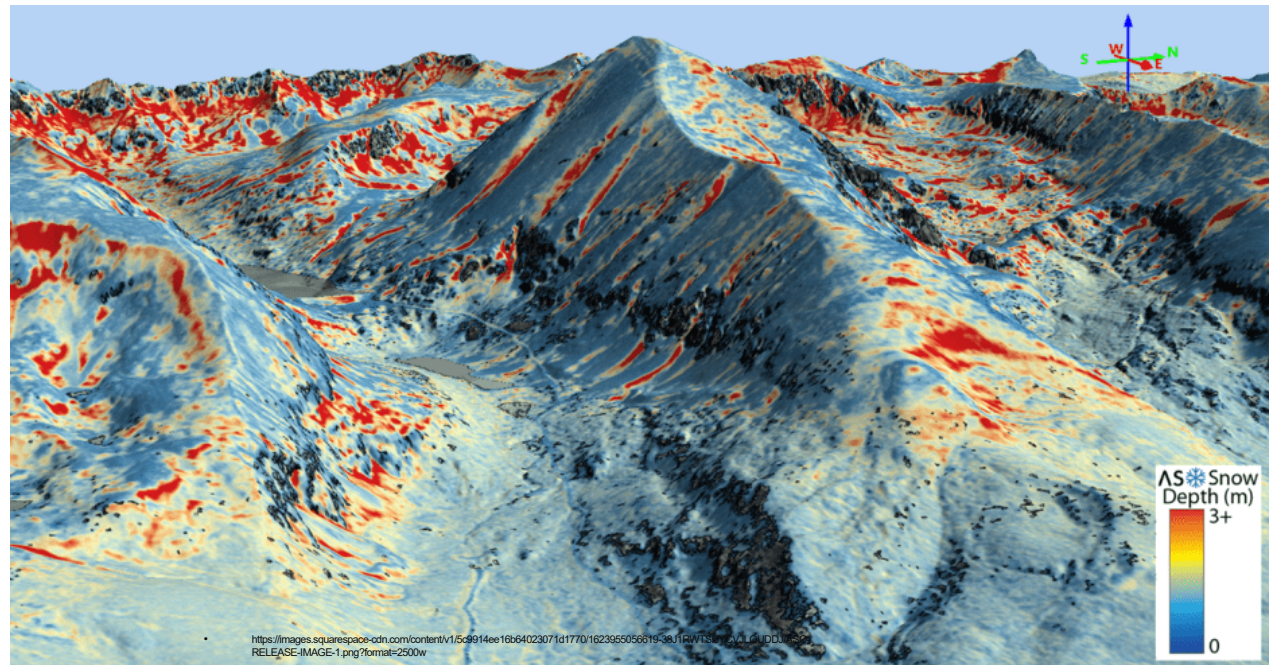
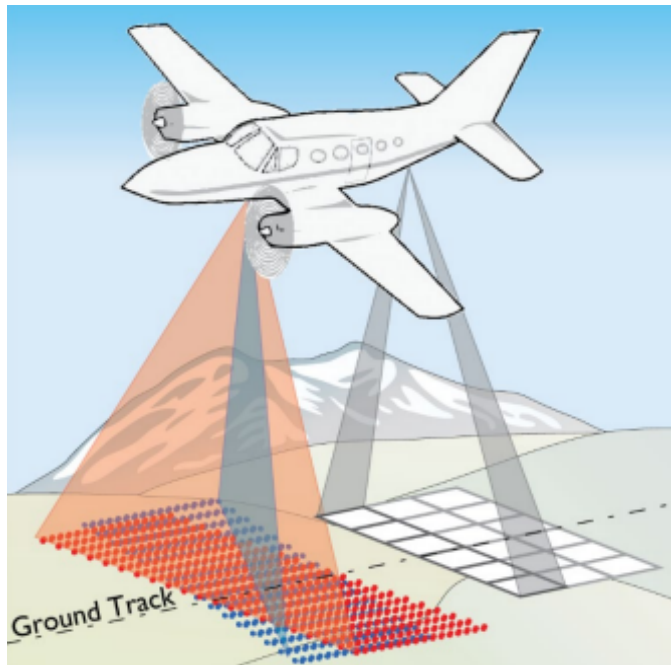
- **Evaluate existing data sources** initially identified by W&S staff and use the information to document data needs, sources, and data flows depicted as a 'data map'.
- **Evaluate existing software systems**, data, tools, and reporting technologies that can support the development of a proposed system architecture plan that provides the basis for future data management and technology needs.
- **Identify a W&S short, medium, and long-term** ideal state for data needs and processes and conduct a gap analysis showing gaps between current state and ideal states.
- **Provide guidance and assistance** in identifying solutions that will support a future phased data management and technology strategy for W&S

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# Water Resources Tech/Data Efforts

# Airborne Snow Observation (ASO) Flights

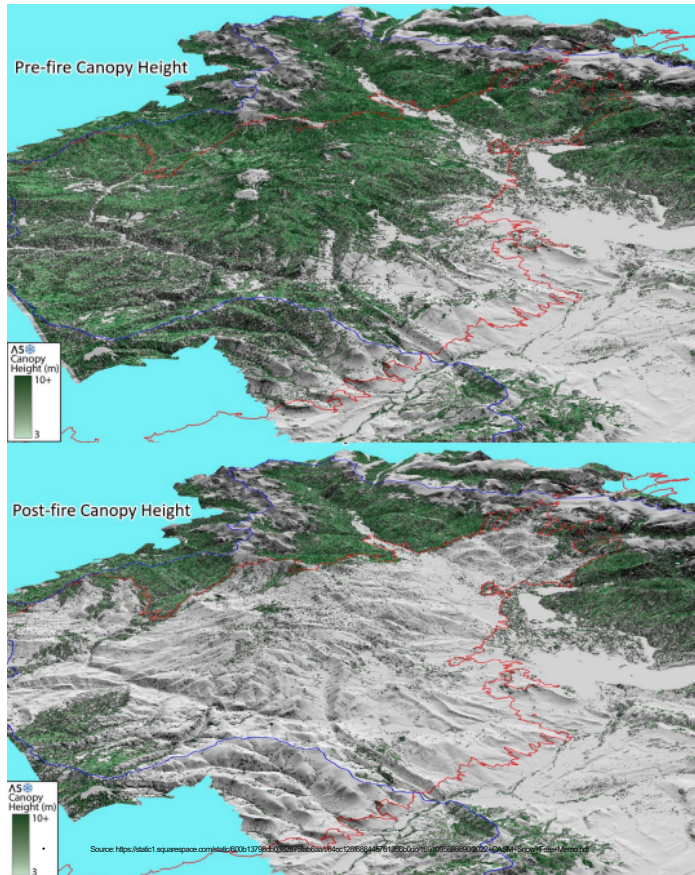
- Airborne Snow Observatories (ASO) uses paired airborne lidar and imaging spectrometer sensors coupled with a snow dynamic model to measure snow depth and albedo and retrieve snow water equivalent (SWE)
- Reduce bulk snowpack measurements error from as much as 40% to 5-13%



# ASO Flight Data Use Cases

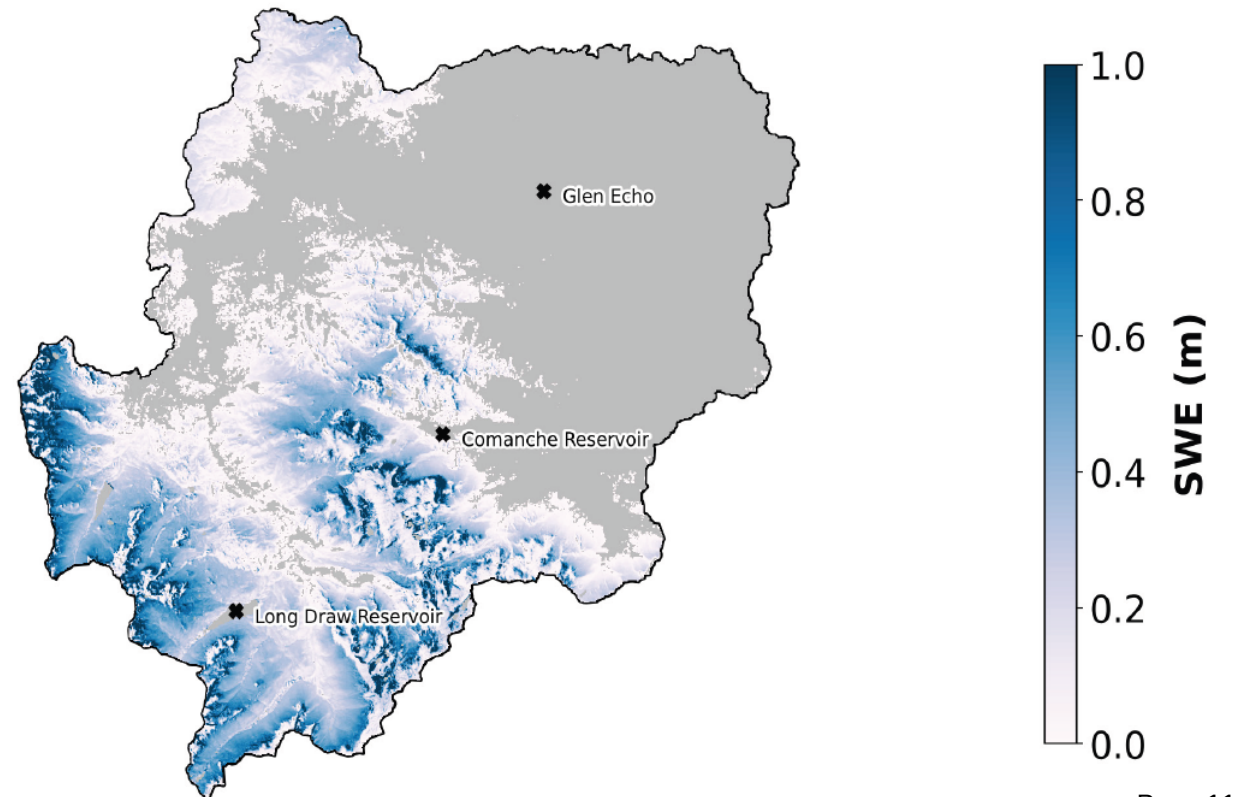
## Watershed Health Monitoring

- Windy Gap basin, East Troublesome fire, 2022 Snow-free Survey



## Water Resource Ops Planning

- 5/25/23 Poudre River Basin Survey





# Water Acquisition Database Tool (WADT)

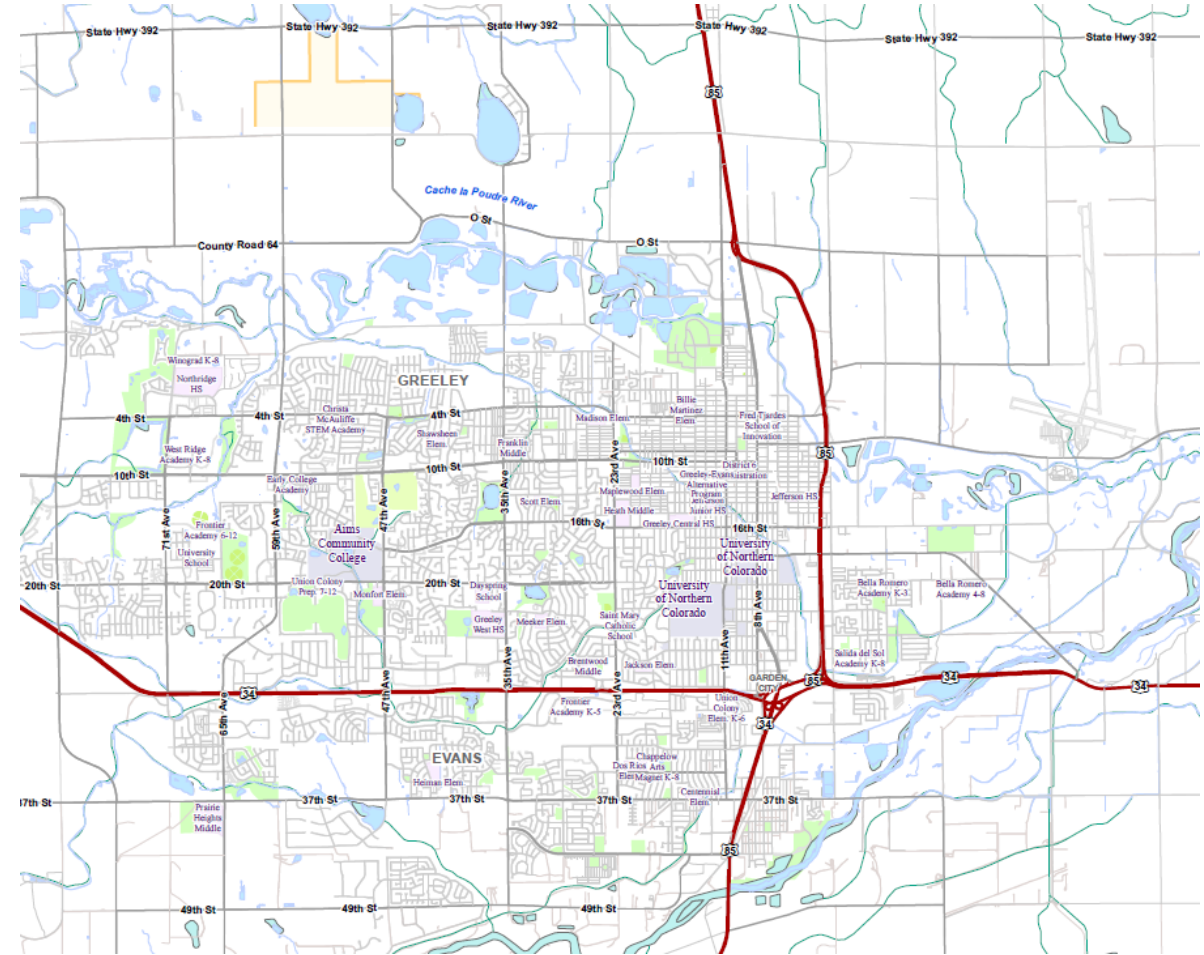
New/Edit Opportunity/Acquisition Evaluation Form

|                                                                       |                                                         |                                                           |                                                       |                                                   |
|-----------------------------------------------------------------------|---------------------------------------------------------|-----------------------------------------------------------|-------------------------------------------------------|---------------------------------------------------|
| Selected Water Source for this Opportunity<br>wadt_source_idx         | Reviewer<br>(required)                                  | Created Date<br>(auto today, editable)                    |                                                       |                                                   |
| Opportunity ID<br>(auto based on source + date + reviewer)            | Record Status<br>DRAFT                                  | Last Updated Date<br>(auto, today)                        |                                                       |                                                   |
| Opportunity Name<br>Internal name for the acquisition                 | Purchaser<br>Default to "Greeley"                       |                                                           |                                                       |                                                   |
| Offerer<br>Name (First Last) of person and/or entity making the offer | Offerer Contact Info<br>phone / email / mailing address |                                                           |                                                       |                                                   |
| Type<br>Water Only<br>Land & Water                                    | # of Shares / Contract Rights<br>(number)               | Initial Offer Price (per share)<br>(number, \$ formatted) | Initial Offer Price (Total)<br>(number, \$ formatted) | Offer Status<br>DRAFT<br>Upcoming<br>Under Review |
| Offer/Price Notes                                                     |                                                         |                                                           |                                                       |                                                   |

- WADT is an IWRP deliverable designed to ensure knowledge retention and transfer
- Help Water Resources track changes through time
- Officially completed, being implemented into business processes as of December 2023

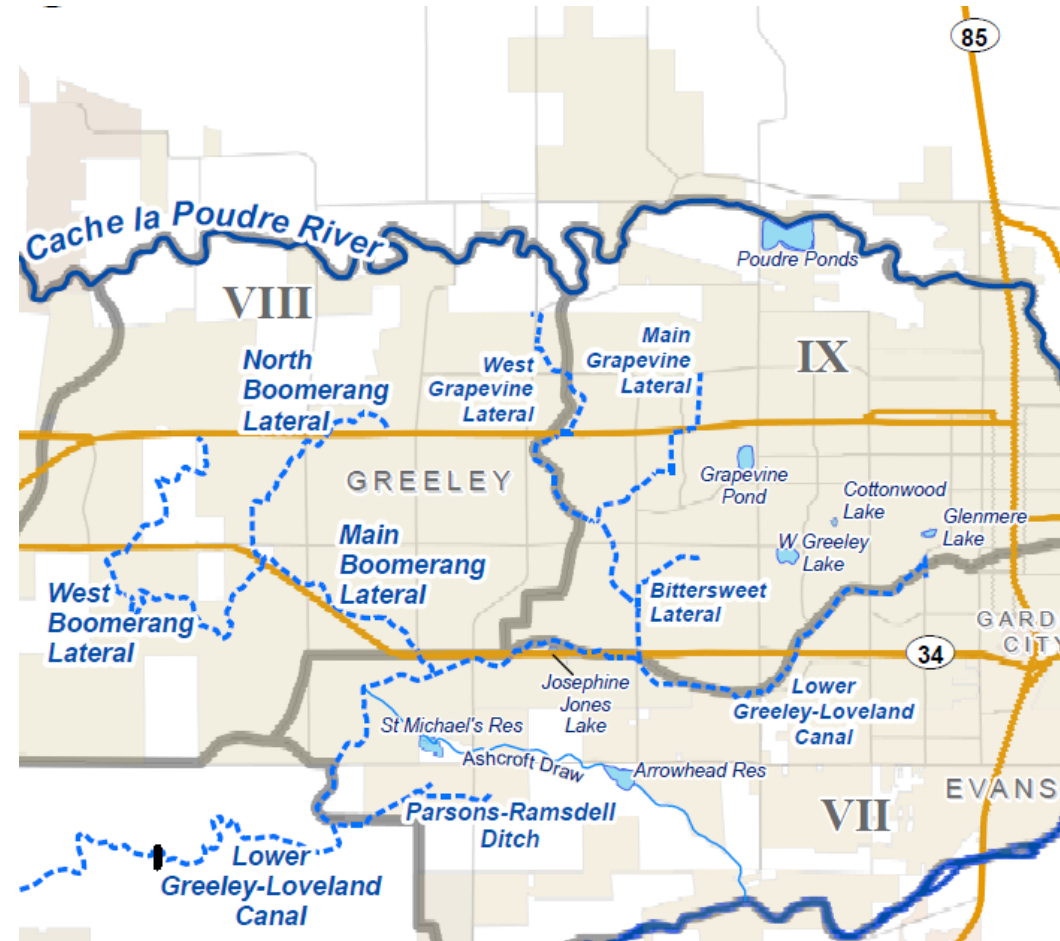
# Citywide GIS

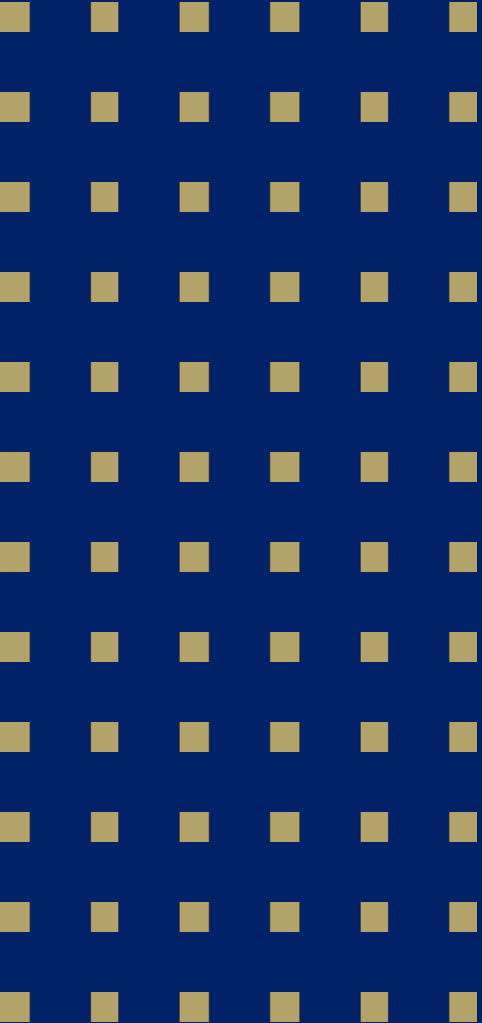
- Geographic Information Systems (GIS) allows us to use location-powered data to:
  - Identify problems
  - Monitor change
  - Manage & respond to events
  - Perform forecasting
  - Set priorities
  - Understand trends
- The City of Greeley's GIS has evolved over the years - more data, more users of the data, more uses for the data, and the associated **growing pains**.



# Location Intelligence Technical Team (LITT)

- Goal of the Location Intelligence Technical Team (LITT) is to establish a common vision for GIS data use and management throughout the organization, with key policy and program decisions supporting that vision. The City needs data governance that:
  - Enhances the quality and security of data collected, used, and shared
  - Reduces amount of staff time looking for, verifying, and packaging data
  - Improves communication, collaboration, and relationships across departments, partner agencies, and vendors



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# Advanced Metering Infrastructure (AMI)



# AMI Installation Progress

## **AMI Meters Installed**

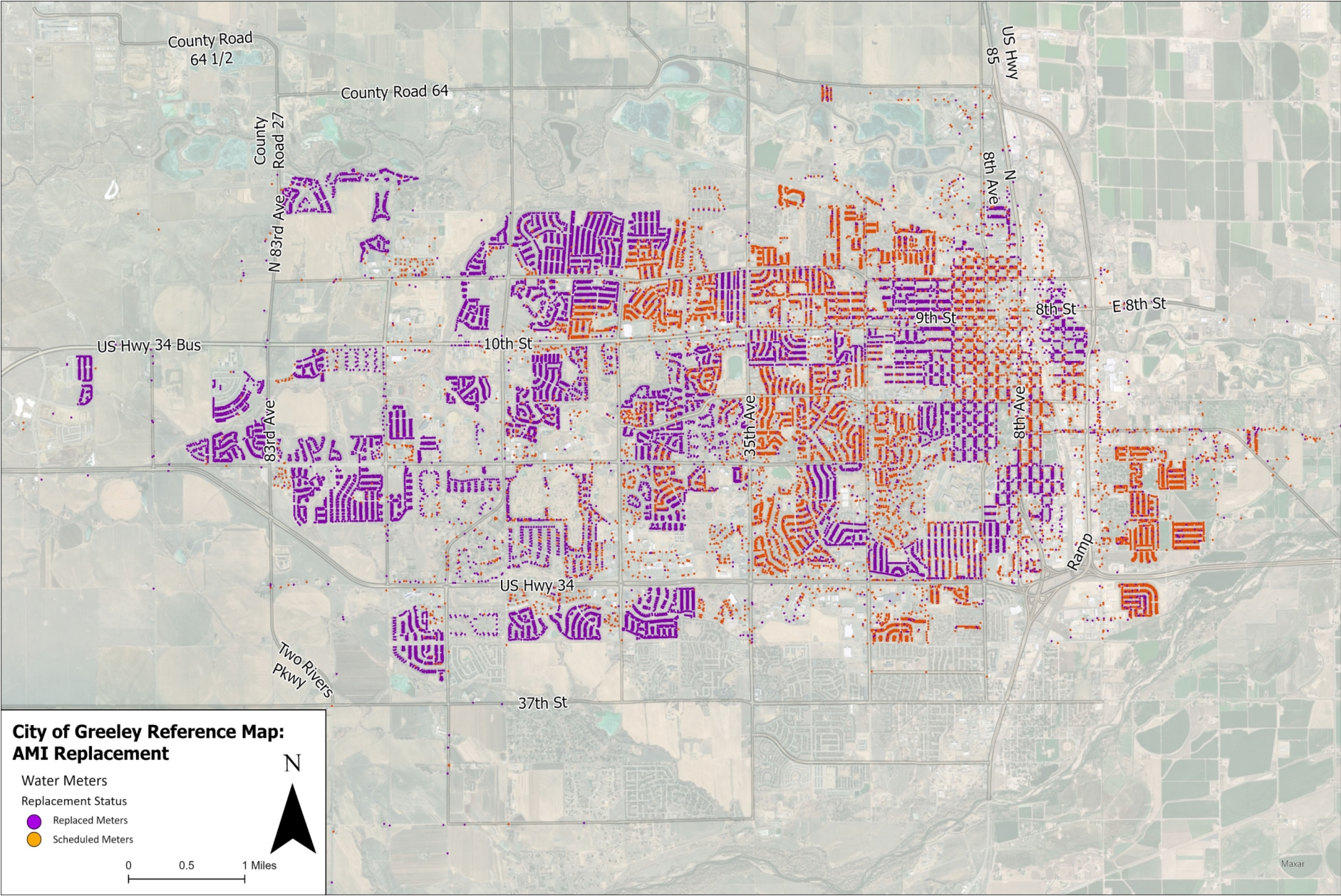
- 16,600 water meters replaced between July 2020 and December 2023
  - Utility Metering Solutions (UMS) has replaced approximately 13,000
  - City has replaced approximately 3,600

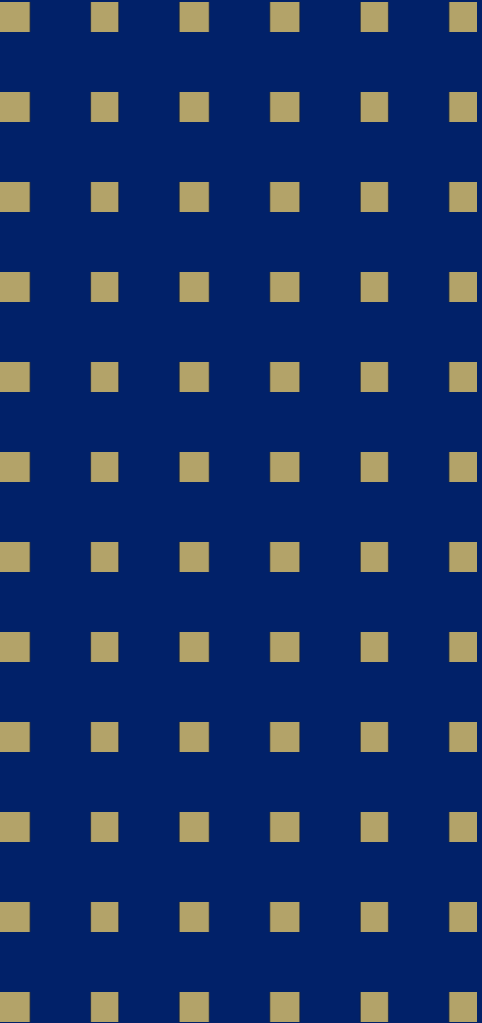
## **Future AMI Meters Installations**

- UMS will replace approximately 11,050 meters
  - 6,900 Outdoor Residential Meters
  - 1,000 Outdoor Commercial Meters
  - 2,800 Indoor Residential Meters – Planned during winter months
  - 350 Indoor Commercial Meters – Planned during winter months
- Installation starting in January 2024

**Project completion date is June 2025**

# AMI Installation Completed and Scheduled



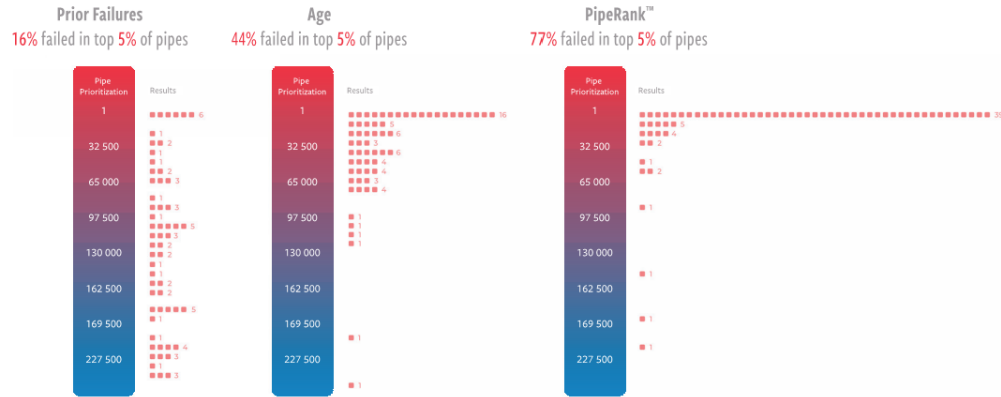
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# Water Transmission and Distribution



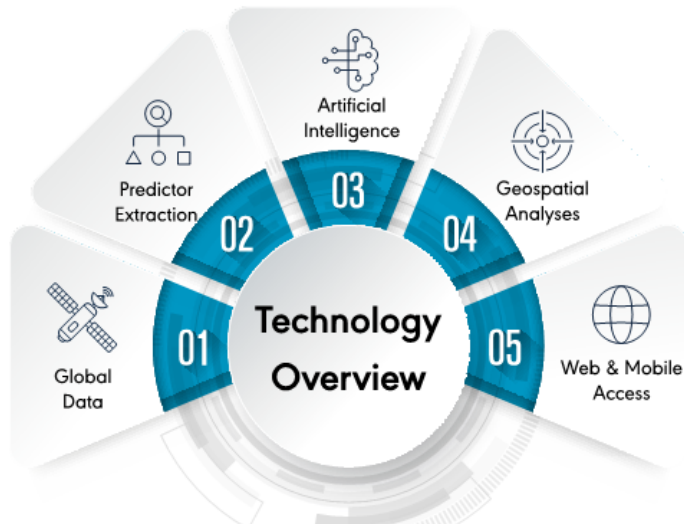
# Geospatial AI for Water System Assessment

Likelihood of Failure Predictions vs Actual Failures in 2018



This figure compares the output accuracy of: Prior Failures, Age Based, and PipeRank™ machine learning models for a utility in the Southwest.

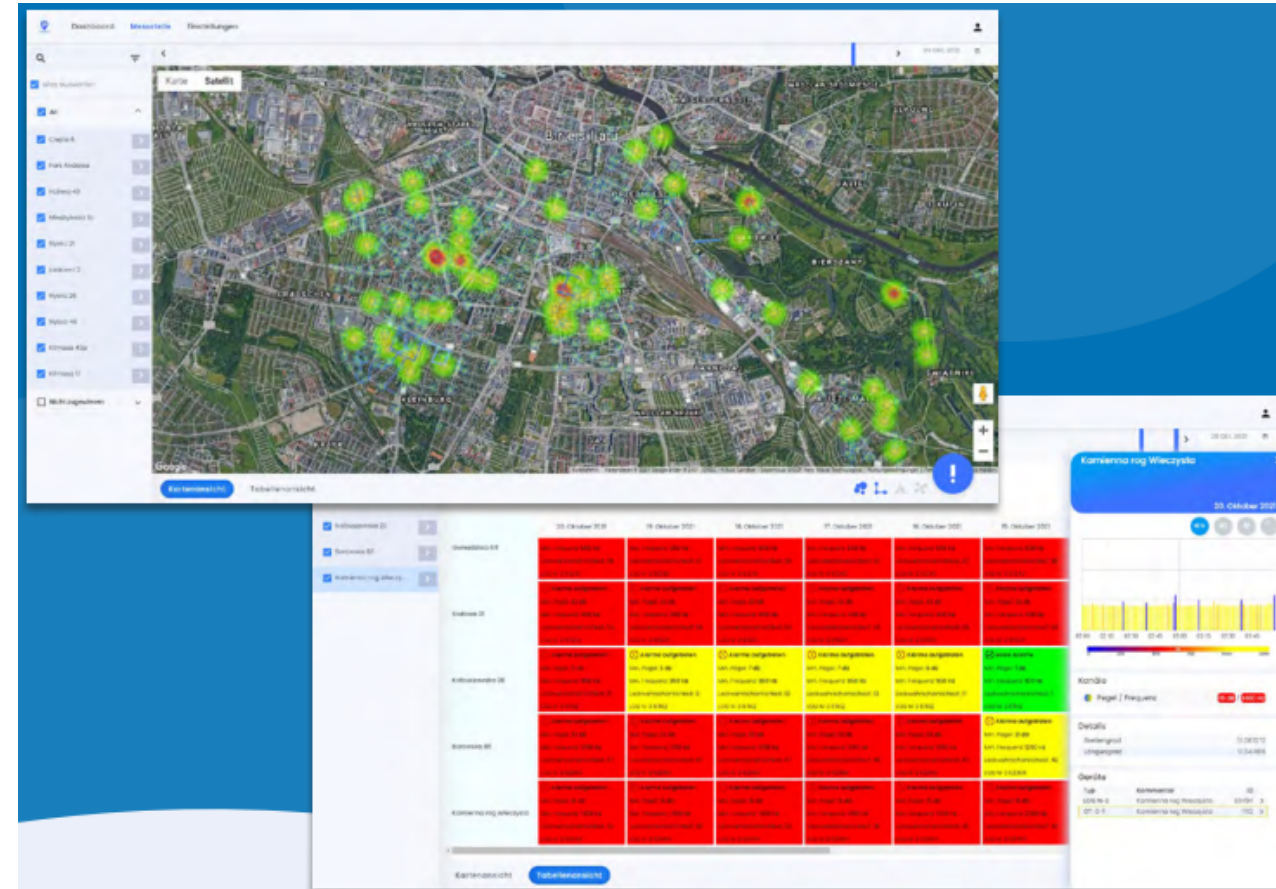
- Define and predict likely pipe failures
- Combine likelihood of failure and consequence of failure
- Improved pipe repair efficiency
- Focus on highest priority areas
- Justify long-term capital improvement program (CIP) budget



# Acoustic Leak Detection

## Poseyedon

- Transfers noise and frequency data directly to the cloud
- Proactively find and fix leaks before they surface and create damage
- 90 units for deployment throughout Greeley



Piperank &  
Rezatec

Virtual  
condition  
assessment

Poseyedon

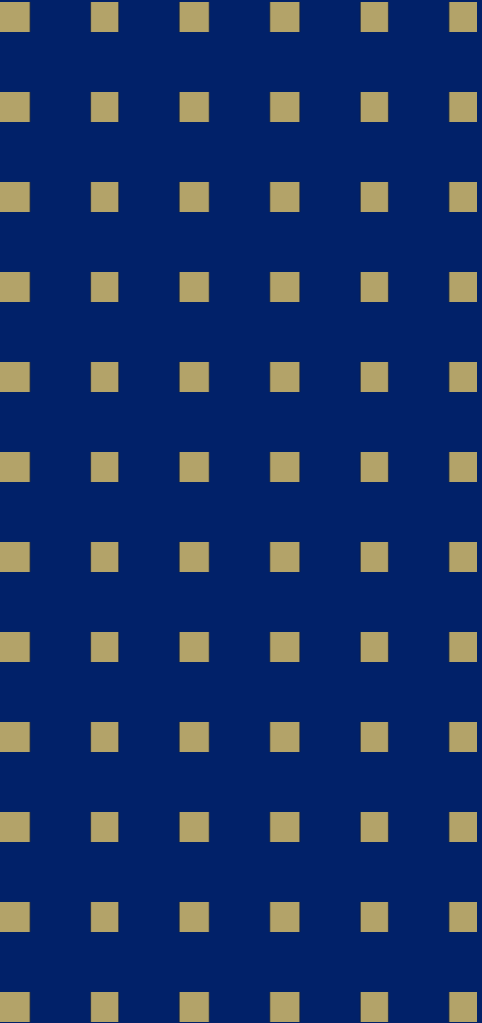
Acoustic  
monitoring

Evaluate for  
repairs

Site  
inspection

CIP budget

Replace,  
rehab, repair,  
defer

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# ASSET MANAGEMENT

# Cityworks 2023 Performance Metrics



## Collections System

- 1187 Work orders completed
- 684 Inspections completed
- 25 Service requests completed

## Water System

- 776 Work orders completed
- 48 Inspections completed
- 169 Service requests completed

# Cityworks Automation

**Overdue Work Orders (Last 30 Days)**

| <input type="checkbox"/> | Projected Finish Date ↓ | Work Order Id | Description                                          |
|--------------------------|-------------------------|---------------|------------------------------------------------------|
| <input type="checkbox"/> | 11/14/2023              | 106696        | Sewer Main Lines (Public) - Clean - Routine          |
| <input type="checkbox"/> | 11/14/2023              | 106548        | Sewer Main Lines (Public) - Asset Update             |
| <input type="checkbox"/> | 11/15/2023              | 106690        | Sewer Main Lines (Public) - Inspect                  |
| <input type="checkbox"/> | 11/15/2023              | 107081        | Sewer Main Lines (Public) - Point Repair             |
| <input type="checkbox"/> | 11/16/2023              | 106265        | Sewer Main Lines (Public) - Clean - Hotspot - Weekly |
| <input type="checkbox"/> | 11/16/2023              | 105500        | Sewer Pump Stations - Clean                          |
| <input type="checkbox"/> | 11/16/2023              | 106552        | Sewer Main Lines (Public) - Inspect                  |
| <input type="checkbox"/> | 11/17/2023              | 106654        | Sewer Main Lines (Public) - Inspect                  |

Open WO(s)

**Unassigned Work Orders**

| <input type="checkbox"/> | Projected Start Date ↓ | Work Order Id | Description                         |
|--------------------------|------------------------|---------------|-------------------------------------|
| <input type="checkbox"/> | 04/14/2023             | 96529         | Sewer Pump Stations - Clean         |
| <input type="checkbox"/> | 05/03/2023             | 97411         | Sewer Structures (Public) - Repair  |
| <input type="checkbox"/> | 05/23/2023             | 98371         | Sewer Structures (Public) - Replace |
| <input type="checkbox"/> | 06/07/2023             | 99108         | Sewer Structures (Public) - Inspect |
| <input type="checkbox"/> | 06/07/2023             | 99107         | Sewer Structures (Public) - Inspect |
| <input type="checkbox"/> | 06/23/2023             | 99925         | Sewer Structures (Public) - Repair  |
| <input type="checkbox"/> | 07/14/2023             | 100725        | Sewer Structures (Public) - Inspect |
| <input type="checkbox"/> | 08/28/2023             | 107086        | Sewer Pump Stations - Clean         |

Open WO(s)

## Cityworks automation to save time and errors

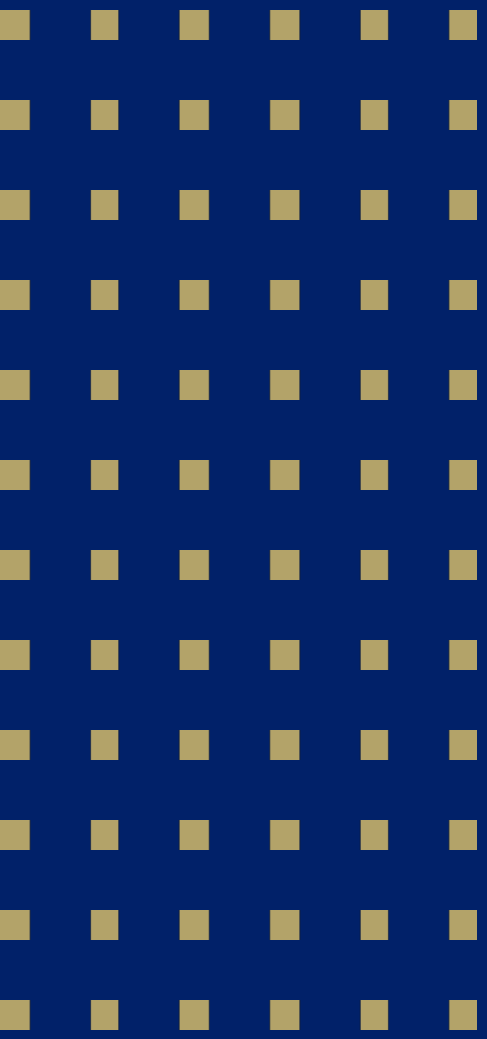
- **GIS data mapping**
  - Work orders (WO) and inspections data can be imported directly into our GIS data.
  - Data like “Condition Score” or “Inspection Date” can be tracked through maps and dashboards
- **Automated WO generation**
  - Work orders are triggered based on the results of inspections or work orders
  - WO for leak investigation,



# Priority Level Standardization

| Work Activity Classification |                                                     |
|------------------------------|-----------------------------------------------------|
| 1- Emergency                 | 30 Minutes                                          |
| 2- Safety/Hazard             | 24 Hours                                            |
| 3- Regulatory/Compliance     | Completed Per Schedule                              |
| 4- Cleanliness/Appearance    | 1, 2 or 3 days based off Prioritization Methodology |
| 5- Operational Projects      | 3 Months                                            |
| 6- CIP Projects              | N/A                                                 |

- W&S Asset management worked with other Cityworks users within City develop a standardization:
  - Work Order Priority Levels
  - Template Classification
  - Asset Tagging

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# SCADA MASTER PLAN

# SCADA Master Plan

1. Inventory and Review of Current System (Completed)
2. Evaluation of Technologies (In Process – Demos)
3. Needs Assessment-Technology, Budget, Staff
4. Evolving Regulations and Impacts
5. Risk and Resiliency Assessment – Hardware and Software
6. Needs Prioritization – Regulatory Compliance, Cybersecurity, Technology Selection, Standardization
7. Recommendations and Long-Term Plan - CIP
8. Completion of MP in Mid-2024

# Thank you

---





## Water & Sewer Agenda Summary

December 20, 2023

Key Staff Contact: Matt Sparacino, Water Resource Administrator III

### Title:

Watershed and Wildfire Recovery 2023 Projects Update

### Summary:

Staff will highlight watershed health and wildfire recovery initiatives undertaken this year. These initiatives include post-fire point mitigation projects completed at Kyle Gulch and Sevenmile Creek, both in the Poudre River watershed. Increased post-fire erosion continues to negatively affect water quality in all four of Greeley's source watersheds (Poudre River, Big Thompson River, Upper Laramie River, and Colorado River). Staff will summarize how Greeley and partners are funding, designing, and implementing projects to address post-fire issues. Additionally, staff will highlight recent collaboration between Greeley and regional stakeholders related to watershed health and fire recovery.

### Recommended Action:

None

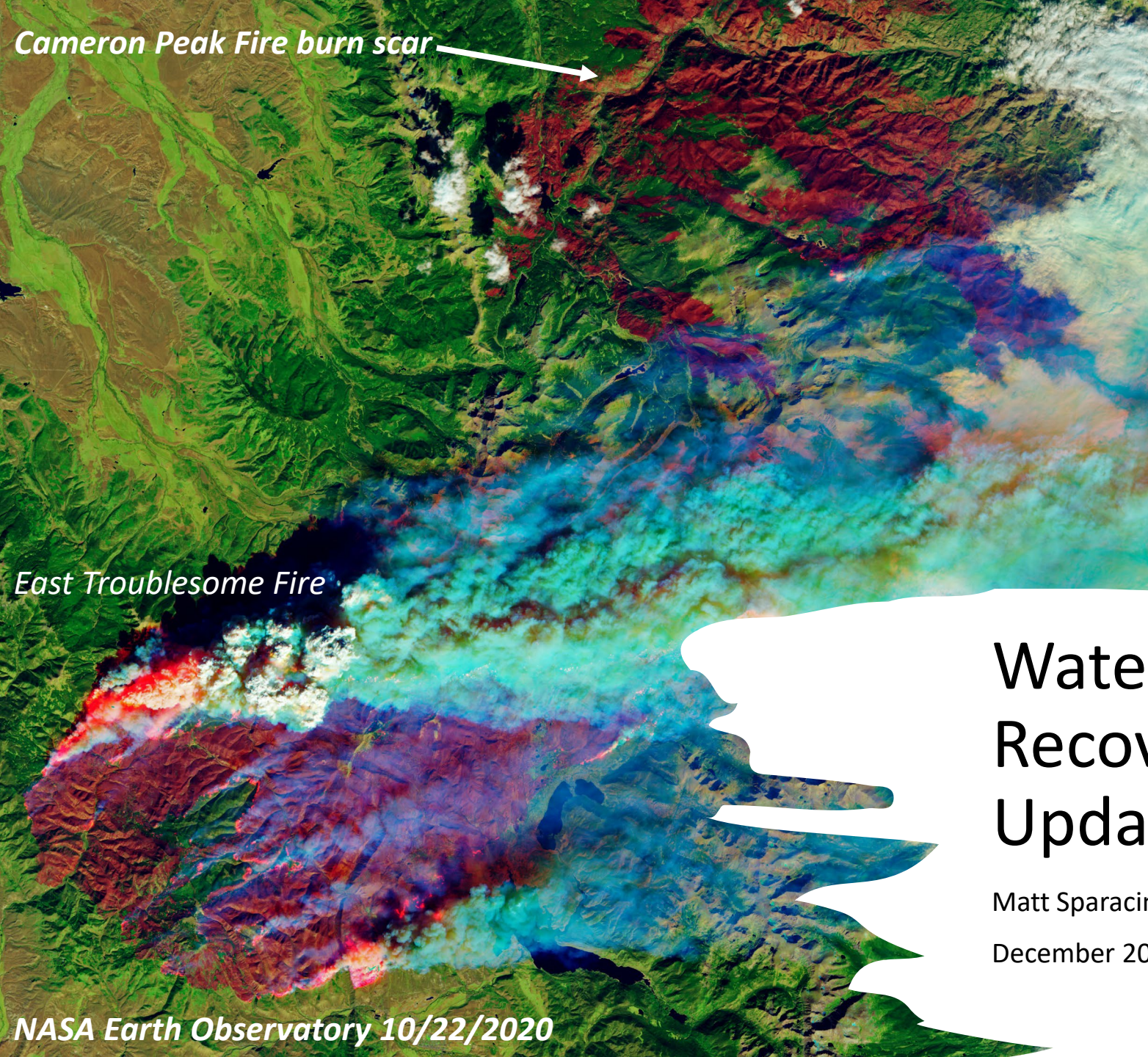
### Recommended Motion:

None

### Attachments:

1. 2023\_12\_20\_Wildfire\_Mitigation\_Recap





*Cameron Peak Fire burn scar*

*East Troublesome Fire*

*NASA Earth Observatory 10/22/2020*



# Watershed and Wildfire Recovery – 2023 Projects Update

Matt Sparacino, PH – Water Resources Project Manager

December 20, 2023



# Post-Fire Recovery



2020

2021

2022

2023

2024

2025

2026

EWP, Life and Property (NRCS), \$3.5M

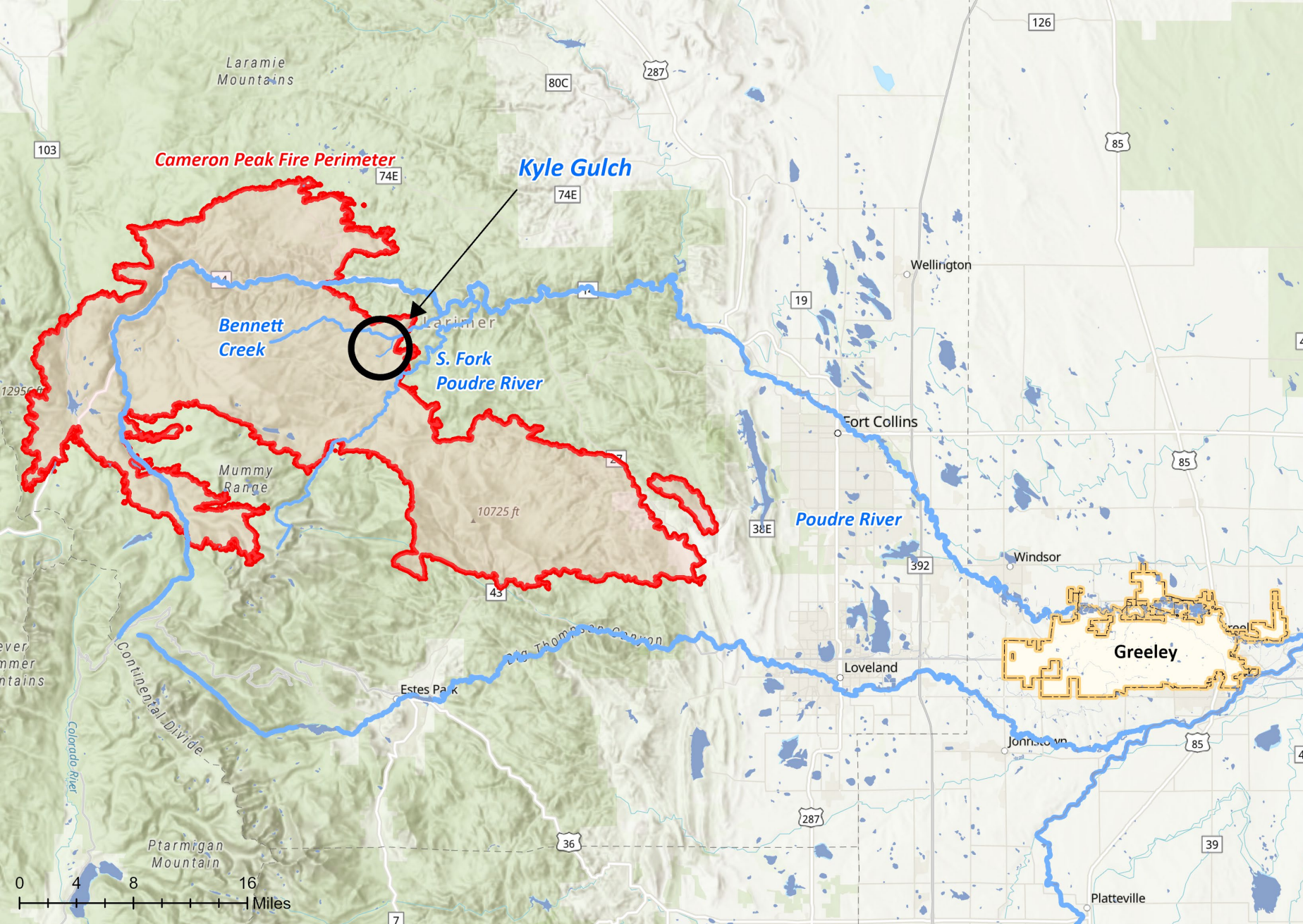
Mulching (NRCS , CWCB, USFS), \$22.5M

We are  
here

Point Mitigation (CWCB and USFS), \$5M

LTPBR Watershed  
Health/Reforestation







# 2023 Point Mitigation: Kyle Gulch

## Goals:

- **Improve water quality at Greeley Water intake**
- Protect Pingree Park culvert and road below project site
- Limit erosion, trap sediment, and improve floodplain connectivity

## Design:

- Employ a range process-based restoration solutions

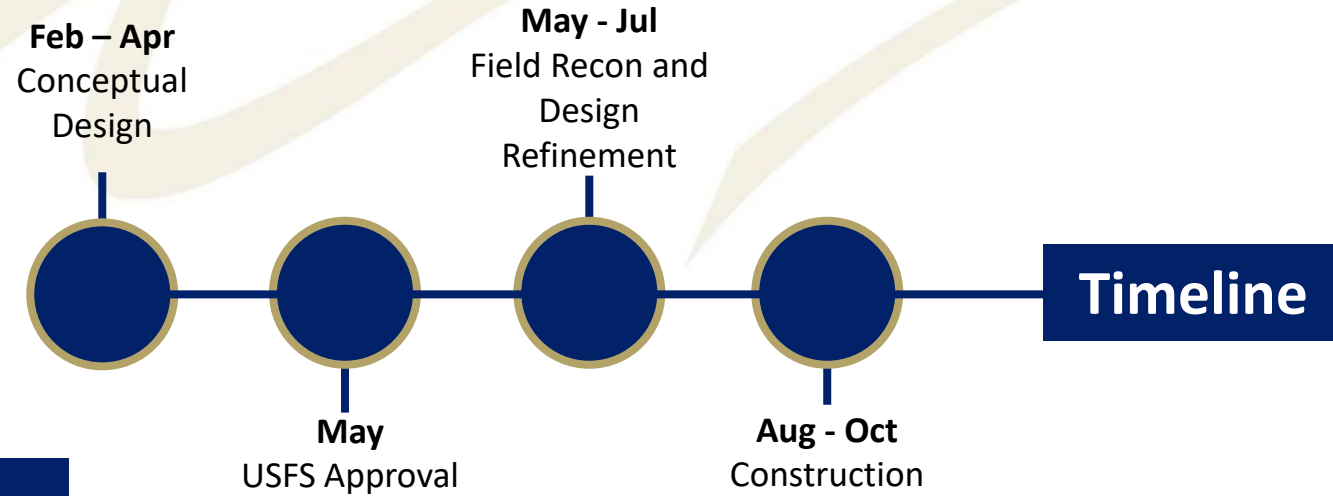
## Why Here?

- 82% of the Kyle Gulch watershed burned in the 2020 CPF
- Compliments post-fire mulching treatments on adjacent hillslopes
- Robust CSU/USFS pre- and post- project monitoring
- Easy site access and disturbance mitigation





# 2023 Point Mitigation: Kyle Gulch



## Design



3,000  
Willow stakes

44 Log Structures

9 Rootwad  
Structures

2 Post-Assisted  
Log Structures

16 Knickzone  
Mitigation  
Features

2 Headcut  
Mitigation  
Features



*Low Tech*



*Process-Based Restoration Techniques*



*More Tech*

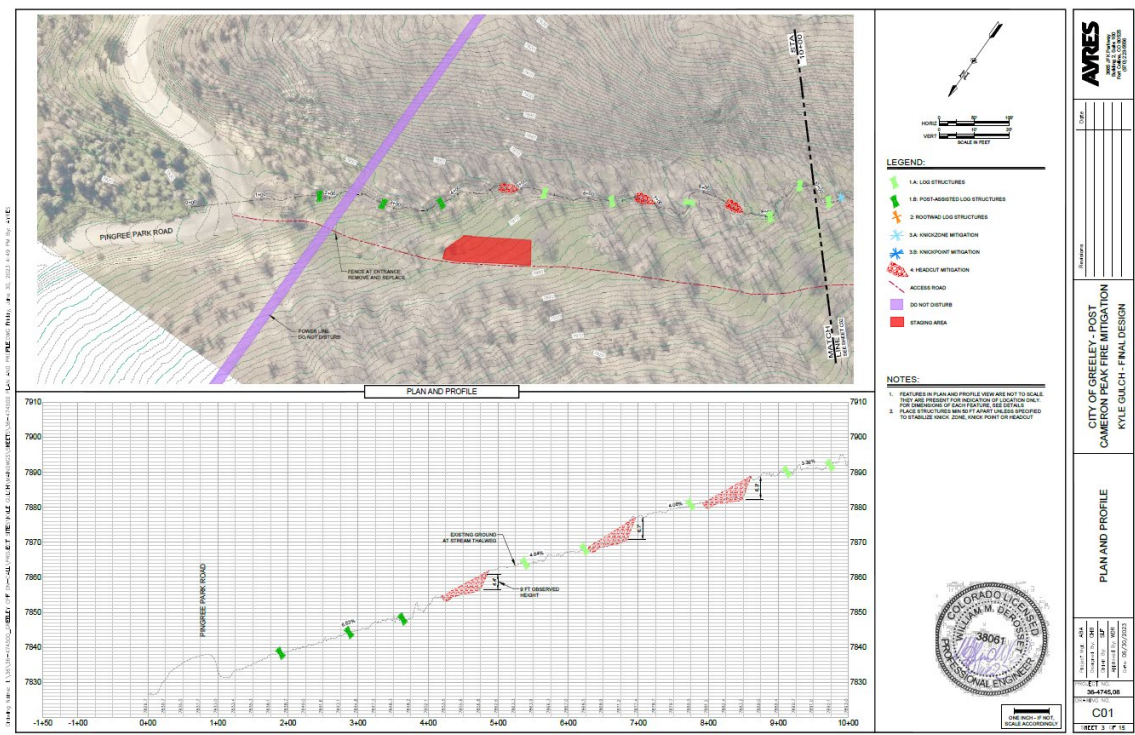


# 2023 Point Mitigation: Kyle Gulch

Funding: USFS-funded through a Participating Agreement

Design cost:  
\$94k (Ayres)

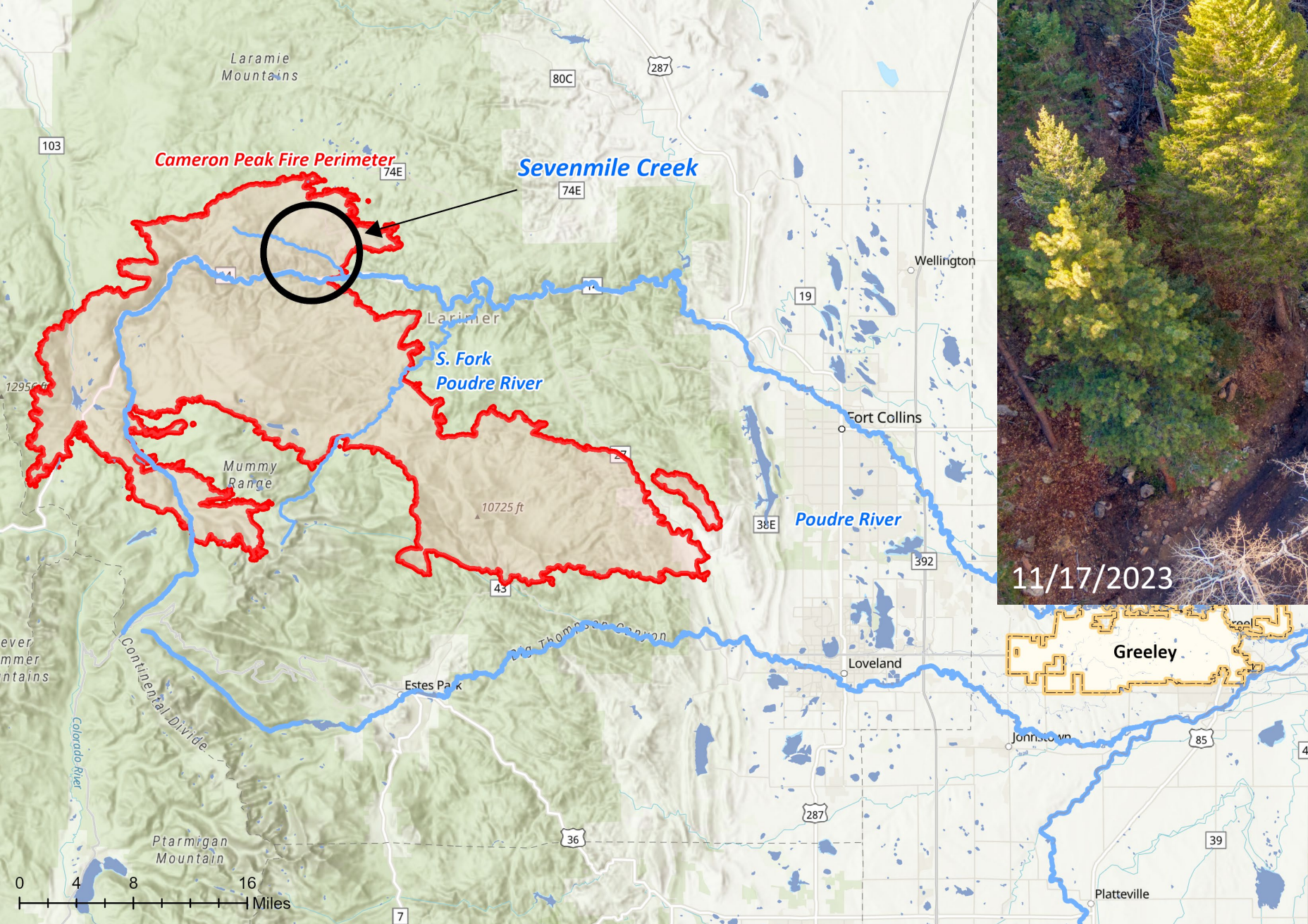
Construction cost:  
\$46k (Ayres) + \$309k (Nakupuna)













# 2023 Point Mitigation: Sevenmile Creek

## Goals:

- **Improve water quality at Greeley Water intake by limiting road erosion**
- Co-benefit for USFS by improving road & recreation access

## Design:

- Improve and armor road crossings
- Add wood to trap sediment
- Limit road avulsion where possible

## Why Here?

- 70% of the Sevenmile watershed burned in the 2020 CPF
- High post-fire runoff is eroding road and limiting rec. access
- High traffic roads downstream (CR-69) have received additional post-fire improvements
- Easy site access and disturbance mitigation

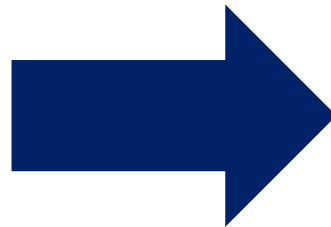
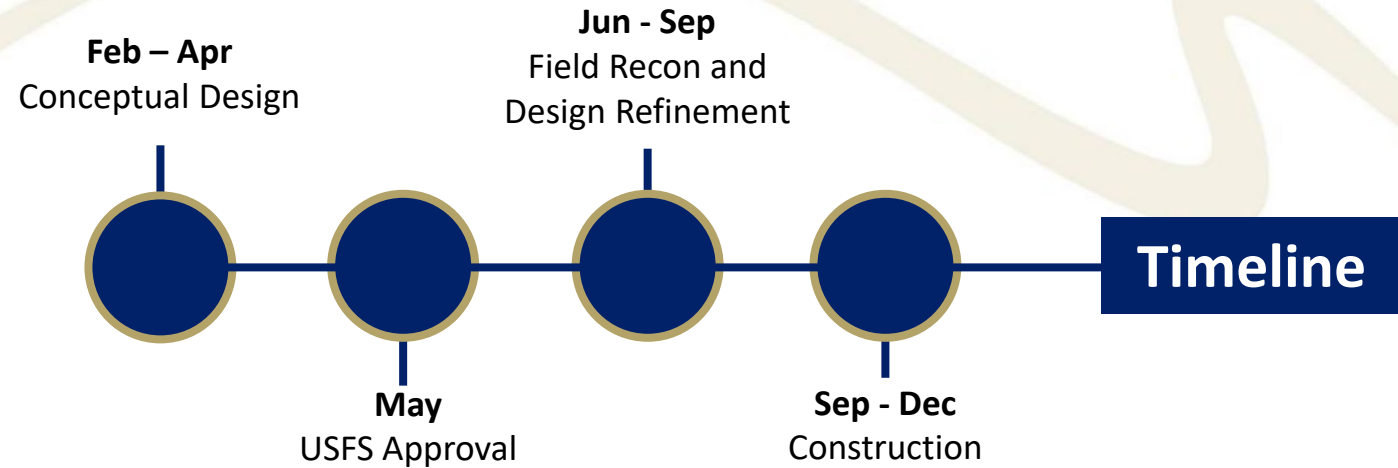




# 2023 Point Mitigation: Sevenmile Creek

## Design

- 8 of 9 road crossings complete
- 77 log structures
- 4 wood roughness features
- 50' of wood revetment
- 75 road drainage features
- 750 willow stakes (spring 2024)



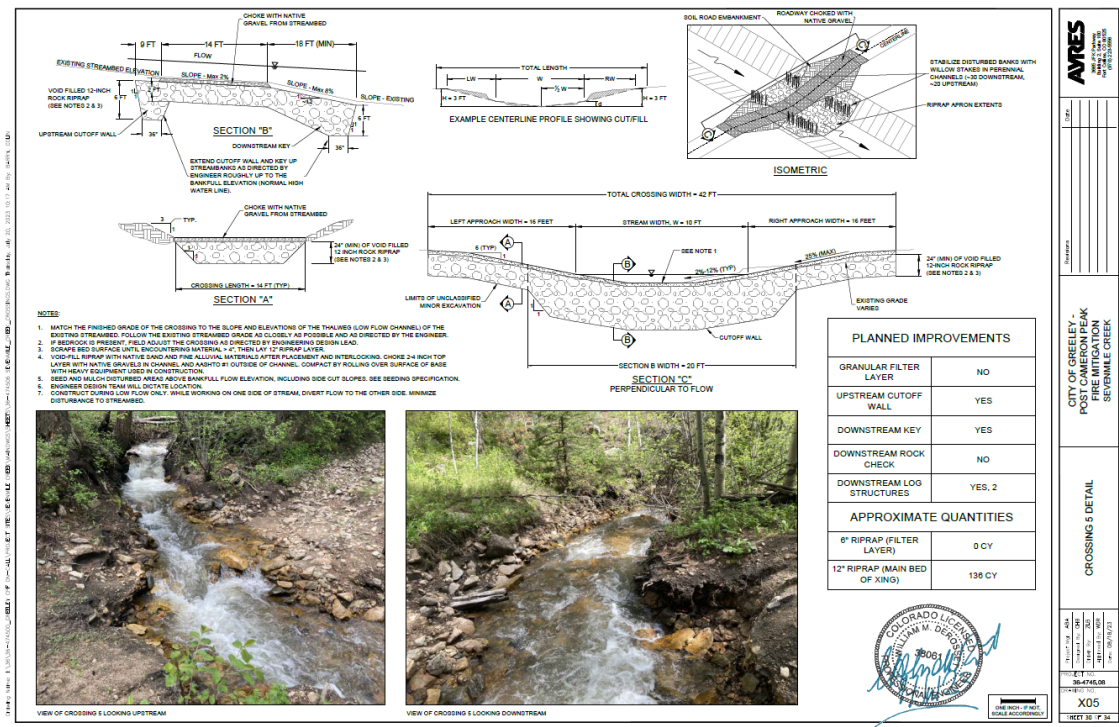


# 2023 Point Mitigation: Sevenmile Creek

Funding: USFS-funded through a Participating Agreement

Design cost:  
\$58k (Ayres)

Construction cost:  
\$73k (Ayres) + \$750k est (Nakupuna)





# Collaboration and Cooperation

- Building a team with the ability to:
  - get funding,
  - complete projects,
  - develop relationships with partners,
  - build trust and respect within the community
- Active involvement with:
  - Cross-Boundary Landscape Restoration Workshop (May)
  - Colorado Forest Collaboratives Summit (Sep.)
  - Sustaining Colorado Watersheds Conference (Oct.)
  - CPRW (board member)
  - BTWC (board member)
  - NoCO Fireshed Collaborative
  - Watershed Wildfire Protection Group
  - American Forests and USFS partnership to develop reforestation strategy for Arapahoe Roosevelt NF





## Water & Sewer Agenda Summary

December 20, 2023

Key Staff Contact: Leah Hubbard, Water Resource Operations Manager

### Title:

Legal Report

### Summary:

This report has been provided by James Noble, outside counsel for the Greeley Water & Sewer Board.

Based on our review of the July, 2023 Water Division 1 Resume, staff and water counsel recommend that the Water and Sewer Board file statements of opposition to the following water court applications that would be due at the end of October, 2023:

Case No. 23CW3137: Applicant, City of Fort Collins Natural Areas Department, is seeking a finding of reasonable diligence and to make water rights absolute for eight separate ponds along the Cache la Poudre River. The application also involves diligence on an exchange water right using water released from some of the ponds. Staff recommends participating in this case to ensure that the claimed absolute amounts are properly quantified and to protect Greeley's water rights from injury.

Case No. 23CW3138: Applicant, the Town of Eaton, seeks a decree for water rights for two wells and a plan for augmentation for those wells. The applicant proposes to use water supplied by contract with the City of Greeley as the replacement source for the augmentation plan. Staff recommends participating in this case to ensure that any decree that is entered in this case is consistent with applicant's contract with Greeley and to protect Greeley's water rights from injury.

### Recommended Action:

Staff and water counsel recommend authorizing filing statements of opposition in Division 1 Case Numbers 23CW3137 and 23CW3138.

### Recommended Motion:

"I move that the Board authorize filing statements of opposition in Case Nos. 23CW3137 and 23CW3138, and for staff and legal counsel to seek resolution of issues raised by these cases consistent with Water and Sewer Board Resolution No. 3-15."

### Attachments:

None



# Water & Sewer Agenda Summary

December 20, 2023

Key Staff Contact: Sean Chambers, Water & Sewer Director

## Title:

Director's Report

## Summary:

The Director will provide the Water & Sewer Board and staff with a brief update on the following items of water utilities policy interest;

1. City of Greeley and Colorado Water Industry Education and Advocacy Events Calendar
  - a. **Colorado Farm Show** – January 23 – 25th at Island Grove Regional Park, Greeley  
<https://coloradofarmshow.com/>
  - b. **Colorado Water Congress Annual Meeting & Legislative Breakfast** – Jan. 31- Feb 2<sup>nd</sup> at Aurora-Denver Conference Center  
<https://www.cowatercongress.org/advocacy/>
  - c. **Subsurface Water Storage Symposium by CSU Water Center** – Feb. 22<sup>nd</sup> and 23<sup>rd</sup>, 2024 at CSU Spur Campus Confluence Theater, Denver  
<https://watercenter.colostate.edu/ssws/>
  - d. **AWWA and WEF have established The Utility Management Conference™** - February 13 – 16th.  
<https://www.awwa.org/Events-Education/Utility-Management>
2. Terry Ranch and Windy Gap Firming Chimney Hollow Project Updates – *Attached*.
3. Update on Colorado River Task Force work and Overview of Colorado River Water Users Association annual meeting
  - a. Colorado River Drought Task Force drafting a report and recommendations for the Colorado General Assembly: more at: <https://crodroughttaskforce.com/>
  - b. Events taking place in the run up to the US BoR and 7 Colorado River Basin states renegotiating interim operational guidelines to address the operations of Lake Powell and Lake Mead during drought and low reservoir conditions.
  - c. Colorado and the Upper Basin States have maintained strict compliance with the 1922 Colorado River Compact and continue to live within our hydraulic limits.
  - d. Greeley's municipal water portfolio is ~ 45% Upper Colorado River Basin resources.
  - e. NCWCD has key staff and legal counsel assigned to participating, monitoring and advocating in support of Colorado's Commissioner Becky Mitchel

## Recommended Action:

None

## Recommended Motion:

None

*Attachments:*

1. Board Meeting Charts\_2023
2. Windy Gap Newsletter - Dec. 2023
3. Terry Bison Ranch\_Monthly Report\_Nov.2023

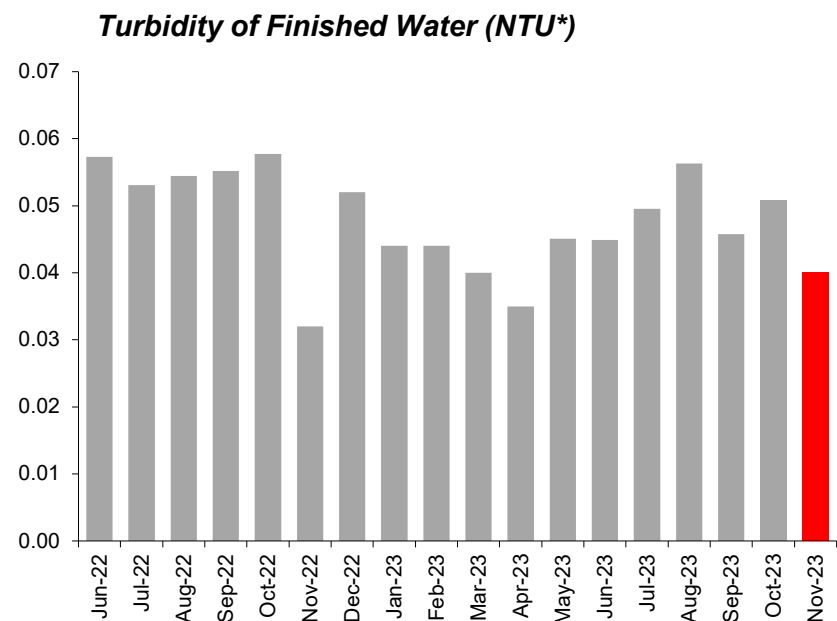
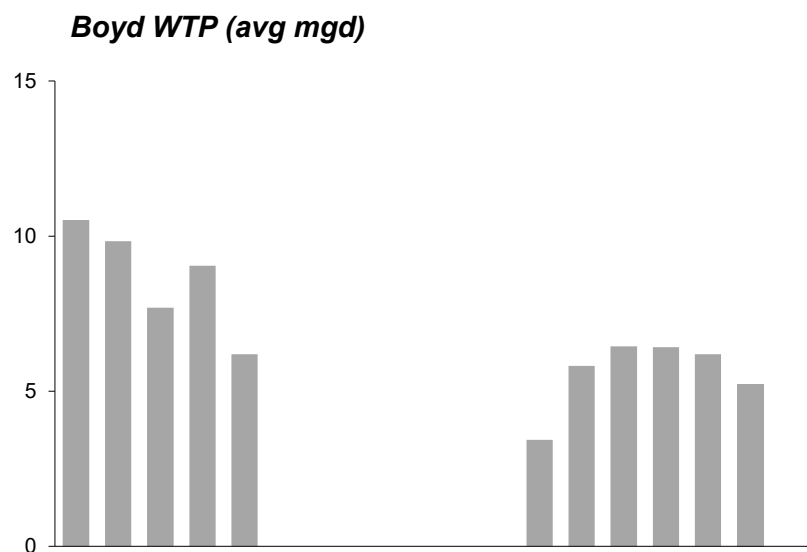
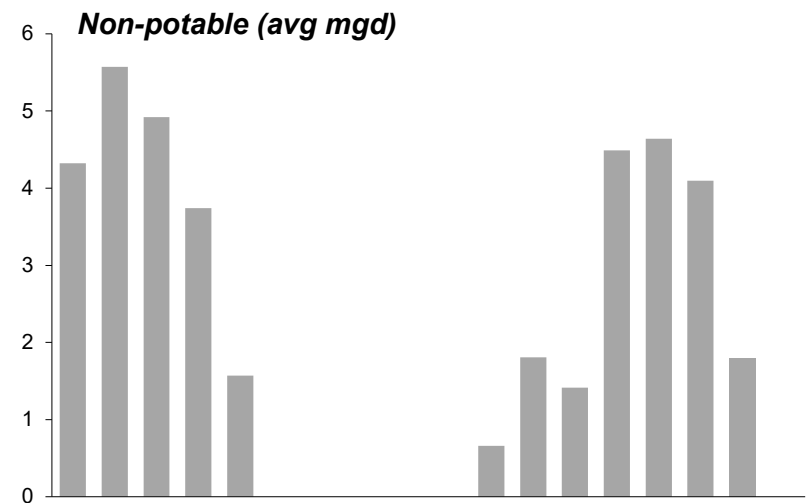
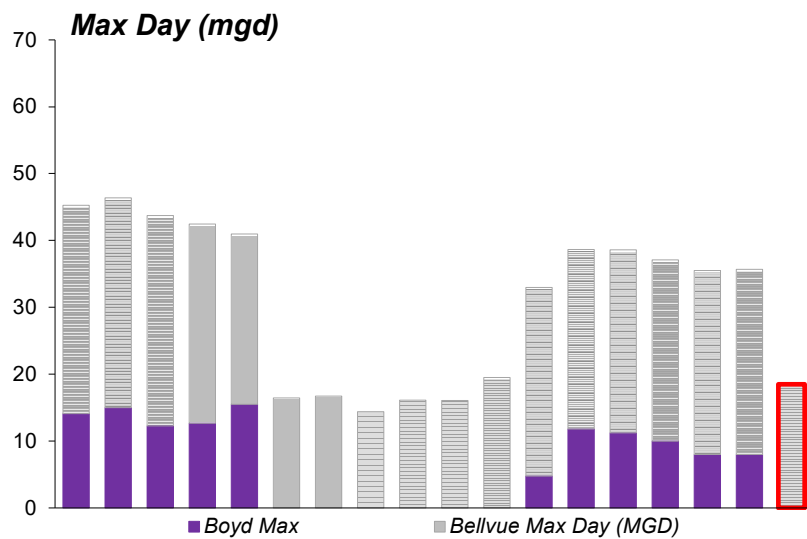


## Water Treatment

Bellvue Water Treatment Plant operates year-round with a transmission capacity of 29.1 million gallons per day (mgd) (plant capacity is 32 to 35 mgd). Water sources include Poudre River direct flows, Colorado-Big Thompson (C-BT), Windy Gap, High Mountain Reservoirs, Laramie-Poudre Tunnel, and Water Supply and Storage. Average volume is 19,000 acre-feet a year (2000-2011). The plant was built in 1907, with its last treatment upgrade in 2009. Solar panels were added in 2014.

Boyd Water Treatment Plant operates normally from April to October with a plant capacity of 38 mgd (transmission capacity is 40 mgd). Water sources include Greeley-Loveland Irrigation Company, C-BT, and Windy Gap. Average Volume is 8,200 acre-feet (2000-2011). The current plant was built in 1974, with its last treatment upgrade in 1999. Solar panels were added at Boyd in 2014. In 2016, tube settlers and platte settlers were replaced in the sedimentation basins. In 2018, all old existing chemical lines were replaced with new lines and the piping was up-sized to carry more chemical. A PLC upgrade was done on the SCADA system. Sludge pumps were replaced and hooked into the Trac Vac system that pulls sludge out of the sedimentation basins.

Combined, Bellvue and Boyd can treat a maximum of 70-73 million gallons per day.



Starting May 2016 Bellvue turbidity measurements will use a new method resulting in more accurate readings.

\*Turbidity limit: 95% of samples must be below 0.3 NTU.

Turbidity is the measure of relative clarity of a liquid. Clarity is important when producing drinking water for human consumption and in many manufacturing uses. Turbidity is measured in Nephelometric Turbidity Units (NTU).

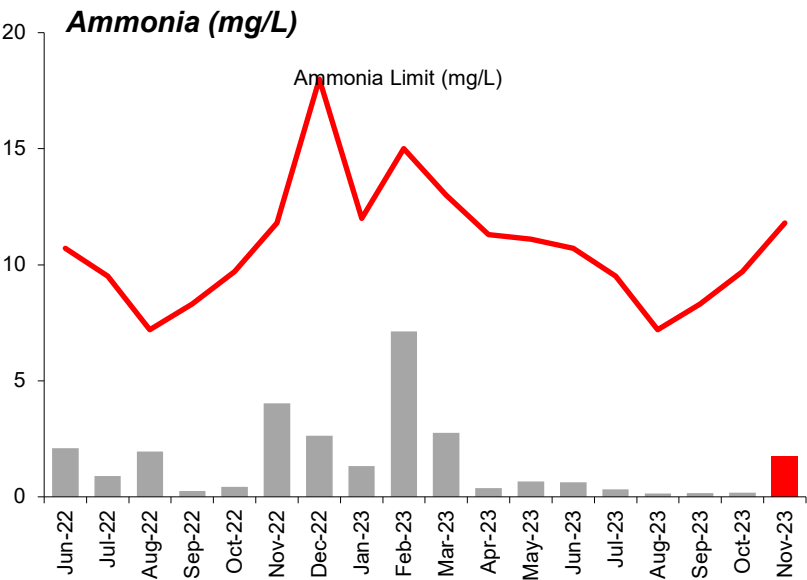
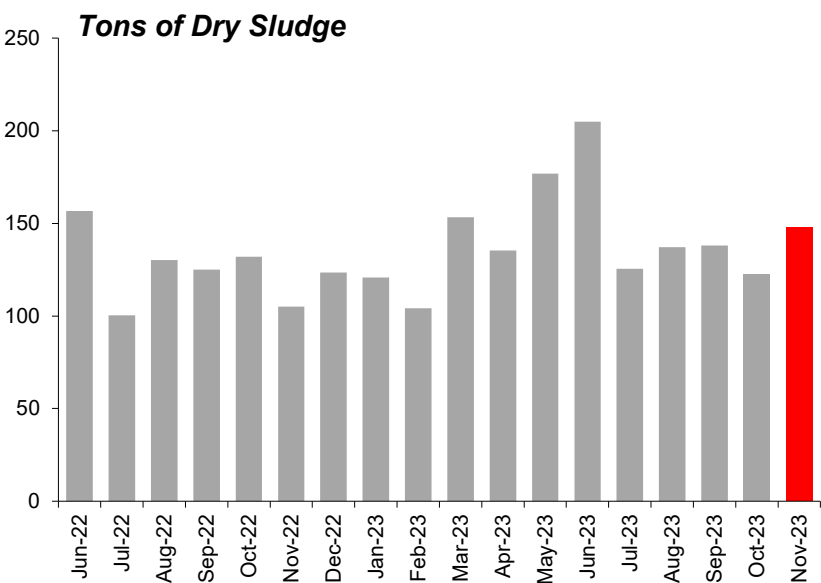
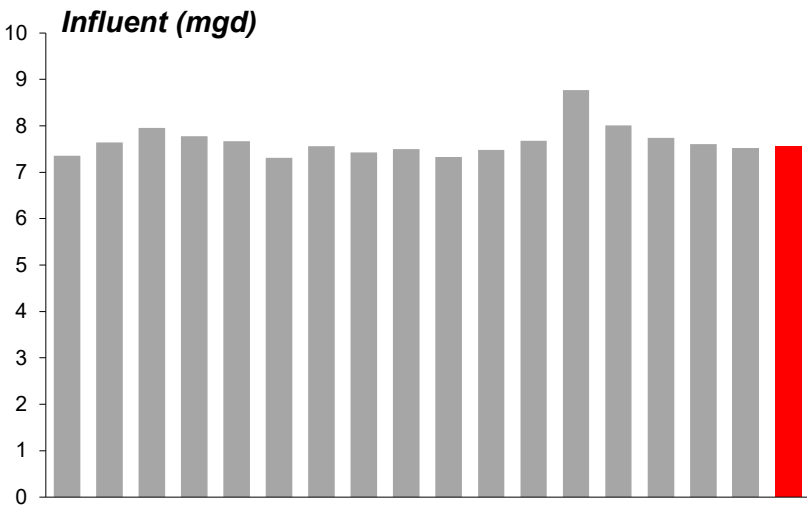
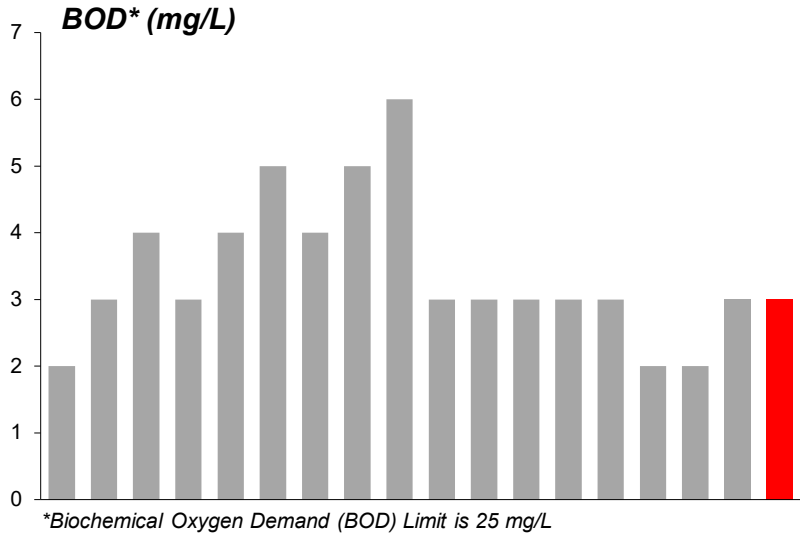
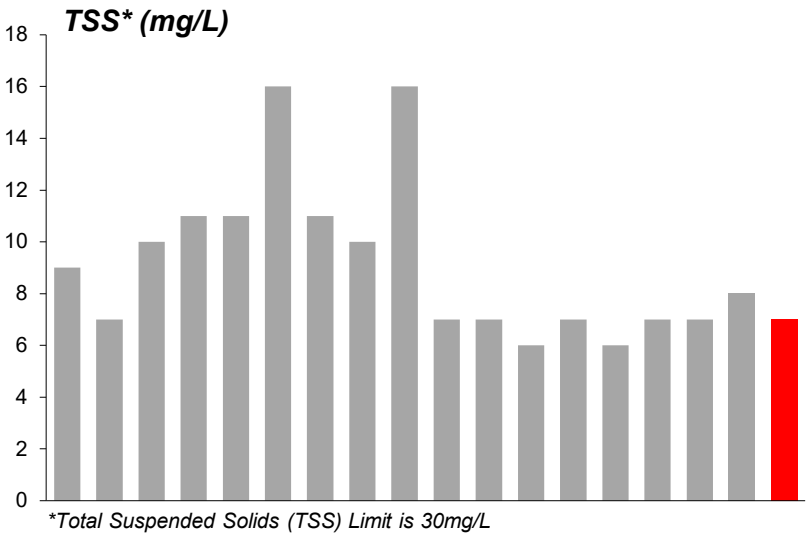


# Wastewater Treatment

The Water Pollution Control Facility (WPCF) staff are dedicated environmental professionals who provide quality, safe and cost-effective wastewater treatment services for the citizens of Greeley. The WPCF treats wastewater to meet or exceed Environmental Protection Agency (EPA) and Colorado Department of Public Health & Environment requirements.

In 2011, the WPCF received an Xcel Energy Custom Efficiency Achievement Award for saving 2.78 million kWh and reducing CO2 emissions by 1,584 tons. In 2012, the WPCF received the Rocky Mountain Water Environment Association's (RMWEA) Sustainability Award for Colorado demonstrating excellence in programs that enhanced the principles of sustainability. A Certificate of Achievement from the Colorado Industrial Energy Challenge program managed through the Colorado Energy Office was received in the same year. In 2013, the plant received the City of Greeley's Environmental Stewardship Award for outstanding efforts to reduce energy (watts), conserve energy and water, reduce air and water pollution, and educate and encourage others to be environmental stewards. Also, in 2013, the plant was the recipient of a Bronze Award from the Colorado Environmental Leadership Program. In 2015, after having 5 years without a plant violation, the plant received the 2015 National Association of Clean Water Agencies (NACWA) Platinum Peak Performance award for the City of Greeley Water and Sewer Department.

Note: the red column indicates the current month.



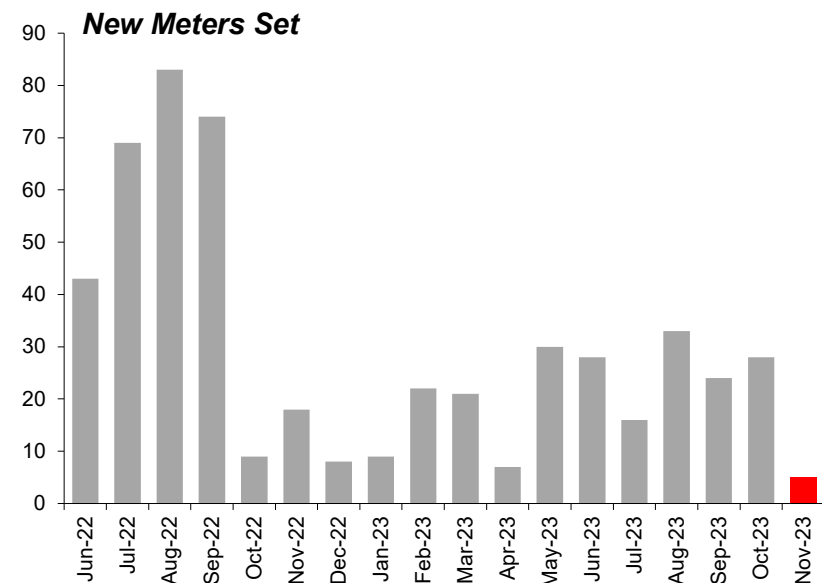
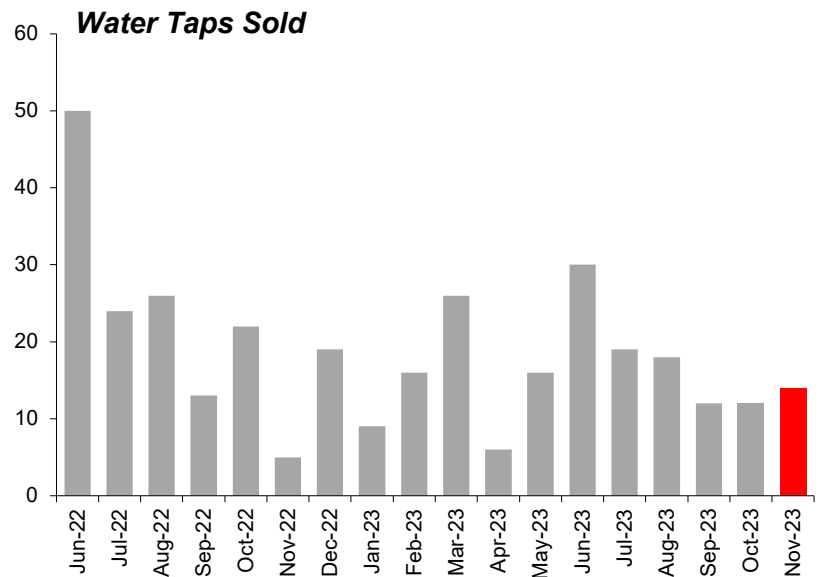
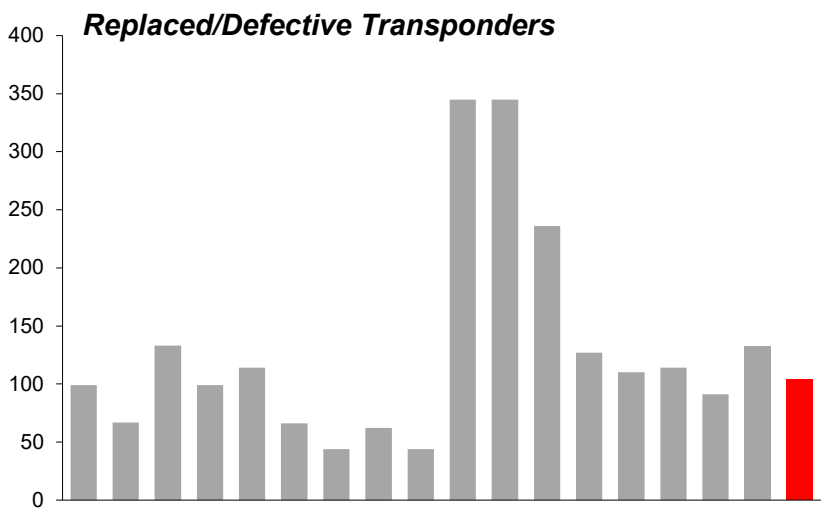
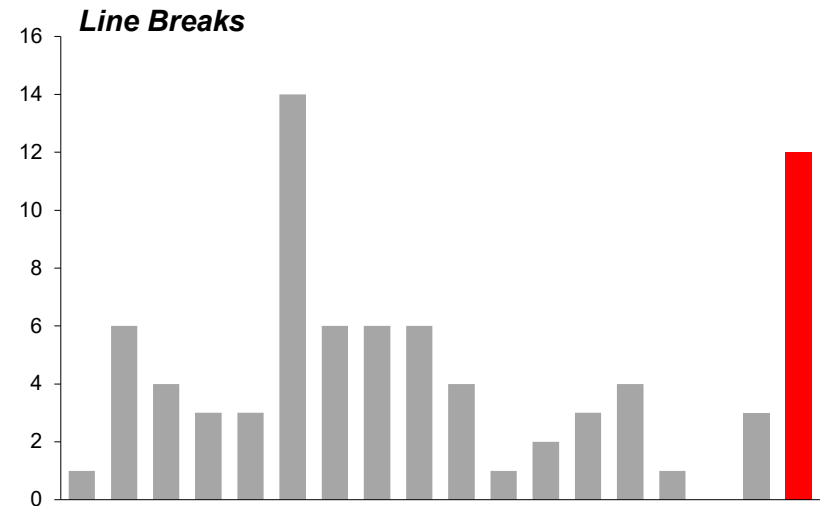
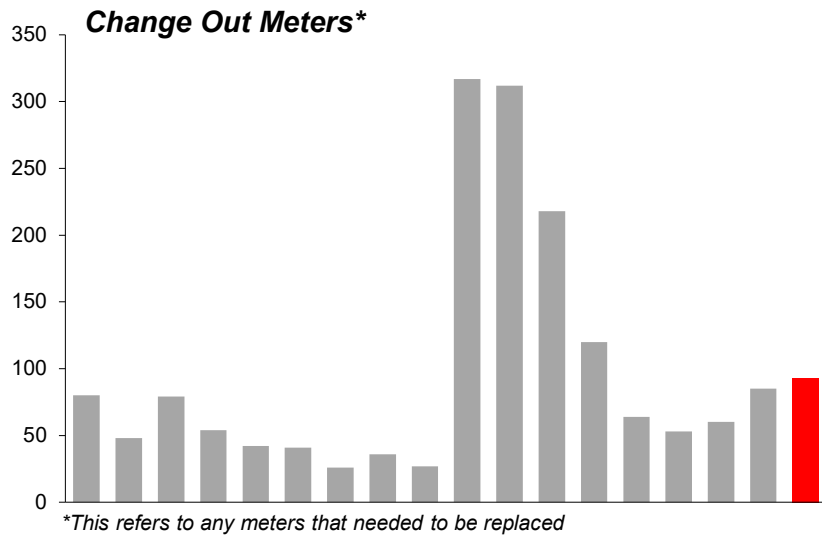
## Water Distribution

The Greeley water distribution system consists of various sizes of pipes that generally follow the streets within the City. The distribution system serves residences and businesses in Greeley, Evans and Garden City, and the system is divided into four pressure zones.

There are 69.75 million gallons of potable water storage in Greeley. The water is stored within three covered reservoirs and one elevated tank; 23rd Avenue - 37.5 million gallons, Mosier Hill - 15 million gallons, and Gold Hill - 15 million gallons. The system also has 476 miles of pipeline, 24,233 water meters and 3,378 fire hydrants.

The water pipes in the distribution system vary in size from 4" to 36". Pipe material is steel, ductile iron, cast iron, or polyvinyl chloride. The age of the pipes varies from the 1890's to new installations.

Note: the red column indicates the current month.



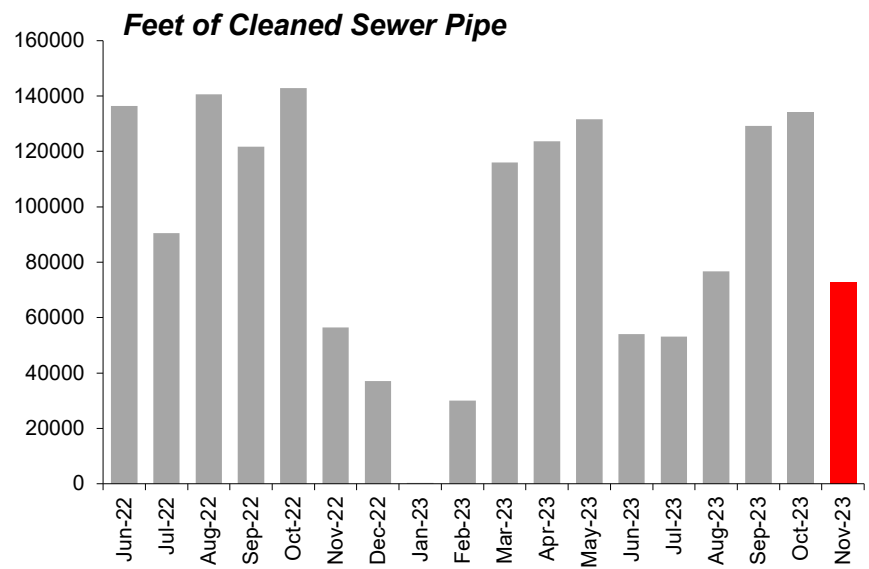
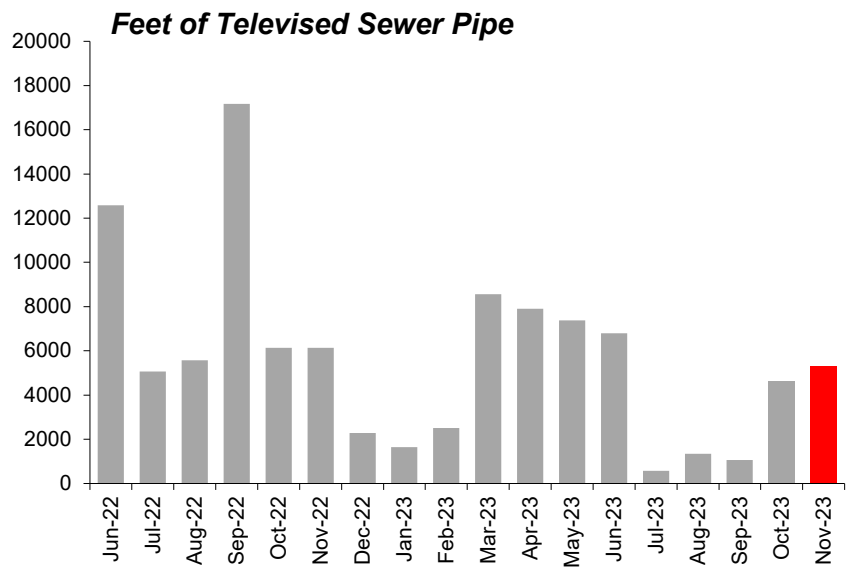
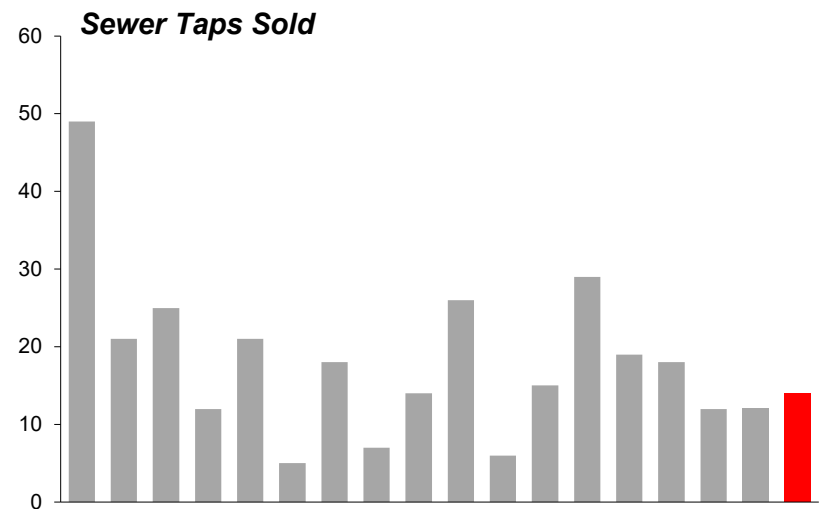
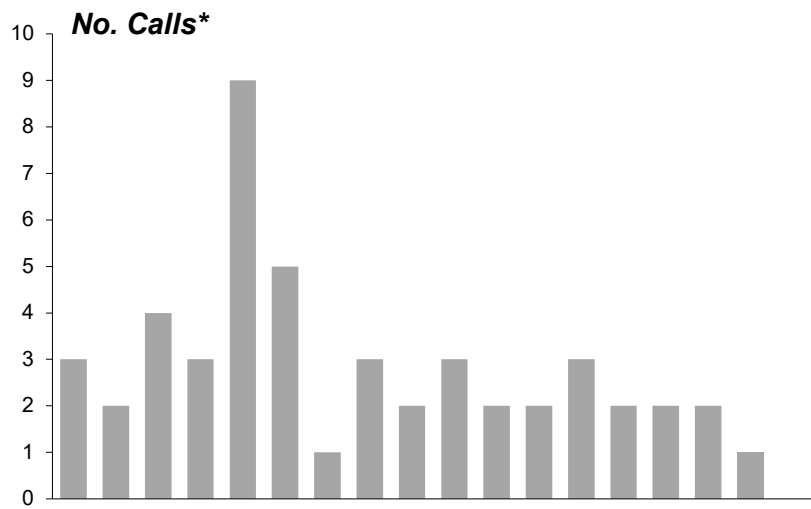
# Wastewater Collection

The mission of the Wastewater Collection Division of the Water and Sewer Department is to protect community health by transporting wastewater away from homes and businesses. This includes respecting property values and public safety by reducing the frequency of blockages in the sanitary sewer lines.

A wide variety of work is performed including routine cleaning of sewer lines, inspection of sewer lines, maintenance of the sewage pumping stations, rehabilitation of the system and responding to emergencies.

The wastewater collection system dates back to 1889. At the end of 2017, the system had a total of 364.8 miles of line and 10 sewage pumping stations. The sewer service area is approximately 51 square miles. Over the last 10 years, the system has grown by 17 miles.

Note: the red column indicates the current month.

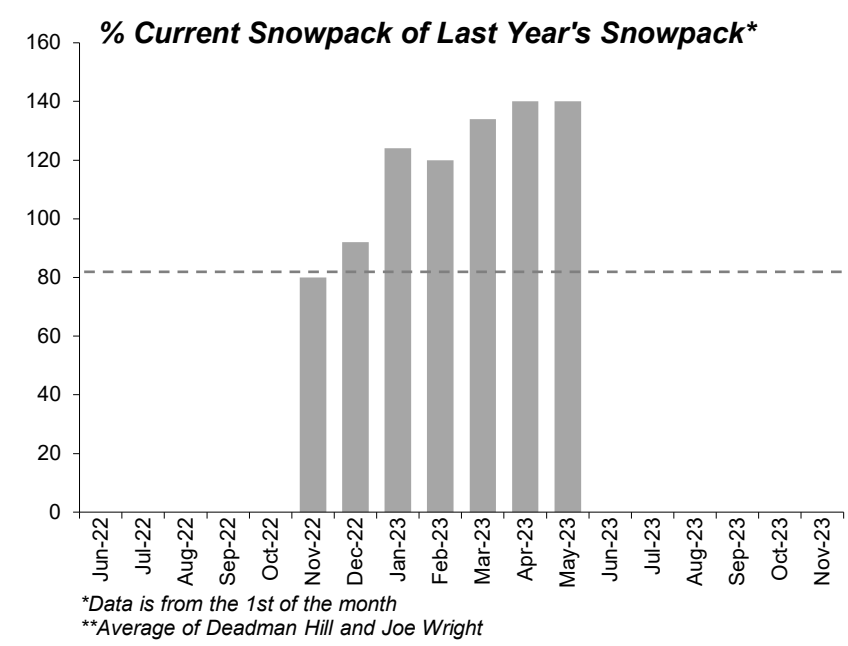
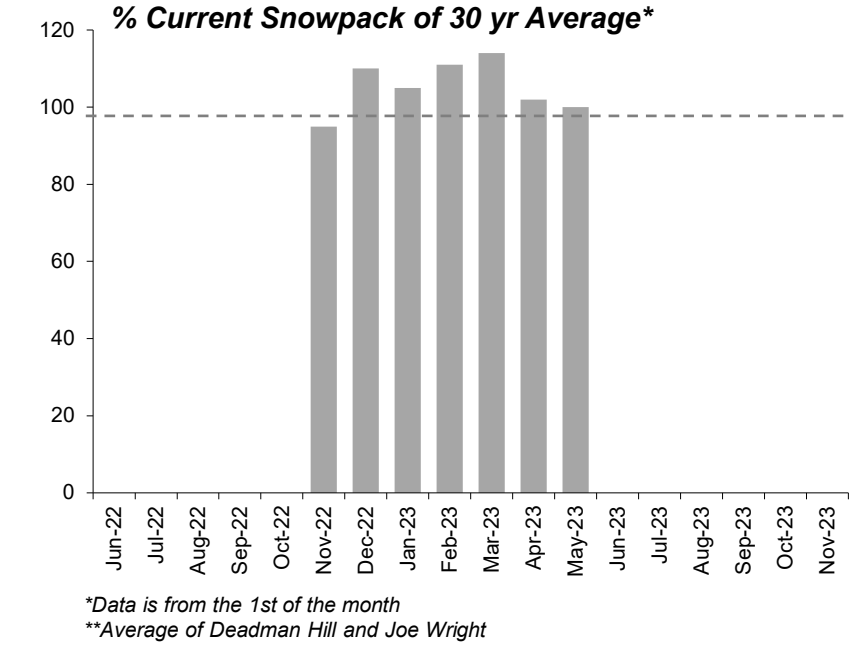
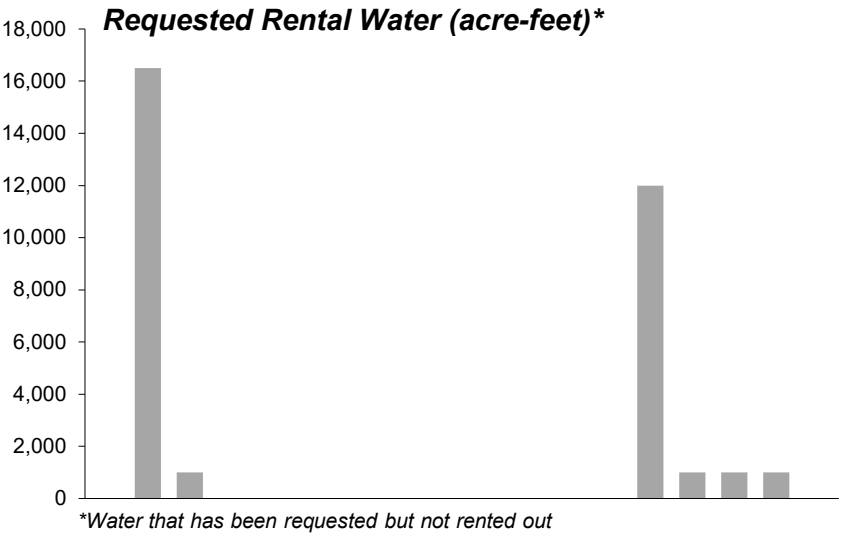
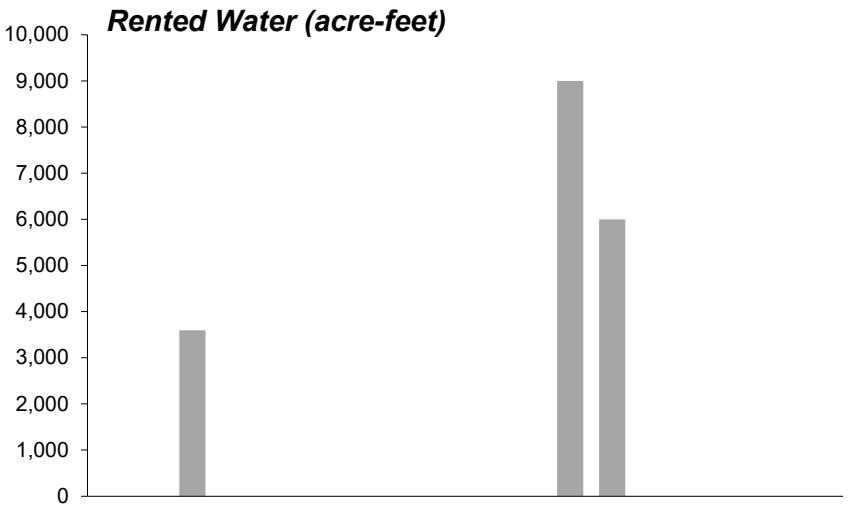
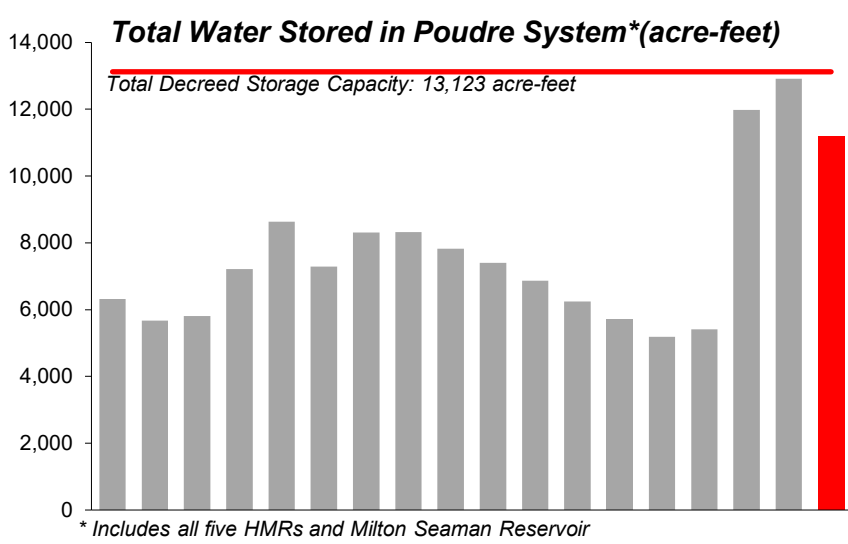
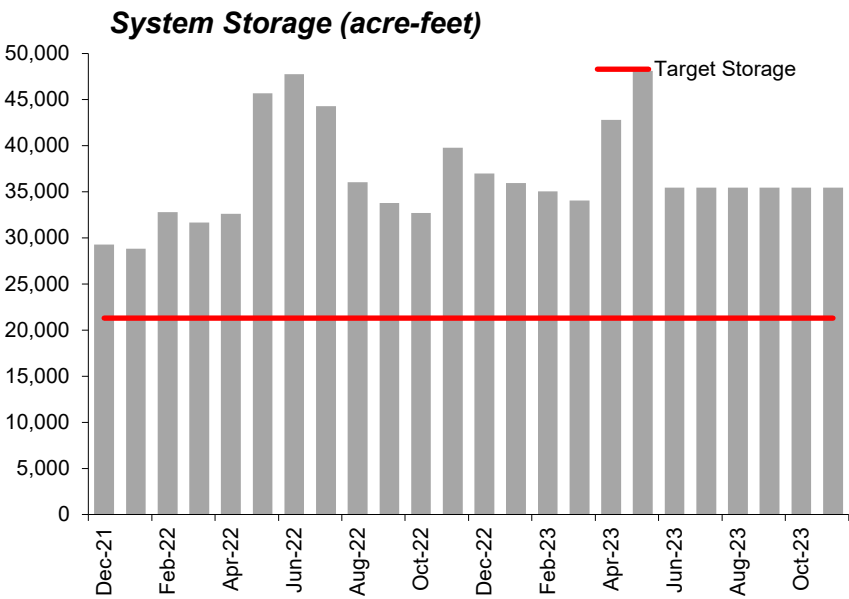


# Water Resources

Greeley has numerous water rights in four river basins; the Upper Colorado River, Cache La Poudre, Big Thompson and Laramie River. The Water Resource staff must account for all of this water and comply with the rules of the Colorado Water Court and the State Engineer’s Office which is in charge of allocating all of Colorado’s water resources. Approximately one-third of the City’s water supply comes from agricultural water rights. These water rights must be formally changed to municipal use by a special legal process through the Water Court. In this court, Water Resource staff and attorneys also defend the City’s water rights against adverse claims from other parties.

Greeley’s goal is to have enough water in carry-over storage to sustain Greeley through a 50-year critical drought. Water in excess of this carry-over drought supply can be leased to agriculture, both for revenue and to support our local agricultural community. Modeling has shown that, given existing population and demand factors, Greeley will have sufficient water for citizens, if at the beginning of the 6-year long, 50-year critical drought, there is 20,000 acre-feet in storage on April 1st of the following year.

Note: the red column indicates the current month.

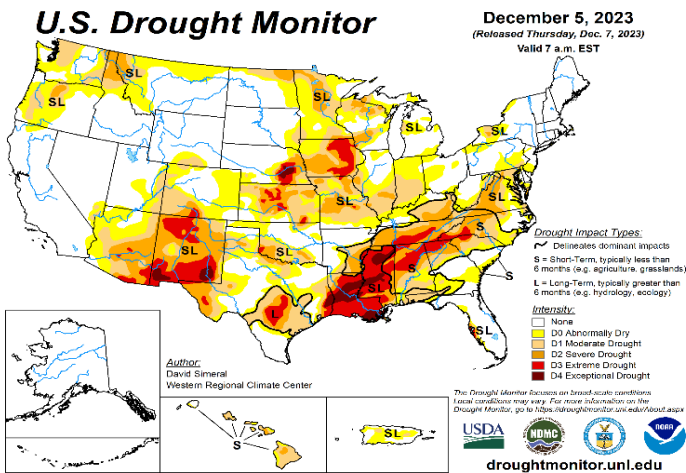
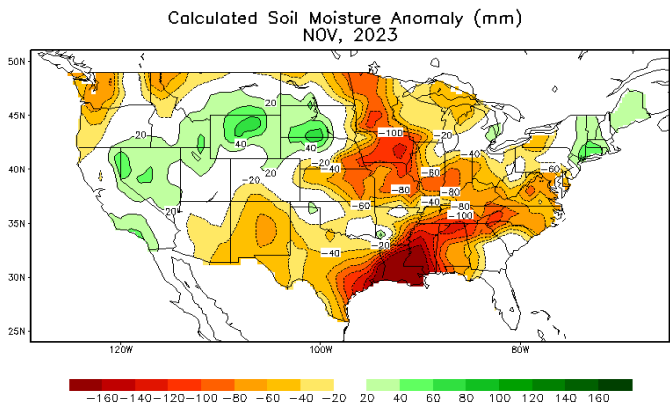
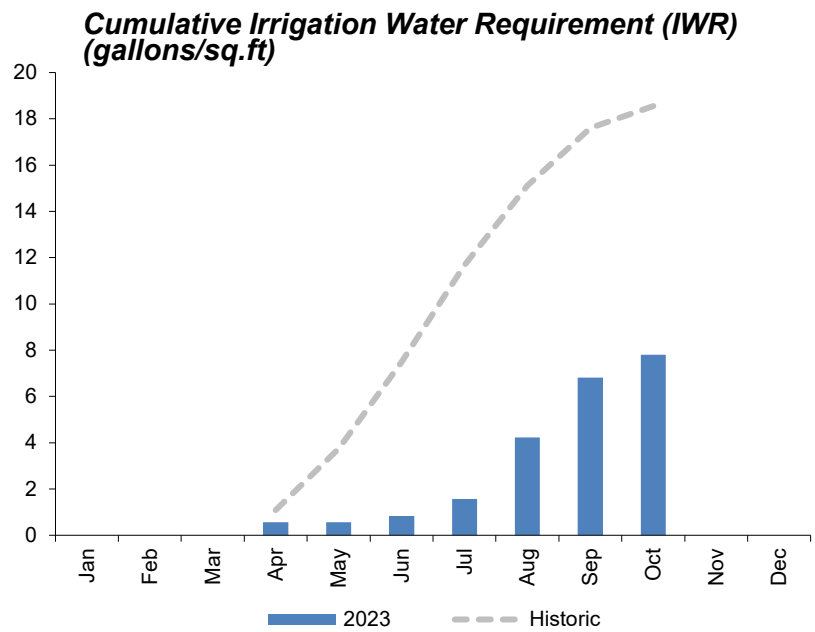
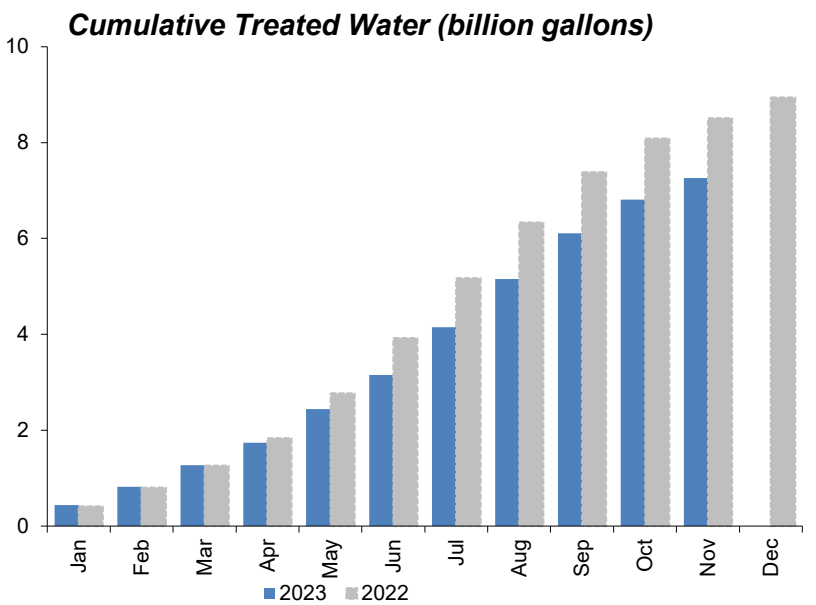
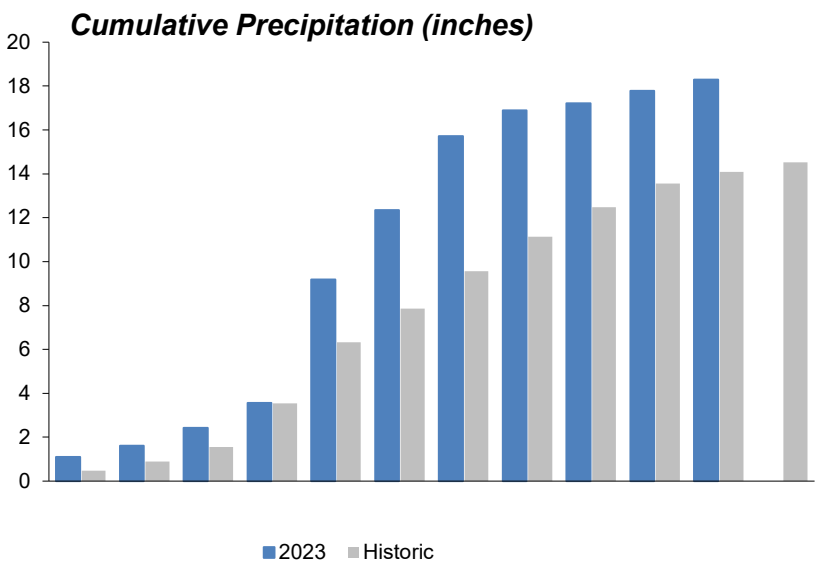
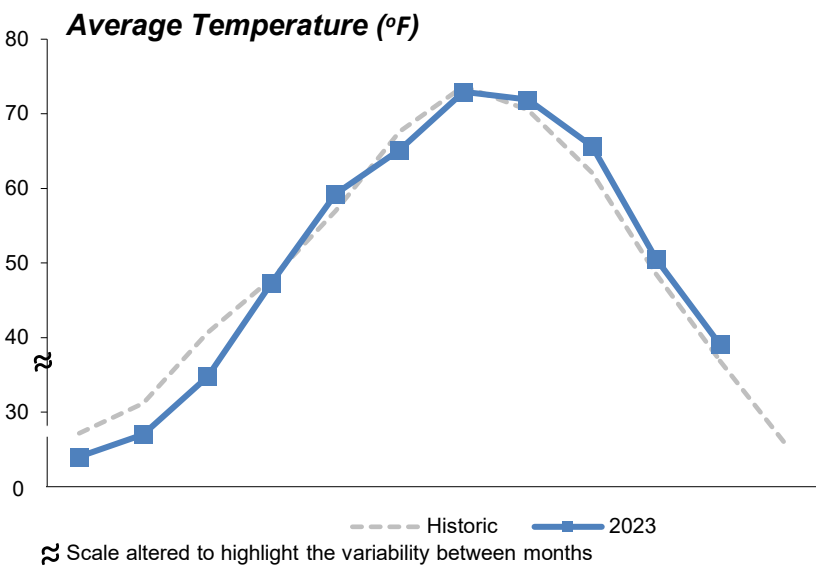




# Treated Water and Weather Data.

January was a cold month with an aveage temperature of 24°F. The average temperature for Febuary was 27°, about 4° lower than the historical. Its been another cold month in March with an average temperature of 34.8°F, which is still 4° lower than the historical average. The average temperature in April was 47.33°F which is very close to the historcal average. May's average temperature was slightly above average at 59.23°. June's average temperature was 65.15°F, about 2° lower than the historical average. The average temperature in July was 72.95° F, which was very close to the historical average. The average temperature in August was 71.9°F, slightly above average. The average temperature in September was 65.7° slightly above the historical average. In October, the average temperatue was 50.56°F and in November it was 39.05°F, both slightly above the historical average.

Greeley received 1.1 inches of precipitation in January, this is more than double the historical average for this month. Febuary brought 0.51 inches of precipitation. Total precipitaion for March was 0.81 inches, bring the total so far this year to 2.42. Greeley reveiced 1.14 inches or precip in April, bringing the cummulative precip very close to the historical. Greeley received an astonishing 5.63 inches of precitataan in May, this is close to 3 inches above average. Another 3.16 inches of precipitation fell in June, which is more than double what has historically been received in June 3.37 inches of rain fell in July, bringing the annual total to 15.72 inches. In August, another 1.17



## Sean Chambers

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**From:** Northern Water <northernwater@public.govdelivery.com>  
**Sent:** Monday, December 11, 2023 1:12 PM  
**To:** Sean Chambers  
**Subject:** December 2023 Chimney Hollow E-news



E-Newsletter | December 2023



*Work on the saddle dam continued as grouting is now complete.*

### **Saddle Dam Construction Progressing Upward with Grouting, Completion of Test-Fill**

Another milestone was achieved at the Chimney Hollow Reservoir site on Nov. 8 when grouting was finished along the saddle dam foundation. This allowed crews to turn their attention to finalize foundation preparation before going vertical with the clay core, rockfill

layers and other components of what will be the 40-foot-tall and 1,250-foot-long saddle dam at the southern end of the reservoir's footprint.

Grouting consists of injecting a cementation slurry into a foundation to fill cracks and voids below the surface, which plays a critical role in helping prevent seepage below a dam. Crews began grouting at the Chimney Hollow saddle dam in mid-August, following completion of the grout cap (the concrete foundation of the saddle dam). Throughout the next 12 weeks crews injected material into the double-row curtain along the 8-foot-wide grout cap, reaching depths of 70 feet below the surface.

As part of prepping the saddle dam for its upward construction, crews also recently completed a successful test fill at the site to ensure the dam-building materials compact and form to one another and the foundation as designed, as well as to test the equipment and methods that will be used in the construction.

While the saddle dam is much smaller than its counterpart two-and-a-half miles away at the north end of the reservoir (the 350-foot-tall main dam), it still serves a significant purpose, as it increases the project's storage capacity by about 30 percent.

Crews will continue sub-surface sealing work into winter and spring of 2024, as they look to wrap-up grouting on the main dam. In addition to being a much larger foundation, the main dam also sits at the lower end of the reservoir. To help stand up to that additional pressure of water pushing downhill, the main dam grout curtain runs as deep as 230 feet below the foundation in areas. Grouting on the main dam is about 85 percent complete.



*Crews place rebar along the tunnel's inner walls, necessary to reinforce the concrete liner.*

## **Milestones on the Horizon for Inlet/Outlet Tunnel**

Progress is steadily being made on the 2,000-foot-long tunnel that will allow water to be transferred in and out of Chimney Hollow Reservoir. The tunnel is comprised of three sections: the downstream (dry) portion, upstream (wet) portion, and the valve chamber that sits between the two.

### **Downstream Tunnel**



The 26-foot diameter circular downstream portion of the tunnel required about seven months of excavation, which runs 667 feet to the valve chamber at the center of the main dam. To date, crews have tied three-quarters of the required rebar. Two placements of the reinforced concrete liner are also complete. The concrete liner is installed using an [Everest Carrier Form](#), which is a piece of equipment that places concrete along the tunnel's inner walls. The biggest challenge for crews has been installing rebar in confined spaces on the tunnel's circular profile, which is necessary to reinforce the concrete liner. The second challenge is keeping the formwork intact, which sees nearly 2 million pounds of uplift pressure during concrete placements. The downstream tunnel concrete lining is anticipated to be completed in March 2024.

### Upstream Tunnel

The 11-foot diameter horseshoe shaped upstream portion of the tunnel, which will run about 1,200-feet in length, is in the excavation phase. While the plan was to mine this portion with a [roadheader](#), the composition of rock has required a combination of excavation techniques. Crews have encountered soft and hard rock that randomly changes throughout the process, leading to some delay and the need for a mix of roadheader and drill and blast operations. Crews have about 400 feet to go before holing through to the downstream portion of the tunnel, which is anticipated for early 2024. Once excavation is complete, crews will begin pipe installation.

### Valve Chamber

The valve chamber, a 30-foot diameter tunnel section between the upstream and downstream tunnels, will house a 72-inch butterfly valve. This will allow the downstream tunnel to be isolated for maintenance. Installation of the concrete liner is complete, and the waterproof membrane will be complete upon tie into the upstream tunnel. Any seepage that goes through the concrete will be caught by the membrane, like a rain jacket, to protect all of the valve house equipment.



*A trench was recently dug across the main dam to place sensitive equipment for monitoring the dam safety.*

## Crews Install Important Safety Gauges During Dam Construction

Modern dams are much more than rock, gravel, and in the case of Chimney Hollow Reservoir, hydraulic asphaltic concrete. They hold instrumentation to make sure they remain safe and effective for decades to come.

While building a modern structure that will hold water for hundreds of thousands of residents in Northern Colorado, the team at Chimney Hollow Reservoir is placing sensitive equipment and access points in the dam to measure many variables.

Among those sensors are devices called piezometers (pronounced pi-ZOM-eters) that can detect water levels and possible seepage through and around the dam. All dams have seepage, and piezometers gather data to help dam engineers monitor the performance of the dam and underlying foundation.

Another device, a shape accel array, can detect real-time subtle movements in a dam to determine potential hazards. When Chimney Hollow Reservoir is full, more than 122 million tons of water will be pushing against the rock-fill dam. A shape accel array can detect how much flex occurs in the dam, and Northern Water engineers will compare those readings against expected performance of the embankment.

As Chimney Hollow Reservoir moves toward completion, the placement of these safety features will play a critical role in keeping the state's newest dam operating smoothly.



*Chimney Hollow safety meeting in August 2023.*

## Safety Remains Top Priority on Site

Entering the Chimney Hollow construction site, a bright orange sign reads, “Your family is expecting you home tonight.” It’s a clear reminder to every employee who comes to work to keep safety top of mind throughout the workday.



General contractor Barnard Construction employs a full-time, on-site safety team dedicated to providing proper training for all individuals, as well as adhering to safety protocols. This team has office space in the middle of the site and is frequently out checking work areas and readily available when or if issues arise.

Although there is a full-time safety team on site, all personnel have the right to shut down work if they feel unsafe or see something unsafe. Essentially, there are over 500 “safety officers” on site daily because everyone is trained and responsible for safety.

An example of safety obligations and expectations:

- All personnel must receive a three-hour Chimney Hollow Reservoir site safety orientation prior to going on site.
- Personal protective gear is worn at all times: hard hat, safety glasses, safety vest, safety boots and long pants.
- Construction equipment and vehicles always have the right of way.

There are many moving parts of the Chimney Hollow Reservoir Project and with so much changing daily, it's important to constantly keep safety at the forefront. Daily safety meetings are held with each crew before work begins, weekly with supervisors and monthly with all personnel. Bilingual meetings are provided as needed for crews that have Spanish-speaking personnel.



## Participant Profile: City of Fort Lupton

About 43 miles southeast of the Chimney Hollow Reservoir Project sits the growing city of Fort Lupton with a current population of just over 8,500. Fort Lupton has almost 1,200 acre-feet of storage in Chimney Hollow Reservoir.

Fort Lupton City Administrator Chris Cross said that Chimney Hollow Reservoir will provide more certainty for the city's long-term water supply.

“It allows us to have a place to store a portion of our Windy Gap units maximizing our water portfolio for both wet and dry years. This lets the precious resource of water be retained until the appropriate time to use over a year or multiple years,” he said.

In addition to providing water supply reliability, Fort Lupton is also prioritizing water conservation efforts. In May 2023, Fort Lupton participated in the Sonoran Institute’s Growing Water Smart workshop and developed a multi-goal strategy for water conservation and planning. These goals include integrating water and land use planning into the city’s big plans, such as the City of Fort Lupton’s Comprehensive Plan and Water Plan, so that the city is growing in a manner that is water smart; developing a water allocation strategy for future growth based on the water needs for each type of land use; and implementing water planning and conservation community and stakeholder education programs.

“This project is very exciting for our community as we look to assure that we are smart with our water and find ways to store water in wet years and utilize it in dry years. It is one more tool in the tool belt for good water portfolio planning,” Cross added.



## Employee Spotlight: Christina Brueckman

Christina Brueckman serves as Stantec’s Lead Geological Engineer and Resident Deputy Engineer for the Chimney Hollow Reservoir Project. Hired in 2017 to assist with the preliminary geotechnical investigation of the valley, Brueckman now spends her days overseeing the plans of the foundation and quarry to ensure the designs meet the project’s standards.

With her time split between the office and field, Brueckman monitors the dam zones to ensure material consistency and proper placement within the design.

“Working on Chimney Hollow is a very dynamic process since every day is different,” she said. “I appreciate the diversity of my job.”

Brueckman works alongside a team of engineers that challenge each other to think outside the box with new perspectives.

"I have a great team that adds value to each other since we all come from different backgrounds that complement each other," she said.

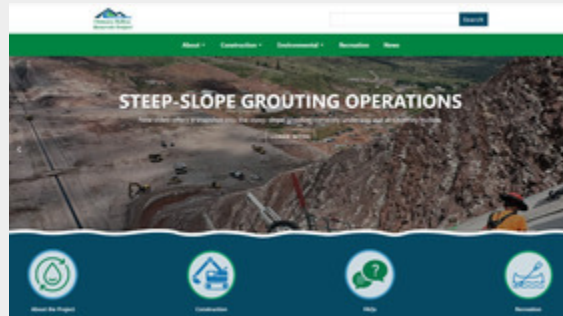
Outside of work, Brueckman enjoys hiking outdoors while training her two dogs or riding her horse.

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## Stay Connected

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## About Chimney Hollow Reservoir

The Chimney Hollow Reservoir Project is a collaboration between 12 Northeastern Colorado water providers to improve the reliability of, or make firm, water supplies from the Windy Gap Project. Chimney Hollow Reservoir will be located just west of Carter Lake in Larimer County to provide dedicated storage to supply a reliable 30,000 acre-feet of water each year for future generations.

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### Northern Water

220 Water Ave. | Berthoud, CO 80513  
800-369-RAIN (7246) | [www.northernwater.org](http://www.northernwater.org)



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# Terry Ranch Water Supply Pipeline



Open Cut of Harmony



CARV Install at Winter North



Connection to South Side of Harmony Tunnel

## WORK COMPLETED

- BTrenchless completed the crossing of Harmony Road.
- Reynolds completed pipeline tie-ins on both sides of Harmony Road.
- Installation of 1 combination air valve and 1 accompanying anode test station at Winter North.
- Crews worked to backfill and regrade completed areas of the project.
- Mainline pipe installation at both the Walker and Winter North properties.

## WORK UPCOMING

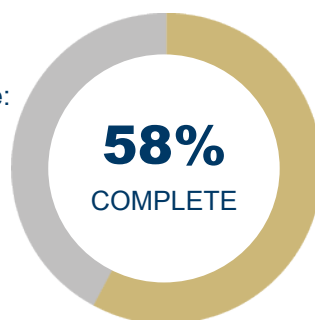
- Reynolds to complete pipe install at Winter North.
- BTrenchless to continue tunneling operations under Larimer County Canal.
- Completion of Larimer and Weld County Canal Bypass.
- BTrenchless to begin tunneling operations under Larimer and Weld County Canal.
- IME to continue fiber optic install along completed areas of the project.
- Open cut crossing of Weld County Road 80.5.

## COST

Package A&B Contract Value:  
\$23,445,102

Work Complete:  
\$13,624,594 (Through October)

Change Order Percentage:  
0%



## SCHEDULE

Notice to Proceed: 4/4/2023

Substantial Completion: 10/4/2024

Final Completion: 11/4/2024

Calendar Days Charged to Date: 240

## PROJECT TASKS

■ COMPLETE ■ INCOMPLETE

### 36" Steel Pipe Work Package A

17,266 LF 20,200 LF

### 36" Steel Pipe Work Package B

5,354 LF 5,354 LF

### 24" Pipe for NWCWD Interconnect

64 LF 650 LF

## EASEMENTS EXECUTED

WP-A: (8 of 9)

WP-B: (2 of 4)

WP-C South: (5 of 5)

WP-C North: (3 of 3)