

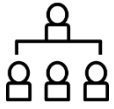
Water and Sewer Board

Regular Meeting

City Council Chambers – City Center South

1001 11th Avenue – Greeley, Colorado

March 15, 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 11th 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 11th Avenue, 2nd Floor, Greeley, CO 80631 or emailed to 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





Water & Sewer Board

March 15, 2023 at 2:00 PM
1001 11th Avenue, City Center South, Greeley, CO 80631

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 ___ Mr. John Karner
2. Approval of Minutes
3. Approval of the Agenda
4. W&S Board Election of Officers
5. Welcome New Employees and Promotions
6. Integrated Water Resource Plan (IWRP)
7. W&S 2022 Financial Report
8. Regional Water Initiatives Update
9. Legal Report
10. Director's Report
11. Such Other Business That May Be Brought Before the Board Added to This Agenda by Motion of the Board
12. 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

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

Chairman Harold Evans called the Water and Sewer Board meeting to order at 2:00 p.m. on Wednesday, February 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 (joined at 2:05 pm), Tony Miller, Joseph Murphy, Manuel Sisneros, Mayor John Gates, Chief of Staff Kelli Johnson on behalf of City Manager Raymond Lee III and Finance Director John Karner

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, Deputy Director Water and Wastewater Operations Nina Cudahy, Source Water Supply Manager Cole Gustafson, Administrative Assistant III Crystal Sanchez, W&S Office Manager Gigi Allen, Water Resource Administrator II Sam Harshbarger, Water Resource Planning Manager Kelen Dowdy, Communications Specialist II Cory Channell, Water Conservation Manager Dena Egenhoff, Intern I Mitch Zombek, Water Resource Administrator II Alex Tennant, Water Resource Administrator I Megan Kramer, Intern II Griffin Myers, Rates and Budget Analyst Virgil Pierce, Civil Engineer IV Water and Sewer Rebecca Andrus and Administrative Assistant II Erin Maestas

Legal Counsel:

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

Guests:

Emeritus Robert Ruyle, Greeley Citizen James Sutherland, Neil Stewart from Stantec and Greeley Councilmember Deb Deboutz joined virtually

2. Approval of Minutes

Mr. Miller made a motion, seconded by Mr. Sisneros, to approve the January 20, 2023 Water and Sewer Board meeting minutes. The motion carried 6-0.

3. Approval of the Agenda

There were no changes to the agenda, but Sean Chambers noted that voting for the election of officers would take place at the March 2023 Board meeting. It was also discussed that the Board meetings would be live streamed on YouTube going forward.

4. Welcome New Employees and Promotions

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

5. 2023 Water Conservation Scorecards

Dena Egenhoff discussed the 2022 Water Efficiency Plan (WEP) implemented a triple bottom line approach that centered water efficiency around a sustainable water future. The three categories for water sustainability are community, prosperity, and water conservation management. To track progress and provide accountability and transparency, annual score cards were created.

Additionally, it was discussed that a newly updated rebate/incentive plan Life After Lawn will launch February 15, 2023, it will increase the amount of turf square footage replacement available to city residents.

The Conservation department is also now collecting GIS information online through rebate programs such as toilet replacements where they now offer higher dollar amounts in rebates to help keep up with inflation costs.

6. Integrated Water Resource Plan (IWRP)

Kelen Dowdy and Neil Stewart, consultant for Stantec presented results for the timing and integration of Terry Ranch when Planning Scenarios are applied. Refined planning scenarios were presented including polished scenario names, climate futures, and Colorado River risks. Results from model runs that apply varied water supply system risks, climate, demand, and Colorado River risks to Terry Ranch timing and integration horizons were also discussed. Importantly, findings from the results will be applied to necessary adaptive planning strategies and outcomes.

It was discussed that coming up with easy to comprehend terms for the public when this process is complete will be important and that it would be valuable to get feedback from the Board and Communications and Engagement before finalizing the terminology.

Erin Maestas left the meeting at 2:25 pm

Neil Stantec left the meeting at 2:53 pm

Kelen Dowdy left the meeting at 2:53 pm

Councilwoman Deb Deboutz left the meeting at 2:57 pm

7. Approval of Rate and Resolution Amendment

Erik Dial presented that Greeley Water and North Weld County Water District (North Weld) are in the process of transferring customers from North Weld Water's service area to Greeley Water's service area. While the 2013 Water Service Agreement with North Weld clearly defined the process for transferring customers to Greeley Water, it was silent regarding the rates that Greeley would charge when they became Greeley Water customers. Instead, the agreement only states that Greeley and North Weld would establish their own separate rates, fees, and raw water requirements for their respective customers within the North Greeley Service Area. At the January Water and Sewer Board meeting, Mr. Dial presented the concept of charging all customers formerly in the North Weld service area the inside city rates, regardless of whether the customer's property has been annexed to the City or not. The resolution would amend the 2022 resolution that set the 2023 water and sewer rates and fees to memorialize this new rate class.

It was discussed that since there are not a lot of customers affected by this transition it would be best to reach out to these customers personally and not use a mass mailer or email notification. This would also allow Greeley to better convey transition and rate information.

Fire protection flows for the former North Weld customers was also discussed as such flows will be improved once the customers are connected to Greeley Water.

Mr. Otis moved that the Board approve the Resolution to amend Water and Sewer Board Resolution 2, 2022. Mr. Sisneros seconded the motion. The motion carried 7 – 0.

8. Approval and Recommendation to City Council of Evans Treated Water Service IGA

Erik Dial stated that Greeley's current Treated Water Service Intergovernmental Agreement (IGA) with Evans will expire in April 2023. Staff from Evans and Greeley discussed needed updates to the existing IGA to reflect current operations for both water providers and clarify how certain aspects of the IGA are operationalized. The IGA reflects those changes.

Evans staff will present the proposed IGA to their Water and Sewer Board on February 16th and to their City Council for their approval on March 7th.

Vice Chairman Todd moved that the Board approve and recommend to City Council the Intergovernmental Agreement for Treated Water Service with the City of Evans, and delegate authority to the Director of Water and Sewer to approve minor revisions to the agreement before its execution, provided the material substance remains unchanged. Mr. Sisneros seconded the motion. The motion carried 7 -0. The IGA will be presented to City Council on March 21st.

9. Approval of Lowell Farm Lease Agreement

Alex Tennant discussed that in November 2021, the City acquired approximately 135 acres of land located north of Greeley along F Street between 35th and 59th Avenues (Lowell Property), along with 13.4 shares of the Greeley Irrigation Company (GIC) and a two-year obligation after closing to purchase one additional share of GIC. For the past 20 years, the Adams family has been leasing the GIC water and approximately 86 acres of the Lowell Property for grazing and farming. The Adams family has requested to continue leasing this portion of the Lowell Property as well as the 14.4 shares of GIC from Greeley for one more year. The subject Grazing and Farm Lease would allow the Adams family one additional year of farming the property and would terminate on December 31, 2023. The lease amount is \$9,000.00 and would be paid in two installments of \$4,500.00. The lease amount matches the rate paid by the Adams family to the former owner of the Lowell Property.

City staff are evaluating future uses of the Lowell Property, which could include a new Water and Sewer or multi-department shop facility, City-owned natural areas, and trail corridors. Portions of the property may be divested, with the proceeds appropriated for additional water purchases. The subject Grazing and Farm Lease maintains the status quo while the city's evaluation proceeds. Staff are satisfied with the Adams family past farming operation, evidenced by their maintenance of the property, and believe a continuation of the lease with a one-year term is in the interest of the Water and Sewer Department. Water and Sewer staff recommends that the Water and Sewer Board approve the enclosed Grazing and Farm Lease Agreement between the City of Greeley and A&S Farming LLC (Kurt Adams).

Vice Chairman Todd moved that Board approve the Lowell Property Grazing and Farm Lease Agreement with A&A Farming. Mr. Miller seconded the motion. The motion carried 7-0.

Megan Kramer left the meeting at 3:10 pm

10. Legal Report

Dan Biwer presented on behalf of Carolyn Burr of Welborn, Sullivan, Meck & Tooley. The following cases were discussed.

Case Number 22CW3206 is an application by the of Town of Berthoud for conditional storage rights and exchanges.

Case No. 22CW3207 is an application by the City of Dacono for conditional storage rights and exchanges.

Case No. 22CW3218 is an application by Loveland Ready-Mix Concrete, Inc. for groundwater rights and an augmentation plan for the Dunn gravel pit site located on the Big Thompson River.

Case No. 22CW3223 is an application by the Ogilvy Irrigating and Land Company and the Ogilvy Augmentation Company for a conditional storage right in the Loloff Pit located off the Ogilvy Ditch.

Case No. 22CW3224 is an application of Central GMS to change 94 shares of the Western Mutual Ditch Company.

Case No. 22CW3228 is an application by the Handy Ditch Company for junior storage right in Welch Reservoir and to make a portion of the right absolute.

All the above-described applications are for water rights within Greeley's areas of interest and have the potential of injuring Greeley water rights.

Mr. Miller moved that the Board authorize the filing of statements of opposition in Case Nos. 22CW3206, 22CW3207, 22CW3218, 22CW3223, 22CW3224 and 22CW3228, 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. Ms. Witt-Brown seconded the motion. The motion carried 7-0.

The following people left the meeting at 3:26 pm: Adam Prior, Gigi Allen, Nina Cudahy, Dena Egenhoff, Mitch Zombek, Sam Harshbarger, Alex Tennant, Griffin Myers, Cory Channell, Virgil Pierce, Rebecca Andrus, James Sutherland

11. Executive Session

Chairman Evans moved that the Board hold an executive session to address the following matters as provided by C.R.S. §24-6-402(4)(a), (b), and (e) and Greeley Municipal Code Sec. 2-151 (a) (1), and (5):

1. For the purpose of determining positions relative to matters that may be subject to negotiations, developing strategy for negotiations, and instructing negotiators regarding the potential Patterson Ditch and New Cache Irrigation water trade.

The motion was seconded by Mr. Miller. The motion carried 7-0.

Present during Executive Session were:

Chairman Evans, Vice Chairman Todd, Manuel Sisneros, Tony Miller, Cheri Witt-Brown, Joe Murphy, Fred Otis, Mayor John Gates, Director Sean Chambers, Deputy Director of Water Resources Ty Bereskie, Chief of Staff Kelli Johnson on behalf of City Manager Raymond Lee, Source Water Supply Manager Cole Gustafson, Deputy Director of Utility Billing and Customer Service Erik Dial, Administrative Assistant III Crystal Sanchez, Emeritus Robert Ruyle, Senior Environmental and Water Resources Attorney Jerrae Swanson, Environmental and Water Resources Attorney II Dan Biwer, Environmental and Water Resources Attorney I Arthur Sayre and Counsel to Water & Sewer Board Attorney Carolyn Burr joined virtually

This executive session is authorized by Subsection(s) (a) and (e) of Section 24-6-402(4) of the Colorado Revised Statutes, and Subsection(s) (1) and (5) of Section 2-151 (a) of the Greeley Municipal Code.

Executive Session ended at 3:40 pm

Gigi Allen rejoined the meeting at 3:40 pm

12. Director's Report

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

- Current Snowpack – SNOTEL Data for Northern Colorado
- Employee Recognition – Annual Core Value Awards
- Overview of Utility Billing Balance Forward Issue
- Legislative Advocacy Update

Fred Otis asked about the Bellvue Water Treatment Plant and it was mutually agreed that it was best to discuss in an Executive Session at a later date regarding repairs to the plant.

13. 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

14. Adjournment

Chairman Evans adjourned the meeting at 3:56 p.m.

Harold Evans, Chairman

Raymond Lee, Board Secretary



Water & Sewer Agenda Summary

Date: March 15, 2023

Key Staff Contact: Water and Sewer Director Sean Chambers

Title: Election of 2023 Water and Sewer Board Officers

Summary: In accordance with carrying out its governmental duties, the Greeley Water & Sewer Board elects officers annually based upon guidance in the Greeley City Charter, Sec. 17-3. - Water and Sewer Board, organization.

There shall be a Water and Sewer Board which shall consist of ten (10) members. The Mayor, City Manager and Director of Finance shall be nonvoting members of said Board. There shall be seven (7) members appointed by the City Council for terms of five (5) years. Any vacancy shall be filled for the unexpired term of any member whose place has become vacant. The Board shall annually elect one (1) of the appointive members as chair, and one (1) as vice chair. The City Manager shall serve as secretary to the Water and Sewer Board.

Recommended Action: N/A

Attachments: None



Water & Sewer Agenda Summary

Date: March 15, 2023

Key Staff Contact: Water and Sewer Director, Sean Chambers

Title: Welcome New Employees and Promotions

Summary: New Hires: Dain Daniels – Utility Locator
 Andrew Woitaszewski – Instrument Technician
 Dennis Margheim – Key Accounts Coordinator
 Matt Sparacino – Water Resource Administrator III
 Rebecca Andrus – Civil Engineer IV
 Jim Paulson – Civil Engineer IV
 Stephen Goodwin – Civil Engineer III

Recommended Action: None

Attachments: None



Water & Sewer Agenda Summary

Date: March 15, 2023

Key Staff Contact: Kelen Dowdy, Water Resource Planning Manager

Title: Integrated Water Resource Plan Update: Adaptive Plan and CIP

Summary: In order to continue the benefits of Integrated Water Resource Planning beyond the planning process and into implementation phases we will use an adaptive planning process. Adaptive planning for Greeley Water Resources will include identifying no-regrets strategies to CIP and acquisition that should be completed regardless of future conditions, identifying signposts and triggers for other necessary actions, and breaking large-scale projects into smaller and financial responsible phases. This presentation will outline the approach to adaptive planning that Greeley will take in the coming years and include a breakdown of how staff will be accountable for regular updates. Commitment to the adaptive plan is paramount for the successful implementation of the IWRP.

Recommended Action: For information and discussion. No action needed.

Attachments:



Integrated Water Resource Plan

Water and Sewer Board Update

March 15, 2023



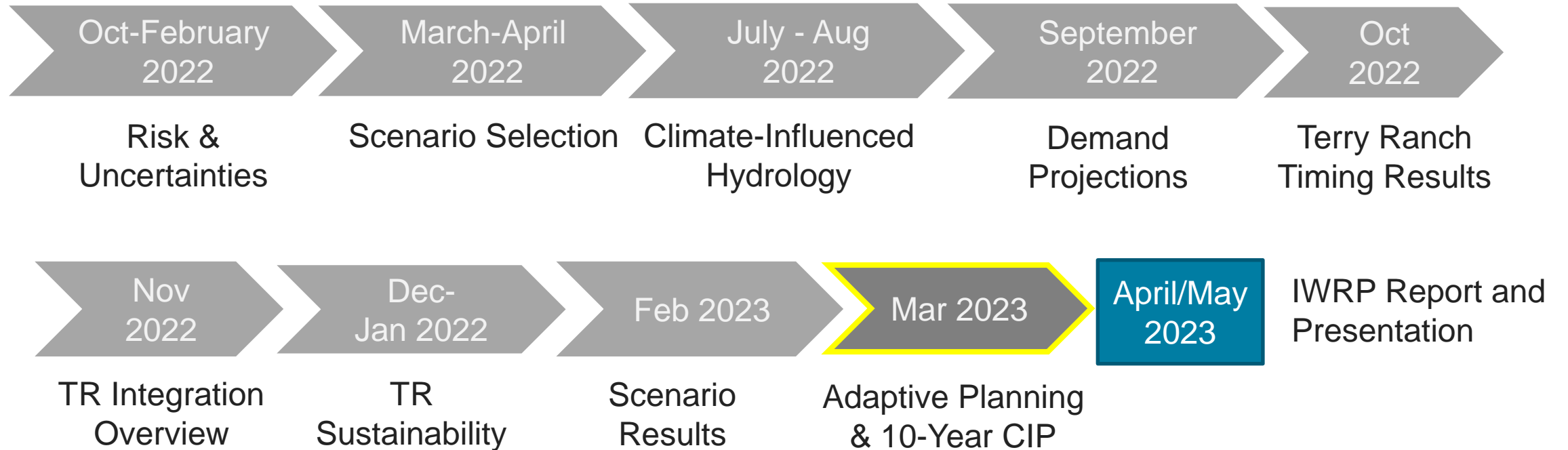


IWRP Vision Statement

“An actionable and adaptive master plan for Greeley’s water resources that uses modern, defensible methods to develop a roadmap ensuring a reliable water supply for our community through an uncertain future.”



IWRP Timeline



Adaptive Plan Implementation

- Identify important on-going questions Greeley needs to monitor.
 - Ensuring water supply is sustainable and affordable
 - Responding to water resource opportunities
 - Monitoring factors that could change IWRP outcomes
- Monitor “indicators” to provide insight into questions
 - Qualitative and quantitative
 - Emphasize flexibility
- Communicate progress to leadership and stakeholder

Adaptive Plan Questions

1. When does Terry Ranch need to supply water?
2. How is Terry Ranch being implemented over the next 5 and 10 years?
3. What is the status of Greeley's water rights?
4. Are there other water resources opportunities to consider?
5. Has there been a change in the major trends that could trigger a study?

Adaptive Plan Communication and Reporting

- Annual Report and Presentation to Board
 - April/May of each year
 - Dashboard-like Report
- Status Updates on Key Questions as Required
 - Terry Ranch implementation updates
 - Water supply system health
 - Water rights acquisitions and changes



Water Resources Adaptive Plan

Adaptive Plan Presentation

- Proof-of-concept
 - Shows the type of information that will be presented each year
 - Mix of actual data and the type of data to be presented
 - Visuals, figures, statements, etc. are for proof-of-concept – may change as Adaptive Plan is developed in 2024

Question 1:

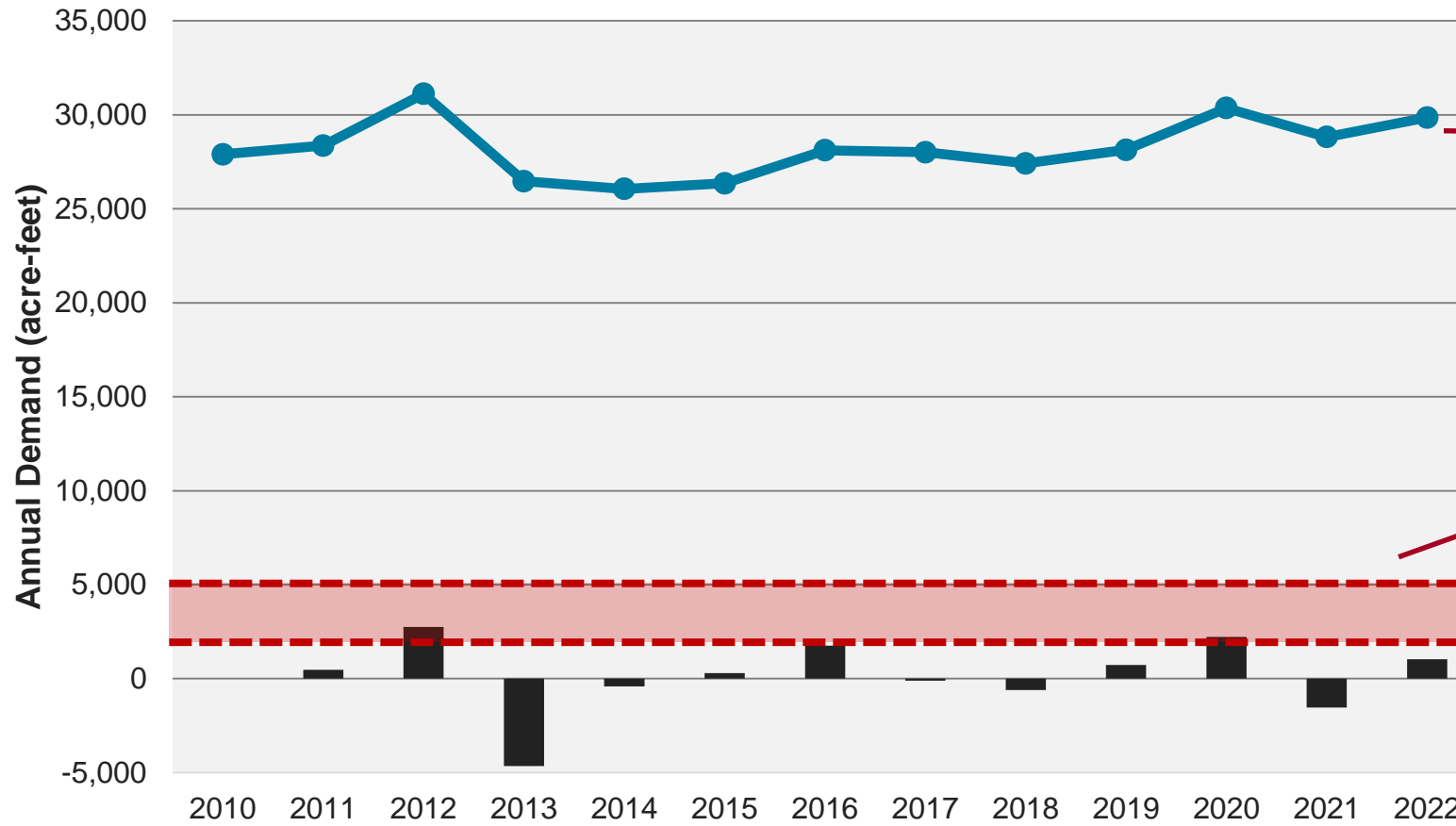
When does Terry Ranch need to supply water?

When does Terry Ranch need to supply water?

- Compare projected demands to surface water supply
 - Online before demands surpass supply
 - Monitor using demand and supply indicators
- Demand Indicators:
 - Total Annual Demand
 - Residential Per Capita Demand
 - Use of conservation rebates
- Supply Indicators
 - Overall water system health
 - Health by sub-basin

Demand Indicators – Total Annual Demand

Preliminary Numbers Subject to Change



2022 demands were 30,000 acre-feet, a 1,000 acre-foot increase from 2021.

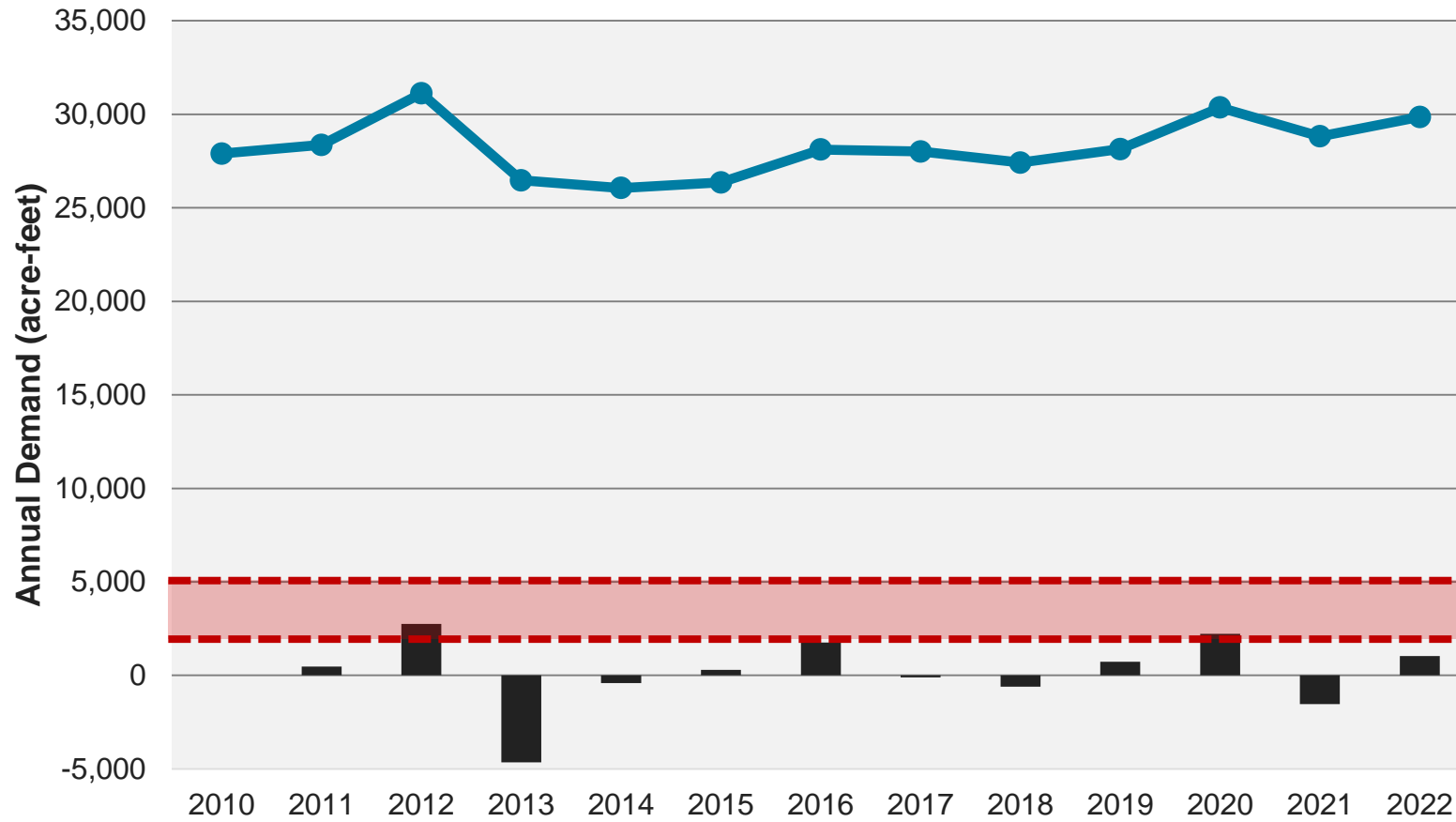
Define level of sustained demand growth reflecting 'real' growth vs. recovery from drought shadow.

Total Annual Demand includes Potable, Non-Potable, and Industrial Demands

■ Year-to-Year Demand Change ● Historical Demand

Demand Indicators – Total Annual Demand

Preliminary Numbers Subject to Change



Adaptive Plan Update:
Sustained demand growth did not occur in 2022, continue monitoring leading demand growth indicators.

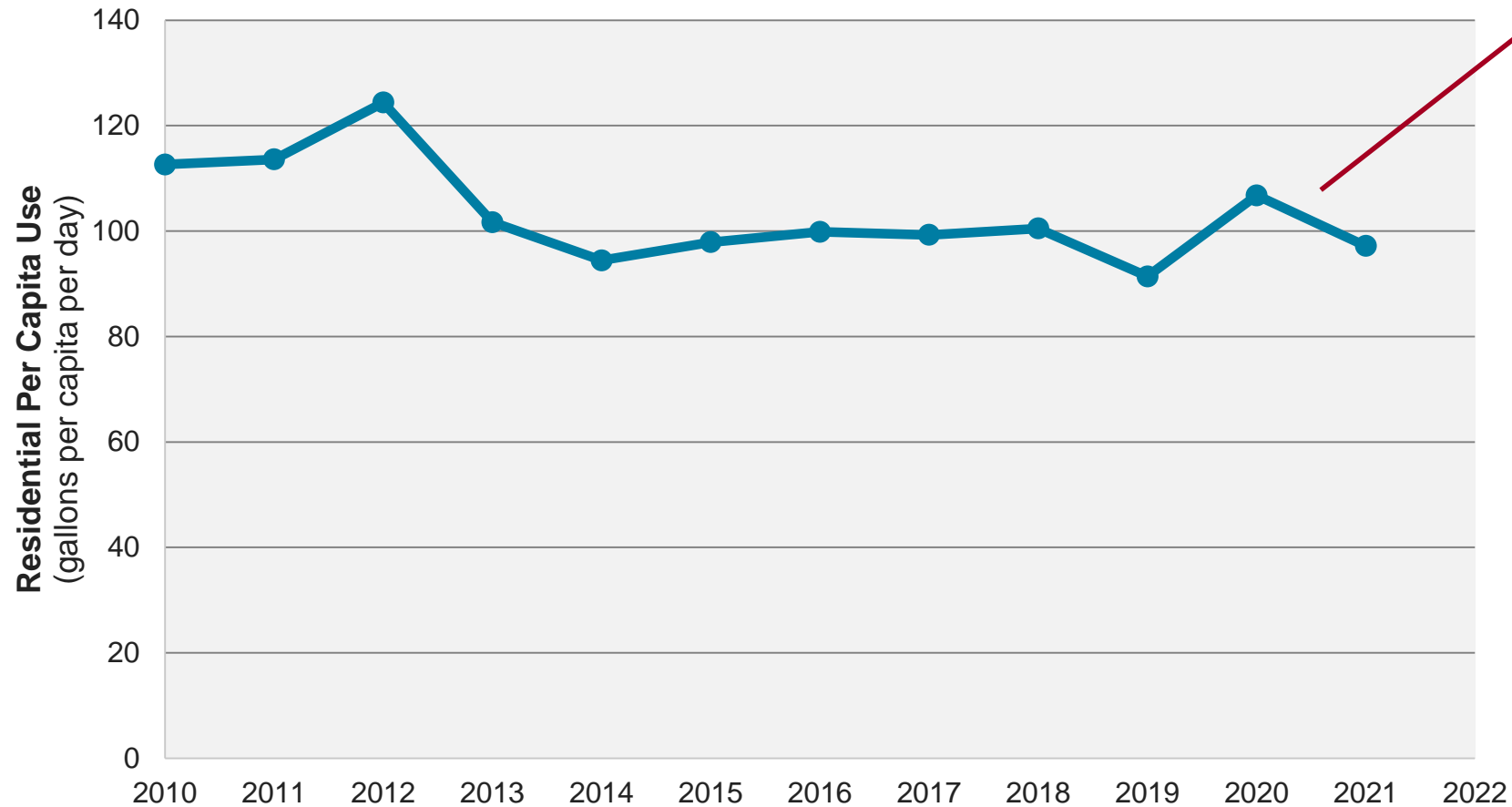
Total Annual Demand includes Potable, Non-Potable, and Industrial Demands

■ Year-to-Year Demand Change ● Historical Demand

Demand Indicators – Per Capita Demand

Preliminary Numbers Subject to Change

Residential Per Capita Use



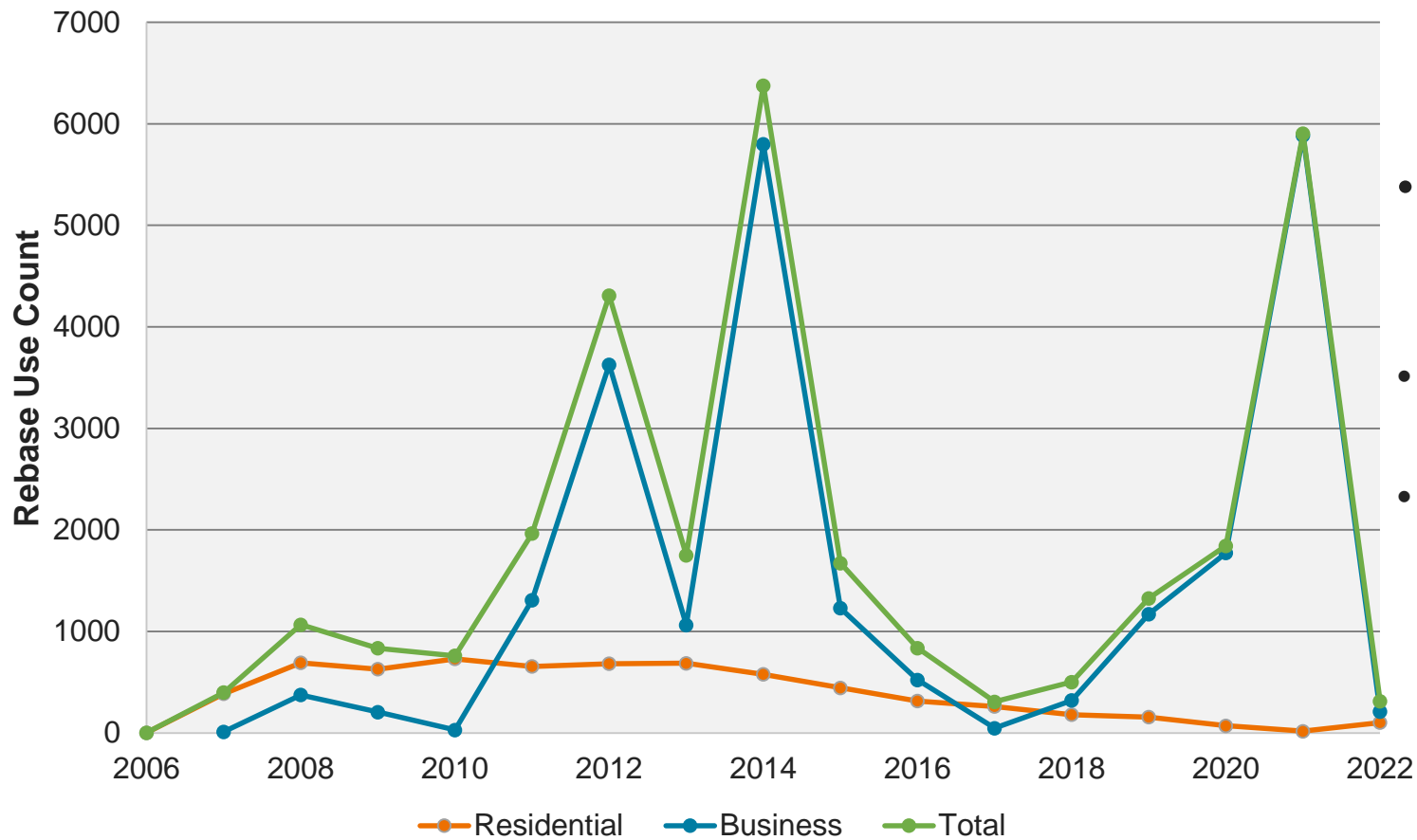
Recent years varied by more than 10%, indicating per capita use is still variable.

Adaptive Plan Update:
Residential per capita use is still variable and may continue to trend downward.

Demand Indicators – Rebate Use

Preliminary Numbers Subject to Change

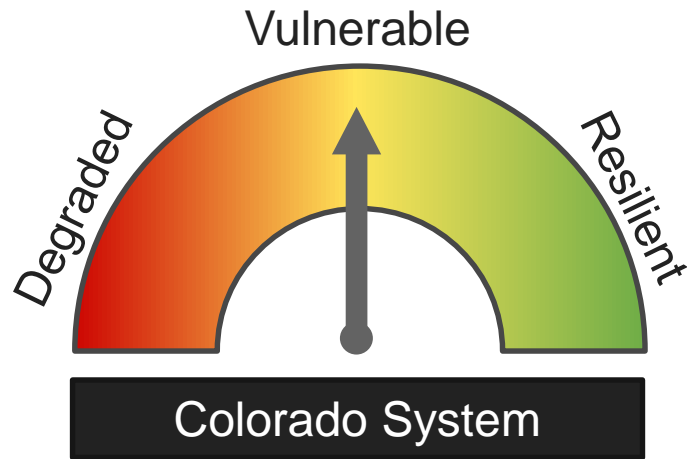
Greeley's Rebate Use



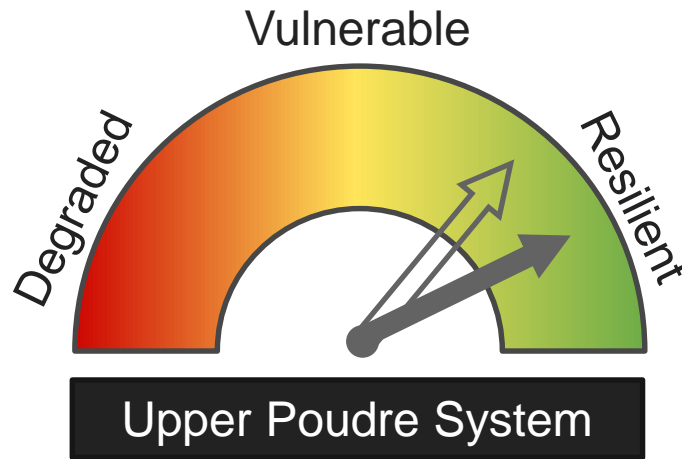
- Rebate use can be an early indicator or limited future per capita use reductions
- Gradual reduction in residential use, but 2022 uptick in outdoor rebate use
- Recent peaks in business driven by HOAs
- 2023 goal is to increase rebates through targeted outreach

Adaptive Plan Update:
Insufficient long-term trends to draw rebate conclusions from.

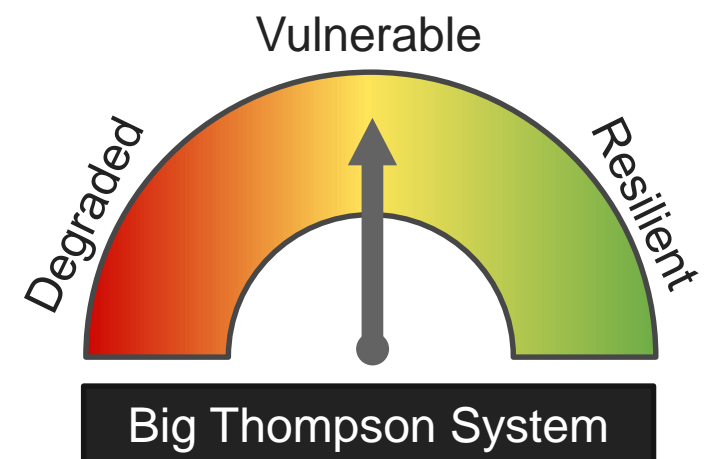
Supply Indicators Summary



- On-going Colorado River Basin drought could result in yield reductions
- Potential long-term reductions in water supply
- Chimney Hollow (and others) will improve resiliency once completed



- Yields post-wildfires are resilient despite runoff and water quality disruptions
- Recent yields have been consistent with similar historical years



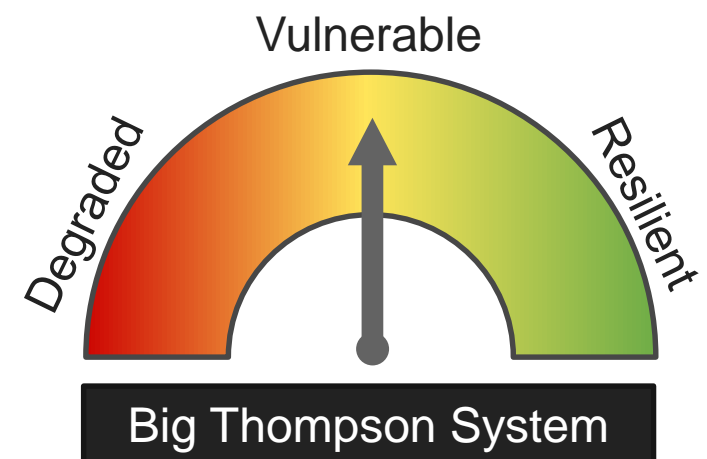
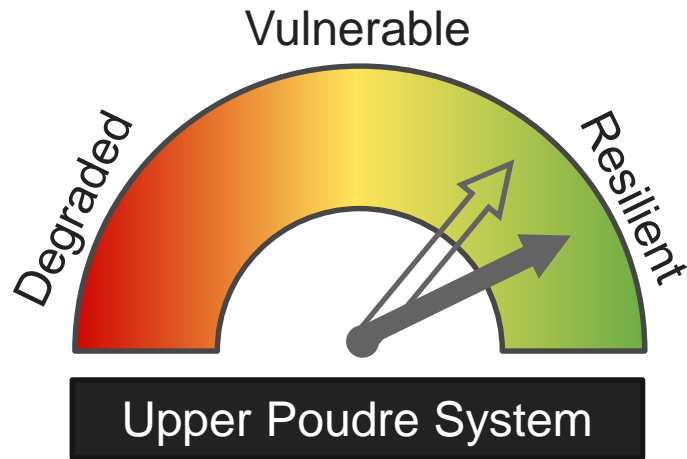
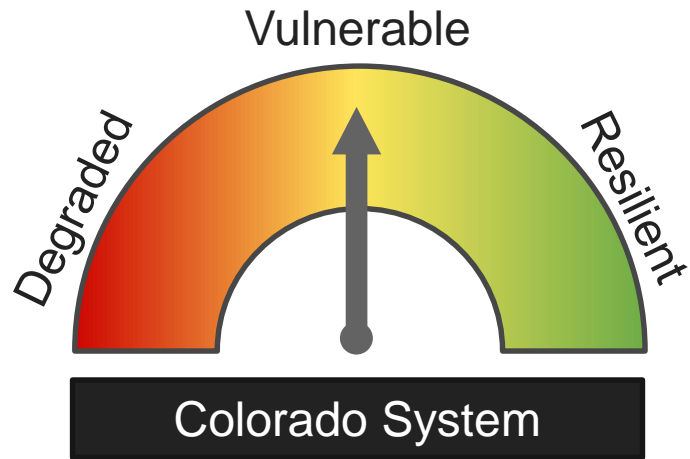
- Junior water rights are more exposed to hydrologic variability
- Future water right changes in Greeley-Loveland system could reduce yield consistency

Basin-Specific Supply Indicators

- Colorado Basin
 - CBT Quota History
 - Is there any trend downward or long-term period with low quotas?
 - Current Year Quota (actual or anticipated)
- Poudre Basin
 - Native yield at the Canyon Mouth
 - Yield of all Poudre water rights
 - Compared to history/similar past years
- Big Thompson Basin
 - Allocation of GLIC
 - Compared to history/similar past years)

All basins will also include qualitative indicators based on subject matter expertise.

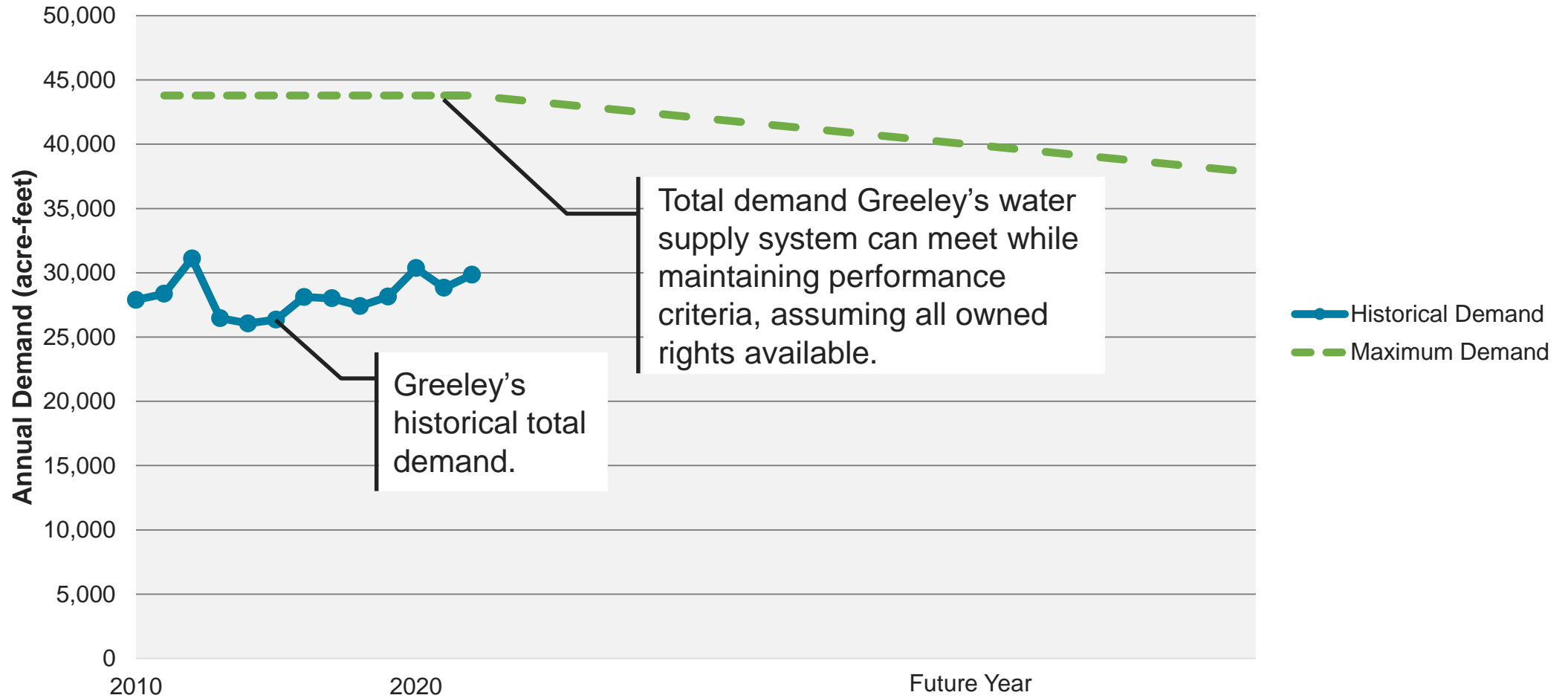
Supply Indicators Summary



Adaptive Plan Update:
 No change to water acquisition and change strategy. Continue monitoring supply indicators.

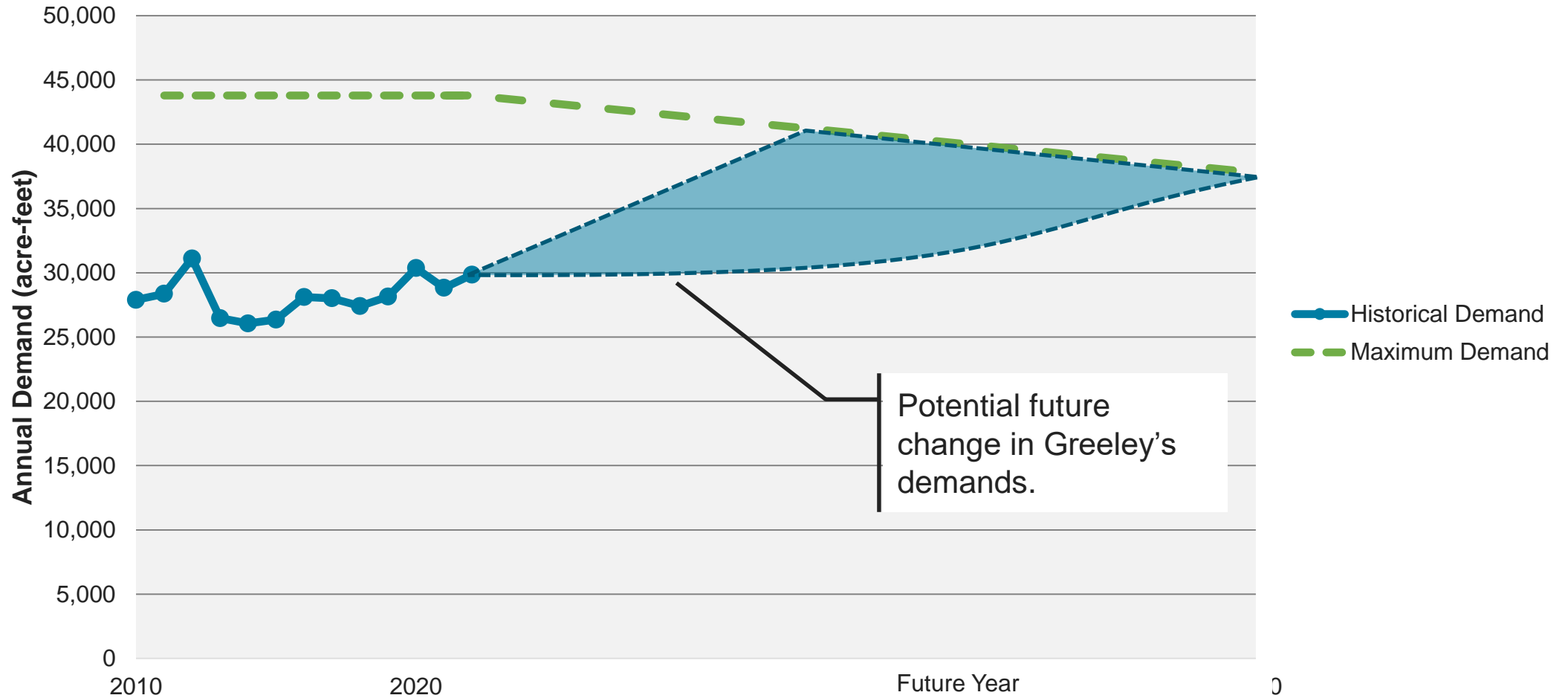
When does Terry Ranch need to supply water?

Preliminary Numbers Subject to Change



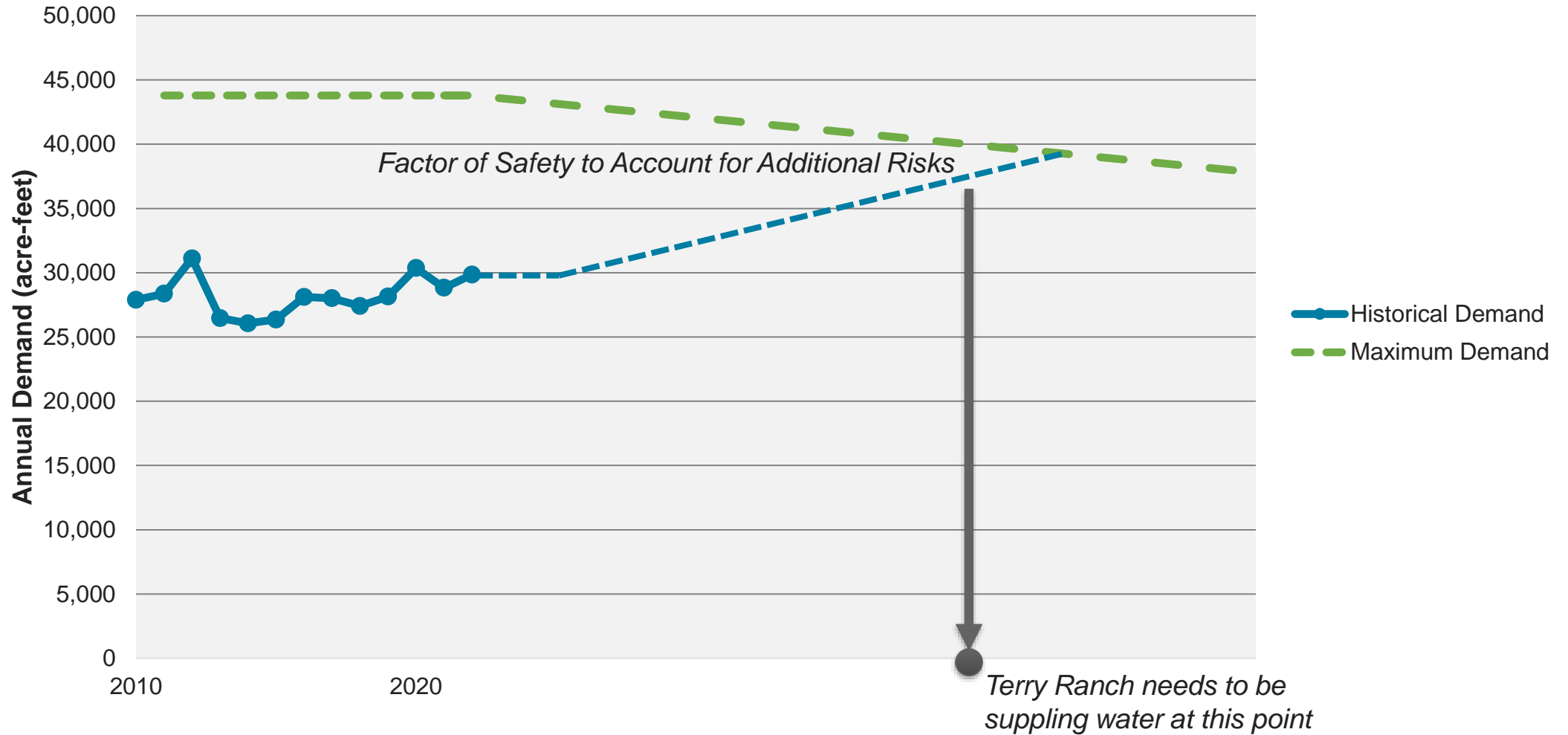
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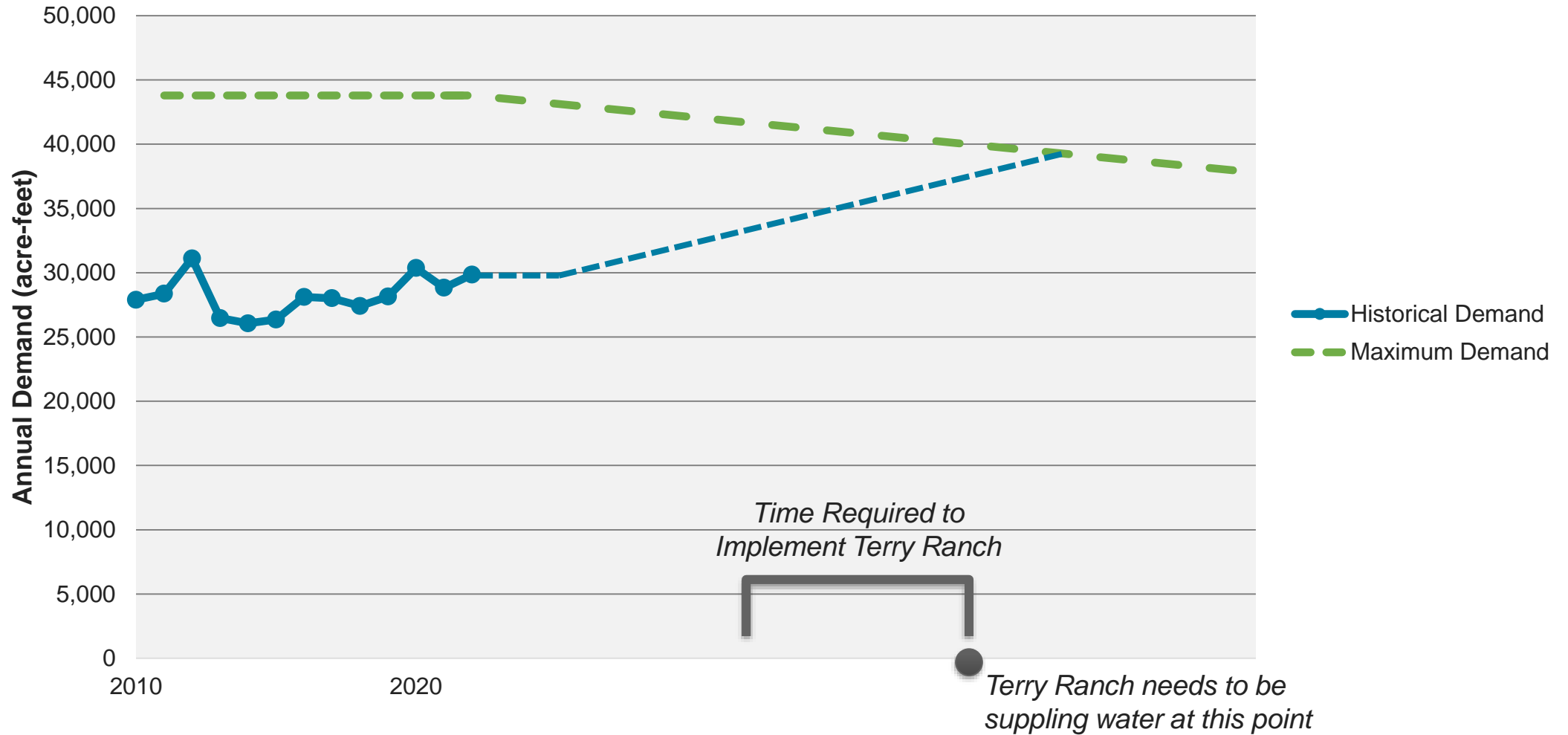
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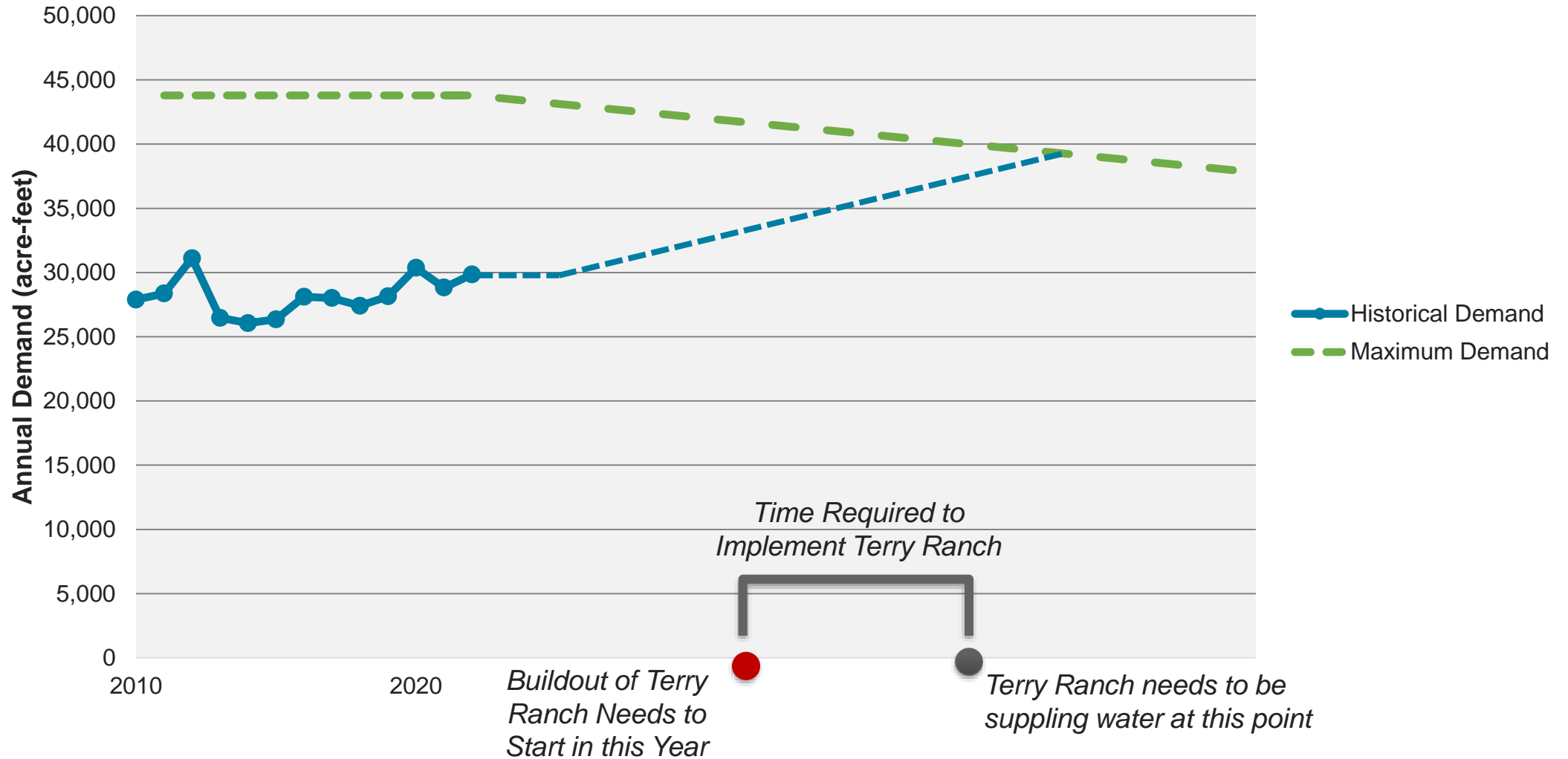
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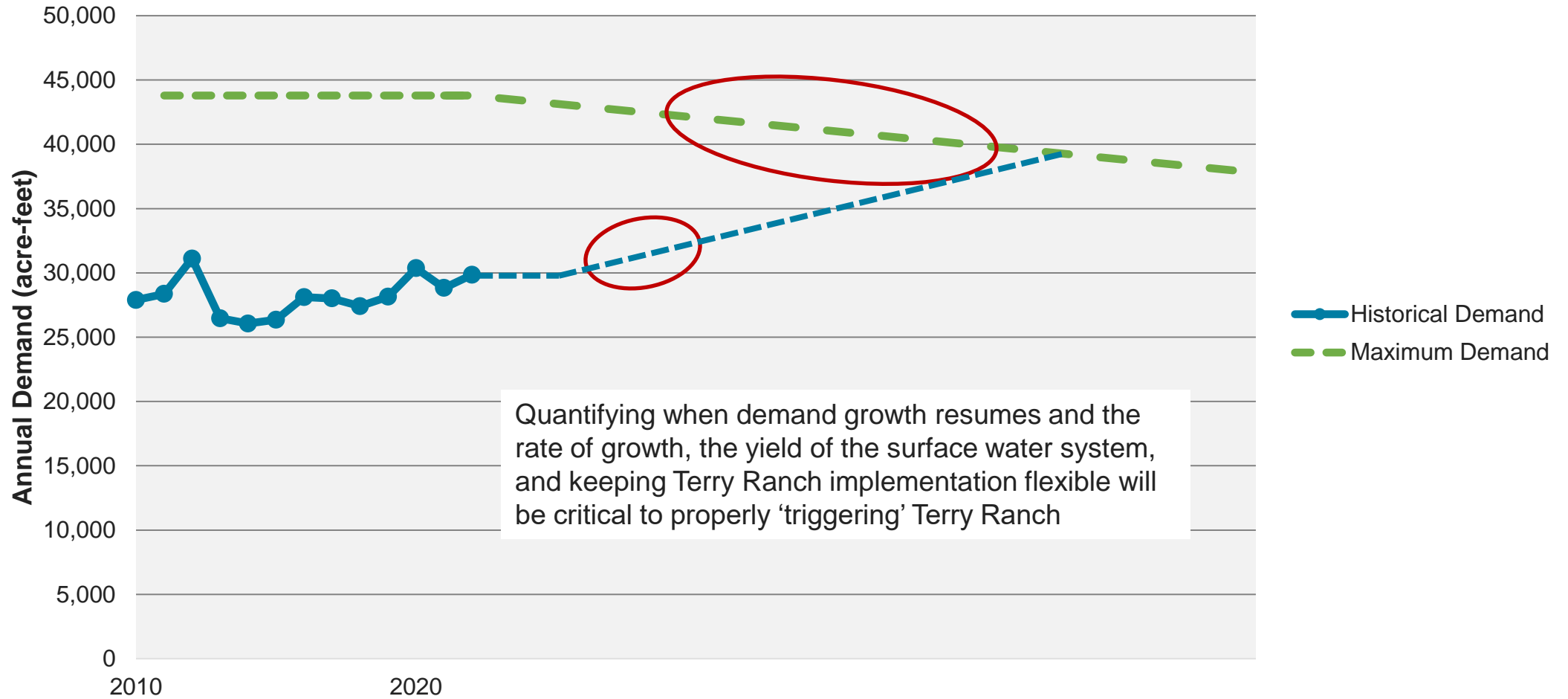
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When does Terry Ranch need to supply water?

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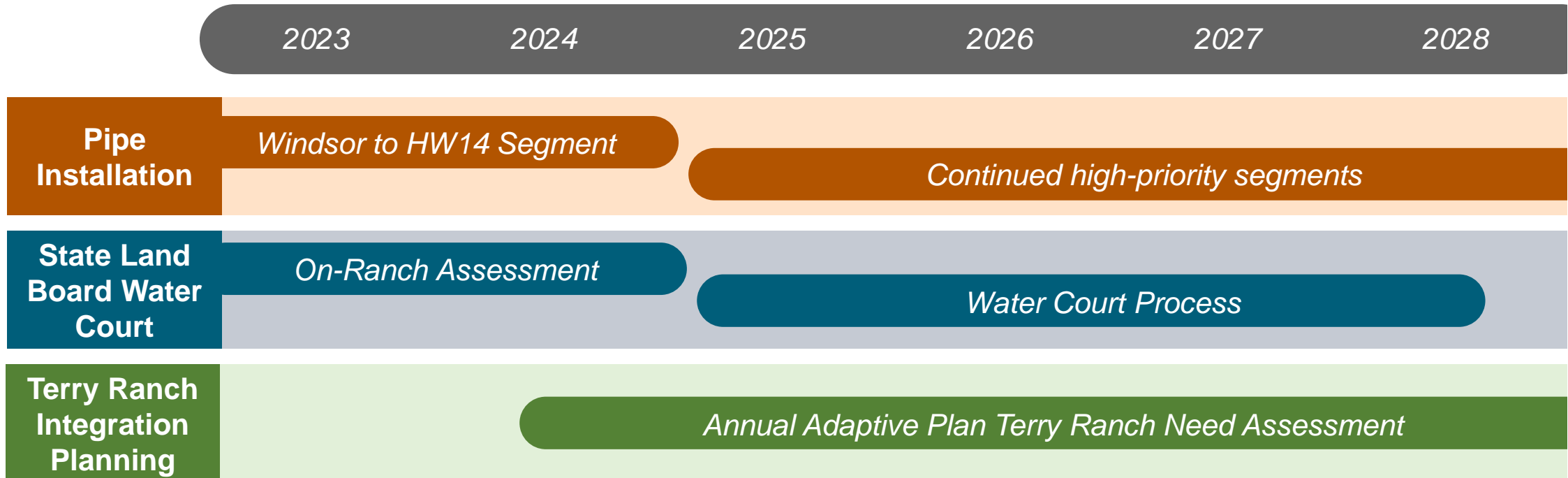


Question 2:

How is Terry Ranch being implemented over the next 5 and 10 years?

5-year Terry Ranch Implementation Summary

- The 5-year implementation plan optimizes the initial \$62.5m escrow from the Wingfoot deal



10-year Terry Ranch Implementation Summary

- The 10-year implementation plan balances the remaining \$62.5m with Terry Ranch need, implementation flexibility, and other organization capital investments
 - Remaining \$62.5m requires a 1-to-1 Greeley match

2023 to 2028

Optimize initial Wingfoot Deal Escrow

2029 to 2033

Balance remaining Wingfoot Deal Escrow with need and other organizational investments

Terry Ranch Implementation Details

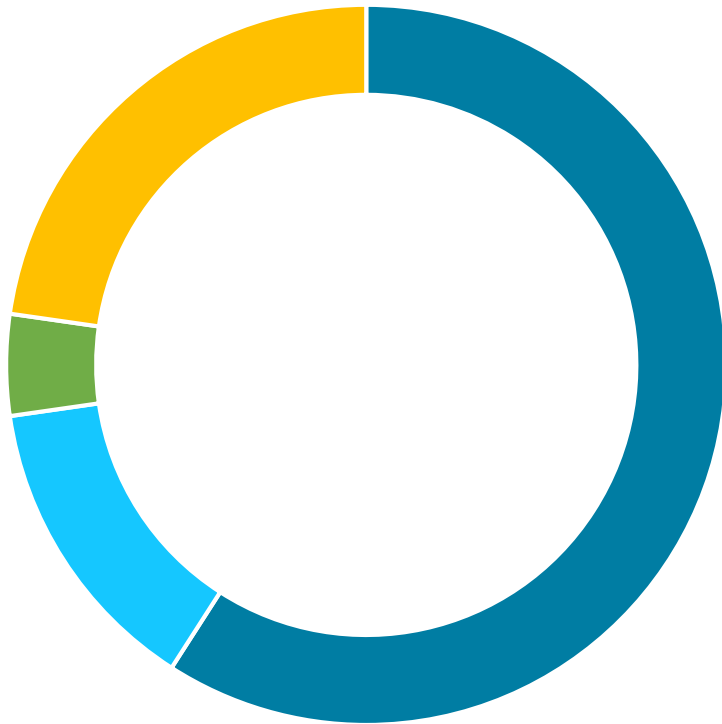
- 5-year Details
 - Completed Progress Updates
 - Budget Update
 - Planned Projects
 - Other important indicators
- 10-year Details
 - 10-year financial outlook
 - Terry Ranch Integration Study Update

Question 3:

What is the status of Greeley's water rights?

Water Right Acquisition/Change Status

Existing Water Rights Portfolio Status



■ Available For Use ■ Long-Term Leases ■ In-Progress ■ Unchanged

Graphic summarizing recent acquisitions, what is remaining in Greeley’s acquisition strategy, and characterization of the priority of remaining water rights.

Preliminary Numbers Subject to Change

Water Right Acquisition/Change Status

- Performance of existing acquisition strategy
 - Existing system resiliency
- Change case outcome updates
 - Will future yields be in line with what was assumed
- Water rights landscape update
 - Price changes, major acquisitions, news, etc.

Water Rights Change and Acquisition Plan

- Continue change case process for existing water rights as quickly as possible
- Prioritize high-value water rights that can be integrated into Terry Ranch
- Evaluate other water rights opportunities as needed
- Focus financial resources on Terry Ranch implementation and other organizational needs

Question 4:

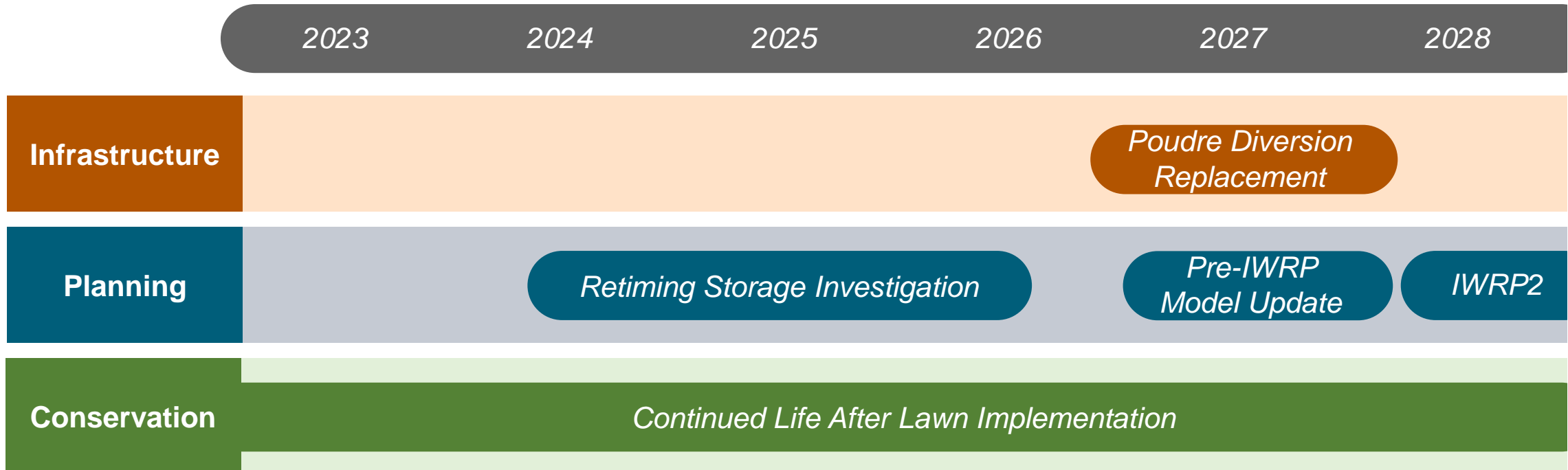
Are there other water resources opportunities to consider?

Additional Water Resources Opportunities

- Update on on-going opportunities
 - Non-potable system, conservation, infrastructure projects
- Opportunities being evaluated
 - Retiming storage
- Regional Project Updates
- Other opportunities on the radar

Other Water Resources Opportunities Plan





















- Major efforts over the next 5 years are presented below



























Question 5:

Has there been a change in the major trends that could trigger a study?

























IWRP Planning Scenarios

Planning Scenario Name	Climate Warming	CO River Basin Risk Impacts	Water Supply System Yields	Demands
Unbearable (Hot + High Growth)		 High		
Stressed (Hot + Moderate Growth)		 Moderate		
Continued Trends (Warmer + Growth)		 Moderate		
Optimistic (Warm + Low Growth)		 Low		
No Climate Change (Growth Only)		 Low		

IWRP Planning Scenarios

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Optimistic (Warm + Low Growth)		 Low		
No Climate Change (Growth Only)		 Low		
Recent Trends		 Low		

IWRP Planning Scenarios

Planning Scenario Name	Climate Warming	CO River Basin Risk Impacts	Water Supply System Yields	Demands
Unbearable (Hot + High Growth)		 High		
Stressed (Hot + Moderate Growth)		 Moderate		
Continued Trends (Warmer + Growth)		 Moderate		
Optimistic (Warm + Low Growth)		 Low		
No Climate Change (Growth Only)		 Low		
Recent Trends		 Low		

Adaptive Plan Update:
Recent trends track within IWRP Planning Scenarios, no re-evaluation required.

Major Trends Greeley is Monitoring

- Colorado River Basin
 - CO River Curtailment
 - Ongoing based negotiations
- State of Colorado
 - State Engineer does something unexpected
- Poudre/Big Thompson River Basin
 - WSSC Change case going bad
- Weld County Issues
 - Water supply crisis of nearby community
- City of Greeley
 - Service area expansion, major new development

Adaptive Plan Summary

Adaptive Plan Summary

1. When does Terry Ranch need to supply water?
 - Until sustained demand growth occurs, Greeley's current water supply system as planned is sufficient to meet demands.
2. How is Terry Ranch being implemented over the next 5 and 10 years?
 - High-priority pipe will be installed and State Land Board non-tributary designation will be achieved.
3. What is the status of Greeley's water rights?
 - Strategic acquisitions continue and change case progression is consistent with schedule.
4. Are there other water resources opportunities to consider?
 - Greeley will investigate options to provide retiming storage for Terry Ranch and monitor other opportunities.
5. Has there been a change in the major trends that could trigger a study?
 - Current and recent trends are in alignment with IWRP Planning Scenarios.



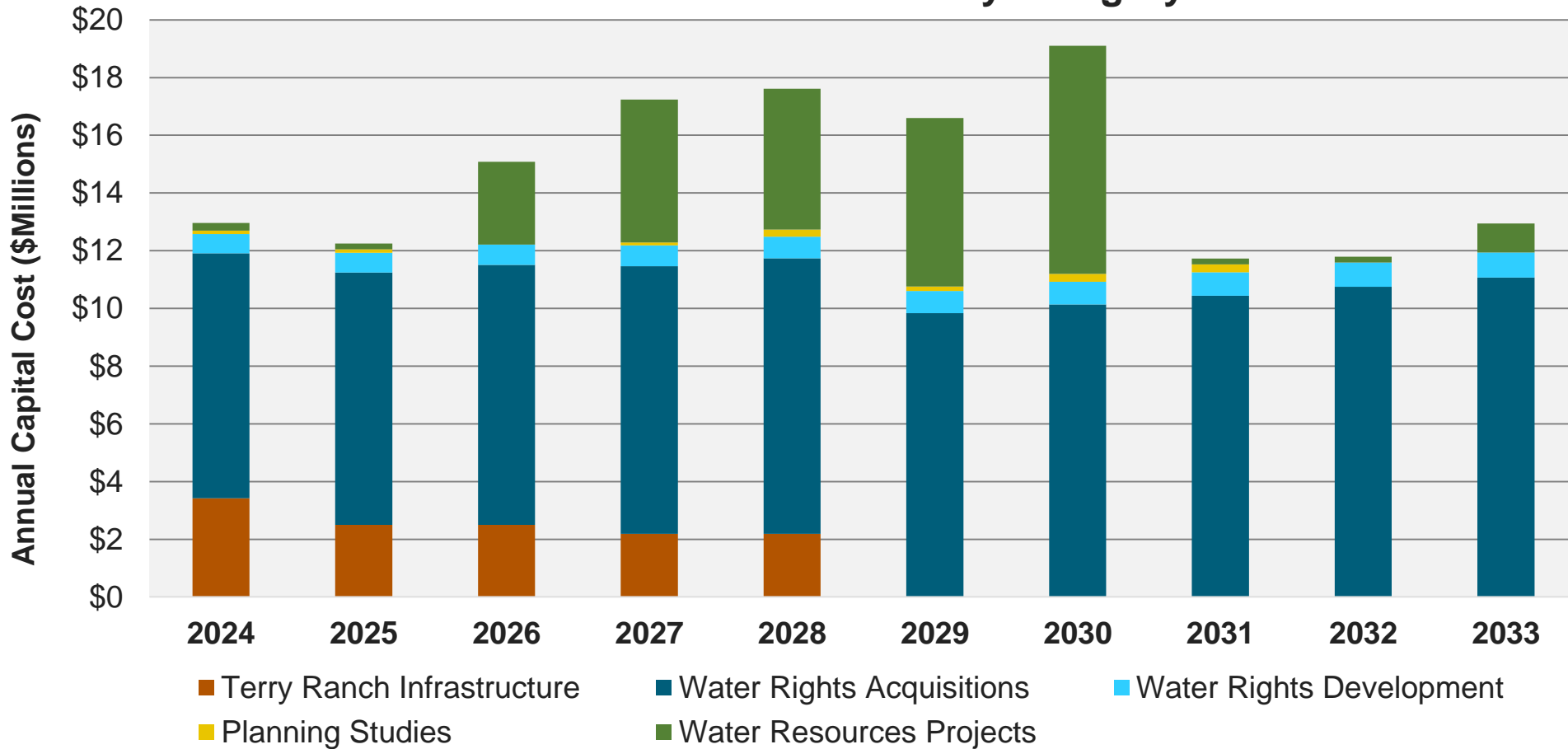
Water Resources 10-year Capital Improvement Plan

Water Resources 10-Year CIP

- Aligns with existing CIP and those developed as part of other master planning efforts
 - 10-yr CIP (2024 – 2033), with 5-year detailed CIP
 - Cost by year by project and by category
- Project categories
 - Terry Ranch Infrastructure Projects
 - Water Right Acquisition
 - Water Rights Development
 - Planning Studies
 - Other Water Resources Projects

Water Resources 10-Year CIP Summary

Water Resources 10-Yr CIP by Category



Preliminary Numbers Subject to Change

Terry Ranch Infrastructure Projects

- Complete Phases I, II, and III of Conveyance Pipeline
 - 20% City match
 - Capture full \$62.5M from Wingfoot Deal
 - Approx. 15 miles of pipeline
 - Phase IV initiated after 2033 (50% match by City)
- Complete State Land Board Wells (2023-2024)
 - \$1.3M currently budgeted
 - Might need to supplement budget

Water Rights Acquisitions

- Water Rights Acquisitions
 - \$8,000,000 per year (with 3% annual escalation)
 - Assumes Greeley continues opportunistic and strategic acquisition
 - Equates to 300 – 1,000 AF consumptive units per year of unchanged agricultural water rights

Water Rights Development

- Water Rights Development – Legal Fees
 - \$350,000 per year (with 3% annual escalation)
 - Based off 2018 to 2022 expenditures
 - Assumes City will consistently work to protect existing water rights and change new water rights
- Water Rights Development – Engineering Fees
 - \$275,000 per year (with 3% annual escalation)
 - Based off 2018 to 2022 expenditures
 - Assumes City will consistently work to protect existing water rights and change new water rights

Planning Studies

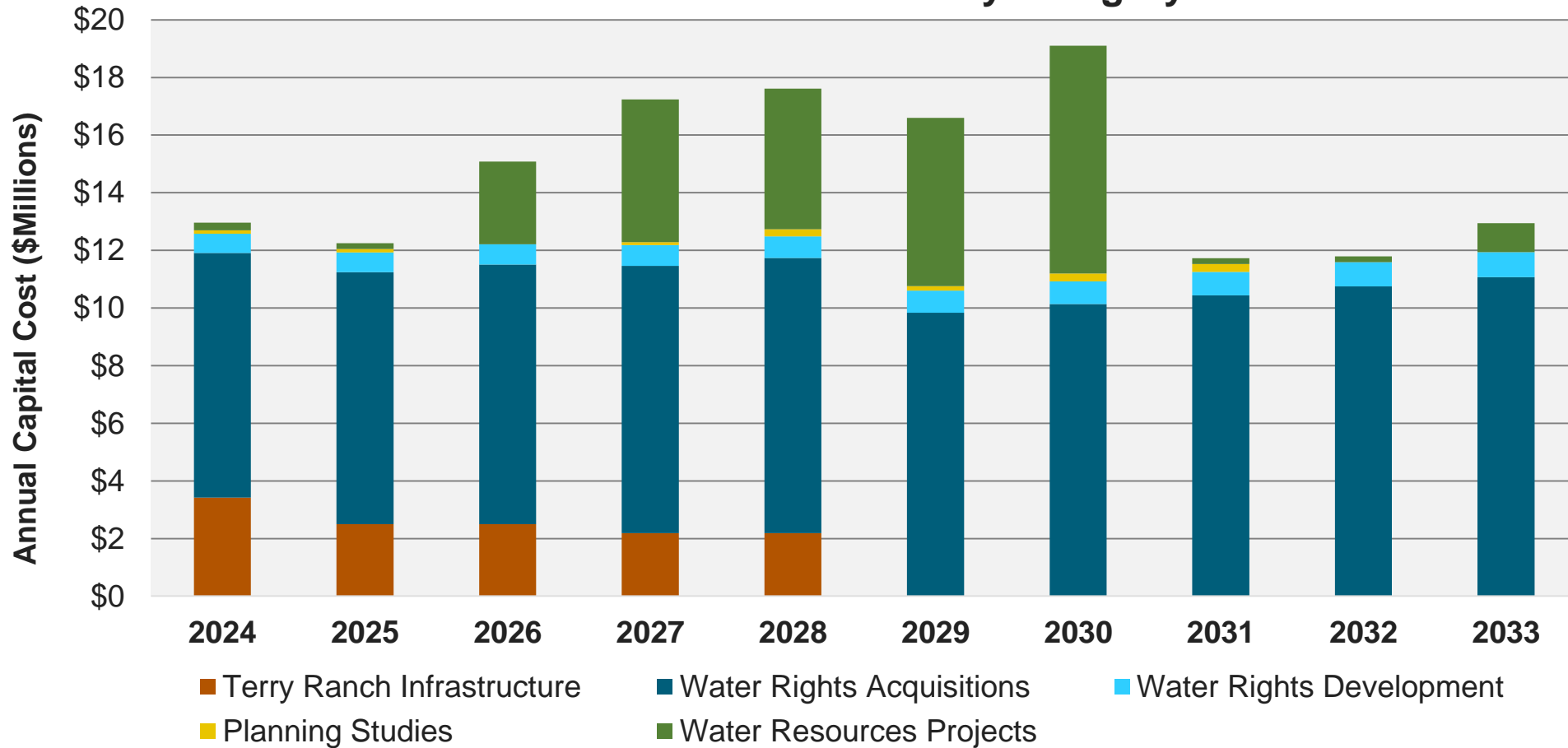
- Storage Retiming Investigation
 - Study needed to better define retiming storage options
 - \$250,000 over 2 years, starting in 2024
- Poudre Basin Model Updates
 - Unlikely to happen until after Halligan ROD
 - Expect cost sharing with model partners (Fort. Collins and Northern Water0
 - \$200,000 over 2 years (Greeley's portion)
- Update to Greeley IWRP
 - In roughly 5 years out
 - \$300,000 over 2 years, starting in 2028
- Terry Ranch Integration Study
 - Refine timing of when water is needed and when to develop on-site infrastructure
 - \$550,000 over 2 years, triggered by Adaptive Plan (budgeted in 2030)

Other Water Resources Projects

- Continued Life After Lawn Program
- Aerial Imagery and Planimetric Data Acquisition
- Infrastructure projects triggered by need:
 - Rehab of Poudre River Diversion Structure
 - Poudre Raw Water Intake Pipeline Expansion
 - Assessment of the Raw Water Pipeline Between Lake Loveland & Boyd
- Water Rights Infrastructure Projects
 - Lower Latham Bypass Structure - Optimization of Water Rights
 - Expansion of Gravel Pit Storage
 - WSSC Return Flow Structures
- Retiming Storage Project Selected by Investigation

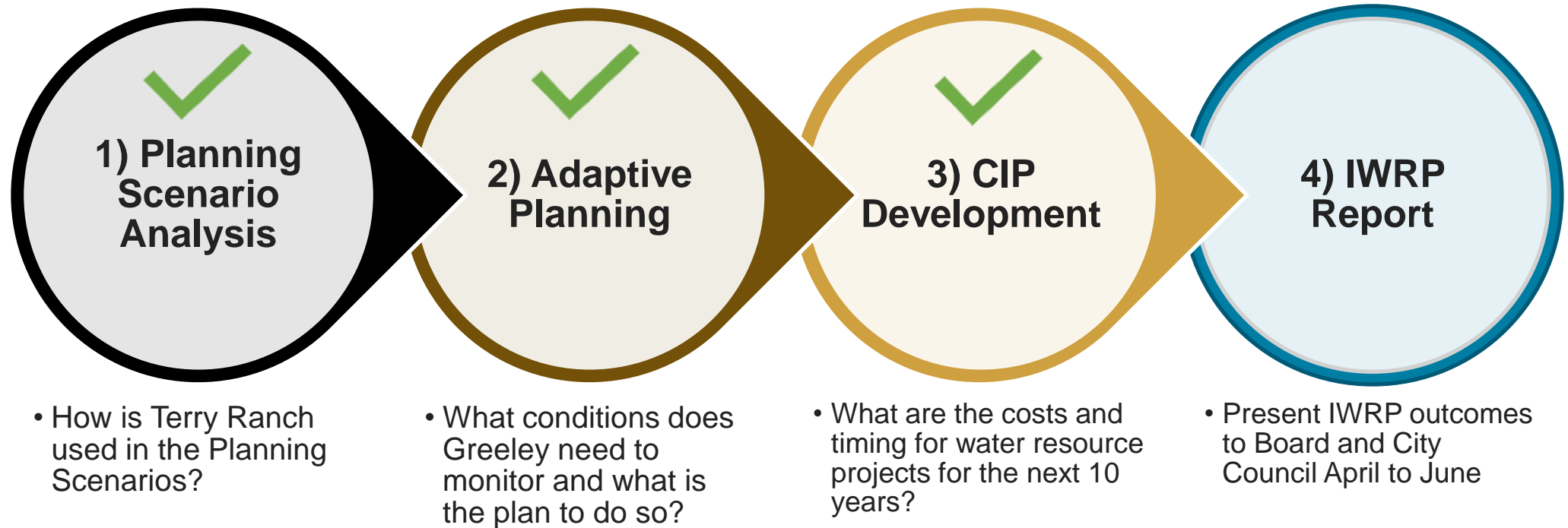
Water Resources 10-Year CIP Summary

Water Resources 10-Yr CIP by Category



Preliminary Numbers Subject to Change

Next Steps





Questions?



Water & Sewer Agenda Summary

Date: March 15, 2023

Key Staff Contact: Virgil Pierce, Rates and Budget Analyst

Title:

2022 Financial Report

Summary:

Report on 2022 Revenue and Expenditures for Water and Sewer Department

Recommended Action:

For information and discussion. No action needed.

Attachments:

1. Memo – 2022 Revenue Report
2. 2022 Revenue Report Appendices
3. 2022 WS Board Financial Report

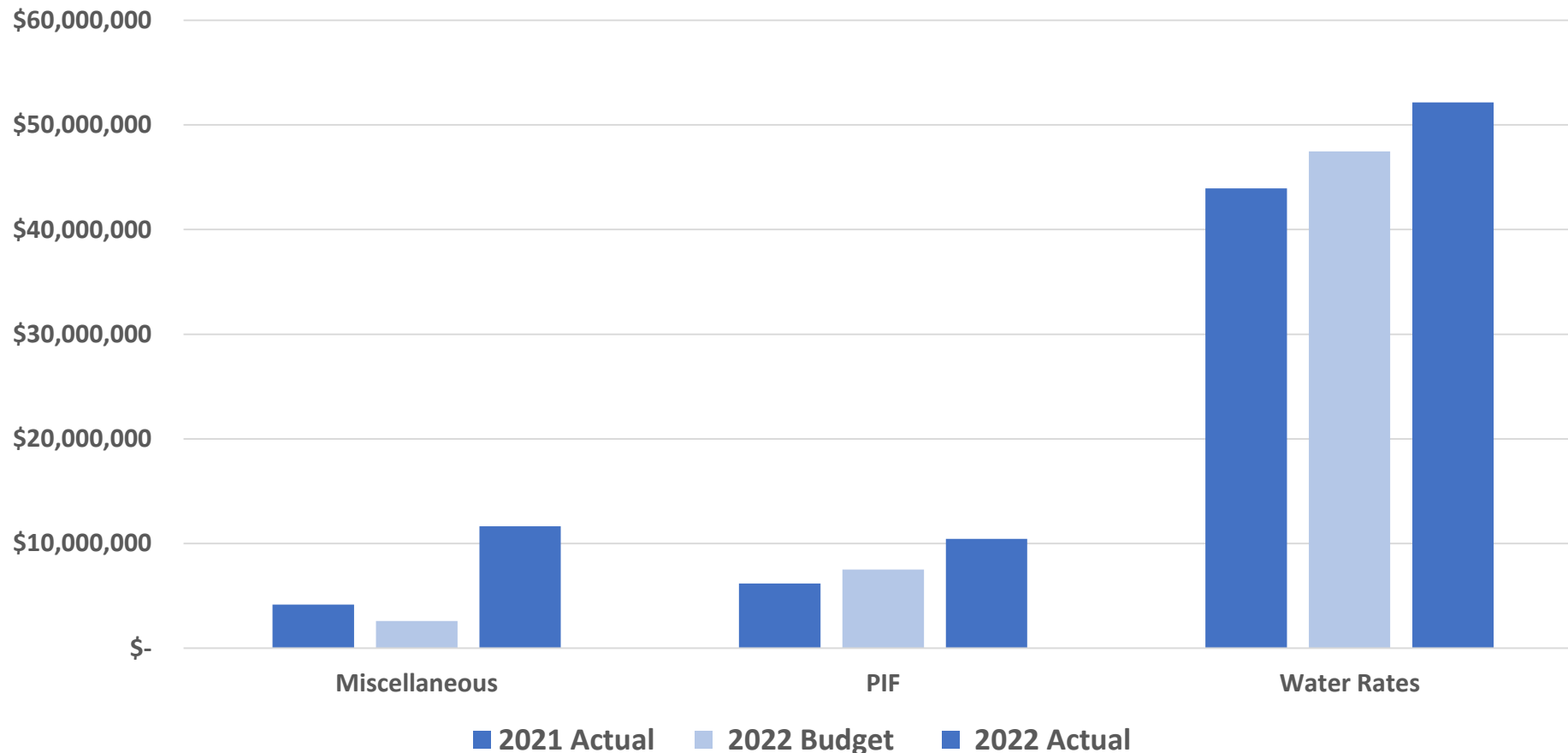
Water and Sewer 2022 Financial Report



March 2023

2022 Water Revenue at a Glance

Water Revenues

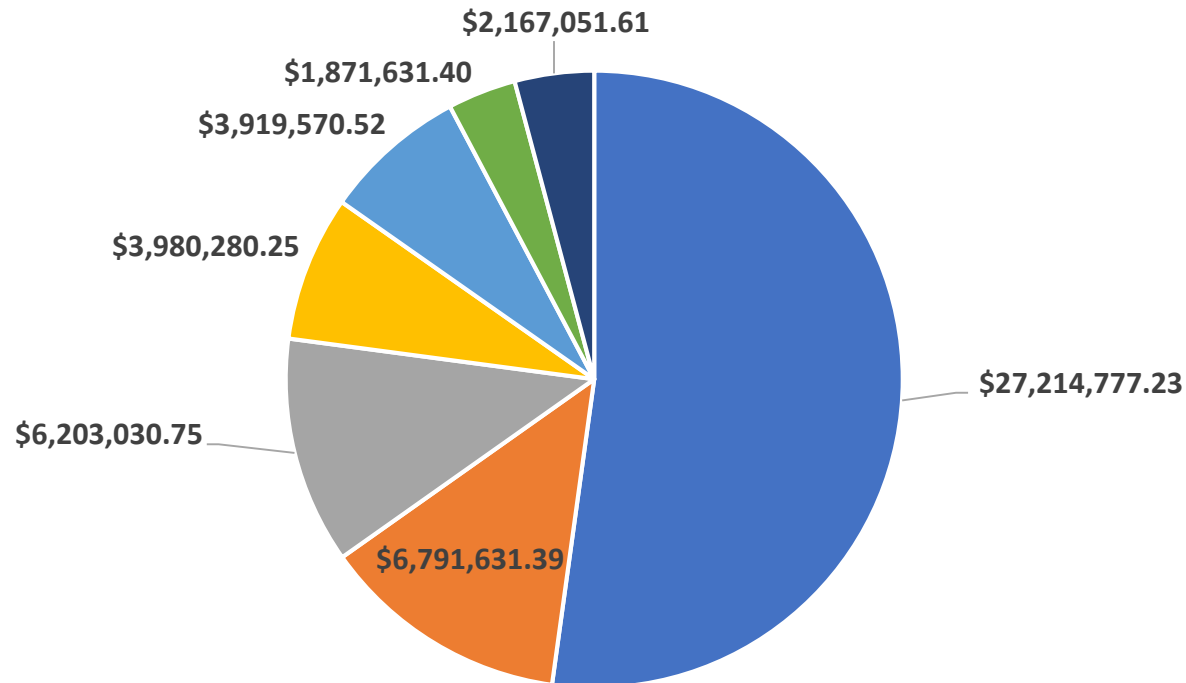


Water Revenue Distribution:

Water Rates – 70%
 Miscellaneous – 16%
 PIF – 14%

Water Rate Customer Class Details

2022 Water Rate Revenue by Customer Class



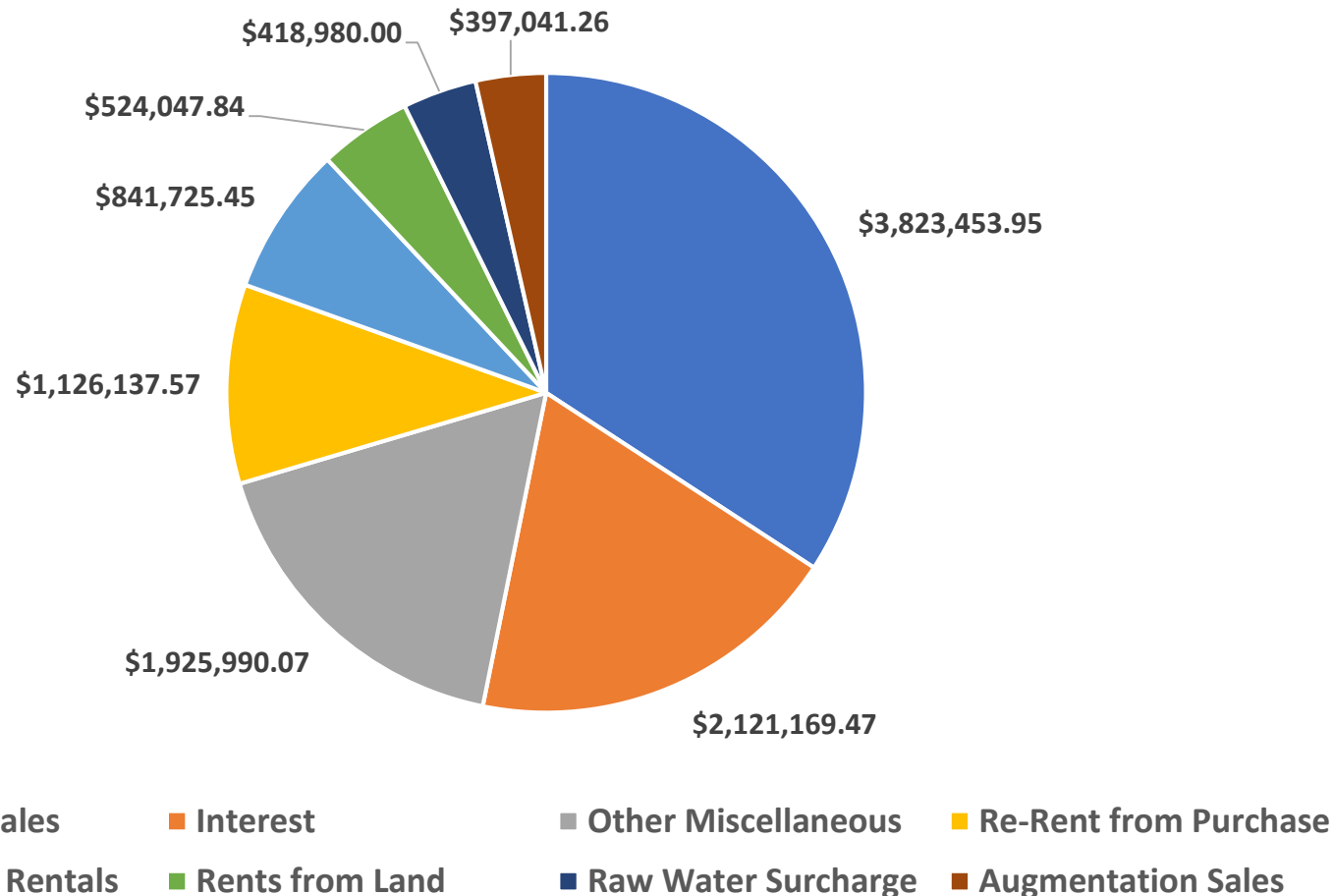
- Inside Residential ■ Inside Commercial ■ Inside Industrial ■ Evans
- Non-Potable ■ Windsor ■ Other Customers

Water Demand in 2022 was 5% higher than 2021.

Combined with approved rate increases rate revenue in 2022 was 19% higher than 2021.

Miscellaneous Revenue

2022 Top 8 Municipal Revenue Categories

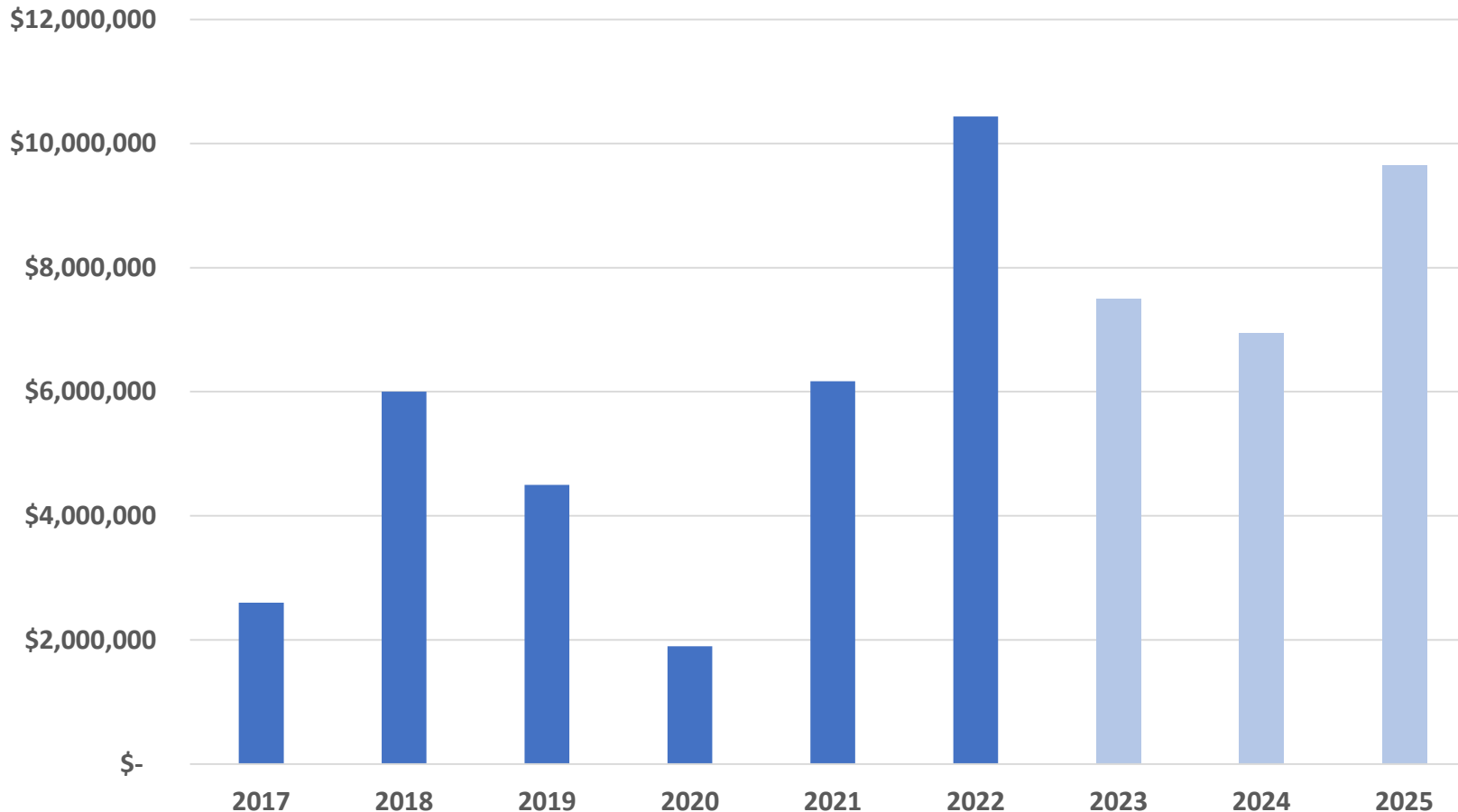


Cash-in-lieu (Raw Water Sales) were higher than predict: Customers not making use of Terry Ranch credits.

Other notable one-time increases here include interest revenue (due to bond proceeds and fund balances); and a \$1.3m Land Sale (Other Miscellaneous).

Water PIF Revenue

Actual and Projected PIF Revenue



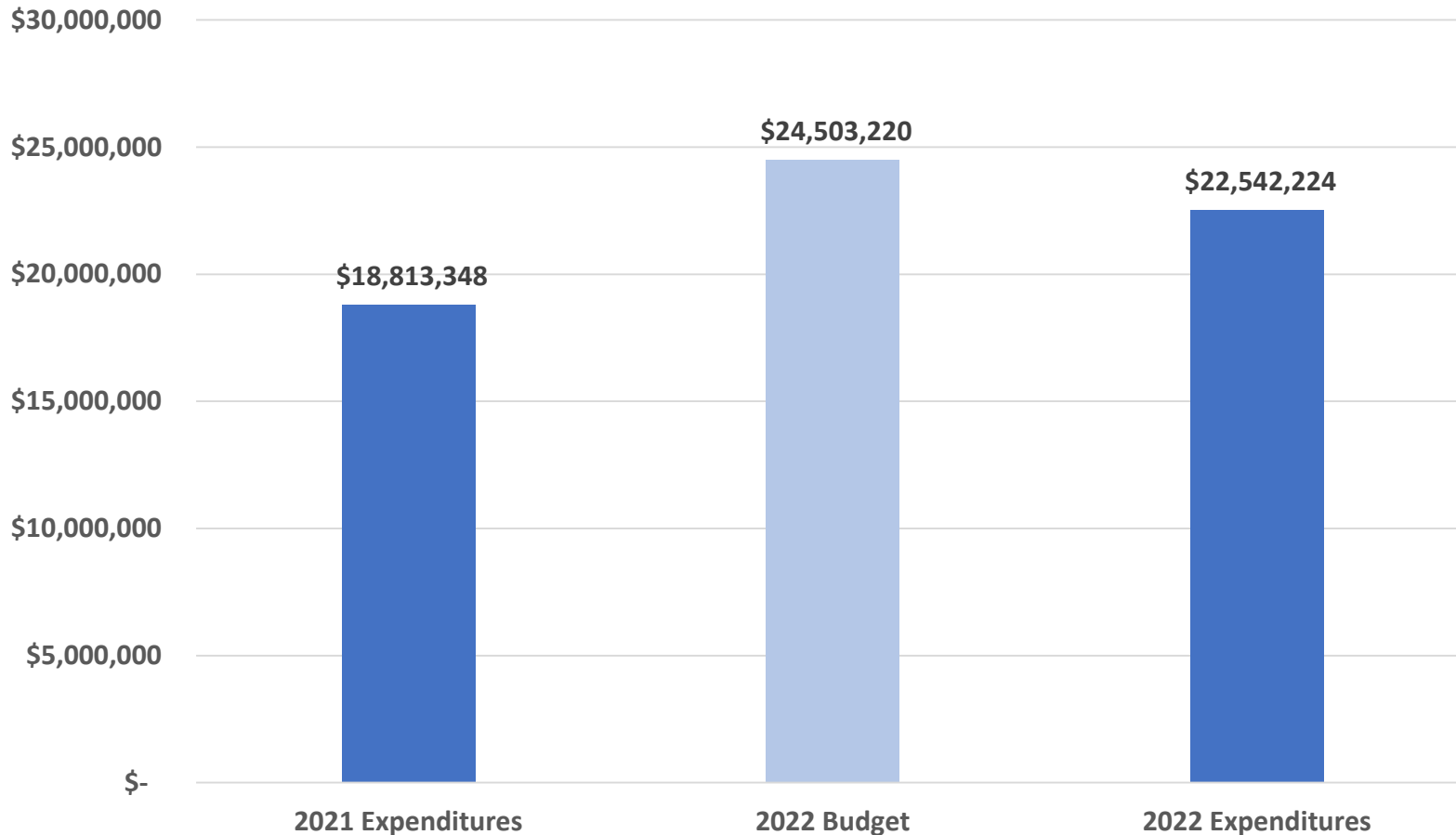
2022 Water PIF surpassed pre-pandemic amounts.

Staff forecast is that 2023 will see a lower, though still substantial PIF collected.

* Lightly shaded bars are forecasted PIF amounts

Water Operating Expenditures

2022 Water Operations Budget and Expenditures

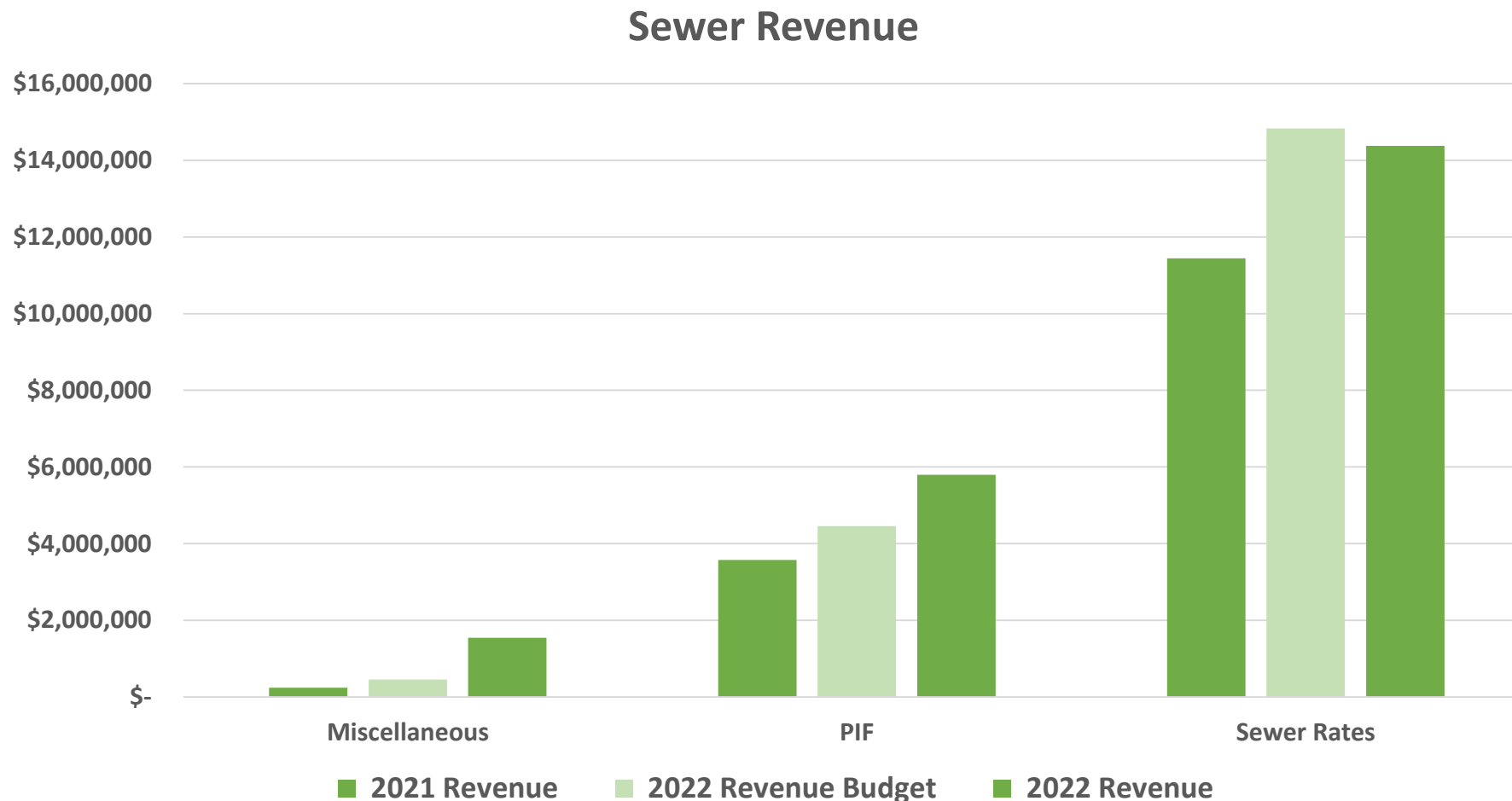


Not included in the water operating budget here is the Cameron Peak Fire Mitigation activities.

2022 Expenditures were 20% higher than 2021 Expenditures* and under the budgeted amount.

Unspent budget arose from vacant positions in 2022.

2022 Sewer Revenue at a Glance

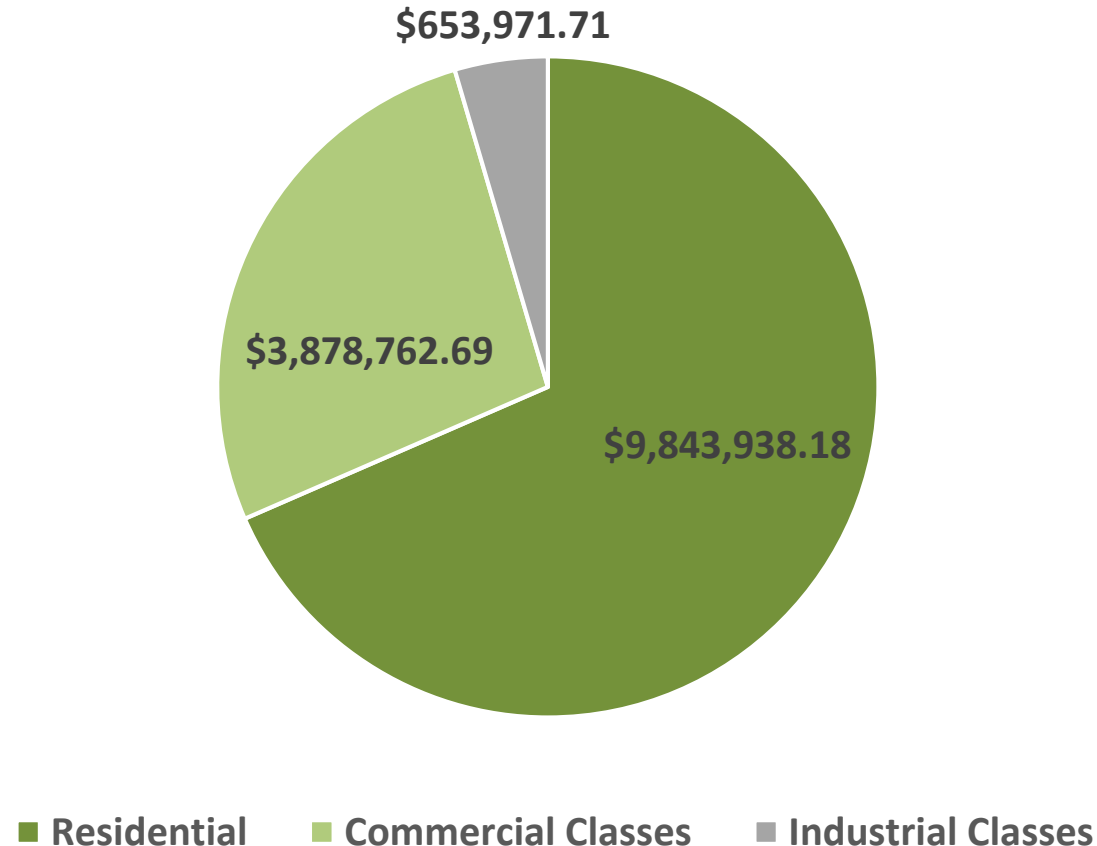


Sewer Revenue Distribution:

Sewer Rates – 66%
 Miscellaneous – 7%
 PIF – 27%

Sewer Rate Customer Class Details

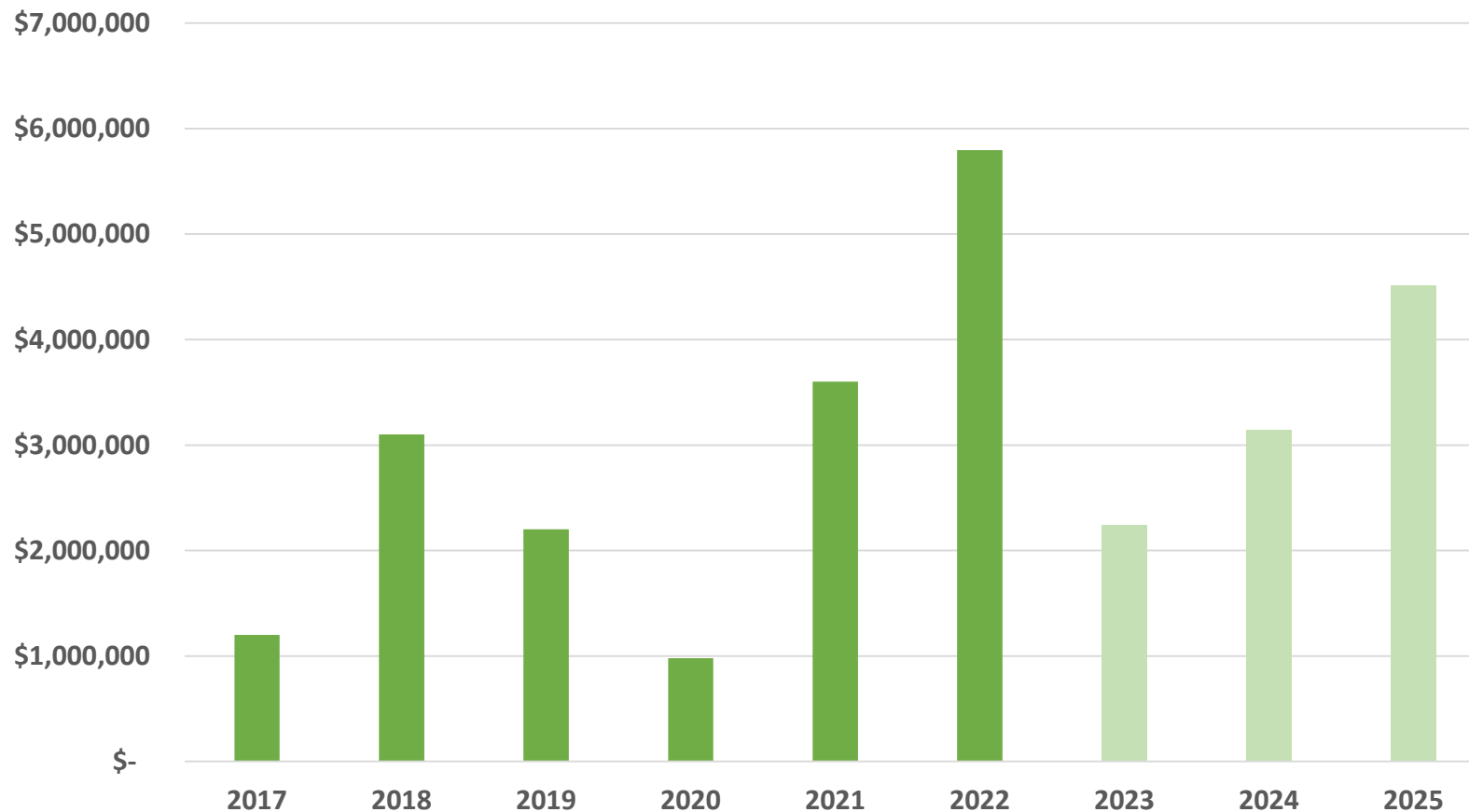
2022 Sewer Rate Revenue Distribution by Class



Residential rate revenue (as well as some other classes) did not meet budgeted targets. However amounts were still above 2021 actual revenue.

Sewer PIF Revenue

Sewer PIF Revenue



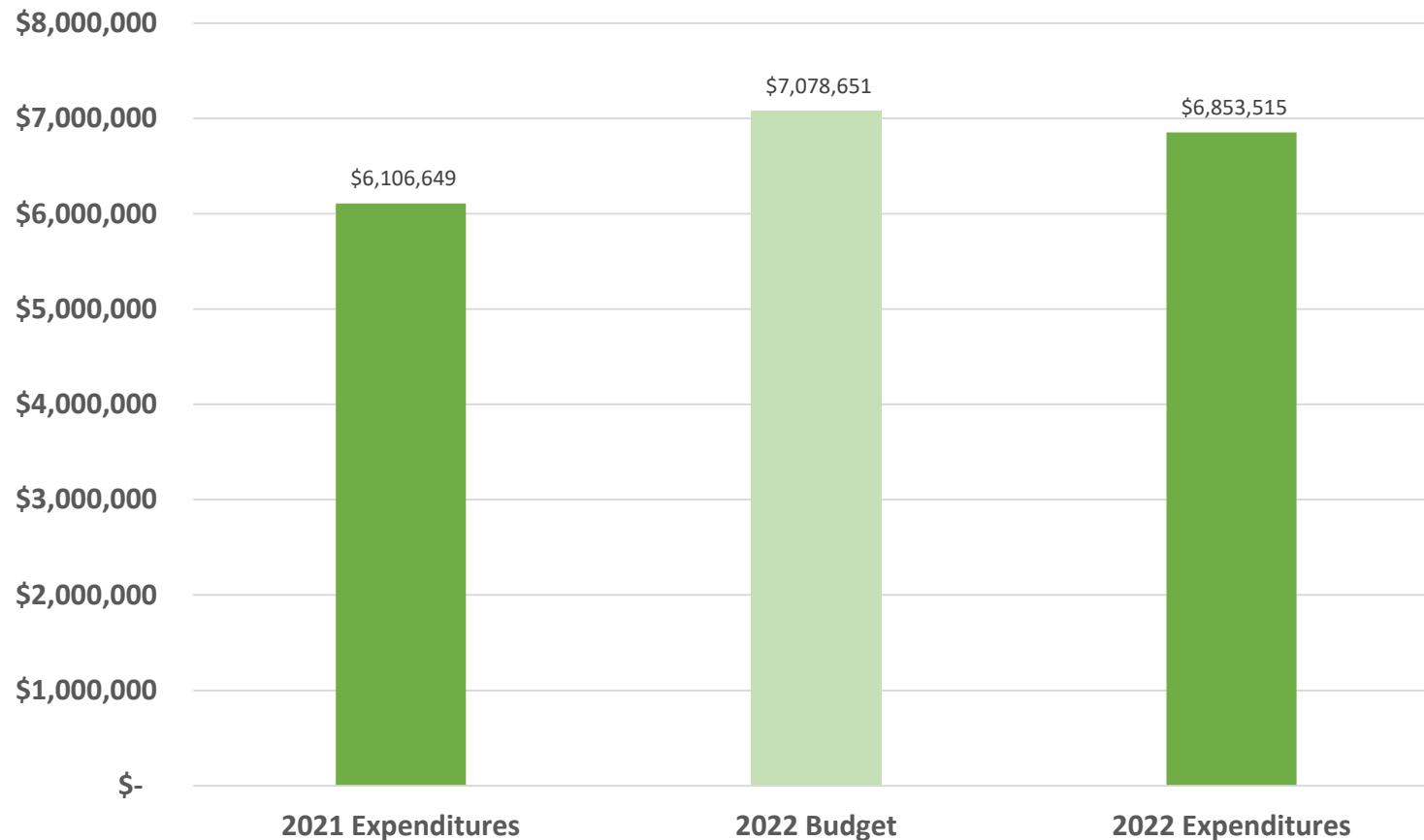
2022 Sewer PIF surpassed pre-pandemic amounts.

Staff forecast is that 2023 will see a lower, though still substantial PIF collected.

* Lightly shaded bars are forecasted PIF amounts

Sewer Operating Expenditures

2022 Sewer Operations Budget and Expenditures



2022 Sewer operating came in much closer to budget than 2022 water operating. The 2022 operating expenditures were 12% higher than the 2021 operating expenditures.



Questions?



MEMORANDUM

TO: Water and Sewer Board
FROM: Virgil Pierce, Rates and Budget Analyst
DATE: March 8, 2023
RE: 2022 Year-End Financial Report

Overview

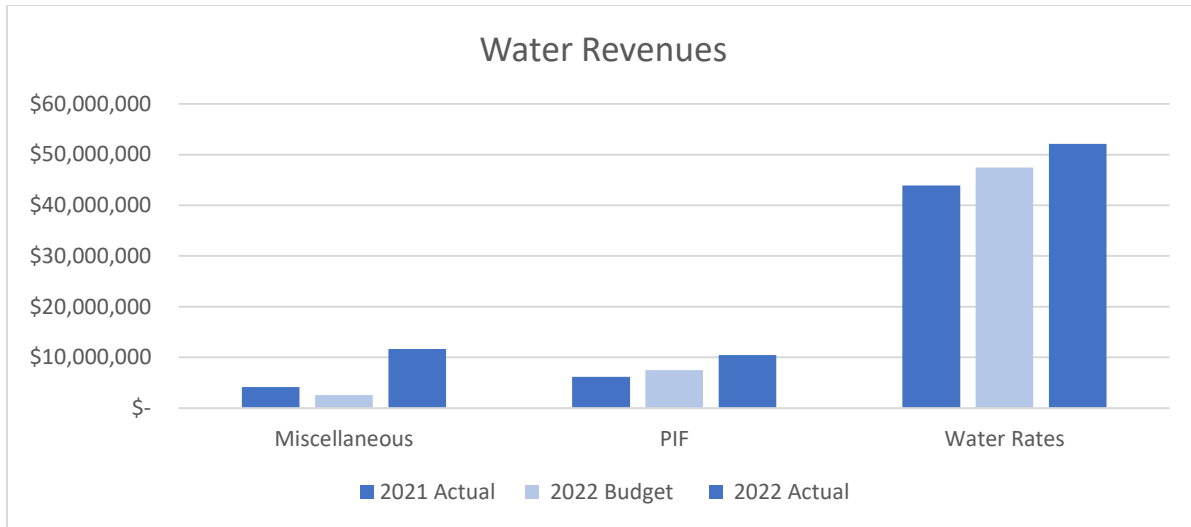
The year-end 2022 water and sewer revenue report is enclosed with all additional detail available in the attached appendices. Water rate revenues ended up meeting or exceeding budgeted numbers, due to revenue being higher than expected in nearly every customer class. Conversely, sewer rate revenues were 3% shy of budgeted targets with small drops in planned revenue noted across most customer classes. Plant investment fees greatly exceeded budgets and customers opted for cash-in-lieu payments for water dedications rather than Terry Ranch credits. Miscellaneous revenues for 2022 exceeded forecasts significantly in both water and sewer. Interest revenue is now included in this report and made a significant contribution in 2022 owing to large cash balances with the bond proceeds and fund balances. Water miscellaneous revenue also benefited from a capital asset sale in 2022.

The department continued to receive significant federal and state funding for Cameron Peak Fire Mitigation efforts. These numbers are reported separately in the appendices as they do not reflect anticipated long term operational expenses or revenues, and the department is functioning as a pass-through.

Water Revenues

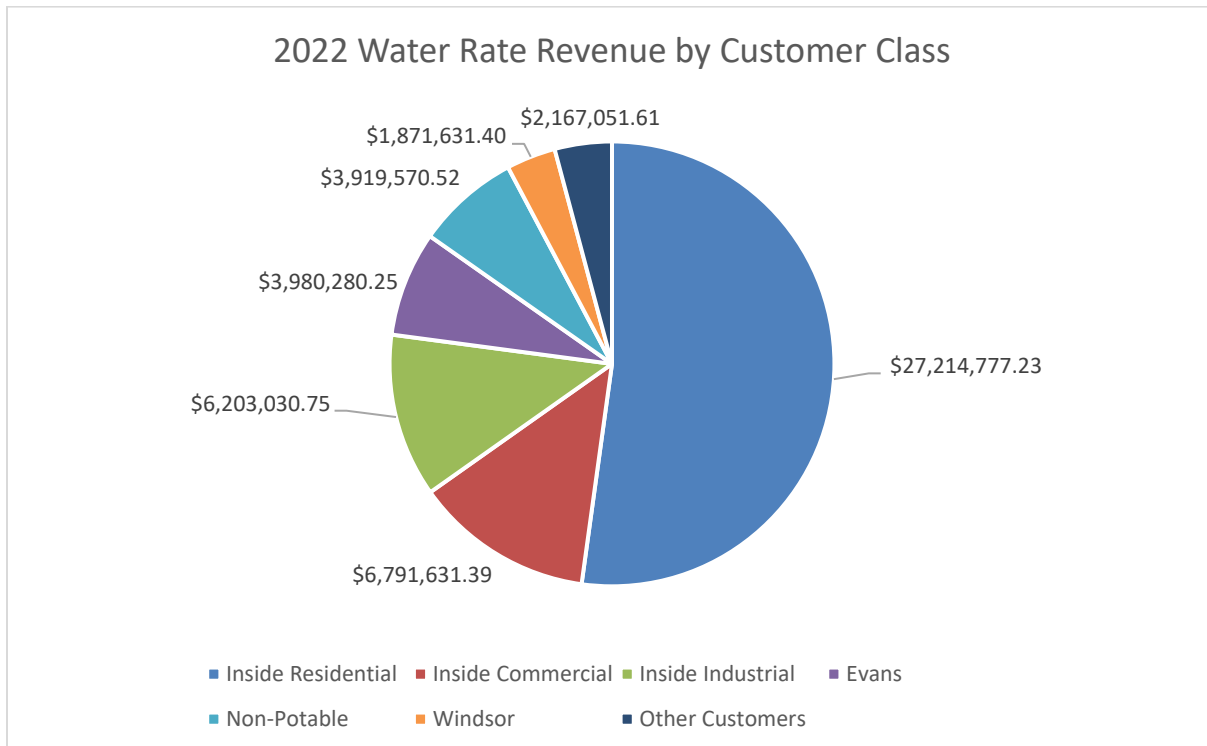
Water revenues can be grouped into three main categories: Water Rates which made up roughly 70% of total 2022 water revenue, Miscellaneous Revenue like water rentals and raw water sales which made up 16% of total water revenue, and Plant Investment Fees (PIFs) which made up 14% of total water revenue. 2022 year-end revenue compared to budget and 2021 year-end revenue for each of these categories can be seen in the chart below.

Both miscellaneous revenues and Plant Investment Fee revenue were well above budget and rate revenue was slightly above budget. The net total for water revenues compared to budgeted targets was + \$16.2M. We also note the increases of 2022 revenues over 2021 revenues. Water Rate revenue gained 19% over the predicted 8% increase in the budget.



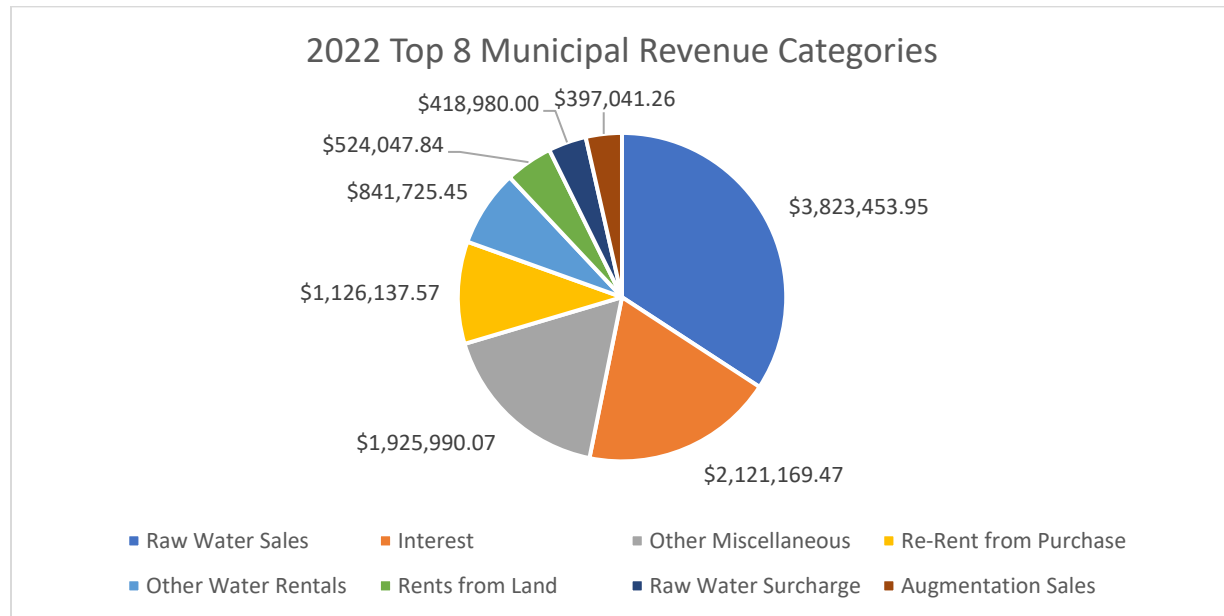
Water Rate Revenue Detail:

The following charts shows the share of the \$52M in water rate revenue made up by each class. System wide, water use was up about 5% from 2021, indicating the importance weather plays in water rate revenue. Non-Potable water is making up a much more significant portion of water rates collected now accounting for 8% of water rate revenue. Residential customers make up more than half of the collected rate revenue.



Miscellaneous Water Revenue Detail:

Miscellaneous revenues are budgeted conservatively due to their variable nature and the department will not be able to count on the high amounts gathered in 2022. In total, the miscellaneous revenue category was 169% over 2021 miscellaneous revenue (\$8.6M over budgeted targets). The Chart below illustrates the proportion of the miscellaneous revenue collected from various sources. A full listing of miscellaneous revenues is available in Appendix B.



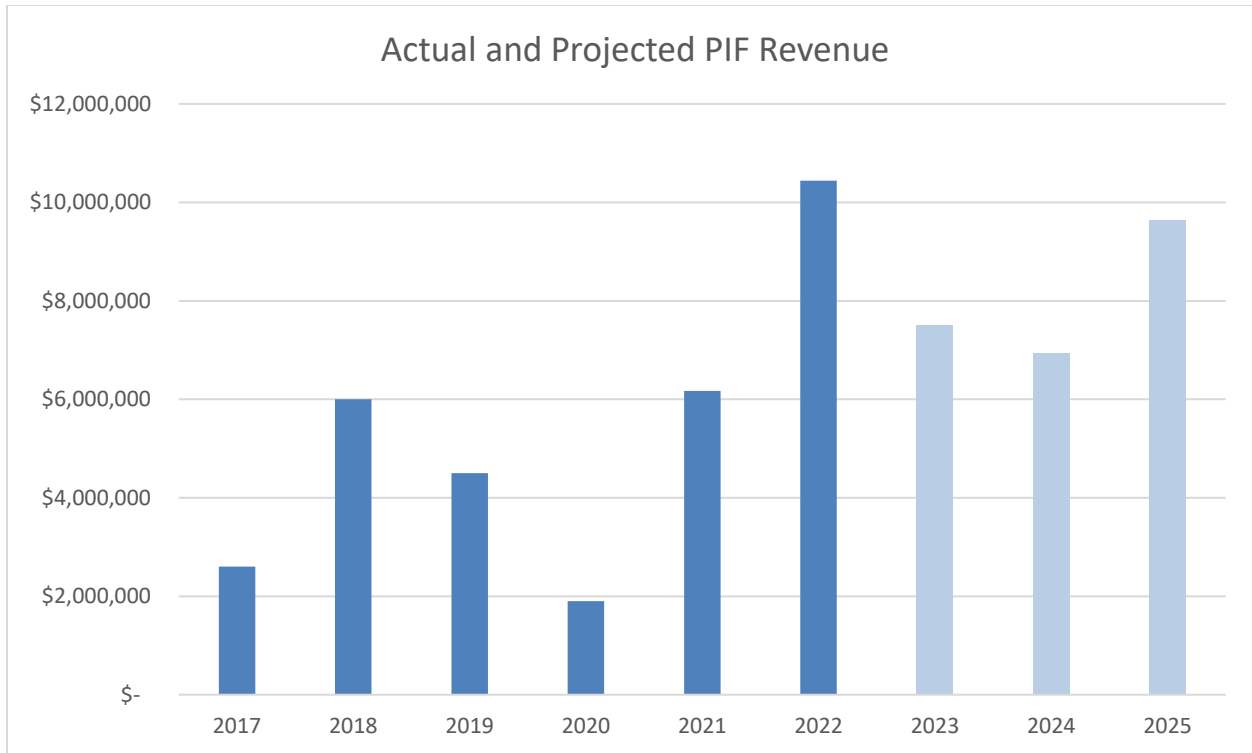
Notable accounts with dramatic increases include interest revenue, which was high due to the bond proceeds and high cash balances held in 2022, and other miscellaneous which includes a \$1.3m land sale in 2022.

Cash-in-Lieu of Raw Water Revenue Detail:

Cash-in-lieu revenue, counted in the miscellaneous group and labeled in the chart above as “Raw Water Sales” was predicted to be minimally used going forward, and in fact was budgeted at \$0 in 2022. Customers elected to use cash-in-lieu payments instead of purchasing Terry Ranch credits as forecast. The Promontory Development agreement also gave developers a favorable price for water dedication and contributed to this revenue. Water staff will continue to monitor the water dedication contributions and adjust future forecasts as appropriate.

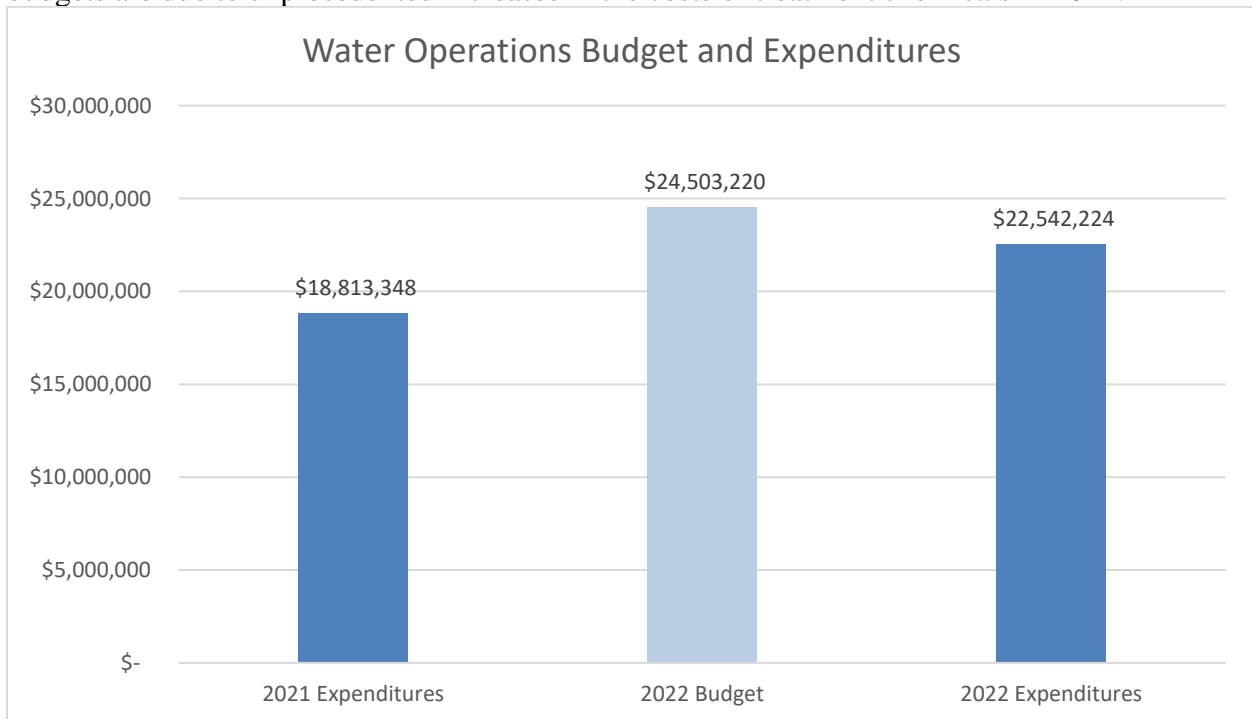
Water Plant Investment Fee Revenue Detail:

2022 Plant Investment Fee (PIF) revenue surpassed the pre-COVID values collected, representing several large development projects in 2022. The chart below shows actual PIF revenue for the past five years with a look ahead at modeled figures. The PIF revenue estimates for 2023 on will be re-evaluated during the modeling process this spring. Not included in the chart is an expected payment of \$11M by one of the municipal customers for increasing their usage cap per our intergovernmental agreement which will further supplement the water construction fund for 2023.



Water Operating Expenditures

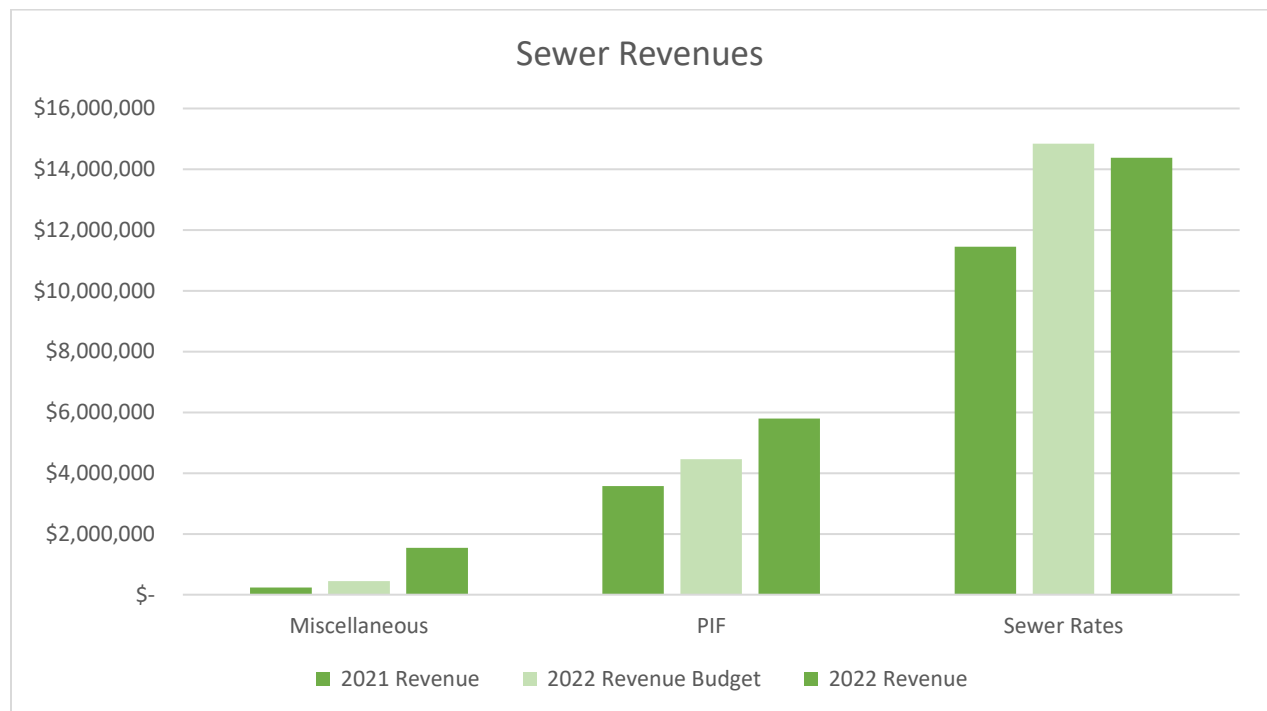
The water operating budget for 2022 was \$24.5M. Expenditures were at \$22.5M, with the differences being largely felt in unspent salary budget from vacant positions. Details of expenditures can be found in Appendix D. Overages noted in treatment plant and transmission budgets are due to unprecedented increases in the costs of treatment chemicals in 2022.



Sewer Revenues

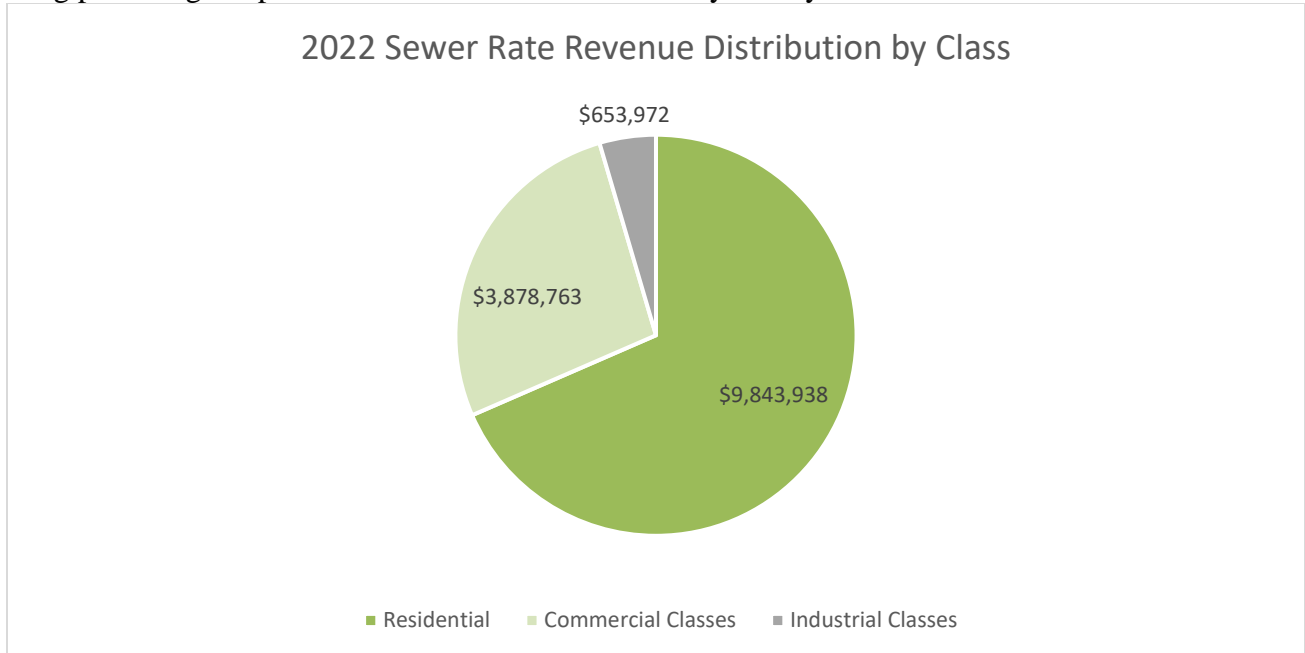
Like water revenues, sewer revenues can be grouped into the same three categories which comprise similar percentage shares of total revenue. Sewer rates made up 66% of total 2022 revenue while miscellaneous made up 7% and plant investment fees made up 27%. 2022 year-end revenue compared to budget and 2021 revenue are compared below. Increases from the 2021 revenue are noted for both the budget targets and the 2022 revenues.

Unlike on the water side, sewer production is not as impacted by weather. In total, sewer revenues exceeded budgeted revenue by nearly \$2M, primarily because plant investment fees and miscellaneous revenues exceeded expectations. Sewer rate revenue collected came in slightly under budget targets.



Sewer Rate Revenue Detail:

The following chart gives the distribution of sewer rate revenues among the customer classes. Residential customers make up a larger proportion of sewer rate revenue than for water rates. We also note that because the industrial classes are relatively small, small changes in their rates have a big percentage impact on the revenue collected from year to year.

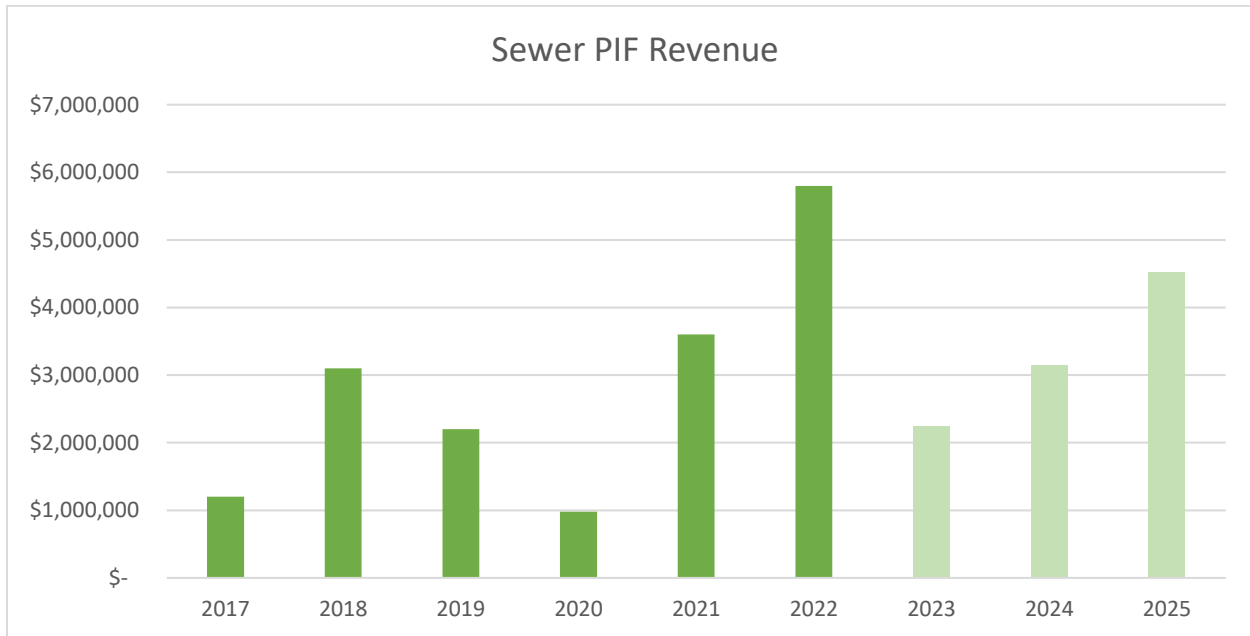


Miscellaneous Sewer Revenue Detail:

Like on the water side, miscellaneous sewer revenues are budgeted conservatively. Full detail on miscellaneous sewer revenues is available in Appendix C. As with water, the sewer department benefited from a surplus of cash from bond proceeds and fund balances in 2022 leading to a high interest revenue.

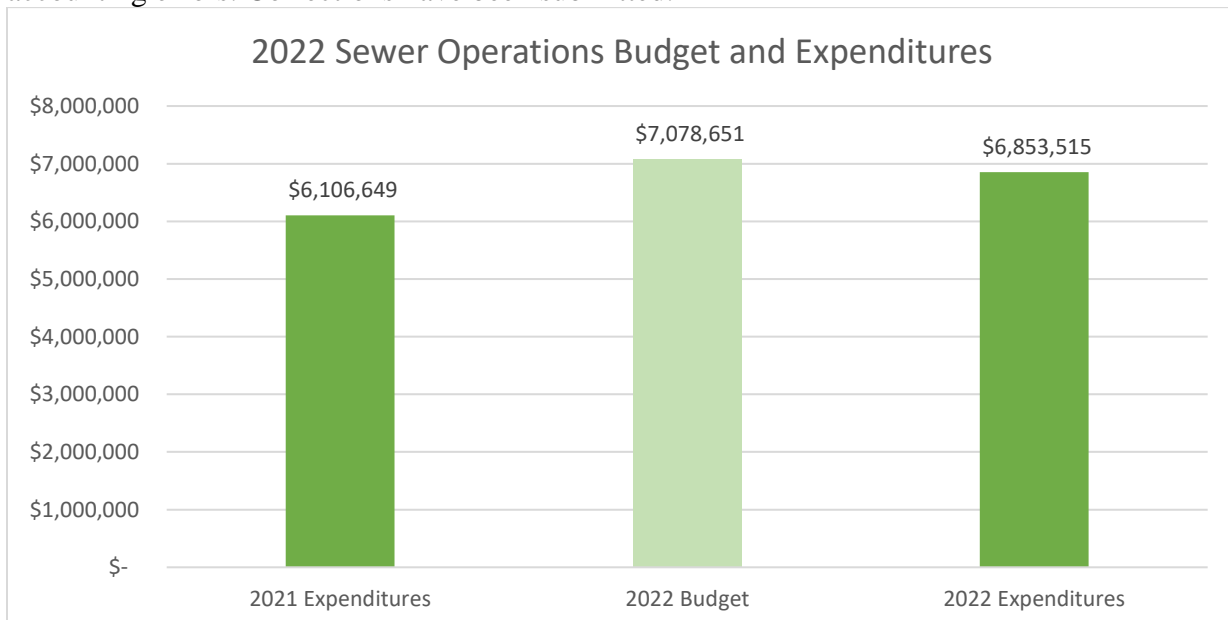
Sewer Plant Investment Fee Revenue Detail:

Sewer PIF revenue was 66% above the 2022 budgeted target. As with water PIF revenue, we have seen an increase to above pre-pandemic amounts for this, however the forecast is that PIF revenue in 2023 will return to lower values as current development completes. The forecast for the next three years is included.



Sewer Operating Expenditures

The sewer departments operating budgeted expenditures are detailed in Appendix E. The following chart compares the 2021 expenditures, 2022 budget, and 2022 expenditures. 2022 Expenditures for sewer operating were 10% higher than 2021 expenditures, and under the 2022 budget. We note some continued overages in the individual units of the wastewater treatment plant due to accounting errors. Corrections have been submitted.



	2022 Actual Water Demand v Modeled Demand							2022 Water Demand v 2021		
	% Total	Water Use	Taps	Use/Tap	Modeled Use/Tap	Modeled Use (Kgal)	% Change Total Use v Modeled	Kgal Change v 2021	% Change v 2021	
	Water Use	(Kgal)								
Inside Residential	35%	2,958,998	24,125	123	122	2,880,179	3%	86,587	3%	
Inside Commercial	12%	1,044,022	1,871	558	585	1,125,465	-7%	60,192	6%	
Inside Multi-Family	12%	1,045,099	2,296	455	460	1,045,542	0%	29,823	3%	
Industrial User	8%	671,458	3	223,819	229,493	688,480	-2%	(24,686)	-4%	
Industrial User	9%	715,795	3	238,598	250,000	750,000	-5%	(7,074)	-1%	
Public Uses	5%	381,507	290	1,316	1,350	309,258	23%	67,559	22%	
Inside-City Sub-Total:	81%	6,816,879	28,588			6,798,924	+ 0%	212,401	+ 3%	▲
Evans	10%	845,996	14	60,428	59,670	832,038	2%	22,013	3%	
Windsor	4%	373,386	3	124,462	69,000	206,172	81%	177,701	91%	
Outside Industrial User	2%	148,329	1	148,329	165,000	164,340	-10%	(24,703)	-14%	
Milliken	1%	108,987	1	108,987	105,000	104,580	4%	3,461	3%	
Outside Residential	0%	38,938	469	83	95	44,566	-13%	(4,024)	-9%	
Ag-Special Contract	0%	28,769	56	514	500	27,390	5%	1,292	5%	
Outside Commercial	0%	13,237	111	119	105	11,922	11%	1,293	11%	
Outside Multi-Family	0%	4,159	18	231	250	4,731	-12%	(81)	-2%	
Outside-City Sub-Total:	19%	1,561,801	673			1,395,739	+ 12%	176,952	+ 13%	▲
Total Water Demand:		8,378,680	29,261			8,194,663	+ 2%	389,353	+ 5%	▲

	2022 Water Revenues v Budget				2022 Revenues v 2021	
	% of	\$ Revenue	\$ Budget	% Change v Budget	\$ Change v 2021	% Change v 2021
	Total Rev					
Inside Residential	36.5%	27,214,777	26,936,923	1%	1,964,205	8%
Inside Commercial	9.1%	6,791,631	6,579,540	3%	1,088,801	19%
Inside Industrial	8.3%	6,203,031	6,003,465	3%	867,794	16%
City of Evans	5.3%	3,980,280	3,910,371	2%	319,773	9%
Town of Windsor	2.5%	1,871,631	1,031,446	81%	943,894	102%
Non-Potable	5.3%	3,919,571	699,999	460%	3,134,241	399%
Outside Residential	0.8%	607,144	681,840	(11%)	6,011	1%
Town of Milliken	0.9%	659,125	594,832	11%	(54,252)	(8%)
Outside Industrial User	0.8%	566,359	652,286	(13%)	(66,245)	(10%)
Ag-Special Contract	0.2%	157,487	185,624	(15%)	1,353	1%
Outside Commercial	0.2%	176,936	183,076	(3%)	15,013	9%
Rate Revenue Sub-Total:	70%	52,147,973	47,459,402	+ 10% ▲	8,220,589	+ 19% ▲
Re-Rent From Purchase	1.5%	1,126,138	532,995	111%	402,287	56%
Raw Water Sales	5.1%	3,823,454	-		2,238,315	141%
Other Water Rentals	1.1%	841,725	400,000	110%	110,857	15%
Raw Water Surcharge	0.6%	418,980	350,000	20%	320,226	324%
Augmentation Sales	0.5%	397,041	150,000	165%	113,926	40%
Rents From Equipment	0.4%	263,433	100,000	163%	62,967	31%
Sales To Outside Agencies	0.0%	19,210	75,000	(74%)	(58,910)	(75%)
Royalties	0.2%	160,786	40,000		52,627	49%
Rents From Land	0.7%	524,048	60,000	773%	366,059	232%
Meter Sales	0.5%	341,808	100,000	242%	140,429	70%
Other Miscellaneous	2.6%	1,925,990	395,000	388%	1,925,990	
Interest	2.8%	2,121,169	269,090	688%	2,121,169	
Turn On Charges	0.0%	30,375	23,668	28%	25,178	484%
Misc Revenue Sub-Total:	16%	11,994,158	2,495,753	+ 381% ▲	7,821,121	+ 187% ▲
Development Revenue:	14.0%	10,437,977	7,501,847	39%	4,267,287	69%
Total Water Revenues:		74,580,108	57,457,002	+ 30% ▲	20,308,997	+ 37% ▲

Year-End 2022 Water & Sewer Finance Report

Appendix C: Sewer Revenues

Prepared March 2023

	2022 Sewer Revenues v Budget				2022 Revenues v 2021	
	% of Total Rev	\$ Revenue	\$ Budget	% Change v Budget	\$ Change v 2021	% Change v 2021
Residential	45.5%	9,843,938	10,545,365	(7%)	1,595,046	19%
Commercial I (Non-Food Svs)	8.5%	1,829,356	1,549,688	18%	636,351	53%
Commercial II (Bars)	3.9%	849,873	843,824	1%	184,744	28%
Commercial III (Restaurants)	4.4%	947,836	1,010,255	(6%)	262,966	38%
Commercial IV (Markets)	1.0%	223,315	273,930	(18%)	73,857	49%
Commercial V (Mfg)	0.1%	28,382	14,497	96%	10,842	62%
Ind Sic 2013 (Food Mfg)	0.9%	198,452	211,747	(6%)	(49,615)	(20%)
Ind Sic 7218 (Ind Laundries)	0.6%	129,770	94,303	38%	38,740	43%
Ind Sic 2034 (Dehydrated Foods)	0.2%	39,461	34,850	13%	648	2%
Ind SIC 2873 (Nitrogen Fertilizer)	0.1%	14,480	18,227	(21%)	10,105	-
Ind SIC 4212 (Local Trucking)	0.0%	2,807	3,136	(10%)	1,861	-
Ind SIC 2047 (Pet Food)	0.9%	196,837	162,371	21%	125,941	-
Ind SIC 5169 (Chemicals Products)	0.0%	8,652	8,137	6%	4,894	-
Ind SIC 7542 (Carwashes)	0.3%	63,512	67,544	(6%)	34,348	-
Rate Revenue Sub-Total:	66.5%	14,376,673	14,837,874	(3%) ▼	2,930,730	+ 26% ▲
Other Sewer Charges	0.1%	23,278	50,000	(53%)	18,816	422%
Engineering	1.1%	237,302	30,000	691%	237,302	
Interest	4.5%	967,182	219,415	341%	967,182	
Royalties	1.1%	232,397	150,000	55%	-	0%
Misc Revenue Sub-Total:	6.7%	1,460,159	449,415	+ 225% ▲	1,223,300	+ 516% ▲
Development Revenue:	26.8%	5,796,600	4,459,456	+ 30% ▲	2,225,296	+ 62% ▲
Total Sewer Revenues:		21,633,431	19,746,745	+ 10% ▲	6,379,325	+ 42% ▲

Year-End 2022 Water & Sewer Finance Report
Appendix D: Water Operating Expenditures

Prepared March 2023

	% of Total Budget	\$ Budget	\$ Spent + Encumbered	\$ Remaining	% Budget Utilized
Administration	6%	2,303,025	2,173,062	129,963	94%
Engineering	2%	781,661	659,448	122,213	84%
Computer/Phone User Chrgs	2%	616,420	616,420	0	100%
Liability Insurance	1%	318,150	318,150	0	100%
General Management:	10%	4,019,256	3,767,079	252,177	94%
Service And Meters	2%	958,531	647,572	310,959	68%
Transmission-Reservoir	2%	842,490	909,748	(67,258)	108%
Distribution	6%	2,214,179	2,024,829	189,350	91%
Inventory	1%	275,000	246,323	28,677	90%
Non-Potable Operations	2%	841,113	808,526	32,587	96%
Instrument & Control	2%	878,201	989,362	(111,161)	113%
Transmission & Distribution:	15%	6,009,514	5,626,360	383,154	94%
Water Resources	16%	6,483,733	6,371,809	111,924	98%
High Mountain Reservoirs	1%	560,505	480,669	79,836	86%
Water Conservation Prgm	2%	739,878	555,533	184,345	75%
Water Resources:	20%	7,784,116	7,408,011	376,105	95%
Bellvue Filter Plant	7%	2,707,727	2,767,939	(60,212)	102%
Boyd Lake Filter Plant	7%	2,575,242	2,610,137	(34,895)	101%
Water Quality	4%	1,407,365	1,214,769	192,596	86%
Cameron Peak Fire	38%	15,093,740	11,906,251	3,187,489	79%
Treatment:	55%	21,784,074	18,499,095	3,284,979	85%
Incorrect Accounting		0	114,457	(114,457)	
Total Water Operating:		39,596,960	35,415,002	4,181,958	89%
Total Water Operating w/o CPF		24,503,220	23,508,751	994,469	96%

Year-End 2022 Water & Sewer Finance Report
Appendix E: Sewer Operating Expenditures

Prepared March 2023

	% of Total Budget	\$ Budget	\$ Spent + Encumbered	\$ Remaining	% Budget Utilized
Engineering	5%	379,433	374,968	4,465	99%
Sewer Administration	5%	318,632	374,425	(55,793)	118%
Computer/Phone User Chrgs	2%	150,440	150,440	0	100%
Liability Insurance	4%	318,150	318,150	0	100%
General Management:	16%	1,166,655	1,217,983	(51,328)	104%
WTRF Administration	7%	501,985	807,932	(305,947)	161%
Laboratory	6%	415,182	289,904	125,278	70%
Maintenance	13%	886,674	939,759	(53,085)	106%
Operations	34%	2,419,877	2,011,656	408,221	83%
Industrial Pretreatment	5%	387,557	346,389	41,168	89%
Wastewater Treatment:	65%	4,611,275	4,395,640	215,635	95%
Wastewater Collection:	18%	1,300,721	1,229,174	71,547	94%
Incorrect Accounting:		0	10,718	(10,718)	
Total Sewer Operating:		7,078,651	6,853,515	225,136	97%

Water & Sewer Agenda Summary

Date: March 15, 2023

Key Staff Contact: Sean Chambers, Director of Water & Sewer Utilities

Title:

Regional Water Initiatives Update

Summary:

Water & Sewer staff are engaged in several ongoing regional water related groups that help to advance our strategic and operational goals.

From our earliest days, Greeley leaders and pioneers have been involved with a variety of projects that helped to define Colorado's water law and brought people together with common goals around water supply resiliency, agricultural productivity and protecting economic growth.

- Based upon Greeley's Union Colony roots and long-standing relationship with agriculture, Greeley and our residents have long understood the value of water as a finite natural resource essential to a sustainable and resilient community in the West.
- The City's Water & Sewer Utilities staff continue to invest that Greeley legacy through partnerships with local agriculture, municipal utilities and leadership in organizations that are focused on water.
 - NoCO regional water infrastructure storage and resiliency projects
 - Colorado Water Congress - more info at: www.cowatercongress.org/
 - South Platte Basin Roundtable - more info at: www.southplattebasin.com
 - Interbasin Compact Committee of the Colorado Water Conservation Board www.cwcb.colorado.gov/about-us/interbasin-compact-committee
 - Watershed Health and Fire Recovery Coalitions
 - The Coalition for the Poudre River Watershed; and
 - The Big Thompson Watershed Coalition
 - FFA and Weld Co 4-H education and collaboration
 - Upper Cache la Poudre Water Quality Collaborative
 - North Front Range 208 Water Quality Management Assoc.
 - NoCO Regional Water Resiliency Initiative (Formerly known as StratOp)

Collectively, these regional initiative serves to protect and advance Greeley's water system reliability and resiliency goals. Such work helps Greeley staff stay well informed on emerging issues and remain as a regional leader in the water resources, watershed health, water quality and municipal water spaces.

As City staff engage in ongoing discussions on regional water security, resiliency and opportunities, we have identified some guiding principles that conform to and support the Council's Vision and Strategic Work Plan. They are as follows:

1. Greeley supports regional water resiliency strategies that prepare the region for water supply uncertainty and emergency situations.
2. Greeley supports a vision for keeping Northern Colorado water supplies in the region.
 - a. Support strategies that promote current and future economic prosperity and a resilient Northern Colorado economy.
 - b. Greeley does not support any initiative that would potentially impair private property rights
 - c. Greeley does not support the creation of a regional mill levy.
3. Greeley continues to realize benefits from ongoing meetings among the leadership from Northern Colorado municipal water providers.

Staff will continue to engage with neighboring communities on existing regional work that is important to our community and that has potential to be scaled up or more efficient with more participants. Initiative such as sourcewater quality sampling, aerial snow observation, wildfire recovery, watershed health, water wise landscape resources and drought response messaging are all areas of opportunity.

Recommended Action:

Information only, no recommended actions

Attachments:

Presentation

The NoCO Water Resource Big Picture

✓ Growing regional population

- ✓ Fastest growing region in state – Pop expected to double by 2050
- ✓ Raw water costs limiting housing affordability

✓ Major regional agricultural economy

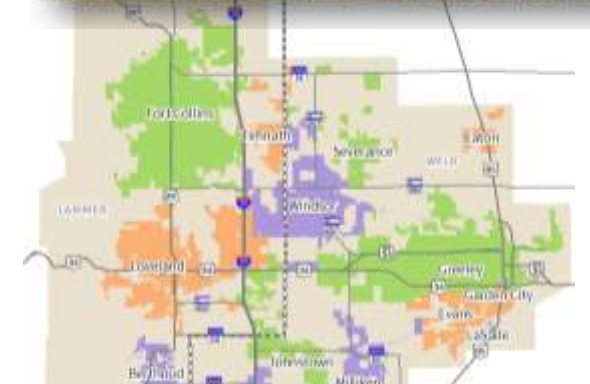
- ✓ Dependent on reliable irrigation water

✓ Finite water supply

- ✓ Region has been water-short since 1930s
- ✓ NoCO remains a target for Denver Metro area water transfers

✓ Water supply challenges

- ✓ Colorado River shortages that will impact NoCO and Front Range
- ✓ Impaired snowpack and water quality from forest fires



Overview of Greeley's Participations in Regional Water Initiatives

- **Regional Water Infrastructure Projects**
 - No. 3 Ditch, C-BT, Windy Gap Firming/Chimney Hollow Reservoir, and Overland Ponds gravel pit storage
- **Colorado Water Congress**
- **South Platte Basin Roundtable and Interbasin Compact Committee**
 - <https://www.southplattebasin.com/> & <https://cwcb.colorado.gov/about-us/interbasin-compact-committee>
- **Norther Colorado Watershed Coalitions**
 - Coalition for the Poudre River Watershed and the Big Thompson Watershed Coalition
- **Upper Cache la Poudre Water Quality Collaborative**
- **North Front Range 208 Water Quality Management Assoc.**
- **NoCO Regional Water Resiliency Initiative (StratOp)**

Review Formation of a Regional Water Resiliency Group:

Fast growing NoCO region with finite water supply

- Competition among municipalities, dairy industry, and Denver suburbs

NoCO Leaders prioritized a regional water issues discussion

- 2019 leadership discussions on water scarcity created a call to action
 - Explore the mission of a regional water resiliency group
 - Define boundaries for a regional water group
 - Consider structure of such an organization



Review of '22 StratOp Work

- ✓ **Incorporate water providers across Weld and Larimer Counties**
- ✓ Bringing new city managers, new utility managers, and new staff at NoCO Community Foundation up to speed on the prior work
- ✓ Acknowledgment of regional issues such as water cost and its impact on housing
 - ✓ Water is a critical natural resource building block for our economic future
- ✓ Evaluation of opportunities and areas of focus that could yield benefit for participants



Greeley's Guiding Principles for Engagement in NoCO Regional Water Group

1. Greeley supports regional water resiliency strategies that prepare the region for water supply uncertainty and emergency situations.
2. Greeley supports a vision for keeping NoCO water supplies in the NoCO region.
 - a. Support current and future economic prosperity and resiliency.
 - b. Greeley does not support anything impairing property rights or creating a regional mill levy.
3. Greeley realizes tangible value from ongoing meetings among the leadership from NoCO municipal water providers.

2023 Work Plan (Strat Op-2023)



Regional Resiliency Initiative

- Reevaluation of regional water groups priorities and focus
- Facilitated discussions on mission, vision and priorities
- Consideration of projects
 - Consider value of regional drought emergency response communication
 - Opt in or out structure

Questions?





Water & Sewer Agenda Summary

Date: March 15, 2023

Key Staff Contact: Leah Hubbard, Water Resources Operations Manager

Title: Outside Counsel Legal Report

Summary: The attached report has been provided by James Noble, outside counsel for the Greeley Water & Sewer Board.

Case Number 23CW3012 is an application by Arapahoe County Water and Wastewater Authority (“ACWWA”) for a change of water rights, an exchange and an augmentation plan. The water rights that are the subject of this application are contemplated to be delivered and stored within Greeley’s area of interest for protecting its water rights from injury.

Recommended Action: Staff and water counsel recommend authorizing filing a statement of opposition in Case Number 23CW3012.

Attachments: Legal Report for March, 2023.

Water & Sewer Agenda Summary

Date: March 15, 2023

Key Staff Contact: Sean Chambers, Director of Water & Sewer Utilities

Title:

Director's Report – March 2023

Summary:

The Water & Sewer Utilities Director will provide a summary of several items of ongoing interest to the city's Water & Sewer Board.

1. Events of note for the Water & Sewer Board
 - a. BizWest Real Estate Summit – April 5th
 - b. Northern Water Spring Water User Meeting – April 10th
 - c. South Platte Basin Roundtable – April 10th
2. Water Supply and Storage Company – Grand Ditch Blowout Litigation
 - a. History from Randy Gustafson
3. Snowpack

Recommended Action:

No recommended actions

Attachments:

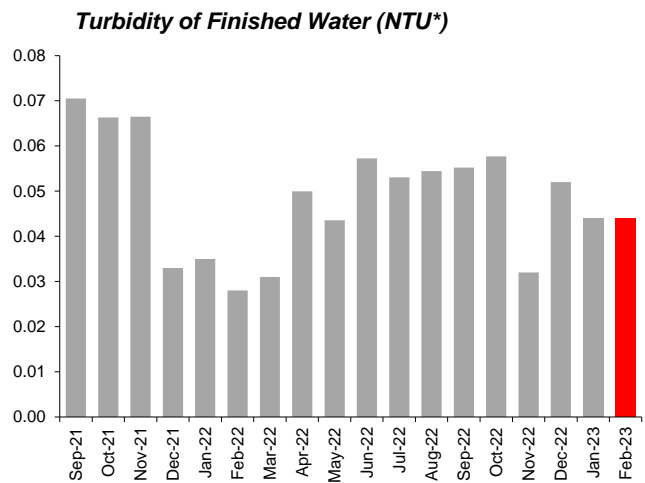
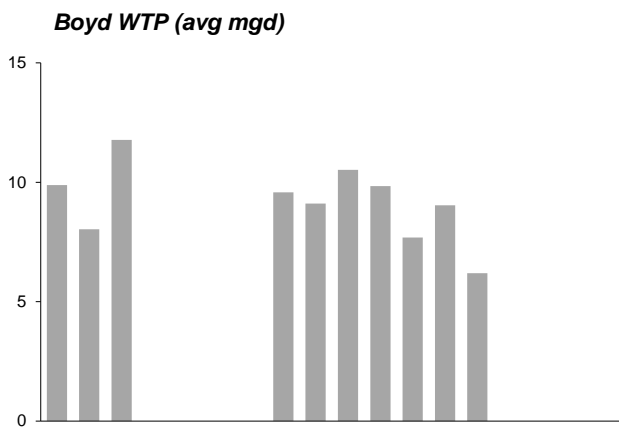
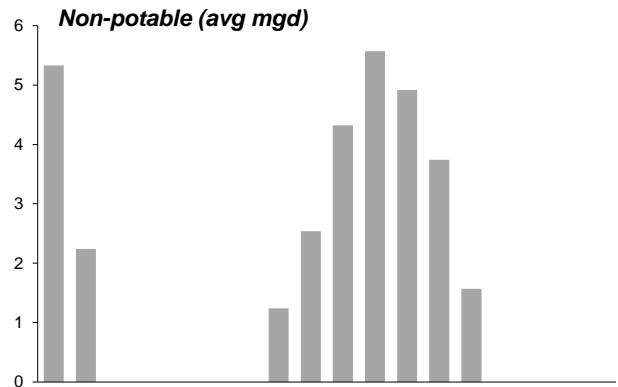
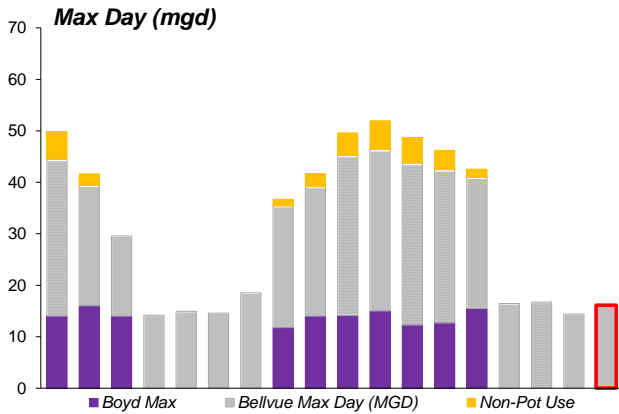
Board Charts
Snow Pack Charts

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).

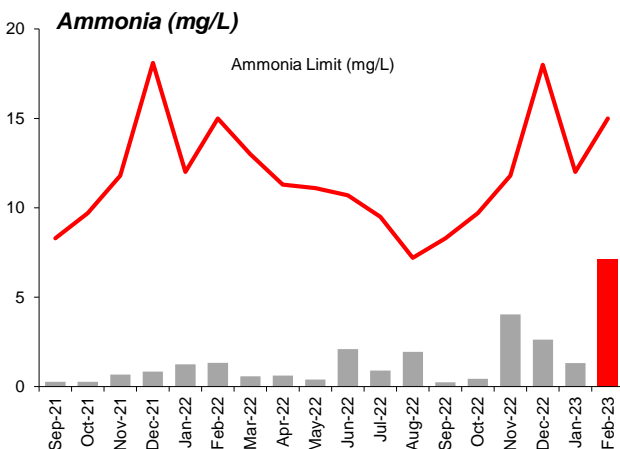
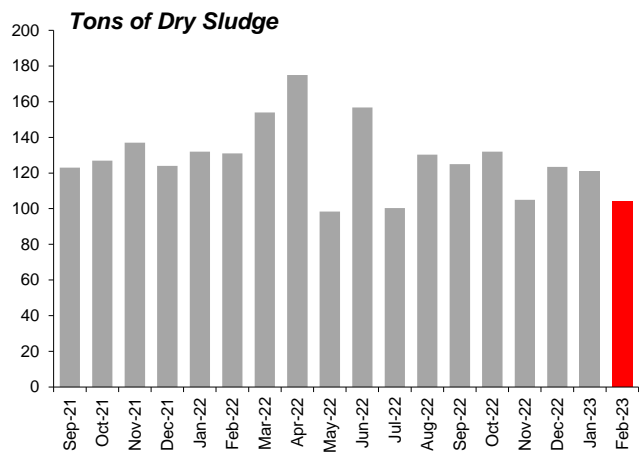
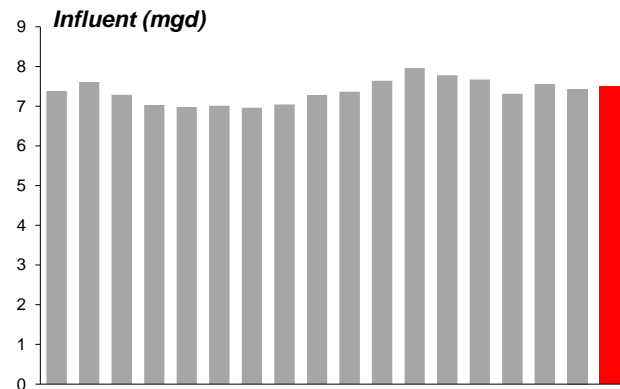
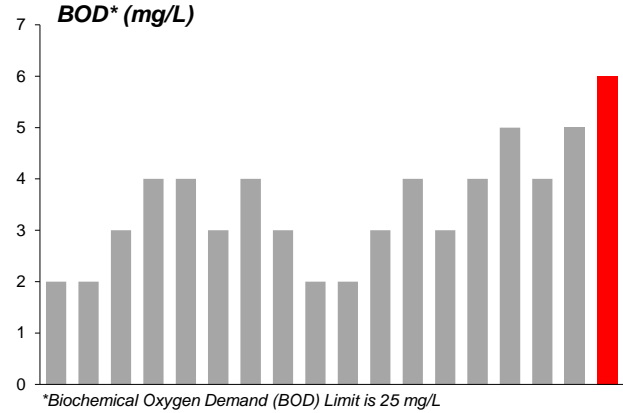
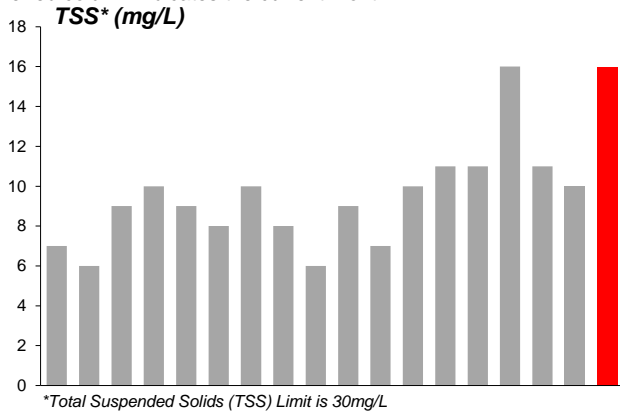


Wastewater Treatment

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.



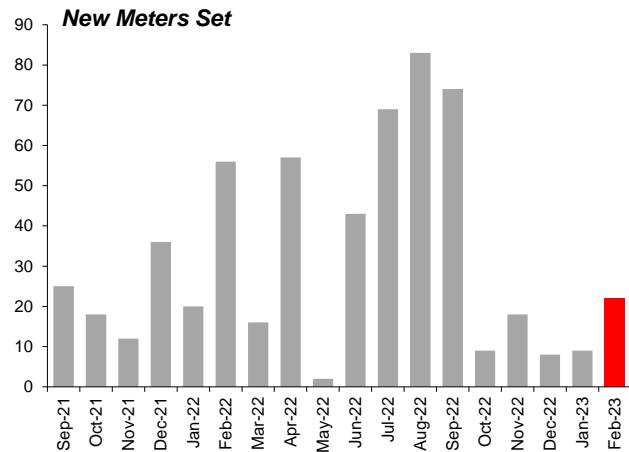
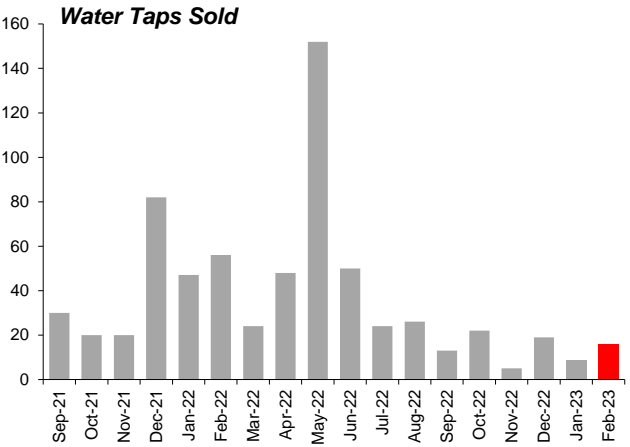
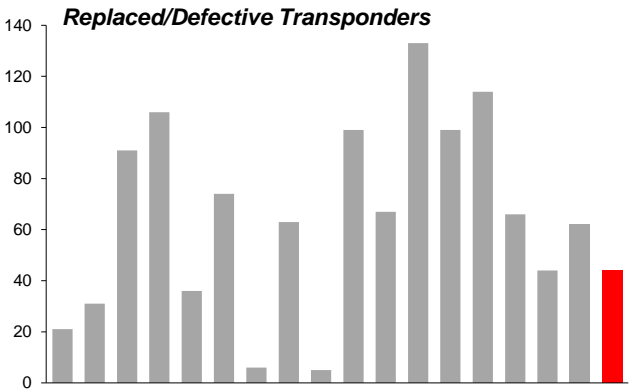
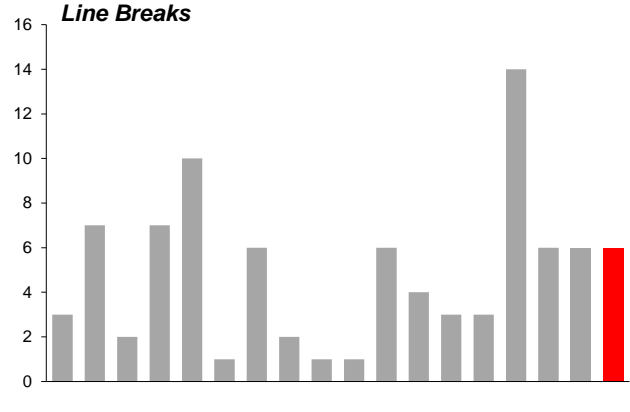
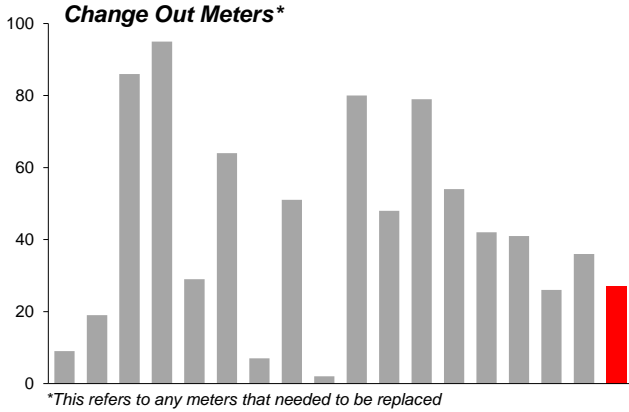
Water Distribution

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.



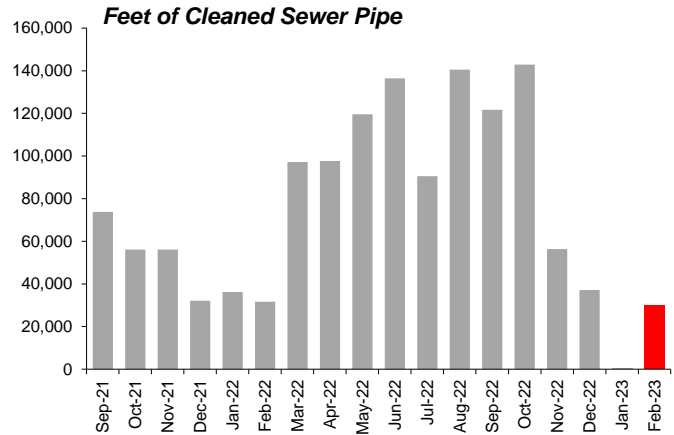
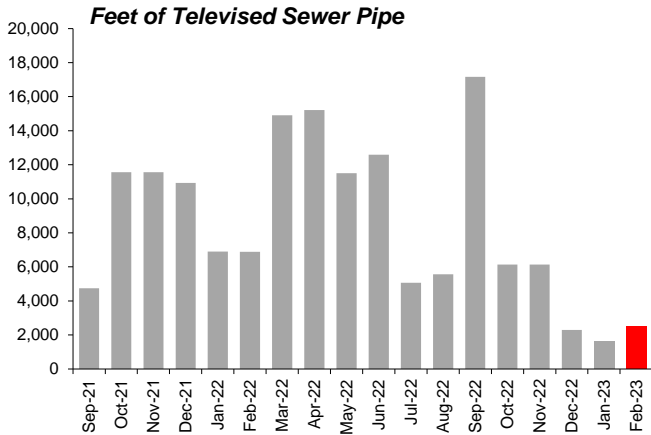
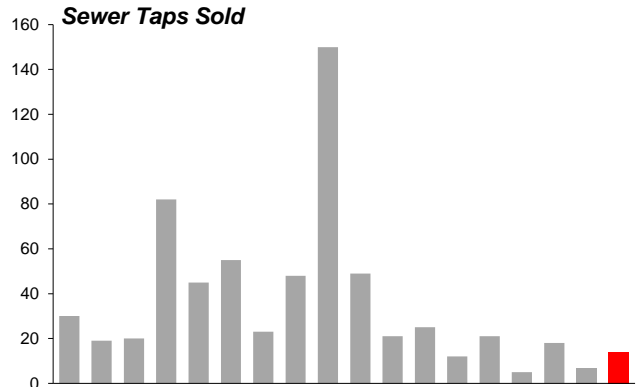
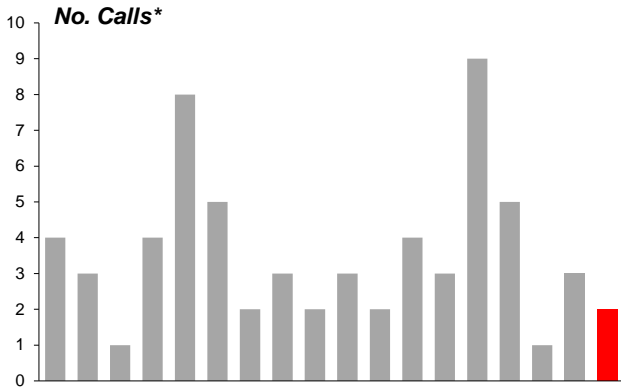
Wastewater Collection

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.

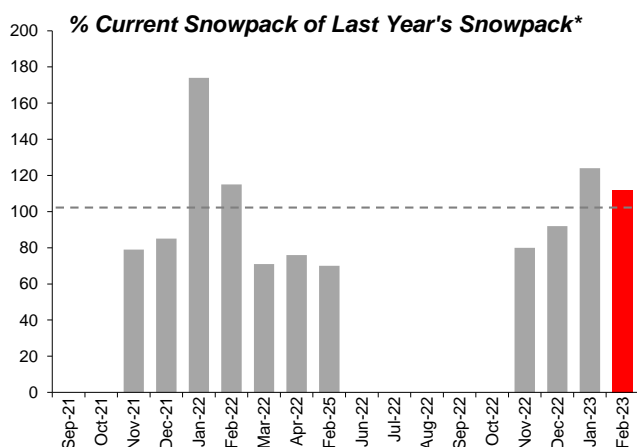
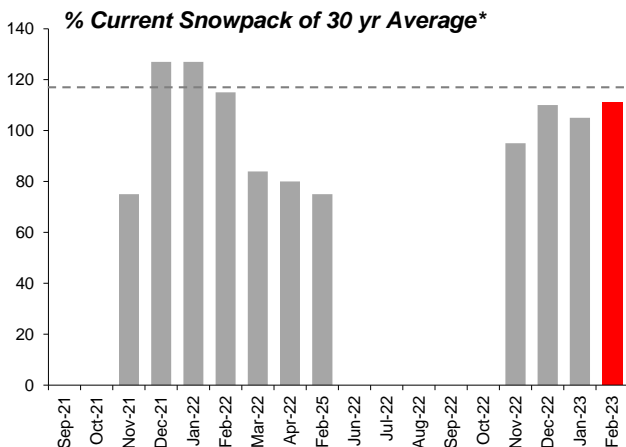
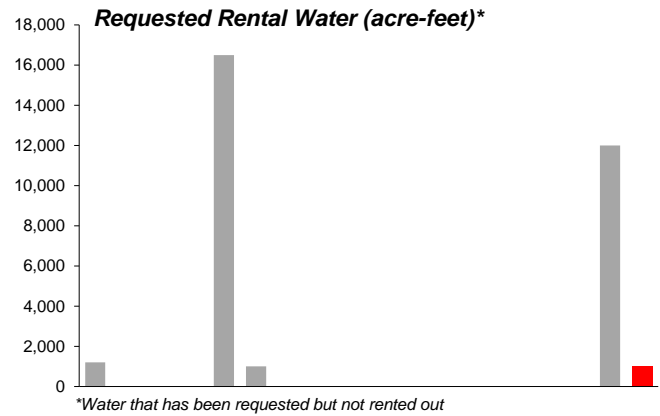
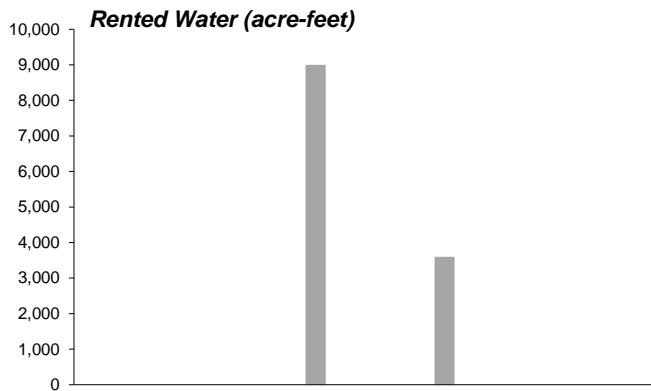
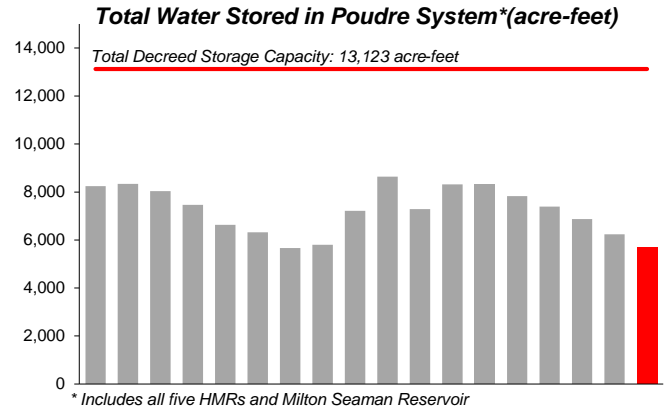
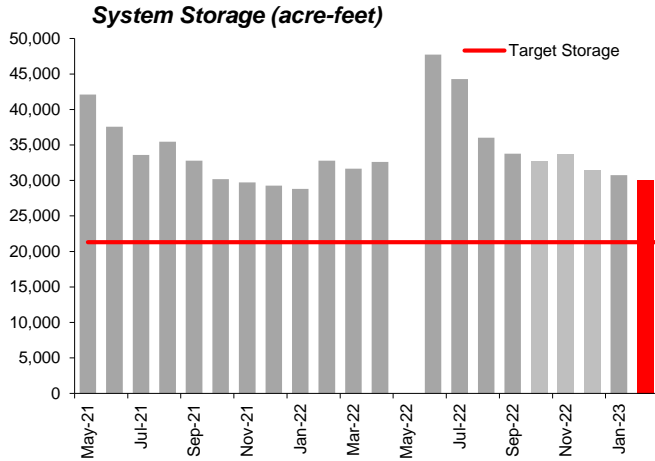


Water Resources

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.



*Data is from the 1st of the month

**Average of Deadman Hill and Joe Wright

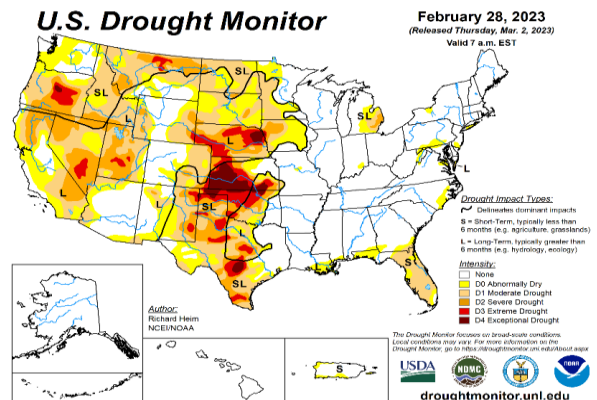
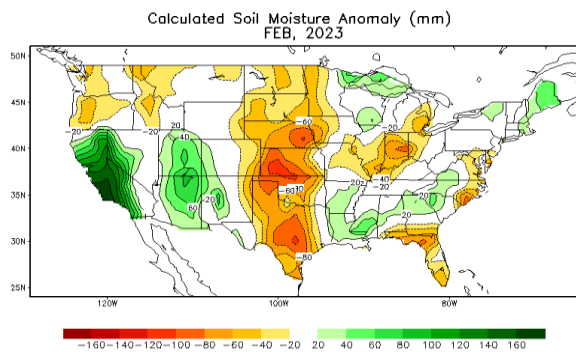
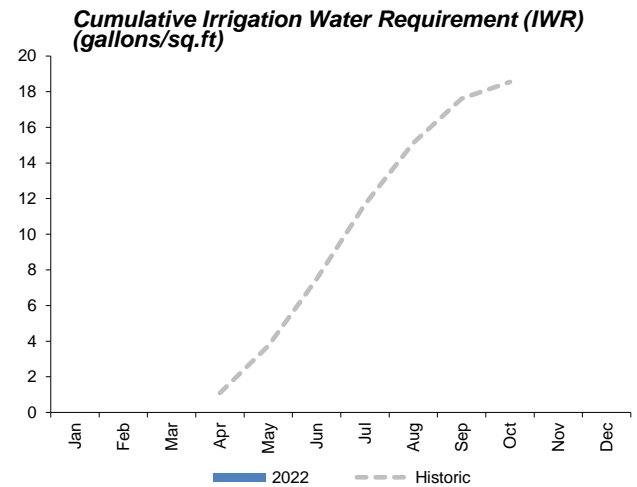
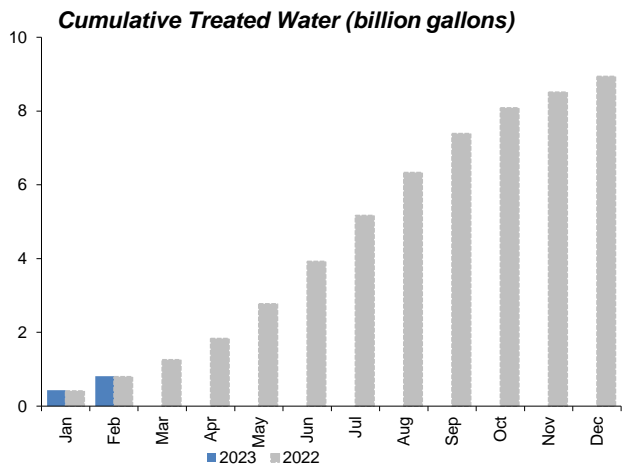
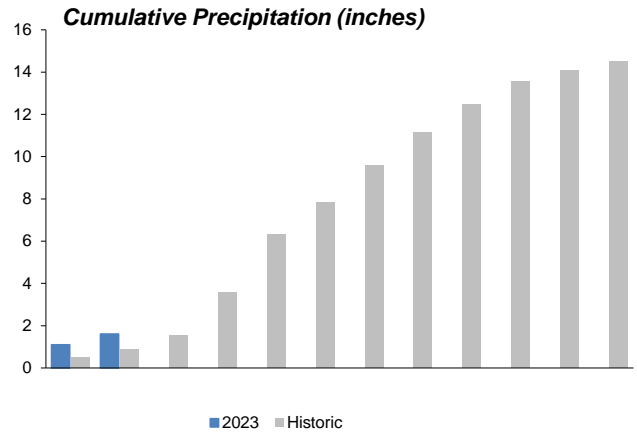
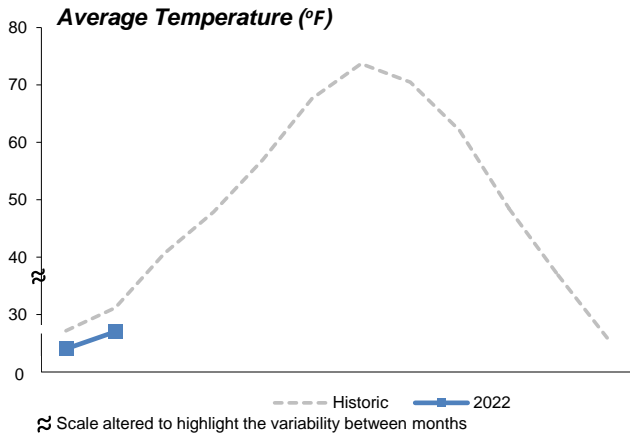
*Data is from the 1st of the month

**Average of Deadman Hill and Joe Wright

Treated Water and Weather Data

January was a cold month with an average temperature of 24°F. The average temperature for February was 27°, about 4° lower than the historical.

Greeley received 1.1 inches of precipitation in January, this is more than double the historical average for this month. February brought 0.51 inches of precipitation.



CACHE LA POUUDRE BASIN SNOW SURVEY

March 1, 2023



Manually Measured Sites

	This Year Depth	This Year Inches/Water	Average Inches/Water	Last Year Inches/water	% of Average	% of Last Year
Lake Irene - 10,700 ft	55	15.2	16.9	12.8	90%	119%
Cameron Pass - 10,285 ft	69	24	20.1	19.2	119%	125%
Deadman Hill - 10,220 ft	51	14.0	12.1	14.6	116%	96%
Long Draw Reservoir - 9,980 ft	52	14.3	12.5	13.6	114%	105%
Hourglass Lake - 9,360 ft	28	6.2	6.0	6.9	103%	90%
Lost Lake - 9,300 ft	47	14.2	9.7	10.8	146%	131%
Bennett Creek - 9,200 ft	21	4.2	5.8	5.3	72%	79%
Chambers Hill - 9,120 ft	27	6.6	7.5	6.4	88%	103%
Red Feather - 9,000 ft	31	8.5	5.9	6.6	144%	129%
Chambers Lake - 9,000 ft	27	6.6	6.9	6.3	96%	105%
Big South - 8,600 ft	20	4.8	3.0	3.8	160%	126%

**Poudre Basin Totals
Manually Measured Sites**

Basin Average 2023	Basin Historic Average	Basin Average 2022	% of Average	% of Last Year
10.8	9.7	9.7	111%	112%

SNOTEL Measured Sites

	This Year Depth	This Year Inches/Water	Average Inches/Water	Last Year Inches/water	% of Average	% of Last Year
Willow Park - 10,732 ft	63	16.8	13.7	14.8	123%	114%
Lake Irene - 10,682 ft	73	21.5	19.4	17.8	111%	121%
Deadman Hill - 10,239 ft	53	15.0	10.4	15.4	144%	97%
Joe Wright - 10,158 ft	60	18.7	13.1	16.8	143%	111%
Long Draw Resv - 10,008 ft	50	13.8	13.4	13.1	103%	105%
Hourglass Lake - 9,417 ft	35	8.2	8.6	8.9	95%	92%
Black Mountain - 8,980 ft	36	8.8	8.4	8.8	105%	100%

**Poudre Basin Totals
SNOTEL Measured Sites**

Basin Average 2023	Basin Historic Average	Basin Average 2022	% of Average	% of Last Year
14.7	12.4	13.7	118%	108%

- AVERAGES COMPUTED USING ENTIRE AVAILABLE DATASET FOR EACH SITE