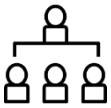
Water and Sewer Board

Regular Meeting
City Council Chambers – City Center South
1001 11th Avenue – Greeley, Colorado
October 19, 2022 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/

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 Meeting

October 19, 2022 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. Welcome New Employees and Promotions
5. Approve and Recommend to City Council the 2022 Water Efficiency Plan
6. Approve Termination of GURA Augmentation Agreement
7. Approve and Recommend to City Council Leprino Development Agreement - 6th Amendment
8. Integrated Water Resource Plan Project Update
9. Sanitary Survey Response Update
10. Colorado River Imbalance Update
11. Legal Report
    - Water Market Update
12. Executive Session
13. Director's Report
    - NCWCD Fall Symposium, November 15, 2022

- Terry Ranch Award for Engineering and Investigative Science – National Ground Water Association

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

15. 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 September 21, 2022
Regular Board Meeting

Chairman Harold Evans called the Water and Sewer Board meeting to order at 2:02 p.m. on Wednesday, September 21, 2022.

1. Roll Call

The Clerk called the roll and those present included:

Board Members:

Chairman Harold Evans, Vice Chairman Mick Todd, Cheri Witt-Brown, Fred Otis, Tony Miller, Joseph Murphy, Donald Tripp on behalf of City Manager Raymond Lee, and Finance Director John Karner

Water and Sewer Department staff:

Director Sean Chambers, Utility Finance Manager Erik Dial, Water Resources, Senior Administrative Assistant Crystal Sanchez, Interim Office Manager Gigi Allen, Water Resource Operations Manager Leah Hubbard and Water Resource Planning Manager Kelen Dowdy

Legal Counsel:

Senior Environmental and Water Resources Attorney Jerrae Swanson, Environmental and Water Resources Attorney II Dan Biwer, Counsel to Water & Sewer Board Attorney Jim Noble

Guests:

Emeritus Robert Ruyle, Neil Stewart with Stantec, Doug Jeavans with BBC

2. Approval of Minutes

Mr. Miller made a motion, seconded by Mr. Murphy to approve the August 17th, 2022 Water and Sewer Board meeting minutes. The motion carried 6-0.

3. Approval of Agenda

There were no changes to the agenda.

4. Welcome New Employees and Promotions

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

5. 2nd Tri-Annual Water Court update

Leah Hubbard discussed that the City of Greeley Water and Sewer Department is active in numerous Water Court matters to develop additional water supply and to protect existing water rights. In the 2nd trimester of 2022, Greeley was active in a total of 31 Water Court cases, 29 of which were in the role of opposition. Year to date legal and engineering expenses totaled $368,774 as of September 14, 2022.

6. IWRP Update Hydrology

Kelen Dowdy, Neil Stewart from Stantec and Doug Jeavans for BBC discussed that the current Greeley Water Supply Master Plan is more than 17 years old and since the creation of the last master plan in 2003, Greeley's strategies to continue to provide a robust, resilient water supply have evolved and the water market has transformed. Likewise, widely accepted strategies used to plan for water development have progressed. Consequently, the Water Resources team has been developing a new water master plan, through a process termed Integrated Water Resource Planning (IWRP). The IWRP process will evaluate Greeley's long-term water supply sustainability, develop a road map to buildout and identify near-term CIP components. As part of the process, the IWRP evaluate a suit of future conditions to plan for called "planning scenarios". These scenarios define key components of future conditions such as the state of Greeley's water supply system, demands, climates and other system risks. In order to define multiple future demand conditions, the IWRP updated Greeley's existing demand forecasting model to incorporate new information and generate new demand forecasts based off of the recommended scenarios. Kelen, Neil and Doug presented on demand forecasts and underlying assumptions during the meeting this month.

Neil Stewart left the meeting at 2:59 pm.

7. Legal Report

Jim Noble, Esq. with Welborn Sullivan Meck & Tooley, P.C. provided the legal report this month and reported that, based on the review of the July, 2022 Water Court Resume, staff and water counsel do not recommend that the Water and Sewer Board file statements of opposition to any water court applications that would be due at the end of September, 2022. Mr. Noble also provided a brief update on the status of the water court case to change the use of WSSC shares for municipal purposes.

8. Director's Report

Sean Chambers provided an overview of several items of Board interest:

1. Colorado State University – Living with the Colorado River Compact: Past, Present and Future – 9/26/22 https://watercenter.colostate.edu/colorado-river-compact-symposium/
2. Recognize City of Greeley participants of WLL course
3. Dropbox Board archive files are fully converted to Teams file platform
4. All emails have been entered into the NCWCD Windy Gap, Chimney Hollow, Project newsletter subscription

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

There were no additional items brought before the Board and added to the agenda.

10. Adjournment

Chairman Evans adjourned the meeting at 3:50 p.m.

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_____
Harold Evans, Chairman

_____
Raymond Lee, Board Secretary

Water & Sewer Agenda Summary

October 19, 2022

Key Staff Contact: Sean Chambers, Water & Sewer Director

Title: Welcome New Water & Sewer Employees and Recognize Department Promotions

Summary: New Hires: Devin Meyer – Maintenance Technician I
Cesar Arellano – Maintenance Technician I
Ryan Montanez – Plant Operator

Promotions: Andrew Canchola – promoted from part time to full time Plant Operator

Recommended Action: Information only

Attachments: None

Water & Sewer Agenda Summary

Date: October 19, 2022

Key Staff Contact: Dena Egenhoff-Water Conservation Manager

Title: 2022 Water Efficiency Plan

Summary:

The Water Conservation Act of 2004 requires all Colorado water providers who supply more than 2,000 acre-feet of water to submit or update water efficiency plans for approval by the Colorado Water Conservation Board (CWCB) every seven years. The plans contain key information about historical and projected water demands, water supply reliability, future needs, proposed demand management activities, and monitoring processes.

This is the third update to the original 2008 Water Conservation Plan. The City of Greeley's new draft Water Efficiency Plan (WEP) is a roadmap of strategic objectives and water conservation programs to ensure future water supplies. The WEP builds on the City's current properties and includes existing codes, criteria and strategic plans with a lens on water conservation.

The main objectives of the WEP are to maximize widespread efficiency in all indoor water use, set goals for more resilient landscapes, and educate customers on water use goals. It will provide direction on how to advance water conservation efforts and build City wide capacity to:

- Create efficiencies and consistencies among policies, plans, projects and programs;
- Maximize cost-saving opportunities;
- Create goals with clear measurements for success.

The Water and Sewer Department has worked diligently to coordinate with a 60-day public comment period from August 3, 2022, through October 3, 2022. These methods included online forms, social media campaigns, two online open houses (August 18th and September 15th), Water and Sewer's monthly newsletter, press release on August 9th, presentation and information sharing to commission/advisory boards and targeted outreach for local businesses and organizations.

Colorado Water Conservation Board (CWCB) also provides a review of the WEP to ensure compliance with the Water Conservation Act.

Recommended Action: Approve and Recommend to City Council the 2022 Water Efficiency Plan

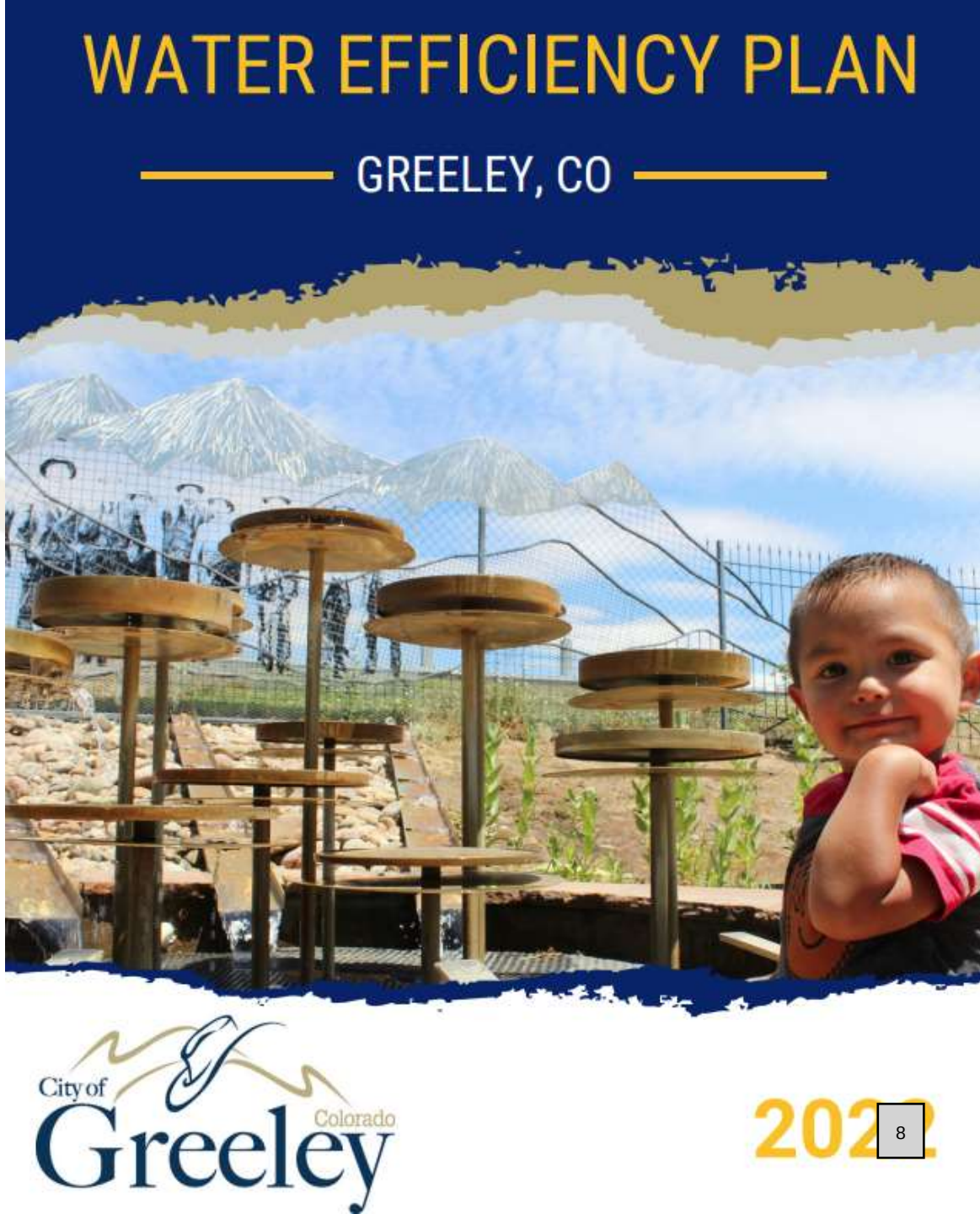
Recommended Action:

"I move that the Board approve the 2022 Water Efficiency Plan as part of the City's long term water plans, delegate authority to the Director of Water and Sewer or his designee to make minor changes to the WEP consistent with any subsequent recommendations from the Colorado Water Conservation Board, and recommend same for adoption by the City Council, and incorporation within the City's Comprehensive Plan."

Attachments: 2022 Water Efficiency Plan and cover letter

Water Efficiency Plan

Dena Egenhoff
Water Conservation Manager



Water Efficiency Plan (WEP)- What is it and why now?

- Technical document
- Required by the State
- Updated every 5-7 years

Planning methodology

- Sustainable water future
- Use of
  - Imagine Greeley Comprehensive Plan, February 2018
  - Water Conservation Plan, 2017
  - Greeley Non-Potable Water Master Plan, June 2021
  - Greeley Water Transmission and Distribution Master Plan, June 2021
  - Greeley Integrated Water Resources Plan, draft 2022
  - Greeley Drought Emergency Plan, January 2021
  - Enhancing Greeley's Water Efficiency Portfolio through Performance Analysis Report, May 2022

City of Greeley Colorado

WEP- Roadmap with goals

- Create efficiencies, synergies, and consistencies among policies, plans, projects and programs
- Maximize cost savings opportunities
- Create goals to measure success and progress

2,034 acre-feet of water savings by 2030

WEP- Tools

1. **Triple bottom line**
2. **Selection Process**
3. **Implementation**
   - Score cards

City of Greeley Colorado

WEP- How to make the target goal?

Triple Bottom Line Approach:

- Community
- Prosperity
- Management

City of Greeley Colorado

WEP-Goals

2,034 acre-feet of water savings by 2030

Community	Performance Indicators	Status	Resources Allocation
Education- Lecture and Presentations	▪ Educational awareness of methods for water conservation. ▪ Community outreach and engagement for classrooms, civic clubs, and other groups. ▪ Work to enhance cohesiveness of presentations and water related topics.	Ongoing	▪ Staff Time- Full time person assigned to Water Conservation Administration ▪ Guest speakers ▪ Educational materials ▪ Marketing
Education-Teacher Training	▪ Provide teachers credits for water and conservation issues for local teachers ▪ Correlate material within lesson plans towards water resources	Ongoing	▪ Staff Time- Full time person assigned to Water Conservation Administration and Water Conservation Specialist ▪ Educational materials (models, lesson plans, etc.) ▪ Credits and Transportation
Education- Tours	▪ Provide the public with opportunities to tour Water facilities including the Water-wise gardens.	Ongoing	▪ Staff Time- Full time person assigned. ▪ Educational Materials ▪ Hand-on demonstration ▪ Transportation
Online Water Efficiency Tools	▪ Maintenance and updates to current online tools. ▪ Contract agreements and associated budgets. ▪ Ensure tools are customer friendly and provide accurate information.	Ongoing	▪ Staff Time- Full time water conservation assigned. ▪ Legal for contract agreements. ▪ Internal Departments- IT and Communications and Engagement.
Technology and Innovation	▪ Survey to evaluate program outreaches and more effective communication strategies. ▪ Use data-based information to construct a more effective outreach strategy. ▪ Explore methods to engage all sectors of the community and embrace diversity.	New (2021)	▪ Staff Time- Full time person assigned to Water Conservation Manager and Administration ▪ Survey materials ▪ Open Forums ▪ Marketing
Strategic Marketing Plan	▪ Create quarterly plans to support objectives of the water conservation program related to marketing strategies. ▪ Quarterly report on progress on all strategic briefs including budget allocation will be created. ▪ Alignment of other city public relations strategic planning with Water Conservation	Ongoing	▪ Staff Time- Full time person assigned to Water Conservation Manager, Water Conservation Administration and Community Engagement Department ▪ Budgeting
Collaboration	▪ Outreach to community businesses, non-profits, irrigation and landscape industries, etc. to create partnerships and methodology for water savings. ▪ Tap into the Water-Energy nexus. ▪ Provide guidance for partnerships. ▪ Reduce barriers and provide value	Ongoing and New	▪ Staff Time- Full time person assigned to Water Conservation Manager, Water Conservation Administration and Water Conservation Specialist. ▪ Hosting meetings and forums ▪ Agreements ▪ Associated educational credits and certifications ▪ Educational materials

WEP-Goal

2,034 acre-feet of water savings by 2030

Prosperity	Performance Indicators	Status	Resources Allocation
Rebates and Incentives	▪ Annual review of rebate program including alignment with state and federal standards, industry changes and data-driven decisions on rebate performances. ▪ Annual review of return on investment and water savings. ▪ Alignment with the Water Department & City initiatives.	Ongoing	▪ Staff Time- Full time water conservation manager and water conservation specialist assigned. ▪ Federal, State and local standards to guide changes ▪ Alignment with other City initiatives ▪ Finance and Billing Departments
Advanced Metering Infrastructure (AMI) Optimization	▪ Expansion of WaterSmart participation ▪ Utilization of spatial data paired with other dataset to detect patterns in water budgets, rebate/incentives utilization, irrigation practices, etc. to improve the Water Conservation programs. ▪ Utilize WaterSmart's data to improve efficiency, communications strategies and customer engagement. ▪ Provide customers with notifications and/or alerts regarding water usage	Ongoing and New	▪ Staff Time- Full time water conservation assigned. ▪ Internal Departments- IT, Water Resources, Meter Shop, Engineering, GIS, Water Conservation, Billing and Finance ▪ WaterSmart software
Leak Detection	▪ Reduction of water loss due to leaks. ▪ Provide customers with notifications and/or alerts regarding water usage (i.e. water leaks, burst water pipes, emergency water issues). ▪ Leak repair credit ▪ Develop a new program to quantify and reduce leaks.	New	▪ Staff Time- Full time and part-time water conservation assigned. ▪ Internal Departments- IT, Water Resources, Meter Shop, Engineering, GIS, Billing and Finance, and Communications and Engagement ▪ WaterSmart software ▪ Educational materials and marketing
Enforcement	▪ Provide educational opportunities and/or fees to water wasters. ▪ Enforcement of the Landscape and Irrigation Criteria, and lawn variances. ▪ Develop policies and tracking methods for Drought Emergency Plan, Landscape and Irrigation Criteria and lawn variances. ▪ Develop policies and methods for tracking ▪ Community outreach and engagement.	New	▪ Staff Time- Full time and part-time water conservation assigned ▪ Internal Departments- IT, Water Resources, Meter Shop, GIS, Billing, Finance, Parks, and Community Engagement. ▪ Seasonal staff for enforcement ▪ Alignment with other City initiatives ▪ Educational materials and marketing
Income Qualified	▪ Ensure social equality for Water Conservation programs and project. ▪ Enhance opportunities to serve all community members. ▪ Explore methods to engage all sectors of the community and embrace diversity.	New	▪ Staff Time- Full time and part-time water conservation assigned ▪ Internal Departments- IT, GIS, Billing, Finance, and Communications and Engagement. ▪ Community Engagement. ▪ Educational materials and marketing

WEP-Goal

2,034 acre-feet of water savings by 2030

Water Conservation Management	Performance Indicators	Status	Resources Allocation
Organizational Collaboration	▪ Continue to leverage community and professional partnerships. ▪ Expand Water-Energy nexus, CII high water use relations, stormwater partnerships, etc. ▪ Alignment with community partnerships ▪ Pilot projects- testing new ideas based on data	Ongoing	▪ Staff Time- Full time person assigned. ▪ Federal and State standards to guide changes ▪ Align with other city initiatives ▪ Align with community partnerships ▪ Memberships, sponsorships, etc. ▪ Data monitoring
Land Use	▪ Leveraging the Water budget for all customer classes targeting outdoor water use. ▪ Promoting water wise landscapes and demonstration garden areas. ▪ Maintenance of the Landscape and Irrigation Criteria ▪ Survey landscapes to have a pulse on landscape health.	Ongoing and new	▪ Staff Time- Full time person assigned. ▪ Align with other city initiatives ▪ Community Engagement. ▪ Educational materials ▪ Marketing
Water Conservation Development	▪ Aligning performance goals with the annual scorecard and 5-year scorecard. ▪ Provide training and leadership opportunities for staff. ▪ Workload alignments with individual programs. ▪ Improve efficiency through cross-training, documenting operations and procedures, increase internal mobility and ensure collaboration. ▪ Targeting water efficiency programs	Ongoing and new	▪ Staff Time- Full time Water Conservation Manager ▪ Align with other city initiatives ▪ Training ▪ Memberships, sponsorships, etc.
Financial Resources and Budget	▪ Submit a water conservation budget annually. ▪ Track budget and return on investment for each program. ▪ Leverage resource through grants and other funding opportunities.	Ongoing	▪ Staff Time- Full time Water Conservation Manager and input form staff.
Reporting	▪ State reporting including HB1051 ▪ Annual score cards to the Board ▪ Ensuring website information, reports and forms for the public are updated. ▪ Aligning data analysis internally on water consumption. ▪ Drought Emergency Plan reserve tracking ▪ Update Water Efficiency Plan	Ongoing and New	▪ Staff Time- Full time person assigned. ▪ Internal staff- Water Resources, IT, and Communications and Engagement
Water Loss	▪ AWWA M36 Water Loss Audit (M36) occurring annually. ▪ Internal collaboration on water loss ▪ Assets management with AMI meters.	Ongoing and New	▪ Staff Time- Full time person assigned. ▪ Alignment with AWWA audits

WEP- Total future water savings by 2030

TLB Type	Acre-Feet
Community	386
Prosperity	1,363
Water Conservation Management	285
Total	**2,034**

WEP- Making the mark

Score Cards

- Updated annually reported back to Board
- Tied to staff performance evaluations

Selection of Water Efficiency Activities

- Water Savings Potential
- Cost Effectiveness
- Community Vitality
- Likelihood of success

City of Greeley Colorado

Water Sustainability

- Innovation and technology
- Customer service
- Continue and build on Greeley's water conservation history
- Sustainability and environment
- Pulse on acceptance

City of Greeley Colorado

Questions

Colorado Water Conservation Board
c/o Sam Stein
Water Conservation and Drought Specialist - Water Supply Planning
1313 Sherman St., Room 721
Denver, CO 80203

(*Submitted Electronically*
sam.stein@state.co.us)

RE: The City of Greeley's 2022 Water Efficiency Plan

Dear Mr. Sam Stein,

The City of Greeley, Colorado ("City" or "Greeley") appreciates the opportunity to provide you with Greeley's 2002 Water Efficiency Plan (WEP). This plan is submitted by the Water and Sewer Department located at 1011 11th Ave., 2nd Floor in Greeley, CO. The Water and Sewer Department can be reached Monday through Friday from 8 am to 5 pm at 970-350-9811 or fax at 970-350-9805.

I would like to thank the following staff members within Water Resources who assisted in drafting this WEP. The WEP was written 100% internally by:

- Dena Egenhoff- Water Conservation Manager
- Ruth Quade- Water Conservation Administrator
- Ben Schaffer- Water Conservation Specialist II
- Rita Jokerst- Water Conservation Specialist I
- Leah Hubbard- Water Resource Operations Manager
- Megan Kramer- Water Resources Administrator I

Supply sources for Greeley are currently 100% surface water from four basins: Cache la Poudre River, Colorado River, Big Thompson River, and Laramie River. Five-year water use by customer class in represented in the table below in gallons.

Customer Type	2017	2018	2019	2020	2021
Single- Family	2,566,699,000	2,652,877,000	2,457,121,000	2,914,183,000	2,870,282,000
Multi-Family	1,002,548,000	1,027,910,000	967,964,000	1,053,421,000	1,013,071,000
CII*	3,031,738,000	3,175,931,000	3,157,107,000	3,240,711,000	2,569,134,000
Outside Services	1,410,666,000	1,490,038,000	1,401,266,000	1,478,821,000	1,376,765,000
Non-Potable (raw)	498,317,000	556,248,000	458,515,000	584,865,000	1,045,209,000

	2017	2018	2019	2020	2021
Population Serving	135,826	143,073	147,208	149,512	151,546

**Commercial, Industrial and Institution Accounts*

On August 3, 2022 Greeley's Water Efficiency Plan was posted to the Water Conservation homepage at https://greeleygov.com/services/ws/conservation/about for the 60-day public comment period ending on October 3, 2022. It included a button that linked to a form for people to provide input on the content of the plan. The form asked people to provide their suggestions to improve the Water Efficiency Plan, how they ranked the plan overall on a scale of 1 to 5, and if they had any further comments.

In total, the City received 13 written comments on the plan. Each comment was individually addressed and responded to by the Conservation Manager, Dena Egenhoff, and found in Appendix B. During this time period, the City also ran a social media campaign across multiple channels (Water & Sewer Facebook and Twitter, and City of Greeley Facebook and Instagram). Please see Appendix B summary of social media analytics to understand the detailed performance of the 12 total posts on these platforms. In summary:

- 7.54K impressions
- 141 reactions
- 7.09K reach
- 174 engagements
- 2.31% engagement rate

The conservation team also hosted two online open houses; one on August 18, 2022 from 12 to 1 PM and one on September 15, 2022 from 5 – 6 P In total, 28 people registered two attend the meetings, and 7 people attended.

The meetings and the opportunity to provide feedback online were promoted in both the August and September Water & Sewer monthly newsletter which is sent to 2,750 people who have signed up to receive them. In total, the plan received 41 unique clicks across both newsletters (12 to the Conservation home page and 29 to the Zoom link to register for the open house).

A press release was sent on August 9, 2022 (https://greeleygov.com/government/ceo/press-release/greeley-releases-draft-water-efficiency-plan-for-public-comment) requesting public comments on the draft plan. This led to coverage by the Greeley Tribune, which interviewed Dena Egenhoff (Conservation Manager) and published an article "Greeley officials seek feedback on draft water efficiency plan" (https://www.greeleytribune.com/2022/08/19/greeley-officials-seek-feedback-on-draft-water-efficiency-plan/) on August 18, 2022. This article detailed the various approaches to water conservation outlined in the draft plan and encouraged readers to provide input during the public comment period.

The City of Greeley's Boards and Commissions are a critical link to the community. Dena Egenhoff provided key information and presented at commission/advisory board meetings, connecting key City department stakeholders and board members to the plan. Information was provided to:

- Parks and Recreation Advisory Board – information sent to Board on August 16, 2022
- Planning Commission – presentation on August 23, 2022

Local businesses and organizations were also targeted for outreach, inviting them to attend the virtual open houses and provide comments on the draft plan, and included:

- Poudre Learning Center
- Immigrant and Refugee Center
- JBS
- Greeley-Evans School District 6
- Greeley Rotary Club
- Greeley Chamber of Commerce
- Greeley Area Realtors
- Northern CO Homebuilders Association
- Greeley Economic Development Association
- Downtown Development Authority
- Visit Greeley
- United Way

On October 19, 2022, the WEP will be presented the Water and Sewer Board for motion for approval and make recommendation for the City Council. During the November 15, 2022, City Council meeting, the WEP will be presented for approval through a city resolution.

For further inquiries, please reach out to our Water Conservation Manager, Dena Egenhoff, at 970-350-9846 or dena.egenhoff@greeleygov.com.

Sincerely,

Sean Chambers,
Director of Water and Sewer

Encl. 2022 Water Efficiency Plan

Cc: Dena Egenhoff, Water Conservation

Water & Sewer Agenda Summary

Date: October 19, 2022

Key Staff Contact: Sean Chambers, Director of Water and Sewer

Title:

Approve Termination of Augmentation Water Agreement with Greeley Urban Renewal Authority

Summary:

The Greeley Urban Renewal Authority ("GURA") owns a parcel of real property located just east of Highway 85 and the Wastewater Treatment and Reclamation Facility that is commonly referred to as the 8th Street Pit property. GURA has leased the 8th Street Pit property since 1999 to various parties for mining operations.

The City of Greeley entered into a Perpetual Augmentation Water Agreement with GURA on October 4, 2012, which agreement set the terms by which the City would augment the out-of-priority depletions associated with the 8th Street Pit property after the mining operations and associated reclamation activities were completed.

GURA is now under contract to sell the 8th Street Pit property, and the parties have accordingly reached an agreement to formally memorialize their termination of the Perpetual Augmentation Water Agreement and clarify that the City will have no obligation to augment the depletions associated with the 8th Street Pit property after the transfer. Staff and legal counsel recommend approval of the agreement in the form enclosed.

Recommended Action:

Approve Termination of Augmentation Water Agreement with Greeley Urban Renewal Authority

Recommended Motion:

"I move that the Board approve the Termination of Augmentation Water Agreement with Greeley Urban Renewal Authority in the form enclosed, and delegate authority to the Director of Water and Sewer to approve minor amendments before execution, provided that the material substance of the agreement remains unchanged."

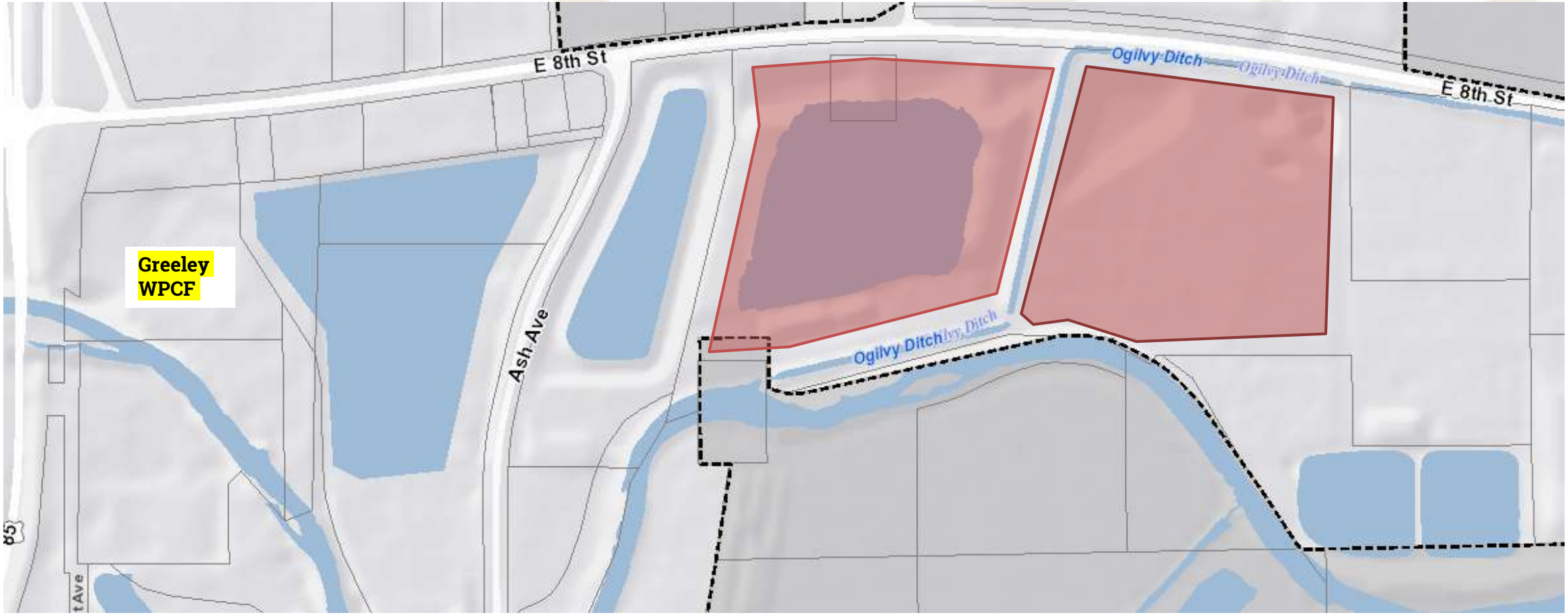
Attachments:

Termination of Augmentation Water Agreement
Perpetual Augmentation Water Agreement with GURA dated October 4, 2012

City of Greeley and Greeley Urban Renewal Authority (GURA) Lease Termination

Greeley Water & Sewer Board

October 19, 2022



City of Greeley Colorado

- **Red shaded area = GURA owned "8th St Pits" location related to Ogilvy Ditch and Greeley WPCF.**

8th St. GURA Pits Augmentation Demand and Greeley Water Lease Agreement

- **Being unlined pits, the mined cells hold exposed ground water.**
- **The Water & Sewer Department has a water lease agreement with GURA to provide augmentation water for out of priority depletions caused by evaporation of exposed groundwater**
- **Section 1.3 of the Water Lease Agreement states, "In no event shall the assignment, sale, conveyance, or subdivision of some or all of the property require Greeley to provide augmentation water to an entity other than GURA…"**

City of Greeley Colorado

GURA is preparing to sell the pits and property on 10/31/22

The City and GURA mutually agree and recommend the termination of the Water Lease Agreement

Questions?

City of Greeley Colorado

TERMINATION OF AUGMENTATION WATER AGREEMENT

This Termination of Augmentation Water Agreement ("Agreement") is entered into this ____ day of October 2022, by and between the City of Greeley, a Colorado home rule municipal corporation acting by and through its Water Enterprise ("Greeley") and the Greeley Urban Renewal Authority ("GURA") (collectively, the "Parties").

Background of Agreement. The following background statements are made to aid in the understanding and interpretation of this Agreement:

A. GURA owns the property described on Exhibit A, commonly known as the 8th Street Pit Property (the "Property").

B. By the Sand, Gravel and Aggregate Mining Lease dated June 9, 1999 and subsequent amendments thereto, GURA leased the Property to certain third parties under a twenty-year lease.

C. By the Perpetual Augmentation Water Agreement dated October 4, 2012, GURA entered into an agreement with Greeley by which the Greeley agreed to provide the permanent augmentation for the Property to GURA ("Augmentation Agreement"). The Augmentation Agreement was recorded on October 17, 2012, in the Weld County Clerk and Recorder's records at Reception No. 3881586.

D. Among other agreements, and subject to the terms and conditions set forth therein, the Augmentation Agreement provided:

1. Greeley would provide augmentation water for the depletions associated with up to a maximum of 23 exposed surface acres at the Property, in exchange for payment by GURA of $21,739 per surface acre, with annual adjustments.

2. Greeley would be responsible for filing the permanent augmentation plan with the Division 1 Water Court.

E. Pursuant to the terms of the Augmentation Agreement, GURA paid to Greeley $260,868 in 2012 and $79,271.67 in 2016, for a total of $349,140.67.

F. GURA has contracted to sell the Property to The Ogilvy Irrigating and Land Company and H2 Investments, LLC ("Contract for Sale"), with a closing scheduled for the end of October 2022. Under the terms of the Augmentation Agreement and the Contract for Sale, if closing occurs, neither GURA nor Greeley will be obligated after the transfer to provide augmentation water to replace depletions associated with the Property.

G. The Parties have agreed to memorialize their termination of the Augmentation Agreement under the terms specified in this Agreement, contingent on the closing of the Contract for Sale, and clarifying that neither GURA nor Greeley are obligated after the transfer to provide augmentation water to replace depletions associated with the Property.

H. Certain disagreements and interpretations of the Augmentation Agreement have arisen between the Parties and the Parties have reached this Agreement to resolve their differences, contingent only on the closing and transfer of deed to the Property as provided in the Contract for Sale.

NOW THEREFORE, in consideration of the background statements that shall be deemed a substantive part of this Agreement, and the mutual promises and agreements contained in this Agreement, and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties hereto do hereby agree, as follows:

1. Agreement. If the Contract for Sale closes on or before December 31, 2022, the Parties agree:

   A. The Augmentation Agreement shall be automatically terminated on the date and at the time of the closing and transfer of deed to the Property, with no obligation on the part of GURA or Greeley to provide permanent augmentation to the Property after the transfer. Effective as of this termination, neither GURA nor Greeley shall have any surviving obligations to the other associated with the Property or the Augmentation Agreement.

   B. Greeley shall refund $79,271.67 to GURA of the funds paid by GURA to Greeley within 10 days after the closing and transfer of deed.

2. Contingency. If the Contract for Sale does not close on or before December 31, 2022, the parties agree that this Agreement shall automatically terminate and the Augmentation Agreement shall remain in full force and effect. In such an event, nothing in this Agreement is intended or shall be construed to amend the terms of the Augmentation Agreement.

3. Miscellaneous.

   A. Binding Effect; Benefit. This Agreement shall inure to the benefit of and be binding upon the Parties hereto, and their respective personal and legal representatives, and successors. Nothing in this Agreement, express or implied, is intended to confer upon any person or entity other than GURA and Greeley any rights, remedies, obligations, or liabilities.

   B. Amendment; Waiver. No provision of this Agreement may be amended, waived, or otherwise modified without the prior written consent of the Parties hereto. No action taken pursuant to this Agreement, including any investigation by or on behalf of any party, shall be deemed to constitute a waiver by the party taking such action of compliance with any representation, warranty, covenant, or agreement herein contained.

   C. Section Headings. The section and other headings contained in this Agreement are for reference purposes only and shall not affect the meaning or interpretation of this

Agreement.

D. Counterparts. This Agreement may be executed in any number of counterparts, each of which shall be deemed to be an original and all of which together shall be deemed to be one and the same instrument.

E. Applicable Law. This Agreement is made and entered into and shall be governed by and construed in accordance with, the laws of the State of Colorado.

IN WITNESS WHEREOF, the City of Greeley and the Greeley Urban Renewal Authority have authorized and executed this Agreement on the date first set forth above.

THE CITY OF GREELEY,
a Colorado home rule municipal corporation
acting by and through its Water Enterprise

By: _____
Director of Water and Sewer

Approved as to Legal Form:

By: _____
City Attorney

As to Water and Sewer Board Approval:

By: _____
Water and Sewer Board Chairman

GREELEY URBAN RENEWAL AUTHORITY
a Colorado urban renewal authority organized pursuant to C.R.S. §31-25-101, et seq.

By: _____

Name: _____

Title: _____

3881586 10/17/2012 10:41 AM
Total Pages: 8 Rec Fee: $46.00
Steve Moreno - Clerk and Recorder, Weld County, CO

PERPETUAL AUGMENTATION WATER AGREEMENT

This Augmentation Water Agreement ("Agreement") is entered into this 9th day October, 2012, by and between the City of Greeley, a Colorado municipal corporation, acting by and through its Water and Sewer Board ("Greeley") and the Greeley Urban Renewal Authority ("GURA") (collectively, the "Parties").

RECITALS

1) GURA owns the property described on Exhibit A, commonly known as the 8th Street Pit Property, which will require augmentation water to replace out-of-priority depletions caused by evaporation of exposed groundwater (the "Property").

2) According to the "Sand, Gravel, and Aggregate Mining Lease" dated June 9, 1999, and 2002, 2008 and 2011 amendments thereto (together referred to as the "Mining Lease") between GURA and CAMAS Colorado, Inc., during the term of the lease, the tenant miner shall obtain water for its mining operations from Greeley and prepare and administer a Temporary Substitute Supply Plan to accommodate any evaporative or other losses. After termination of the lease, GURA is responsible for the water augmentation requirements imposed by the State for the Property.

3) Greeley owns water rights that are fully decreed and usable for augmentation purposes under Colorado water law ("Augmentation Water").

4) GURA desires to secure a permanent supply of augmentation water to be used to augment the 8th Street Pit commencing after the termination of the Mining Lease.

5) Greeley agrees to augment the out-of-priority depletions associated with the Property after termination of the Mining Lease subject to the terms and conditions set forth in this Agreement.

AGREEMENT

FOR GOOD AND VALUABLE CONSIDERATION, the receipt and adequacy of which is hereby acknowledged, and in further consideration of the mutual covenants and agreements set forth below, the parties agree as follows:

1.1. Augmentation Water. Greeley agrees to perpetually augment the out-of-priority depletions caused by evaporative losses at the Property for a maximum of 23 exposed surface acres subject to the conditions in Section 1.2.

1.2. Payment. In consideration of Greeley's perpetual obligation to augment 23 surface acres of the Property, GURA shall pay to Greeley $260,868.00 within 30 days of the

execution of this Agreement. After the initial payment, Greeley will provide augmentation water to cover the out-of-priority depletions caused by evaporative losses for a maximum of 12 exposed surface acres. If GURA determines that the maximum exposed surface acres will be greater than 12 surface acres, GURA shall pay to Greeley an additional payment of $21,739.00 per exposed surface acre over 12 surface acres, escalated at five percent annually beginning in 2013. Payment shall be made within 30 days of providing written notice to Greeley of such additional augmentation water need. Such notice of additional augmentation water shall be given prior to June 30, 2024, otherwise, all references in this Agreement to 23 surface acres shall be amended to read 12 surface acres.

1.3. Assignment of Augmentation Water Agreement. This Agreement is non-transferable by GURA or its successors. The augmentation water provided by Greeley under this Agreement shall only be used to augment evaporative losses associated with the out-of-priority depletions caused by mining activities at the 8th Street Pit property. In no event shall the assignment, sale, conveyance, or subdivision of some or all of the Property require Greeley to provide augmentation water to an entity other than GURA, or require Greeley to provide Augmentation Water in amounts greater, or in a different manner, than as described herein.

1.4. Administration. To the extent that the maximum amount of exposed surface acres at the Property totals less than 23 surface acres, Greeley reserves the right to use the balance of the Augmentation Water for its own purposes. Greeley shall not be obligated to augment evaporative losses for more than 23 exposed surface acres. Any augmentation required beyond 23 surface acres shall be the sole responsibility of GURA.

1.5. 8th Street Pit Augmentation Plan and Substitute Water Supply Plans. The Parties intend that the augmentation water provided by Greeley hereunder will be used under and incorporated into a permanent augmentation plan for the Property to be filed in Water Court, Water Division No. 1. Greeley shall be responsible for filing the permanent augmentation plan in Water Court approximately two years prior to the termination of mining at the site ("Mining Termination") and for administering such plan once it is decreed. GURA shall provide written notice to Greeley at least 180 days prior to the Mining Termination date. Greeley shall not be responsible for filing temporary substitute water supply plans at the Property during the term of the Mining Lease. GURA shall cooperate with and provide reasonable assistance and information to Greeley to enable Greeley to obtain Water Court approval of the permanent augmentation plan for the Property.

1.6. Notices. Any notices required hereunder shall be sent by certified mail or hand-delivered to the parties at the following addresses, unless a party notifies the other party in writing that such contact or address has changed:

For Greeley: Director, Water and Sewer Department
City of Greeley
1100 10th Street, 3rd Floor
Greeley, Colorado 80631

With a copy to:

City Attorney, Environmental and Water Resources Attorney
City of Greeley
1100 10th Street, Suite 401
Greeley, Colorado 80631

For GURA:

Secretary, Greeley Urban Renewal Authority
c/o City of Greeley
1000 10th Street, Ste 107
Greeley CO 80631

With a copy to:

Fred L. Otis
Otis, Coan & Peters, LLC
1812 56th Avenue
Greeley, CO 80634

1.7. Water Rights Used for Augmentation Water. Greeley may use and deliver any water rights or water supplies, or any combination thereof, which Greeley owns or has a right to use to satisfy its obligations under this Agreement; provided that such water rights or water supplies are duly authorized for such use. Greeley has no obligation to ensure that the Augmentation Water provided hereunder is authorized for use in GURA's temporary substitute water supply plans.

1.8. Right of First Negotiation. GURA shall not, sell, transfer or otherwise dispose of the water storage in the Property, except in accordance with the provisions hereof. If GURA desires to transfer or dispose of the water storage in the Property, GURA shall first give written notice (a "Offer to Negotiate") to Greeley of its intent to sell such storage rights. Greeley shall have the right to negotiate for a period of ninety (90) days after receipt of the Offer to Negotiate, but if no agreement is reached within said ninety (90) day period, GURA shall be at liberty to sell or transfer the water storage in the Property to third parties. Nothing herein is intended to infer that GURA has any water storage rights established.

1.9. Prior Agreements. This Agreement cancels and supersedes all prior agreements between the parties related to the rental or lease of Augmentation Water.

1.10. Default. If either party shall fail or refuse to perform according to the terms of this Agreement, such party may be declared in default. Such declaration of default must be made in writing. If a party has been declared in default of this Agreement, such defaulting party shall be allowed a period of sixty days within which to cure the default. If the default remains uncorrected, the party declaring the default may elect to: (a) terminate the Agreement and seek damages; (b) treat the Agreement as continuing and seek specific performance; or (c) pursue any other remedy at law or equity.

1.11. Costs. In addition to the remedies available in Paragraph 1.13, if the default of any of the provisions of this Agreement by either party require the party not in default to commence legal action against the defaulting party, the defaulting party shall be liable to the non-defaulting

party for the costs incurred because of the default, including reasonable attorney's fees.

1.12. Governing Law; Venue. This Agreement shall be governed and enforced in accordance with the laws of the State of Colorado. Venue for any action regarding this Agreement shall be in the District Court for Weld County, Colorado or Water Court as appropriate.

1.13. Recording. This Agreement may be recorded by either party, and may be disclosed and utilized in any Water Court proceeding related to the Property's augmentation plan and related matters.

1.14. Counterparts. This Agreement may be executed in counterparts, each of which (or combination of which), when signed by both parties shall be deemed an original, but both together shall constitute one agreement.

1.15. No Third Party Enforcement. The terms and conditions of this Agreement, and all rights of action relating thereto, are strictly reserved to the Parties, and nothing in this Agreement shall give or allow any claim or right or cause of action whatsoever by any other person not included in this Agreement. Any person and/or entity, other than the Parties, receiving services or benefits under this Agreement shall be deemed an incidental beneficiary only.

1.16. Runs with Land. The benefits and burdens of this Agreement shall run with the Property.

1.17. Effect of Invalidity. The Parties intend for this Agreement to establish GURA's perpetual right to use the Augmentation Water, subject to conditions. Should a Court of competent jurisdiction determine that such right may not be conveyed, the Parties intend that this Agreement be interpreted as a 99-year lease, which will renew automatically at the end of its term unless, at least one calendar year prior to its expiration, either party gives a notice of breach and the breaching party files to cure within 60 days of such notice.

1.18. Waiver. A waiver of a breach of any provision of this Agreement shall not waive any subsequent breach of the same or different provision of this Agreement.

1.19. Binding Agreement. This Agreement binds and benefits the Parties and their respective survivors, heirs, successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Agreement on the date first written above.

Exhibit A

Lot 3, Meyer Minor Subdivision, a Subdivision of the City of Greeley, Weld County, Colorado.

FINAL PLAT

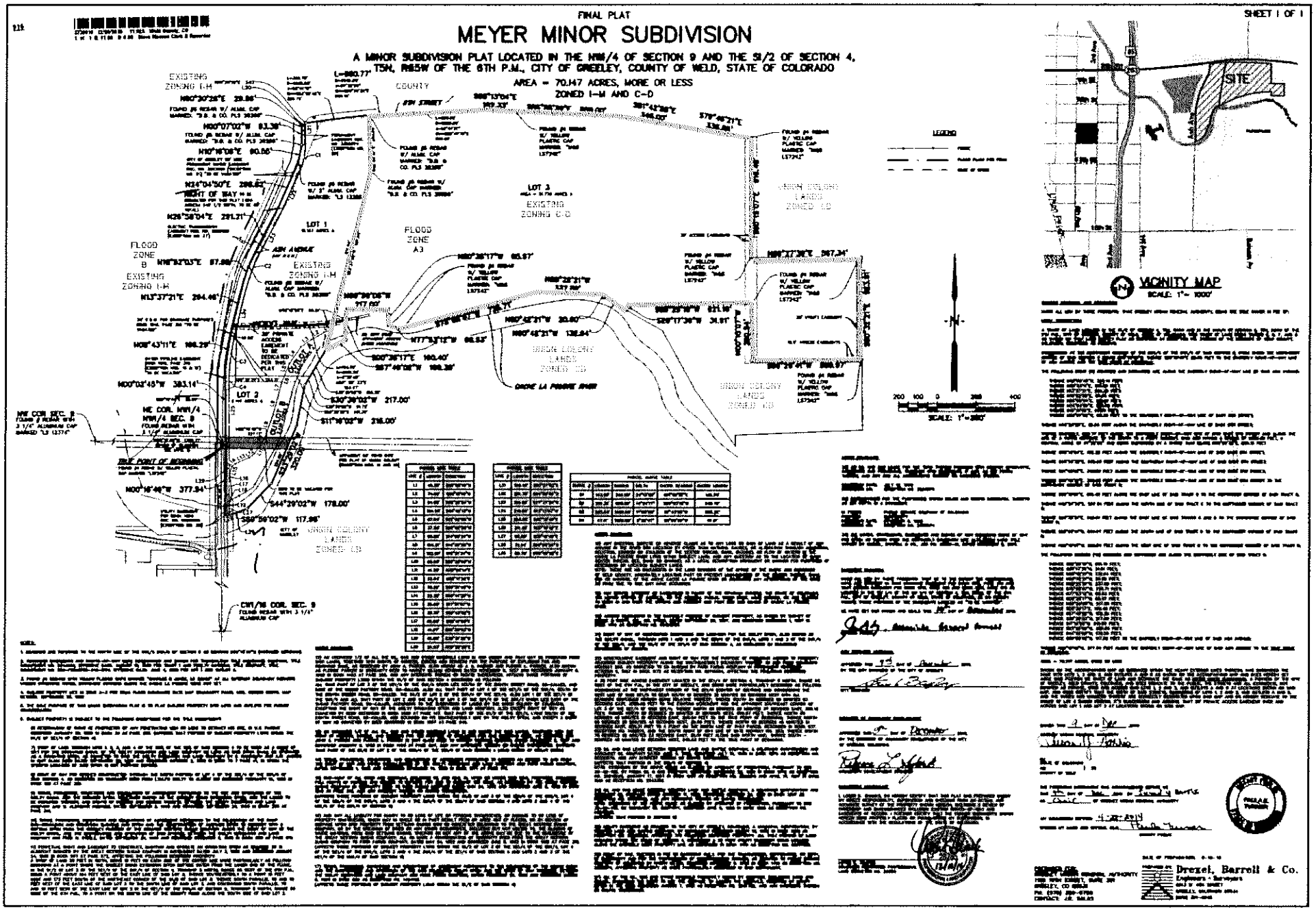
MEYER MINOR SUBDIVISION

A MINOR SUBDIVISION PLAT LOCATED IN THE NW1/4 OF SECTION 9 AND THE SW1/2 OF SECTION 4, T5N, R65W OF THE 6TH P.M., CITY OF GREELEY, COUNTY OF WELD, STATE OF COLORADO

AREA = 70.147 ACRES, MORE OR LESS

ZONED I-M AND C-D

SHEET 1 OF 1



VICINITY MAP

SCALE: 1"= 1000'

Drexel, Barrell & Co.

FINAL PLAT

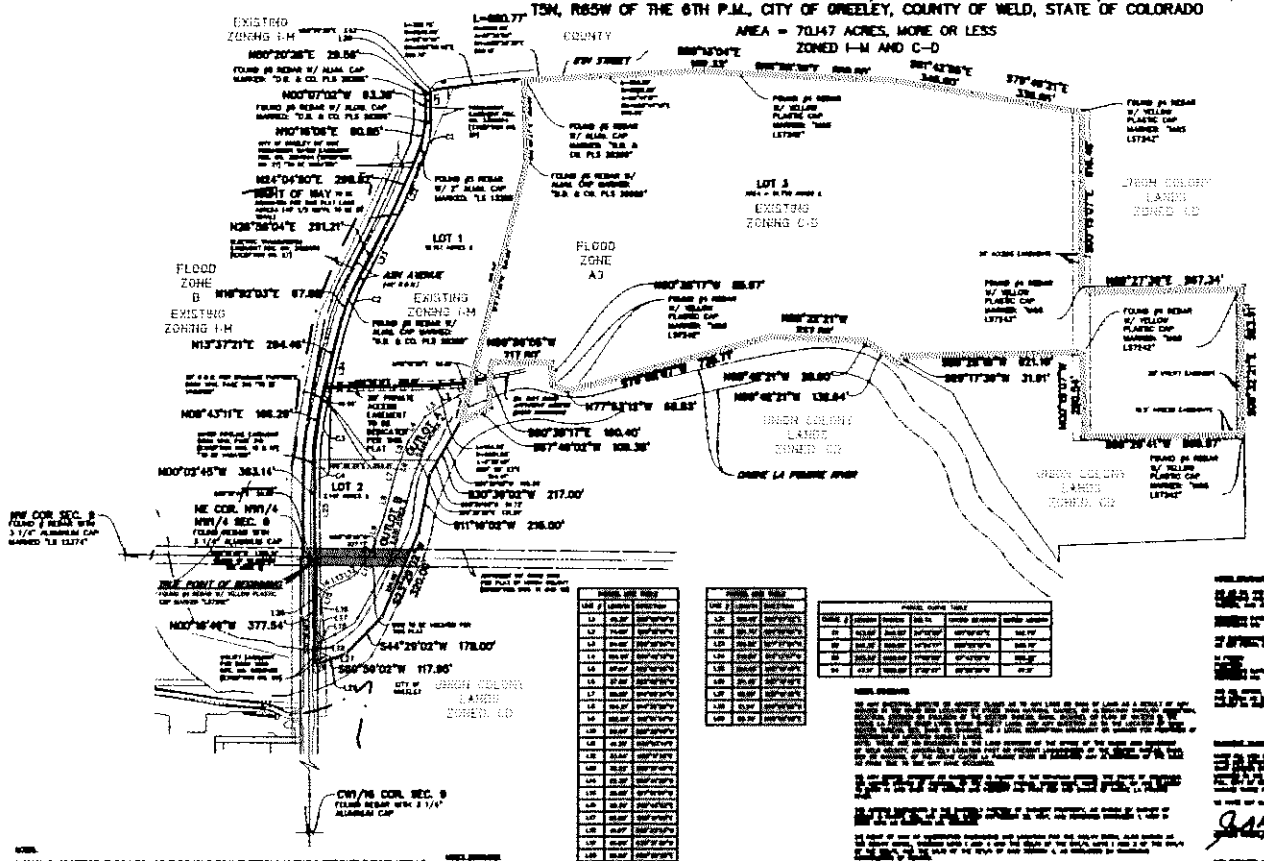
MEYER MINOR SUBDIVISION

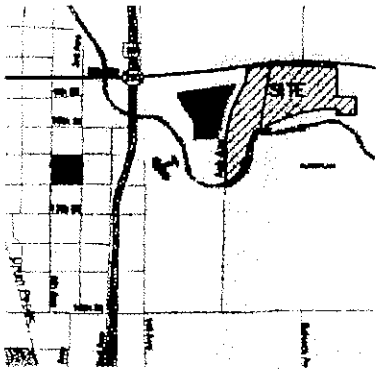
SHEET 1 OF 1

A MINOR SUBDIVISION PLAT LOCATED IN THE NW/4 OF SECTION 9 AND THE S1/2 OF SECTION 4, T5N, R65W OF THE 6TH P.M., CITY OF GREELEY, COUNTY OF WELD, STATE OF COLORADO

AREA = 70.147 ACRES, MORE OR LESS

ZONED I-M AND C-D





VICINITY MAP

SCALE: 1"= 1600'

Brexel, Barrell & Co.

Exhibit A

Lot 3, Meyer Minor Subdivision, a Subdivision of the City of Greeley, Weld County, Colorado.

Water & Sewer Agenda Summary

Date: October 19, 2022

Key Staff Contact: Erik Dial, Utility Finance and Business Manager

Title:

Approve and Recommend to City Council the Leprino Development Agreement – 6th Amendment

Summary:

In 2008, the City and Leprino entered into a Development Agreement for Leprino's construction of a dairy product manufacturing facility in Greeley. The Development Agreement required the City to provide Leprino with treated water service for all three planned phases of its development, which was then estimated at 1,344 acre feet per year at buildout. To meet Greeley's raw water requirements for the facility, the Development Agreement granted Leprino certain raw water credits (including credit for "Produced Water" generated from milk, as a byproduct during processing at the facility), and allowed Leprino to pay cash-in-lieu of providing raw water at a favorable rate.

As Leprino began operations and was constructing the three phases of its facility, it was apparent that the facility's original estimated demand of 1,344 acre feet per year was low. Through 2016, Leprino had purchased 1,133 acre feet of cash-in-lieu water, which reflected the entirety of the favorably priced cash-in-lieu (Leprino Water Bank Rate) as defined in the original Development Agreement. In March 2017, after negotiations between Greeley staff and Leprino, Greeley's Water and Sewer Board and City Council approved the Fourth Amendment of the Development Agreement for Leprino. The Fourth Amendment made changes to the Development Agreement that made available to Leprino additional raw water at discounted cash-in-lieu rates, but also required Leprino to match each acre foot of discounted cash-in-lieu water with a dedication of Colorado-Big Thompson (C-BT) water. After the dedication of C-BT, Leprino has the option to purchase 55 acre feet of water at the original Leprino Water Bank Rate ($4,500/acre foot, increasing 4% annually starting in 2015) and up to 150 acre feet of water at the New Leprino Water Bank Rate ($12,000, increasing 4% annually starting in 2018). Since the adoption of the Fourth Amendment, Leprino had dedicated 247 units of C-BT water, reflecting 190 acre feet of water, but has not purchased any of the additional discounted cash-in-lieu water. After the dedication of 190 acre feet of C-BT, Leprino's total raw water allotment is 2,134 acre feet.

The original Development Agreement envisioned the Leprino facility would be built out by 2018 and that after 2018 any water usage by Leprino over the raw water allotment would be subject to the then current raw water surcharge. This provision was unchanged in the subsequent amendments to the Development Agreement. In 2020, Leprino used 2,306.53 acre feet of water, exceeding their allotment by 172.53 acre feet. At the 2020 raw water surcharge rate of $10.05/kgal, this overage resulted in a total raw water surcharge of $565,001.68 due to Greeley from Leprino.

At the time the Fourth Amendment to the Development Agreement was developed and approved, the Water Court application for the Produced Water was in process and the decreed volume of water from the application was unknown. (Greeley and Leprino received the decree for the Produced Water on April 17, 2020.) The Fourth Amendment defined the options for

Greeley and Leprino if the decreed volume resulted in a volume less than or greater than 600 acre feet of Produced Water. If the decreed volume resulted in a volume greater than 600 acre feet of Produced Water (based on the 36 month average after the completion of the third phase of the facility construction), then Greeley would have the option to purchase any or all of the "Excess Decreed Amount" of Produced Water. The purchase price for Greeley for the Excess Decreed Amount would be at the New Leprino Water Bank Rate (escalated at 4%) and Greeley had 120 days to notify Leprino of its intent to purchase any of the Excess Decreed Amount when the 36 month period was complete. Leprino notified Greeley that March 30, 2022 was the end of 36 month period and Greeley had 120 days from then to purchase the Excess Decreed Amount, if so desired. The Produced Water volume during that 36 month period was approximately 840 acre feet of water, or 240 acre feet above the 600 acre feet of raw water credit given to Leprino. Greeley's staff notified Leprino that the City would not purchase any of the Excess Decreed Amount because there are other, less expensive supplies that can be purchased for the purposes that the Produced Water would serve for Greeley. Leprino, however, was interested in a non-cash transaction to pay for their 2020 raw water surcharge. Leprino suggested that they satisfy their raw water surcharge liability with a portion of the Excess Decreed Amount supplies. Greeley's staff was amenable to that solution and the enclosed Sixth Amendment to the Development Agreement reflects Greeley purchasing 38.70 acre feet of Excess Decreed Amount water, which reflects the volume of water the raw water surcharge of $565,001.68 can purchase using the 2022 New Leprino Water Bank Rate of $14,599.83/acre foot.

Recommended Action:

Approve and Recommend to City Council the Sixth Amendment to the Leprino Development Agreement.

Recommended Motion:

"I move that the Board approve the Sixth Amendment to the Leprino Development Agreement and recommend that City Council approve the same."

Attachments:

Sixth Amendment to the Development Agreement
Power Point slide deck

City of Greeley Colorado
WATER & SEWER

Sixth Amendment to the Leprino Development Agreement

October 19, 2022

Leprino Development Agreement Background

- **Original Development Agreement done in 2008**
- **Raw water credits and costs a key component of the agreement**
  - **Produced Water a key part of the raw water dedication, and an uncertain amount when the agreement was negotiated**
  - **Leprino was granted up to 1,133 acre feet of favorable cash-in-lieu water priced at $4,500/AF (Leprino Water Bank Rate)**
- **Total demand was projected to be 1,344 AF at buildout**

City of Greeley Colorado

Raw Water – Original Development Agreement

	Volume - AF
Credit associated with site	**211**
Produced Water credit (not decreed)	**600**
Leprino Water Bank	**1,133**
Leprino's *Potential* Allotment	**1,944**

*** Expected demand = 1,344 AF**

City of Greeley Colorado

Fourth Amendment to Development Agreement - 2018

- **Leprino was successful – buildout projection for water demand too low**
- **All 1,133 AF of Leprino Water Bank Rate water was purchased**
- **Water Court application for the Produced Water proceeding but result unknown**
- **Leprino requested additional cash-in-lieu at a favorable rate**
  - **Greeley offered 55 AF at Leprino Water Bank Rate and 150 AF at the New Leprino Water Bank Rate ($12,000/AF to start)**
  - **Leprino had to dedicate an equal amount of C-BT water to receive cash-in-lieu**

Raw Water – Fourth Amendment to the Development Agreement

	Volume - AF
Credit associated with site	211
Produced Water credit (not decreed)	600
Leprino Water Bank	1,133
Potential New Supplies	
C-BT Dedication	205
Additional Leprino Water Bank	55
New Leprino Water Bank	150
Leprino's *Potential* Allotment	2,354

City of Greeley Colorado

Leprino's Raw Water - Current

	Volume - AF
Credit associated with site	211
Produced Water credit (decreed – Apr 2020)	600
Leprino Water Bank	1,133
C-BT Dedication	190
Leprino's Allotment	2,134

- Leprino did not purchase any additional cash-in-lieu under the terms of the Fourth Amendment to the Development Agreement

Leprino's Raw Water Overage - 2020

	Volume - AF
Credit associated with site	211
Produced Water credit (decreed)	600
Leprino Water Bank	1,133
C-BT Dedication	190
Leprino's Allotment	2,134
Total Usage - 2020	2,306.53
2020 Overage	172.53

- Buildout occurred in 2018 – raw water surcharges for any usage over allotment
- Leprino's overage in 2020 results in amount owed of $565,001.68

City of Greeley Colorado

Sixth Amendment Terms

- **Per the Fourth Amendment, Greeley had the option to purchase the Excess Decreed Amount (240 AF)**
  - **Leprino and Greeley staff agreed to use the $565,001.68 Leprino owes for the raw water surcharge for Greeley to purchase 38.70 AF of Excess Decreed Amount water**
  - **Greeley relinquishes all rights to the remainder of the Excess Decreed Amount**
  - **Defined remaining available cash-in-lieu amounts**
  - **Updated to reflect current raw water requirement rules**

Leprino's Potential Raw Water – Sixth Amendment

	Volume - AF
Credit associated with site	211
Produced Water credit (decreed)	600
Leprino Water Bank	1,133
C-BT Dedication	190
Leprino's Allotment	2,134
Potential New Supplies	
Additional Leprino Water Bank	55
New Leprino Water Bank	165
Potential Total Supply - AF	2,354

- Leprino can increase their allotment
- Leprino staff has indicated that they believe 2,134 AF is sufficient for their operations

City of Greeley Colorado

Recommended Action

- **Water and Sewer Board approves and recommends to City Council the Sixth Amendment to the Development Agreement for Leprino Foods Company.**

Questions?

SIXTH AMENDMENT TO THE DEVELOPMENT AGREEMENT

This Sixth Amendment to the DEVELOPMENT AGREEMENT ("Sixth Amendment") is entered into as of _____, 2022 by and between LEPRINO FOODS COMPANY ("Leprino"), a Colorado corporation, and THE CITY OF GREELEY, COLORADO, a home rule municipal corporation ("City").

WHEREAS, on June 13, 2008, the City and Leprino entered into a Development Agreement ("Initial Development Agreement"); and,

WHEREAS, on November 25, 2008, the City and Leprino entered into the First Amendment to the Initial Development Agreement ("First Amendment"); and,

WHEREAS, on July 15, 2013, the City and Leprino entered into the Second Amendment to the Initial Development Agreement ("Second Amendment"); and,

WHEREAS, on February 17, 2016, the City and Leprino entered into the Third Amendment to the Initial Development Agreement ("Third Amendment"); and,

WHEREAS, on March 13, 2017, the City and Leprino entered into the Fourth Amendment to the Initial Development Agreement ("Fourth Amendment"); and,

WHEREAS, on April 4, 2019, the City and Leprino entered into the Fifth Amendment to the Initial Development Agreement ("Fifth Amendment"); and,

WHEREAS, pursuant to the Initial Development Agreement as amended (hereinafter, the "Development Agreement"), Leprino has satisfied its obligation to supply the City with raw water sufficient to meet the needs of the first two phases of the Project (as defined in the Development Agreement) by a) applying the 211 acre-feet initial raw water credit extended by the City at no charge to Leprino; b) receiving the 600 acre-feet maximum "applicable credit" for "Produced Water" defined therein and extended by the City; and c) paying cash in lieu of dedicating raw water for approximately 813 acre-feet of water at the applicable "Leprino Water Bank Rate" defined therein; and,

WHEREAS, in March 2016 Leprino paid for the remaining approximately 320 acre-feet of cash-in-lieu raw water credit available at the applicable Leprino Water Bank Rate under the Development Agreement, which brought the total amount of cash-in-lieu of raw water credit Leprino has purchased to 1,133 acre-feet, and,

WHEREAS, the Development Agreement capped Leprino's entitlement thereunder to purchase water at the applicable Leprino Water Bank Rate at 1,133 acre feet (1,344 acre-feet estimated demand minus 211 acre-feet of initial raw water credit), but provided that Leprino could, if needed, purchase additional water in excess of 1,133 acre-feet at a rate no greater than the City's most favorable cash in lieu rate, or at an available water bank rate, in effect at the time of such additional purchase; and,

WHEREAS, in 2017 Leprino determined that it would require water service for Phase III of the Project that exceeded the amounts initially estimated and addressed in the Development Agreement and previously purchased by Leprino pursuant thereto; and,

WHEREAS, the City and Leprino addressed Leprino's satisfaction of its raw water obligations with respect to its anticipated water demands for Phase III of the Project and, in connection therewith, amended certain related provisions of the Development Agreement (see the Fourth Amendment); and,

WHEREAS, in satisfaction of Subsections I(F)(1)(e)(i)-(v) of the Fourth Amendment, the City filed the Water Court Application and obtained a water court decree acceptable to Leprino ("Case No. 17CW3020"); and,

WHEREAS, under Subsections I(F)(1)(e)(v) of the Fourth Amendment, the City was granted 600 acre-feet of Produced Water, and the exclusive option to purchase that quantity of Produced Water greater than 600 acre-feet of water per year (based upon the accounting approach approved in the Water Court Application and based upon the average quantity of water available to the City annually over a 36 month time period commencing after Leprino has completed Phase III of the Project and achieved full production and milk receiving capacity at the anticipated Phase III milk receiving design capacity) (defined as the "Excess Decreed Amount" under the Fourth Amendment); and,

WHEREAS, in January 2019, Leprino completed Phase III of the Project, and based on the 36 month average, the parties have determined that the Excess Decreed Amount is approximately 240 acre-feet; and,

WHEREAS, in 2020, Leprino's annual raw-water allotment was 2,134 acre-feet but its actual use was 2,306.53 acre-feet, exceeding its allotment by approximately 172.53 acre-feet. In lieu of paying cash to satisfy the applicable surcharge, Leprino has agreed to grant, and the City has agreed to accept, a license to 38.70 acre-feet of the Excess Decreed Amount; and,

WHEREAS, subject to the terms of this Sixth Amendment, the City is acquiring 38.70 acre-feet of the Excess Decreed Amount and relinquishing its rights to exercise the exclusive option to purchase all or a portion of the remaining Excess Decreed Amount; and,

WHEREAS, initially capitalized terms used herein and defined in the Development Agreement shall have the meanings contained in the Development Agreement unless otherwise modified or defined herein; and,

WHEREAS, the Development Agreement may be amended from time to time, in whole or in part, by mutual written consent of the parties hereto or their successors in interest; and

WHEREAS, the City and Leprino desire to amend the Development Agreement in accordance with this Sixth Amendment.

IN CONSIDERATION OF THE RECITALS, COVENANTS, AND PROVISIONS SET FORTH HEREIN AND OTHER GOOD AND VALUABLE CONSIDERATION, THE RECEIPT, SUFFICIENCY, AND ADEQUACY OF WHICH ARE HEREBY ACKNOWLEDGED BY AND BETWEEN THE PARTIES, THE PARTIES AGREE AS FOLLOWS:

I. 2020 Surcharge. As of 2018, Leprino has dedicated or received a raw water dedication credit for a total allotment of 2,134 acre-feet. In 2020, Leprino's actual use exceeded its allotment by approximately 172.53 acre-feet. Pursuant to subsections I(F)(1)(d)(iv)-(v) of the Fourth Amendment, Leprino is subject to the City's raw water surcharge (Sec. 20-260 of the Greeley Municipal Code) for any water use that exceeds its annual allotment. Based on the 2020 raw water surcharge rate, Leprino owes a surcharge fee of approximately $565,001.68. In lieu of a cash payment, however, Leprino has agreed to grant, and the City has agreed to accept, a license to a portion of the Excess Decreed Amount (referred to below in this Sixth Amendment as the "Excess Amount") that is equal in value to the surcharge (or 38.70 acre-feet) as provided for in subsections I(F)(1)(d)(iv) and I(F)(1)(e) below.

II. Relinquishment of the Option. Pursuant to the Fourth Amendment, the City was granted an option to purchase all or a portion of the Excess Decreed Amount. The City has decided not to exercise its right; and except as provided in I(F)(1)(e)(i) below, the City hereby relinquishes any and all rights to the Excess Decreed Amount (or the "Excess Amount" as defined herein), less the 38.70 acre-feet as provided above. In accordance with this relinquishment, the City acknowledges that Leprino is free to use, license, lease, or sell to any other party on terms selected by Leprino, in its sole discretion, the right to use the balance or unlicensed portion of the Excess Decreed Amount (or 201.30 acre-feet as of 2022, which amount may increase or decrease in future years).

III. Amendments. Section I(F)(1)(d)-(e) of the Development Agreement is hereby amended and replaced in its entirety as follows:

d. Dedication of Raw Water.

i. Amounts Previously Dedicated or Credited. Separate and apart from the PIF and the water service charge specified above for treatment and delivery of water, the City requires new developers to dedicate to the City, sufficient raw water for the anticipated water needs of the development project. Prior to completion of Phase III of the Project , Leprino anticipated that its use would not exceed 2,354 acre-feet annually. In partial satisfaction of its projected demand, Leprino dedicated or received a credit for a total of 2,134 acre-feet of raw water in accordance with the Development Agreement. The amounts dedicated by or credited to Leprino are presented in the following table.

Year	Raw Water Credit (af)	Cash-in-Lieu (af)	Produced Water Credit (af)	C-BT (Units)	C-BT Credit (af)	Total Water (af)
2011	211		78.38			289.38
2012		52.35	273.82			615.55
2013		182.41	247.8			1045.76
2014		522.44				1568.20
2015		55.59				1623.79
2016		320.21				1944.00
2017				167	128.46	2072.46
2018				80	61.54	2134
Total	211	1,133	600	247	190	2134

ii. Additional Amounts Available. To meet the balance of its projected raw water dedication requirements (i.e., 220 acre-feet), Leprino may satisfy the first 55 acre-feet by paying a cash-in-lieu fee equal to the City's former water bank rate of $4,500/acre foot (the "Leprino Water Bank Rate"). Beginning January 1, 2015, the Leprino Water Bank Rate will increase at a rate of 4% per year, accruing and compounded annually (or $6,158.56 /acre-foot as of the date of this Sixth Amendment). Leprino may satisfy the balance (i.e., 165 acre-feet for a total of 220 acre-feet) by paying a cash-in-lieu fee of $12,000/acre-foot (the "New Leprino Water Bank Rate"), based on credits previously transferred into the City's water bank in 2017. Beginning January 1, 2018, the New Leprino Water Bank Rate shall increase at the rate of 4% per year, accruing and compounded annually (or $14,599.83/acre-foot as of the date of this Sixth

Amendment). Leprino may acquire additional water service beyond the projected 2354 acre-feet only by satisfying the City's raw water dedication requirements in existence at the time of any request for such additional service.

iii. Supplemental Cash-in-Lieu for Overages. As specified above, Leprino has previously dedicated or received a credit for a total amount of 2,134 acre-feet of raw water and may furnish an additional 220 acre-feet to the City by paying a cash-in-lieu fee in accordance with subparagraph I(F)(1)(d)(ii) above. Currently, Leprino's annual use is approximately 2102 acre-feet. If Leprino exceeds its annual allotment for two consecutive calendar years or if the amount of Produced Water available to the City is less than 638.70[1] acre-feet resulting in a reduced annual allotment for two consecutive calendar years, then Leprino shall be required to pay a cash-in-lieu fee in accordance with subparagraph I(F)(1)(d)(ii) above to increase its annual allotment by an amount equal to either (1) the average volume of water used above its annual allotment or (2) the average volume of Produced Water less than 638.70 acre-feet that is made available to the City over the applicable two consecutive calendar year period. The payment of any cash-in-lieu fee pursuant to this section shall be in addition to any surcharge assessed pursuant to subparagraph I(F)(1)(d)(v) below.

iv. Surcharge. If Leprino's actual usage in any calendar year exceeds its allotment (i.e., 2,134 acre-feet as of the date of this Sixth Amendment) or if the amount of Produced Water available to the City in any calendar year is less than 638.70 acre-feet resulting in a reduced annual allotments, then the City's standard raw water surcharge shall apply. In the City's sole discretion, Leprino may satisfy a raw water surcharge by allocating to the City a portion of the Excess Amount (defined below), if any, equal to the calculated surcharge. The value of the Excess Amount shall be determined based on the New Leprino Water Bank Rate as set out in subsection I(F)(1)(d)(ii).

e. Water Produced by Leprino; License. As a manufacturer of cheese and related dairy products, Leprino purchases a large volume of fluid milk that is delivered to its factories. The milk is then processed in the cheese making and whey manufacturing process such that most of the solids, fat, protein, and other minerals and components are removed and segregated into various product streams for eventual sale. Approximately 87% of the raw milk consists of water. The water portion of the milk that is not retained in the cheese or whey products is ultimately collected by Leprino and remains in Leprino's ownership, dominion, and control. Leprino refers to this water portion of the milk as "Produced Water."

i. License. Leprino hereby grants to the City a license, in accordance with and subject to the terms of this Agreement, to use, reuse, successively use, and/or dispose of 638.70 acre-feet per year of the Produced Water portion of Leprino's wastewater discharge from the Plant for as long as Leprino operates the Plant (the "License"). The grant of the License shall be a condition precedent to the rights and obligations of the parties under this paragraph I(F)(1)(e).

ii. Excess Amount. In 2017, the City and Leprino filed an application in Division 1 Water Court and received a decree in Case No. 17CW3020 on April 17, 2020, to use, reuse, successively use, and/or dispose of the Produced Water for use for augmentation and replacement purposes. Leprino previously estimated that the Project, upon completion, would

[1] Because it intended to satisfy the 2020 surcharge, the additional 38.70 acre-feet of Produced Water shall not be added to Leprino's annual allotment. In order to ensure that Leprino has dedicated an amount of raw water adequate to cover its annual allotment and its obligation under Section I(F)(1)(e), however, the 38.70 acre-feet shall be considered for purposes of calculating the amounts under Sections I(F)(1)(d)(iii) and (iv).

produce approximately 600 acre-feet/year of Produced Water on an annual basis. Based upon a 36-month average after completion, the Project has produced approximately 840 acre-feet of Produced Water or 240 acre-feet above its previous estimate ("Excess Amount"). If additional measurement devices at the Plant are required by the State or Division Engineer, the parties agree to share equally the costs of installation of such devices, and to mutually agree upon any burden to be assumed by either party to read, report the results of, and maintain such devices.

iii. Licensed Water. The period for revoking the License (as described in the Fourth Amendment) has passed. Pursuant to subsection I(F)(1)(d)(v), Leprino has agreed to grant, and the City has agreed to accept, a license to use, reuse, successively use, and/or dispose of 38.70 acre-feet of the Excess Amount (in lieu of a cash surcharge payment pursuant to subsection I(F)(1)(d)(iv) above), for a total 638.70 acre-feet of Produced Water available to the City under the License ("Licensed Water"). In the event that Leprino, its third party licensee, lessee, or grantee seek to use the amount of Produced Water over and above the 638.70 acre-feet of Licensed Water, the quantification of such use must be consistent with the quantification method approved in the decree entered in Case No. 17CW3020.

IV. Other Terms in Full Force and Effect. Except as specifically modified herein, all of the terms and conditions of the Development Agreement, First Amendment, Second Amendment, Third Amendment, Fourth Amendment and Fifth Amendment remain in full force and effect.

[Signature page to follow]

THE CITY OF GREELEY, a home rule municipal corporation

By:_____
Mayor

ATTESTED:

By:_____
City Clerk

APPROVED AS TO SUBSTANCE:

By:_____
Raymond C. Lee, III, City Manager

APPROVED AS TO AVAILABILITY OF FUNDS:

By:_____
John Karner, Finance Director

APPROVED AS TO LEGAL FORM:

By:_____
Douglas Marek, City Attorney

LEPRINO FOODS COMPANY, a Colorado Corporation

By: _____
Its: _____

APPROVED AS TO FORM AND ENFORCEABILITY

By: _____
Its: Vice-president and General Counsel

Water & Sewer Agenda Summary

Date: September 21, 2022

Key Staff Contact: Kelen Dowdy, Water Resource Planning Manager

Title: Integrated Water Resources Plan update: Baseline Results

Summary: The current Greeley Water Supply Master Plan is more than 17 years old. Since the creation of the last master plan in 2003, Greeley's strategies to continue to provide a robust, resilient water supply have evolved and the water market has transformed. Likewise, widely accepted strategies used to plan for water development have progressed. Consequently, the Water Resources team has been developing a new water master plan, through a process termed Integrated Water Resource Planning (IWRP). The IWRP process will evaluate Greeley's long-term water supply sustainability, develop a road map to buildout and identify near-term CIP components. As part of the process, the IWRP evaluate a suit of future conditions to plan for called "planning scenarios". These scenarios define key components of future conditions such as the state of Greeley's water supply system, demands, climates and other system risks. In order to evaluate the timing of Terry Ranch and compare future conditions, a baseline analysis must be conducted. This presentation will outline the baseline evaluation process and define baseline conditions. Furthermore, the presentation will discuss planning level of service which establishes unacceptable future conditions that will catalyze the development of new projects. Importantly, this presentation will outline the integrated and adaptive approach that will monitor system conditions to trigger CIP projects.

Recommended Action: Information only

Attachments:

Integrated Water Resource Plan

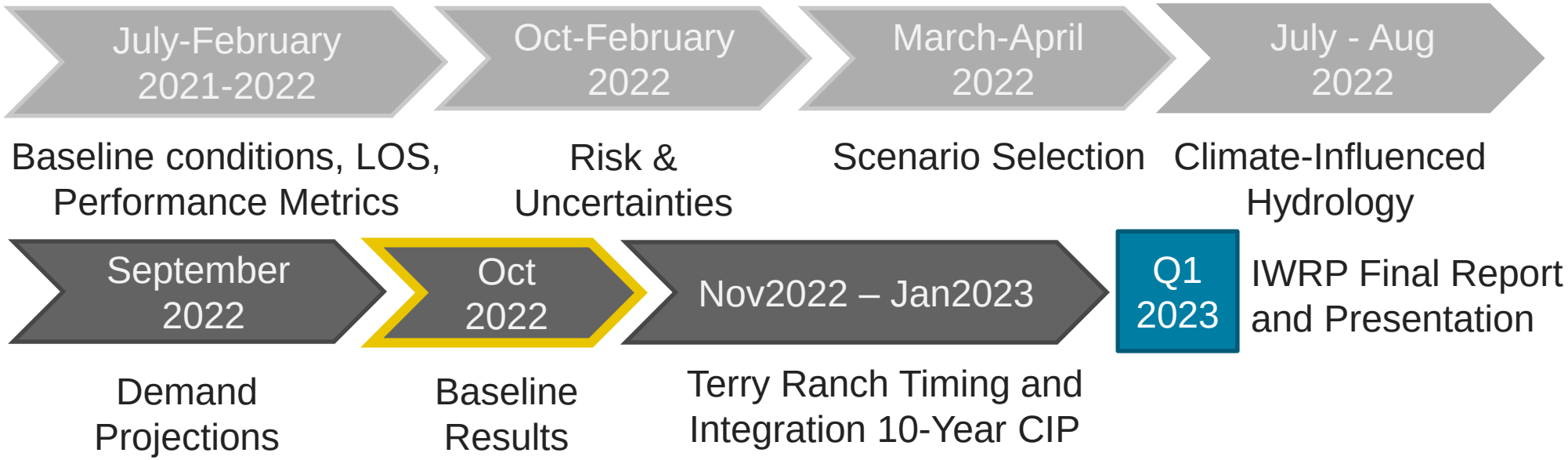
Baseline Results and Level of Service

October 19th, 2022

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



Baseline Evaluation Process

- Set future conditions
  - Baseline Settings
  - Near-term Planning Scenarios
- Simulate range of demands
- Determine which demands result in unsatisfactory performance
  - Planning Level of Service

Planning Scenario Name	Water Supply System	Climate
High Bookend	Reduced Yields *-10%*	*+2°F*
Median	Expected Yields *No Change*	*+2°F*
Low Bookend	Expected Yields *No Change*	*+2°F, +7% Precipitation*
No Climate Change	Expected Yields *No Change*	No Change
Mix and Match	Reduced Yields *-10%*	*+2°F, +7% Precipitation*

Baseline Settings

- Greeley's water rights:
  - Assumed leases are in possession for Greeley
  - All owned water rights are changed for Greeley use
- In-progress projects assumed complete:
  - 10 year CIP
  - Non-Potable Equalizer Pipeline
  - Chimney Hollow Reservoir

Planning Level of Service

- Establishes unacceptable future conditions to justify new projects
- Used for comparative purposes, not intended to be policy

Planning Level of Service

- Potential Planning Level of Service

Performance Criteria	Metric	Acceptability Threshold
Greeley meets critical water needs for public health	Always meet indoor demands	100%

Planning Level of Service

- Potential Planning Level of Service

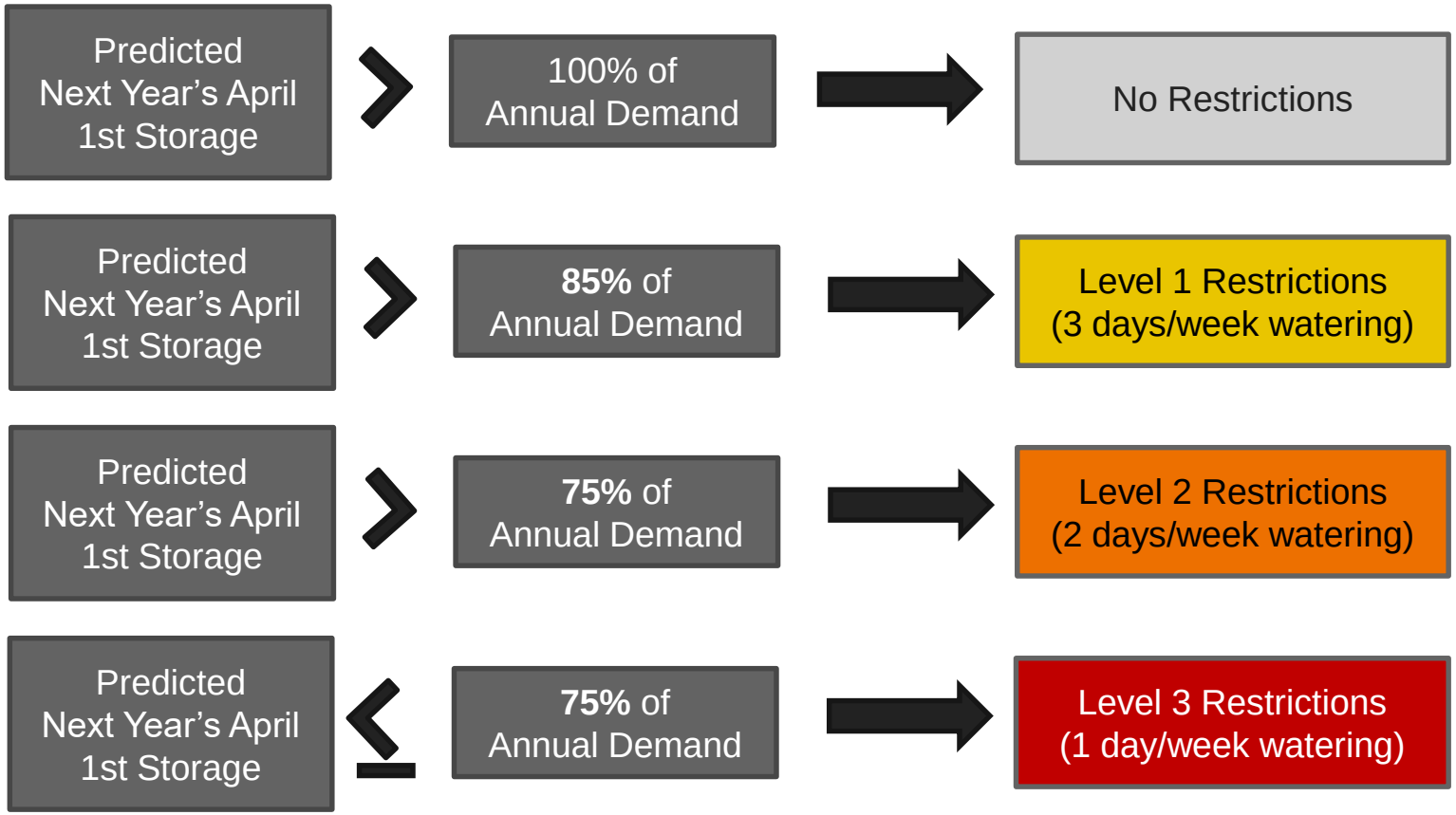
Performance Criteria	Metric	Acceptability Threshold
Greeley meets critical water needs for public health	Always meet indoor demands	100%
Greeley maintains sufficient emergency reserve	April 1 storage volume always have at least 6 months of indoor demands	100%

Planning Level of Service

- Potential Planning Level of Service

Performance Criteria	Metric	Acceptability Threshold
Greeley meets critical water needs for public health	Always meet indoor demands	100%
Greeley maintains sufficient emergency reserve	April 1 storage volume always have at least 6 months of indoor demands	100%
Are Greeley customers being significantly impacted	How often Drought Restrictions levels are used	TBD

Drought Restrictions in Model



Drought Restrictions Planning Level of Service

How Often Are Customers in Watering Restrictions?	
Actual Drought Restriction Use since 2000	2 years in Level 1
Previous Planning Criteria	3 years in Level 1 at end of Drought Period

Drought Restrictions Planning Level of Service

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Previous Planning Criteria	3 years in Level 1 at end of Drought Period
Front Range Water Utilities	
Aurora Water	2 in 10 Years any Level
Boulder	No Restrictions in 1 in 20-Year Drought
Colorado Springs Utilities	1 in 10 Years any Level
Denver Water	Historical Use Since 2000: 4 in Level 1, 2 in Level 2
Fort Collins	No Restrictions in 1 in 50-year Drought

Drought Restrictions Planning Level of Service

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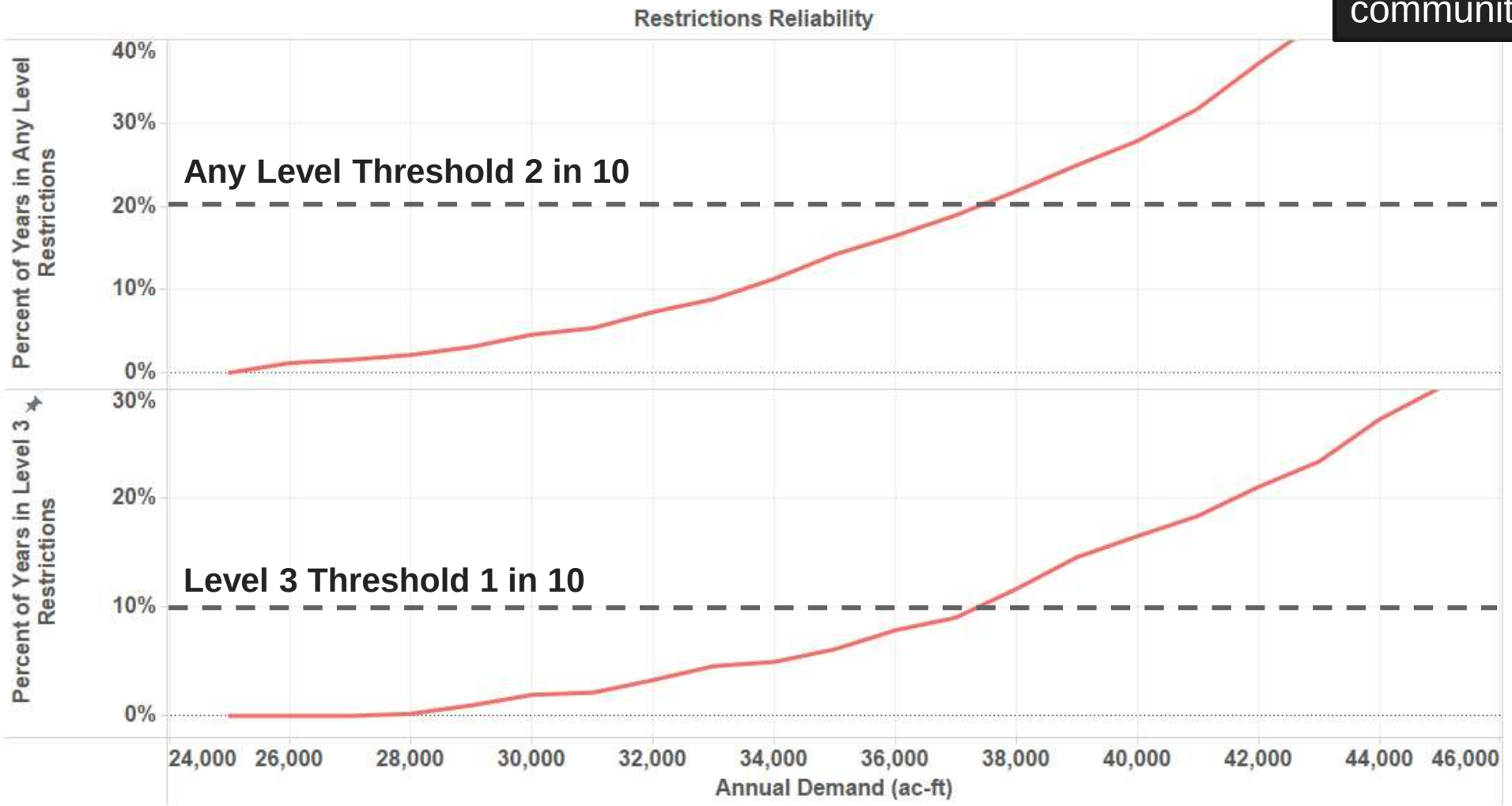
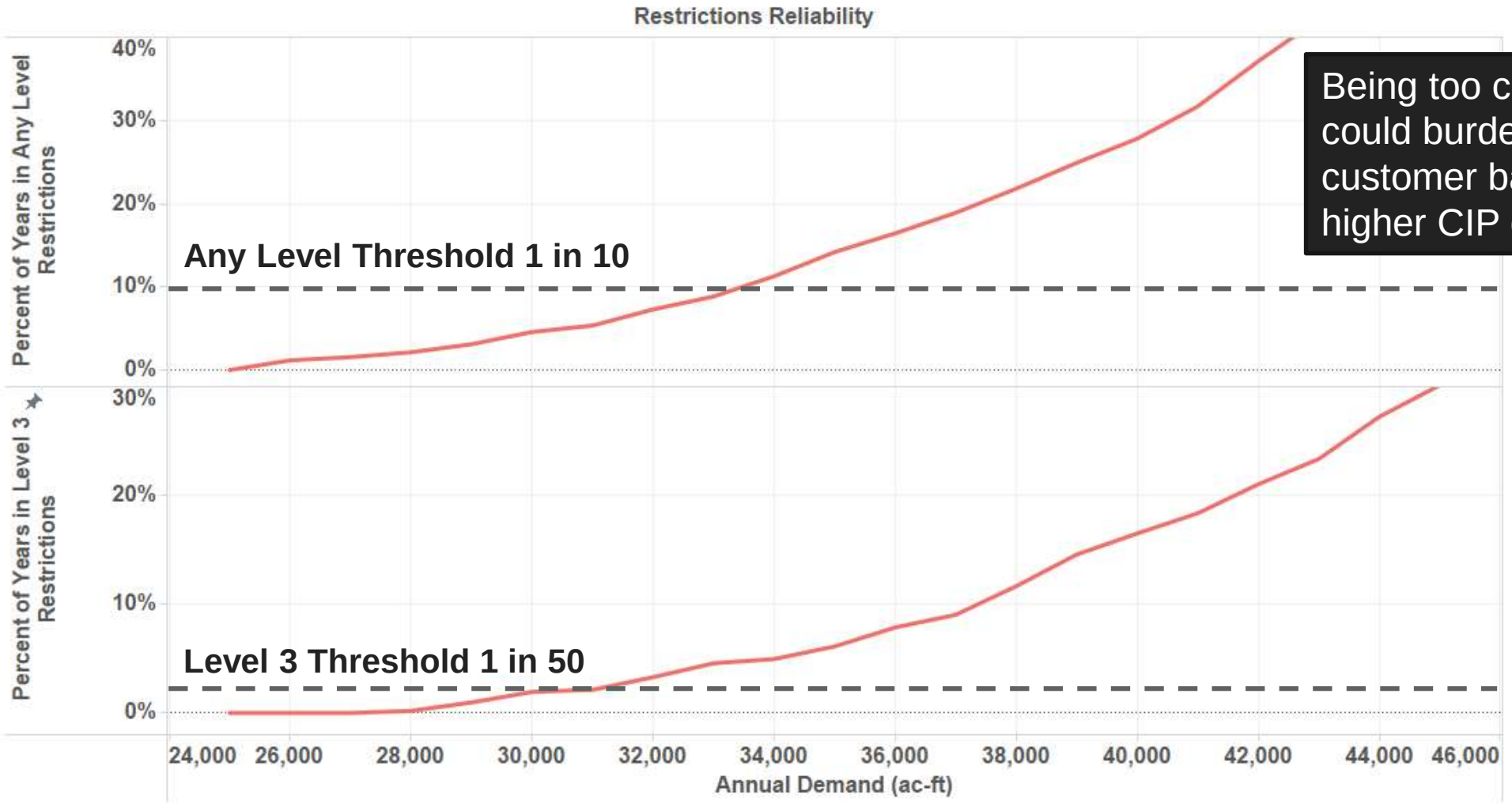
What Level of Service should the IWRP use for planning?

How often Drought Levels are used

Thresholds consistent with other Front Range communities



How often Drought Levels are used



Being too conservative could burden smaller customer base with higher CIP costs

Proposed Planning Level of Service

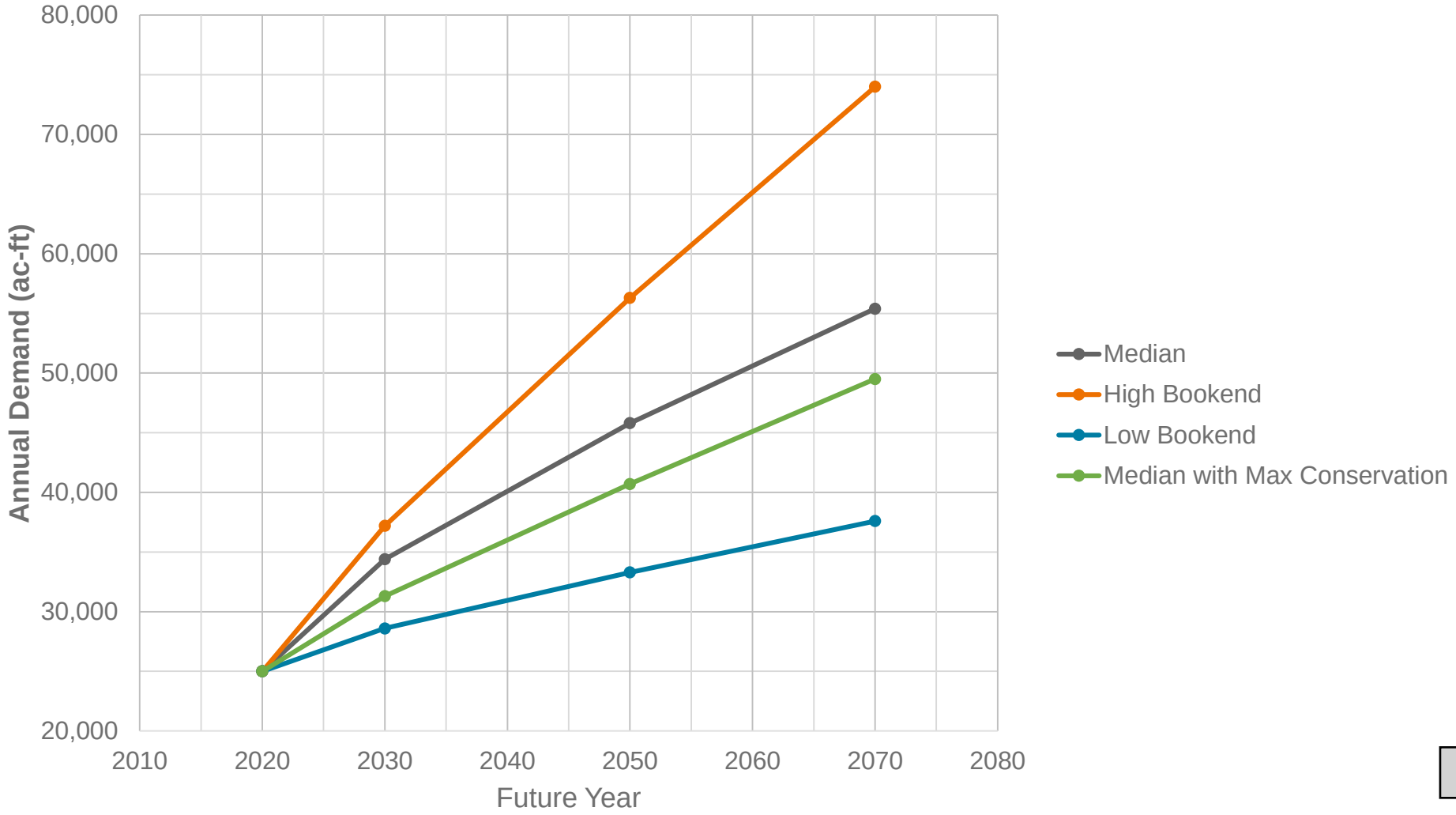
- Proposed Planning Level of Service

Performance Criteria	Metric	Acceptability Threshold
Greeley meets critical water needs for public health	Always meet indoor demands	100%
Greeley maintains sufficient emergency reserve	April 1 storage volume always have at least 6 months of indoor demands	100%
Are Greeley customers being significantly impacted	How often Drought Restrictions levels are used	2 in 10 years at Any Level 1 in 10 years at Level 3

Drought Restriction Planning Level of Service

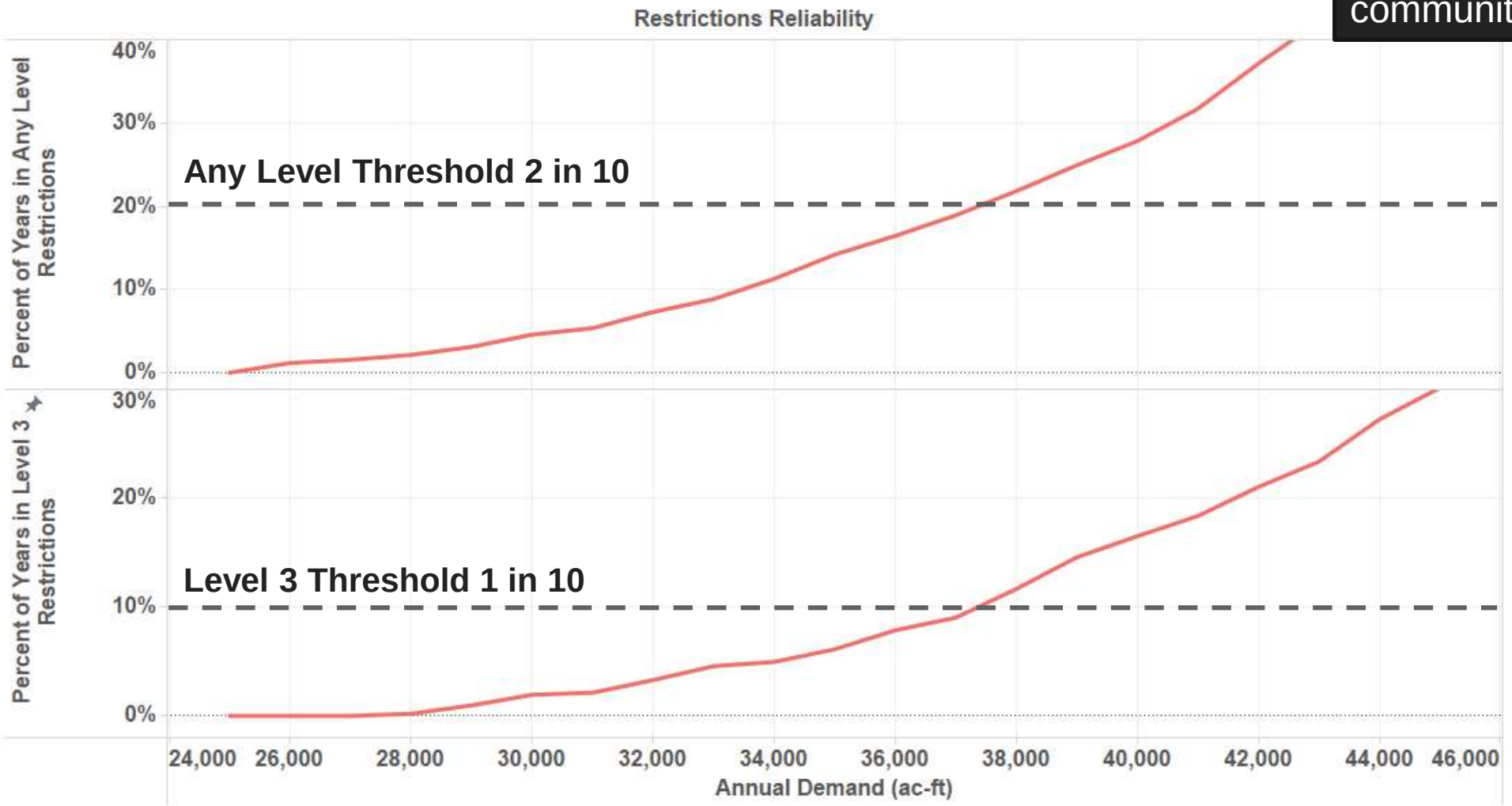
- IWRP uses series conservative assumptions
  - GSM operations
  - Underlying droughts more severe than recent history
- Ultimately will time Terry Ranch, thus is a future Greeley would not experience
- Reflects Front Range water providers planning criteria and experiences
- Balances customer impacts from water restriction and higher rates
- Use of Drought Levels will be monitored as a potential Terry Ranch Trigger

IWRP Projected Demands

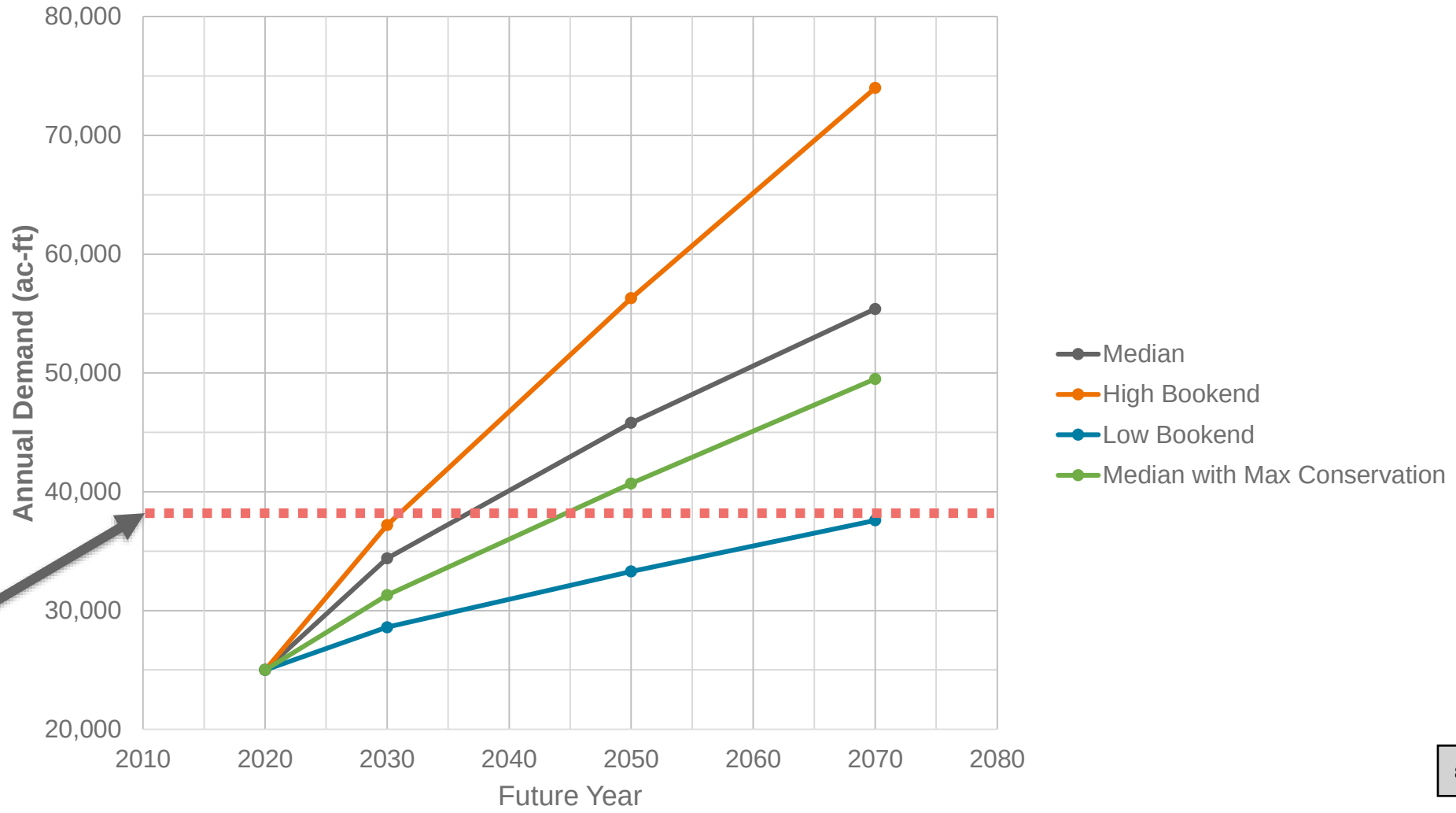


How often Drought Levels are used

Thresholds consistent with other Front Range communities



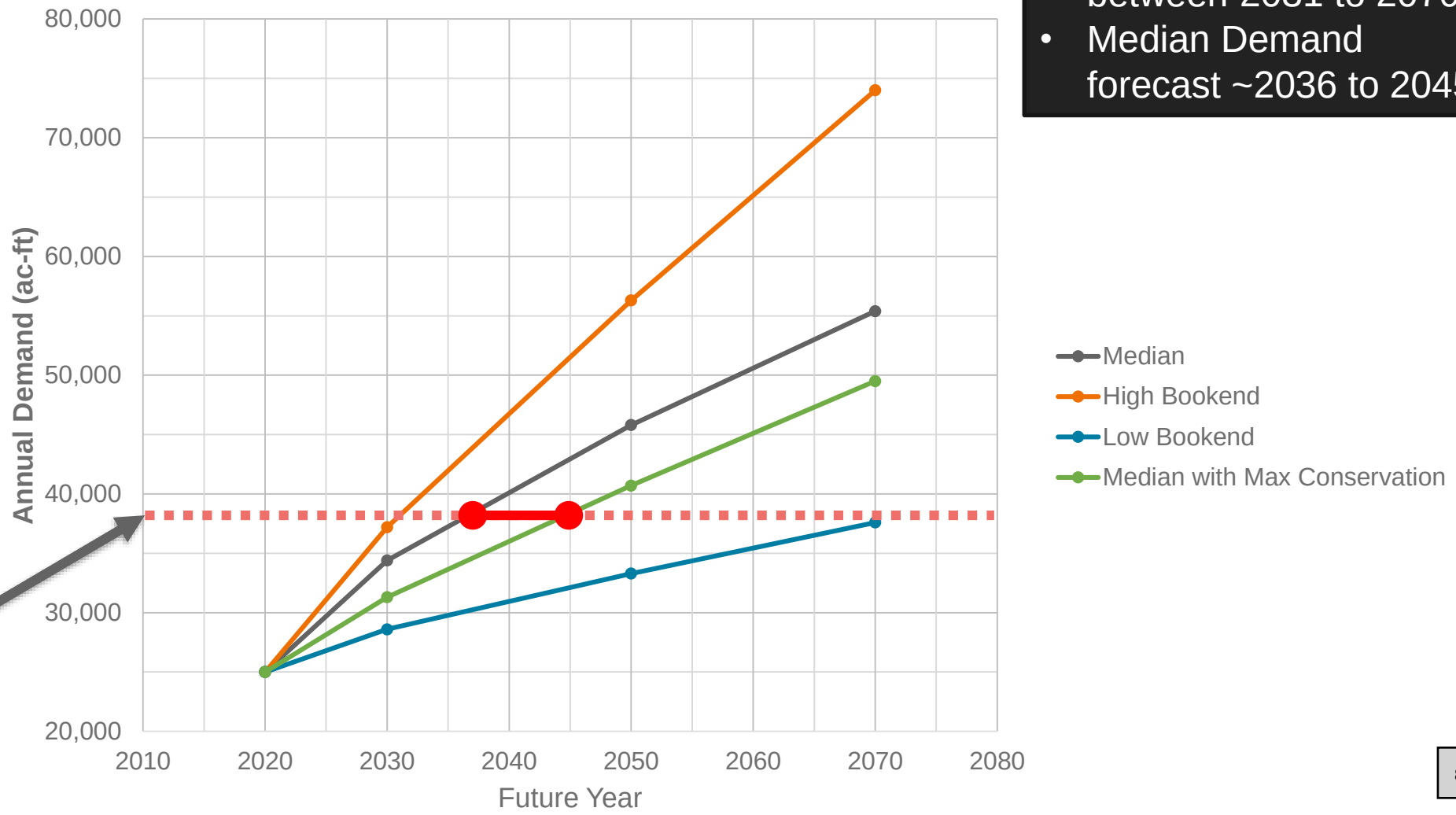
Evaluating Triggers



Max demand that maintains Level of Service under sample Planning Scenario

Evaluating Triggers

- 38,000 ac-ft could occur between 2031 to 2070
- Median Demand forecast ~2036 to 2045



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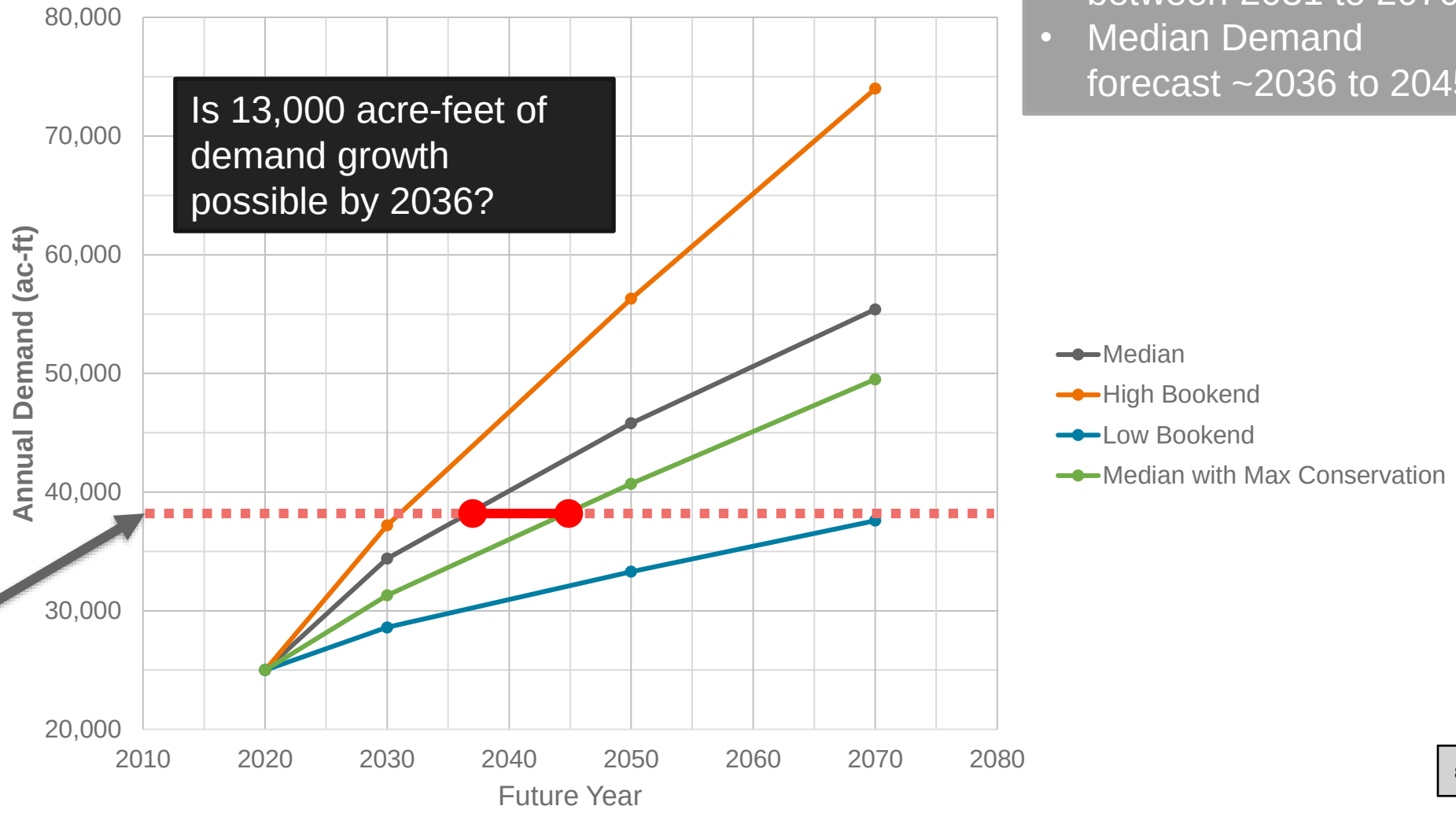
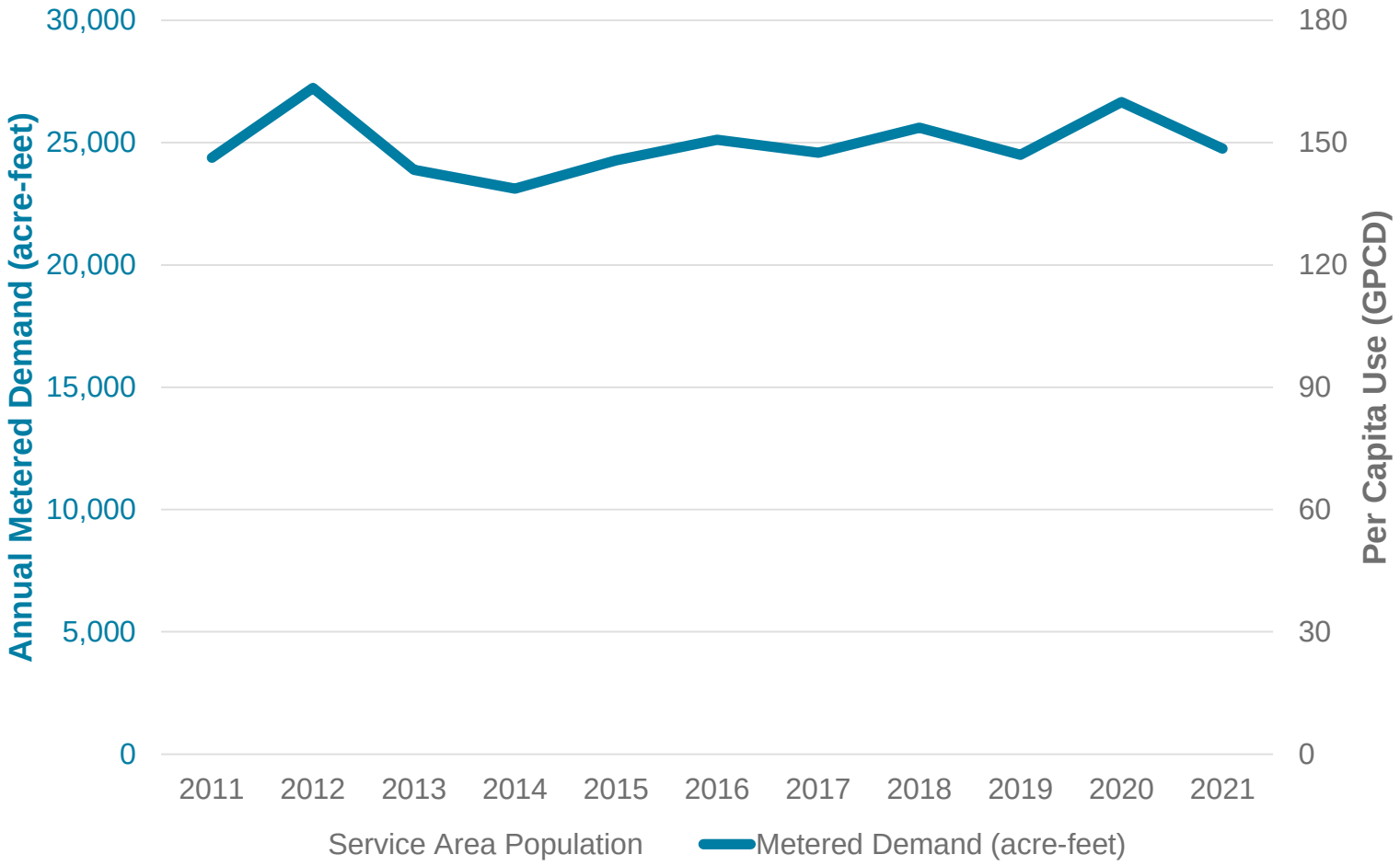


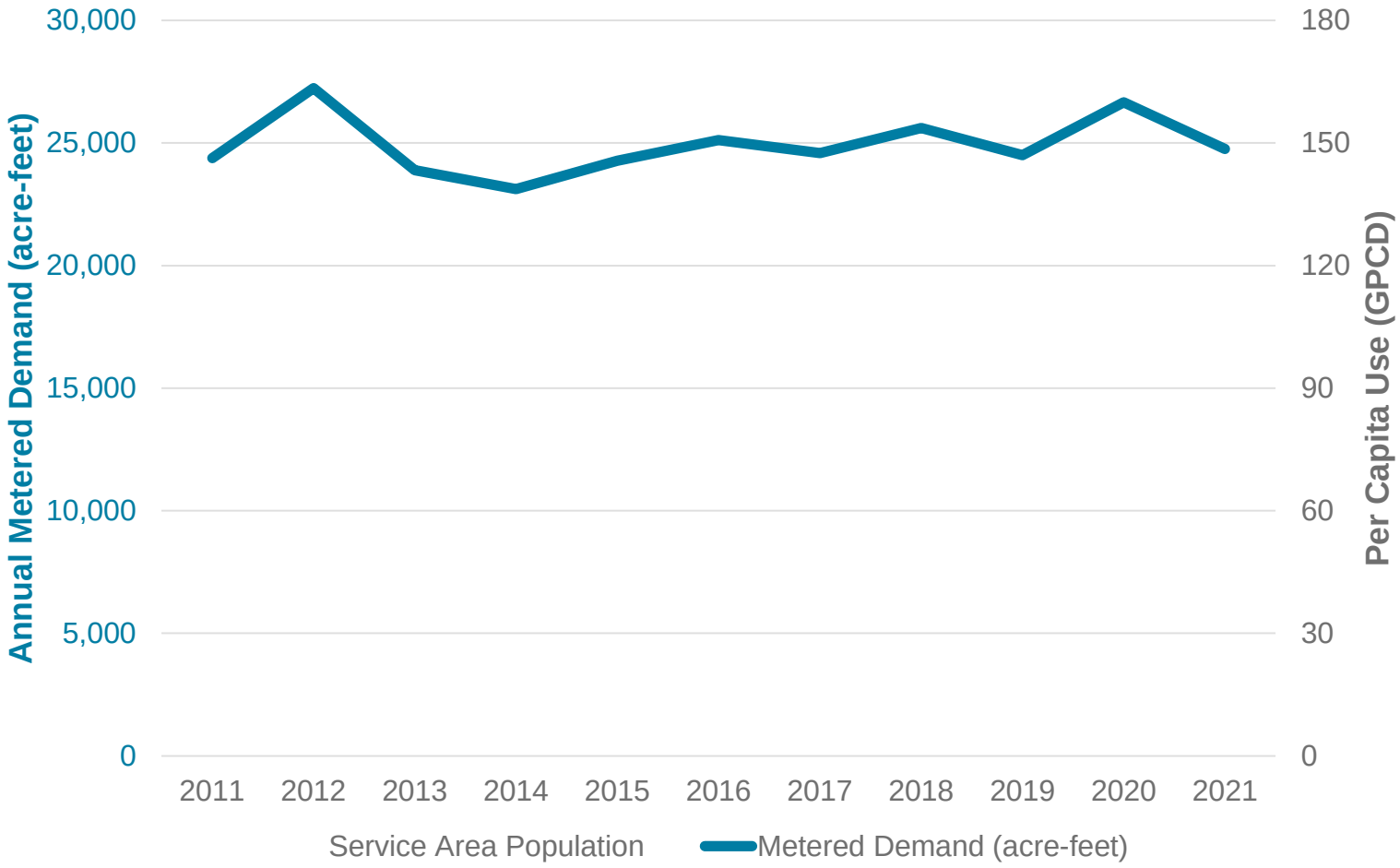
Max demand that maintains Level of Service under sample Planning Scenario

Recent Trends – Metered Demands



- Negligible growth in demands
- Variation due to hot and dry summers (2012, 2020) greater than 10-year change
- Trends extend into mid-2000s

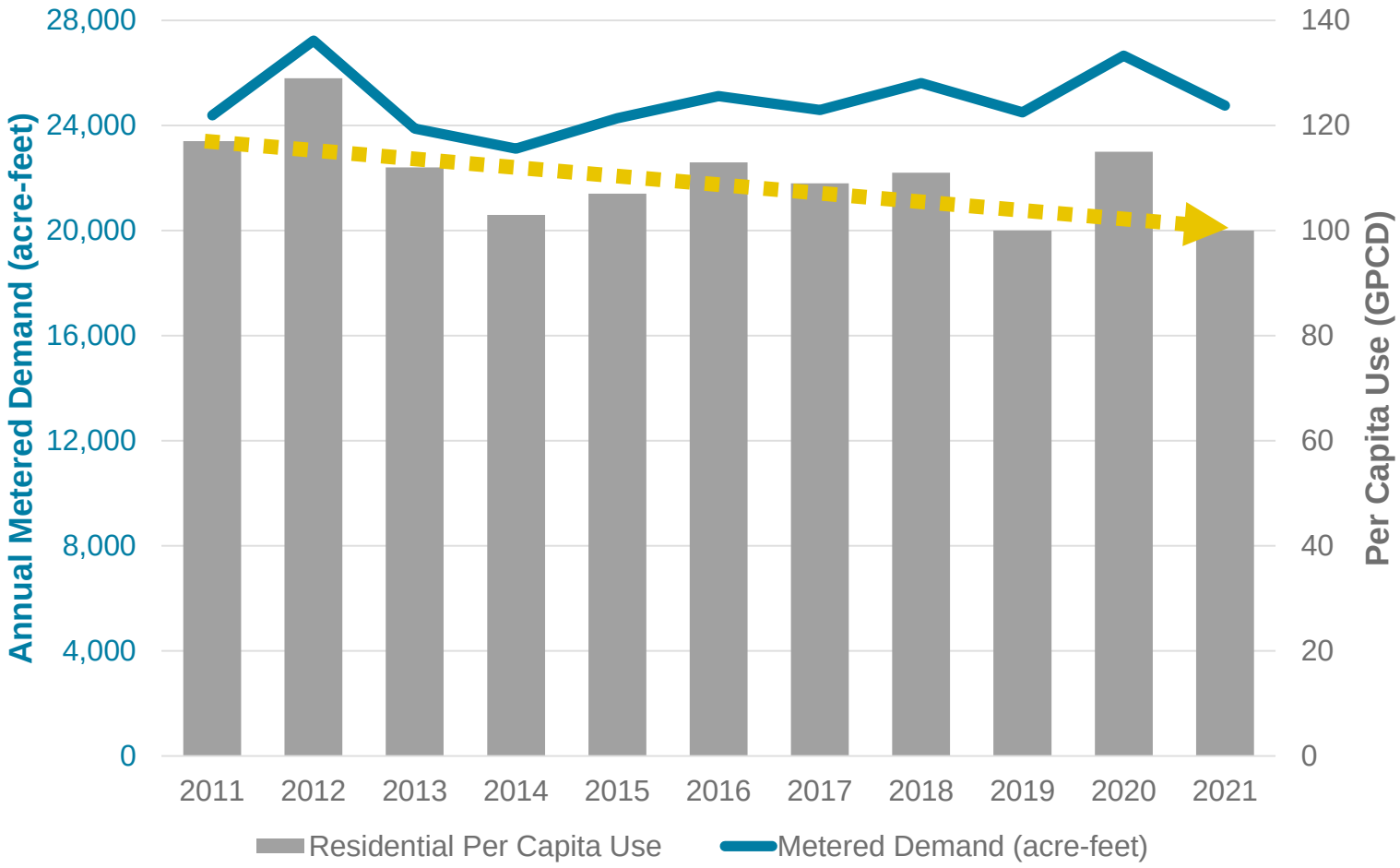
Recent Trends – Population Growth



Population served increased by ~30,000 people, or 25%

Year	Population Served
2011	122,089
2012	123,989
2013	124,143
2014	127,619
2015	131,097
2016	134,476
2017	135,826
2018	143,073
2019	147,208
2020	149,512
2021	151,546

Recent Trends – Per Capita Use



Per capita water use continues to decrease

Year	Population Served
2011	122,089
2012	123,989
2013	124,143
2014	127,619
2015	131,097
2016	134,476
2017	135,826
2018	143,073
2019	147,208
2020	149,512
2021	151,546

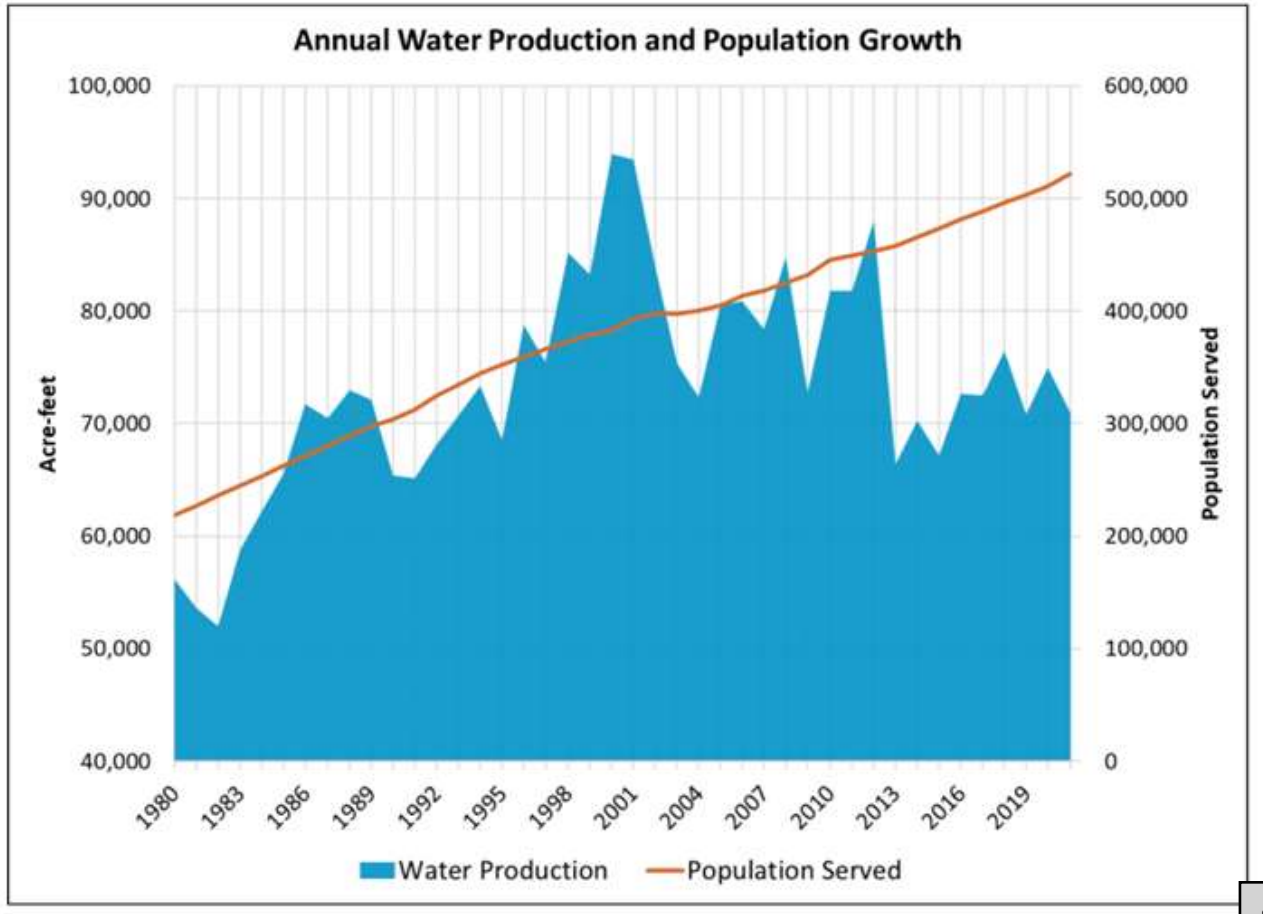
Recent Trends – Planning Challenges

- Population growth decoupled from water demand growth
- Passive conservation primary driver of per capita water use decrease
- When will per capita water use stop decreasing?
- Trend observed throughout Front Range (and region)

Recent Trends – Planning Challenges

- Population growth decoupled from water demand growth
- Passive conservation primary driver of per capita water use decrease
- When will per capita water use stop decreasing?
- Trend observed throughout Front Range (and region)

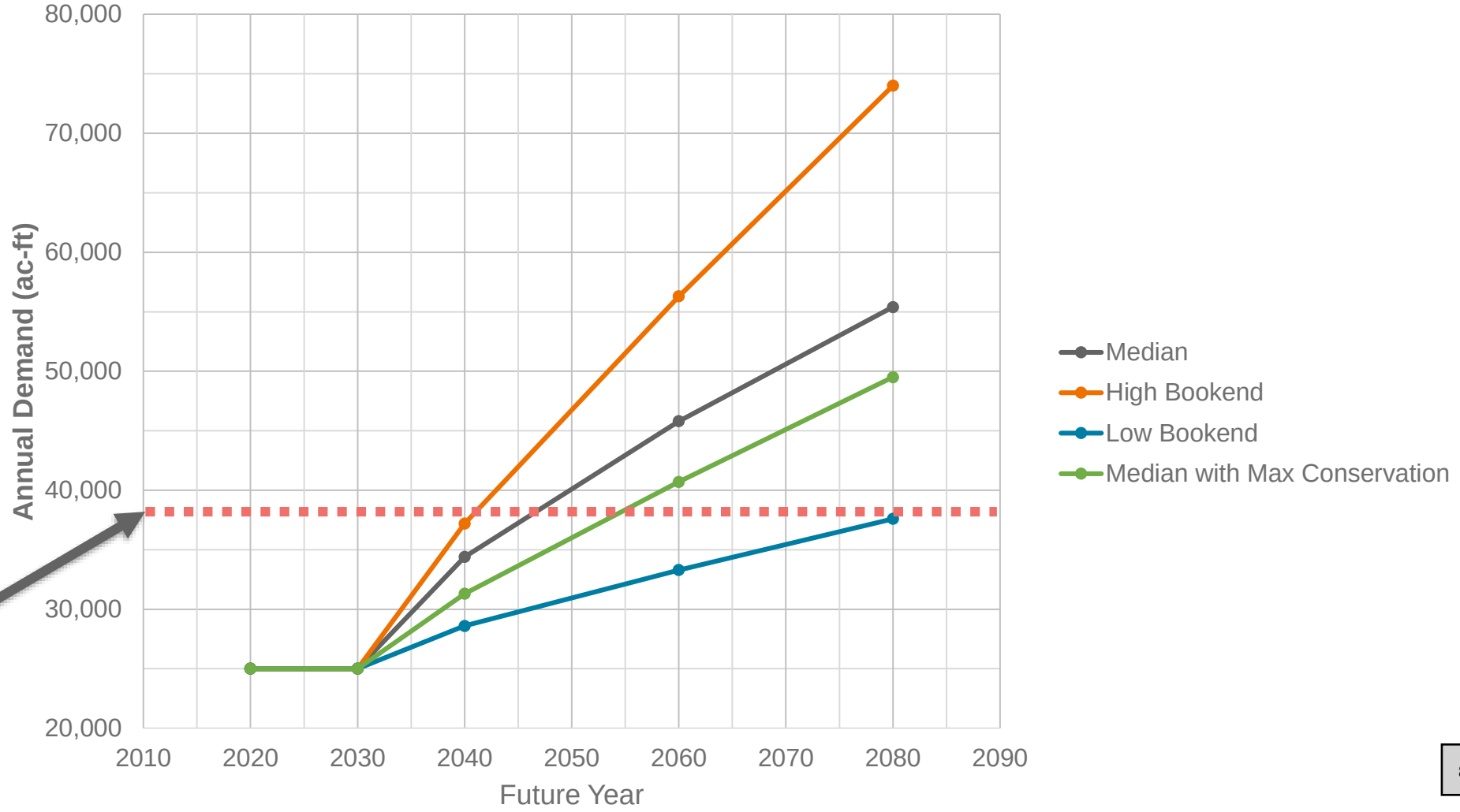
Colorado Springs Utilities Observed Demands and Population



Source: 2022 Colorado Springs Utilities Water Use Efficiency Plan

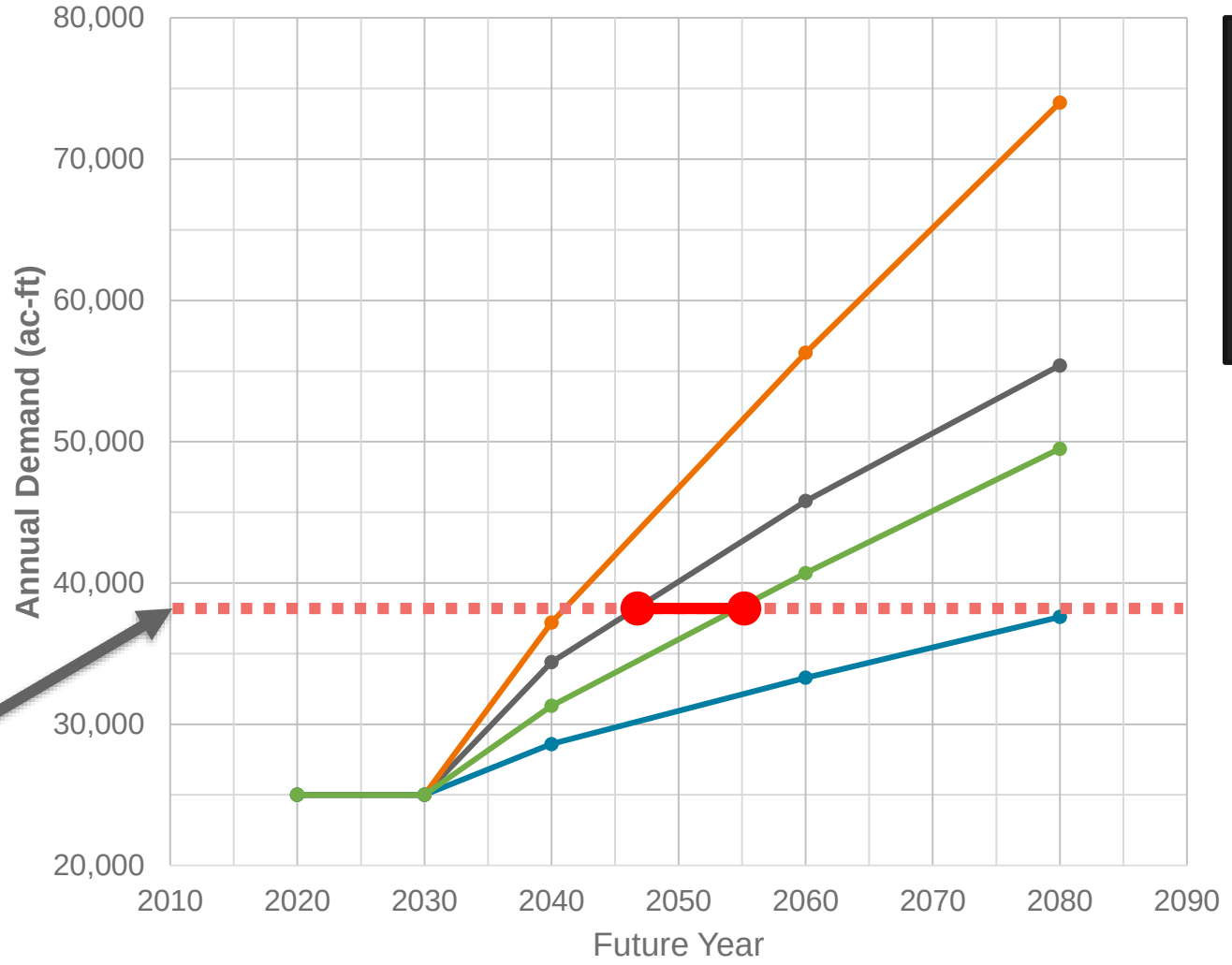
Evaluating Triggers

What happens if there is minimal demand change until 2030?



Max demand that maintains Level of Service under sample Planning Scenario

Evaluating Triggers



- 38,000 ac-ft would not occur under median scenario until 2047
- If additional conservation is used, may not occur until 2055

Max demand that maintains Level of Service under sample Planning Scenario

IWRP Will Define System Conditions to Trigger Terry Ranch

- Current system is not at risk of failure
- Potential CIP Projects are independent of demand
  - Acquiring/changing water rights
  - Improving Non-Potable Demand System
  - Initial Terry Ranch Infrastructure
- System Conditions for Triggers
  - Annual demands
  - Use of drought restrictions
- System Conditions to Monitor
  - Per capita use
  - Indoor vs. outdoor use
  - Change in 20-year temperature mean compared to 1980-2000
  - Change case outcomes

Questions?

Water & Sewer Agenda Summary

Date: October 19, 2022

Key Staff Contact: Nina Cudahy, Deputy Director of Operations and Maintenance

Title: Sanitary Survey Response Update

Summary: Report on the Sanitary Survey Findings and Resolutions. The sanitary survey is performed every three years by the Colorado Department of Public Health and Environment to require continuous improvement for Public Water Systems. The survey entails an in-depth review of the water systems recordkeeping, sampling activities, distribution system operating procedures, and water treatment processes. The survey was completed in July of this year and resulted in seven deficiencies that were corrected and notification of a violation to the public. The notification was to inform residents that we did not certify 100% of the backflow assemblies and that we had three reservoirs in service that had the potential to introduce contaminants into the water system. W&S staff are currently addressing all of the findings from the survey: three reservoirs are not longer in use and customers are submitting the required backflow certifications. Another finding of the survey is that our certified operators are doing a excellent job despite the deficiencies and violations and in CDPHE's words "Greeley runs a really tight ship".

Recommended Action: No action necessary. For information only.

Attachments: None.

SANITARY SURVEY UPDATE 2022

Nina Cudahy, Deputy Director of Operations and Maintenance

2022 Sanitary Survey Background

A Continues Improvement Audit by CDPHE

CDPHE Reg. 11 requires routine sanitary surveys for all public water systems, every three years.

- Onsite facility inspection of water treatment plants, potable water storage tanks and distribution systems and their records
- Survey confirmed strong record keeping practices across its water operations
- Survey found appropriate certifications for operators in charge at each water facility
- Survey found some infrastructure and record keeping deficiencies

City of Greeley Colorado

Sanitary Survey Findings

- 2 Violations – Tier II violations
    - City failed to implement a written plan from 2008 requiring a robust inspection and cleaning protocol.
    - City failed to comply with the back flow assembly testing requirements. The regulation was written with a phased approach and starting in 2022 the regulation required that all assemblies not tested in 2021 had to be tested by March 31, 2022. This means that 100% of all backflow assemblies must be tested compared to 90% in 2021.

Sanitary Survey Resolutions – Significant Deficiencies

Continuous Improvement in the Water System:

- 6 significant deficiencies were corrected during the sanitary survey and all hatches will be replaced to use the CDPHE preferred design.

- For the 7th significant deficiency, 2 sampling sited have been added to the sampling plan. The sites and accompanying map will be added to the City's sampling plan prior to the compliance date of December 3, 2022.

Sanitary Survey Resolution of Violations

- Tier II Notification was mailed to all customers in the form of a bill stuffer or direct mail 2 days before the deadline of September 4, 2022.
- On September 9th , W&S submitted a Corrective Action Plan for CDPHE's approval. 10 days ahead of the compliance date of September 19, 2022.
    - Reservoirs 1 – 3 were taken out of service September 31, 2022, and are scheduled to be sealed off from the system by October 18, 2022. Both the inlets and outlets be sealed.

Sanitary Survey Resolution of Violations

Backflow Program - 271 assemblies failed to meet testing/certification requirements

Assemblies	Count	Status
Residential Accounts mis-coded in Utility Billing	208	Corrected
Assemblies Tested Before 3/31/22 – not identified correctly in Backflow Software	14	Corrected
Violation Letters Sent	49	Completed
Certified tests to be received no later than October 17, 2022	43	In progress
Remaining assemblies to be tested	6	In progress

Note: Backflow testing only applies to commercial entities

City of Greeley Colorado

Sanitary Survey Resolution of Violations

Backflow assemblies are required to either show the:

- Test confirmation and associated report, or;
- Confirmation that service has been suspended, or;
- Confirmation the services are not commercial services, or:
- Documentation verifying that the cross-connection has been removed.

Tracking spreadsheet will be provided to CDPHE before the compliance deadline of December 3, 2022.

Programmatic Changes - Backflow

Internal protocols have been changed to prevent this happening in the future.

- Notifications in bold red letters will be sent along with the standard letter to inform residents of testing requirements that all assemblies will need to be tested in the calendar year.
- Turn off/turn on fees will apply.
- Spanish educational material has been developed to distribute. Our key accounts person will visit commercial establishments to identify when this is needed.
- All lawn irrigation assemblies will be changed to May – July due dates to better align with the irrigation season.

City of Greeley Colorado

Greeley Water Response Summary

- ✓ All significant deficiencies have been corrected
- ✓ One violations has been corrected. The tanks are no longer in use and a corrective Action Plan was submitted to CDPHE. Public notice provided.
- Staff continue work to address the backflow testing and records violation:
  - 6 assemblies remaining.
  - A tracking sheet will be sent to CDPHE once all assemblies have been tested or inactivated.
- Operations and Engineering are working to cap off influent and effluent piping at Reservoir Rd. tanks 1-3 and will proceed with demolition of the reservoirs as time and budget allows.
- ✓ Engineering has submitted an application for a Sate Revolving Fund Loan to a replace one tank at 23rd Ave Reservoirs site. Funding could be in the form of a low interest loan and 49% grant.
  - Engineering is evaluating opportunities to re-use old liner material in non-potable pond applications, and evaluating the potential use of tank 1 for future non-potable storage at Reservoir Rd.

City of Greeley Colorado

Water & Sewer Agenda Summary

Date: October 19, 2022

Key Staff Contact: Sean Chambers, Director

Title: Colorado River Supply and Demand Update

Summary:

Over the past 18 months, the Department of Interior declared a Tier 1 Water Shortage in August of 2021, followed by and a Tier 2 shortage declaration in August of 2022. Despite a strong Western drought, Colorado River water demands continued to significantly outpace supply, further drawing down Lakes Mead and Powel to critical levels that warrant a federal response and action by Colorado River water users across the West.

Greeley's municipal water portfolio and the much of the Agricultural lands around Greeley in Weld County utilize significant Upper Colorado River water supplies to supplement water in storage and the water supplies from the Cache la Poudre, Big Thompson, and Laramie River Basins. Greeley Water tracks and engages in conservations on the Colorado River and Western drought because approximately 45% of the city's water resource portfolio is sourced from transbasin Colorado River sources.

NCWCD Water Rights Manager: Kyle Whitaker is well informed on the Colorado River shortage conditions and discussions among the Western states and the Upper Colorado River Basin. Mr. Whitaker's presentation will share information, data, and insight with the Greeley.

Recommended Action:

Advisory – Information only

Attachments:

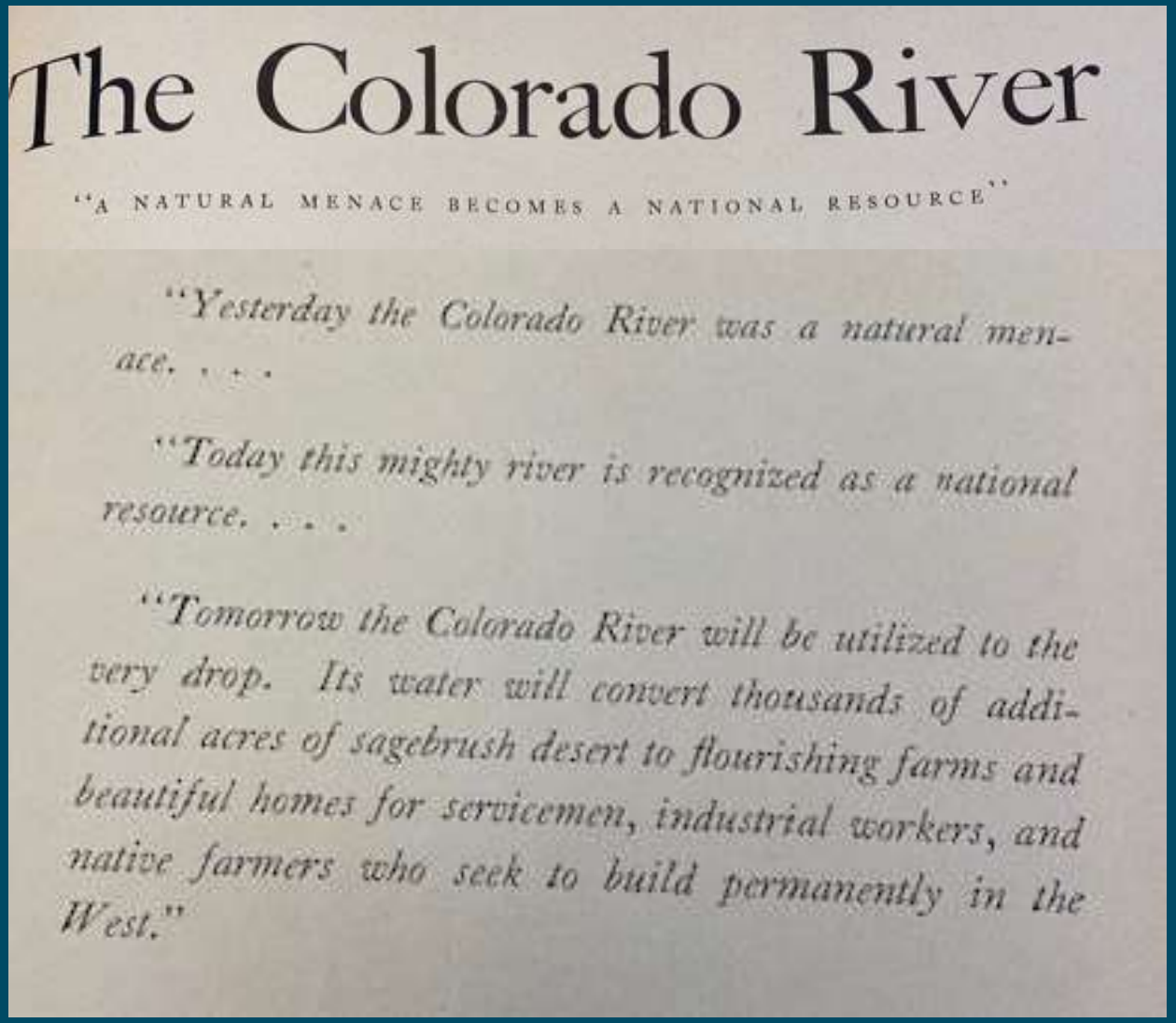
Presentation

Northern Water

Colorado River Update

October 19, 2022 – Greeley Water & Sewer Board

The Challenge???



The Colorado River

"A NATURAL MENACE BECOMES A NATIONAL RESOURCE"

"Yesterday the Colorado River was a natural menace. . . .

"Today this mighty river is recognized as a national resource. . . .

"Tomorrow the Colorado River will be utilized to the very drop. Its water will convert thousands of additional acres of sagebrush desert to flourishing farms and beautiful homes for servicemen, industrial workers, and native farmers who seek to build permanently in the West."

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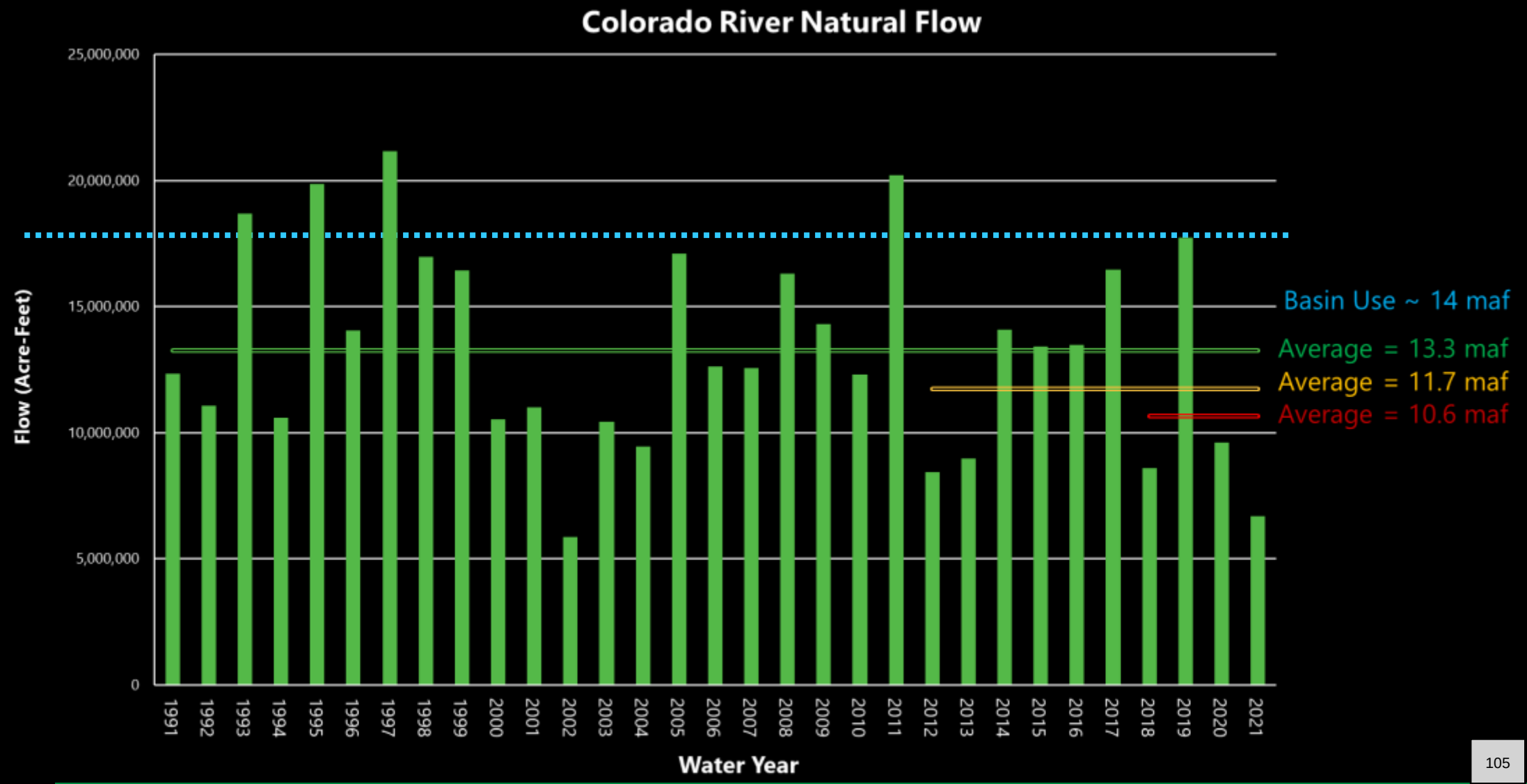
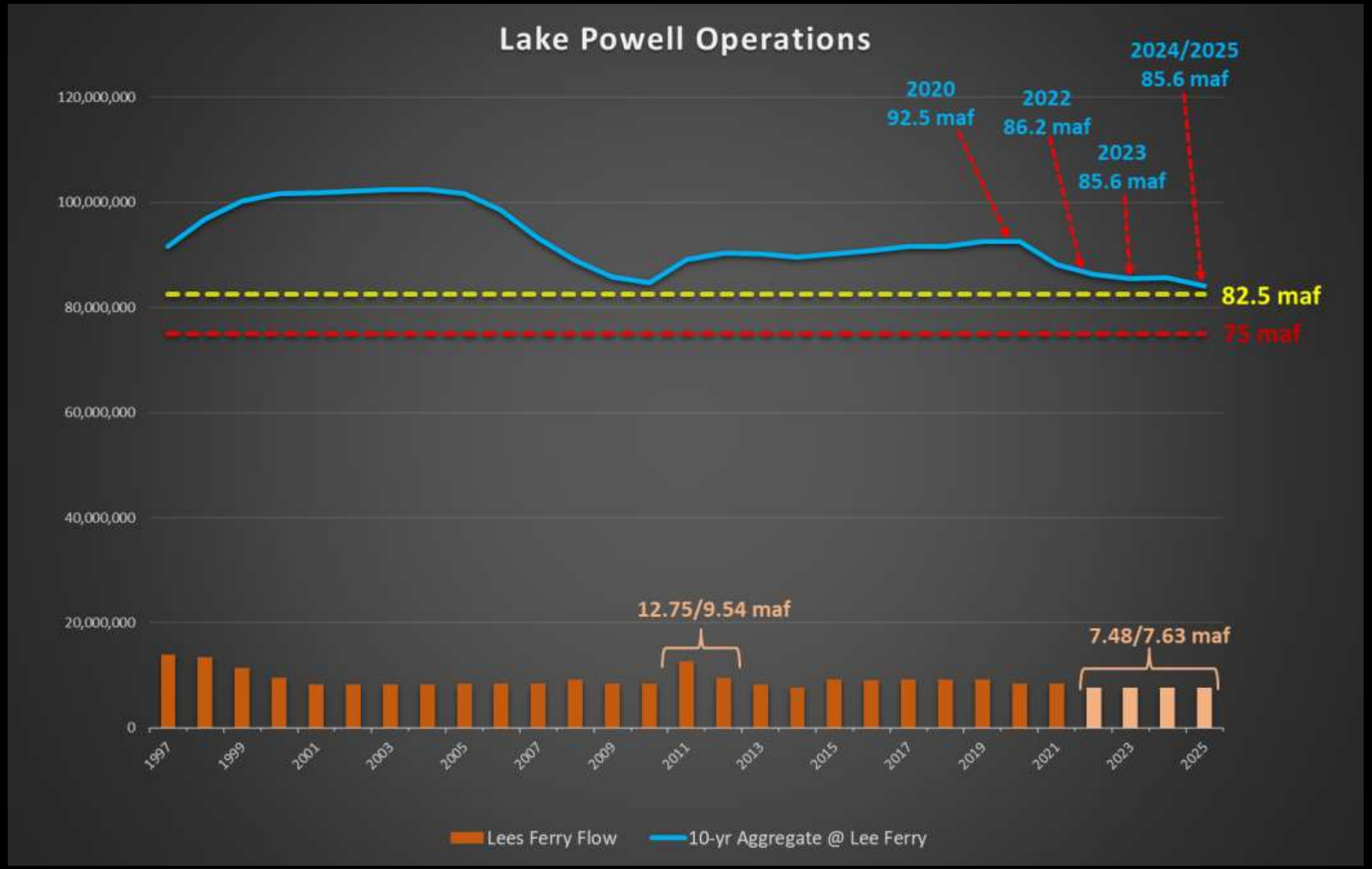
The Problem Statement




Lake Powell Operations
2024/2025
85.6 maf
2020
92.5 maf
2022
86.2 maf
2023
85.6 maf
120,000,000
100,000,000
80,000,000
60,000,000
40,000,000
20,000,000
0
82.5 maf
75 maf
12.75/9.54 maf
7.48/7.63 maf
1997
1999
2001
2003
2005
2007
2009
2011
2013
2015
2017
2019
2021
2023
2025
Lees Ferry Flow
10-yr Aggregate @ Lee Ferry

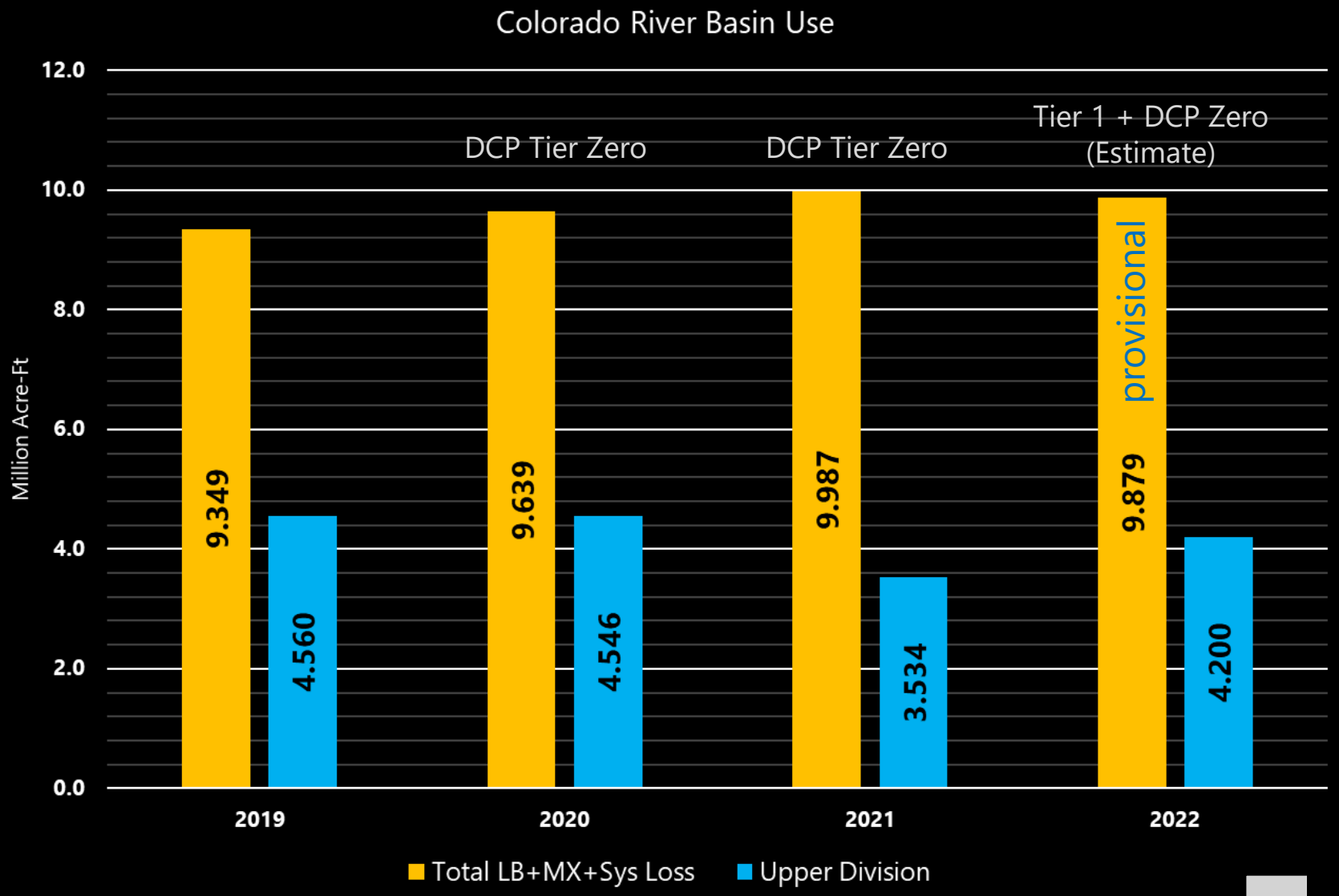
Lake Mead Jan 1, 2022

Lake Mead Jan 1, 2023

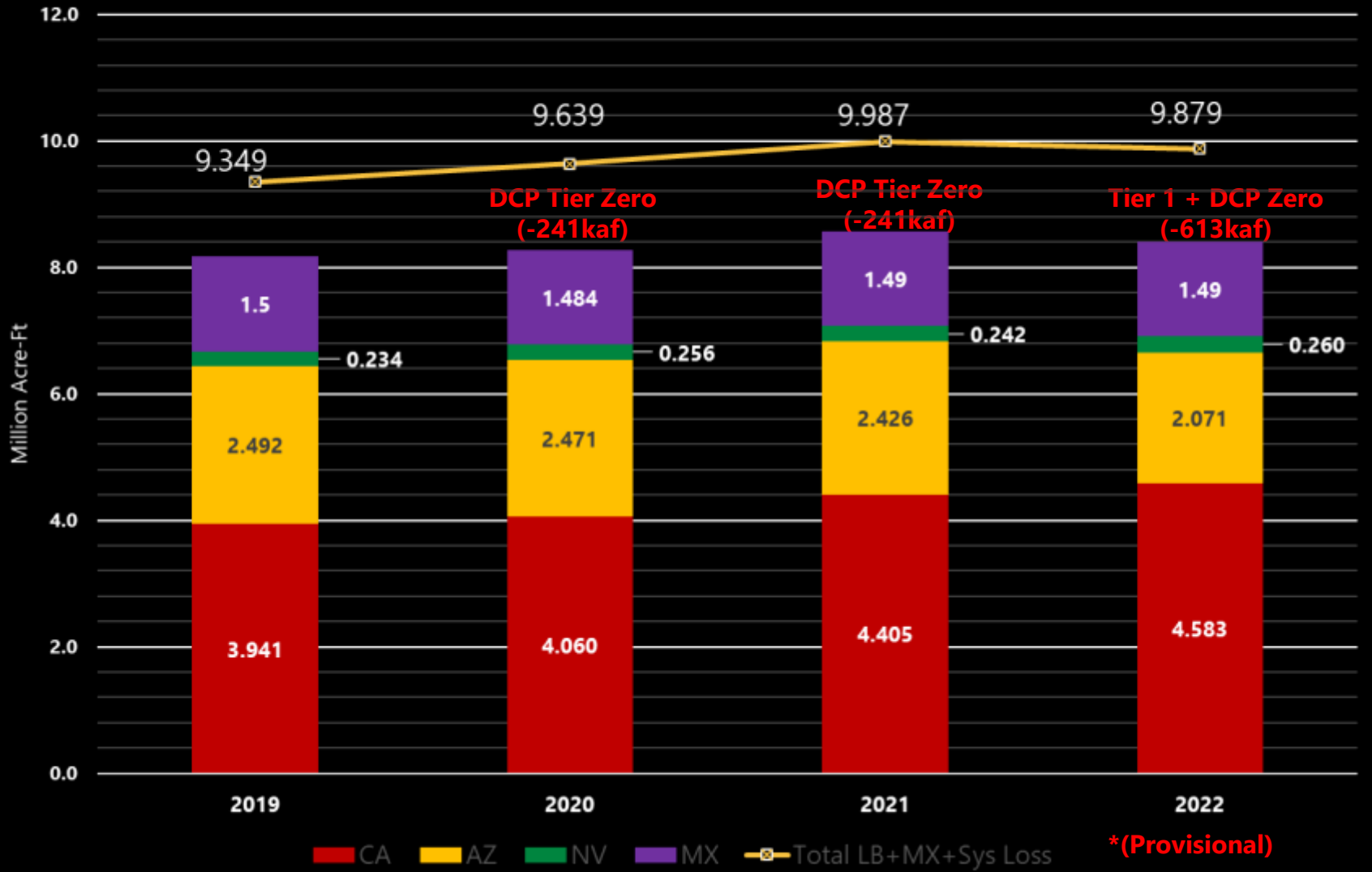
Lake Mead Elevation (feet msl)	2007 Interim Guidelines Shortages		Minute 323 Delivery Reductions	Total Combined Reductions	DCP Water Savings Contributions			Binational Water Scarcity Contingency Plan Savings	Combined Volumes by Country *US: (2007 Interim Guidelines Shortages + DCP Contributions)* *Mexico: (Minute 323 Delivery Reductions + Binational Water Scarcity Contingency Plan Savings)*					Total Combined Volumes
	AZ	NV	Mexico	***Lower Basin States + Mexico***	AZ	NV	CA	Mexico	*AZ Total*	*NV Total*	*CA Total*	*Lower Basin States Total*	*Mexico Total*	***Lower Basin States + Mexico***
1,090 - 1,075	0	0	0	***0***	192	8	0	41	192	8	0	*200*	*41*	***241***
1,075 - 1050	320	13	50	***383***	192	8	0	30	512	21	0	*533*	*80*	***613***
1,050 - 1,045	400	17	70	***487***	192	8	0	34	592	25	0	*617*	*104*	***721***
1,045 - 1,040	400	17	70	***487***	240	10	200	76	640	27	200	*867*	*146*	***1,013***
1,040 - 1,035	400	17	70	***487***	240	10	250	84	640	27	250	*917*	*154*	***1,071***
1,035 - 1,030	400	17	70	***487***	240	10	300	92	640	27	300	*967*	*162*	***1,129***
1,030 - 1,025	400	17	70	***487***	240	10	350	101	640	27	350	*1,017*	*171*	***1,188***
<1,025	480	20	125	***625***	240	10	350	150	720	30	350	*1,100*	*275*	***1,375***

Basin Depletion Trends 2019 - 2022

- Trends:
  - Increasing Lower Basin uses 2019 – 2021, despite significant conservation and contributions
  - Lower Basin uses out of synch with hydrology, relying on storage and Lake Powell releases
  - Reductions in Upper Basin reflects impacts of drought



Lower Basin Depletion Trends 2019 - 2022



2022 Allocation with Reductions:

CA 4.4 maf – 0 = 4.4 maf

AZ 2.8 maf – 512 kaf = 2.288 maf

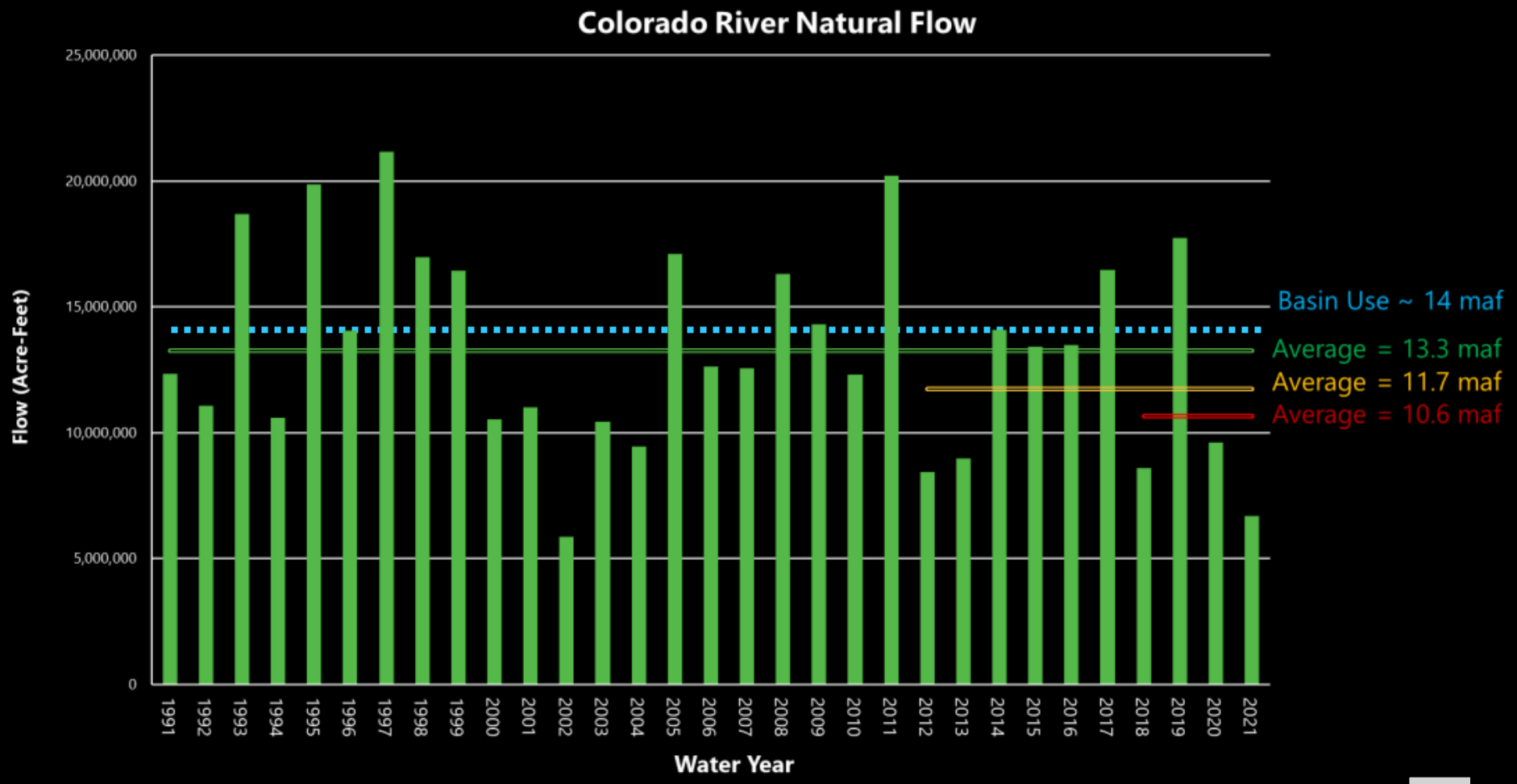
NV 300 kaf - 21 kaf = 0.279 maf

MX 1.5 maf – 80 kaf = 1.42 maf

Total 8,387 maf

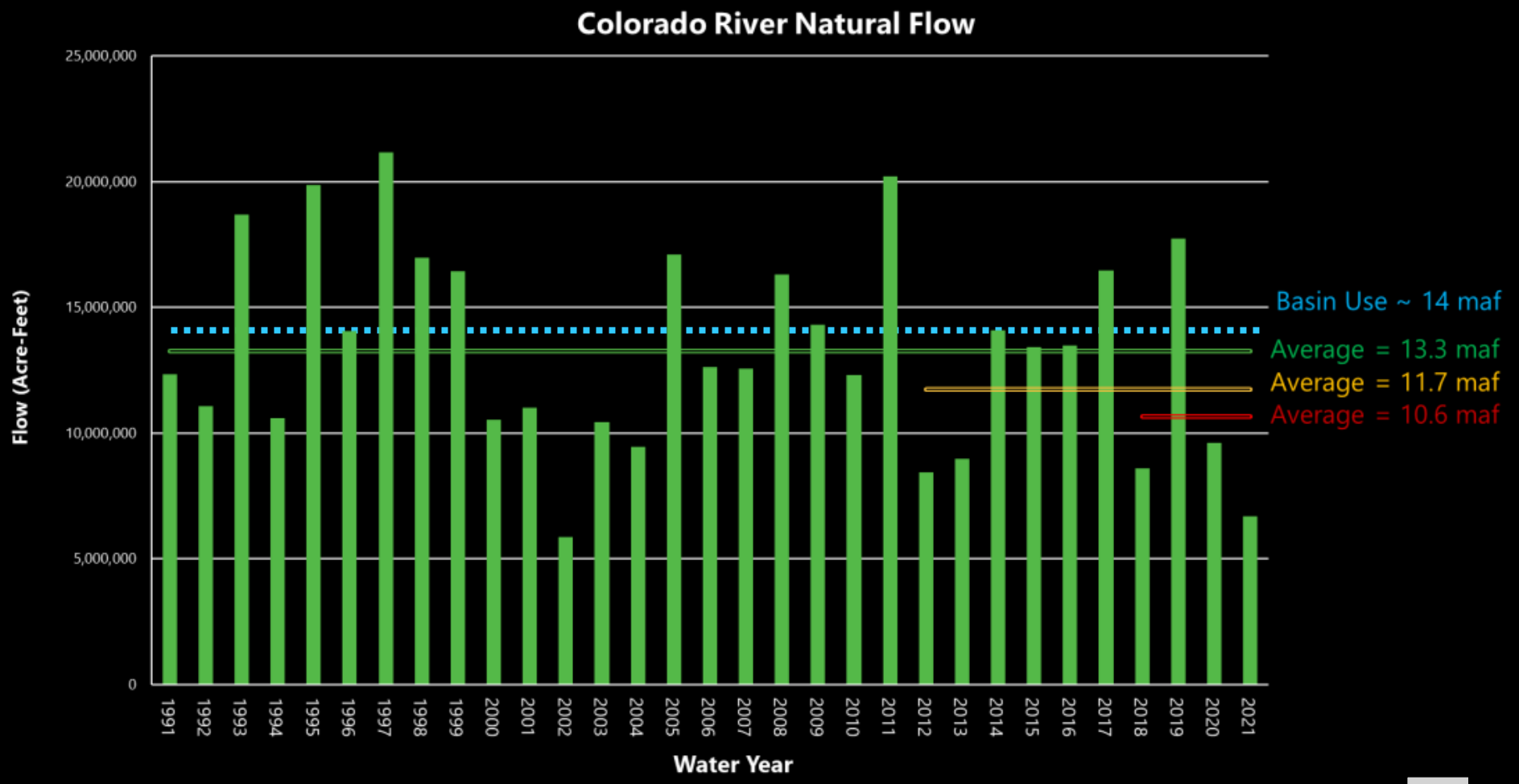
UCRC 5-Point Plan

- SCPP Reauthorization
- 2023 DROA
- Consider "Demand Management"
- Fund Measurement & Reporting Improvements
- Continue Priority Administration



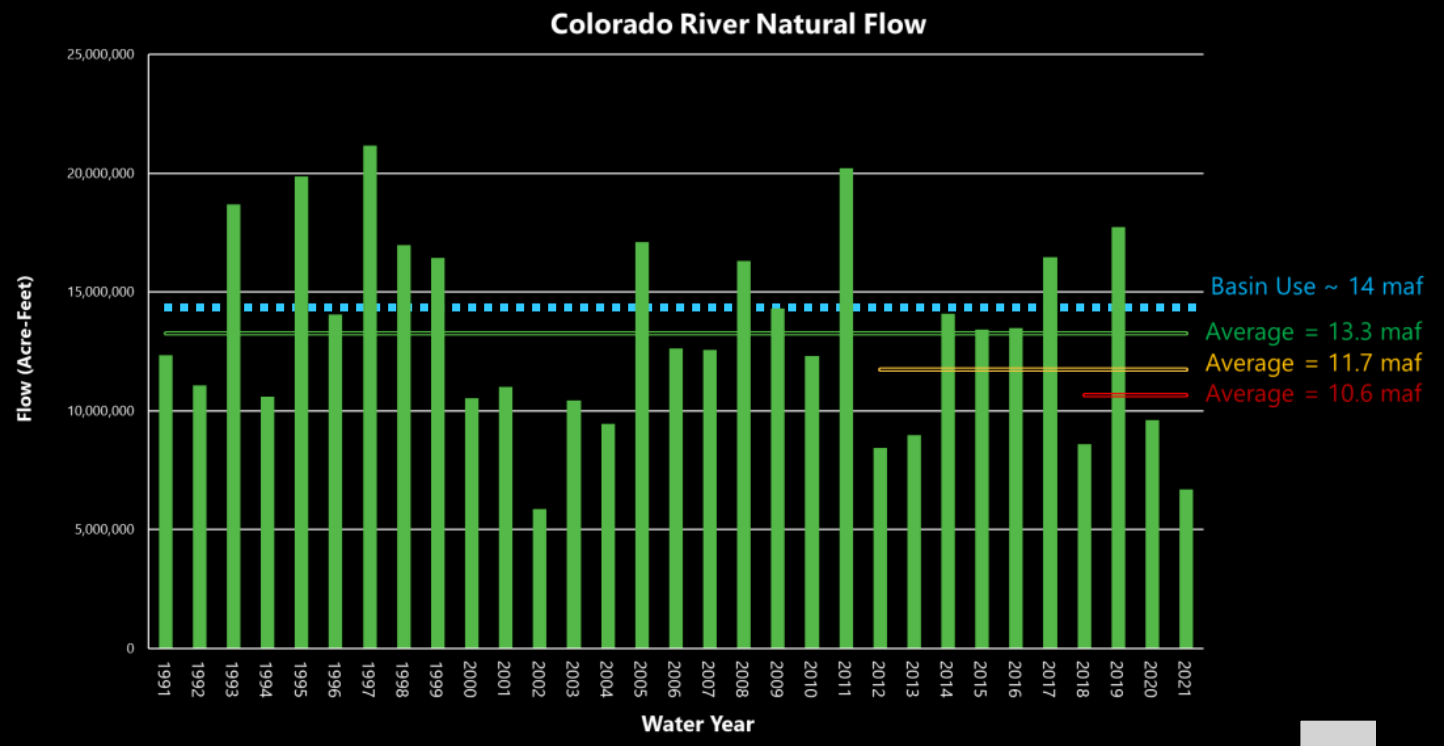
Colorado River Basin Collaboration/Committments

- Municipal Water Providers MOU
- SEWCD Letter
- CRWCD Press Release
- NGO Resiliency Strategies Letter
- SNWA/California Letters
- NW Letter(s)

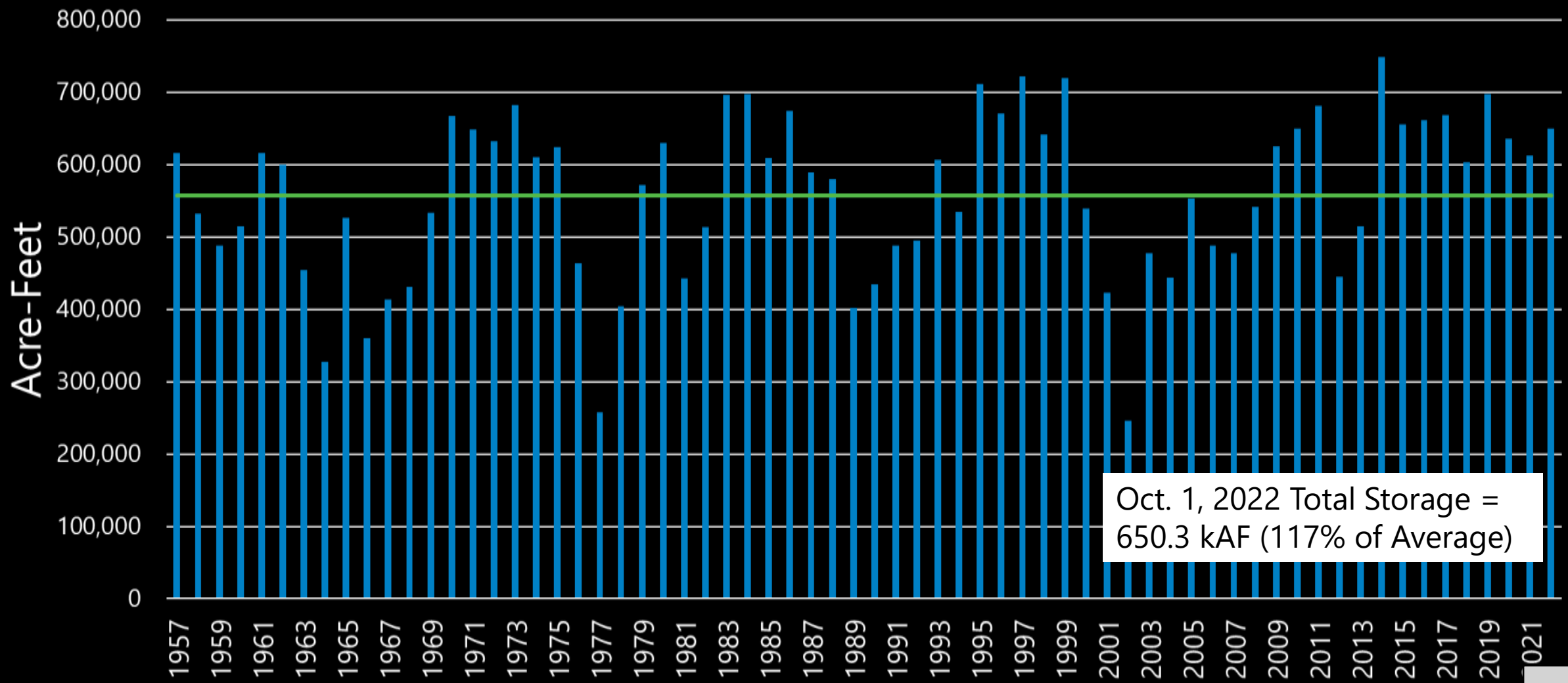


Lower Colorado Conservation & Efficiency Program

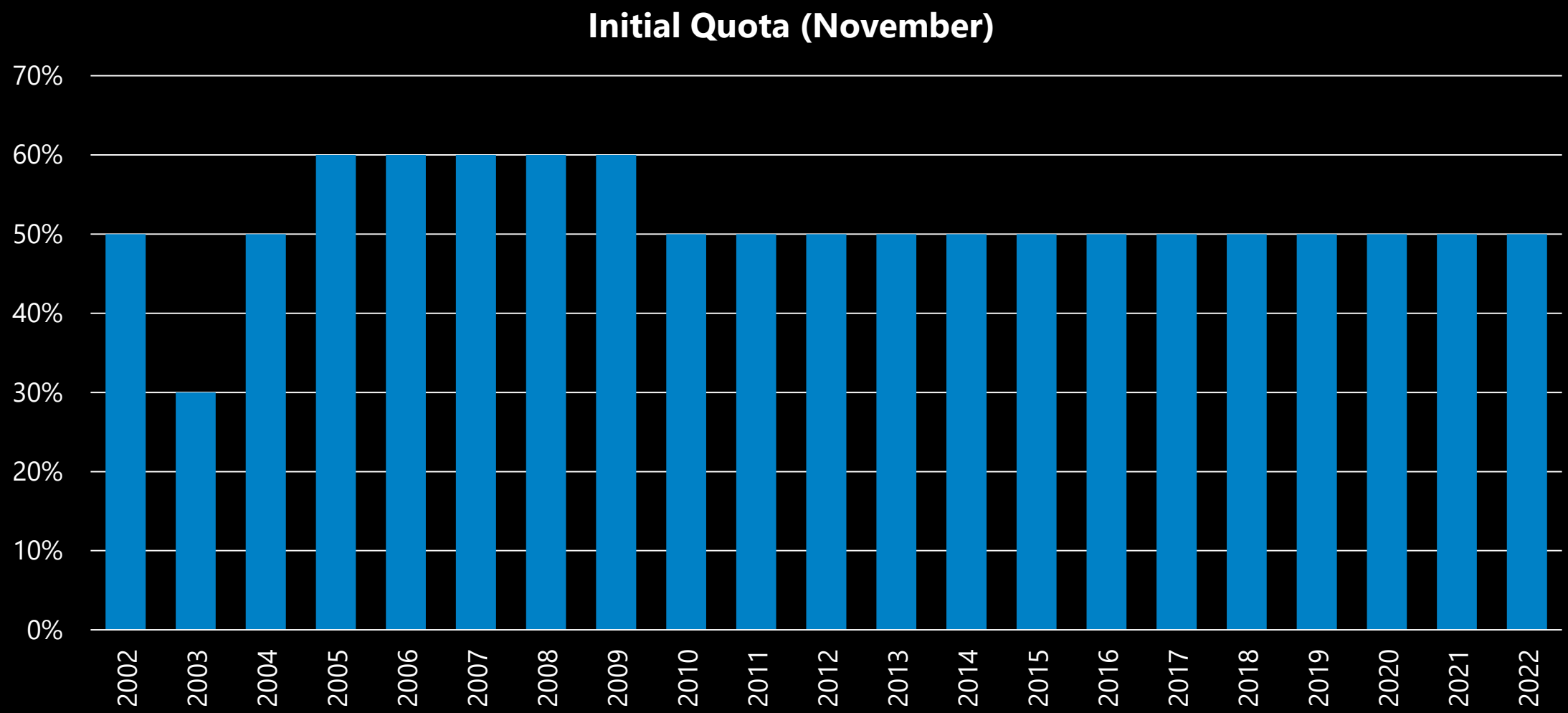
- System Conservation
  - USBR Contractor
  - Contract w/USBR
  - $330 - $400/acre-ft or ????
    - System Conservation
    - Conserved CU
    - Long-Term Efficiency Improvements



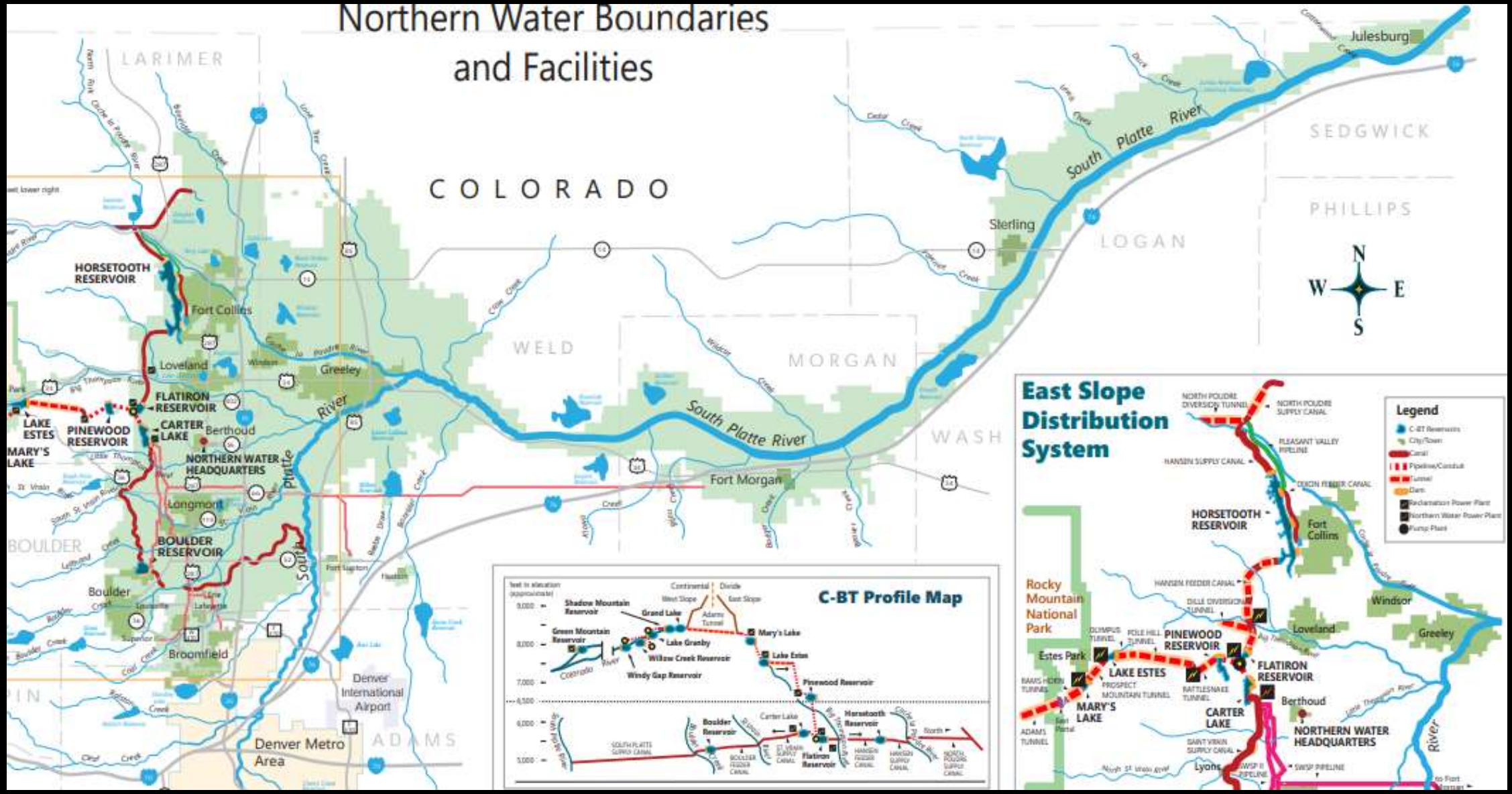
October 1 CBT Storage



Initial Quota History



CBT Project & Return Flows



Benefits of Imports

- 25+ Counties Receive Colorado River Supplies
  - ~ 20% South Platte Basin Supplies
  - ~ 15% Arkansas Basin Supplies
- Irrigated Agriculture
  - ~ 640,000 acres South Platte Basin
  - ~ 265,000 acres Arkansas Basin
- Municipal/Domestic
  - ~3 million South Platte River Basin
  - ~ 900,000 Arkansas River Basin
- Recreation
  - In River/Flowing Water
  - Flat Water
- Environmental/Ecological
  - Riparian
  - Fish & Wildlife

Questions?

Water & Sewer Agenda Summary

Date: October 19, 2022

Key Staff Contact: Leah Hubbard, Water Resources Operations Manager

Title: Outside Water Council Legal Report

Summary: The Attached Report has been provided by Ms. Carolyn F. Burr, Esq. with Welborn Sullivan Meck & Tooley, P.C

Based on a review of the August 2022 Water Court Resume, staff and water counsel recommend that the Board file statements of opposition in the following case:

a. Case Number: **22CW3121:** The Groundwater Management Subdistrict of the Central Colorado Water Conservancy District application for diligence and to make a portion of the water right absolute for Jo Dee Reservoir. Central is claiming that 289 AF of the 1,600 AF storage right as absolute and 1.28 cfs of 5 cfs decreed to one point of diversion as absolute. Jo Dee Reservoir is located close to the Whitney and Eaton Ditch headgates. We recommend that Greeley file a statement of opposition to ensure the absolute claims are supported by the records as being diverted when the rights were in priority and physically available.

b. Case No. **22CW3107**: Buckhorn Highline Ditch Company has filed an application for a simple change in surface point of diversion for the Buckhorn Highline Ditch, which is located on Buckhorn Creek, a tributary to the Big Thompson River. It appears that the simple change being claimed does not meet the criteria for a simple change case, and there is the possibility that the change could result in an expansion of the historic right. We recommend that Greeley file a statement of opposition to ensure that the proposed change does not injury Greeley rights on the Big Thompson River.

Recommended Action:

Staff recommends entry into the water court cases **22CW3121** and **22CW3107**.

Recommended Motion:

"I move that the Board authorize the filing of statements of opposition in Case Nos. 22CW3121 and 22CW3107 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."

Attachments:

1. Legal Report for October 2022

Legal Report
Greeley Water and Sewer Board Meeting
October 19, 2022

I. Statements of Opposition: Based on a review of the August 2022 Water Court Resume, staff and water counsel recommend that the Board file statements of opposition in the following case:

a. Case Number: **22CW3121:** The Groundwater Management Subdistrict of the Central Colorado Water Conservancy District application for diligence and to make a portion of the water right absolute for Jo Dee Reservoir. Central is claiming that 289 AF of the 1,600 AF storage right as absolute and 1.28 cfs of 5 cfs decreed to one point of diversion as absolute. Jo Dee Reservoir is located close to the Whitney and Eaton Ditch headgates. We recommend that Greeley file a statement of opposition to ensure the absolute claims are supported by the records as being diverted when the rights were in priority and physically available.

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II. Proposed Motion Language: "I move that the Board authorize the filing of statements of opposition in Case Nos. 22CW3121 and 22CW3107 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."

Water & Sewer Agenda Summary

Date: October 19, 2022

Key Staff Contact: Cole Gustafson, Water Resource Administrator III

Title: Executive Session

Summary:

- Bi-Annual Water Market Update

Recommended Action: None

Attachments: None

Water & Sewer Agenda Summary

Date: October 19, 2022

Key Staff Contact: Sean Chambers, Director

Title: Director's Report

Summary: The Director will provide a summary overview of several items of Board interest:

1. NCWCD Fall Symposium – November 15th
2. NGWA Award for Terry Ranch diligence and engineering
3. Colorado Water Plan '23 summary information
4. Terry Ranch ASR project planning update
    a. Pipeline easements and RoW
    b. Project design and engineering
    c. Well field planning and water resources
    d. IWRP planning for long-term project integration with other water supplies

Recommended Action: N/A

Attachments:
1. Monthly data charts for W&S Board
2. Agenda for NCWCD Fall Symposium
3. Groundwater Association Award poster for LRE/Terry Ranch
4. 2023 Colorado Water Plan Summary

Fall Symposium
Tuesday, November 15, 2022, 9 a.m. to 3 p.m.
Embassy Suites, Loveland

8-9 a.m. Check in, light breakfast and networking

9 a.m. Welcome & Introductory Comments.....Brad Wind
General Manager, Northern Water

9:15 a.m. Colorado Water Center: Introduction of New Director.....
Jennifer Gimbel, *Board of Directors, Northern Water*
John Tracy, *Director, Colorado State University Water Center*

9:25 a.m. Adapting to Change.....Michael Carolan
Associate Dean for Research, Professor of Sociology, Colorado State University

9:45 a.m. Colorado State Climatology .....Russ Schumacher
Colorado State University Professor
Director, Colorado Climate Center & Colorado State Climatologist

10-10:20 a.m. BREAK & NETWORKING

10:20 a.m. Colorado River Update.....
Facilitator: Brad Wind, *General Manager, Northern Water*
Chuck Cullom, *Executive Director, Upper Colorado River Commission*
Becky Mitchell, *Director, Colorado Water Conservation Board*
Kyle Whitaker, *Colorado River Manager, Northern Water*

11:45 a.m. Chimney Hollow Reservoir Project Update

Building Resiliency (15 minutes)

12 p.m. LUNCH & NETWORKING

12:30 p.m. Future Vision: Restoring and Protecting Our Forests and Source Watersheds.....
Monte Williams
Arapahoe & Roosevelt Forest Supervisor, U.S. Forest Service

12:55 p.m. Celebrating the Success of the Platte Recovery Program.....Kyle Whitaker
Colorado River Manager, Northern Water

1:10 p.m. BREAK & NETWORKING

1:25 p.m. Land Use Planning in Times of Water Scarcity.....
Facilitator: Frank Kinder, *Water Efficiency Manager, Northern Water*
Sean Chambers, *Director of Water and Sewer, City of Greeley*
Patrick McMeekin, *President of Land, Hartford Homes*
Waverly Klaw, *Director for Resilient Communities and Watersheds, Sonoran Institute*
Michael Carolan, *Professor of Sociology, Colorado State University*

2:30 p.m. Northern Integrated Supply Project.....Carl Brouwer
Project Management Department Manager, Northern Water

▶ *NISP and Geotechnical Design Assessments (10 minutes)*

2:50 p.m. President's Thank You.....Mike Applegate
Northern Water Board President

PROJECT AND PROGRAM INFORMATION
Please stop by the tables situated in the meeting room to visit with Northern Water staff about:

Chimney Hollow Reservoir Project

Northern Integrated Supply Project

Post-Fire Watershed Restoration

Campus Development

Water Efficiency

Growing Water Smart

Associated Landscape Contractors of Colorado

LRE WATER

LREWATER.COM

CONNECTING WATER TO LIFE

TERRY RANCH PROJECT

AQUIFER CHARACTERIZATION STUDY

GREELEY, COLORADO

BACKGROUND

LRE Water conducted a hydrogeologic investigation of the Upper Laramie Aquifer (ULA) underlying the Terry Ranch for the City of Greeley, Colorado. Terry Ranch is an 8,400-acre bison ranch that straddles the Wyoming and Colorado border. The City of Greeley was considering entering into a private-public partnership to purchase the groundwater rights underlying the property, and it needed to evaluate the feasibility of utilizing the aquifer for municipal water supply and treated surface water storage. The project was completed over a nine-month period, and involved an extensive investigation of the aquifer's productivity, water quality, and storage potential.

INNOVATIVE DELIVERABLE

The results of the investigation needed to be easily shared within the City of Greeley and made available to the public for review. LRE Water developed a GIS STORY MAP to readily share and convey the results of the investigation.

AQUIFER PRODUCTIVITY

LRE Water conducted multi-day aquifer tests at five production wells on the property. Water levels were monitored continuously during pumping and recovery to estimate aquifer properties, and groundwater samples were collected at the wellheads and specific depth intervals for water quality analysis. The findings of aquifer testing included:

- Sustainable well yields vary across the property and range from 110 to 590 gallons per minute (gpm). Well productivity tends to be higher in the northern portion of the property where the aquifer is thickest.
- The aquifer has two hydraulically separated producing zones: 1) high-producing "upper" zone, and 2) a low-producing "lower" zone. Approximately 60% to 90% of the aquifer yield is derived from the "upper" zone.
- The aquifer is capable of accommodating the City of Greeley's anticipated rates and volumes of groundwater pumping and aquifer recharge/storage.

WATER QUALITY

Composite and depth-specific groundwater samples were collected from five production wells and two monitoring wells. Over 7,000 individual analyses were conducted for 577 water quality parameters. LRE Water compiled the lab results to a water quality data dashboard, which facilitated data sharing, filtering, sorting, and exporting.

Three constituents of interest were identified, including uranium, gross alpha particle activity, and manganese. Prior investigations revealed that the ULA underlying Terry Ranch has naturally-occurring uranium. One of the core objectives of LRE Water's investigation was to characterize the extent of the uranium and to determine if it is stratified. This was accomplished through a combination of spectral gamma logging, Corehole Dynamic Flowmeter (CDFM) and HydroPhysical logging, and depth-specific (zonal) sampling. Results indicated that, although uranium concentrations varied with depth, the uranium was not restricted to a discrete aquifer zone(s). Hence, the uranium could not be avoided through selective well design and would need to be removed through treatment.

GEOCHEMISTRY

Reactions between the aquifer material and treated surface water can result in dissolution of trace metals. Understanding the mineralogy of the aquifer materials and the abundance of trace metals was needed to evaluate the risk of metal dissolution during aquifer storage.

Aquifer material samples were collected from selected producing/storage zones and submitted for bulk x-ray diffraction (XRD) mineralogical analysis and trace metal quantification using Inductively Coupled Plasma Mass Spectrometry (ICP-MS). XRD analysis indicated that the aquifer materials are dominated by quartz, plagioclase, potassium-feldspar and muscovite, which are consistent with the depositional environment and source materials. ICP-MS analysis indicated that the concentrations of trace metals in the aquifer materials are within normal ranges and do not pose a risk to aquifer storage.

Other techniques were employed to characterize the aquifer geochemical conditions and to predict potential changes during ASR operations, including Piper and Stiff diagrams, and Eh-pH diagrams. The waters' pH, Eh, dissolved oxygen, and temperature characteristics were used to construct Eh-pH diagrams. The plots showed that uranium and arsenic are stable in the aqueous phase for both the groundwater and the City of Greeley's treated surface water, corroborating the results of ASR pilot testing.

ASR PILOT TESTING

Demonstrating the feasibility of aquifer storage at Terry Ranch became critical to the City of Greeley's decision-making. LRE Water devised a plan to conduct a short-term ASR pilot test, and prepared an EPA UIC Rule Authorization application. The application was prepared, submitted, and approved by the EPA in less than two months.

The ASR pilot test needed to be conducted using the City of Greeley's treated surface water, but its water treatment plant is over 35 miles away. Water was delivered via truck and stored on-site, which limited the rate, volume, and duration of testing. A monitoring well was used for the pilot test, instead of a high-capacity production well, due to the water supply constraints. Two cycle tests were conducted: a one-day test, followed by a three-day test. Field water quality parameters were monitored, and samples of recovered water were collected for water quality analysis.

One of the objectives of ASR pilot testing was to evaluate the potential for mobilizing uranium and arsenic in the aquifer. Uranium, arsenic, and chloride concentrations were monitored in the recovered water and plotted to see if uranium and arsenic concentrations trended similarly to chloride. Uranium and arsenic behaved similarly to chloride and gradually trended from the recharge source water concentrations to the native groundwater. C/Co plots were also used to evaluate uranium and arsenic mobilization, where C is the measured concentration of a constituent and Co is the concentration of that constituent in the native groundwater. The uranium and arsenic C/Co plot trends mirrored that of chloride, which was further evidence that neither uranium nor arsenic were being mobilized during ASR operations.

COLORADO WATER PLAN

COLLABORATIVE WATER MANAGEMENT

The Colorado Water Plan is built on decades of evolving water policy and collaboration. Our water challenges demand united focus and innovation. The institutional system governing how much water Colorado can use and consume within its boundaries is based on nine interstate compacts, two equitable apportionment decrees, and Colorado water law (called prior appropriation). State and local governments also govern water use and management with regulations, ordinances, and codes. These governing systems working together have allowed Colorado's water users and stakeholders to develop strong relationships across regional divides.

COLORADO WATER VALUES

The spirit of collaboration that underscores our four core values, will be more critical than ever to achieve the collective vision for Colorado's water future. These values include: 1) A productive economy that supports vibrant and sustainable cities, agriculture, recreation and tourism; 2) An efficient and effective water infrastructure system; 3) A strong environment with healthy watersheds, rivers, streams and wildlife; 4) An informed public with creative, forward-thinking solutions that are sustainable and resilient to changing conditions and result in strong, equitable communities that can adapt and thrive in the face of adversity.

The 2023 Water Plan organizes the values above into four action areas that connect to cities, farms, streams and people. These action areas organize the plan and direct readers to different water uses and planning needs. However, the four action areas are integrated, interdependent, and need equal support.

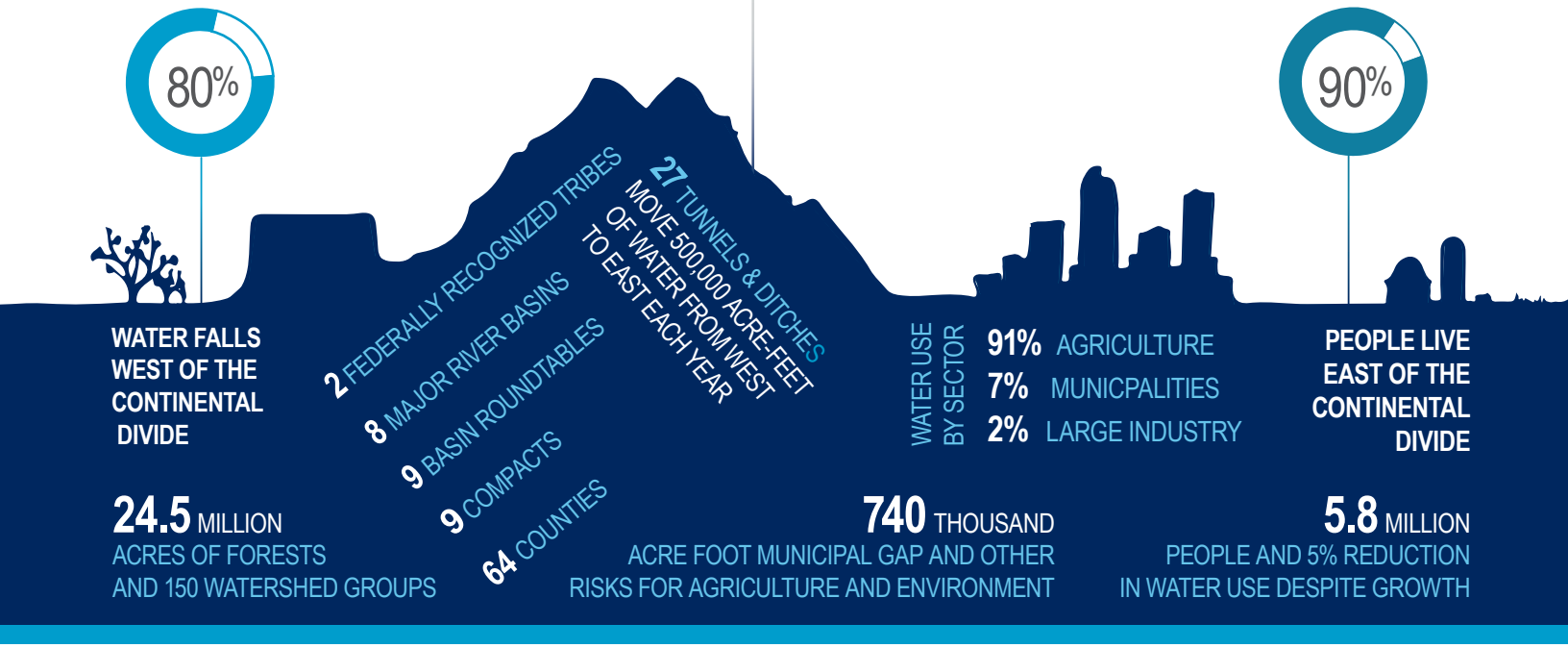
VIBRANT Communities — counties, municipalities, utilities, cities, towns, businesses, large industries, large/ small urban and rural communities, etc.

ROBUST Agriculture — established crops and farms, local food, orchards, ranching, ditch companies, acequias, urban agriculture, etc.

4 INTERCONNECTED ACTION AREAS

THRIVING Watersheds — environment and recreation, river health, watershed health, forest health, wildfire mitigation, wildlife and aquatic species protection, etc.

RESILIENT Planning — climate adaptation, planning for climate extremes, embracing equity, diversity , and inclusivity, education, outreach and engagement, supportive government, etc.



24.5 MILLION ACRES OF FORESTS AND 150 WATERSHED GROUPS

740 THOUSAND ACRE FOOT MUNICIPAL GAP AND OTHER RISKS FOR AGRICULTURE AND ENVIRONMENT

5.8 MILLION PEOPLE AND 5% REDUCTION IN WATER USE DESPITE GROWTH

To learn more, visit engagecwcb.org

COLORADO
Colorado Water Conservation Board
Department of Natural Resources

THE WATER PLAN IS A BRIDGE TO ACTION

Meeting Colorado's water challenges will take the whole state pulling together, with stakeholders working at the local level on projects and the Colorado Water Conservation Board (CWCB) providing support through tools and grant funding through the Colorado Water Plan Grant Program. Actions in the Water Plan are divided between partner and agency actions as explained below.

50

While the list of partner actions is limitless, the Water Plan describes about 50 project ideas that could be supported by Water Plan grants.

PARTNER ACTIONS

- Increased personal conservation
- Starting a new water initiative/project
- Developing collaborative solutions

50

The Water Plan lists 50 actions CWCB and collaborating agencies will take to support local projects, conservation and wise-water development.

AGENCY ACTIONS

- Developing frameworks and convening groups
- Advancing research and science
- Creating support tools

WATER PLAN GRANTS HELP FUND PROJECTS

The legislature created the Water Plan Grant Program categories for CWCB to fund local multi-beneficial water projects.

Agriculture | **Conservation & Land Use** | **Engagement & Innovation** | **Watershed Health & Recreation** | **Water Storage & Supply**

COLORADO WATER PLAN TIMELINE

2015
- Inaugural Water Plan Released

2017
- Technical Advisory Groups Convened

2019
- Basin Planning Group Convened
- Technical Update Completed

2021
- Project Database Developed
- Water Plan Scoping Workshops

2022
- Basin Plans Completed
- Water Equity Task Force Concludes
- Water Plan Draft Released for Comment

2023
- Final Draft to CWCB Board

COMMENT. COMMIT. SHARE.

Visit engagecwcb.org to read the plan and share your comments or provide input at one of four online listening sessions from 4 :00 - 6:00 p.m. on the following dates:

- **July 27**
- **August 10**
- **September 1**
- **September 28**

Commit to taking action to build a more water-secure future by submitting your idea for how to save water. Share a story of a water project that's helping make Colorado more resilient to its water challenges. The top stories shared may be featured on CWCB's website along with the final Water Plan!

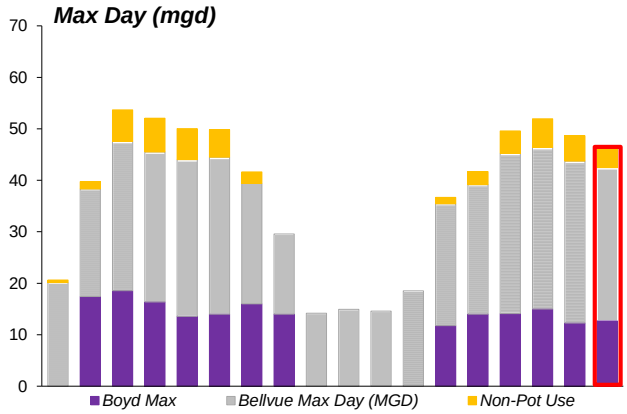
COLORADO
Colorado Water Conservation Board
Department of Natural Res

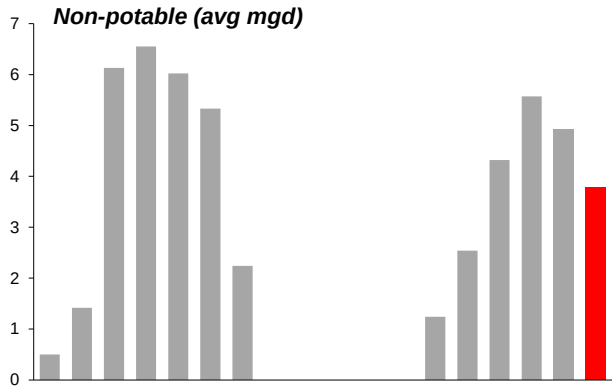
Water Treatment

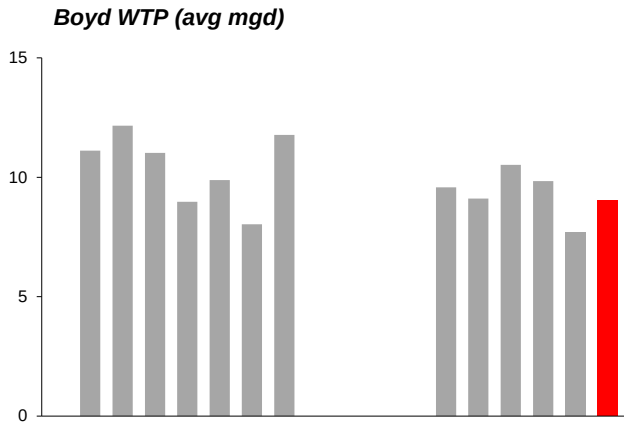
Bellvue Water Treatment Plant operates year-round with a transmission capacity of 29.1 million gallons per day (mgd) (plant capacity is 32 to 35 mgd). Water sources include Poudre River direct flows, Colorado-Big Thompson (C-BT), Windy Gap, High Mountain Reservoirs, Laramie-Poudre Tunnel, and Water Supply 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.

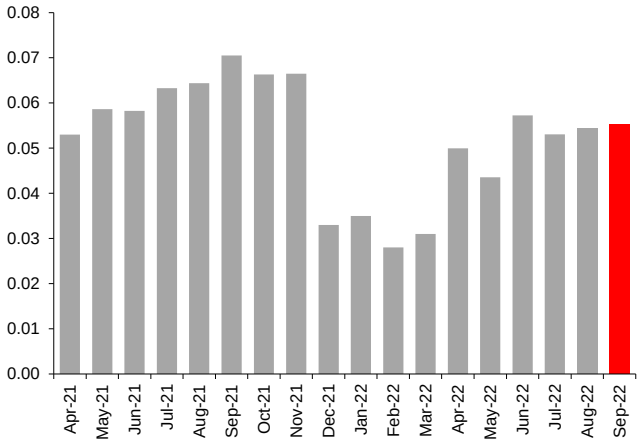
Boyd Water Treatment Plant operates normally from April to October with a plant capacity of 38 mgd (transmission capacity is 40 mgd). Water sources include Greeley-Loveland Irrigation Company, C-BT, and Windy Gap. Average Volume is 8,200 acre-feet (2000-2011). The current plant was built in 1974, with 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.





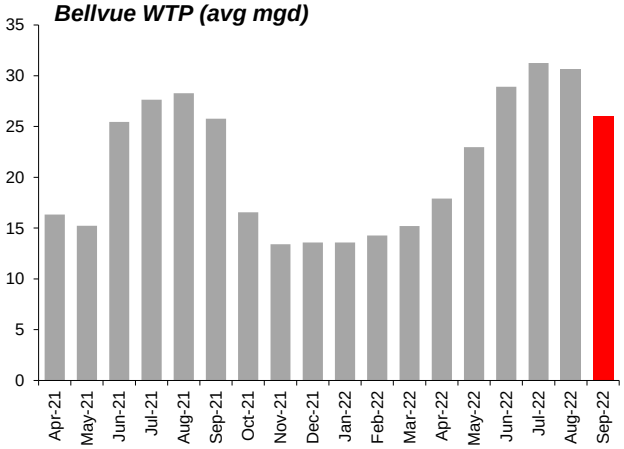




Starting May 2016 Bellvue turbidity measurements will use a new method resulting in more accurate readings.

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

Turbidity is the measure of rel
ative 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).

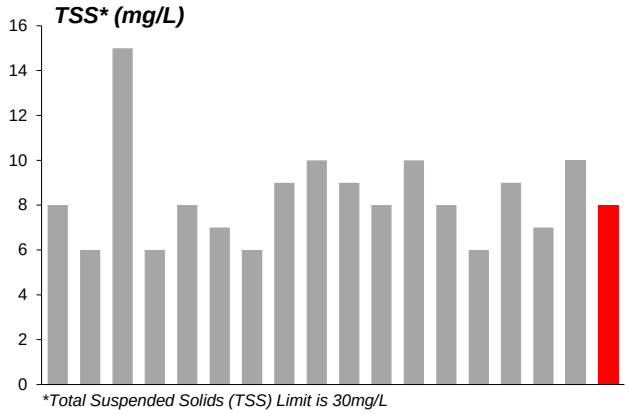


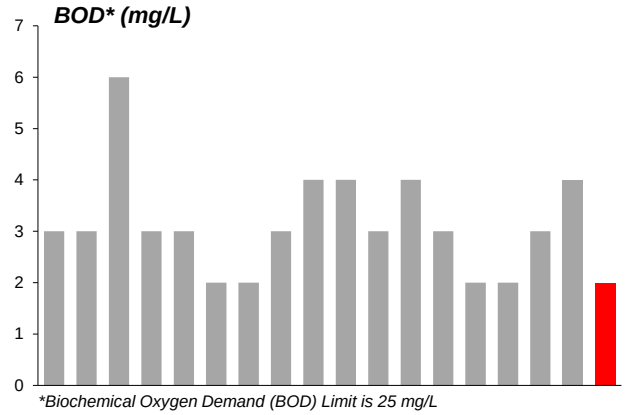
Wastewater Treatment

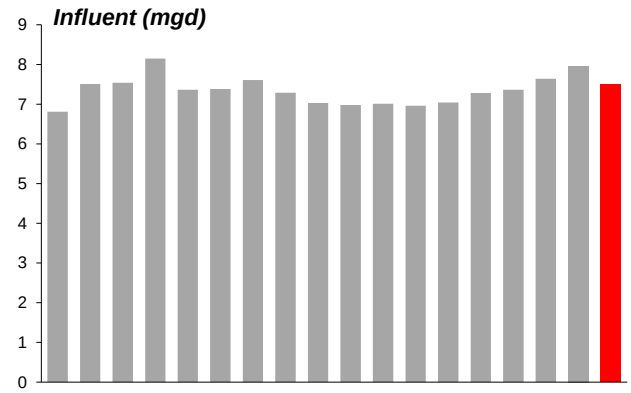
The Water Pollution Control Facility (WPCF) staff are dedicated environmental professionals who provide quality, safe and cost-effective wastewater treatment services for the citizens of Greeley. The WPCF treats wastewater to meet or exceed Environmental Protection Agency (EPA) and Colorado Department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

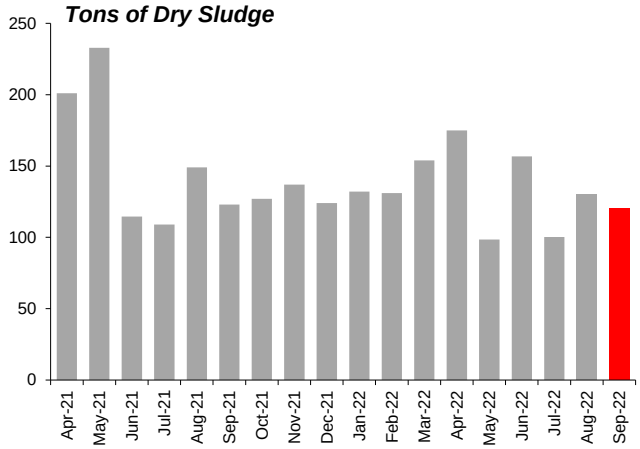
In 2011, the WPCF received an Xcel Energy Custom Efficiency Achievement Award for saving 2.78 million kWh and reducing CO2 emissions by 1,584 tons. In 2012, the WPCF received the Rocky Mountain Water Environment Association's (RMWEA) Sustainability Award for Colorado demonstrating excellence in programs 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.

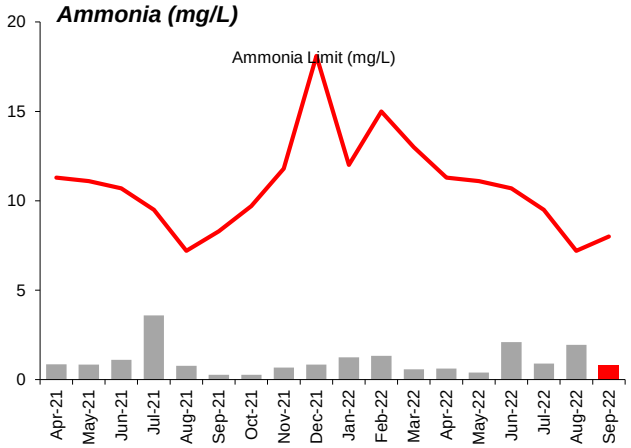
Note: the red column indicates the current month.











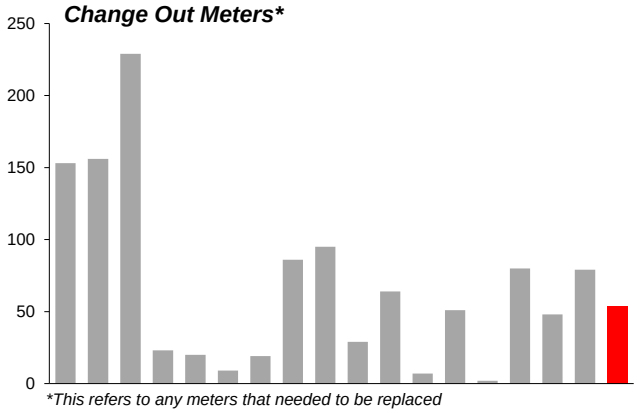
Water Distribution

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

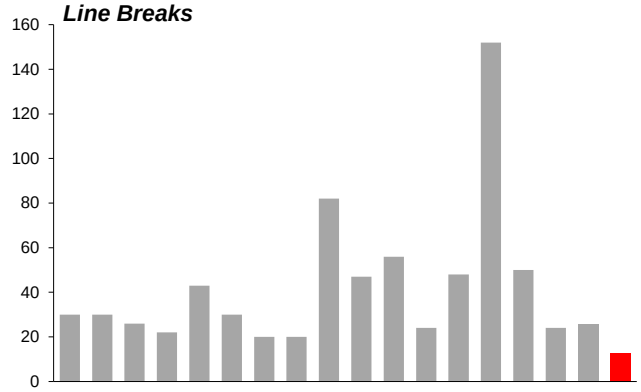
There are 69.75 million gallons of potable water storage in Greeley. The water is stored within three covered reservoirs and one elevated tank; 23rd Avenue - 37.5 million gallons, Mosier Hill - 15 million gallons, and Gold Hill - 15 million gallons. The system also has 476 miles of pipeline, 24,233 water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

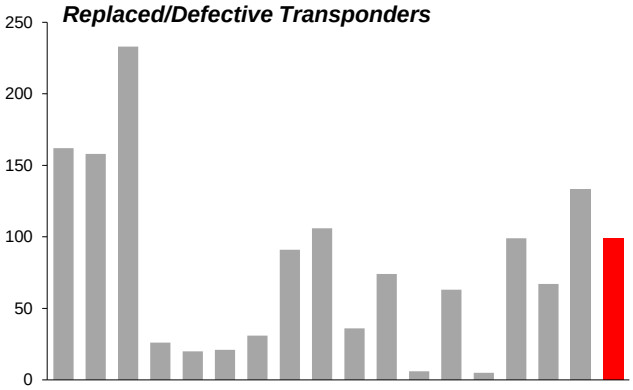
The water pipes in the distribution system vary in size from 4" to 36". Pipe material is steel, ductile iron, cast iron, or p olyvinyl chloride. The age of the pipes varies from the 1890's to new installations.

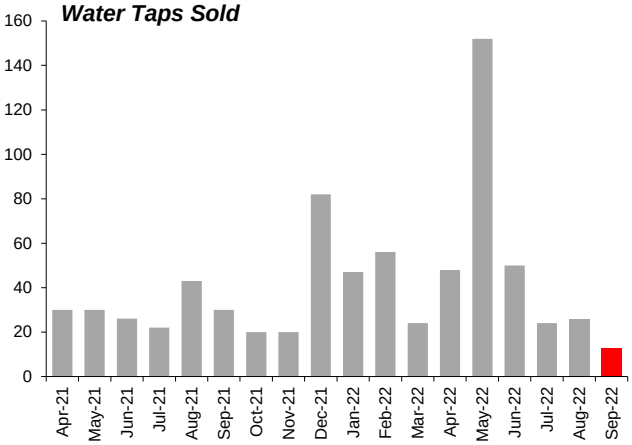
Note: the red column indicates the current month.

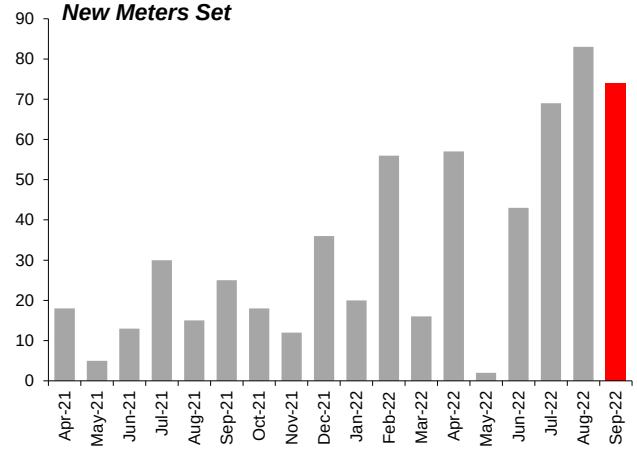


*This refers to any meters that needed to be replaced









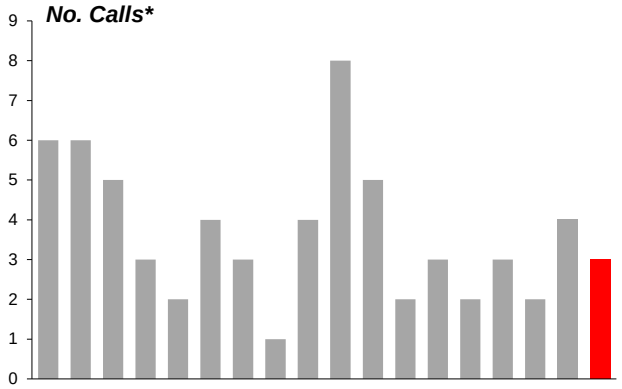
Wastewater Collection

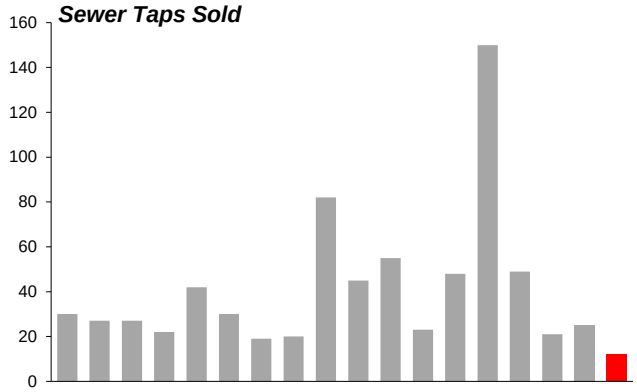
The mission of the Wastewater Collection Division of the Water and Sewer Department is to protect community health by transporting wastewater away from homes and businesses. This includes respecting property values and public safety by reducing the frequency of blockages in the sanitary sewer lines.

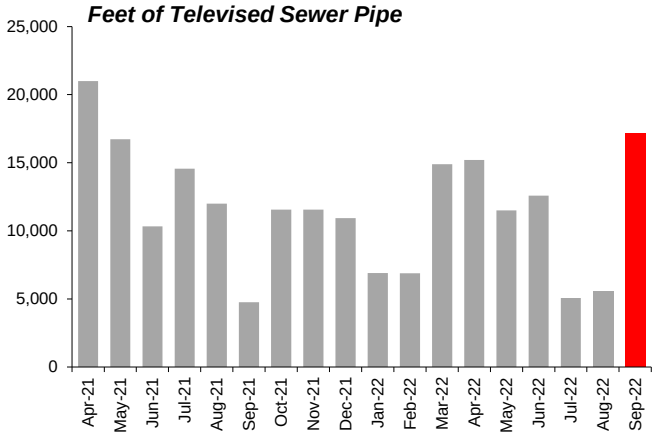
A wide variety of work is performed including routine cleaning of sewer lines, inspection of sewer lines, maintenance of the sewage pumping stations, rehabilitation of the system and responding to emergencies.

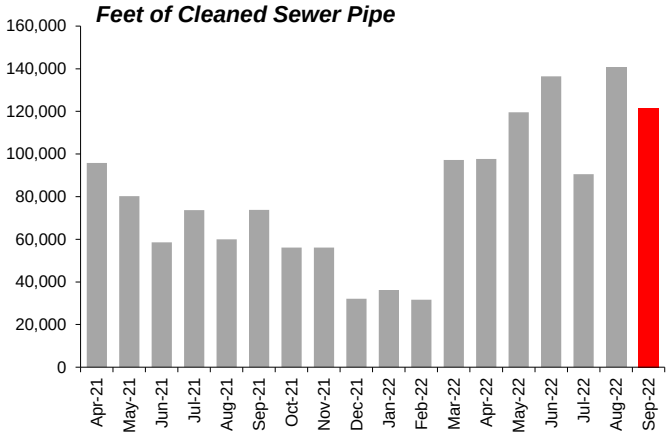
The wastewater collection system dates back to 1889. At the end of 2017, the system had a total of 364.8 miles of line and 10 sewage pumping stations. The sewer service area is approximately 51 square miles. Over the last 10 years, the system has grown by 17 miles.

Note: the red column indicates the current month.







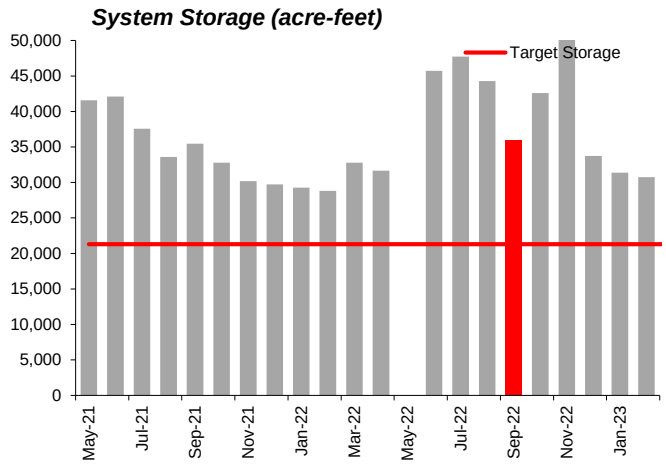


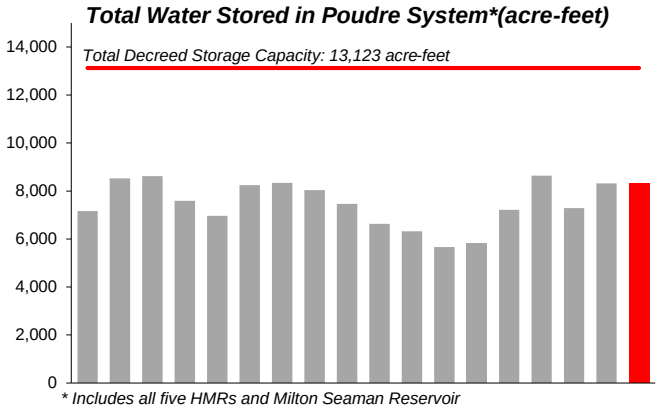
Water Resources

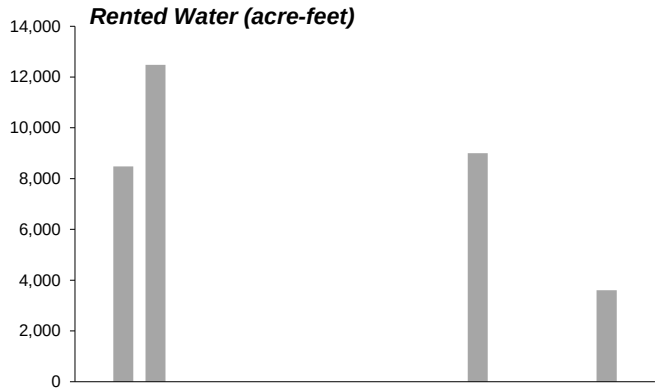
Greeley has numerous water rights in four river basins; the Upper Colorado River, Cache La Poudre, Big Thompson and Laramie River. The Water Resource staff must account for all of this water and comply with the rules of the Colorado Water Court and the State Engineer's Office which is in charge of allocating 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.

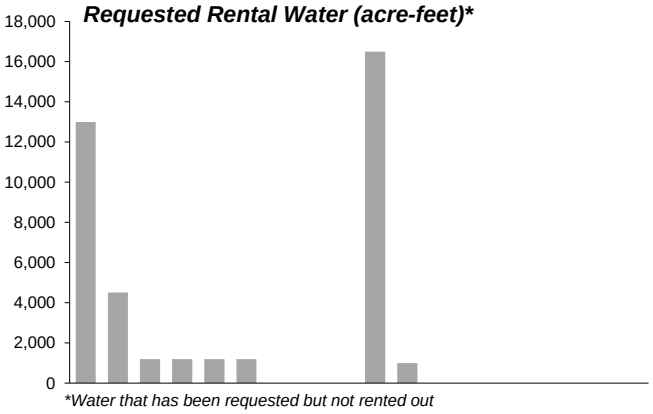
Greeley's goal is to have enough water in carry-over storage to sustain Greeley through a 50-year critical drought. Water in excess of this carry-over drought supply can be leased to agriculture, both for revenue and to support our local agricultural community. Modeling has shown that, given existing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

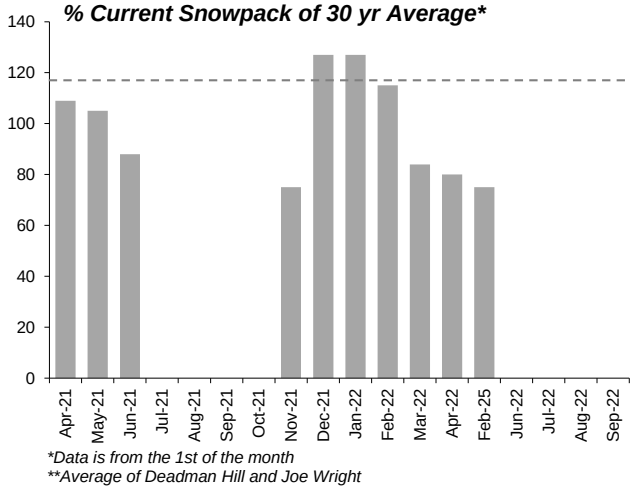
Note: the red column indicates the current month.

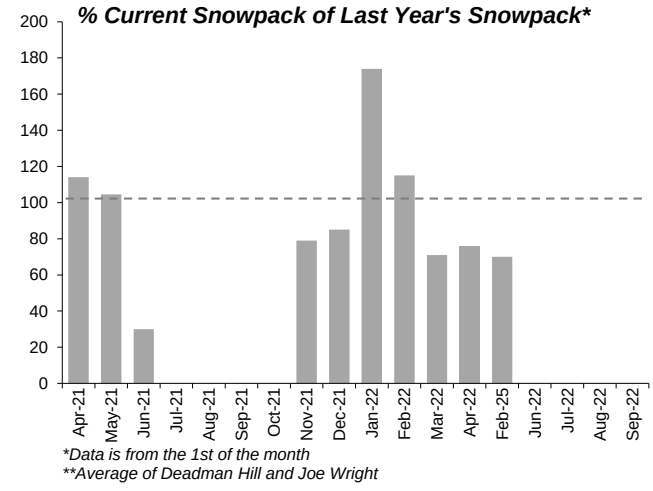








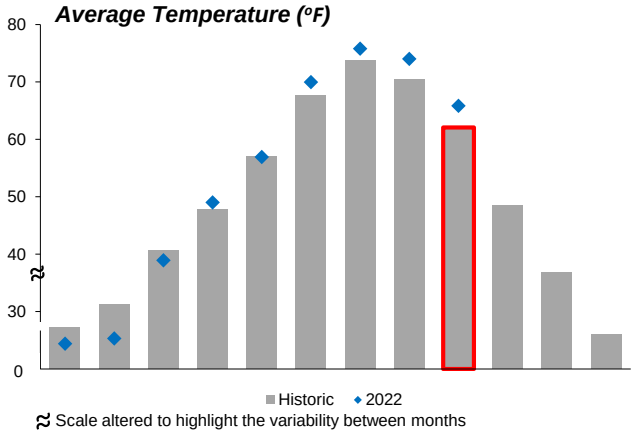


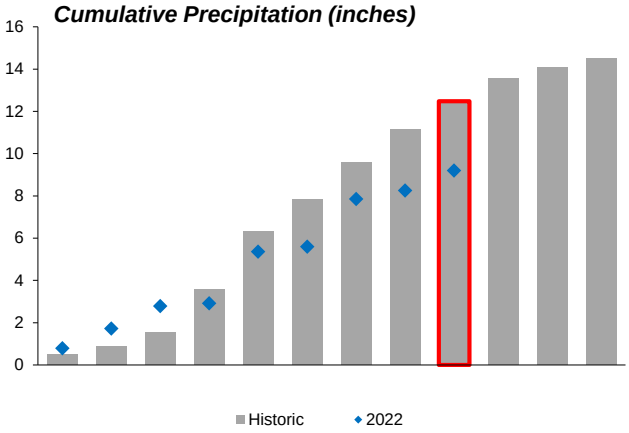


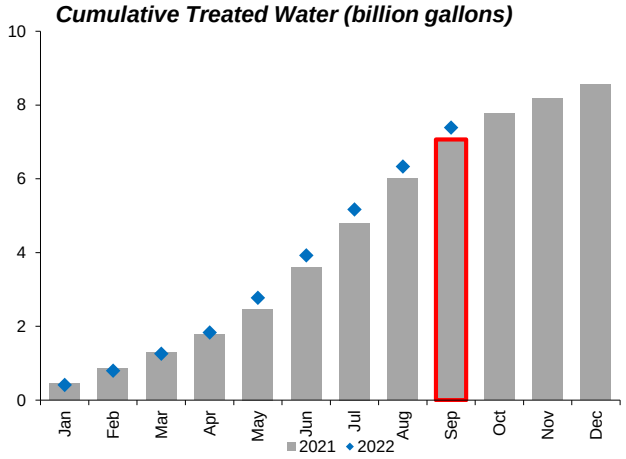
Treated Water and Weather Data

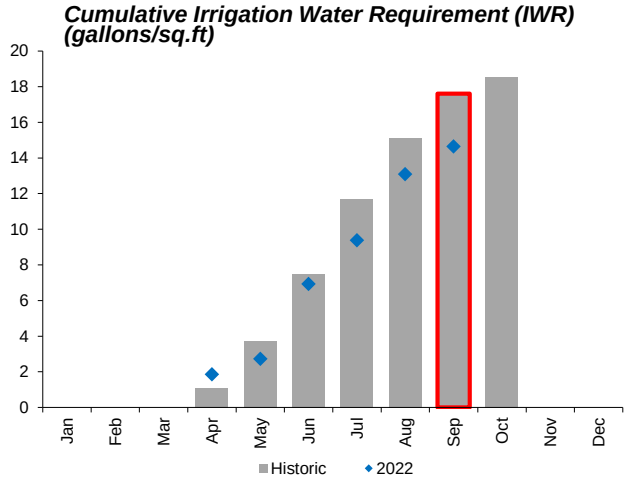
January 2022 average temperature was 24.38°F, approximately 2.8°F cooler than average. Febuary also brought colder temperatures averaging 25.23°F. In March the average temperatre was 38.94°F, slighlty cooler than the historical averge. Temperatures began to rise in April, bringing the average temperature to 49°F, which is slighty higher that the historical average temperature of 47°F. May brought an average temperature of 56.93° F, almost exact to the historical average. The average temperatre for June was 70°F slightly above the historical average. July's average temperature was 75.81° F which was 2.1° hotter than the historical average. At 77°F, August's average temperature was 7° hotter than the historical. Septembers average temperature was 65.9° F.

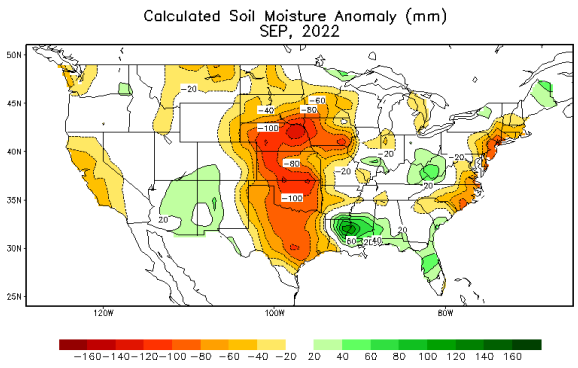
Greeley precipitation was 0.79 inches in January, which is slightly above average (0.43 inches). Febuary had high precipitation at 0.93 inches. March brought 1.07 in of precipitation, setting Greeley 1.23 inches over the historical cummulitive precipitation for March. Greeley has a very dry April with only 0.13 inches of precipitation bringing the cummulitive precipitation 0.63 inches below average. May brought 2.44 inches of precipitation. Greeley only revieved 0.2 in of precip in June, ending the month signifgicanlty lower than the historical average. July was a faily wet month for Greeley, bringing 2.25 inches of precipitation. August was a dry month this year, bringing only 0.41 inches of rain. In September, Greeley received 0.94 inches of precipitation.

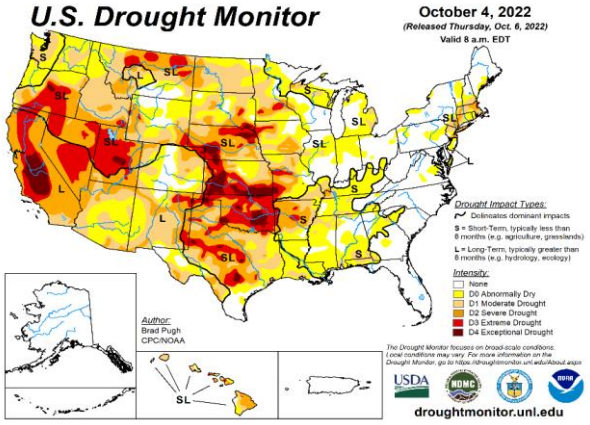












National Weather Service Climate Prediction Center