



WATER AND SEWER BOARD REGULAR MEETING

March 10, 2021 – 6:30 a.m.

Link to join Webinar

<https://windsorgov.zoom.us/j/97397251420>

The Town of Windsor will make reasonable accommodations for access to Town services, programs, and activities and will make special communication arrangements for persons with disabilities. Please call (970) 674-2400 by noon on the 2nd day prior to the meeting to make arrangements.

AGENDA

A. CALL TO ORDER

1. Roll Call
2. Review of Agenda by the Board and Addition of Items of New Business to the Agenda for Consideration by the Board
3. Public Invited to be Heard
4. Introduction of new Alternate Board Members
5. Mayor's Water Challenge; *Mayor Paul Rennemeyer*

B. CONSENT CALENDAR

C. BOARD ACTION

1. Approve minutes from the February 10, 2021 meeting
2. Approve and recommend Fort Collins-Loveland Water District and Windsor IGA for Effluent Return Quantification; *Leif Lesoing, Town of Windsor*

D. PRESENTATIONS AND DISCUSSION

1. Water Resources 101 Update; *Leif Lesoing, Town of Windsor*

E. COMMUNICATIONS

1. April 6, 2021 Northern Water Spring Water Users Meeting, Zoom, www.northernwater.org
2. Landscape Boot Camp Q&A March 27, 2021
3. Additional Ad Hoc Committee Update

F. ADJOURN



WATER AND SEWER BOARD REGULAR MEETING

February 10, 2021 – 6:30 a.m.

Meeting via Zoom

Windsor, CO 80550

MINUTES

A. CALL TO ORDER

Board Chairperson Bielawski called the meeting to order at 6:32 a.m.

1. Roll Call

Chairperson
Vice-Chairperson
Secretary

Greg Bielawski
Carlos Medina
Janene Willey
Darell Zimbelman
Milt Tokunaga
Milton Geiger
Gale McGaha Miller
Ken Bennett

Town Board Liaison

Also present:

Dir. Of Community Development John Thornhill
Water Resources Administrator Leif Lesoing
Dir. Of Public Services Eric Lucas
Deputy Dir of Public Works Paul Schwindler
WWTP Supervisor Dennis Markham
WWTP Operator Ryne Omiecinski
Utility Billing Admin Specialist Erin Porter
Jacobs Engineering Steve Tamburini
Citizen Alan MacGregor
Citizen Alan Overton

2. Review of Agenda by the Board and Addition of items of New Business to the Agenda for Consideration by the Board

There were no new agenda items considered.

3. Public Invited to be Heard

There was no public comment.

B. CONSENT CALENDAR

There were no items on the consent calendar.

C. BOARD ACTION

1. Minutes of January 13, 2021 Regular Meeting

Board Member Tokunaga moved to accept the minutes for the January 13, 2021 meeting; Board Member Zimbelman seconded the motion. Motion carried unanimously.

D. PRESENTATIONS AND DISCUSSION

1. Wastewater Treatment Plant Phasing Analysis, Steve Tamburini Jacobs Engineering

Mr. Tamburini presented the Phasing Analysis that was done as part of the Bio-Solids Project Scope. This was done to understand where the Wastewater Treatment Plant (WWTP) currently stands with the capability for capacity. The WWTP is currently rated for 2.8 million gallons per day (mgd).

As part of the discharge permit, the Colorado Department of Public Health and Environment (CDPHE) wants to make sure that the future is planned for. When the WWTP reaches 80% capacity, the expansion planning timeline is triggered. This plan expects that at 90% capacity a design is finished, and at 95% capacity, construction on the expansion is completed. For the Town of Windsor, 80% capacity is 2.24 mgd, which is right around where the Town is currently. It is projected that the Town's current capacity will be maxed out around 2025-2026.

As part of the analysis, Jacobs Engineering also looked at current and future regulations for nitrogen and phosphorus discharge. The current plant cannot meet the new limits under Regulation 31 with improvements. In order to meet the new limits, a new treatment process is required.

3 alternative plans were evaluated:

Alternative 1 Plan:

- Expand current treatment facility capacity to maximize existing process
- Will not be able to meet Regulation 31 needs in the future
- For Regulation 31 a new greenfield facility would need to be constructed

Alternative 2 Plan:

- Decommission the existing facility
- Construct a new greenfield plant with full capacity needs
- New process can be integrated into Regulation 31 treatment process
- For Regulation 31 construct additional unit process needed for low limits

Alternative 3 Plan:

- Continue to operating existing facility
- Construct a new greenfield treatment facility with lower capacity (greenfield + existing = total capacity)
- New process can be integrated into Regulation 31 treatment process
- For Regulation 31 expand greenfield process and construct additional unit processes

Jacobs Engineering looked at the current system and which facilities and processes need to be expanded. They determined that the headworks screens are not performing as well as they should, and needs to be improved. Blower capacity can also be added and the UV disinfection needs to be expanded to meet redundancy requirements.

The improvement recommendations include a secondary clarifier, adding a new screenings building, miscellaneous basin improvements, adding a new blower, and a new UV channel. This would maximize the Town's current capacity. The total cost estimate for this is \$11,504,000.

The Greenfield Plant option would increase capacity to 4.9 mgd, which would include building a new facility in the existing bio-solids lagoon that would be decommissioned. The total cost estimate is \$46,832,000.

The Greenfield Plant option with Regulation 31 improvements would include an additional denitrifying Moving Bed Bio Reactor (MBBR) and a Tertiary Floc/Sed/Filters for TP removal. The total cost estimate for this would be \$21,420,000.

They looked at the 20 year Net Present Value (NPV) for all options. Option 1 would have an initial cost of \$11,504,000 without the Regulation 31 facility and expansion, and with it would be an additional \$69,112,000, with an NPV of \$186,947,000. Option 2 would have an initial cost of \$46,832,000 without the Regulation 31 facility and expansion, and with it would be an additional \$21,420,000, with an NPV of \$164,841,000. Option 3 would have an initial cost of \$35,604,000 without the Regulation 31 facility and expansion, and with it would be an additional \$31,875,000, with an NPV of \$168,447,000.

The phased option would be more complex as it would require running the two plants concurrently and would require additional operational staffing.

The estimated timing is a moving target. The expansion designed would be between 2022 and 2023, construction would be 2023-2025, and the earliest implementation for Regulation 31 would be 2036, the latest would be 2041. The completion date would be between 2041 and 2046.

The Board discussed the three different options presented. Mr. Lucas stated that the presentation will be discussed with Town Board on April 5th.

E. COMMUNICATIONS

1. January Snowpack

The snowpack has slowly ticked up, and we are at 2018 levels for the South Platte, or 80% of normal. Northern Water is still planning on releasing their spring quota in April.

2. Greeley Water and Sewer Book: *Confluence: The Story of Greeley Water* Thank You

The Board wanted to recognize and thank Greeley Water for providing copies of their Water and Sewer Book, *Confluence: The Story of Greeley Water* to Board Members and Town Staff.

3. Ad-Hoc Committee Update

Board Secretary Willey will be meeting with the CSU extension agent to set the date for the Zoom meeting for the previously discussed classes, and videos are being recorded and uploaded to YouTube for registered participants.

F. ADJOURN

Board Member Geiger moved to adjourn the meeting at 7:38 am; Board Vice-Chairperson Medina seconded the motion. Motion carried unanimously.

Submitted by:



Erin Porter, Utility Billing Administrative Specialist

**INTERGOVERNMENTAL AGREEMENT BETWEEN
FORT COLLINS – LOVELAND WATER DISTRICT
AND
THE TOWN OF WINDSOR**

1. PARTIES. The Parties to this Intergovernmental Agreement (the “**Agreement**”) are the **FORT COLLINS – LOVELAND WATER DISTRICT**, a quasi-municipal corporation and political subdivision of the State of Colorado (“**FCLWD**”) and the **TOWN OF WINDSOR**, a Colorado home-rule municipality (“**WINDSOR**”). FCLWD and Windsor may be referred to in this Agreement singularly as “Party” or collectively as the “Parties.”

2. RECITALS. FCLWD is organized and operated under Title 32, C.R.S., in part to finance, construct, and provide public improvements to provide treated water to customers within its service area, as it now exists and as it may be modified in the future (the “**Service Area**”) as defined in the Service Plan for FCLWD (the “**Service Plan**”). Windsor is a home rule municipal government, organized pursuant to Article XX of the Colorado Constitution which provides sanitary sewer service to certain customers within its municipal boundaries. Section 29-1-203, C.R.S. provides that Windsor and FCLWD may enter into contracts and agreements with one another to provide intergovernmental services. The Service Area includes properties that receive both treated water from FCLWD and sanitary sewer service from Windsor (see **Figure 1**, attached for illustrative purposes to depict the locations of properties that currently receive FCLWD treated water and Windsor sanitary sewer service). Accordingly, to facilitate accurate accounting of the Parties’ water rights, and in consideration of the mutual promises set forth in this Agreement, the Parties covenant and agree as follows:

3. TERMS FOR SHARING SERVICE USAGE INFORMATION.

3.1 Monthly Base Use. FCLWD shall provide or otherwise make available to Windsor on an annual basis a calculated monthly Base Use (“**Monthly Base Use**”) by FCLWD customers who are also receiving sanitary sewer service from Windsor. For the purposes of this Agreement, the Monthly Base Use will be the average of that portion of the metered delivery to FCLWD customers during the immediately preceding months of December, January and February, which is claimed as fully consumable in 19CW3019. This data shall be provided electronically to Windsor no later than March 14th of each year. Initially, the FCLWD representative responsible for transmitting such data will be Scott Dickmeyer, Water Resource Specialist, whose email address is: sdickmeyer@scwtp.org. FCLWD shall be responsible for providing to Windsor any modification to this contact information.

3.2 Effluent Re-Use. The Parties agree that FCLWD shall be entitled to utilize 90% of its Monthly Base Use each month as fully consumable re-use effluent from those supplies described in the Decree entered in Case No. 19CW3019 as fully consumable and any subsequent case awarding FCLWD the right to re-use of fully consumable effluent which accrues to Windsor’s Wastewater Treatment Plant (“**WWTP**”). The Parties agree that the Monthly Base Use will be updated each March with the most recent Monthly Base Use calculation, as described in Section 3.1.

3.3 Expansion. In the event that any additional taps receiving sanitary sewer

service from Windsor are included in the FCLWD Service Area, FCLWD agrees to include usage by such additional taps in the Monthly Base Use calculation to be provided electronically to Windsor, in accordance with section 3.1, no later than March 14th of each year.

4. WAIVER. The waiver or delay of enforcement of one or more terms of this Agreement shall not constitute a waiver of the remaining terms. The waiver or delay in enforcement regarding any breach of this Agreement shall not constitute a waiver of any terms of the Agreement.

5. NOTICE. All notices, certificates, or other communications hereunder, excluding those electronic communications required under Section 3, shall be sufficiently given and shall be deemed given when personally delivered in writing or by facsimile, or mailed by registered or certified mail, postage prepaid, addressed as follows:

Fort Collins – Loveland Water District
Attn: Chris Matkins, General Manager
5150 Snead Drive
Fort Collins, CO 80525
970-226-3104

Town of Windsor
Attn: Leif Lesoing, Water Resources Administrator
301 Walnut Street
Windsor, CO 80550
970-674-6688

Any Party may change its address for notice by providing notice in writing to the addresses set forth above. All notices, demands, requests or other communications shall be effective upon such personal delivery or one (1) business day after being deposited with Federal Express or other nationally recognized overnight courier service or three (3) business days after deposit in the United States mail. By giving the other Parties hereto at least ten (10) days' written notice thereof in accordance with the provisions hereof, any of the Parties shall have the right from time to time to change its address.

6. IMMUNITY. It is the express intention of the Parties that this Agreement is not to be construed as a contractual waiver of any immunities or defenses provided by § 24-10-101, et seq., C.R.S., or by other statutes or common law.

7. NO THIRD PARTY BENEFICIARIES. This Agreement shall not confer any benefit to any person other than the Parties.

8. MODIFICATION OF AGREEMENT. Any modification of this Agreement shall be binding only if evidenced in writing signed by all Parties.

9. ASSIGNMENT. No transfer or assignment of this Agreement or of any rights hereunder shall be made by any Party without the prior written consent of the other Party, which consent shall not be unreasonably withheld.

10. SEVERABILITY. In the event any court of competent jurisdiction shall hold any provision of this Agreement invalid or unenforceable, such holding shall not invalidate or render unenforceable any other provision hereof.

11. ENTIRE AGREEMENT. This Agreement contains the entire agreement of the Parties concerning the subject matter and supersedes all prior conversations, proposals, negotiations, understandings and agreements, whether written or oral.

12. ATTORNEYS' FEES. For any dispute arising from or related to this Agreement, the prevailing Party shall be entitled to its reasonable attorneys' fees and costs.

13. GOVERNING LAW. This Agreement shall be governed by the laws of the State of Colorado.

14. COUNTERPARTS. This Agreement may be executed in any number of counterparts, each of which shall be deemed an original, and all of which shall constitute one and the same agreement. Scanned copies of electronic signatures shall be acceptable and binding upon all parties.

DATED: _____, 2021.

[Signature Page Follows]

FORT COLLINS – LOVELAND WATER DISTRICT

By: _____
James Borland, Chairman,
Board of Directors

Date: _____

STATE OF COLORADO)
)
COUNTY OF LARIMER)

SUBSCRIBED AND SWORN TO before me this _____ day of _____, 2021, by
Chris Matkins as General Manager of Fort Collins – Loveland Water District.

My Commission Expires:

Notary Public

TOWN OF WINDSOR

By: _____

Print: _____

Title: _____

Date: _____

STATE OF COLORADO)
)
COUNTY OF WELD)

SUBSCRIBED AND SWORN TO before me this _____ day of _____, 2021, by
_____ as _____ of the Town of Windsor.

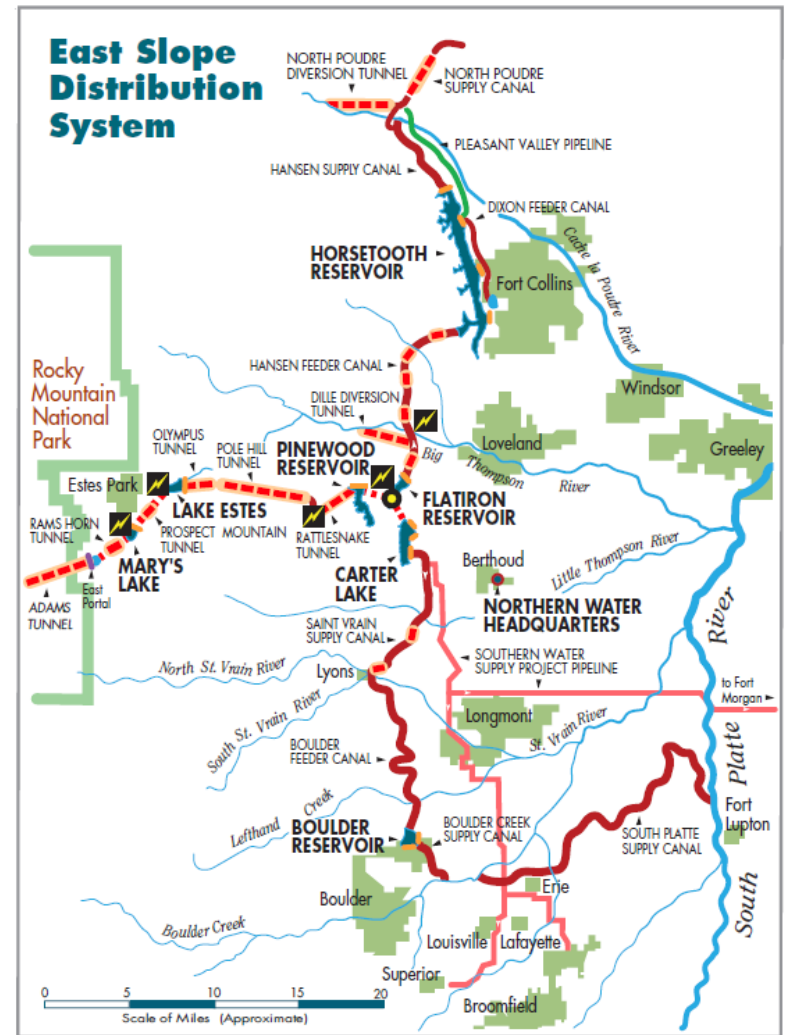
My Commission Expires:

Notary Public



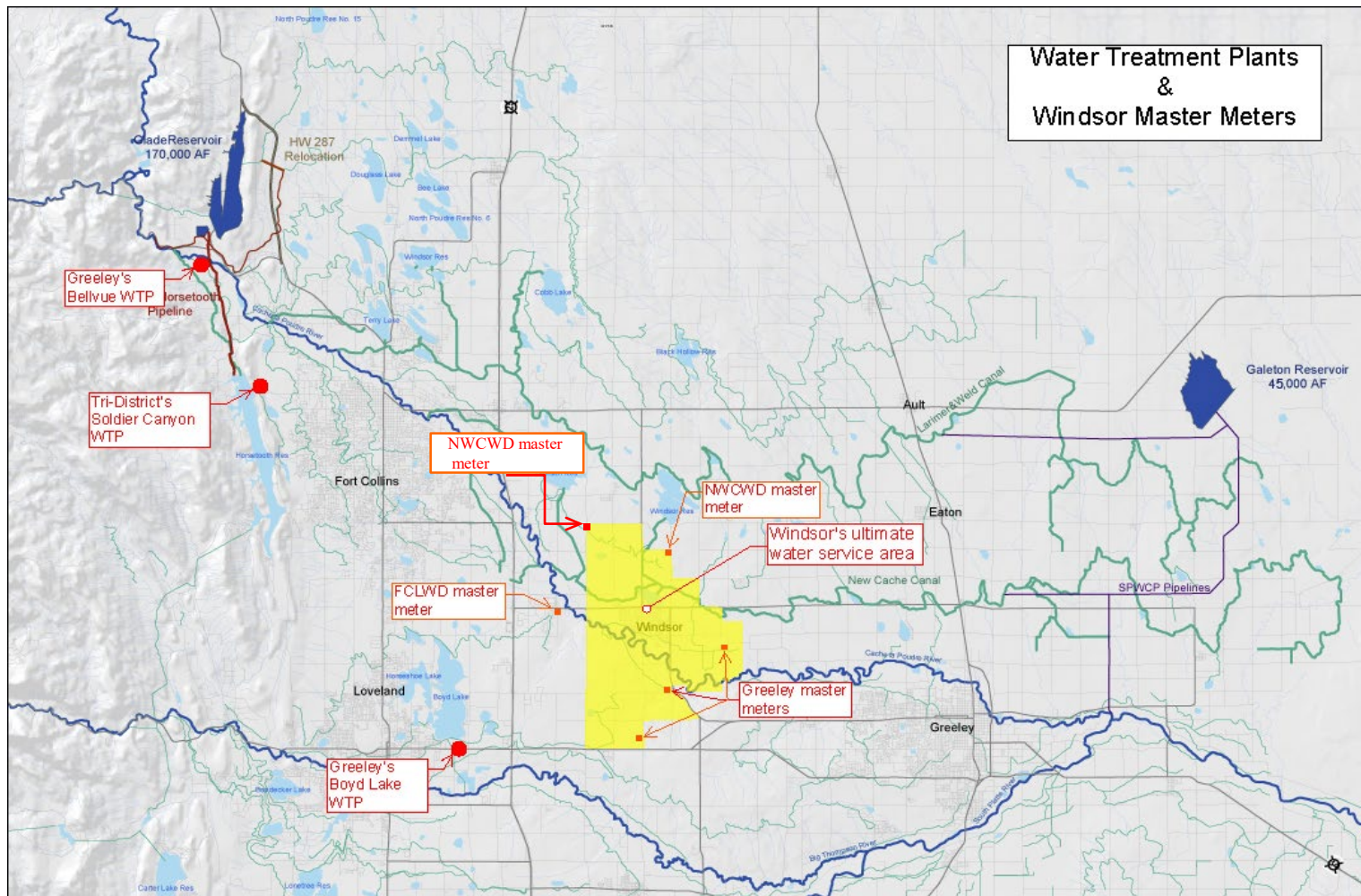
Windsor's Water Resources

Leif Lesoing, Town of Windsor



Potable Water System Overview

Water Treatment Plants & Windsor Master Meters



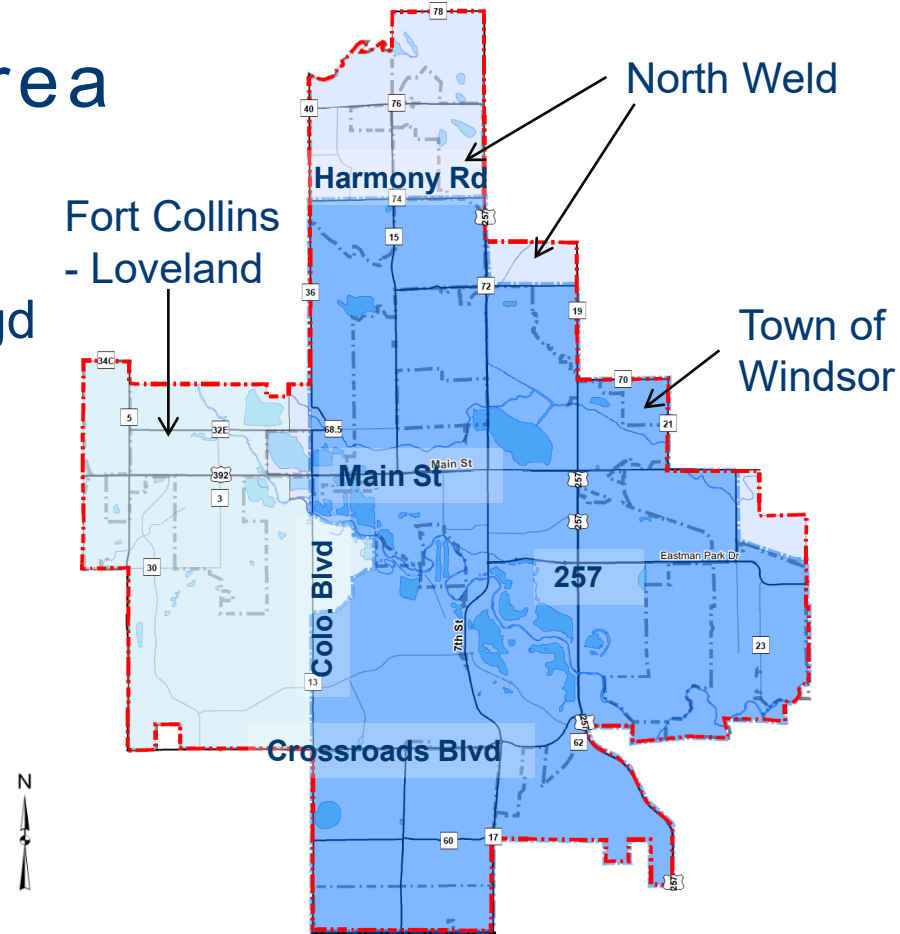


Water Service Area

- Average Daily Winter Demand ~ 1.3 mgd
- Peak Day Summer Demand ~ 4 mgd

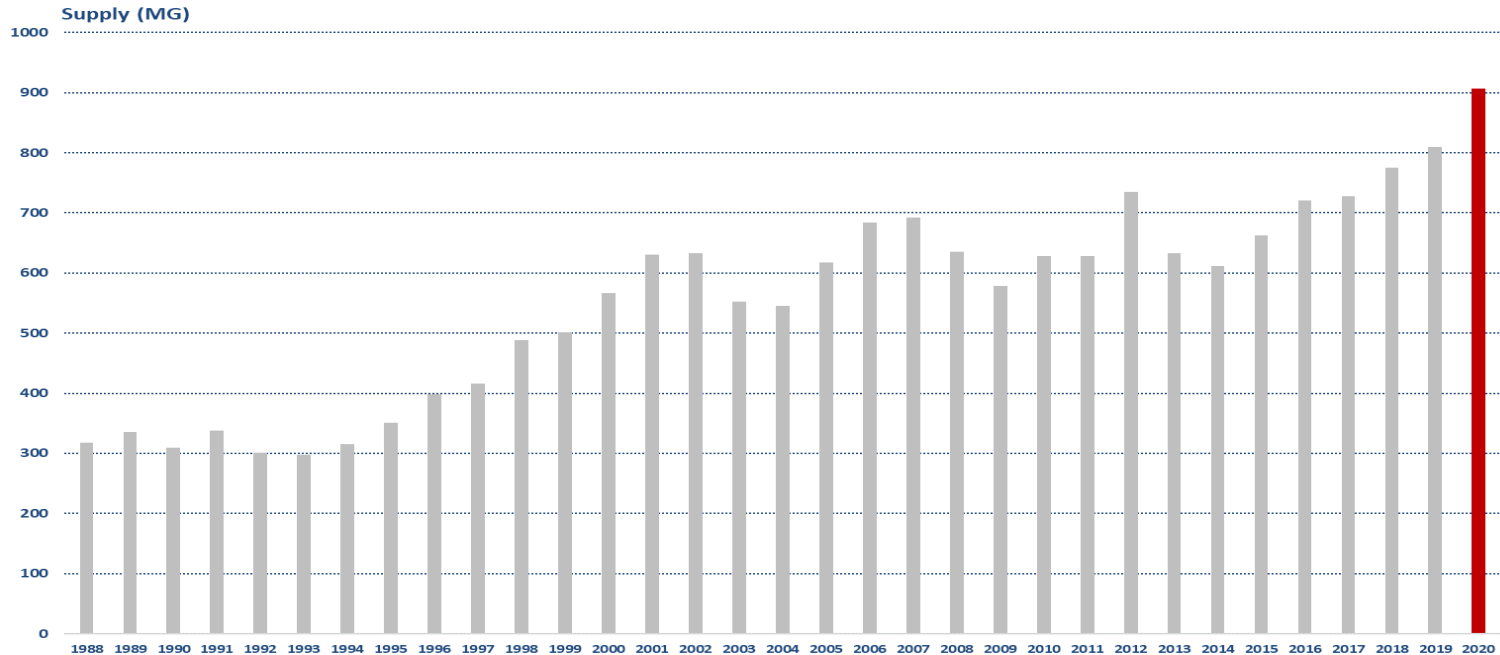
Windsor's Total Population
Estimate: 34,200

Windsor's Water Service Area
Population Estimate: 23,000





Annual Demand



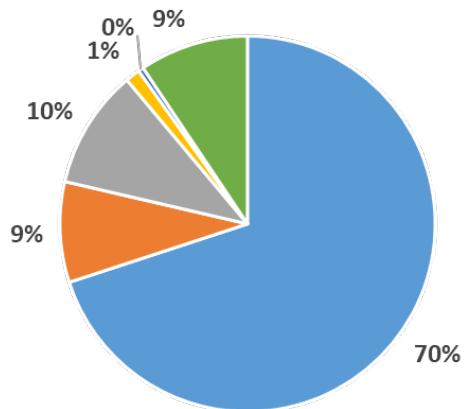
Annual amount of water treated:

- Greeley: 212 million gallons
- FCLWD: 110 million gallons
- NWCWD: 450 million gallons



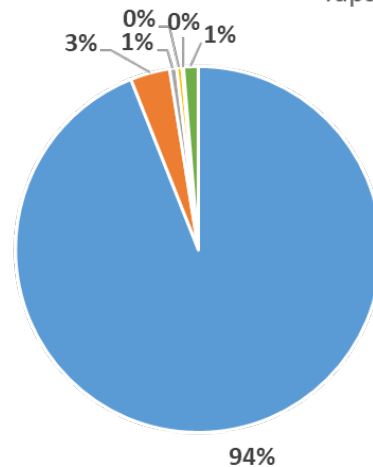
Water Use by Customer Class

Demand by Customer Class



■ Residential ■ Commercial ■ Industrial ■ Schools/Churches ■ Out of Town ■ Landscape Only

Taps by Customer Class

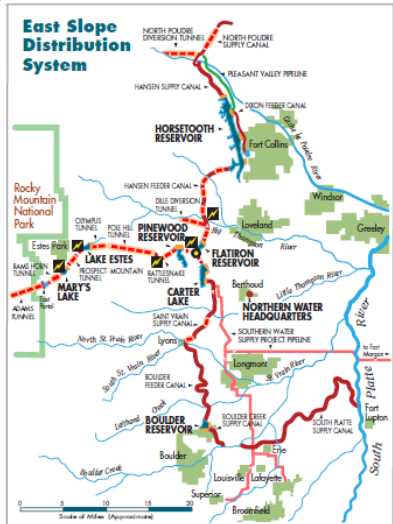
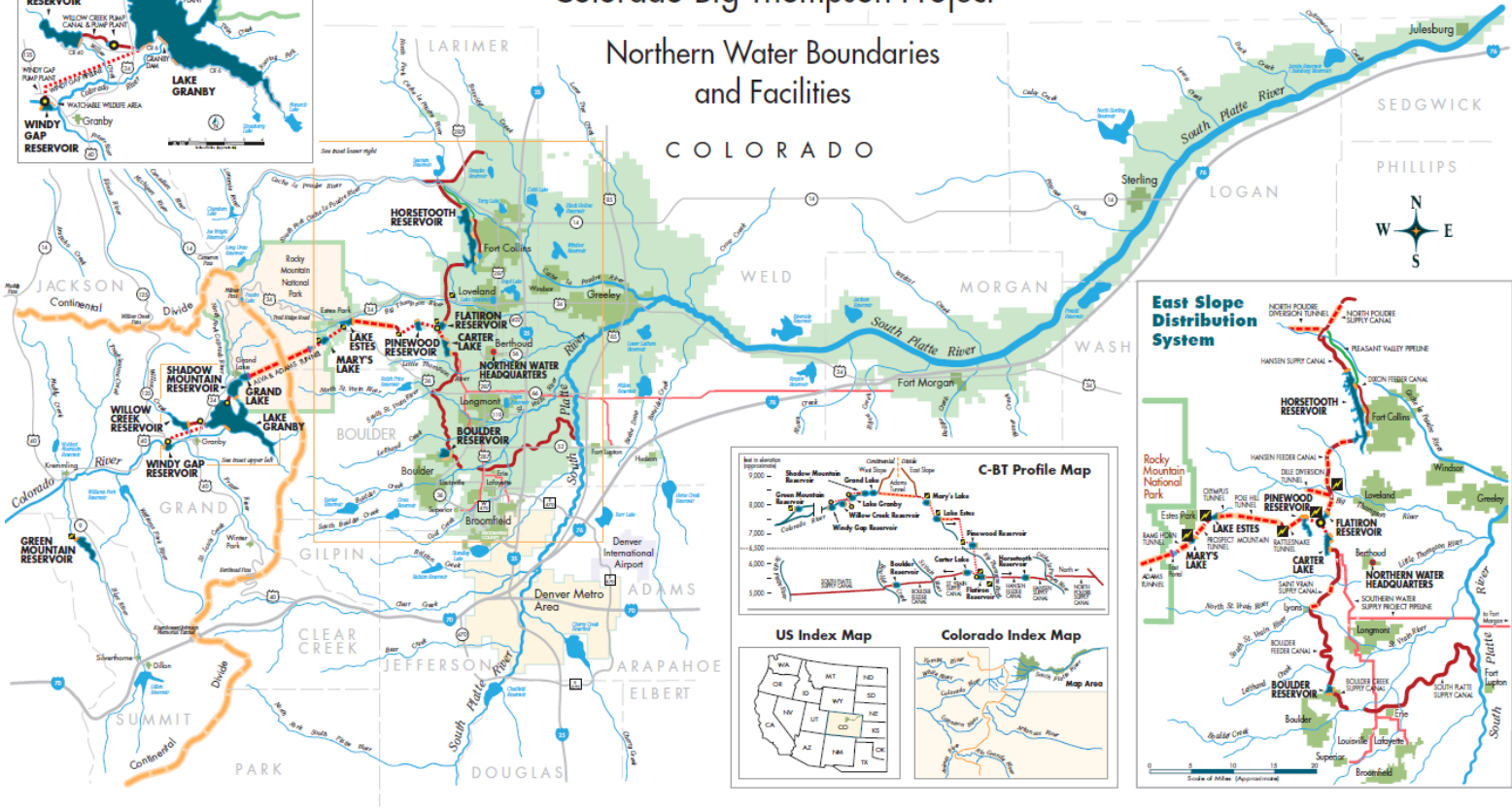


■ Residential ■ Commercial ■ Industrial ■ Schools/Churches ■ Out of Town ■ Landscape Only



Northern Water

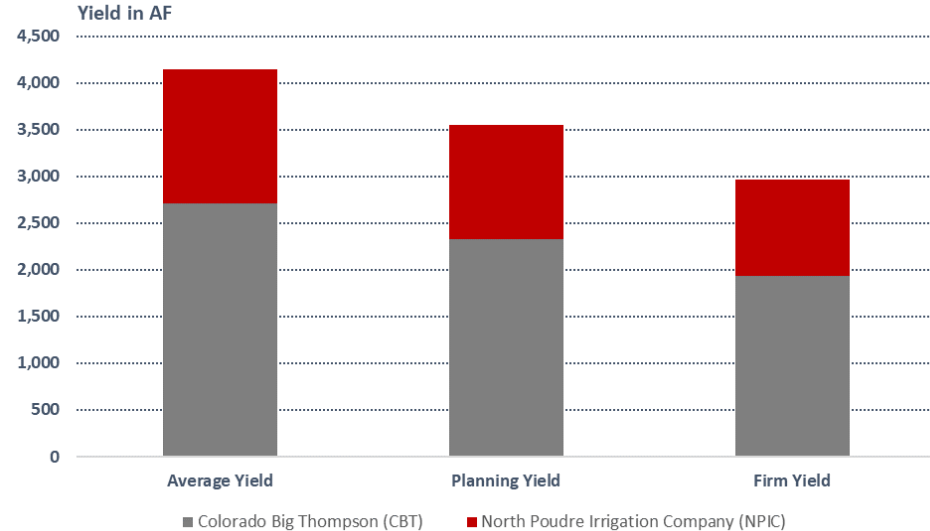
Colorado-Big Thompson Project





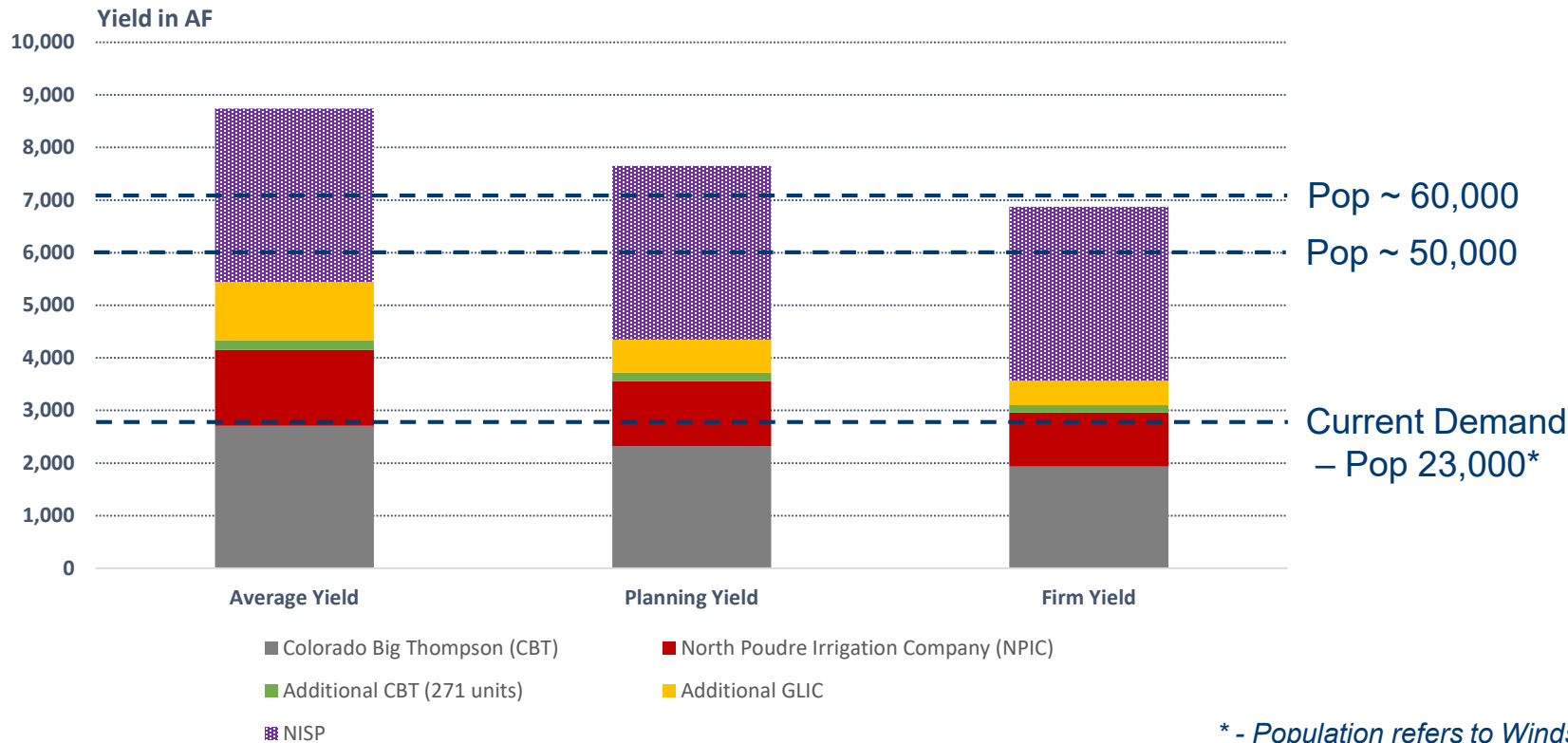
Treatable Water Sources

- Colorado Big Thompson Units
 - 3,969 units
 - Average Yield = 2,710 acre-feet
 - Firm Yield = 1,985 acre-feet
 - **Planning Yield = 2,381 acre-feet**
- North Poudre Irrigation Company
 - 533.75 shares (2,135 CBT units)
 - Average Yield = 1,495 acre-feet
 - Firm Yield = 1,068 acre-feet
 - **Planning Yield = 1,281 acre-feet**





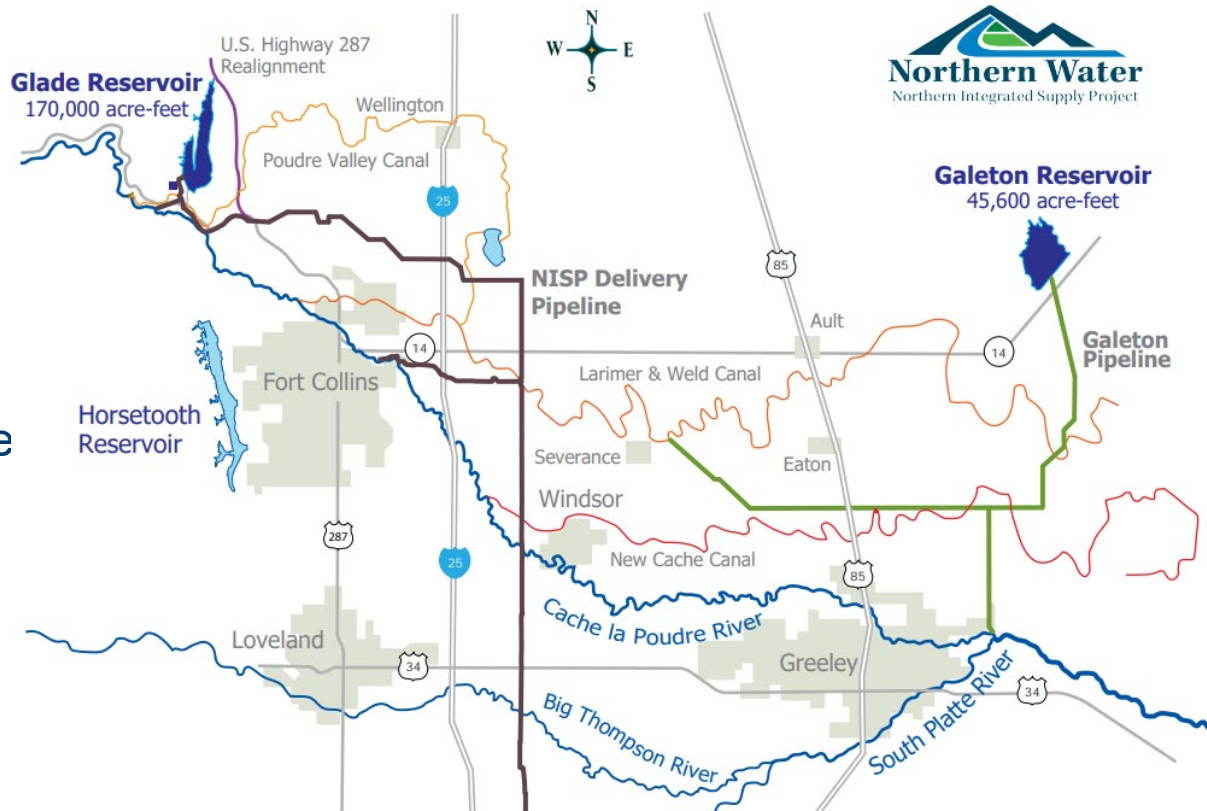
Current + Anticipated Supply



* - Population refers to Windsor's Water Service Area only

Northern Integrated Supply Project

- 3,300 acre-feet yield
- \$100 million cost
- State of Colorado issued Water Quality Certification
- Larimer County Board of Commissioners approved the county 1041 permit
- Record of Decision (ROD) Spring 2021?





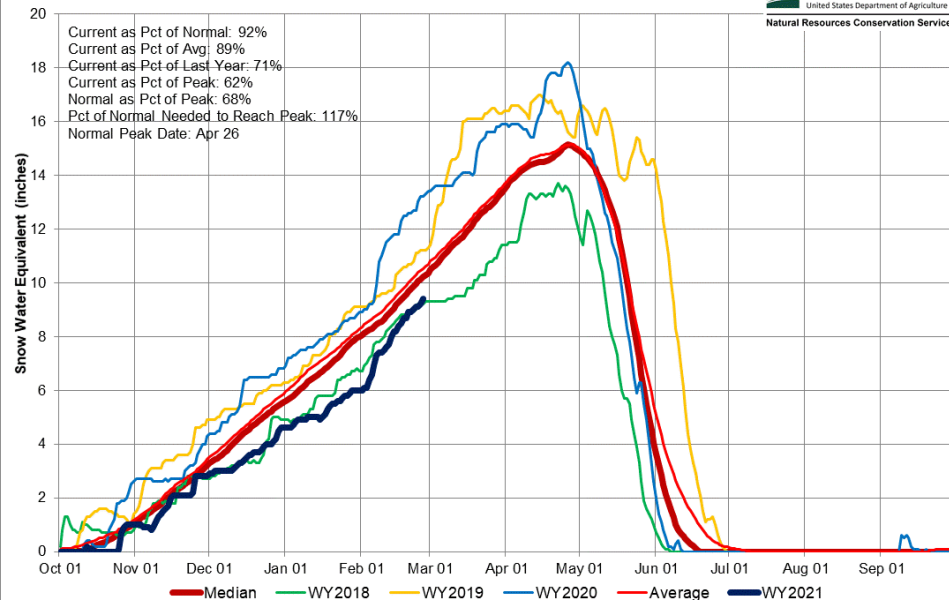
2021 Snowpack

Cache La Poudre Basin Snowpack Report March 1, 2021



South Platte River Basin Time Series Snowpack Summary

Based on Provisional SNOTEL data as of Feb 26, 2021



DWR Snow Courses	SWE	Historic Average	% of Average	% of Last Year	Average Depth
Deadman Hill	11.4	12.1	94	83	43
Joe Wright Snotel	14.5	16.4	88	80	52
Long Draw	12.8	12.4	103	77	48
Hourglass	4.6	5.9	78	59	23
Lost Lake	9.7	9.6	101	88	39
Bennett Creek	3.7	5.8	64	55	20
Chambers Hill	5.9	7.5	79	65	25
Red Feather	6.5	5.8	112	84	26

Basin Average

92% 76%

NRCS Snow Courses	SWE	30 yr Average	% of Average	% of Last Year	Average Depth
Cameron Pass	15.2	14.4	105	62	53
Deadman Hill Snotel	12.9	12.4	104	84	54
Chambers Lake	5.5	5.8	95	62	23
Big South	4.1	3.3	124	71	18

Basin Average

105% 69%



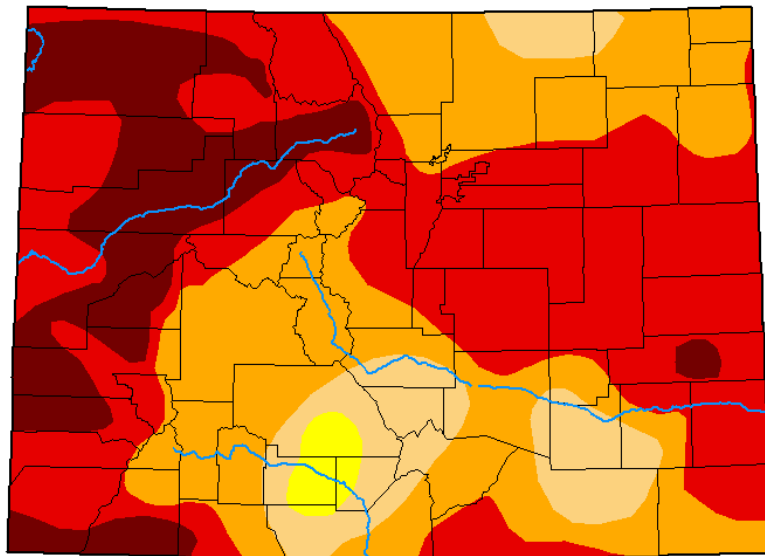
2021 Outlook

U.S. Drought Monitor Colorado

February 23, 2021

(Released Thursday, Feb. 25, 2021)

Valid 7 a.m. EST



Intensity:

-  None
-  D0 Abnormally Dry
-  D1 Moderate Drought
-  D2 Severe Drought
-  D3 Extreme Drought
-  D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>

Author:

David Miskus
NOAA/NWS/NCEP/CPC



droughtmonitor.unl.edu

Water Conservation Overview

Water Conservation Highlights

The Water-Efficient Landscape Grant Program

In collaboration with Northern Water, the Town of Windsor audited six of its parks in 2019. The effort provided an understanding of park water usage and assisted in implementing water-saving measures, such as upgrades to existing equipment, and also repairing and relocating irrigation heads to promote better coverage.



Northern Water

TOWN OF
WINDSOR
COLORADO

Helping create water-wise, Colorado-friendly landscapes
educating the public about their many benefits.
www.northernwater.org

TOWN OF
WINDSOR
COLORADO

- Working on the Drought Management Plan
- Final year for washer and toilet rebates
- Mayor's Water Challenge
- Northern Water and Parks department audits

Non-Potable Water System Overview



Private Non-Potable Dual – Use Systems



History

1994: Water Valley becomes Windsor's first development to propose building a dual water distribution system.

1995: Data for existing homes showed that approximately 50% of total water use was for indoor use.

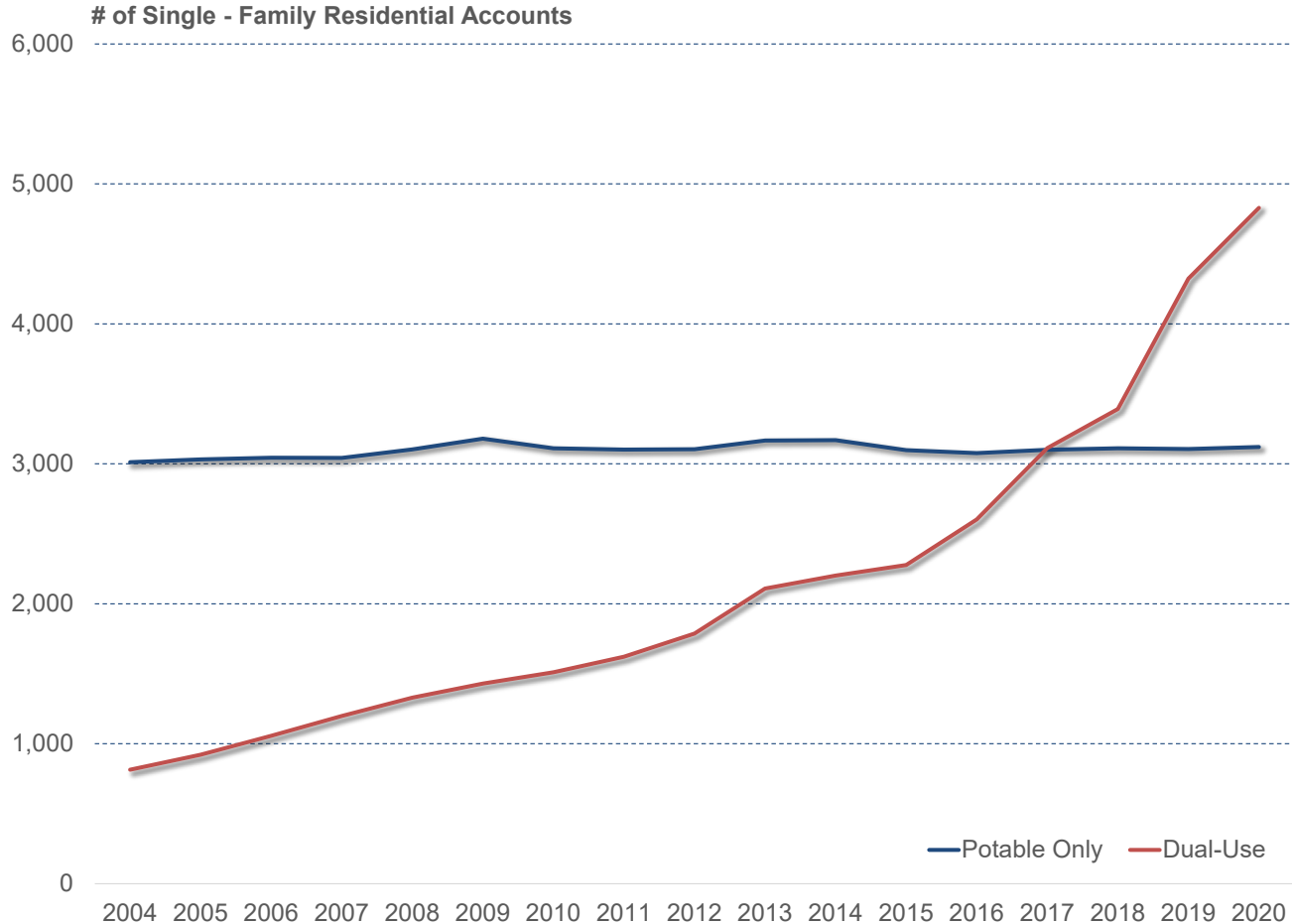
2003: Passed ordinance requiring secondary water systems for irrigation of new residential development within the Town of Windsor urban growth boundary.



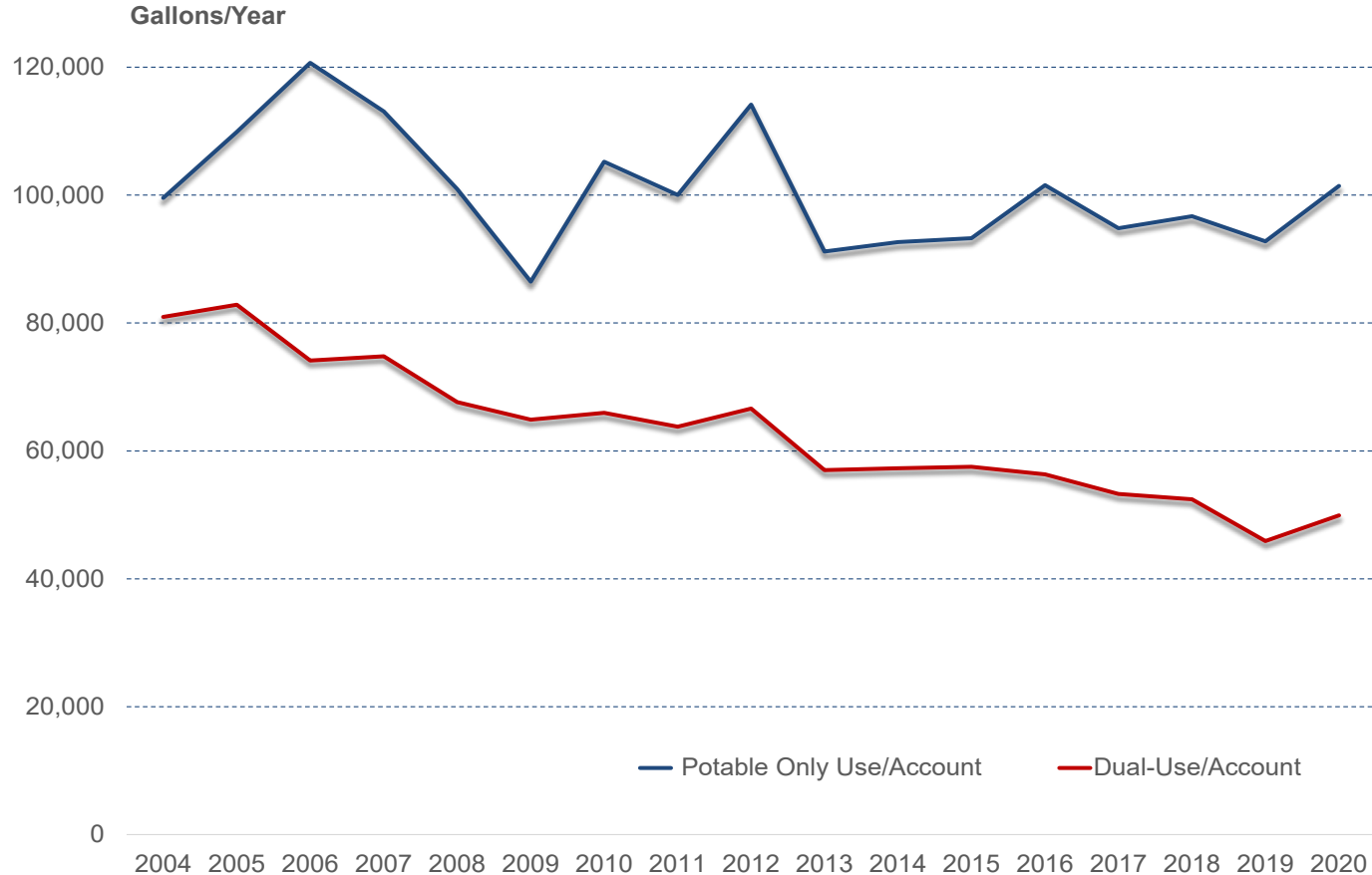
Ordinance

- Mandatory construction of non-potable secondary water systems for irrigation
- Systems privately managed by metropolitan districts, HOAs, or other public or private entity subject to approval by the Town of Windsor
- Established geographical areas where non-potable systems shall be required
- Construction of non-potable secondary water systems shall be a condition of annexation

Growth of Dual-Use Systems (SF)



Water Use per Account (SF)





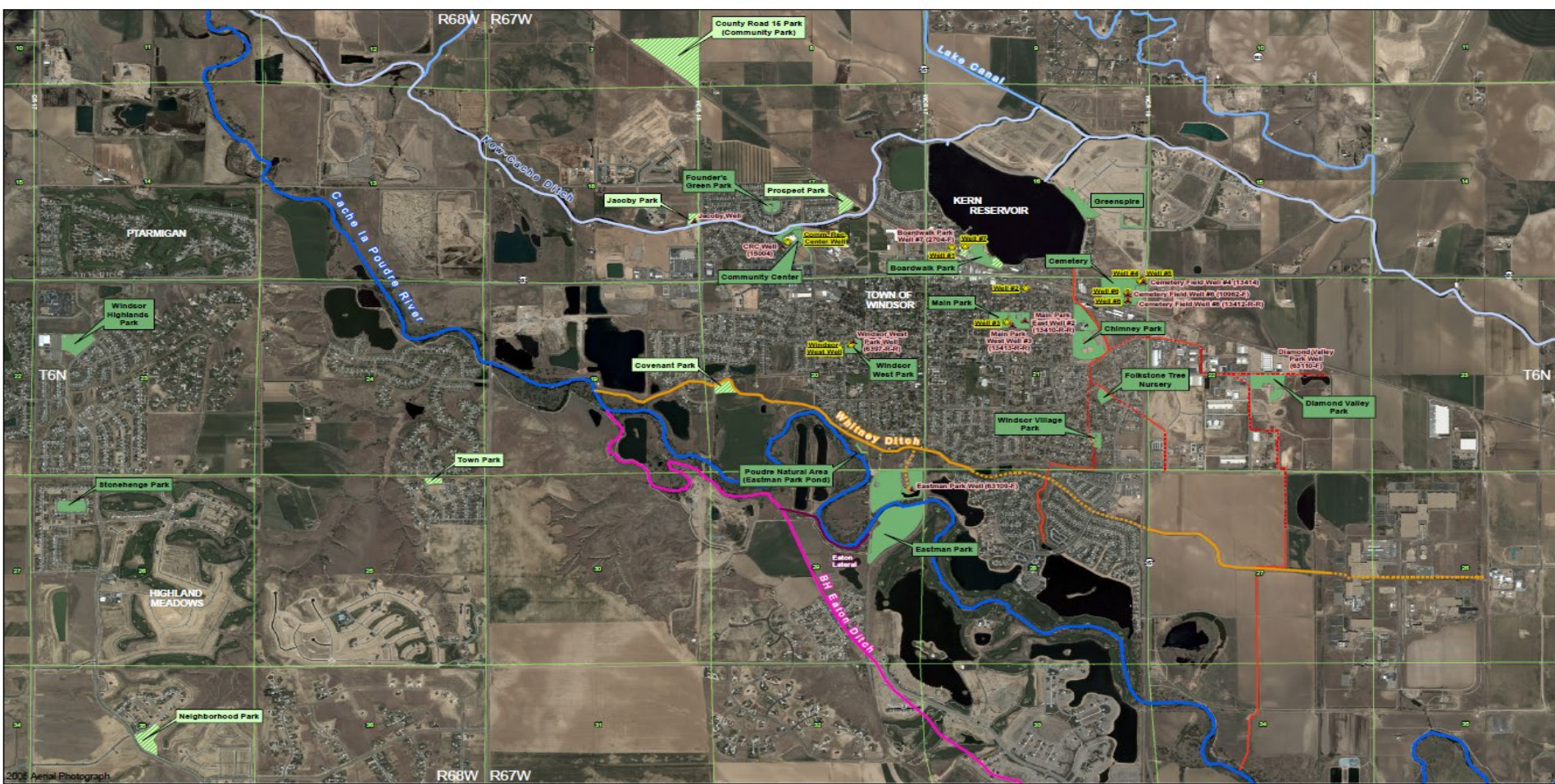
Benefits

- Benefits the ditch company and ag users – keeps water in the ditch
- Stretches the capacity of existing water treatment plants and delays the need to upgrade facilities or build new ones.

Benefits cont..

- Reduction in peak summer demands keeps costs of potable treatment lower.
- Keeps water in the river – supplies are not exchanged or diverted elsewhere for treatment.
- Environmental benefits – reduced chemical use, reduced transportation of supplies, reduction in harmful residuals processing

Town Non-Potable Use



Legend:

- Kern Res. delivery (underground)
- Kern Res. delivery (channel)
- ▲ Well Location
- Well Location from Decree
- Windsor Parks & Open Space
- Planned Park Additions
- Future Parks





clear WATER solutions
water rights • planning • engineering

FROM ORIGINAL MAP:
KERN RESERVOIR &
DITCH COMPANY
WINDSOR PLAN
FOR AUGMENTATION

Altergott Exhibit

Town of Windsor

Date: 06-13-2017

Drawn by: NEA

Scale: As Shown

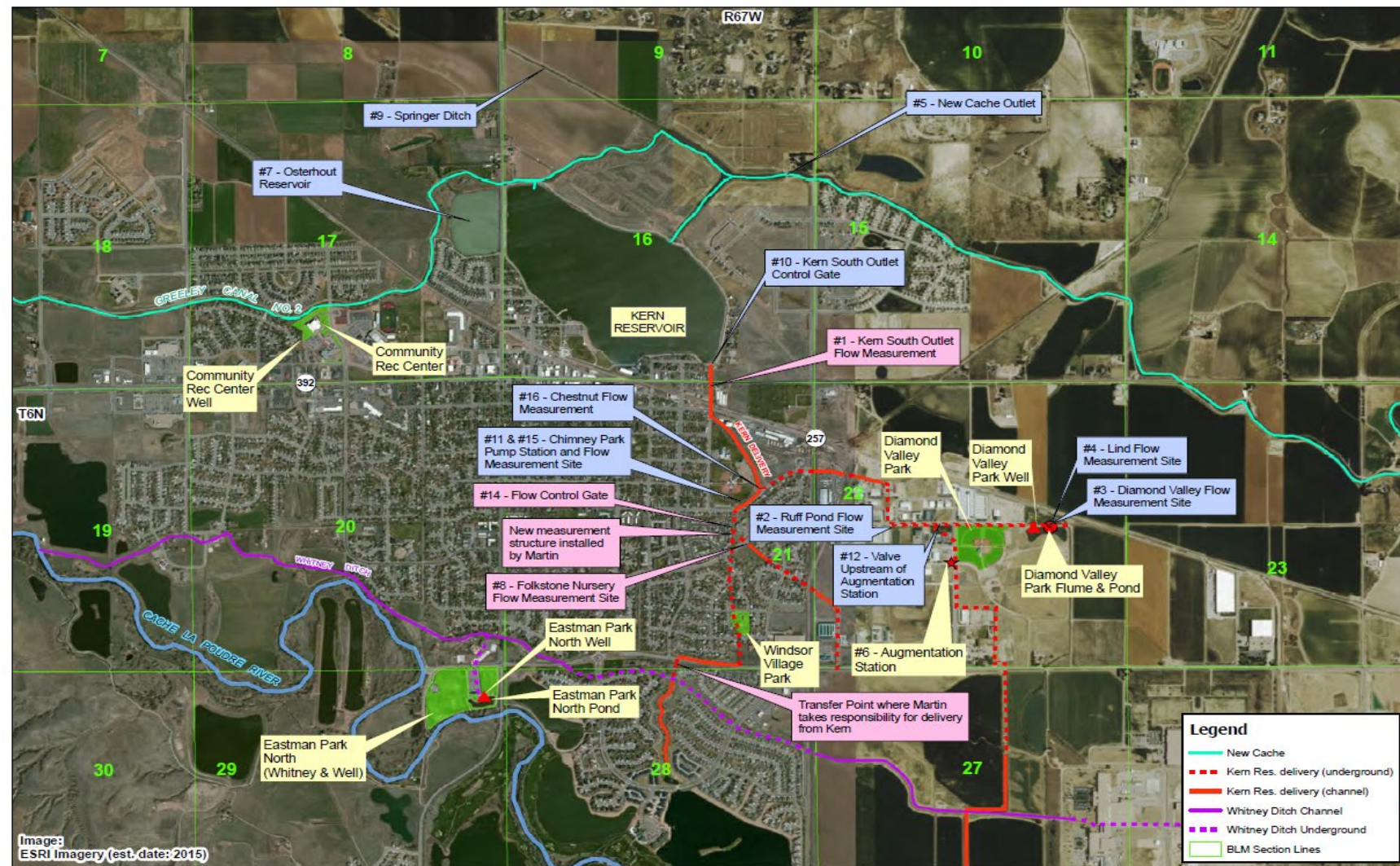
Job No.: 09-280



0 395 790 1,580
Feet

Legend

- New Cache
- Kern Res. delivery (underground)
- Kern Res. delivery (channel)
- Whitney Ditch Channel
- Whitney Ditch Underground
- BLM Section Lines



Kern Reservoir Water Rights

- Town owns 100% (100 shares) of the Kern Reservoir
 - 1,800 acre-feet of storage
 - Irrigation of ~ 1,000 acres
 - Appropriation date of February 10, 1882
 - Case No. 02CW301
 - Annual Fill Limit of 1,277 acre-feet (1,048 average)
 - Return flow obligation of 518 acre-feet
 - Annual Consumptive Use Limit of 530 acre-feet
 - Front Range Energy 500 acre-feet augmentation lease
- Kern Junior Water Right
 - Case No. 02CW276
 - Reservoir enlargement in 2002
 - Claimed 1,966 acre-feet with right to fill and refill in priority



Kyger Reservoir

Lined Poudre River Storage

Kyger Reservoir

- 1,257 acre-feet of storage
- Water can be:
 - Gravity from river
 - Pumped from river
 - Pumped from reservoir
- 20 cfs flow (two pumps)
- Used for augmentation
 - Parks
 - School District
 - Kern RFO's
 - Non-potable irrigation
- Cost ~ \$5,000/AF





Challenges/Opportunities

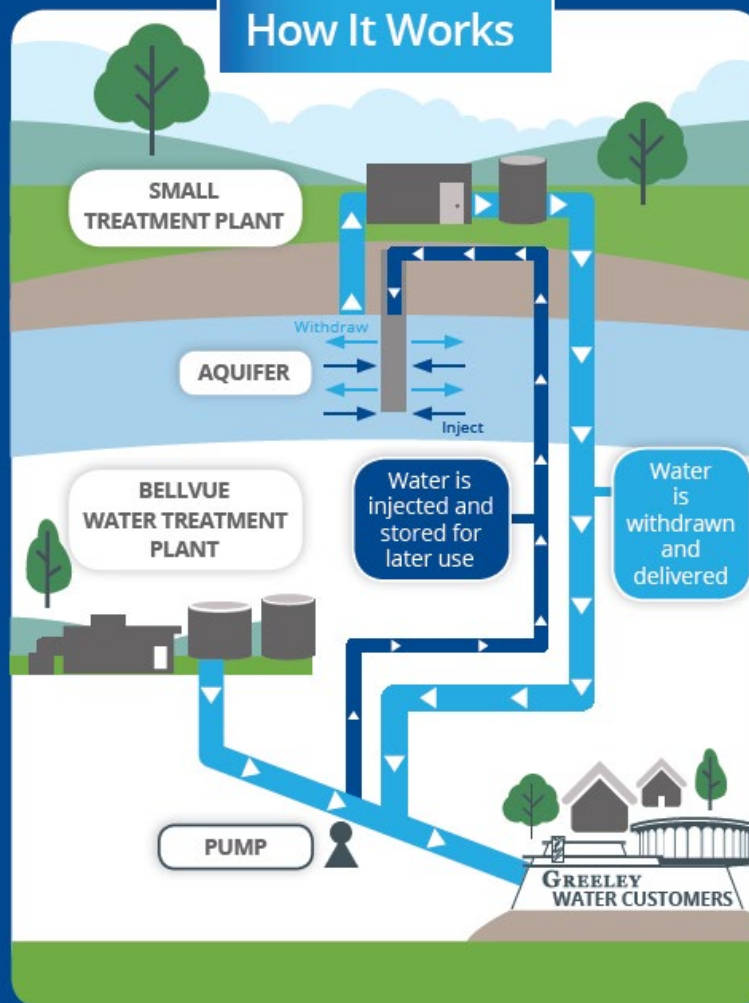
- Windsor is growing rapidly
- Northern Integrated Supply Project (NISP)
 - Approval/Timing
 - Raw Water Dedication
 - Financing
- Regional Partnerships
 - Short-term treated water rentals
 - Water Treatment partnerships
- Wildfires
- Terry Ranch Project



Terry Ranch Project Greeley

- The Terry Ranch Project would develop approximately 1.2 million acre-feet of non-tributary groundwater from an underground aquifer located in northwest Weld County..
- Drought supply.
- Terry Ranch would also help the Greeley store water during wet years to be used in dry years.
- Protection from forest fires
- Testing has shown that the Terry Ranch water has some low levels of naturally occurring uranium, which can easily be treated and removed. Current high mountain water also contains low levels of uranium. The city of Greeley remove uranium and several other contaminants every day.
- In a 30-day pilot test, the city proved it could treat Terry Ranch water to nondetectable limits of uranium.

How It Works





Thank you!