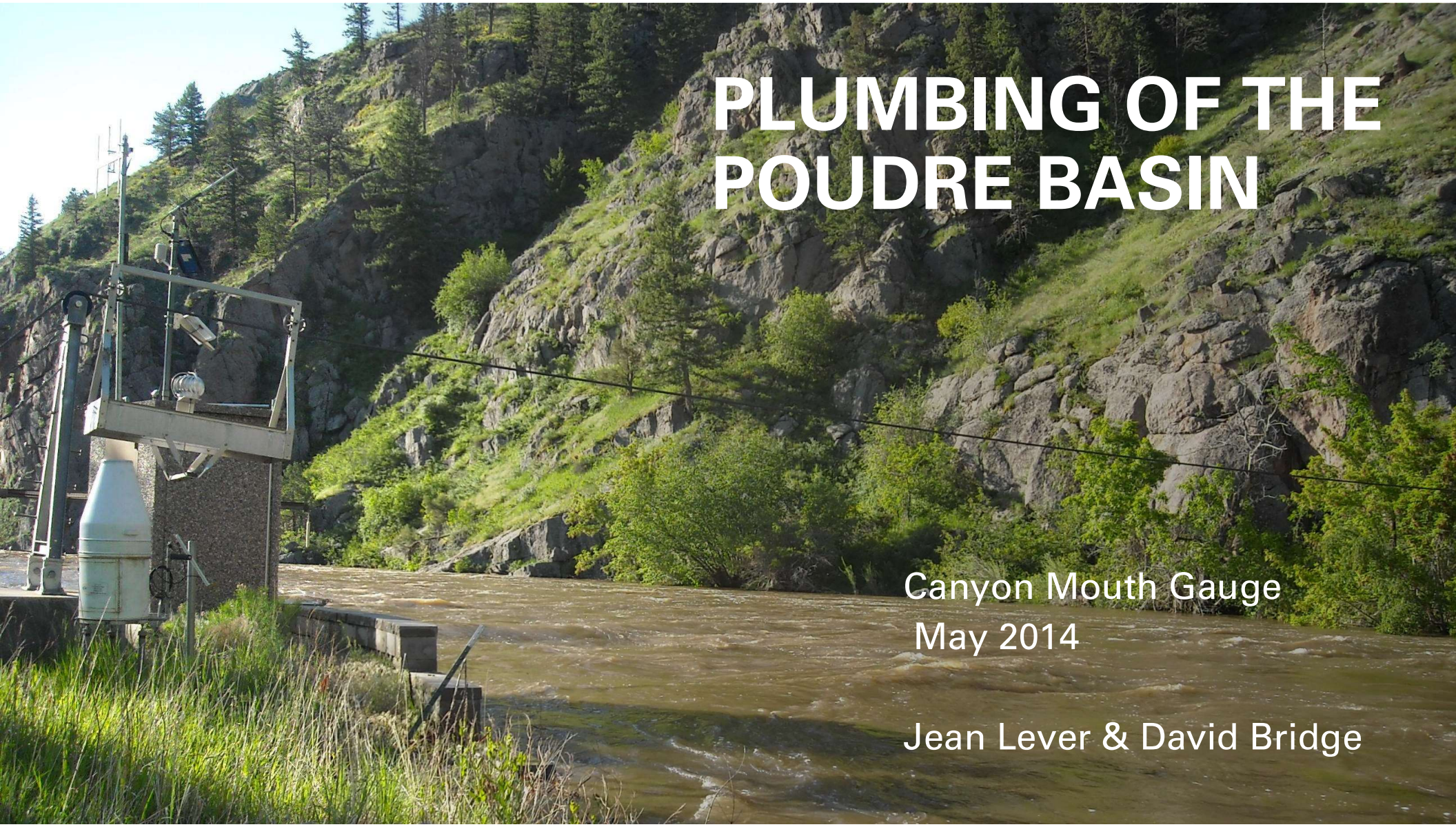
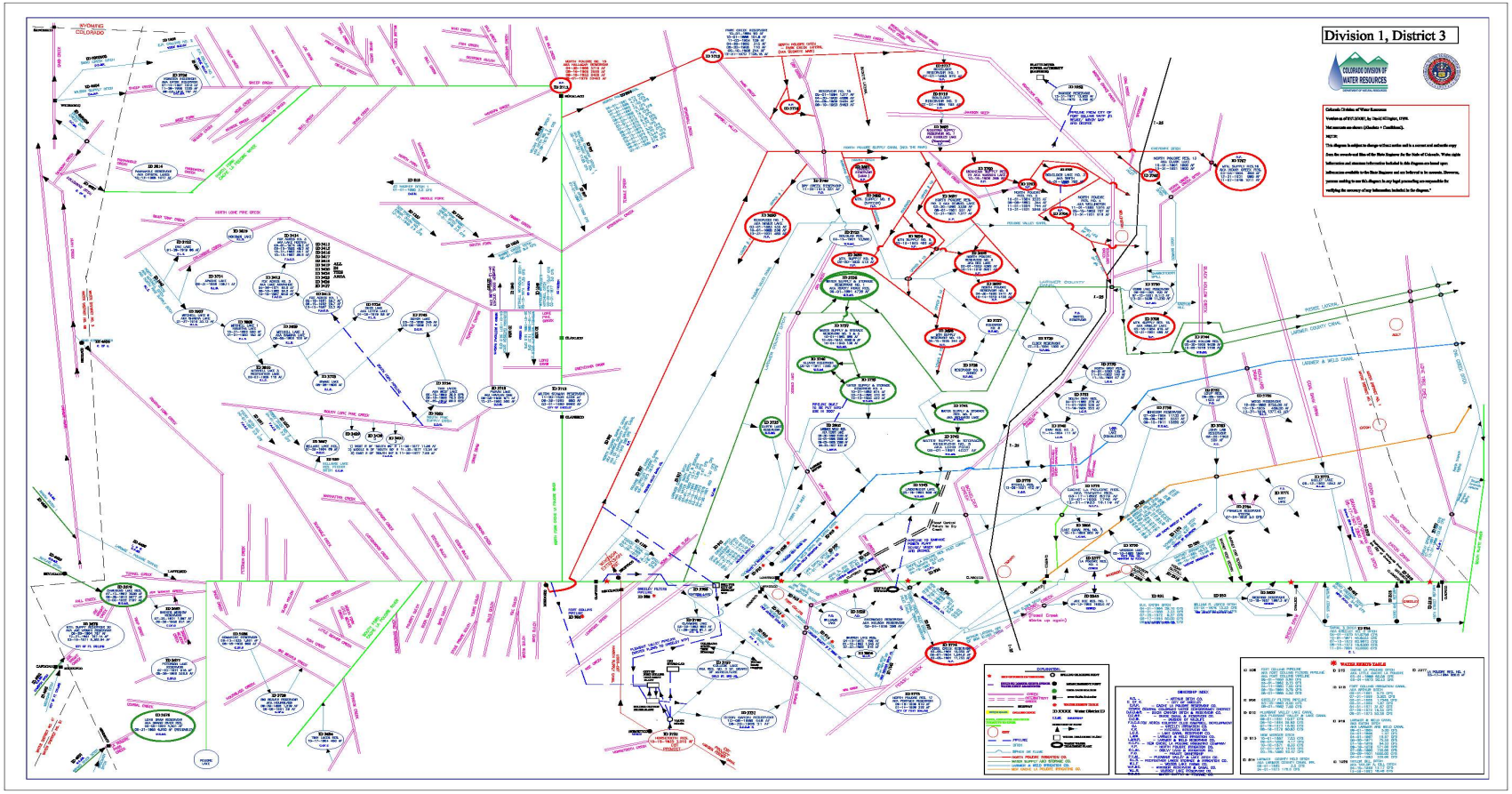


PLUMBING OF THE POUDRE BASIN

Canyon Mouth Gauge
May 2014

Jean Lever & David Bridge

Poudre Basin Straight Line Diagram



Notes on the Straightline diagram

- It is NOT to scale
- It's the Poudre Basin
  - Inflows from outside the Basin (N, W sides)
  - Outflows from the Basin – (E side)
- Coding:
  - Bright green = main river
  - Pink = smaller streams
  - Ovals = storage
  - Dashes = pipelines
  - Black and green boxes = measuring points
  - 4 large ditch systems are color-coded

Things of Note

- Non-native inflows
  - Important component of many of the high-mountain reservoirs
    - Joe Wright Res, Long Draw Res, Chambers Res, Worster Res
  - Can also be direct flow:
    - Wilson Supply Ditch, Grand Ditch, Laramie-Poudre Tunnel
  - CBT/Windy Gap
    - delivered from Horsetooth Res via the Hansen Supply Canal to the river
- Cascading Reservoirs & Fossil Creek Reservoir
  - Critical to allowing water to be 'moved' among ditches while not injuring
- N-side vs S-side ditch distribution

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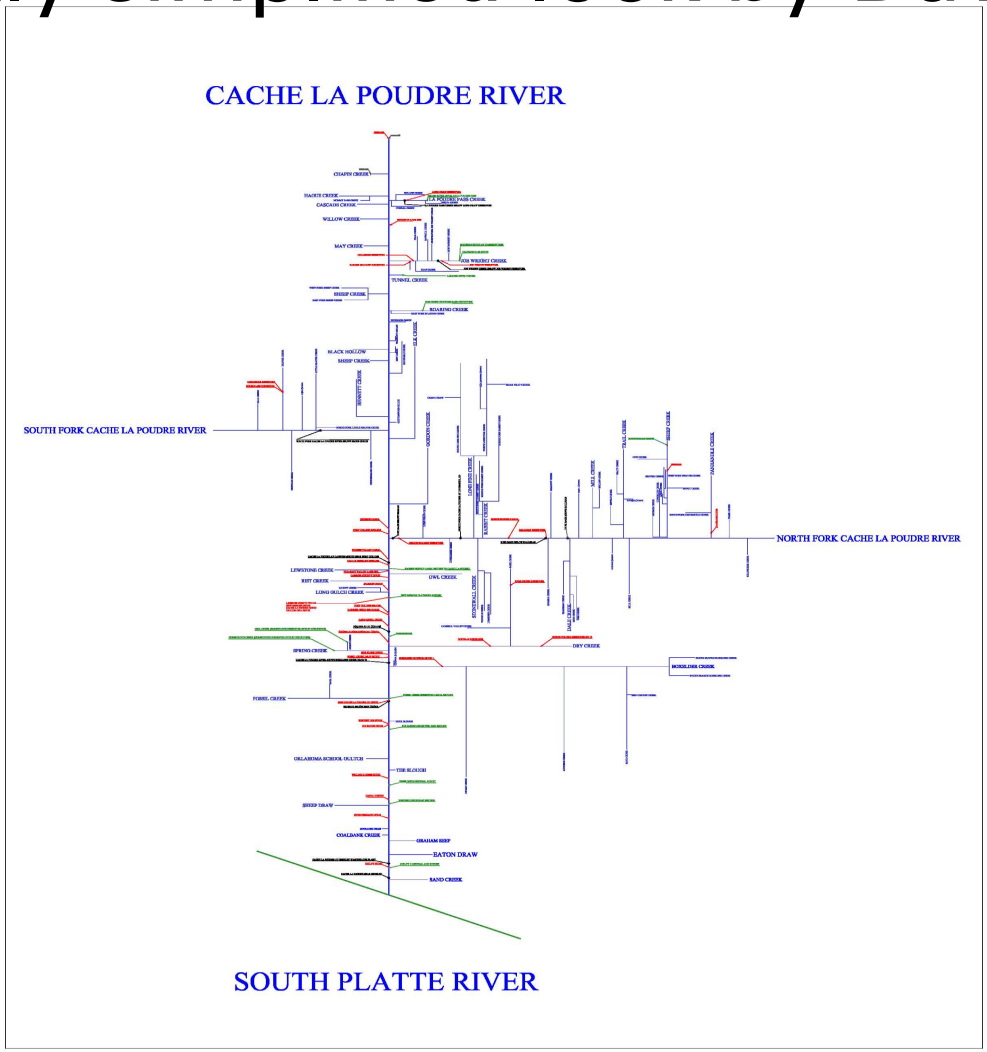
A slightly simplified look by David Bridge



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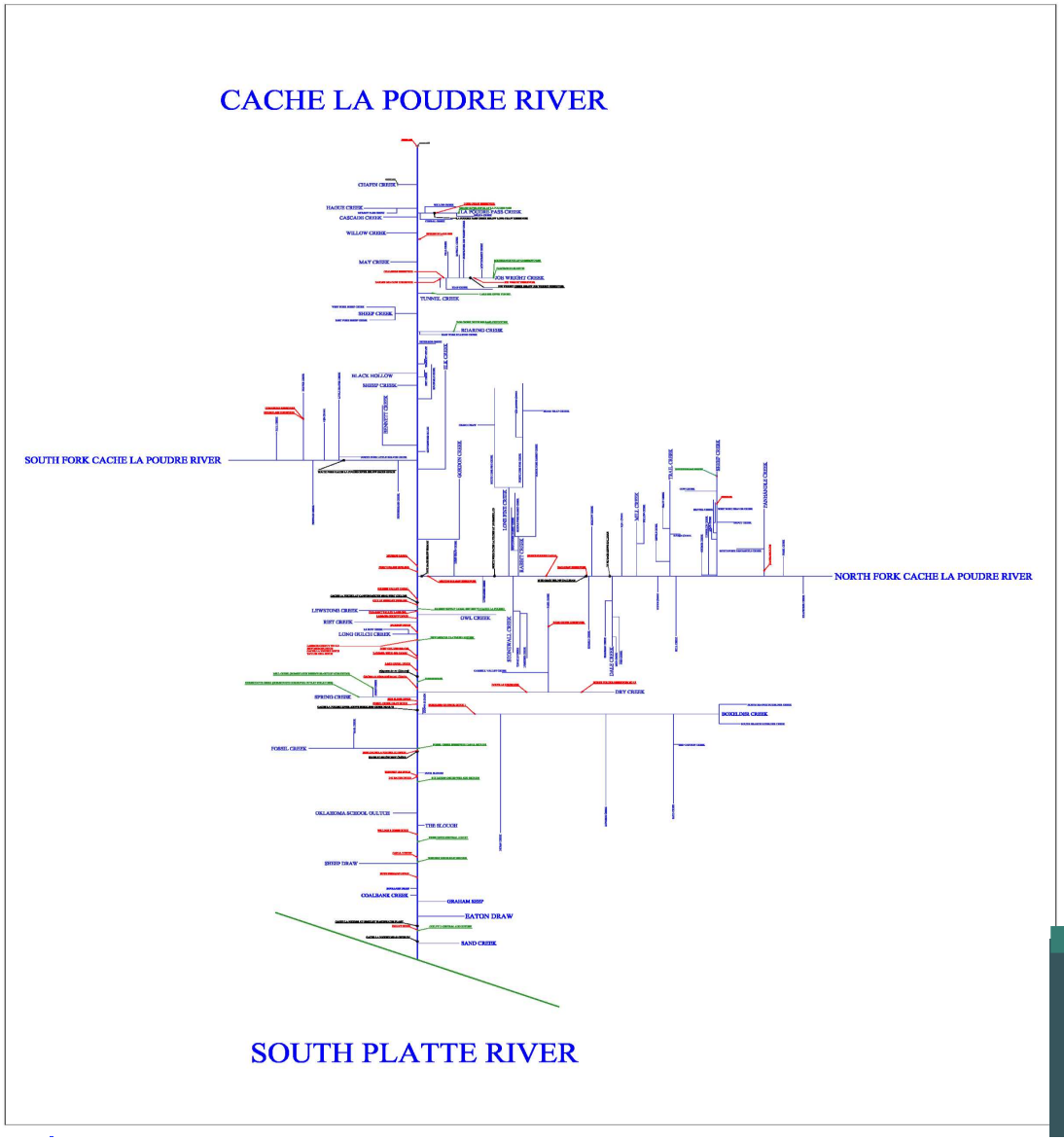
Notes on David's diagram

- Is scaled in direction
- Blue = river, streams, natural water
- Black = stream measurement points
- Green = water into the river
- Red = water off the river
  - Ditches, reservoirs etc. can be either green or red



QUESTIONS

with David Bridge & Jean Lever

Colorado Division of Water Resources

Water Law 101

Whitney Coulter

Fischer, Brown, Bartlett, Larsen & Irby, P.C.

Laying the Foundation

- In a dry and thirsty land it is necessary to divert the waters of streams from their natural channels, in order to obtain the fruits of the soil, and this necessity is so universal and imperious that it claims the recognition of law.

Yunker v. Nichols (1872)

Laying the Foundation

Article XVI, Section 6, State Constitution

"The right to divert the unappropriated waters of any natural stream to **beneficial uses** shall never be denied. Priority of appropriation shall give the better right as between those using the water for the same purpose… "

Laying the Foundation

- **Direct diversion for irrigation:**
  - Civil Action 320 (1882)
    - 108 water rights for 65 structures
    - Senior direct flow water rights

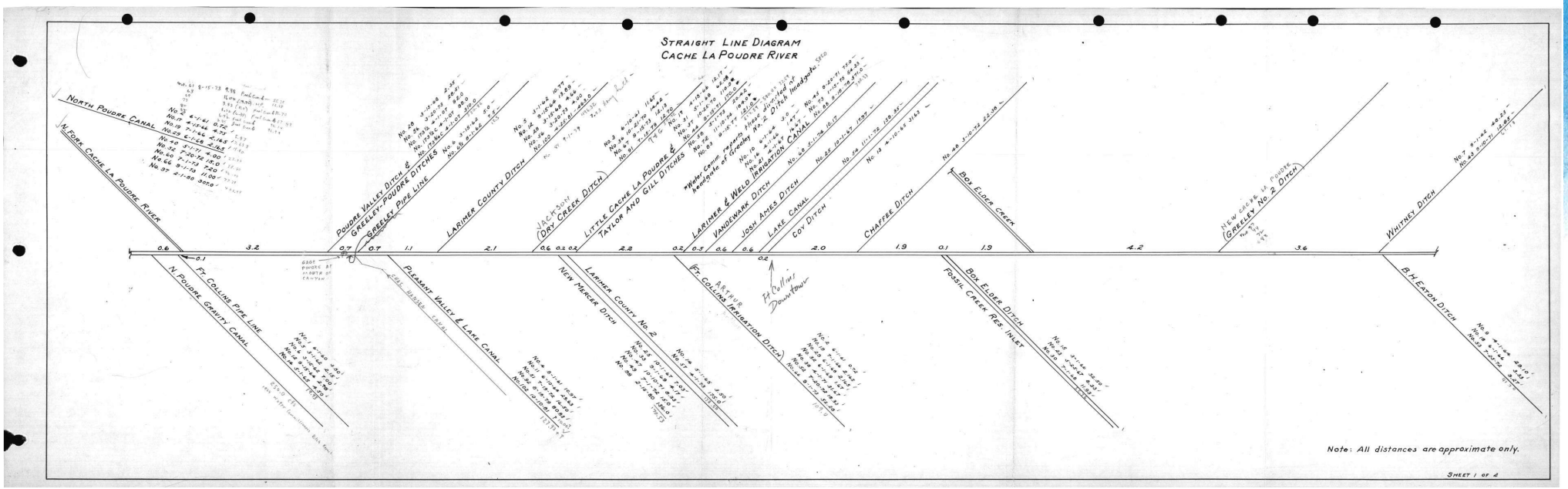
Big 4 ditch companies:

New Cache La Poudre Irrigating Company
- Greeley No. 2 Ditch

Larimer and Weld Irrigation Company
- Larimer and Weld Canal

The Water Supply and Storage Company
- Larimer County Canal

North Poudre Irrigation Company
- North Poudre Canal/Munroe Canal



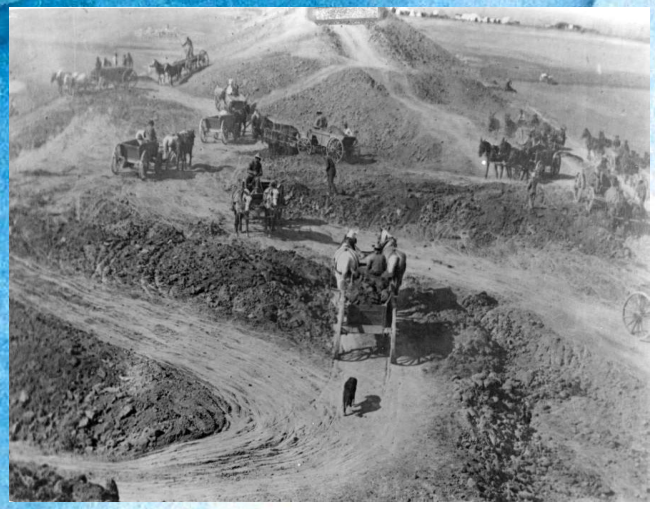
Laying the Foundation

- **Initial Transmountain Diversions**

- Grand River Ditch
- Laramie-Poudre Tunnel
- Michigan Ditch

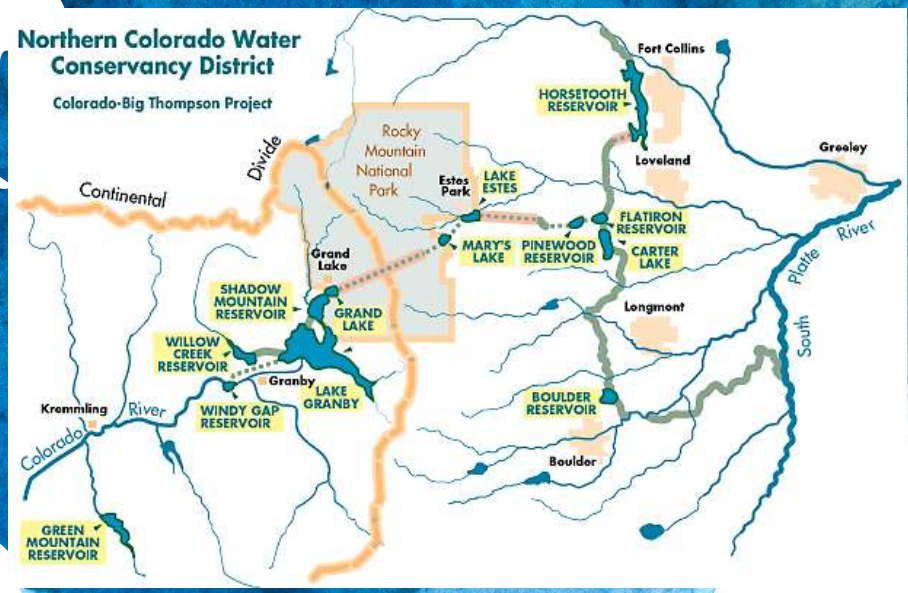
Laying the Foundation

- **Storage to increase supply:**
  - Civil Action 1591 (1904)
    - 61 storage rights for 45 structures
    - Initial Reservoir Adjudication
  - Civil Action 2031 (1921)
    - 61 storage rights for 45 structures
    - First true supplemental adjudication
  - **Today total storage exceeds 300,000 AF:**
    - Cache La Poudre Reservoir Company
      - Timnath Reservoir (aka Cache La Poudre Reservoir)
    - Windsor Reservoir Company
      - Terry Lake, "Big" Windsor, Cobb and Douglas Reservoirs
    - The Water Supply and Storage Company
      - Includes: Rocky Ridge, WSSC Reservoirs 2 & 3
    - North Poudre Irrigation Company
      - Includes: Halligan and Fossil Creek Reservoirs
    - Greeley and Loveland System
      - Boyd Lake, Lake Loveland and Seven Lakes
    - Consolidated Home Supply
      - Mariano/Boedecker, Lon Hagler, Lone Tree



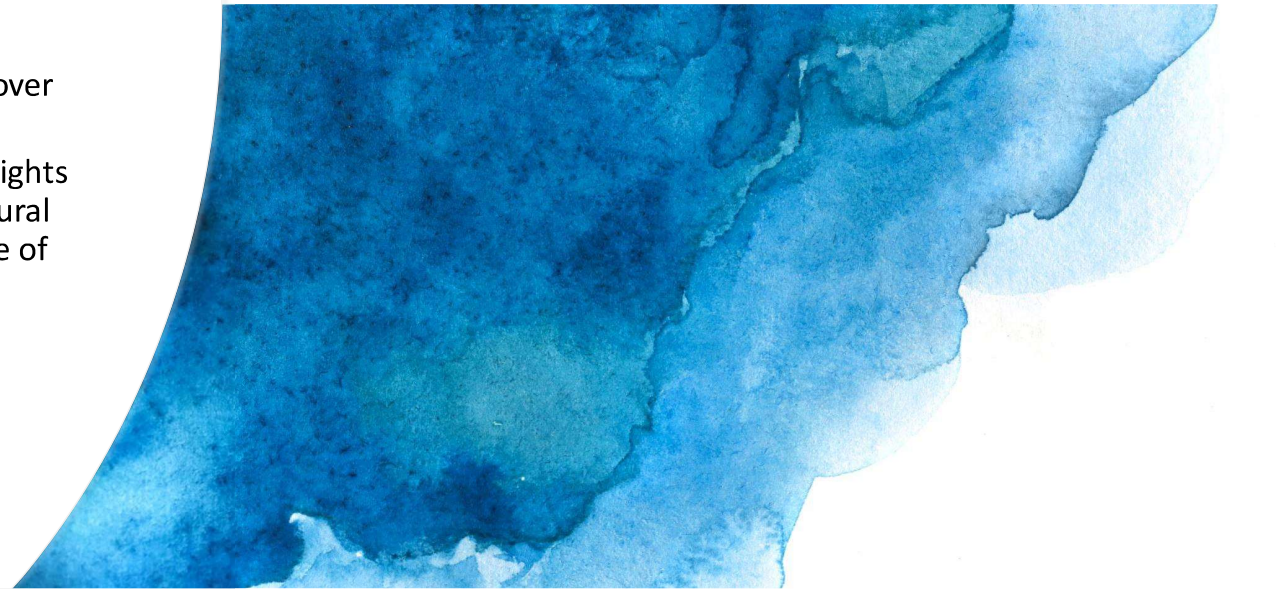
Laying the Foundation

- **COLORADO-BIG THOMPSON PROJECT**
  - C-BT Project Constructed from 1938 – 1957
  - Brings about 200,000 AF to Basin annually
  - Horsetooth Reservoir and Carter Lake
  - C-BT waters are “fungible” and widely traded
  - North Poudre – 40,000 Units



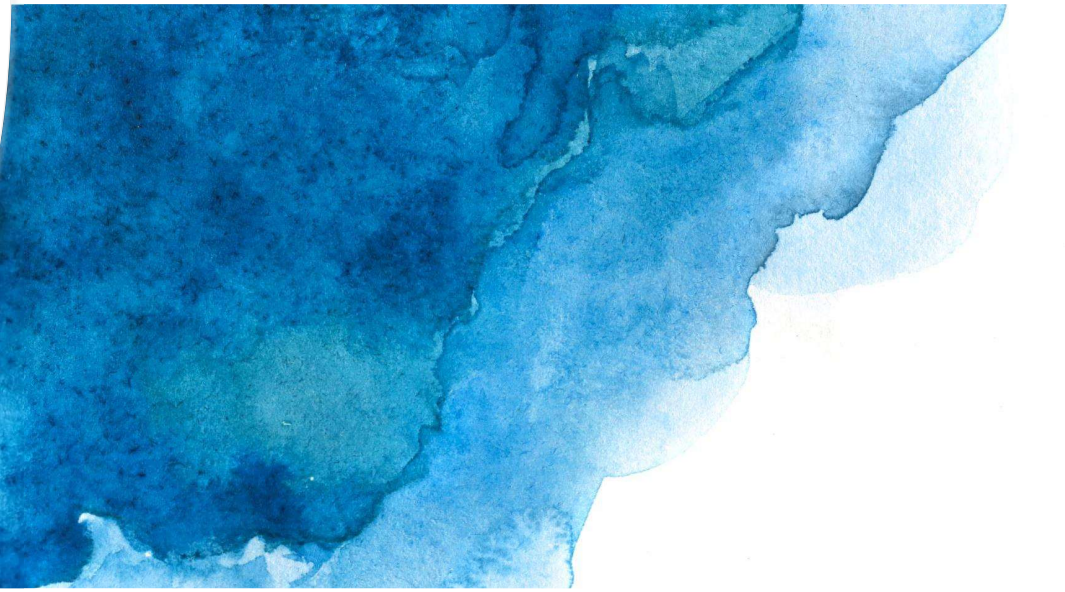
Laying the Foundation

- Incorporating groundwater rights to increase supply:
- Coffin Decree -
  - Judge Claude Coffin
  - General adjudication with the final decree (over 1,000 pages) entered in 1953
  - Judge Coffin made a finding that the water rights in the decree were “not tributary to any natural stream” and therefore could operate outside of the priority system
  - Finding of the water court still stands



Laying the Foundation

- Groundwater Management Act (1965)
  - Permitting of all water wells
- 1969 Water Rights and Determination Act
  - Codified Concept of Conjunctive use
  - Effectively made all water wells very “junior” in priority, leading to need for plans for augmentation.



Changing Needs

"As administration of water approaches its second century, the curtain is opening upon the new drama of maximum utilization and how constitutionally that doctrine can be integrated into the law of vested water rights."

Fellhauer v. People (1968)

Maximum Beneficial Use: New Priorities

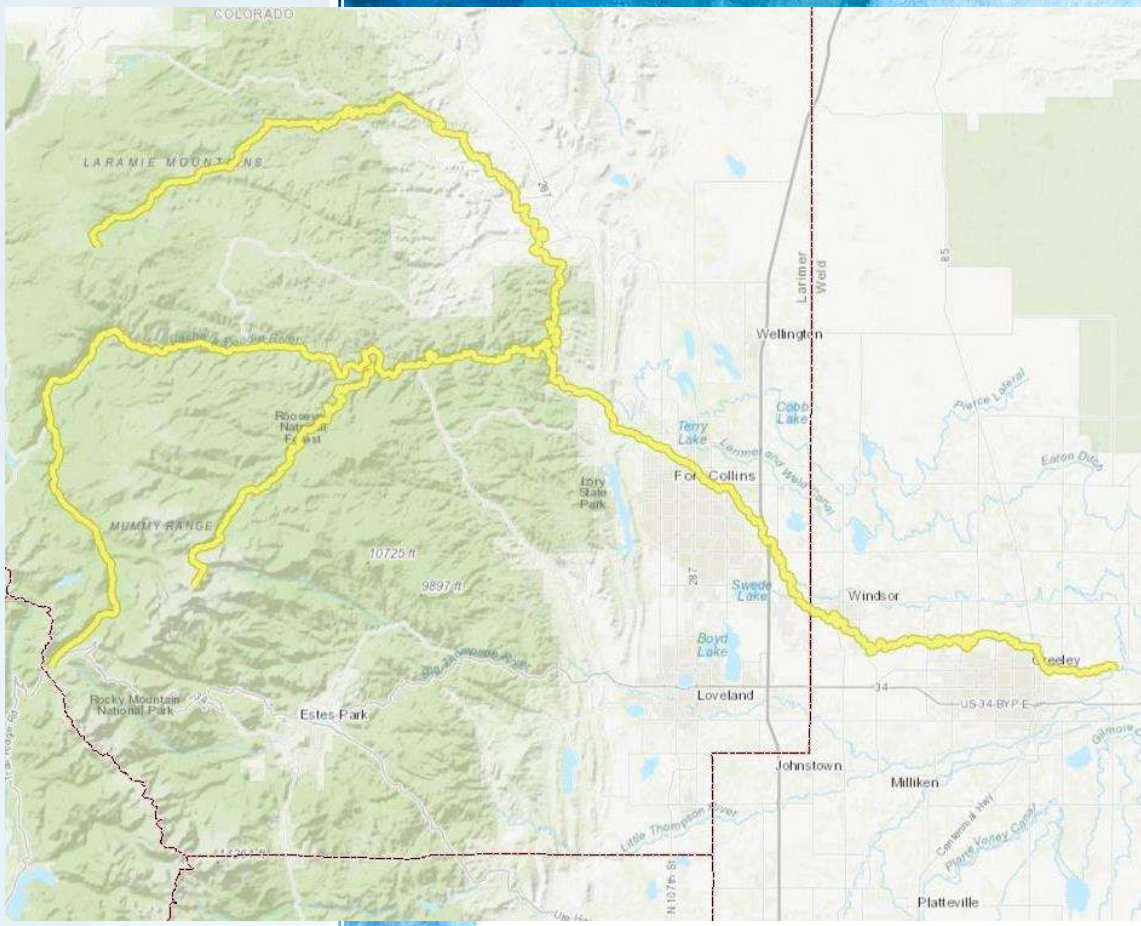
-Augmentation Plans

- Concept introduced in 1969 Act
- Critical to allow continued pumping of irrigation wells (that were made junior by this same act).
- "Plan for Augmentation" means a detailed program, …., to increase the supply of water available for beneficial use … by the development of new or alternate means or points of diversion, by pooling of water resources, by exchange projects, by providing substitute supplies of water, by the development of new sources of water, or by any other appropriate means. CRS 37-92-103(9).

- Cache La Poudre Augmentation Plan (W-7921- (75))
  - One of the earliest augmentation plans
  - APOD
  - Continued pumping of over 400 irrigation wells

EXCHANGES

- Historic exchanges occurring between the ditch systems toward the end of the Cache la Poudre River
- Allows utilization of storage



Evolving water rights

Historically, in order to have a water right and priority, the user must (1) divert water from the natural stream and (2) put it to beneficial use.

1986 – Fort Collins applied for a water right for recreational instream use for kayaking.

Boat chute was an instream “diversion”

Photo: Cache la Poudre River National Heritage Area

Maximum Beneficial Use: Changing Water

Colorado water law demonstrates that change of use involves two primary questions:

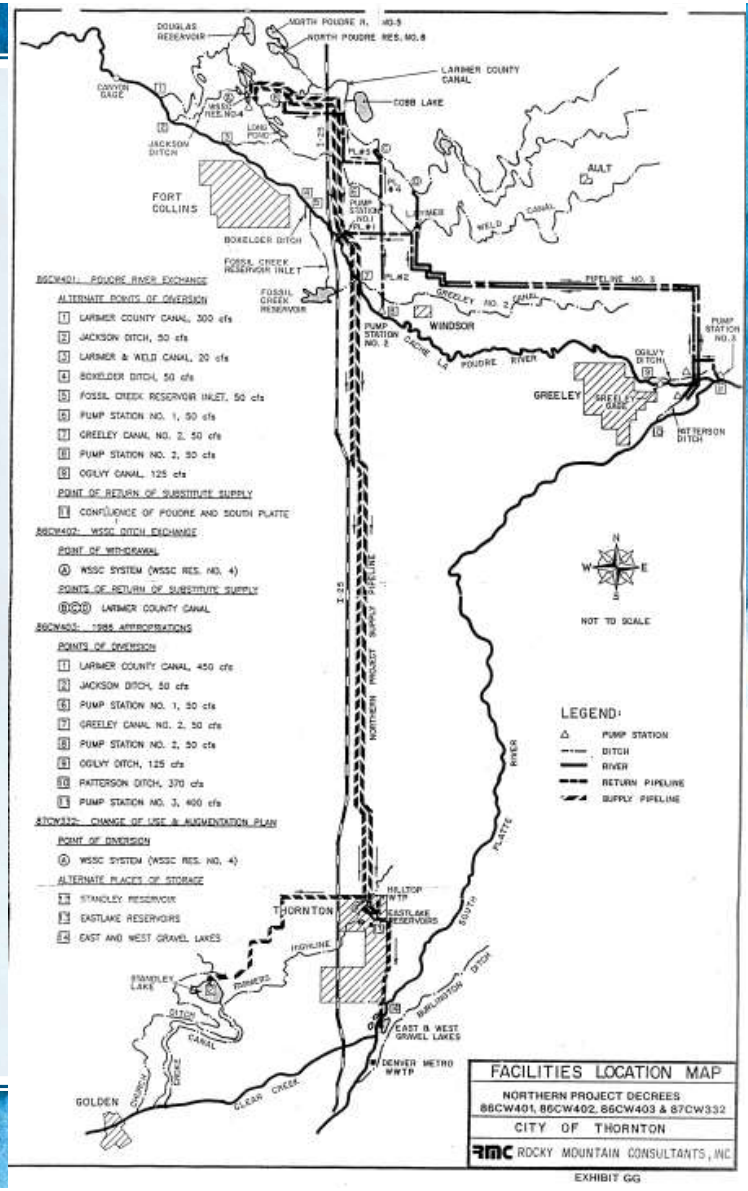
- (1) What historic beneficial use has occurred pursuant to the appropriation that is proposed for change? and

- (2) What conditions must be imposed on the change to prevent injury to other rights?"

Santa Fe Trails Ranches Prop. Ass'n v. Simpson, 990 P.2d 46, 53 (Colo. 1999).

THORNTON CHANGE OF WSSC

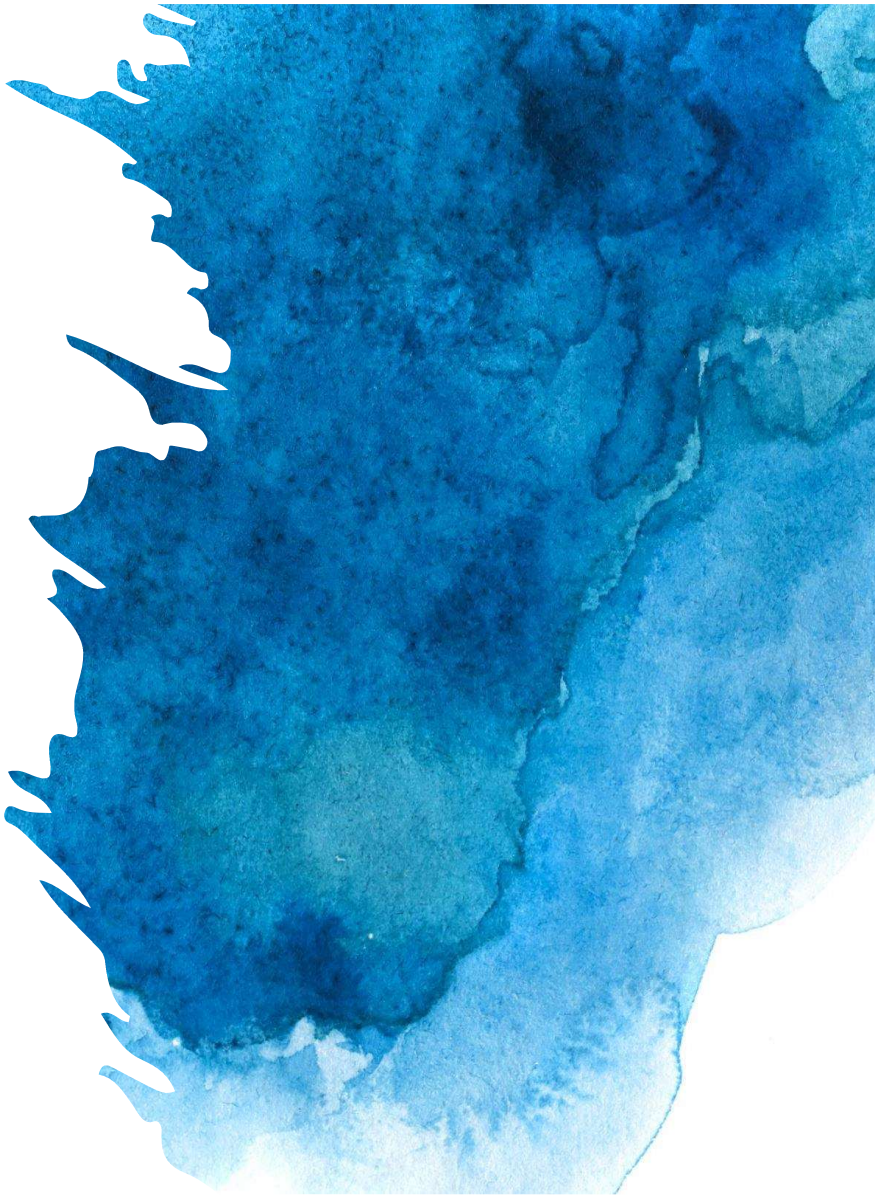
- *Thornton v. Bijou*, 926 P.2d 1.
- Change of 283 shares in the Water Supply and Storage Company



Maximum Beneficial Use: New Priorities

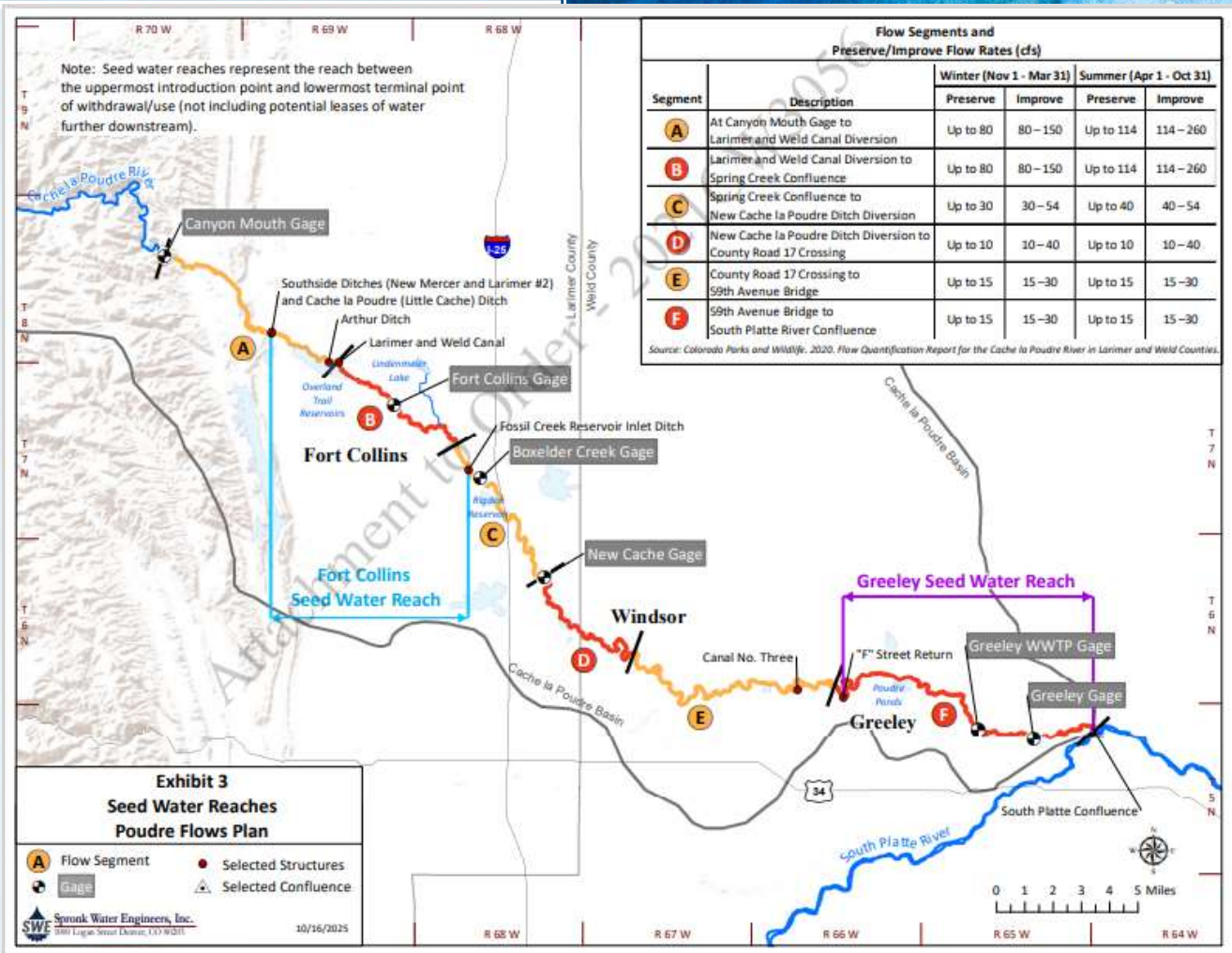
- **Augmentation Plans**

  - Allows use of water outside of the priority system
  - Requires replacement of out-of-priority depletions
  - Most commonly associated with delayed depletions from wells and evaporation/seepage losses from reservoirs



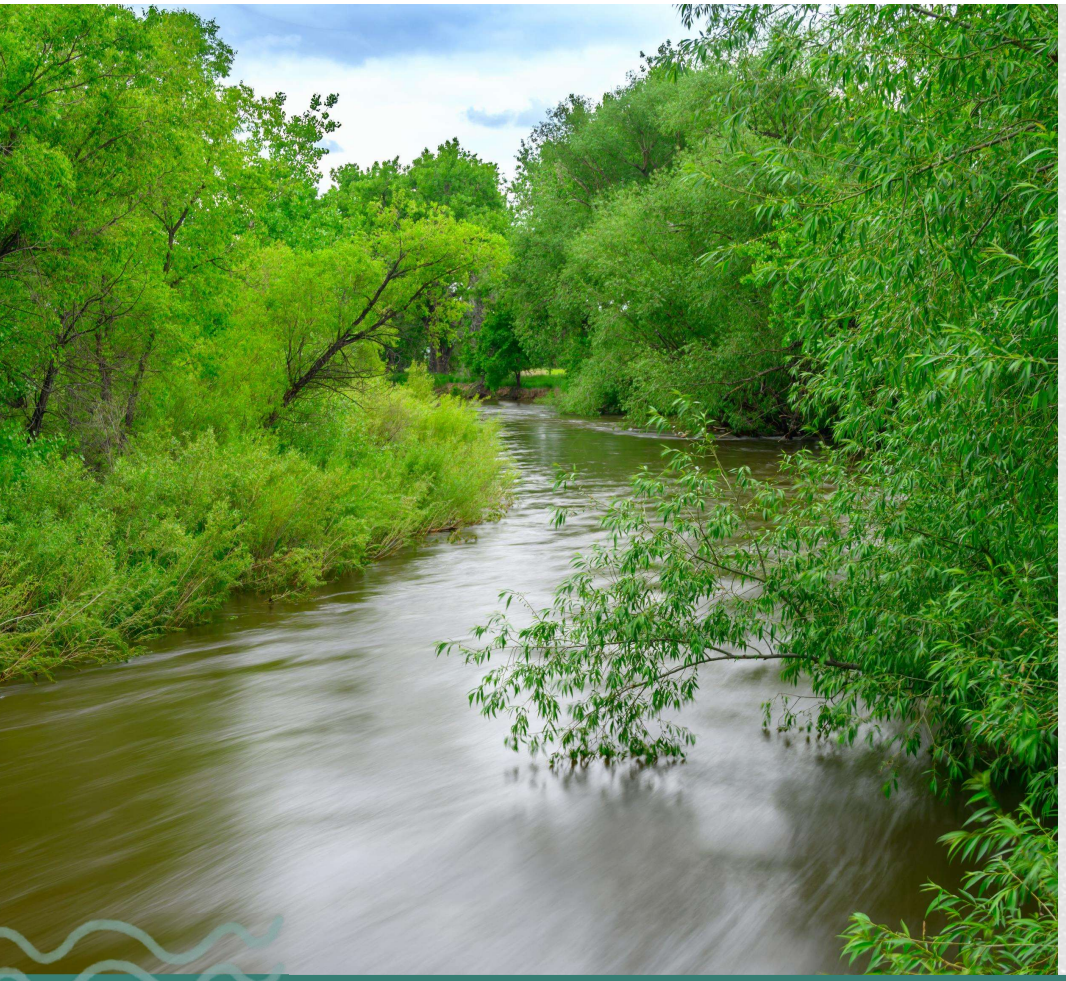
POUDRE FLOWS CASE

- First-of-its-kind instream flow augmentation plan
- Decree entered in 2025
- Provides framework for certain water rights to be introduced into the Cache la Poudre River at specific locations
- Water is protected from exchange and diversion throughout reach



WORTHINGTON WHITTREDGE

ON THE CACHE LA POUDRE RIVER 1876



A DAY IN THE LIFE OF A WATER COMMISSIONER

with Jean Lever and David Bridge
Colorado Division of Water Resources

11th Annual Poudre River Forum


POUDRE RIVER FORUM
RIVER COMMISSIONER JOB
JEAN LEVER
DAVID BRIDGE
March 6, 2026
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Division of Water Resources Mission

- The Division of Water Resources will administer the waters of the State to maximize lawful beneficial use, ensure that dams and water wells are properly constructed and safe, and provide information about water resources to the public.

COLORADO
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Department of Natural Resources

Roles and Responsibilities of DWR

- Water Administration
  - Surface & Groundwater
  - Water Court Participation
  - Interstate Compacts and Decrees
- Flow Measurement (Hydrographic Program)
- Well Metering
- Public Safety
  - Dam Safety
  - Well Construction & Inspection
- Well Permitting
- Public Data & Information

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SEO & Daily Water Administration

- Administer the decrees of the Court
- Rules
- Policies
- Procedures
- Guidelines
- These clarify and remove ambiguity as much as possible
  - To enable and ensure that we can do our job effectively
  - Users have some level of a roadmap to determine if they are complying, etc.

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Department of Natural Resources

What is the job of a River Commissioner?

- In-field representatives of the SEO and Div Engineer
- **Administer the decrees of the Court**
  - tributary water rights in CO established through a court decree
- At all times the WC should know the colors and amounts of water in the river along its length
  - Deliver those various types of water per the decrees to the correct locations
  - To set the call based on that information

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Daily WC Responsibilities

- Day to Day Administration
  - Setting the Valid Call Based on Supply and Demand
  - Assuring Diversions In Priority For Decreed Uses Without Waste
  - Assessing Transit Losses
  - Operating Exchanges & Trades
  - Assuring Diversions Are Measured
  - Assuring Augmentation and Return Flow Requirements Are Made
  - Assuring Compliance with Other Decree Conditions especially in augmentation and Change Cases
  - Fielding Questions & Complaints
- Review of Accounting, Decrees, and Maintenance of Diversion Records

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Definition of Terms for a Call

- Call for water
  - The request for water by a user with a decreed water right, per the terms & conditions of the decree
- Valid Call
  - Recognized and administered by Division of Water Resources – the determination by the Water Commissioner of the most junior right that may divert when the supply of water in the river is less than the demand on the river by all decreed water users (also known as "The Call")
- No Call / Free River
  - The supply of water in the river exceeds the demand for water by all decreed water users

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Priority water & the Call

- Two very broad categories of water
  - Water that is available to be distributed based on the priority system
  - Everything else – non-native, CBT, Aug/RF, Res releases, exchanges*
- Apply the Prior Appropriation Doctrine
  - Determining the availability of water
  - Knowing who wants water – how much, where, when
  - Using the order of priorities
  - Setting The Call
  - Done at least daily, may need to be recalculated within a day

*exchanges can have their own order of priority in relation to each other

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Department of Natural Resources

Priority # & Admin

- Water rights in districts were assigned Priority Numbers to determine the order in which users received water - unique to each district
  - Still used for the basic direct and storage rights in the tributary basins
- As changes happened, things got complicated
- Created the Admin Number*:
  - Considers both the appropriation and the adjudications of a water right
  - If appropriation was before adjudication, allows the order of administration in relation to others in the same time frame
  - Admin Numbers apply across districts
- Enables the commissioners to talk to each other and to administer and set a call in relation to other districts.

*Adminstrative Guideline: Administrative Number (aka Holt Number), Div 1 – South Platte River

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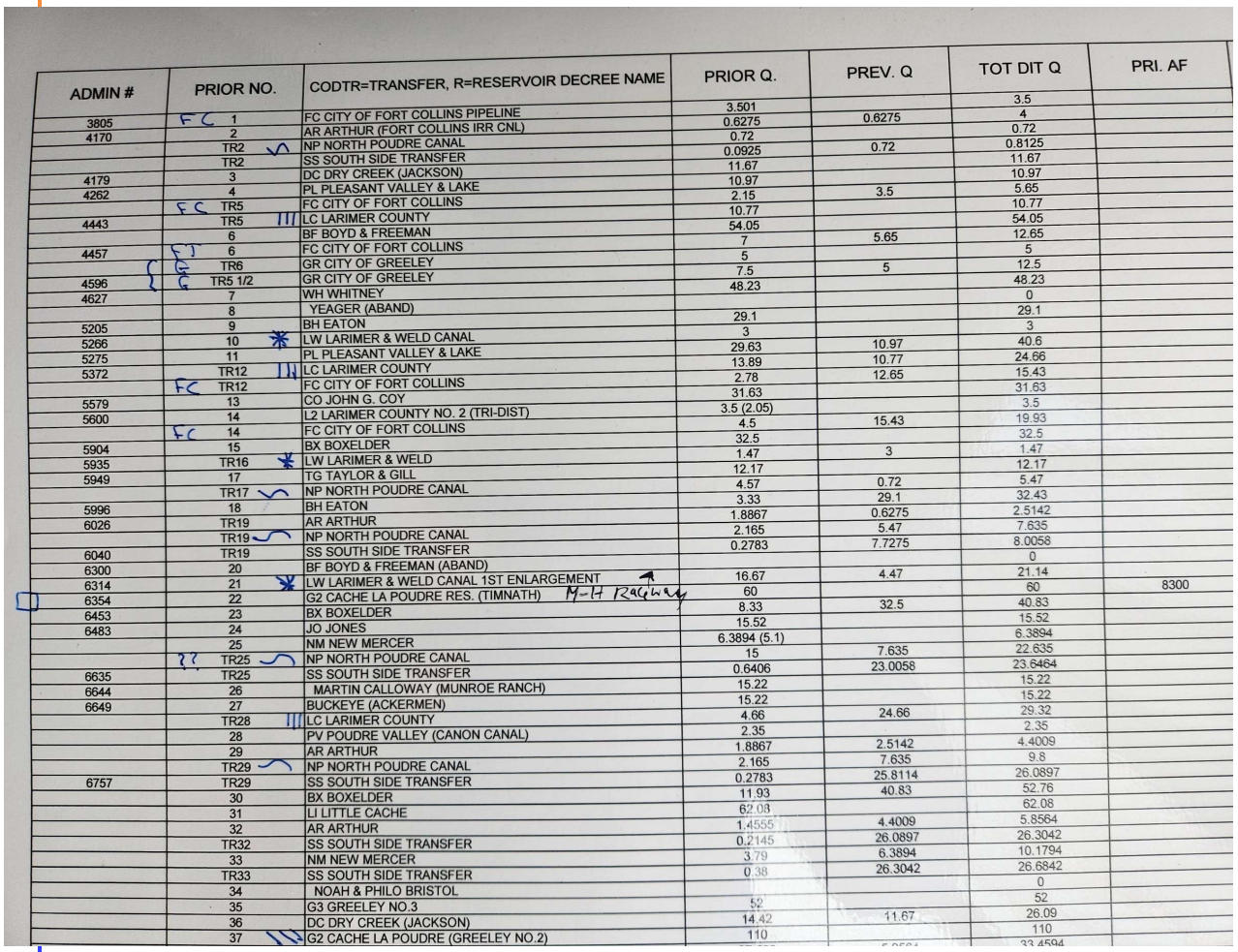
Priority List – Page 1



ADMIN #	PRIOR NO.	CODTR=TRANSFER, R=RESERVOIR DECREE NAME	PRIOR Q.	PREV. Q	TOT DIT Q	PRI. AF
			3.501		3.5	
3805	1	FC CITY OF FORT COLLINS PIPELINE	0.6275	0.6275	4	
4170	2	AR ARTHUR (FORT COLLINS IRR CNL)	0.72		0.72	
	TR2	NP NORTH POUDRE CANAL	0.0925	0.72	0.8125	
	TR2	SS SOUTH SIDE TRANSFER	11.67		11.67	
4179	3	DC DRY CREEK (JACKSON)	10.97		10.97	
4262	4	PL PLEASANT VALLEY & LAKE	2.15	3.5	5.65	
	TR5	FC CITY OF FORT COLLINS	10.77		10.77	
4443	TR5	LC LARIMER COUNTY	54.05		54.05	
	6	BF BOYD & FREEMAN	7	5.65	12.65	
4457	6	FC CITY OF FORT COLLINS	5		5	
	TR6	GR CITY OF GREELEY	7.5	5	12.5	
4596	TR5 1/2	GR CITY OF GREELEY	48.23		48.23	
4627	7	WH WHITNEY			0	
	8	YEAGER (ABAND)	29.1		29.1	
5205	9	BH EATON	3		3	
5266	10	LW LARIMER & WELD CANAL	29.63	10.97	40.6	
5275	11	PL PLEASANT VALLEY & LAKE	13.89	10.77	24.66	
5372	TR12	LC LARIMER COUNTY	2.78	12.65	15.43	
	TR12	FC CITY OF FORT COLLINS	31.63		31.63	
5579	13	CO JOHN G. COY	3.5 (2.05)		3.5	
5600	14	L2 LARIMER COUNTY NO. 2 (TRI-DIST)	4.5	15.43	19.93	
	14	FC CITY OF FORT COLLINS	32.5		32.5	
5904	15	BX BOXELDER	1.47	3	1.47	
5935	TR16	LW LARIMER & WELD	12.17		12.17	
5949	17	TG TAYLOR & GILL	4.57	0.72	5.47	
	TR17	NP NORTH POUDRE CANAL	3.33	29.1	32.43	
5996	18	BH EATON	1.8867	0.6275	2.5142	
6026	TR19	AR ARTHUR	2.165	5.47	7.635	
	TR19	NP NORTH POUDRE CANAL	0.2783	7.7275	8.0058	
6040	TR19	SS SOUTH SIDE TRANSFER			0	
6300	20	BF BOYD & FREEMAN (ABAND)	16.67	4.47	21.14	
6314	21	LW LARIMER & WELD CANAL 1ST ENLARGEMENT	60		60	8300
6354	22	G2 CACHE LA POUDRE RES. (TIMNATH) M-H RAGING	8.33	32.5	40.83	
6453	23	BX BOXELDER	15.52		15.52	
6483	24	JO JONES	6.3894 (5.1)		6.3894	
	25	NM NEW MERCER	15	7.635	22.635	
	TR25	NP NORTH POUDRE CANAL	0.6406	23.0058	23.6464	
6635	TR25	SS SOUTH SIDE TRANSFER	15.22		15.22	
6644	26	MARTIN CALLOWAY (MUNROE RANCH)	15.22		15.22	
6649	27	BUCKEYE (ACKERMEN)	4.66	24.66	29.32	
	TR28	LC LARIMER COUNTY	2.35		2.35	
	28	PV POUDRE VALLEY (CANON CANAL)	1.8867	2.5142	4.4009	
	29	AR ARTHUR	2.165	7.635	9.8	
	TR29	NP NORTH POUDRE CANAL	0.2783	25.8114	26.0897	
6757	TR29	SS SOUTH SIDE TRANSFER	11.93	40.83	52.76	
	30	BX BOXELDER	62.08		62.08	
	31	LI LITTLE CACHE	1.4555	4.4009	5.8564	
	32	AR ARTHUR	0.2145	26.0897	26.3042	
	TR32	SS SOUTH SIDE TRANSFER	3.79	6.3894	10.1794	
	33	NM NEW MERCER	0.38	26.3042	26.6842	
	TR33	SS SOUTH SIDE TRANSFER			0	
	34	NOAH & PHILO BRISTOL	52		52	
	35	G3 GREELEY NO.3	14.42	11.67	26.09	
	36	DC DRY CREEK (JACKSON)	110		110	
	37	G2 CACHE LA POUDRE (GREELEY NO.2)			33.4594	

How is the Admin # calculated?

It's the number of days from Dec 31, 1849

Need 3 things

- Adjudication date
- Previous adj date
- Appropriation date

To the right of the decimal- relative status of water rights in the same year

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The Call

- Has 2 main components:
  - Location where we run out of water to divert based on priorities
    - The location where we **sweep** the river
  - Most junior water right able to divert in priority

  - Example: The calls on the Poudre River on 8/13/2025 were:
  - BH Eaton Ditch, Admin # 5275 (Pleasant Valley Lake Canal, 6/10/1864, Priority 11)
  - Lower Platte Beaver Ditch, Admin #13985 (4/15/1888)

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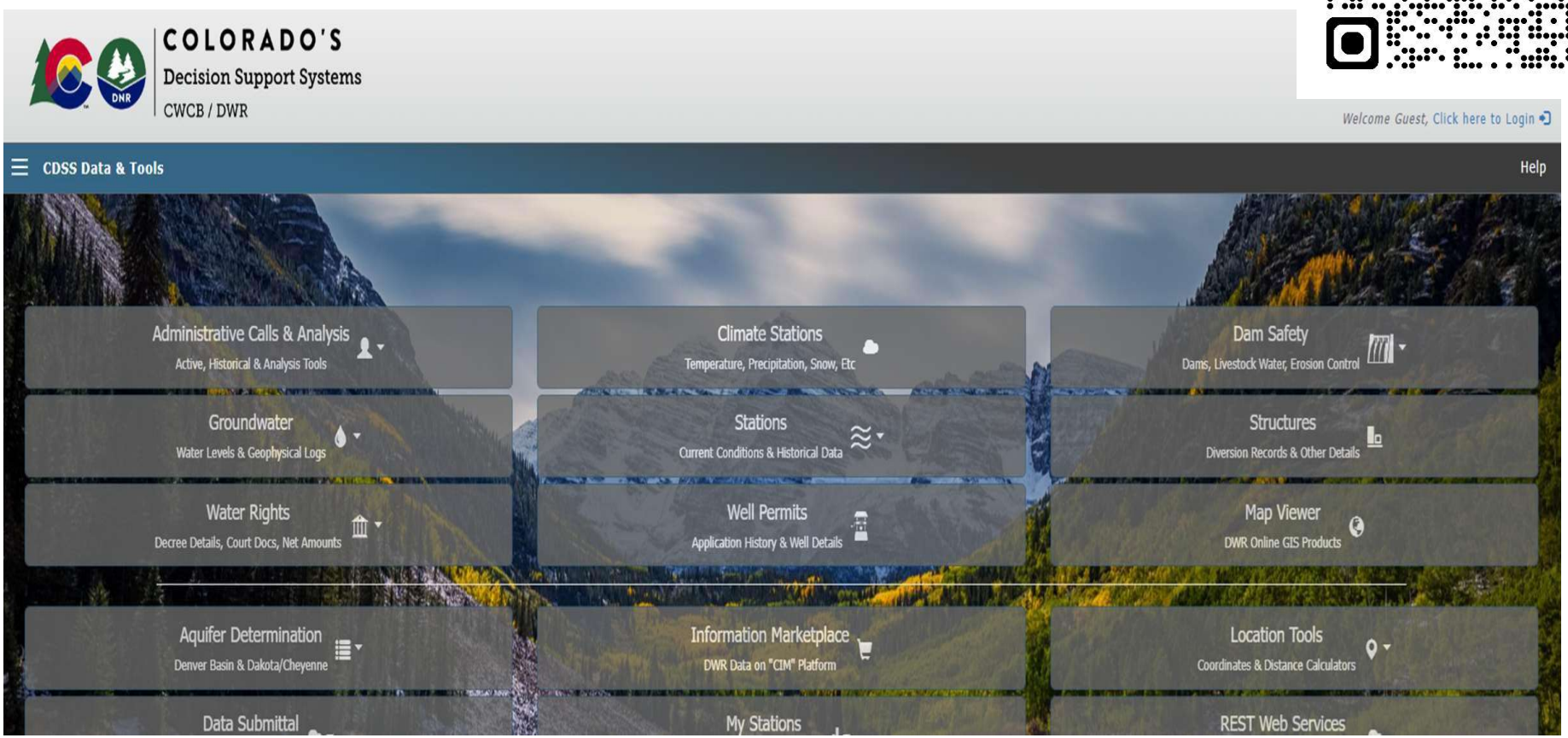
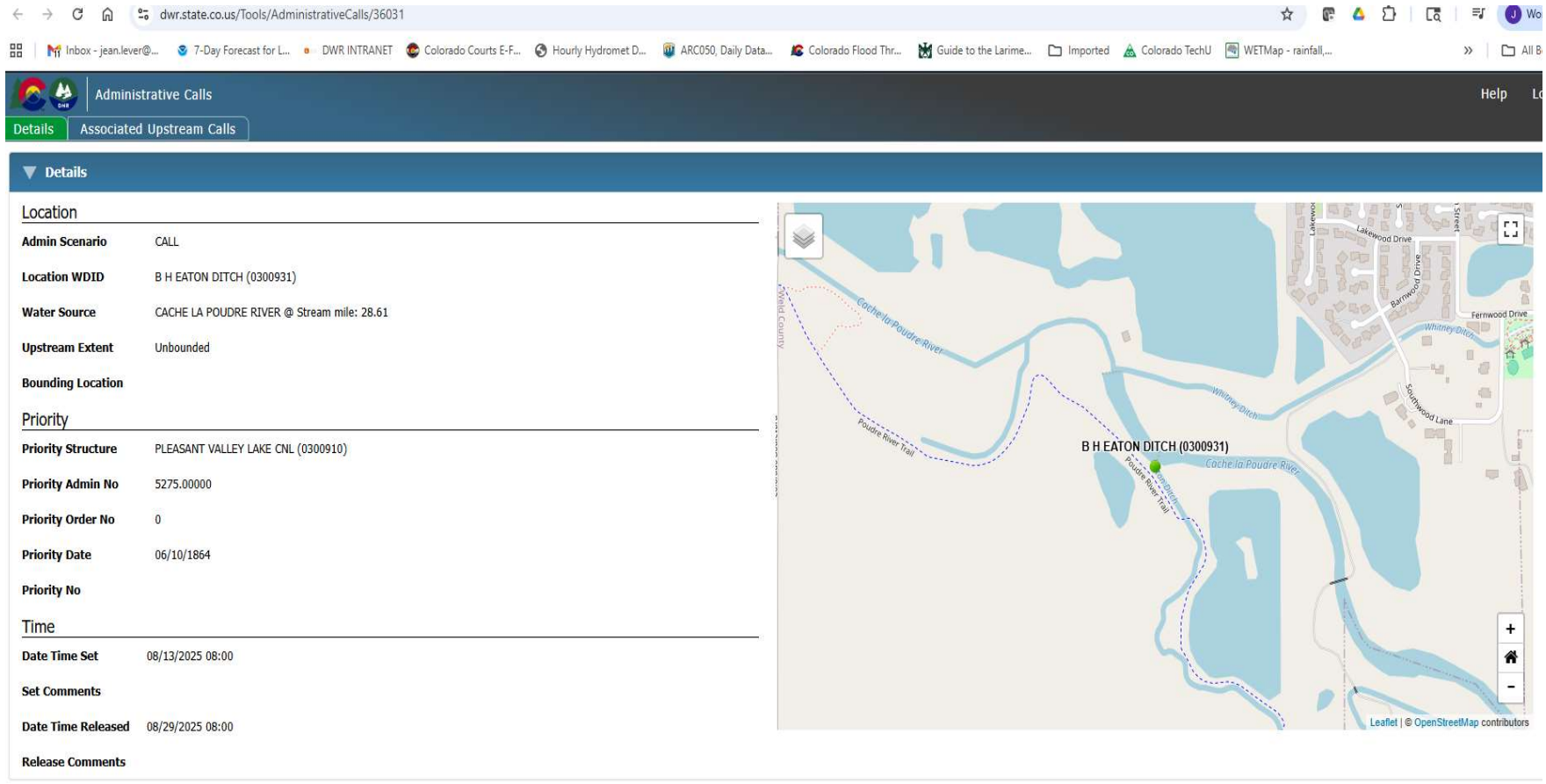
Colorado's Decision Support Systems

https://dwr.state.co.us/tools





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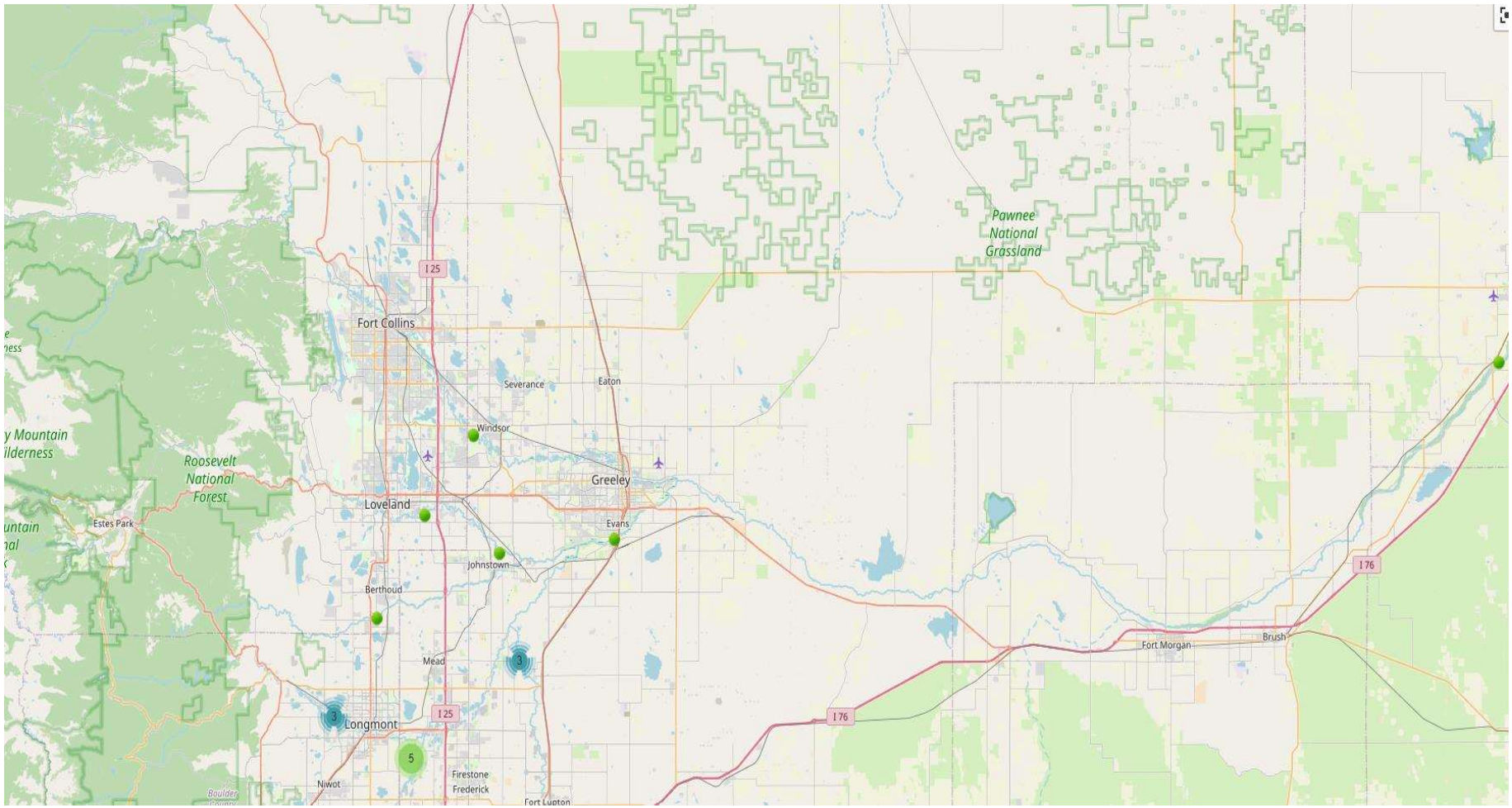
Pawnee
National
Grassland
Fort Collins
Severance
Eaton
Windsor
Greeley
Loveland
Evans
Johnstown
Berthoud
Mead
Longmont
Estes Park
Roosevelt
National
Forest
Firestone
Frederick
Niwot
Fort Morgan
Brush
I 25
I 76
3
3
5

What is a WC Reviewing

- User must be in priority
- Water diverted must be used in accordance with the decree terms and conditions
- Water cannot be wasted
- User must have an acceptable headgate and an accurate measuring device
- Must determine whether user can get the water they are asking for without setting a call
- Must determine whether user will get the water they are calling for by curtailing upstream junior rights

- Administrative Call Standard Ver 2-5 (2023)

The WC day starts early

- WC goes into the morning having a good idea of who's doing what, when, how much …
  - Reservoir releases, non-native water, CBT
- Look at gauges to identify and understand all the colors of water & determine what is available for in-priority diversions
- WC and ditch riders in communication starting at 5:30am
- Set a call by 8am
- Watch the river through the day, adjusts as necessary
- Late afternoon communication with ditch riders for the following day
- ALL USERS need to provide at least 24-48 hours notice when they want to start/stop, or change the amount diverted
- Every user needs to know
  - where they are physically in relation to the call and
  - is responsible to know whether they are in/out of priority based on the call

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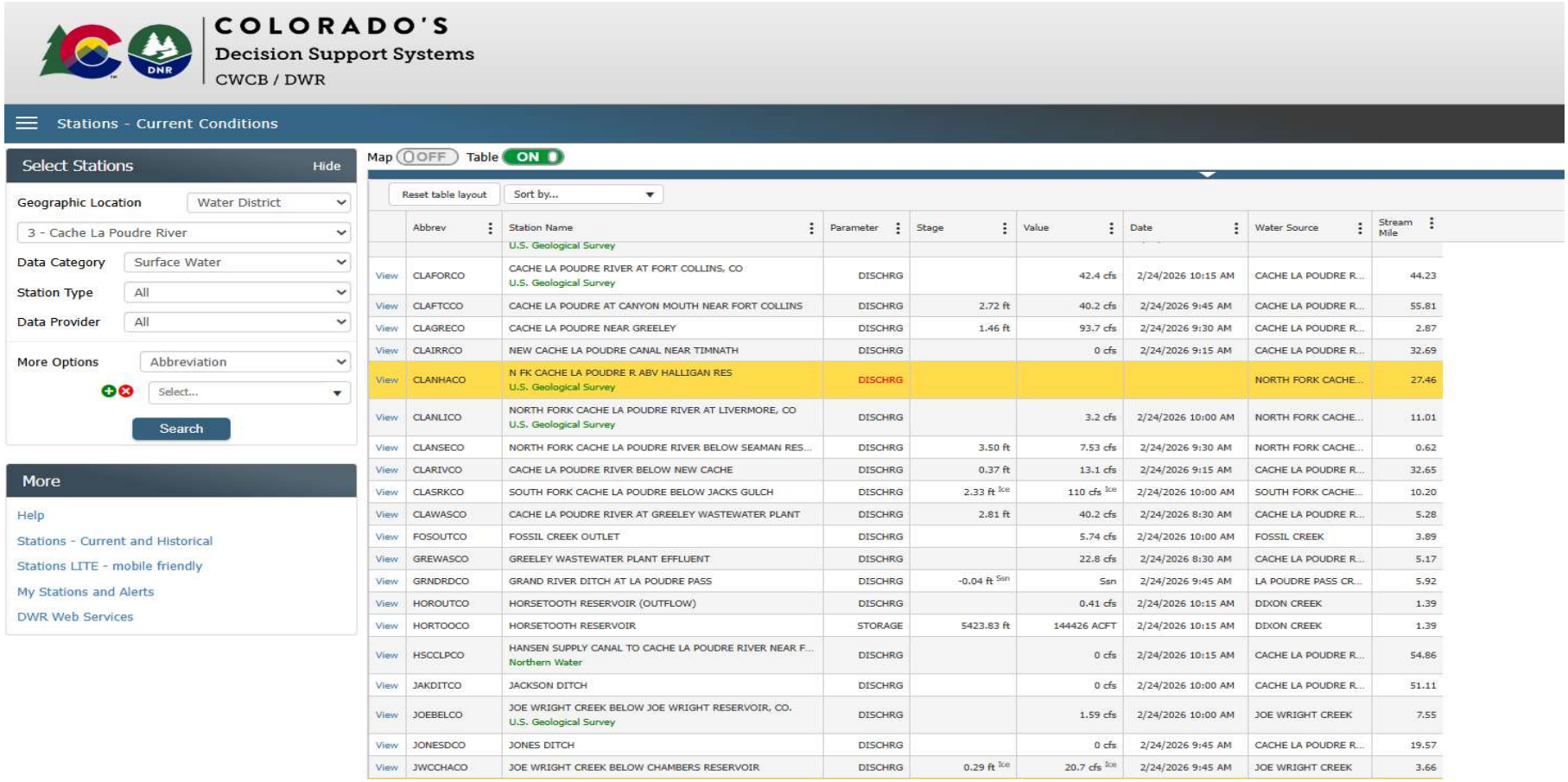
Telemetry Data – CDSS Stations

https://dwr.state.co.us/surfacewater/



Other Daily Operations

- Questions /Complaints – both from public and other
- Meetings/communications with Water Users
  - Assessment of what is/needs to be done for appropriate administration
  - Questions as to whether operations match the decree requirements
  - Require at least 1 field inspection
- Weekly fieldwork
  - Visiting headgates & other structures
    - Assessing that the measurement device at that gate is reading correctly
    - Making changes as needed
    - Collecting the data
  - Visiting reservoirs
- Review of Accounting and Maintenance of Diversion Records

What we DON'T do

- We don't interpret decrees
- Water Quality
- Property rights issues arising from the delivery of water (unless this was a delivery that should not have happened)
- Owner/user disputes with a ditch, although we can mediate to an extent
- Flood management (other than dam safety)
- River maintenance or restoration (few exceptions)
  - Riverbed is owned by the landowner
- Don't know or control the sale, resale, or ownership of WRs or ditch shares

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POUDRE RIVER SUMMARY WATER YEAR 2025

POUDRE RIVER FORUM

DAVID BRIDGE

DISTRICT 3 RIVER COMMISSIONER

SOUTH PLATTE BASIN

WATER YEAR 2025 OVERALL RATINGS 0-10

1.	CARRY OVER STORAGE FROM 2024 **51% of Full**	5.1
2.	2025 WINTER SNOWPACK **100% AVERAGE**	5.0
3.	2025 WATER SYSTEM PRODUCTION **76% AVERAGE**	3.8
4.	2025 IRRIGATION SEASON **102% AVERAGE PRECIPITATION**	5.2
5.	2025 CARRY OVER STORAGE **45% of Full**	4.5

OVERALL SCORE → **4.7**

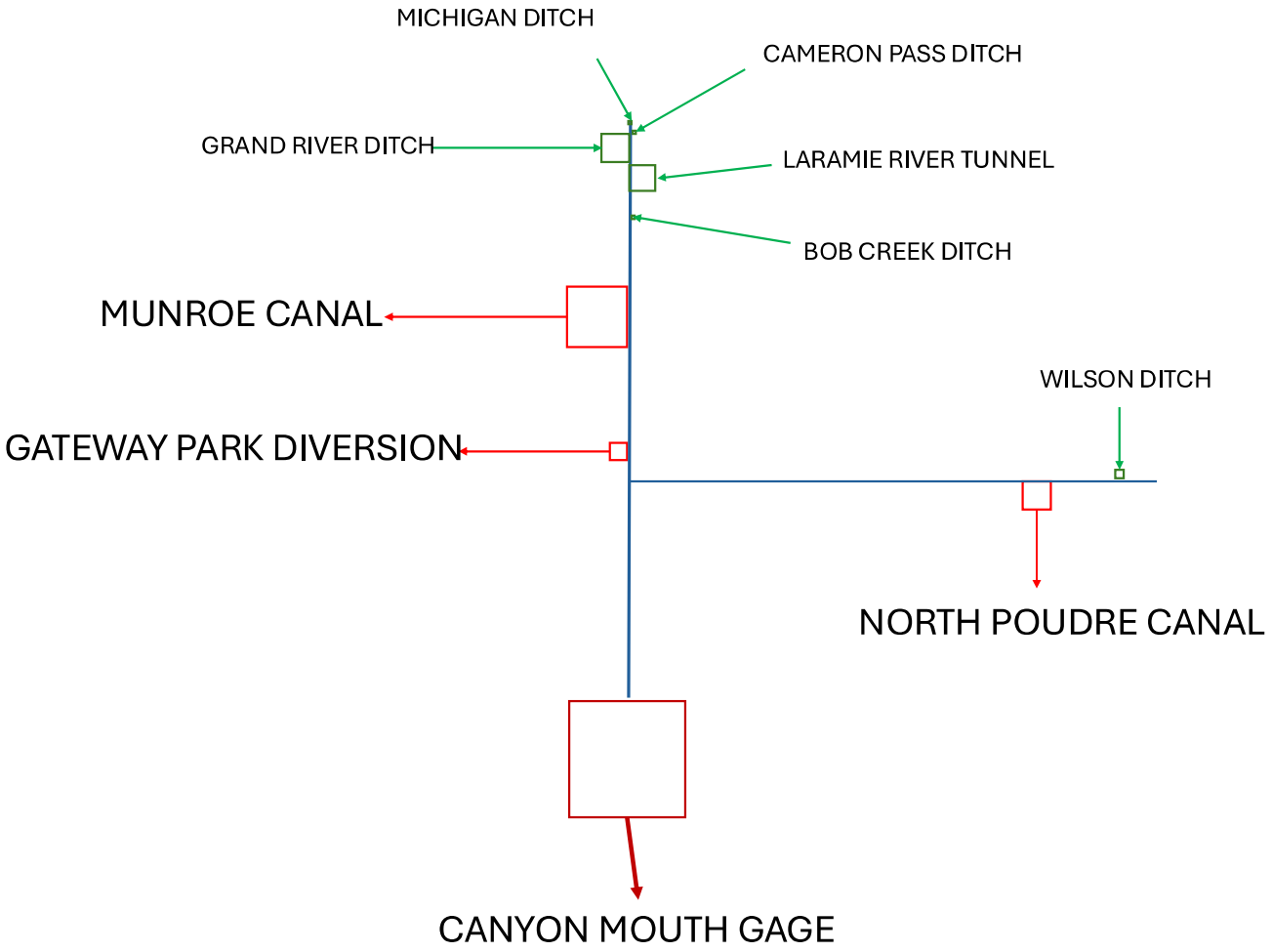
2025 WINTER SNOWPACK

1. MAINSTEM SNOWPACK — 110% OF AVERAGE APRIL 1

2. SOUTH FORK SNOWPACK — 92% OF AVERAGE APRIL 1

3. NORTH FORK SNOWPACK — 98% OF AVERAGE APRIL 1

CACHE LA POUDRE RIVER SYSTEM



	WATER YEAR 2025	10 YEAR AVERAGE

1. POUDRE BASIN & TRANSBASIN WATER TOTALS = TOTAL SYSTEM PRODUCTION

A. CANYON MOUTH GAGE	158,282 AF	227,534 AF – 70%
B. MUNROE CANAL	40,654 AF	37,893 AF – 107%
C. NORTH POUDRE CANAL	18,726 AF	26,328 AF – 71%
D. GATEWAY PARK DIVERSION	11,142 AF	10,022 AF – 111%
TOTALS	228,804 AF	301,777 AF – 76%

	WATER YEAR 2025	10 YEAR AVERAGE
2. TRANSBASIN WATER TOTALS		
A. GRAND RIVER DITCH	19,374 AF	16,752 AF – 116%
B. LARAMIE RIVER TUNNEL	18,208 AF	13,907 AF – 131%
C. MICHIGAN DITCH	2,381 AF	3,990 AF – 60%
D. WILSON DITCH	1,204 AF	2,368 AF -- 51%
E. BOB CREEK DITCH	307 AF	374 AF -- 82%
F. CAMERON PASS DITCH	165 AF	150 AF -- 110%
TOTALS	41,639AF	37,541 AF – 111%

NATIVE SYSTEM PRODUCTION = (TOTAL SYSTEM PRODUCTION - TRANSBASIN SYSTEM PRODUCTION)

NATIVE SYSTEM PRODUCTION WAS 71% OF AVERAGE AT 187,165 AF

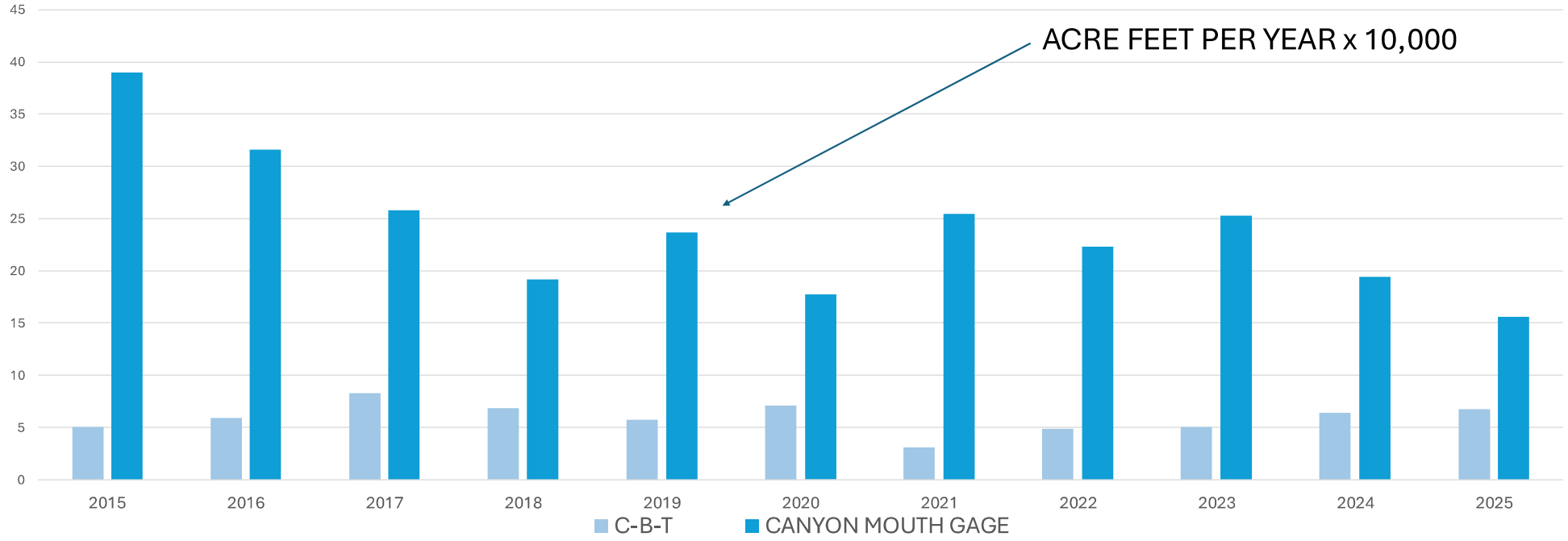
HANSEN SUPPLY CANAL TO CACHE LA POUDRE RIVER NEAR FORT COLLINS (HSCCLPCO)

-VS-

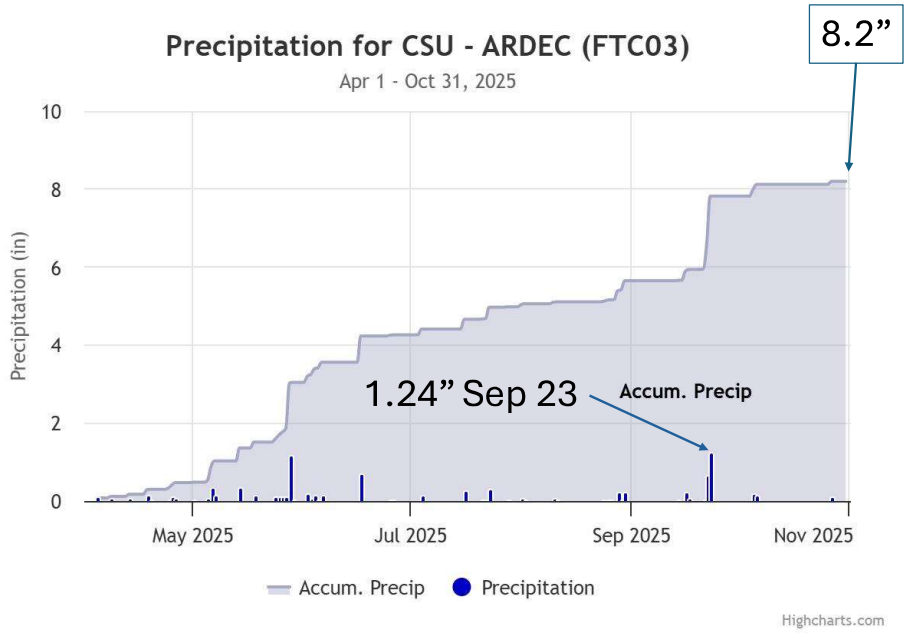
CACHE LA POUDRE AT CANYON MOUTH NEAR FORT COLLINS (CLAFTCCO)

10 YEAR TOTAL OUTFLOWS ANALYSIS

APRIL 1 – OCTOBER 31



8.2 INCHES PRECIPITATION APRIL 1 THROUGH OCTOBER 31



AVERAGE = 8.03 = 102%

10 YEAR AVERAGE PRODUCTION SUMMARY FOR WATER YEAR 2025

TOTAL SYSTEM PRODUCTION WAS 76% OF AVERAGE AT 228,804 ACRE FEET

TRANSBASIN SYSTEM PRODUCTION WAS 111% OF AVERAGE AT 41,639 ACRE FEET

NATIVE SYSTEM PRODUCTION WAS 71% OF AVERAGE AT 187,165 ACRE FEET

LARAMIE RIVER TUNNEL WAS 131% OF AVERAGE AT 18,208 ACRE FEET

WILSON DITCH WAS 51% OF AVERAGE AT 1,204 ACRE FEET

WATER YEAR 2025 OVERALL RATINGS 0-10

1.	CARRY OVER STORAGE FROM 2024 **51% of Full**	5.1
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OVERALL SCORE → 4.7

CACHE LA POUDRE BASIN SNOW SURVEY

March 1, 2026

COLORADO
Division of Water Resources
Department of Natural Resources

Manually Measured Sites

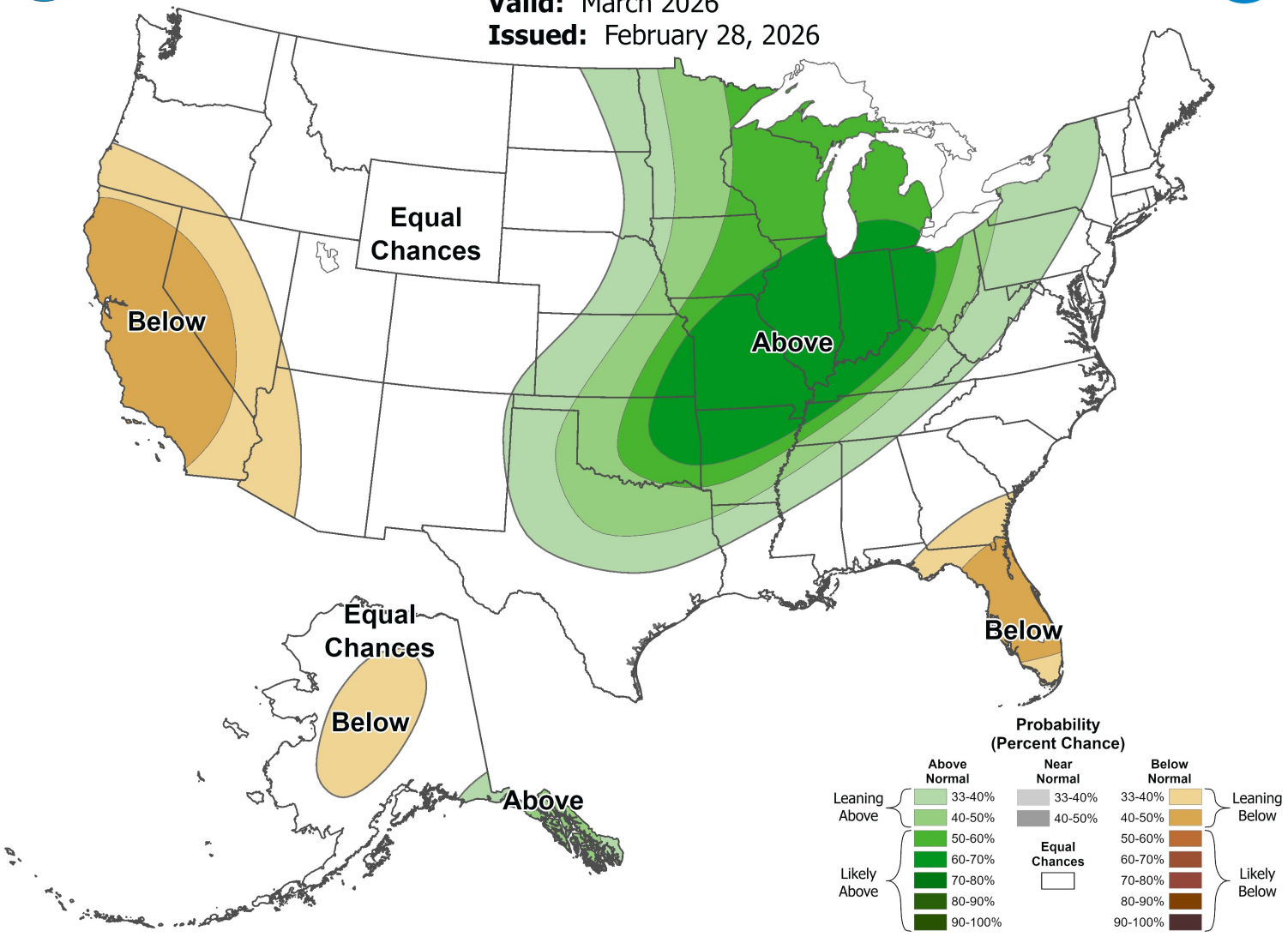
	This Year Depth	This Year Inches/Water	Average Inches/Water	Last Year Inches/water	% of Average	% of Last Year
Deadman Hill - 10,220 ft	27	7.5	12.0	12.9	63%	58%
Long Draw Reservoir - 9,980 ft	41	10.1	12.4	12.7	81%	80%
Hourglass Lake - 9,360 ft	20	4.9	6.0	8.2	82%	60%
Lost Lake - 9,300 ft	33	9.4	9.8	12.0	96%	78%
Bennett Creek - 9,200 ft	9	2.1	5.7	5.3	37%	40%
Chambers Hill - 9,120 ft	19	4.8	7.4	8.4	65%	57%
Red Feather - 9,000 ft	8	3	5.8	4.8	52%	63%

Poudre Basin Totals
Manually Measured Sites

Basin Average This Year	Basin Historic Average	Basin Average Last Year	% of Average	% of Last Year
6.0	8.4	9.2	**71%**	**65%**

Monthly Precipitation Outlook

Valid: March 2026
Issued: February 28, 2026



- HQ in Loveland
- Project Team is all based in CO
- 10 years from launch to Wet Water
- A Part of the Solution
- Flatten the Curve
- Conjunctive Use, Extend, Reuse, Store

Poudre River Forum

March 6, 2026

FrontRangeH2O
Securing Tomorrow's Water, Today™

CACHE LA POUDRE RIVER
NATIONAL HERITAGE AREA
ESTD. 2009

www.vitah2oproject.com

https://fclwd.com/vitah2o/

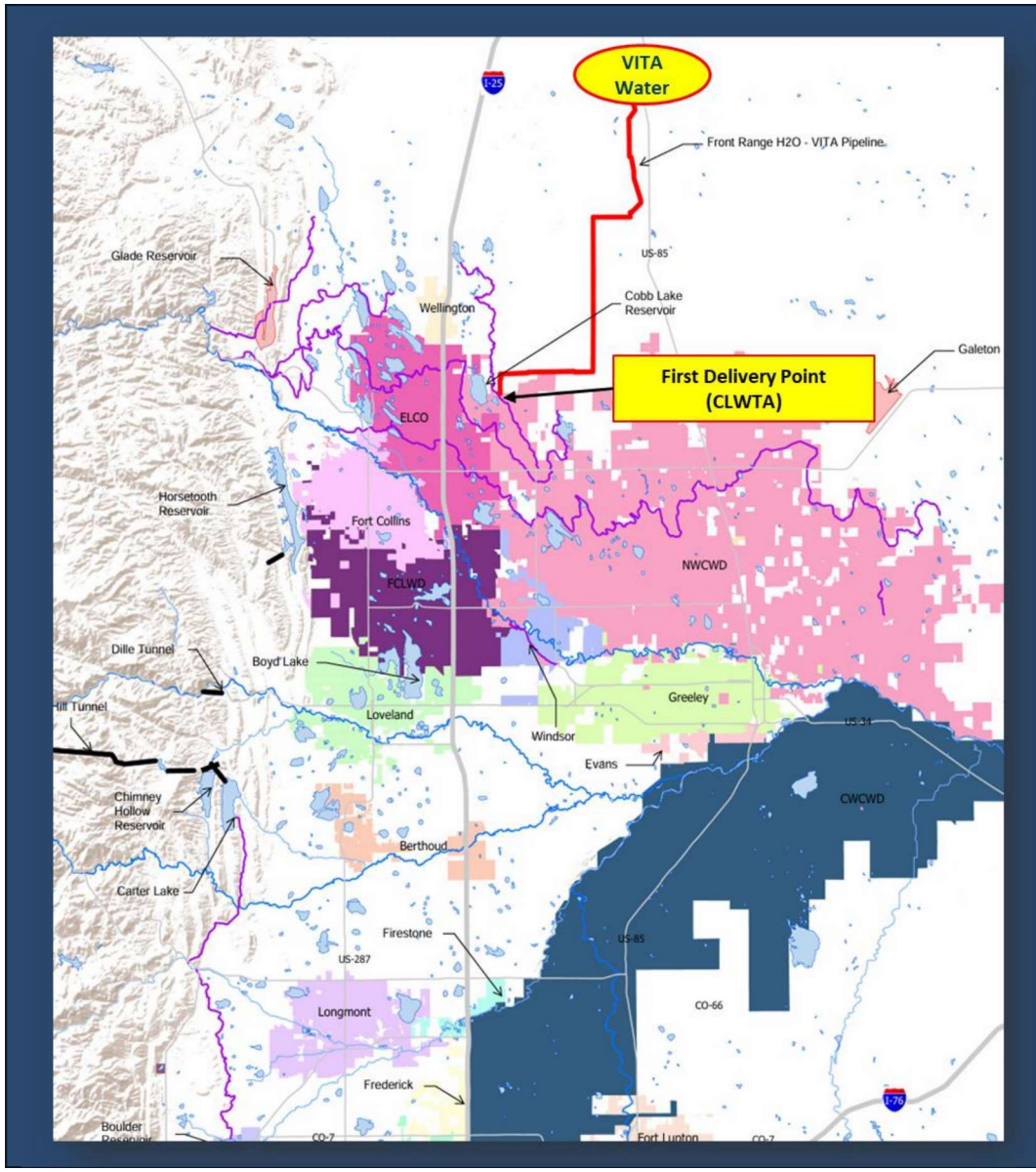
THE VITA H2O PROJECT

Project Overview

- Decreed Non-tributary groundwater, treatment, reuse and storage
- First Delivery **Q1-2029**
- 28 miles of ROW Easements Purchased to terminus
- Phase 1 Delivery to FCLWD terminus (CLWTA Property)
- Water source is the Upper Laramie Aquifer (ULA)
- **23,766 AFY** (19,466 is fully decreed/4,300 AFY under pending CO Water Court application)
- **~31,000** surface acres
- Water will be treated to EPA Drinking water standards and delivered to dedicated terminus meter.
- NOT a “Buy and Dry” Supply
- Supports 2023 Colorado Water Plan’s 4 “interconnected Action Items”

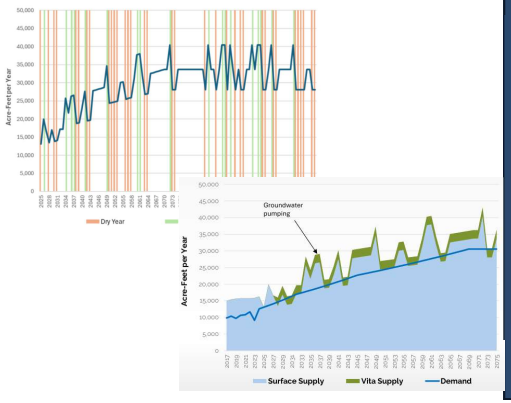
FrontRangeH2O

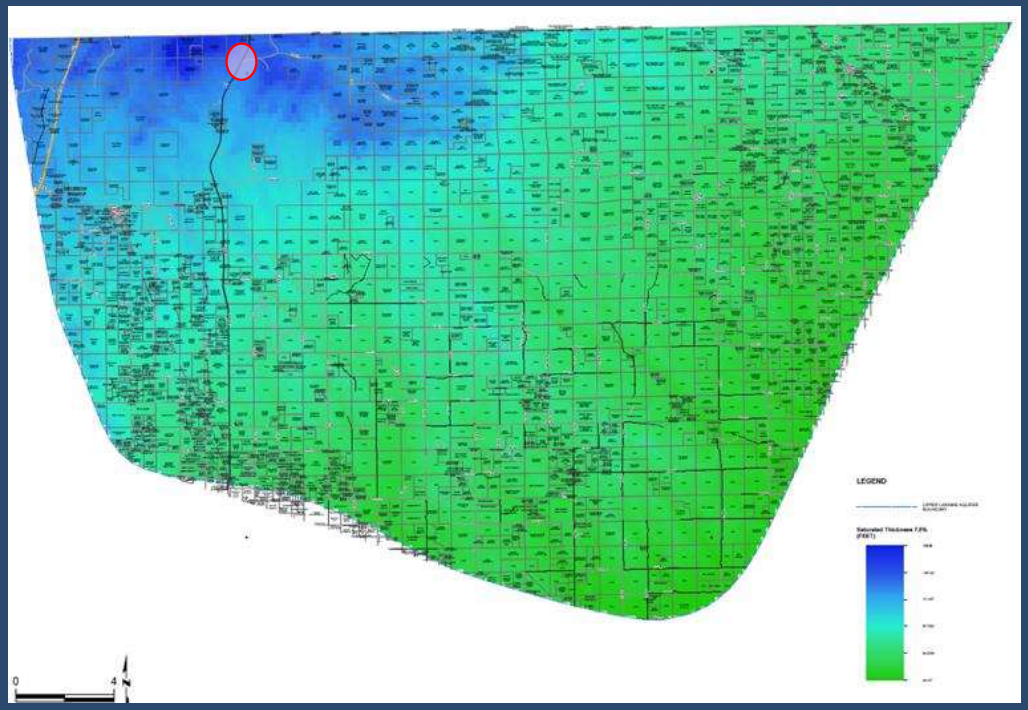
THE VITA H2O PROJECT



About the ULA

- ~8.6 million AFY (VITA is ~.0027%)
- Unaffected by drought and hydrologic variability
- Consistent, high-quality water protected from surface contaminants
- Conjunctive Use: NT and Surface combo provides operational flexibility/reliability and firming
- Water is stored in aquifer until needed
- Extend, Reuse, Recharge for Recovery: 100-year decree, managed to 400 year ++
- Fully consumable water supplies provides reuse opportunities





Extend	Reuse	Recharge
• Withdraw only when insufficient surface supply, OR • Expand supply of groundwater	• Reuse wholly consumable effluent provided by VITA	• Operate ASR with annual surplus supplies • Potentially recharge effluent

FrontRangeH2O

THE VITA H2O PROJECT

Project Design Highlights

- Wells will average TD of ~800’ with production rates up to 1,000 gpm (management plan in 400s)
- Wells designed for future ASR
- Main trunkline will be 42” HDPE with 24MGD capacity (gravity fed, low psi and bi-directional)
- WTP Phase 1-6MGD capacity with expansion design to 24MGD.
- Primary Treatment is Two Pass Ion Exchange with Disinfection for conveyance (1.7 BGD treated everyday with WRT technology)
- Pipeline Construction starting in 60-days (Segment 1)

FrontRangeH2O

THE VITA H2O PROJECT

THANK YOU

Collaboration. We agree.

Poudre River Forum

March 6, 2026

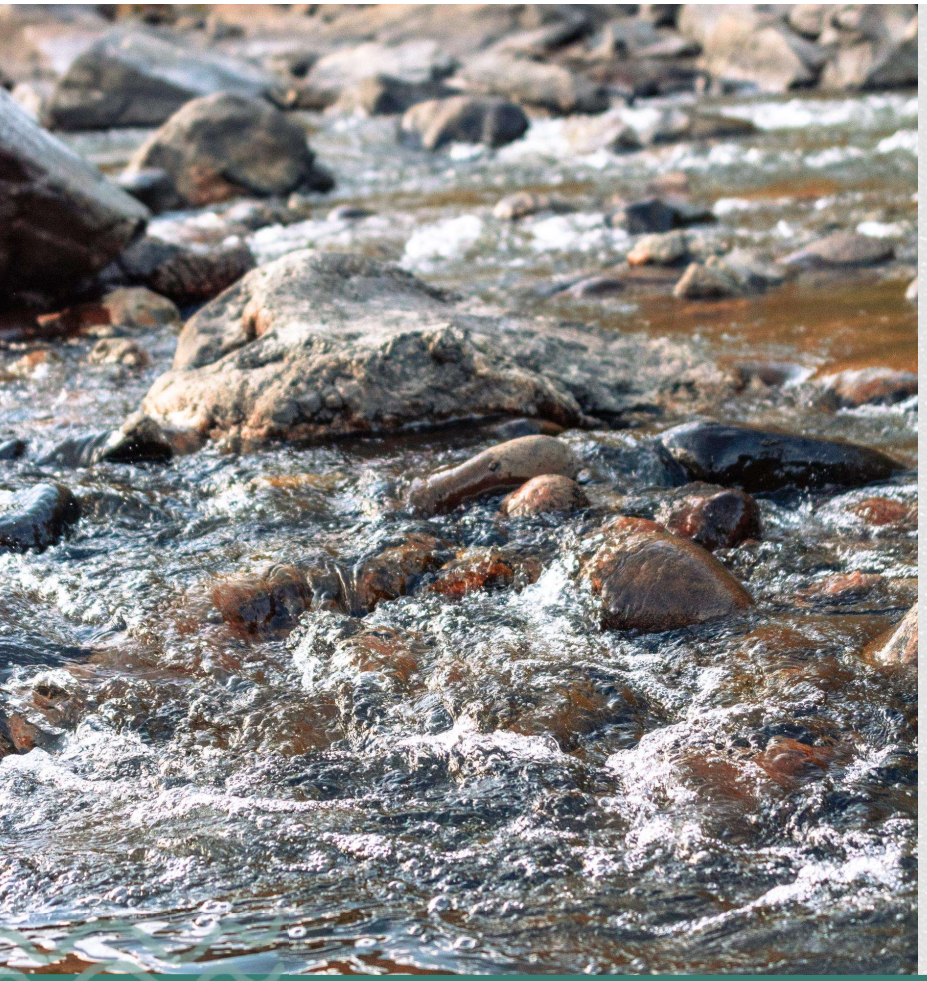
FrontRangeH2O
Securing Tomorrow's Water, Today™

CACHE LA POUDRE RIVER
NATIONAL HERITAGE AREA
ESTD. 2009

www.vitah2oproject.com

https://fclwd.com/vitah2o/

THE VITA H2O PROJECT



POUDRE ADVANCEMENTS

VITA H2O PROJECT

Brent Waller
Front Range H2O

RESERVOIRS

Tad Moen
North Poudre Irrigation Company
Darren Parkin
Halligan Reservoir

North Poudre Irrigation Company

Park Creek Project / Scurvin Ditch Drop Structure

North Poudre Irrigation Company

Park Creek Project / Scurvin Ditch Structure

PARK **CREEK DAM EXPANSION 2024–2025**

PARK CREEK EXPANSION TEAM

- Owner - North Poudre Irrigation Company – Tad Moen /GM
- General Contractor – Zak Dirt, Inc.
- Engineer of Record and Resident Engineer – Tara Schutter, PE with Tessara Water, Inc.
- Geotechnical Engineer and Testing – Ethan Weichert, PE - Earth Engineering Consultants, Inc.
- Structural Engineer – Wayne Thompson, Pen Engineering, LLC
- State of Colorado - Dam Safety – Kallie Bauer, PE and Jeremy Franz, PE

PARK CREEK DAM

- Existing Capacity- 7,000 ac-ft
- Storage added with expansion- 3,000 ac-ft
- Total storage after expansion- 10,000 ac-ft

Before

After

PARK CREEK EXPANSION QUANTITIES

Total material removed from dam: 103,000 cy
Total material added to dam for expansion: 145,000 cy
Total concrete in crest wall: 1500 cy
Total concrete in spillway wall: 1200 cy

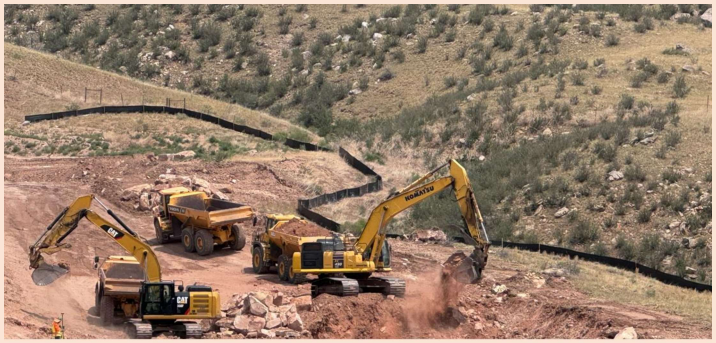
September 2024

DECEMBER 2022

DECEMBER 2024

JULY & AUGUST

- Excavation and stripping of downstream face of dam
-Boulder removal



JULY

THE CONCRETE BATCH PLANT

AUGUST

ROCKS, ROCKS AND MORE ROCKS!!

SEPTEMBER

- Gate House Demo
- Crest Wall Forming and Concrete Pours
- Set toe drain manhole
- Start on toe drain installation
- Baffled outlet modifications

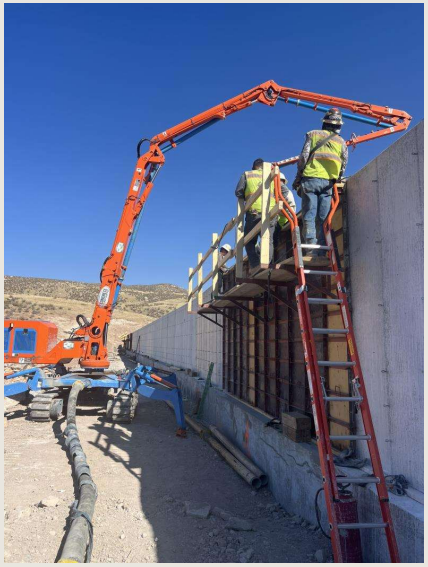
BAFFLED OUTLET MODIFICATIONS

(PRETTY COOL WE ARE CONSTRUCTING WHILE DELIVERING WATER!!)

SEPTEMBER

OCTOBER

- Toe Drains
- Sand Blanket
- Outlet excavation and filter diaphragm
- Crest Wall Forming and Concrete Pours



OCTOBER

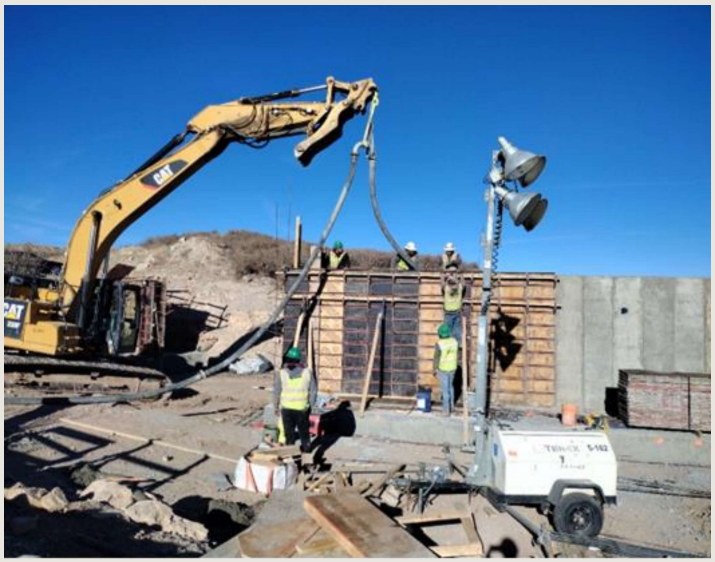
NOVEMBER

- Embankment Backfill
- Sand Chimney Filter
- Crest Wall Forming and Concrete Pours
- Gate House Forming and Pours

NOVEMBER

DECEMBER

- The Big Push to Compete backfill before Winter comes
- Crest Wall Forming and Concrete Pours
- Riprap and Bedding
- Start of Phase 2 Spillway Abutments



PHASE 2 – SPILLWAY ABUTMENTS

PHASE 2 - SPILLWAY

DECEMBER

JANUARY

- Top off Dam Embankment January 16, 2025
- Riprap and Bedding
- Toe Drain Headwall
- Spillway Dissipation slabs

JANUARY

JANUARY

PHASE 2 SPILLWAY IS SCHEDULED TO BE COMPLETED IN AUGUST 2025

THANK YOU


15 Split Project / Completed
North Poudre Irrigation Company


North Poudre Irrigation Company

North Poudre Irrigation Company

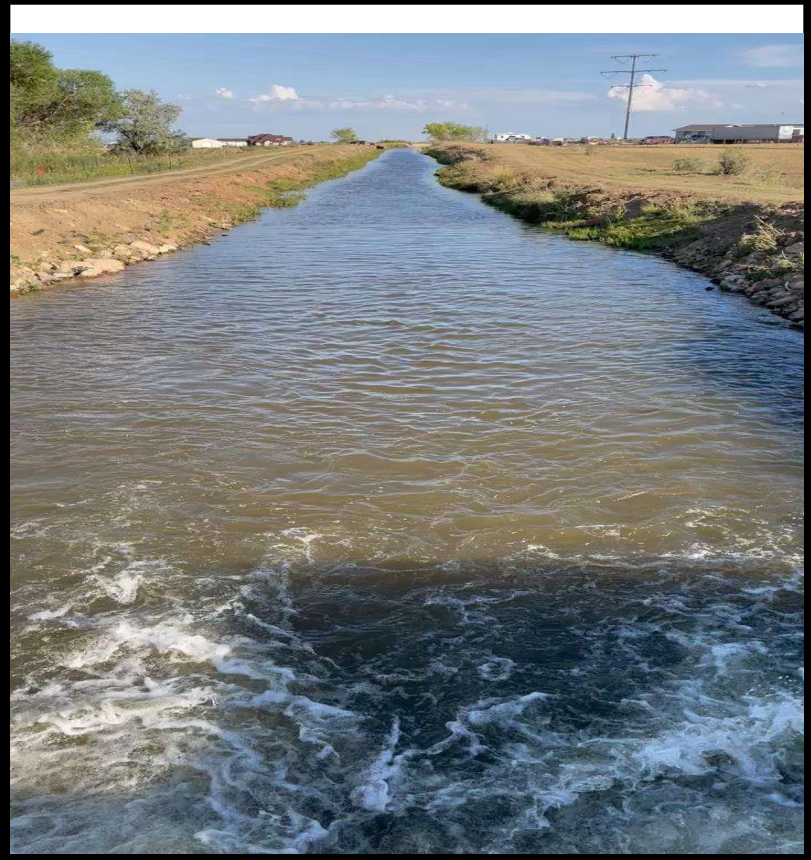
15 Split Project

North Poudre Irrigation Company

15 Split Project /

North Poudre Irrigation Company

15 Split Project /



North Poudre Irrigation Company

15 Split Project /

City of Fort Collins

March 6, 2026

Project Status

HALLIGAN WATER SUPPLY PROJECT

Darren Parkin

Halligan Program Manager
City of Fort Collins

Big Picture

- Federal permitting process started in 2006
- Expand reservoir from ~6,400 acre-feet to ~14,600 acre-feet, providing ~8,200 acre-feet of additional water storage
- Provide reliable future water supply, resiliency
- Opportunity to improve North Fork habitat and ensure year-round flows

Purpose and Need

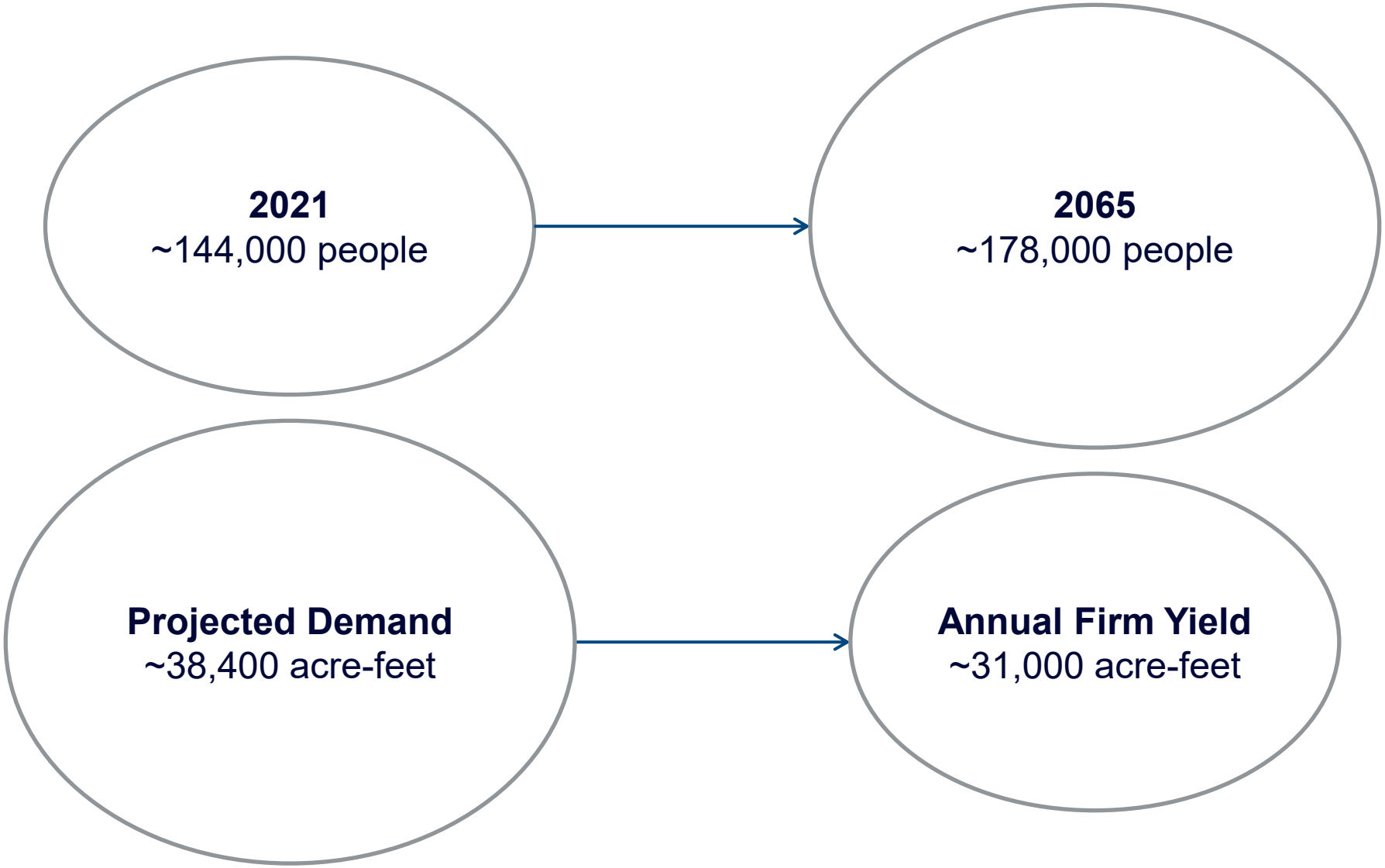
Purpose

- Firm yield water storage for City of Fort Collins service area

Need

- Projected municipal and industrial growth by 2065
- Resiliency and drought mitigation
- Adequate storage for full utilization of water rights

Need


2021
~144,000 people
2065
~178,000 people
Projected Demand
~38,400 acre-feet
Annual Firm Yield
~31,000 acre-feet

Permitting Timeline

Federal Permitting Process Began
2006

Draft Environmental Impact Statement (EIS) Released
2019

EIS Public Comment Period
2019-2020

Fish and Wildlife Mitigation and Enhancement Plan Approval
2023

Final EIS Released
2023

Larimer County 1041
2025

401 Water Quality Certification
2026

Record of Decision (Federal Permitting Complete)
2026

Replacement Dam Design

- Partnered with Colorado State University to create a physical model
- Students simulated normal flow and potential flooding conditions
- Tested functions to help inform the dam's final design to ensure safety and river health
- Modeling contributed to improved cost estimation

City of Fort Collins

Thank you!

Project website:

To join, go to: ahaslides.com/FORUMQ1

AhaSlides

Where in the Poudre watershed do you currently see the greatest need for innovation?

Get Feedback

Up to 50 participants

Upgrade for more

Presentation selected for PowerPoint

1

Group

19

0/50

To join, go to: ahaslides.com/FORUM26Q2

AhaSlides

Consider your largest concern related to drought and how water is allocated or prioritized. What trailblazing approach could address that concern and noticeably improve the watershed over the next decade?

Get Feedback

Presentation selected for PowerPoint

1 Group 17 0

Join us

12TH ANNUAL POUDRE RIVER FORUM
FRIDAY MARCH 5TH 2027