



Utilities

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MEMORANDUM

DATE: May 8, 2023

TO: Water Commission

FROM: Michael Neale, Water Resources Engineer
& Water Resources Division Staff

RE: April 2023 Water Resources Division Staff Report

Purpose

This memorandum is intended to update the Water Commission on water resource conditions for the City of Fort Collins Water Utility (Water Utility) and provide updated outlook information. For additional information, please refer to the City's website: <https://www.fcgov.com/utilities/water-status>

Supply and Demand

- Water Supply – During the month of April, water supply consisted of 40% from the Cache La Poudre River, and 60% from Horsetooth Reservoir.
- Total treated water demand for the month of April was 91.5% of projected. Running annual demand is currently at 97% of projected demand.

Cache la Poudre Basin and Upper Colorado Basin Snowpack:

- Natural Resources Conservation Service SNOTEL:
<https://www.nrcs.usda.gov/wps/portal/wcc/home/quicklinks/states/colorado/products/basingraphs>
- Snowpack or snow-water equivalent (SWE) in the Cache la Poudre Basin peaked on April 28th at 20.0 inches. Median peak is 20.6 inches on April 27. See SWE chart below.
- Snow water equivalent totals as of 5/12/2023:
 - Upper Colorado Basin: 123% of median.
 - Poudre Basin: 85% of median.

Cache la Poudre River flow: Graphical data for the Poudre River is available on-line at:

- Cache La Poudre River at the Canyon Mouth
<https://dwr.state.co.us/Tools/Stations/CLAFTCCO?params=DISCHRG>

Reservoir Storage:

- Presented in the Northern Water District Storage and Delivery Report, as of May 1:
 - C-BT project reservoirs (Granby, Carter, and Horsetooth): 77% full.
 - Horsetooth Reservoir: 77% full.
- Joe Wright Reservoir: 64% full (98% of average based on 14 years of data).

Water Supply Considerations:

- Northern Water set the Colorado-Big Thompson (CBT) quota at 70% in April. This is an adequate allocation of CBT to meet our water demands.
- Northern Water Board set a regional pool allocation of 15,000 AF on April 11. More info at: <https://www.northernwater.org/regionalpool>
- Water Resources Division maintains close communication with Northern Water regarding any drought response or policy action affecting the CBT system. As of now, there is no indication of drought management action needed from Northern Water.
- Water Resources Division is closely monitoring the hydrology of the Colorado River basin, the statewide and regional discussions around the Colorado River Compact, and any demand management action by the Federal Bureau of Reclamation in response to drought in the Colorado River basin.
- Currently, no drought management action is in effect. If drought management action is deemed necessary, the Water Shortage Action Plan (WSAP) is in place to guide our decisions and actions (fcgov.com/WSAP).

City of Fort Collins Utilities

Remaining Water Demand and Supply from May 08 - October 31, 2023

ASSUMPTIONS

- Values look at remaining demands and supplies through the end of the Water Year (Oct 31st)

DEMANDS

- Projected demand based on GPCD and population estimates
- Low demand is projected demand reduced by 10%
- High demand applies a monthly worse case factor to projected demand

SUPPLIES

Cache la Poudre

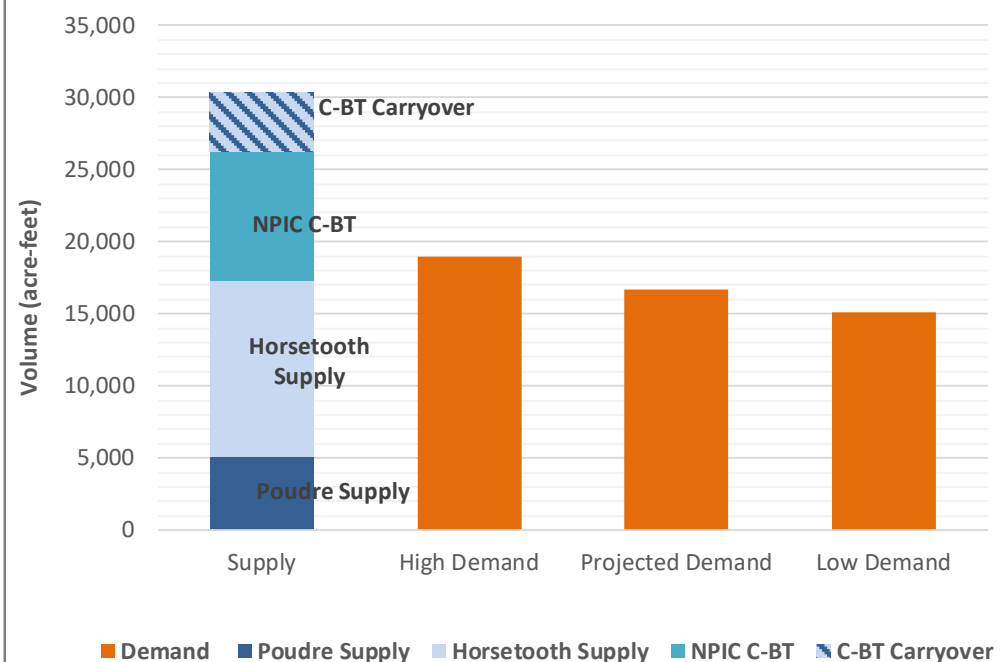
- Poudre Supply is projected 80% of average intake

Horsetooth Reservoir

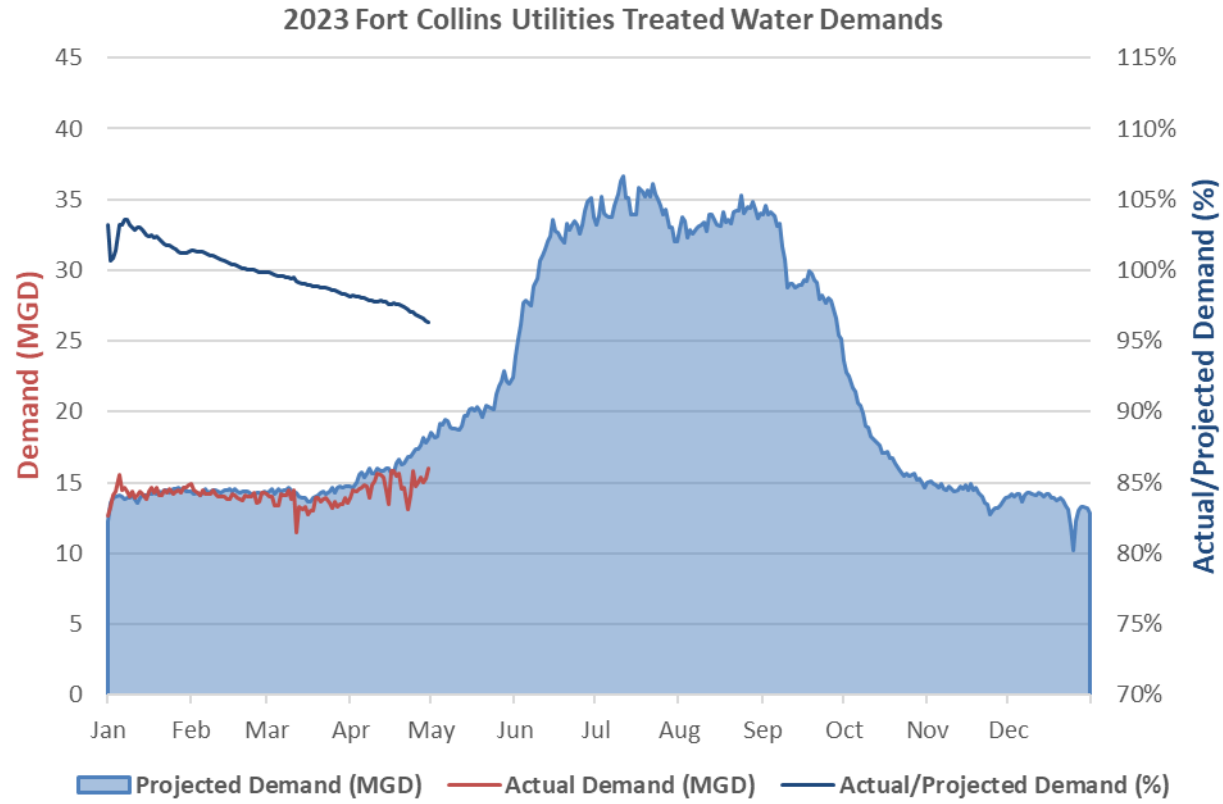
- **Horsetooth Supplies:** CBT, NPIC MU, Windy Gap
- **CBT:** 70% quota
- **NPIC MU** allocation: 2.50 AF/share
- **Windy Gap:** 1,750 AF expected from PRPA (Jun-Oct)
- A 1,500 AF Joe Wright-CBT exchange with NPIC
- All remaining Horsetooth raw water CBT obligations have been deducted.

CBT Carryover Objective

- Max amount allowable is 4,190 AF before 10% shrink



Scenario	Demand	Poudre Supply	Horsetooth Supply	NPIC C-BT	C-BT Carryover
Supply	--	5,140	12,166	8,919	4,190
High Demand	19,011	--	--	--	--
Projected Demand	16,729	--	--	--	--
Low Demand	15,126	--	--	--	--

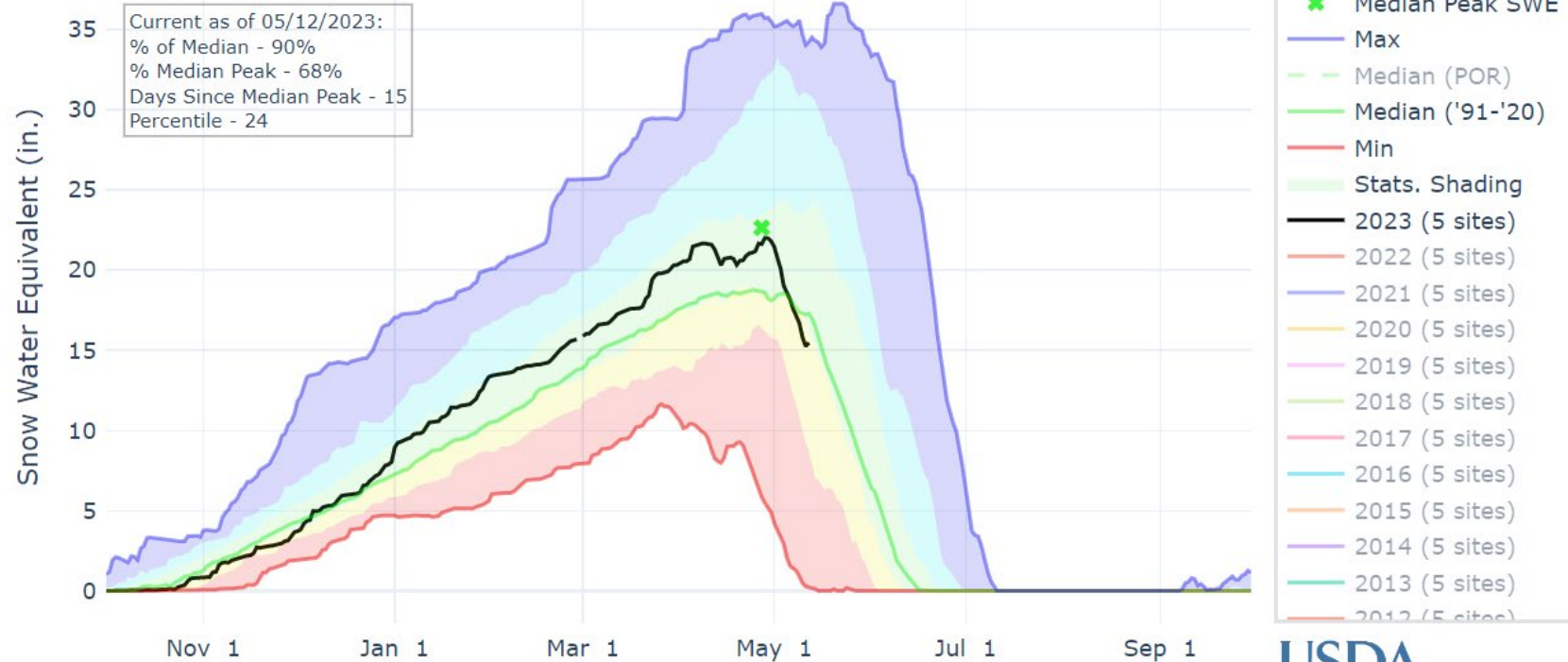


SNOW WATER EQUIVALENT IN CACHE LA POUDRE

Reset Range

[Link to data: CSV / JSON](#)

[Station List](#)



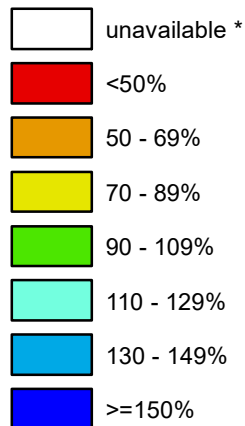
USDA

Colorado SNOTEL Current Snow Water Equivalent (SWE) % of Normal

May 12, 2023

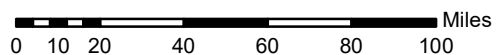
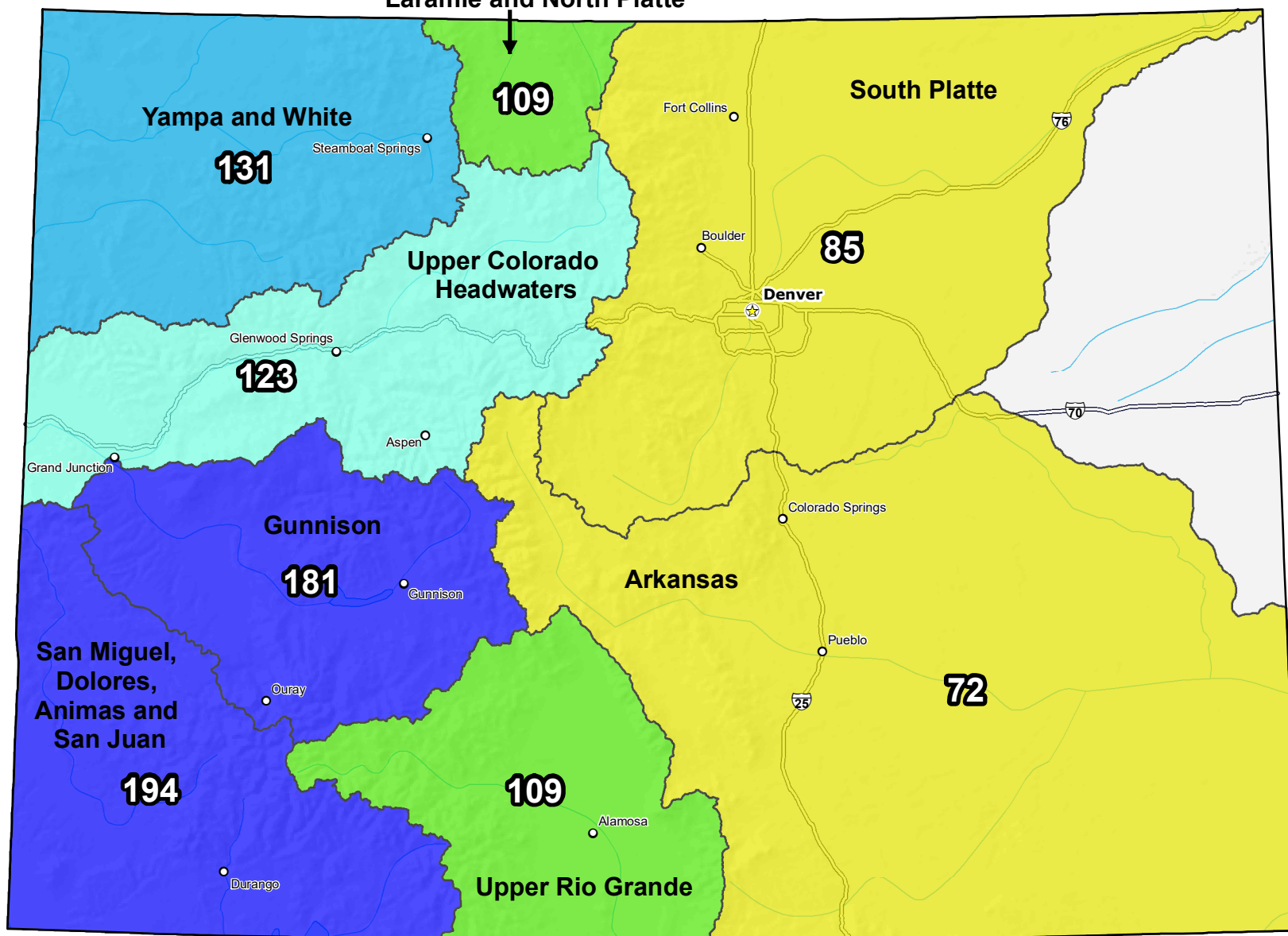
Laramie and North Platte

Current Snow Water Equivalent (SWE) Basin-wide Percent of 1991-2020 Median



* Data unavailable at time of posting or measurement is not representative at this time of year

**Provisional Data
Subject to Revision**

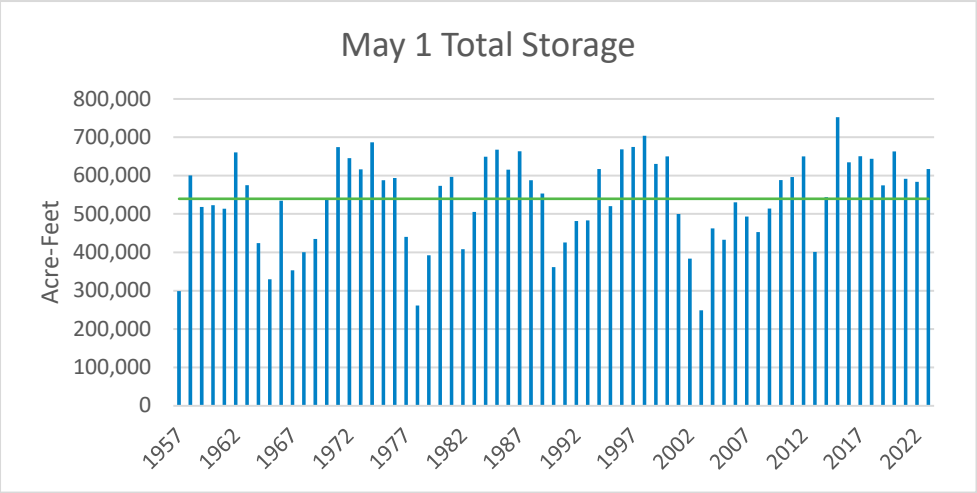
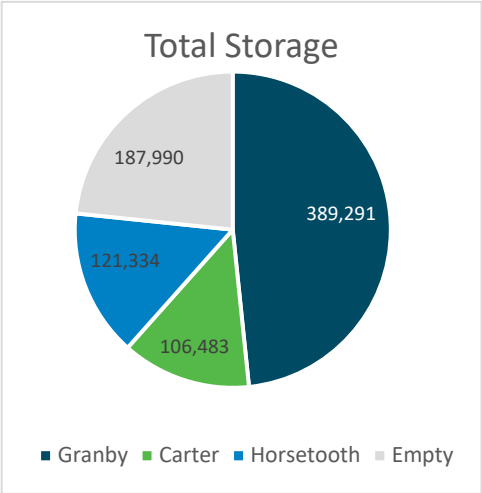


The snow water equivalent percent of normal represents the current snow water equivalent found at selected SNOTEL sites in or near the basin compared to the average value for those sites on this day. Data based on the first reading of the day (typically 00:00).

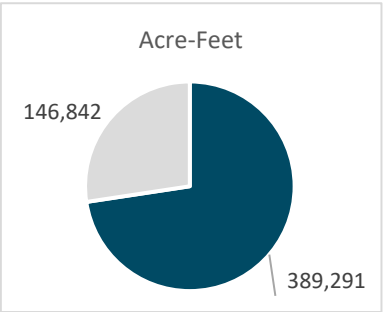
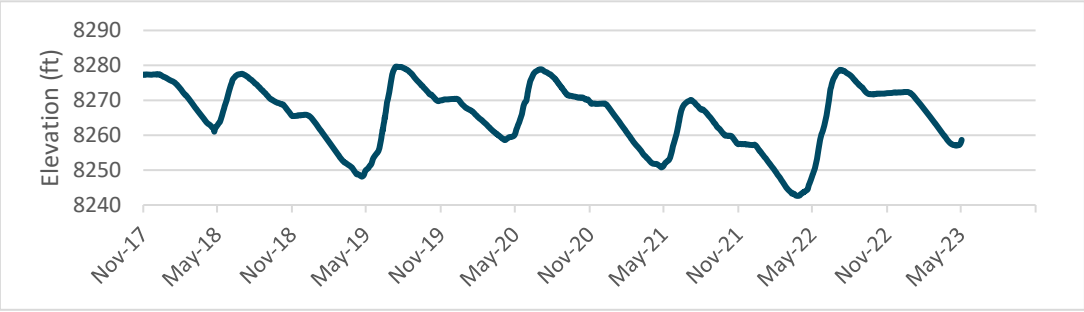
Prepared by:
USDA/NRCS National Water and Climate Center
Portland, Oregon
<https://www.nrcs.usda.gov/wps/portal/wcc/home/>

C-BT Project Storage

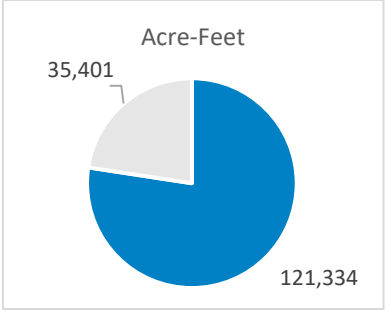
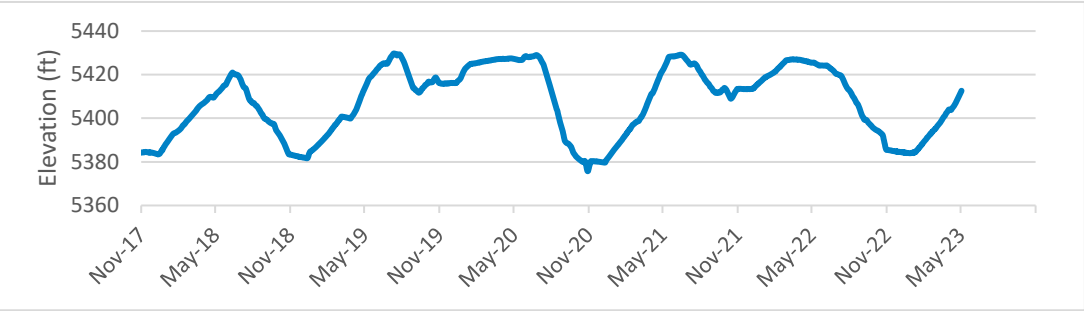
May 1, 2023



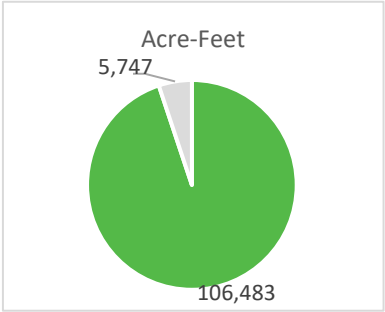
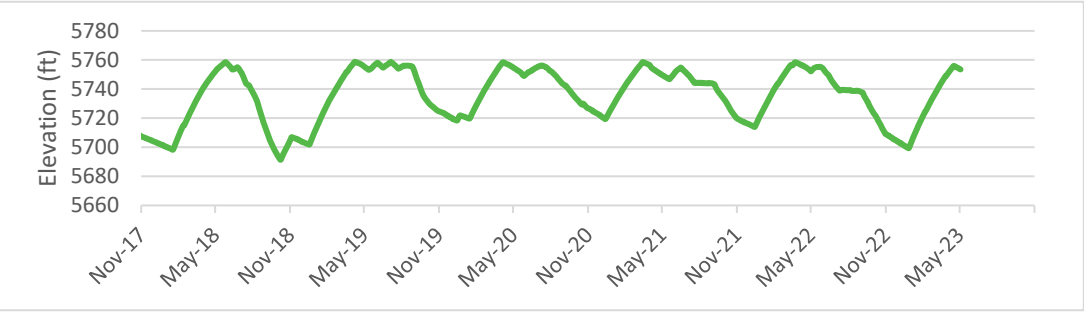
Lake Granby Storage in Lake Granby decreased 3,908 acre-feet last month



Horsetooth Reservoir Storage in Horsetooth Reservoir increased 13,853 acre-feet last month



Carter Lake Storage in Carter Lake increased 4,480 acre-feet last month



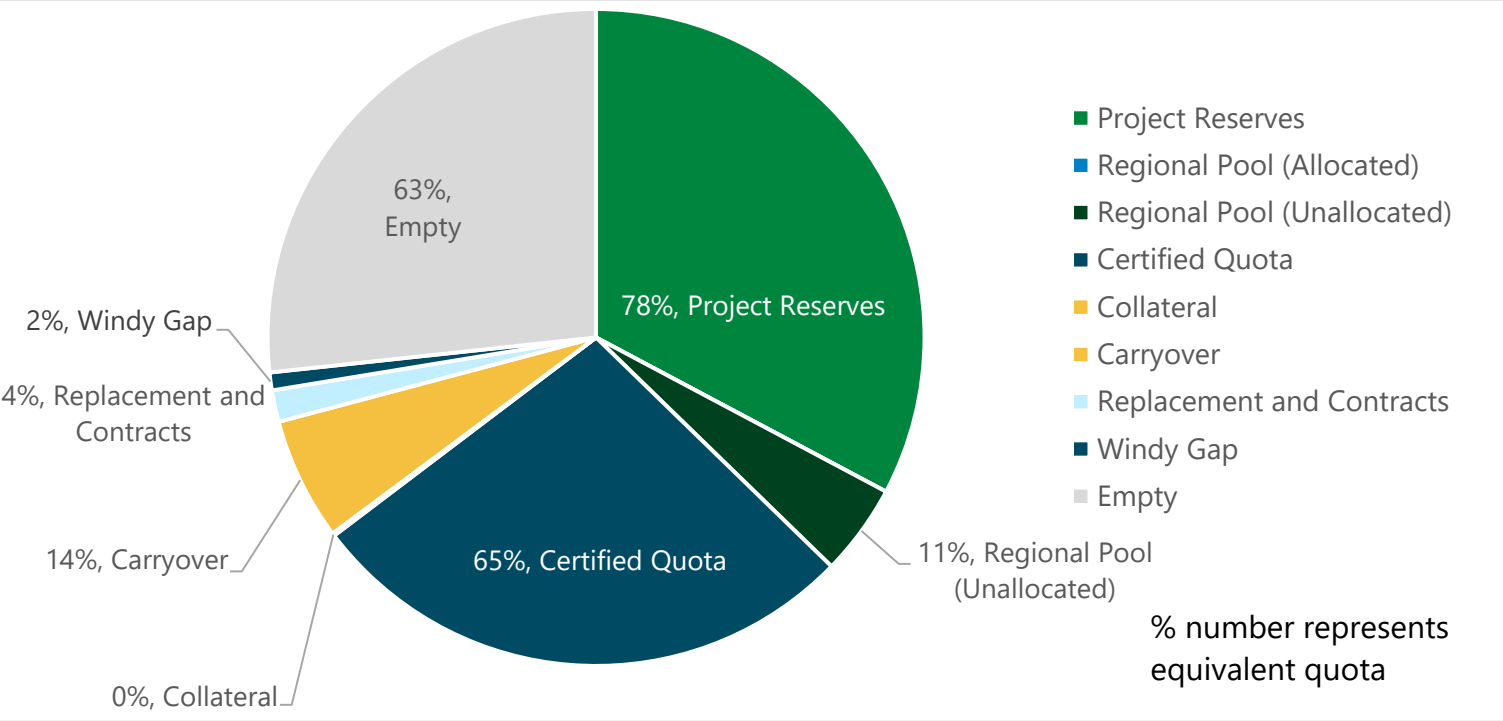
Note: Storage in pie charts represents total storage (active and dead storage).

C-BT Project Allocated Water

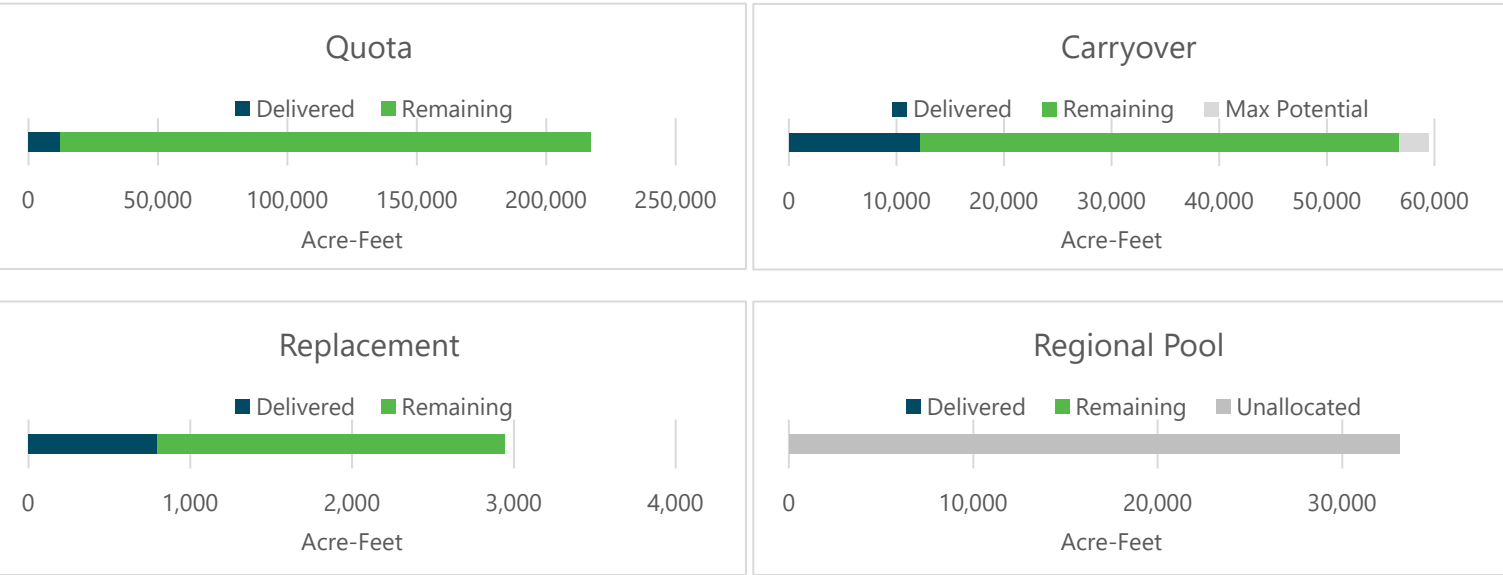
May 1, 2023



C-BT Active Storage



C-BT Delivery Obligations

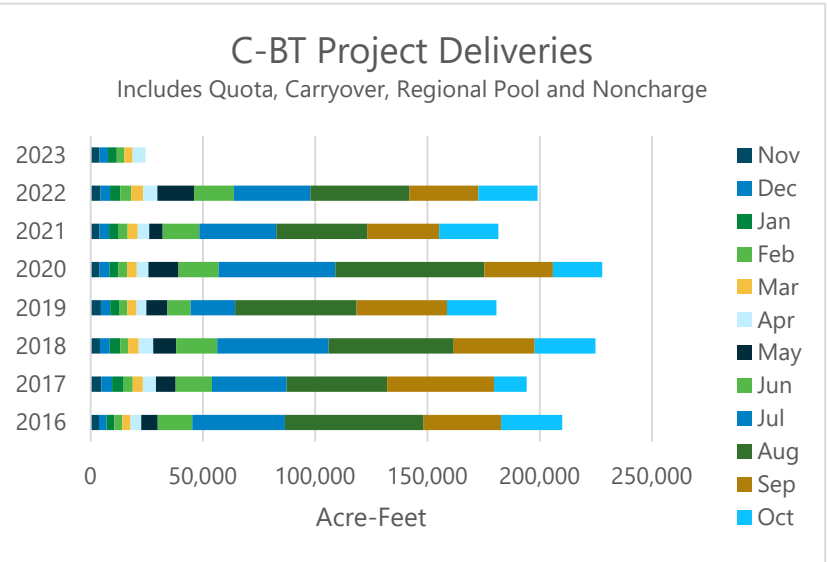
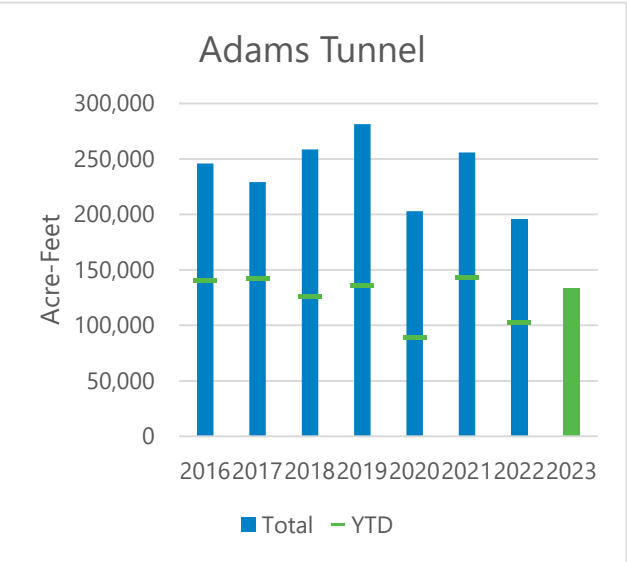


Notes:

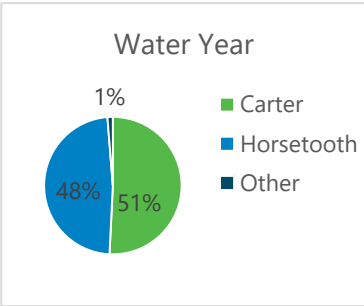
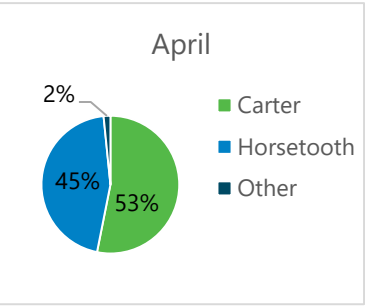
- 1) Quota set at 70%
- 2) Carryover - Entities certified 56,716 Acre-Feet of Carryover for WY2023.
- 3) Regional Pool - Additional water accrued to the Regional Pool on April 30, 2023. There is 33,113 Acre-Feet in the Regional Pool for WY 2023.
- 4) Pie chart reflects the active storage in Granby, Carter, Horsetooth and Boulder Reservoir.

C-BT Project Deliveries

May 1, 2023



Deliveries by Area



Deliveries by Use

