



**Utilities**  
electric · stormwater · wastewater · water  
700 Wood Street  
PO Box 580  
Fort Collins, CO 80522  
**970.212.2900**  
V/TDD: 711  
[utilities@fcgov.com](mailto:utilities@fcgov.com)  
[fcgov.com/utilities](http://fcgov.com/utilities)

## MEMORANDUM

**DATE:** July 13, 2022  
**TO:** Water Commission  
**FROM:** Michael Neale, MSc, Water Resources Engineer  
**RE:** **June 2022 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) over the month of June and provide updated future outlook information. For additional information, please refer to the City's website:

<https://www.fcgov.com/utilities/water-status>

### Water Resources Summary

#### Supply and Demand Projections for the remainder of WY2022

- Water Supply – During the month of June, water supply consisted of 73% from Horsetooth supplies and 27% from the Poudre. See supply and demand outlook attached.
- Water Demand – Demands within the Water Utility service area for the month of June were slightly below projected. Please refer to the attached graphs and tables. Water demands within the Water Utility service area for the month:
  - Water demand for June: 96% of the projected demand.
  - Water demand for calendar year: 99% of the projected demand.

#### Weather: <https://climate.colostate.edu/>

Measured at the Fort Collins weather station 053005 along with average normals from 1991-2020:

- Mean daily high temperature recorded for the month: 85 °F.
  - 30-year average daily high temperature for the month is: 82 °F.
- Total recorded monthly precipitation: 0.94 inches.
  - 30-year average precipitation for the month: 1.90 inches.

**Reservoir Storage:** Northern has allocated a quota of 80% for the 2022 water year. As of June 1<sup>st</sup> and presented in the Northern District Storage and Delivery Report:

- Colorado-Big Thompson project reservoirs (Granby, Carter, and Horsetooth): 94% full. Storage in Lake Grandby increased 99,402 AF last month.
- Horsetooth Reservoir: 88% full.
- Joe Wright Reservoir: 98% full (99% of average for this month based on 14 years of data).

**Cache la Poudre River flow:** The Poudre peaked at 3,140 cfs on June 12<sup>th</sup>, a near average peak 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>
- Cache La Poudre River at Fort Collins  
<https://dwr.state.co.us/Tools/Stations/CLAFORCO?params=DISCHRG>

**Drought Monitors:**

- Larimer County and Colorado [https://climate.colostate.edu/drought\\_info.html](https://climate.colostate.edu/drought_info.html)  
Larimer County and upper South Platte basin are abnormally dry at this time.
- Colorado and the USA <https://droughtmonitor.unl.edu/>  
The Colorado River basin remains in a drought.

**Climate Outlook:** <https://www.cpc.ncep.noaa.gov/>

National Oceanic and Atmospheric Administration (NOAA) climate outlooks for the northern Front Range and northern mountains, over the next three months:

- Leaning below normal precipitation
- Likely above normal temperature.

**Other Water Supply Considerations:**

- During the first week of July, water treatment experienced turbidity spikes in the Poudre due to rain events over the Cameron Peak burn area. Water quality has since improved. In a measure to mitigate further impacts from burn area rain events, water treatment began treating 5 MGD from the Pleasant Valley Pipeline through the presedimentation basin and will continue doing so through September.
- Our Horsetooth supplies alone are now sufficient to meet our remaining demands through the water year, including a maximum CBT carryover for use in 2023.

# City of Fort Collins Utilities

## 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

### Poudre

- Poudre Supply is a fire impacted Poudre that is approximately 60% of the annual average. Monthly percentages of average are Nov-Jan 95%, Feb 0%, Mar 95%, Apr 85%, May-Jun 40%, Jul 30%, Aug 25%, Sep 70%, Oct 80%.

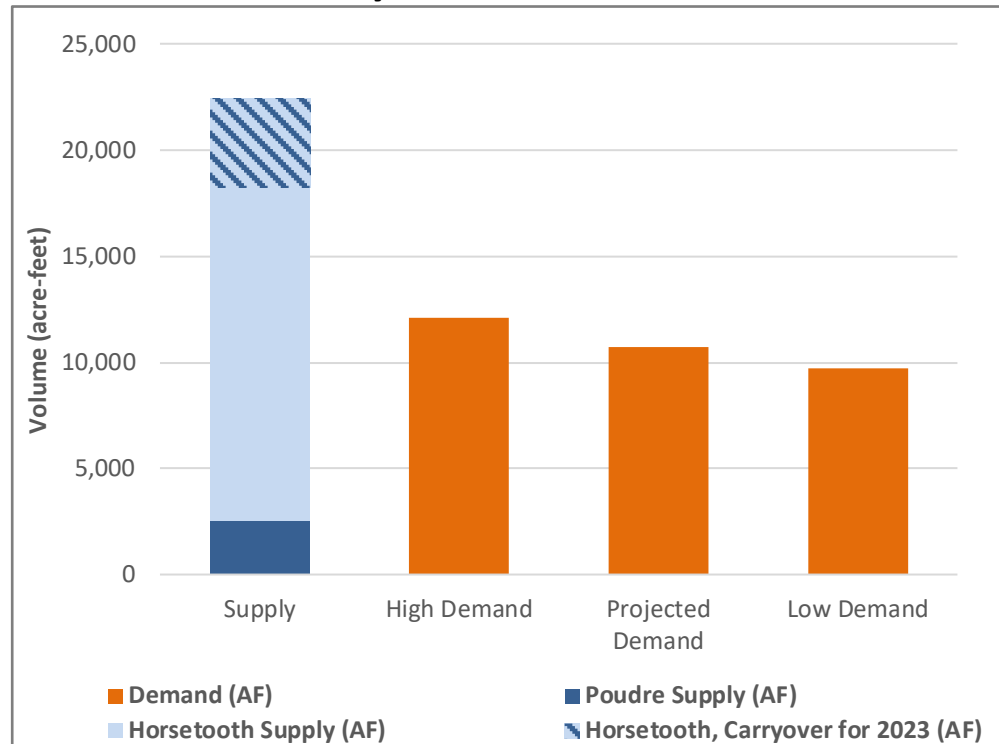
### Horsetooth Reservoir

- Horsetooth Supplies include CBT, NPIC MU, Windy Gap
  - CBT supply: 80% quota, 2.75 AF NPIC MU allocation/share
  - A 1,500 AF Joe Wright-CBT exchange with NPIC
  - Windy Gap supply: 2,750 AF expected from PRPA
- All remaining Horsetooth raw water CBT obligations have been deducted.

### Horsetooth Carryover Objective

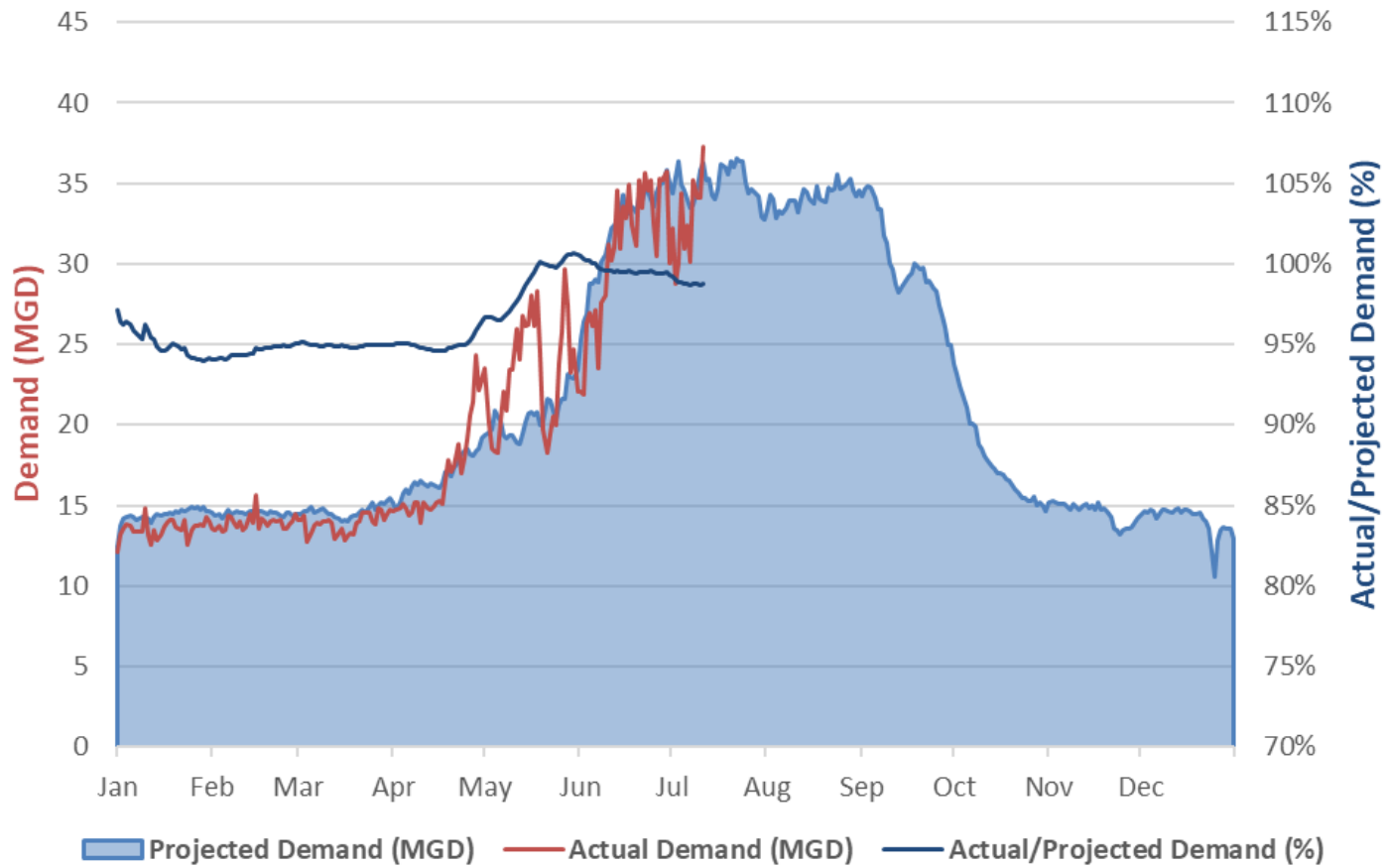
- Max amount allowable is 4,190 AF before 10% shrink

## Remaining Water Demand and Supply from July 13 - October 31, 2022



Scenario	Demand (AF)	Poudre Supply (AF)	Horsetooth Supply (AF)	Horsetooth, Carryover for 2023 (AF)
<b>Supply</b>	--	2,511	15,758	4,190
<b>High Demand</b>	12,077	--	--	--
<b>Projected Demand</b>	10,716	--	--	--
<b>Low Demand</b>	9,694	--	--	--

### 2022 Fort Collins Utilities Treated Water Demands



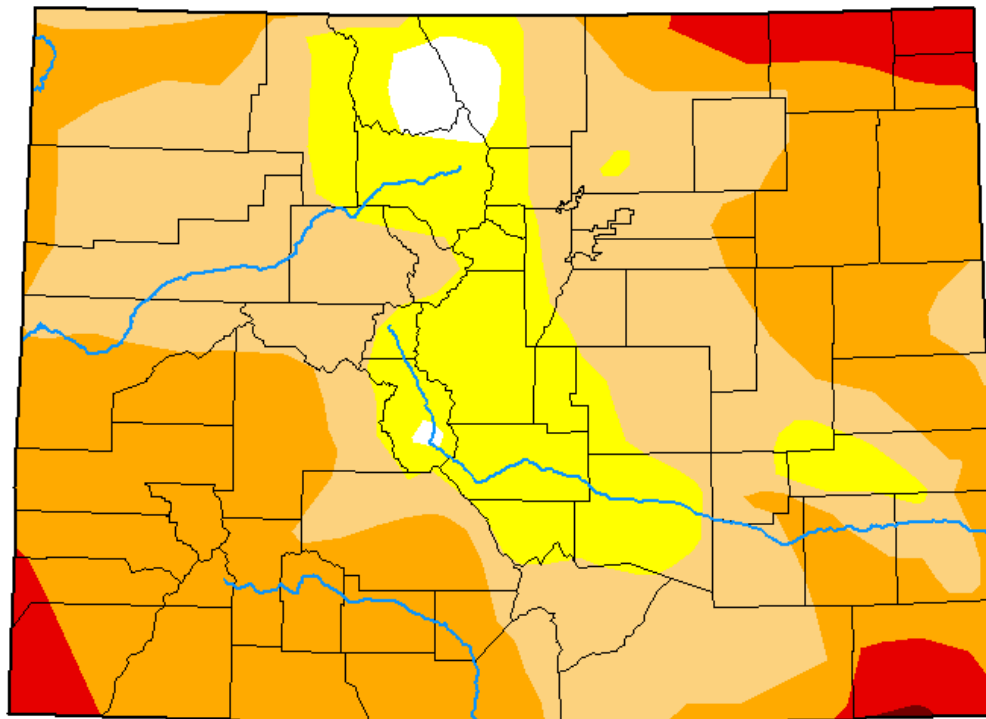


**City of Fort Collins Utilities  
Treated Water Monthly Summary  
2022**







	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year to Date
<b>WTF Water Supply (MG)</b>													
From Poudre	161.6	0.0	190.8	293.2	122.3	288.4							1,056.3
From Horsetooth	289.9	433.3	306.1	297.1	696.5	785.3							2,808.2
Total Raw Water	451.5	433.3	496.8	590.3	818.8	1,073.8							3,864.6
<b>Demands (MG)</b>													
WTF Production	436.0	415.4	468.3	557.2	780.5	1,025.9							3,683.3
Change in Storage	-1.6	-1.0	4.0	4.7	-0.2	0.5							6.3
Demand on WTF	437.6	416.4	464.4	552.5	780.7	1,025.4							3,677.0
From Soldier Canyon	21.8	7.1	14.4	48.7	174.5	307.9							574.5
To Soldier Canyon	0.0	0.0	0.0	0.0	0.0	0.0							0.0
To FC-Lov/NWCWD	-39.6	-33.2	-48.4	-96.0	-235.9	-407.7							-860.8
For City	419.8	390.3	430.4	505.3	719.3	925.6							3,390.7
<b>Daily Deliveries to City (MG)</b>													
Max During Month	14.8	15.7	14.8	24.3	29.7	35.7							35.7
Min During Month	12.1	13.4	12.7	13.9	18.2	21.9							12.1
Avg During Month	13.5	13.9	13.9	16.8	23.2	30.9							18.7
<b>Monthly Deliveries (Ac-Ft)</b>													
Projected	1,369	1,247	1,392	1,551	1,961	2,959	3,329	3,251	2,760	1,685	1,338	1,339	24,181
Actual	1,288	1,198	1,321	1,551	2,208	2,841							10,406
Ratio	94%	96%	95%	100%	113%	96%							43%
<b>Year to Date Deliveries (Ac-Ft)</b>													
Projected	1,369	2,616	4,008	5,559	7,520	10,479	13,808	17,058	19,819	21,503	22,842	24,181	24,181
Actual	1,288	2,486	3,807	5,358	7,565	10,406							10,406
Ratio	94%	95%	95%	96%	101%	99%							43%

# U.S. Drought Monitor Colorado

**July 5, 2022**  
(Released Thursday, Jul. 7, 2022)  
Valid 8 a.m. EDT



***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:***

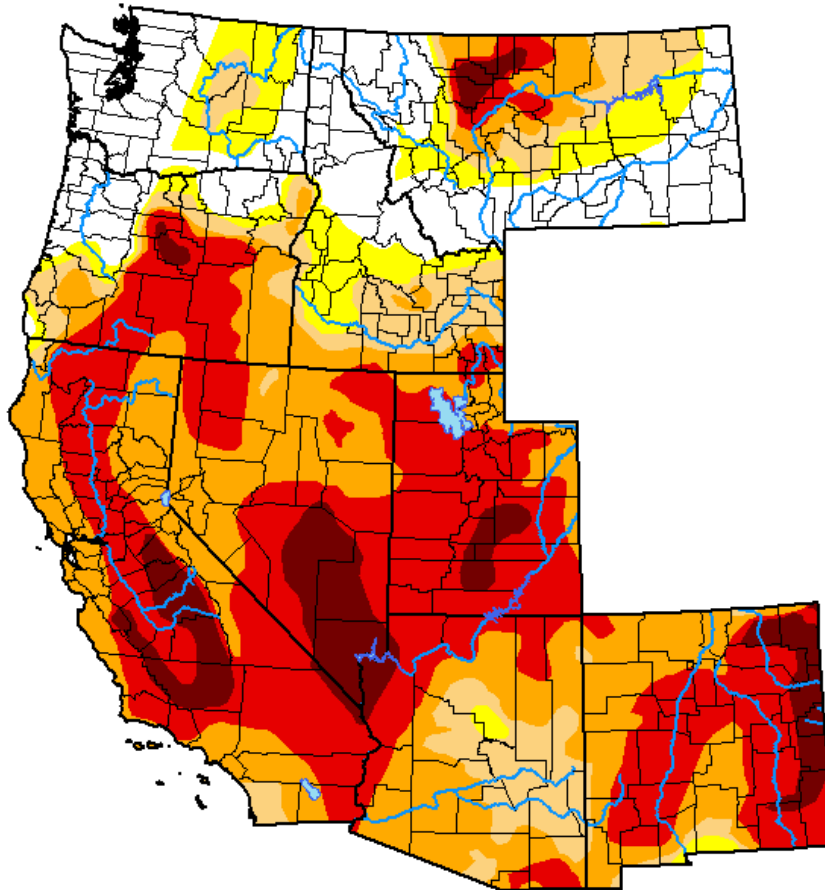
Brad Pugh  
CPC/NOAA









**droughtmonitor.unl.edu**

# U.S. Drought Monitor West

**July 5, 2022**  
(Released Thursday, Jul. 7, 2022)  
Valid 8 a.m. EDT



***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:***

Brad Pugh  
CPC/NOAA



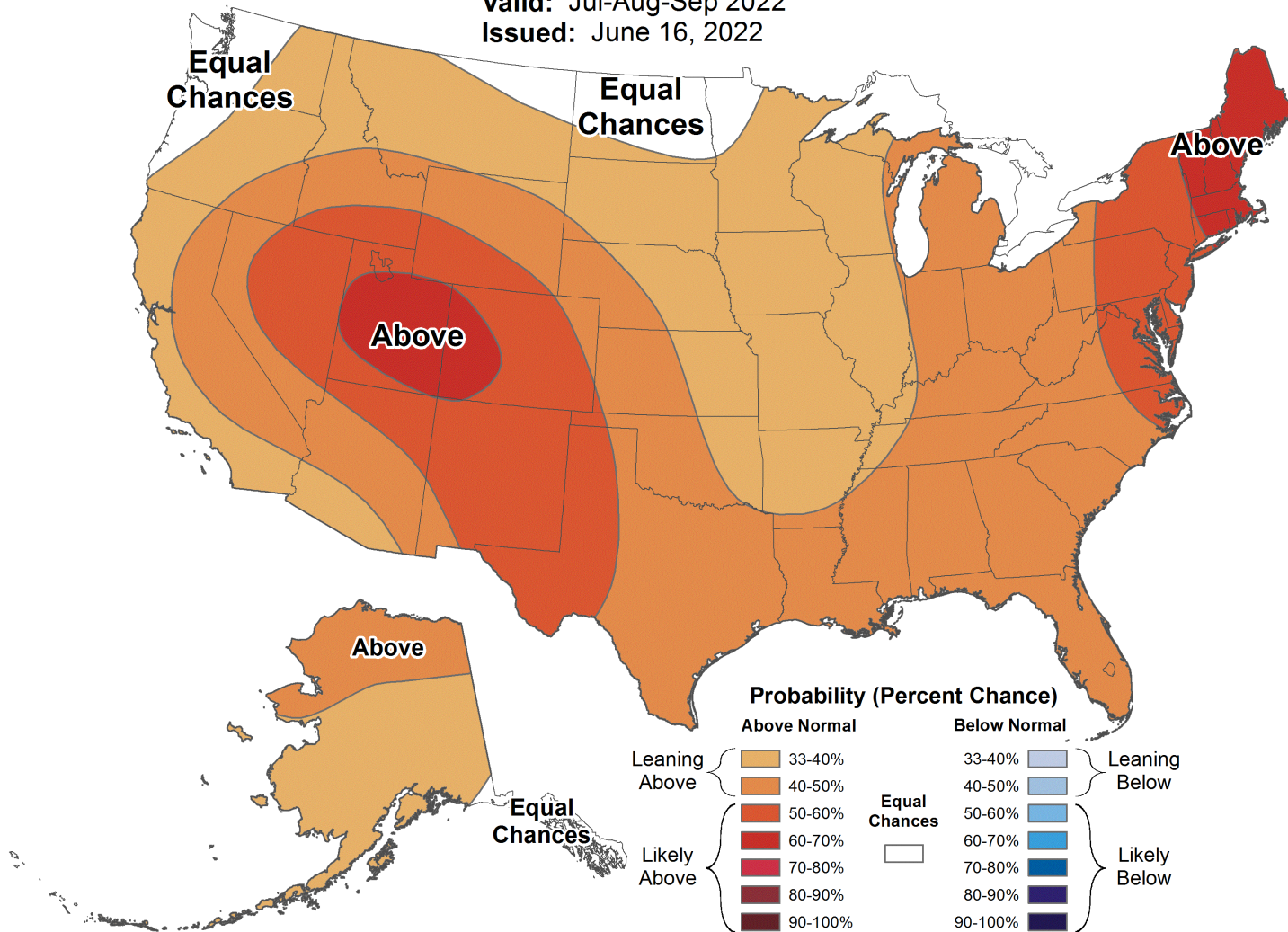
**droughtmonitor.unl.edu**



# Seasonal Temperature Outlook



Valid: Jul-Aug-Sep 2022  
 Issued: June 16, 2022





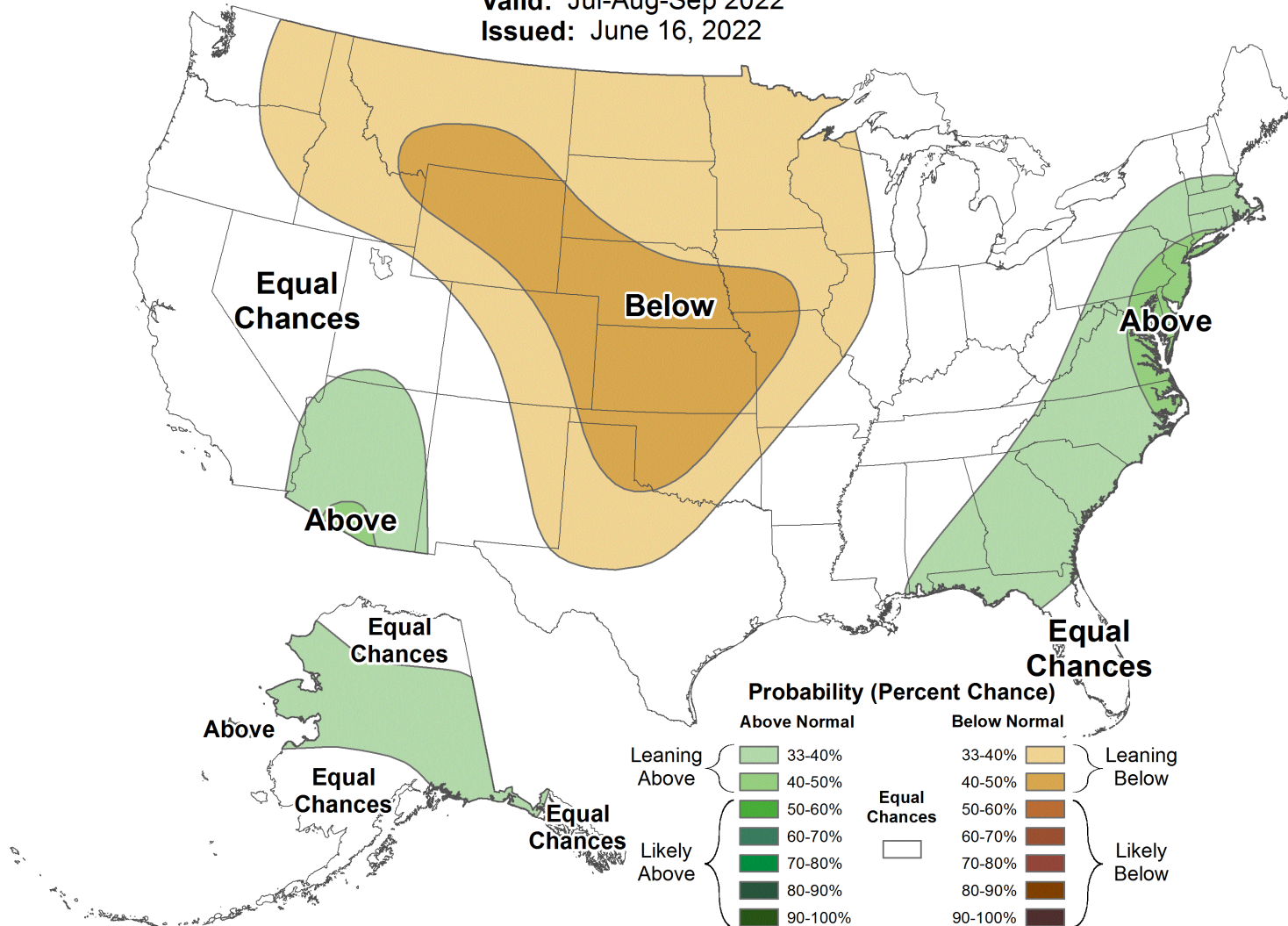


# Seasonal Precipitation Outlook



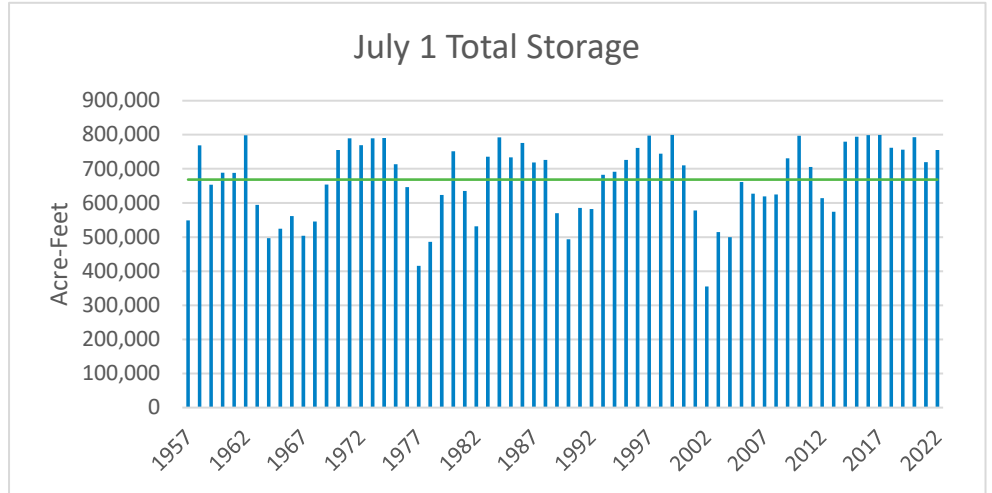
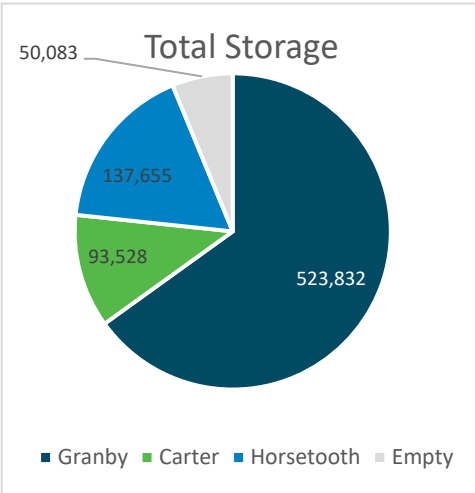
Valid: Jul-Aug-Sep 2022

Issued: June 16, 2022

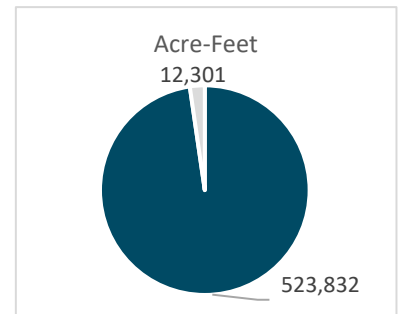
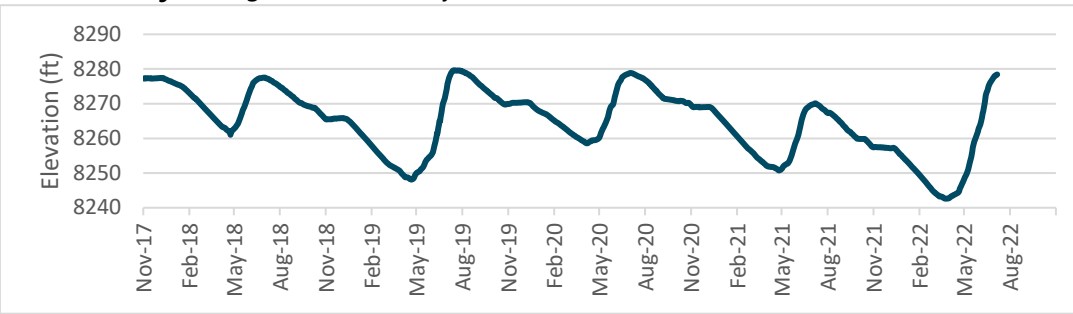


# C-BT Project Storage

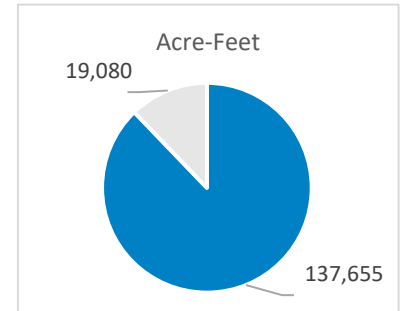
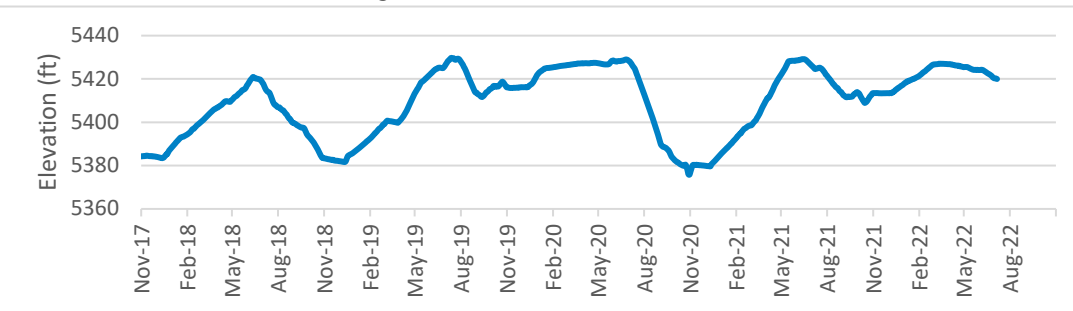
July 1, 2022



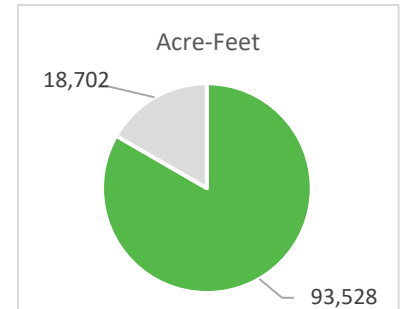
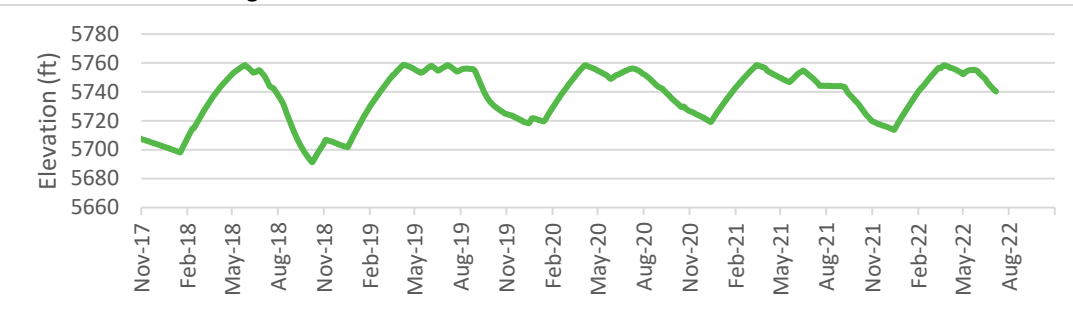
**Lake Granby** Storage in Lake Granby increased 99,402 acre-feet last month



**Horsetooth Reservoir** Storage in Horsetooth Reservoir decreased 7,298 acre-feet last month



**Carter Lake** Storage in Carter Lake decreased 13,057 acre-feet last month

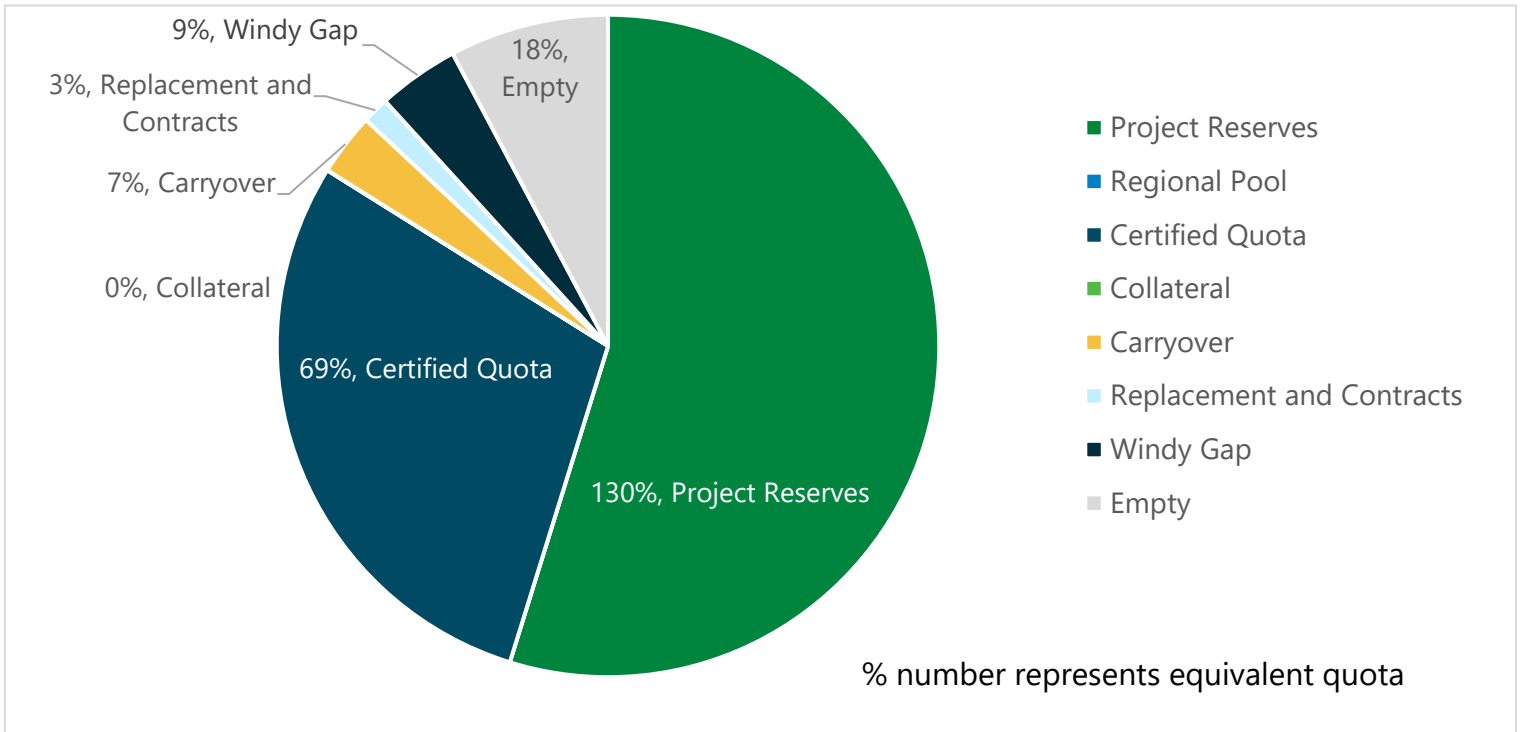


# C-BT Project Allocated Water

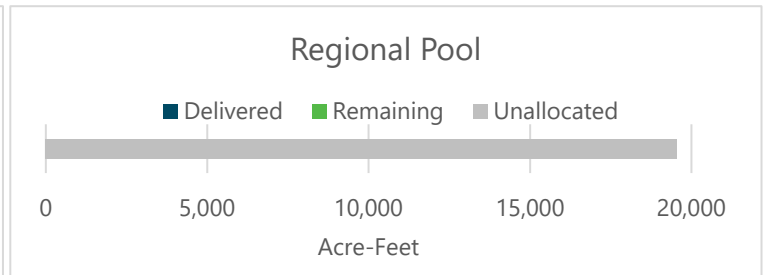
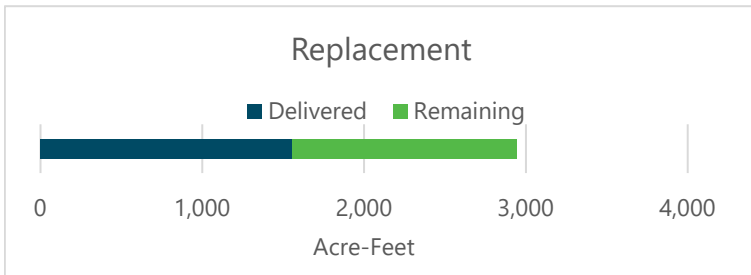
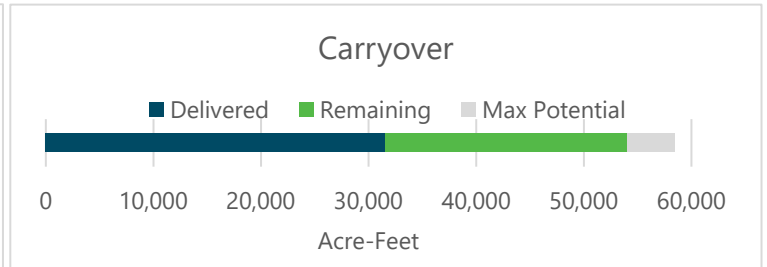
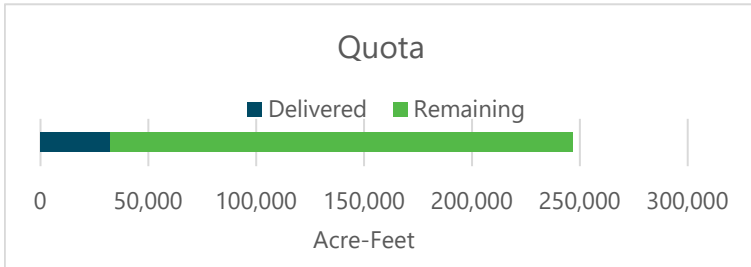
July 1, 2022



## C-BT Active Storage



## C-BT Delivery Obligations

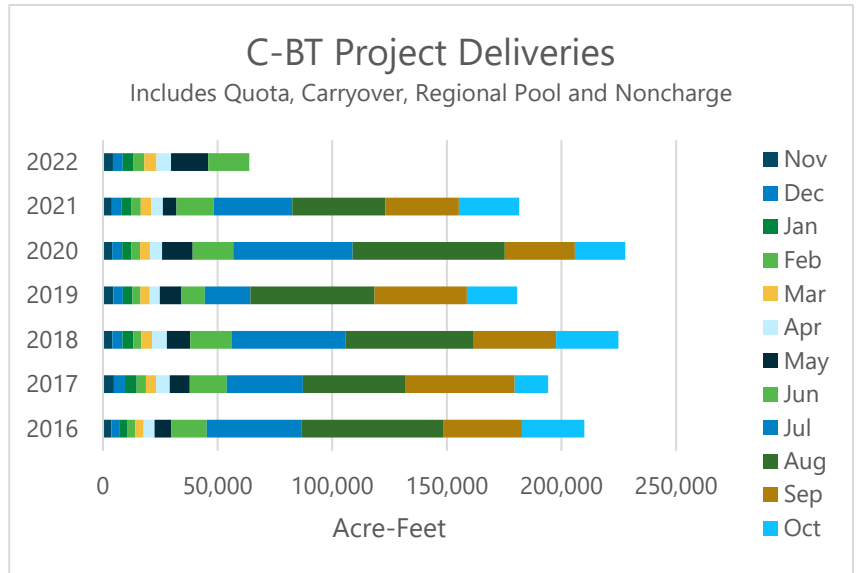
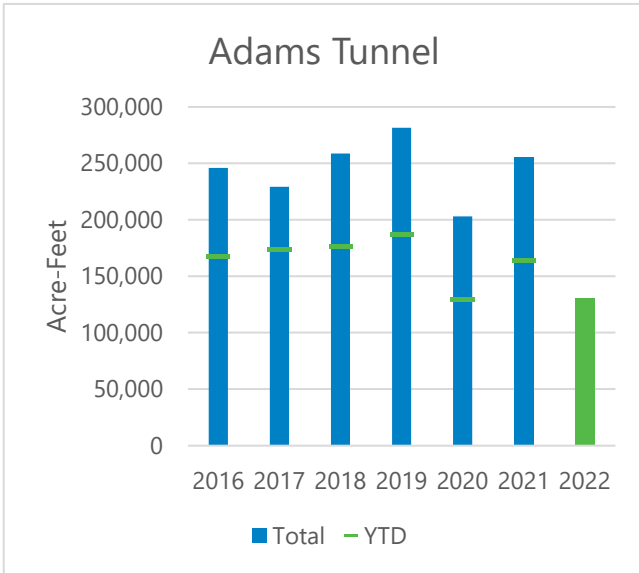


### Notes:

- 1) Quota set at 80%
- 2) Carryover - Entites certified 54,014 Acre-Feet of Carryover for WY2022. for Carryover so that adequate supplies are set aside to fulfill all potential obligations.
- 3) Regional Pool - Additional water acrued to the Regional Pool on April 30, 2022. There is 19,547 Acre-Feet in the Regional Pool for WY 2022.

# C-BT Project Deliveries

July 1, 2022



## Deliveries by Area

## Deliveries by Use

