



MEMORANDUM

DATE: January 11, 2022
TO: Water Commissioners
FROM: Susan Smolnik, P.E., Water Resources Engineer
RE: **January 2022 Water Resources Division Staff Report**

Purpose

This memorandum is intended to update the Water Commissioners on water resource conditions for the City of Fort Collins Water Utility (Water Utility) over the month of January. Please visit our website at <https://www.fcgov.com/utilities/water-availability-demand>

Water Resources Summary

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

The conditions measured at the Fort Collins 053005 weather station for the month:

- Mean daily high temperature recorded for the month: 50.5 °F.
 - Long term average daily high temperature for the month is: 42.7 °F.
- Total recorded monthly precipitation: .55 inches.
 - Long term average precipitation for the month: .49 inches.

Water Demand: Water demands within the Water Utility service area for the month:

- Water demand for the month: 95.7% of the projected demand.
- Water demand for calendar year: 97.4% of the projected demand.

Reservoir Storage: (See attached sheet)

- Colorado-Big Thompson project reservoirs (Granby, Carter, and Horsetooth): 71% full
- Horsetooth Reservoir: 84% full.
- Joe Wright Reservoir: 70% full (116% of average based on 14 years of data).

Snowpack: <https://www.nrcs.usda.gov/wps/portal/nrcs/detail/co/snow/products/?cid=nrcseprd1432263>

Natural Resources Conservation Service SNOTEL program percent of median snow water equivalent totals as of 01/11/2022:

- Upper Colorado Basin: 119% of median.
- Poudre Basin: 139% of median.

Drought Monitor: <https://www.drought.gov/states/colorado>

- The U.S. Drought Monitor shows Larimer County as moderate to extreme drought as of 01/04/2022
- https://climate.colostate.edu/drought_info.html

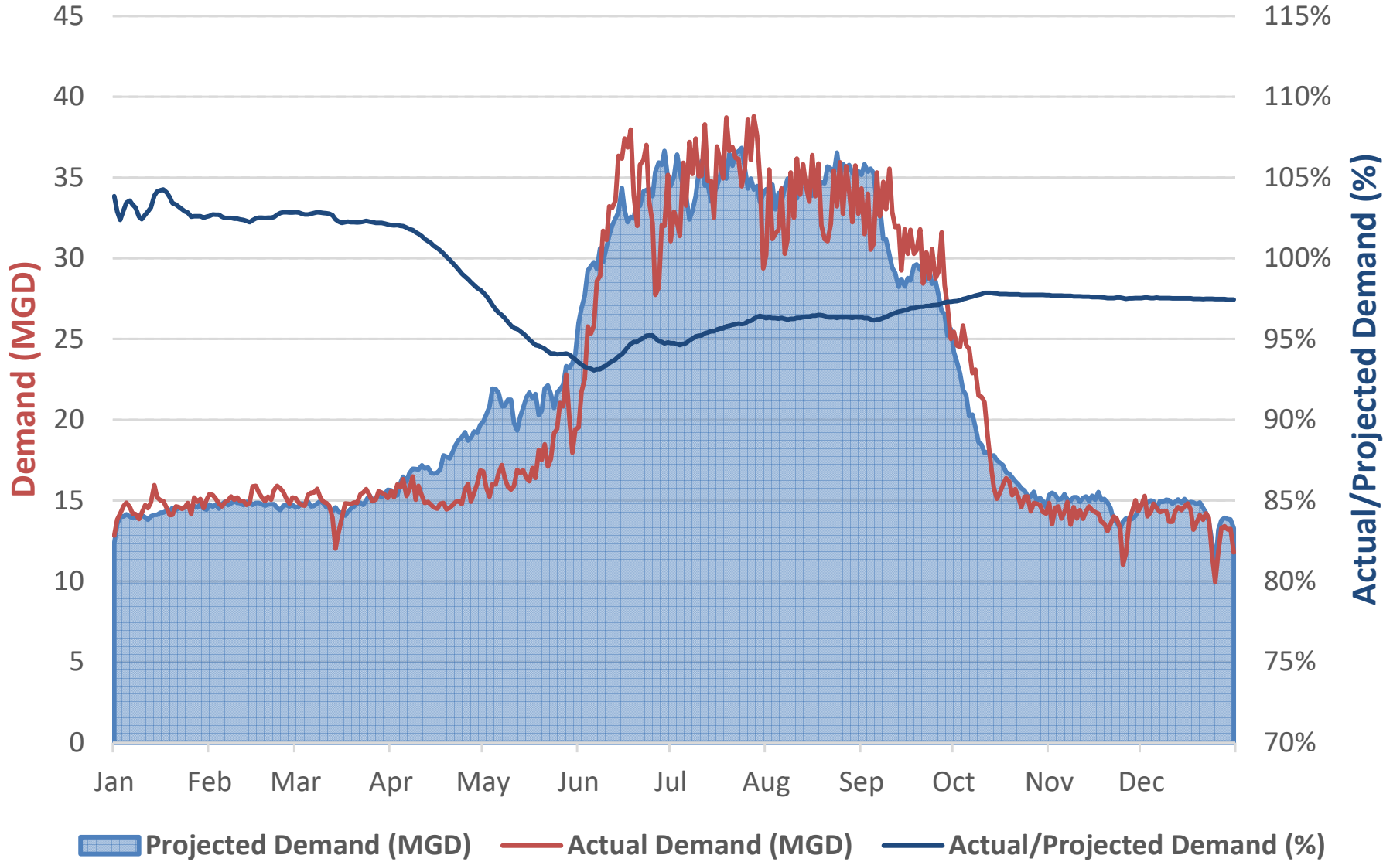
Climate Outlook <https://www.cpc.ncep.noaa.gov/>

- National Oceanic and Atmospheric Administration (NOAA) climate outlooks for the northern Front Range and northern mountains, for Jun-Aug 2022:
 - Equal Chances of above or below normal precipitation.
 - Above normal temperature.

Water Supply Considerations:

- The Cameron Peak and East Troublesome Fires will likely impact Utilities water availability in 2022 and subsequent years.
- Utilities staff is monitoring the potential impacts to both the Poudre River basin and the CBT project system from these fires, which may be exacerbated if drought conditions persist in the region.
- Recent snow events have greatly improved the water supply situation as compared to last month.

2021 Fort Collins Utilities Treated Water Demands



**City of Fort Collins Utilities
Treated Water Monthly Summary
2021**

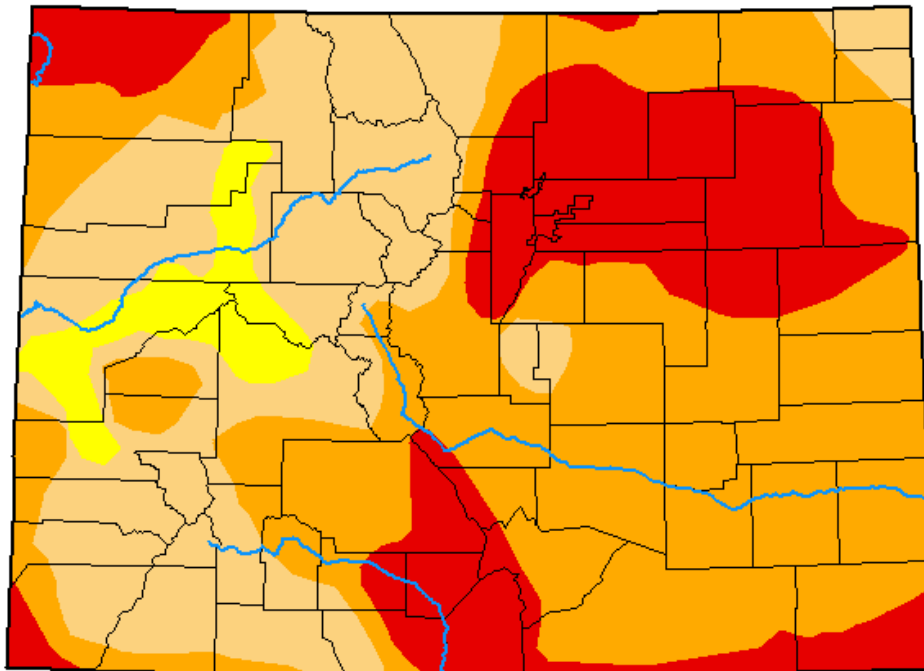
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year to Date
WTF Water Supply (MG)													
From Poudre	304.5	290.0	288.6	155.0	275.5	403.0	241.8	169.6	324.3	277.2	271.2	250.1	3,250.8
From Horsetooth	206.3	186.0	218.7	359.0	330.8	681.8	1,019.1	1,036.1	752.1	369.7	200.8	220.7	5,581.1
Total Raw Water	510.8	476.0	507.2	514.0	606.4	1,084.9	1,260.8	1,205.7	1,076.4	647.0	472.1	470.8	8,831.9
Demands (MG)													
WTF Production	489.7	451.6	478.1	492.0	582.7	1,039.1	1,211.4	1,156.6	1,033.1	626.1	455.6	453.9	8,470.1
Change in Storage	9.0	-1.1	-1.1	5.0	-3.9	4.4	-0.9	0.2	0.5	-6.3	0.4	#REF!	
Demand on WTF	480.7	452.7	479.2	487.1	586.7	1,034.7	1,212.3	1,156.4	1,032.6	632.4	455.2	454.8	8,464.7
From Soldier Canyon	10.7	10.3	23.0	21.8	80.7	264.0	340.7	299.1	257.3	104.2	23.7	26.4	1,461.7
To Soldier Canyon	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
To FC-Lov/NWCWD	-39.8	-37.0	-40.4	-49.6	-123.7	-357.2	-457.9	-417.0	-356.7	-167.5	-60.8	-54.6	-2,162.1
For City	451.6	426.0	461.8	459.3	543.7	941.6	1,095.1	1,038.4	933.2	569.1	418.1	426.5	7,764.2
Daily Deliveries to City (MG)													
Max During Month	16.0	15.9	15.7	16.9	22.8	38.0	38.8	36.4	35.5	25.9	15.0	15.3	38.8
Min During Month	12.8	14.7	12.0	14.5	15.2	19.5	29.4	30.2	25.0	14.2	11.0	10.0	10.0
Avg During Month	14.6	15.2	14.9	15.3	17.5	31.4	35.3	33.5	31.1	18.4	13.9	13.8	21.2
Monthly Deliveries (Ac-Ft)													
Projected	1,351	1,268	1,407	1,605	2,038	2,962	3,317	3,311	2,770	1,700	1,357	1,367	24,453
Actual	1,386	1,307	1,417	1,409	1,668	2,890	3,361	3,187	2,864	1,747	1,283	1,309	23,828
Ratio	103%	103%	101%	88%	82%	98%	101%	96%	103%	103%	95%	96%	97%
Year to Date Deliveries (Ac-Ft)													
Projected	1,351	2,619	4,025	5,631	7,668	10,630	13,947	17,258	20,028	21,728	23,086	24,453	24,453
Actual	1,386	2,693	4,110	5,520	7,188	10,078	13,438	16,625	19,489	21,236	22,519	23,828	23,828
Ratio	103%	103%	102%	98%	94%	95%	96%	96%	97%	98%	98%	97%	97%

U.S. Drought Monitor Colorado

January 4, 2022
(Released Thursday, Jan. 6, 2022)
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.00	100.00	95.49	67.08	22.25	0.00
Last Week <i>12-28-2021</i>	0.00	100.00	100.00	67.27	22.21	0.00
3 Months Ago <i>10-05-2021</i>	10.34	89.66	54.10	26.59	12.97	1.95
Start of Calendar Year <i>01-04-2022</i>	0.00	100.00	95.49	67.08	22.25	0.00
Start of Water Year <i>09-28-2021</i>	12.72	87.28	46.42	26.30	15.05	3.91
One Year Ago <i>01-05-2021</i>	0.00	100.00	100.00	93.73	76.17	27.60



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:

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CPC/NOAA/NWS/NCEP

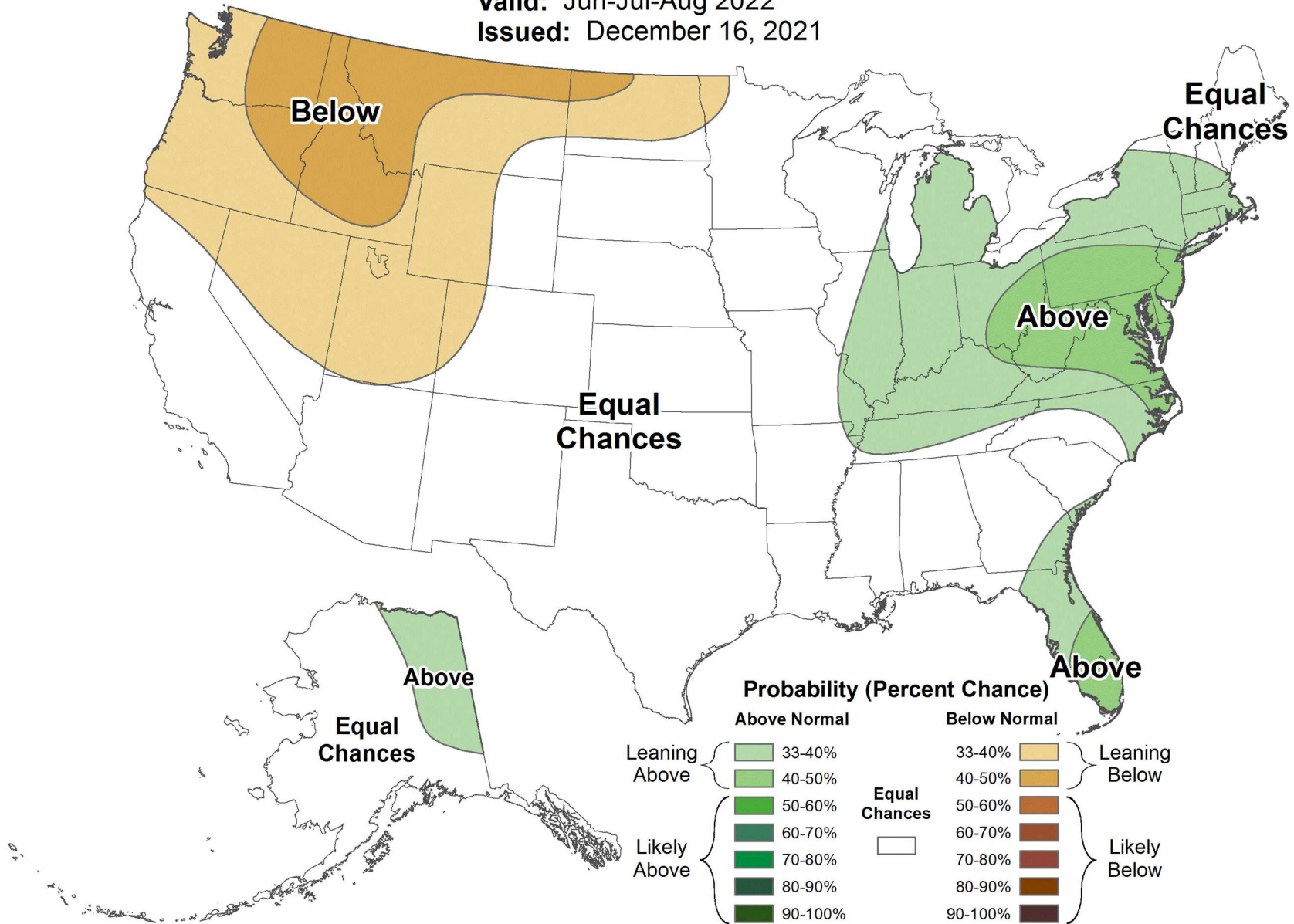




Seasonal Precipitation Outlook



Valid: Jun-Jul-Aug 2022
 Issued: December 16, 2021

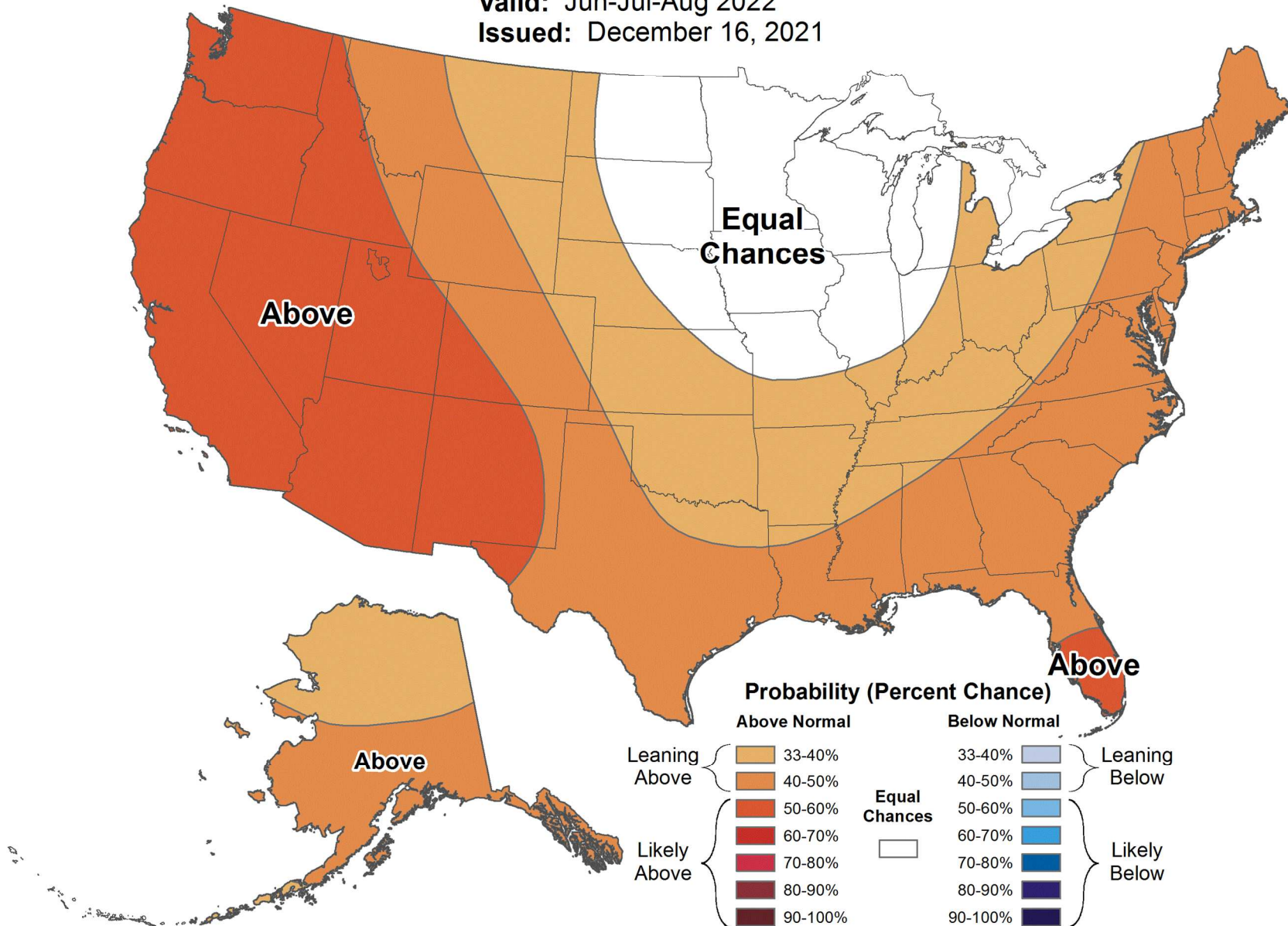




Seasonal Temperature Outlook

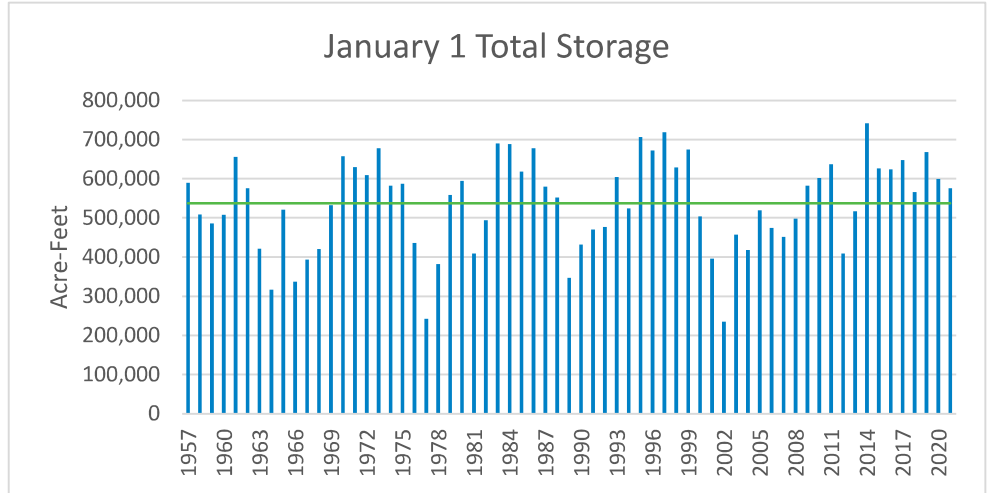
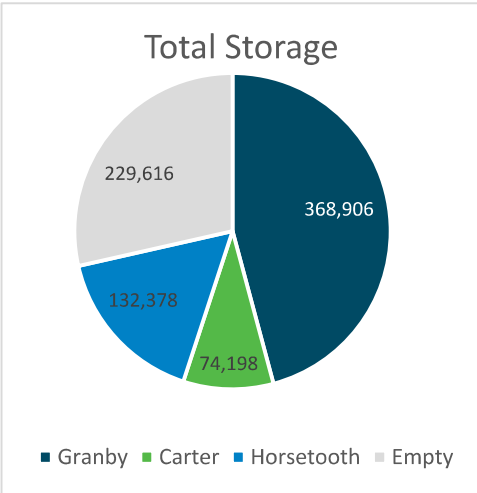


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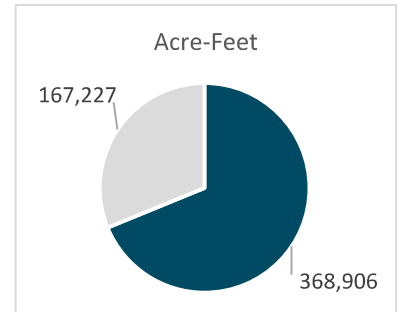
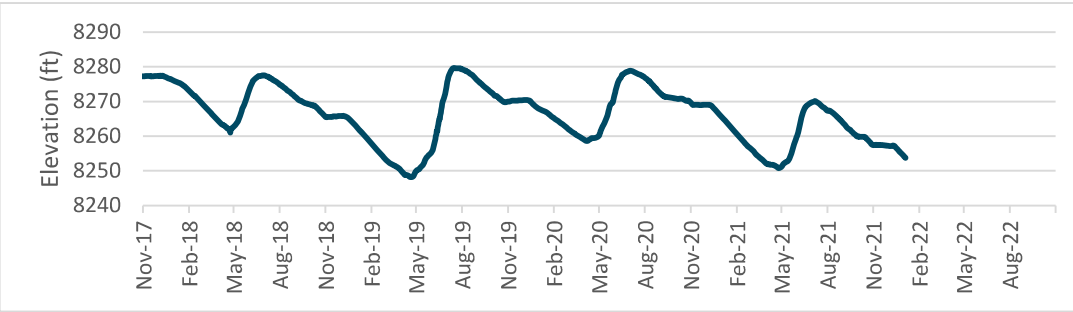


C-BT Project Storage

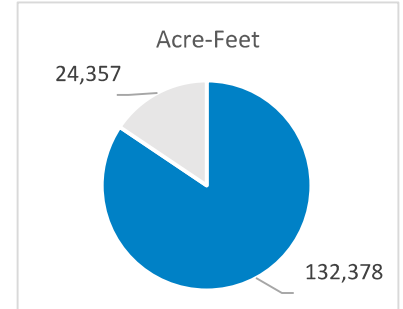
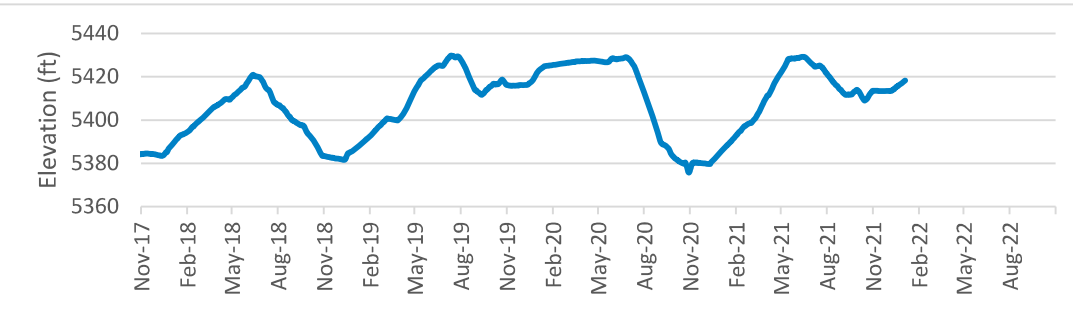
January 1, 2022



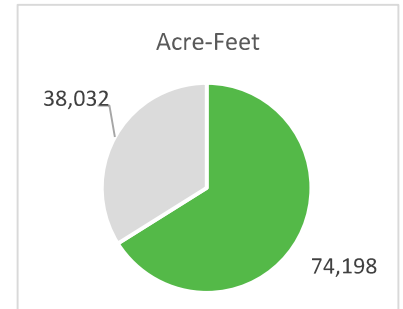
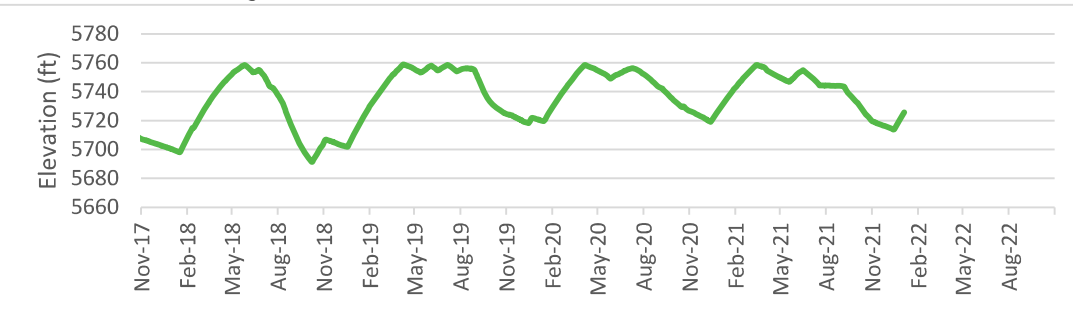
Lake Granby Storage in Lake Granby decreased 17,494 acre-feet last month



Horsetooth Reservoir Storage in Horsetooth Reservoir increased 7,591 acre-feet last month



Carter Lake Storage in Carter Lake increased 7,482 acre-feet last month

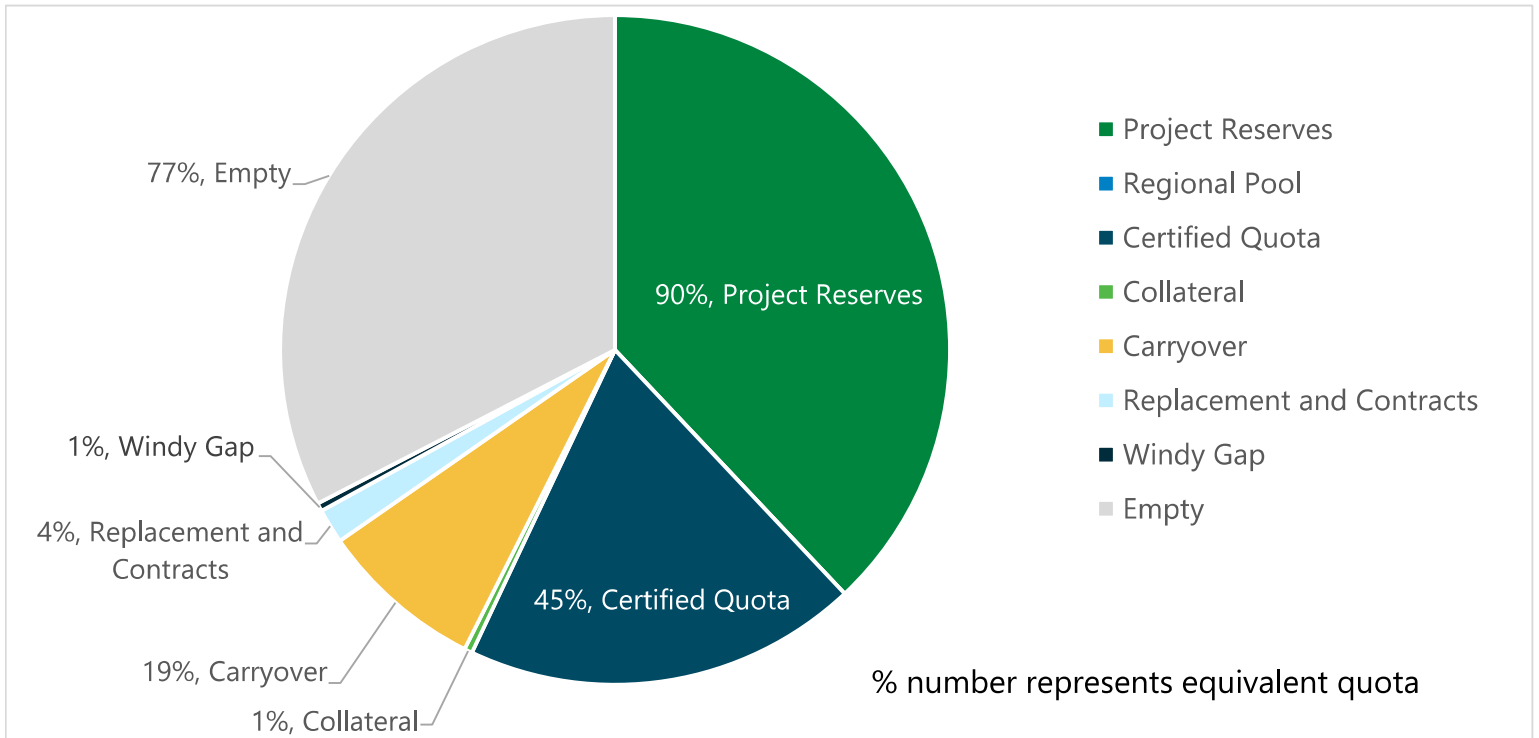


C-BT Project Allocated Water

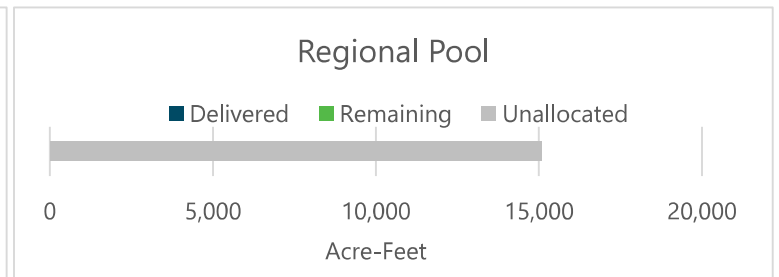
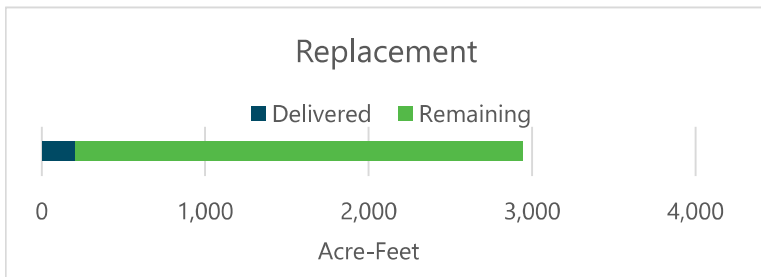
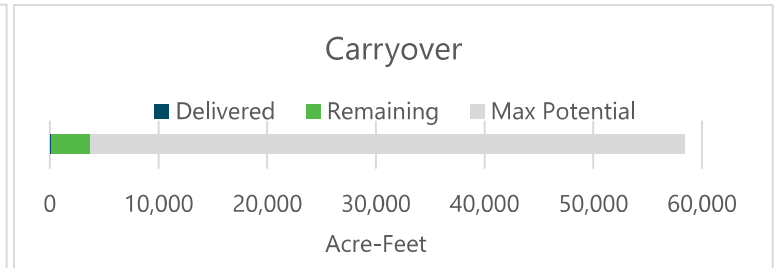
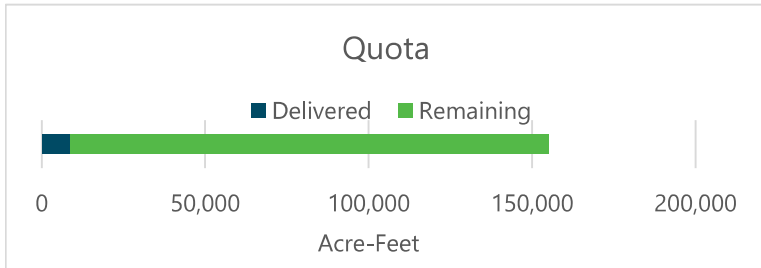
January 1, 2022



C-BT Active Storage



C-BT Delivery Obligations

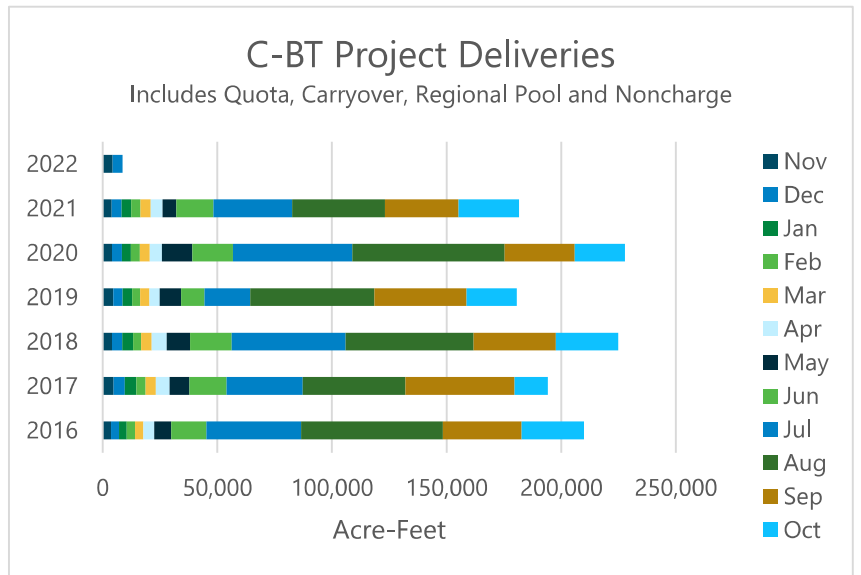
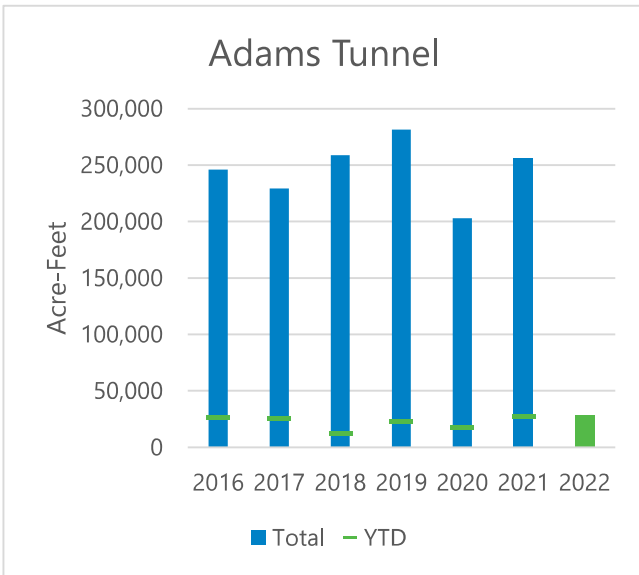


Notes:

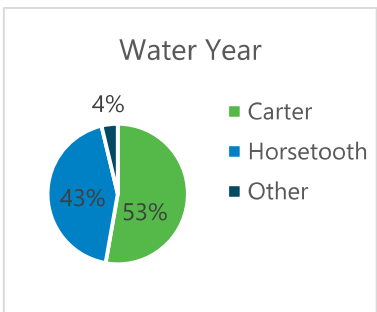
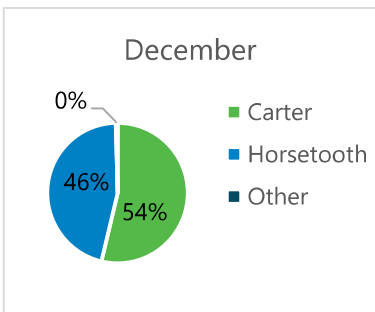
- 1) Quota set at 50%
- 2) Carryover - Carryover will not be certified until April 30. Until that date, the Maximum Potential Carryover is reported for Carryover so that adequate supplies are set aside to fulfill all potential obligations.
- 3) Regional Pool - Additional water accrued to the Regional Pool on April 30, 2022. There is 15,074 Acre-Feet in the Regional Pool for WY 2022.

C-BT Project Deliveries

January 1, 2022



Deliveries by Area



Deliveries by Use

