



**Utilities**

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**MEMORANDUM**

**DATE:** February 9, 2021  
**TO:** Water Board  
**FROM:** Eric Clark, Water Resources Intern  
Donnie Dustin, P.E., Water Resources Manager  
**RE:** **February 2021 Water Resources Division Staff Report**

**Purpose**

This memorandum is intended to update the Water Board on water resource conditions for the City of Fort Collins Water Utility (Water Utility) over the month of January.

**Water Resources Summary**

Weather: The conditions measured at the Colorado State University weather station for the month:

- Mean daily high temperature for the month: 44.7 °F.
  - 0.6 °F above average for the month.
- Total recorded monthly precipitation: 0.30 inches.
  - 66% of average for the month.

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

- Water demand for the month: 104% of the projected demand.
- Water demand for calendar year: 104% of the projected demand.

Poudre River Streamflows:

- Poudre River streamflows measured at Colorado Division of Water Resources gage CLAFTCCO/ U.S. Geologic Survey gage 06752000 at the canyon mouth:
  - Mean daily discharge: ice conditions at gage prevent measurement.
- Poudre River streamflows measured at U.S. Geologic Survey gage 06752260 at Fort Collins, near the Lincoln Street Bridge:
  - Mean daily discharge: 23.08 cfs (69% of average)

Reservoir Storage: End of month reservoir storages:

- Colorado-Big Thompson project reservoirs (Granby, Carter, and Horsetooth): 70% full (116% of average based on 19 years of data).
  - Horsetooth Reservoir: 56% full (98% of average).
- Joe Wright Reservoir: 69% full (111% of average based on 13 years of data).

### Snowpack:

- Natural Resources Conservation Service SNOTEL program percent of average snow water equivalent totals as of 02/09/2021:
  - Upper Colorado Basin: 81% of average.
  - South Platte Basin: 86% of average.
  - Poudre Basin (Joe Wright & Deadman Hill): 88% of the 1981-2010 combined median.

### Drought Monitor and Climate Outlook:

- The U.S. Drought Monitor lists Larimer County in Severe Drought (east side) and Extreme Drought (west side)<sup>1</sup>.
- National Oceanic and Atmospheric Administration (NOAA) climate outlooks for the northern Front Range and northern mountains, over the next three months<sup>1</sup>:
  - Below normal precipitation.
  - Above normal temperature.

### 2021 Water Supply Considerations:

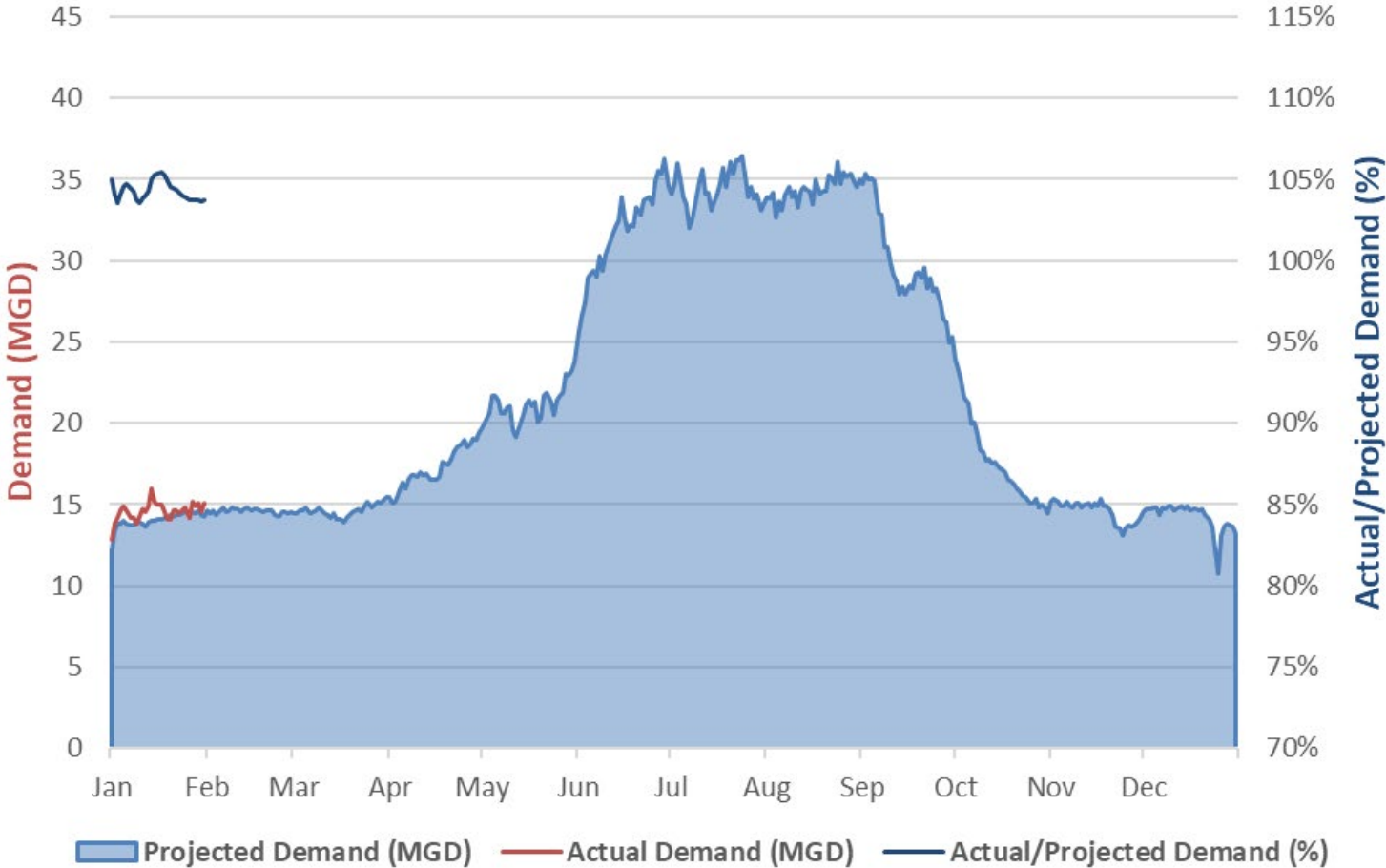
- The Cameron Peak and East Troublesome Fires will likely impact Utilities water availability in 2021 and subsequent years.
- Utilities staff is monitoring the potential impacts to both the Poudre River basin and the CBT project system from these fires, which may be exacerbated if drought conditions persist in the region.
- As additional information becomes available, Utilities staff will be considering the need for potential water restrictions next spring/summer and exploring potential ways to increase water supplies.
- Additional information regarding 2021 water supply conditions and potential water restrictions is provided in a separate memo in the February Water Board packet.

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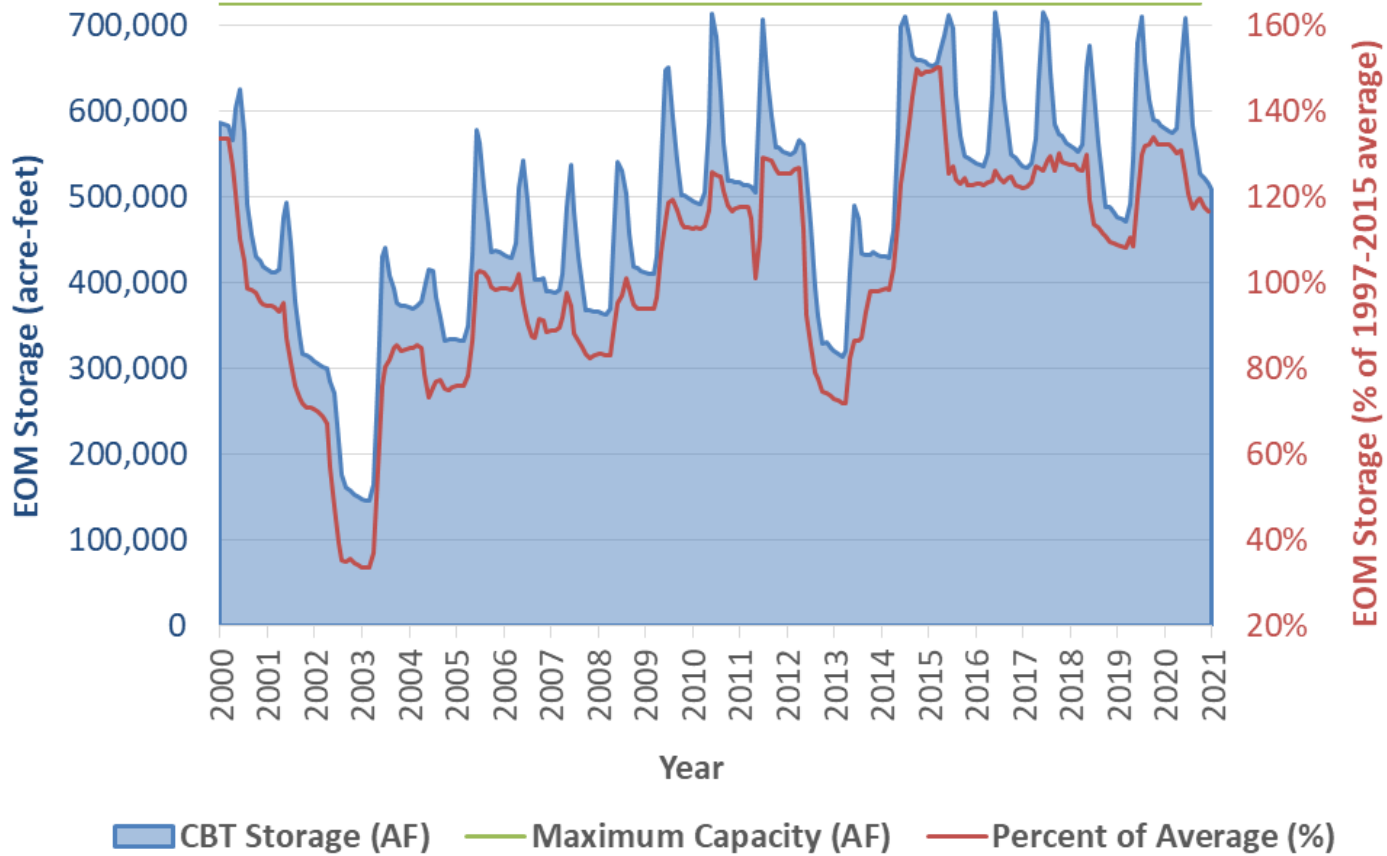
<sup>1</sup> Western Water Assessment. (2020). "Intermountain West Climate Dashboard."  
<<http://wwa.colorado.edu/climate/dashboard.html#briefings>>.



### 2021 Fort Collins Utilities Treated Water Demands



### CBT Project End of Month Active Storage Levels

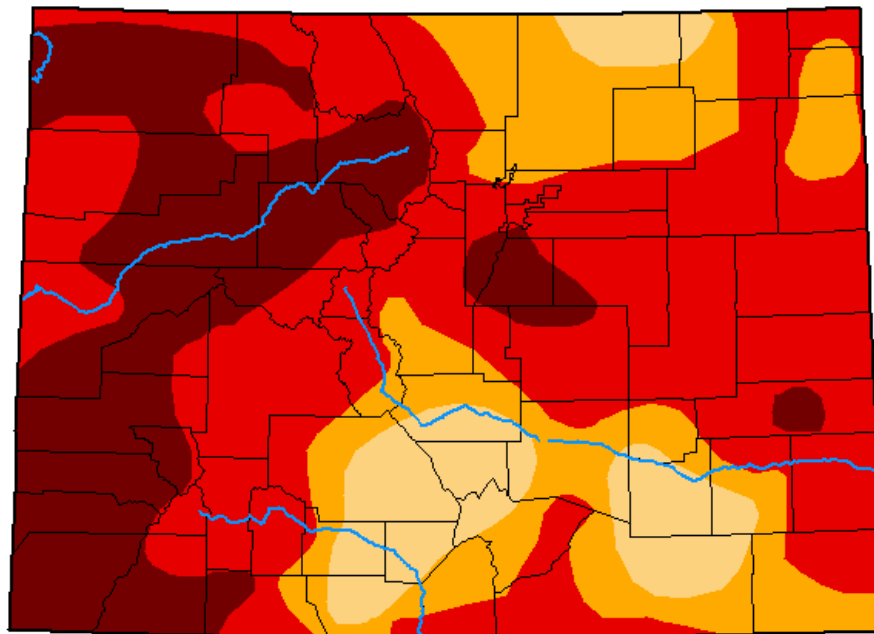


# U.S. Drought Monitor Colorado

**February 2, 2021**  
(Released Thursday, Feb. 4, 2021)  
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
<b>Current</b>	0.00	100.00	100.00	90.24	70.73	24.79
<b>Last Week</b> <i>01-26-2021</i>	0.00	100.00	100.00	90.65	73.11	24.91
<b>3 Months Ago</b> <i>11-03-2020</i>	0.00	100.00	100.00	93.71	74.08	24.39
<b>Start of Calendar Year</b> <i>12-29-2020</i>	0.00	100.00	100.00	93.73	76.17	27.60
<b>Start of Water Year</b> <i>09-29-2020</i>	0.00	100.00	99.29	89.35	52.88	2.64
<b>One Year Ago</b> <i>02-04-2020</i>	22.39	77.61	51.12	3.30	0.00	0.00



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 Rippey  
U.S. Department of Agriculture



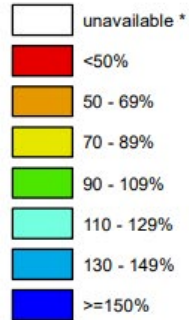
[droughtmonitor.unl.edu](https://droughtmonitor.unl.edu)

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

**Feb 09, 2021**

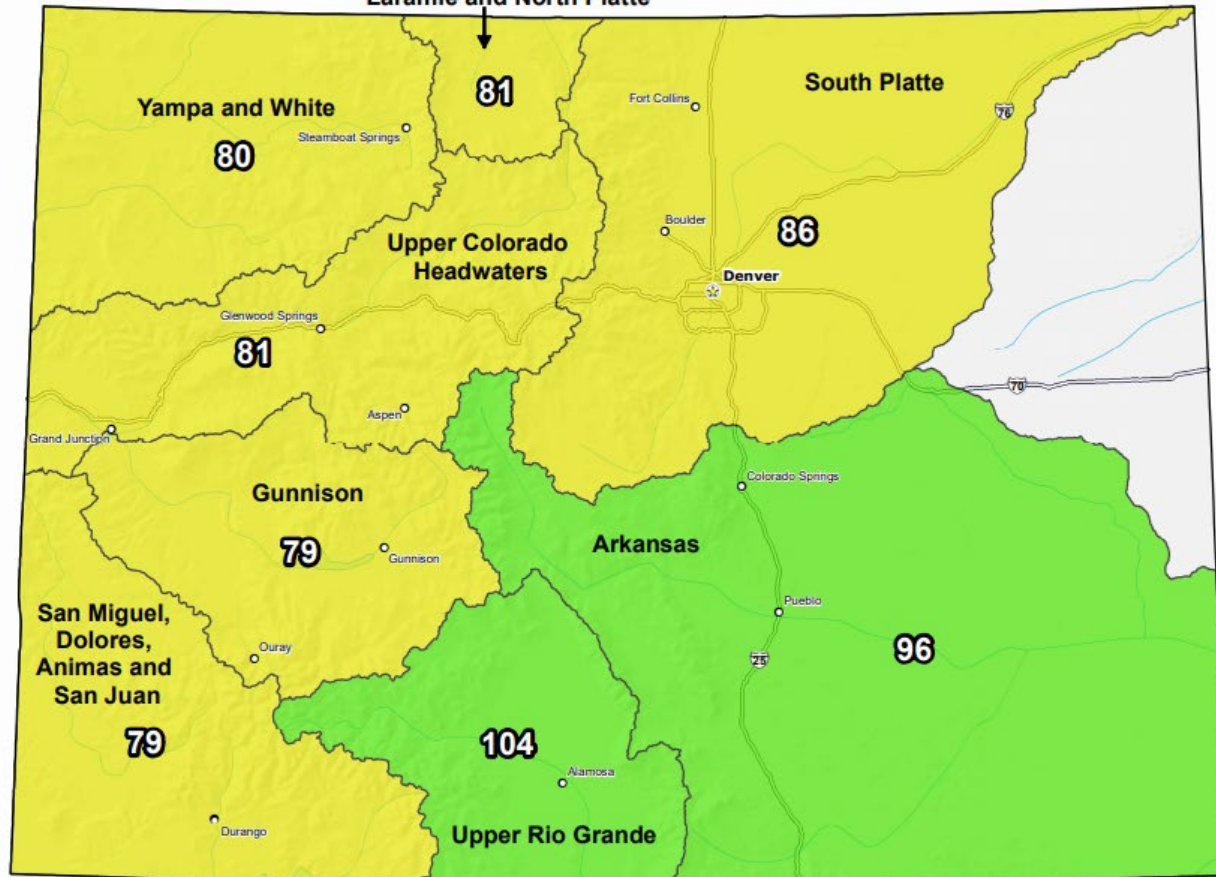
Laramie and North Platte

**Current Snow Water Equivalent (SWE) Basin-wide Percent of 1981-2010 Median**



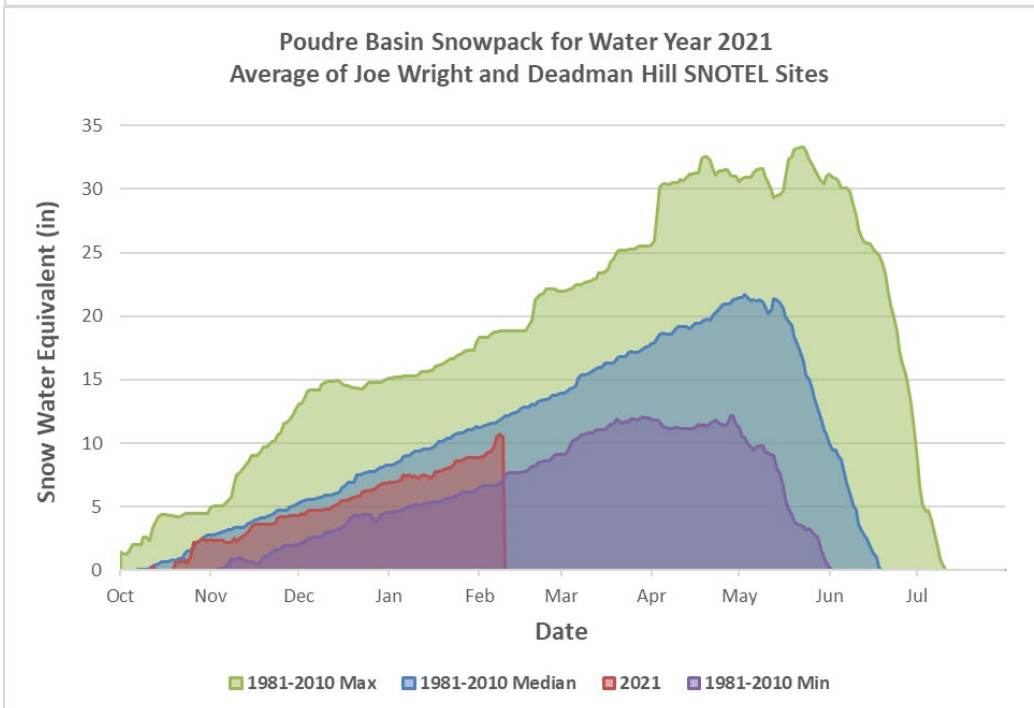
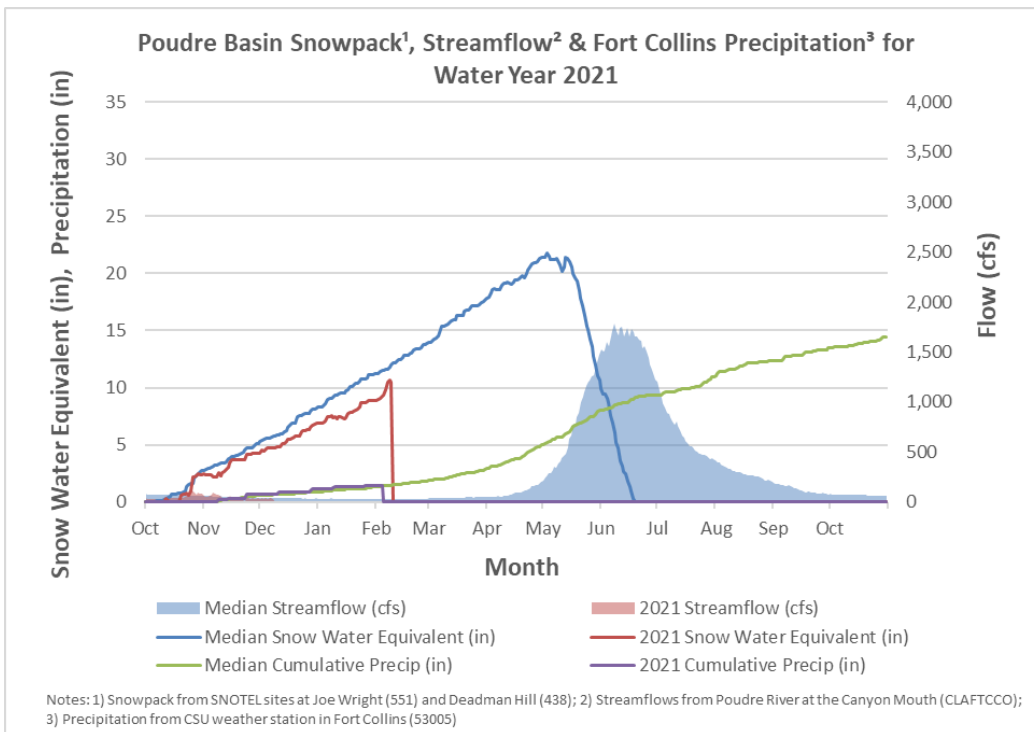
\* Data unavailable at time of posting or measurement is not representative at this time of year

**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  
<http://www.wcc.nrcs.usda.gov>





# City of Fort Collins Utilities

## ASSUMPTIONS

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

## DEMANDS (treated only)

- Average Demand is projected demand
- Low Demand is projected Average Demand reduced by 10%
- High Demand applies a monthly worse case factor to projected Average Demand

## SUPPLIES

### Poudre

- High Supply is a fire impacted Poudre that is 62% of the annual average. Monthly percentages of average are Nov-Mar 95%, May-Jun 5%, Jul 25%, Aug 60%, Sep 70%, Oct 80%. Medium Supply is 95% of the fire impacted Poudre and Low Supply is 90%.

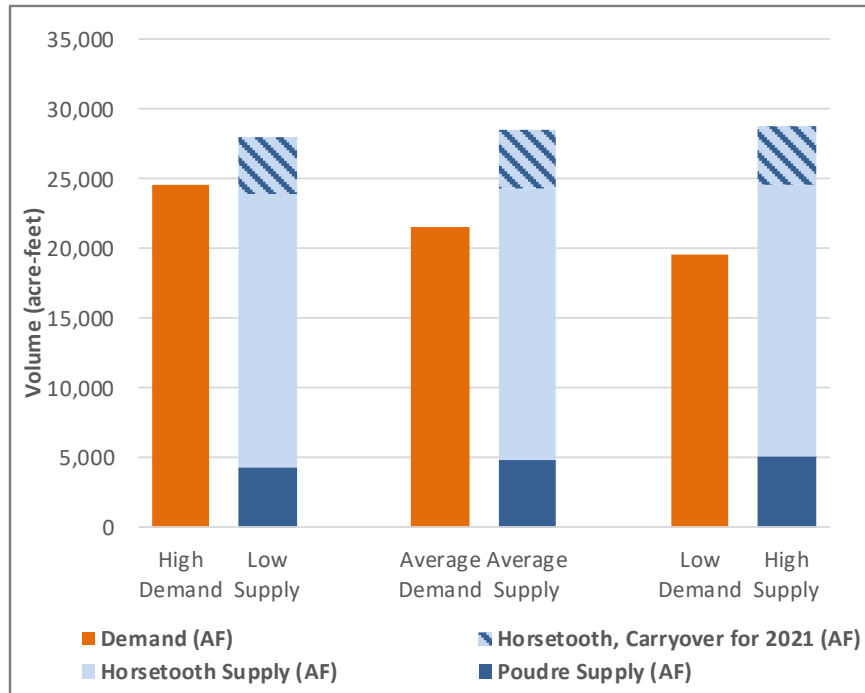
### Horsetooth Reservoir

- Horsetooth Supplies include CBT, NPIC MU & Windy Gap
- CBT supply is 70% quota, 2.66 NPIC MU allocation/share
- All remaining Horsetooth raw water obligations have been deducted. A 1,000 AF exchange of Joe Wright water for CBT is included.

### Horsetooth Carryover Objective

- Amount from this years Horsetooth supplies to carryover for next year
- Max amount allowable is 4,190 AF before 10% shrink

## Remaining Water Demand and Supply from Feb 09 - Oct 31, 2021



Scenario	Demand (AF)	Poudre Supply (AF)	Horsetooth Supply (AF)	Horsetooth, Carryover for 2021 (AF)
<b>High Demand Low Supply</b>	24,610	4,347	19,517	4,190
<b>Average Demand Average Supply</b>	21,623	4,830	19,517	4,190
<b>Low Demand High Supply</b>	19,545	5,085	19,517	4,190

## NOTES:

MGD = million gallons per day; PVP = Pleasant Valley Pipeline; CBT = Colorado-Big Thompson Project; NPIC = North Poudre Irrigation Company; MU = Multiple Use (NPIC allocation of CBT water, measured in acre-feet per share); AF = acre-feet