



COLORADO

Colorado Water Conservation Board

Department of Natural Resources
1313 Sherman Street, Room 718
Denver, CO 80203

TO: Reservoir Coordinating Committee (RCC) and Environmental Account
Committee (EAC) Members

FROM: Kara Scheel, Endangered Species Recovery Program Manager
Colorado Water Conservation Board

DATE: October 18, 2023

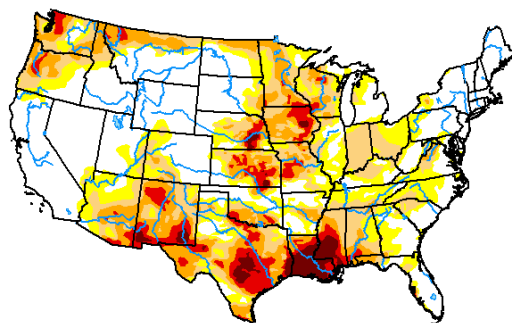
SUBJECT: Summary of Flow Conditions and Select Water Storage Information for the
South Platte River Basin

The following summarizes climate conditions in the South Platte basin in Colorado that have shaped the available water supply in the South Platte River Basin. Additional and up-to-date information for the next several months may be found at the links provided in the reference section.

Drought Status

In the South Platte River basin, drought conditions improved from the headwaters of the South Platte to the Nebraska border bringing the South Platte basin entirely out of drought (Figure 1 & 2) over the last six months. The drought conditions on the eastern side of the state has greatly improved, while much of the western side of the state remains in drought (Figure 2).

U.S. Drought Monitor Contiguous U.S. (CONUS)



October 10, 2023

(Released Thursday, Oct. 12, 2023)

Valid 8 a.m. EDT

	Drought Conditions (Percent Area)						
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	
Current	41.11	58.89	40.01	22.66	9.00	2.53	
Last Week 10-03-2023	41.68	58.32	40.06	23.19	9.99	2.94	
3 Months Ago 07-11-2023	51.30	48.70	26.87	9.44	2.58	0.39	
Start of Calendar Year 01-01-2023	30.50	69.50	46.26	26.24	9.86	1.85	
Start of Water Year 09-26-2022	43.65	56.35	38.23	22.46	10.15	2.82	
One Year Ago 10-11-2022	18.22	81.78	55.41	33.09	14.48	2.96	

Intensity:

None	D2 Severe Drought
D0 Abnormally Dry	D3 Extreme Drought
D1 Moderate 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>

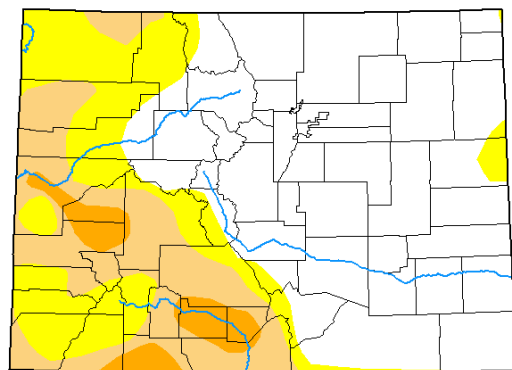
Author:

Brad Pugh
 CPC/NOAA



droughtmonitor.unl.edu

U.S. Drought Monitor Colorado



October 10, 2023

(Released Thursday, Oct. 12, 2023)

Valid 8 a.m. EDT

	Drought Conditions (Percent Area)						
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	
Current	59.01	40.99	21.07	4.43	0.00	0.00	
Last Week 10-03-2023	62.37	37.63	20.14	3.54	0.00	0.00	
3 Months Ago 07-11-2023	100.00	0.00	0.00	0.00	0.00	0.00	
Start of Calendar Year 01-01-2023	39.97	60.03	33.83	12.28	1.91	0.01	
Start of Water Year 09-26-2022	65.71	34.29	17.43	2.77	0.00	0.00	
One Year Ago 10-11-2022	23.00	77.00	43.01	13.55	3.09	0.57	

Intensity:

None	D2 Severe Drought
D0 Abnormally Dry	D3 Extreme Drought
D1 Moderate Drought	D4 Exceptional Drought

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Figure 1. Drought Monitor

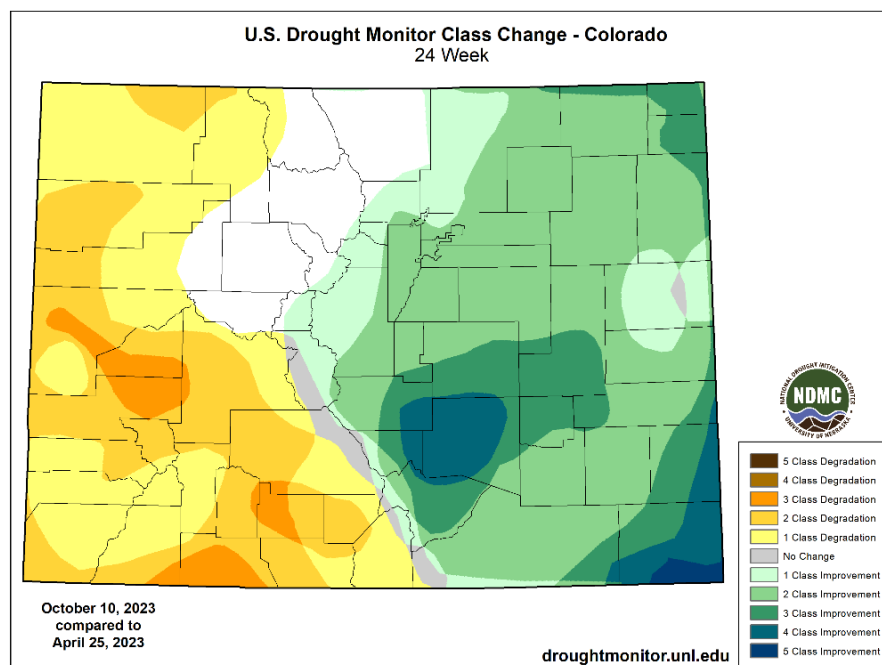
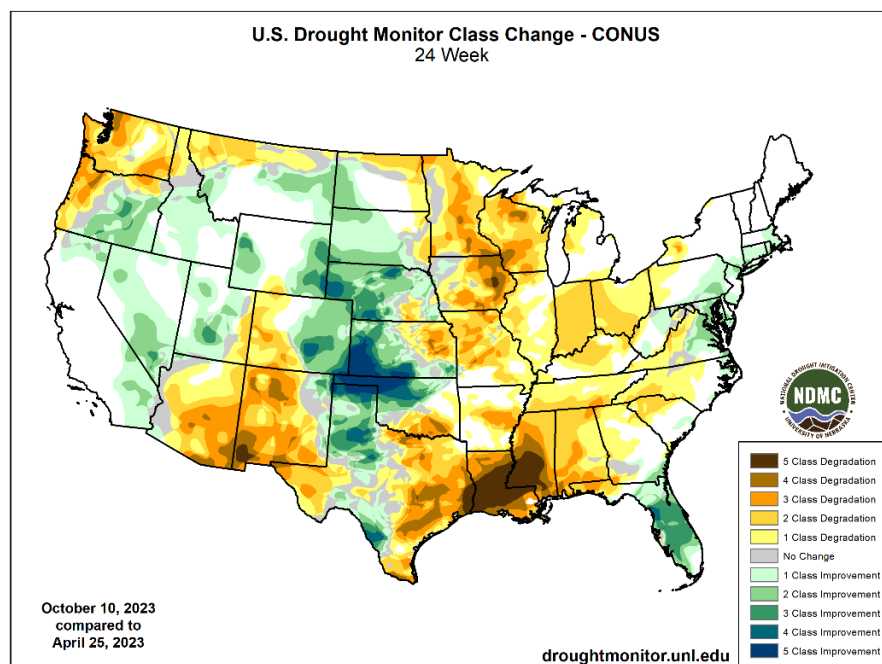
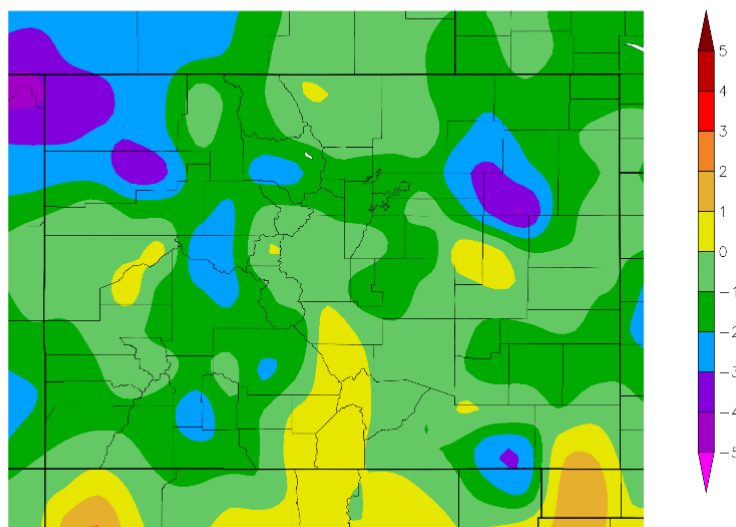


Figure 2. Drought Monitor Class Change

Temperature and Precipitation

The South Platte River basin, and much of the state, have experienced normal to below normal temperatures so far in 2023 (January 1, 2023 - October 15, 2023).

Departure from Normal Temperature (F)
1/1/2023 - 10/15/2023



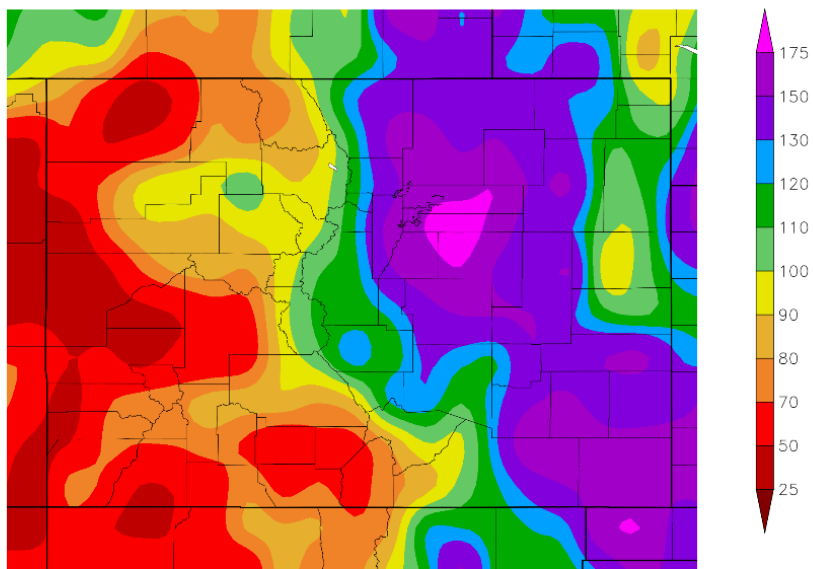
Generated 10/16/2023 at HPRCC using provisional data.

NOAA Regional Climate Centers

Figure 3. Departure from Normal Temperatures

Large precipitation events in May, June and July of 2023 largely influenced the above average precipitation figures shown below. Some locations along the front range received 10 inches of precipitation in May alone. The east and southeast of Denver had the wettest June on record. Elbert, Arapahoe, Adams, and Morgan counties all experienced record wet conditions. This was a large factor in the above normal streamflow and runoff (Figure 5).

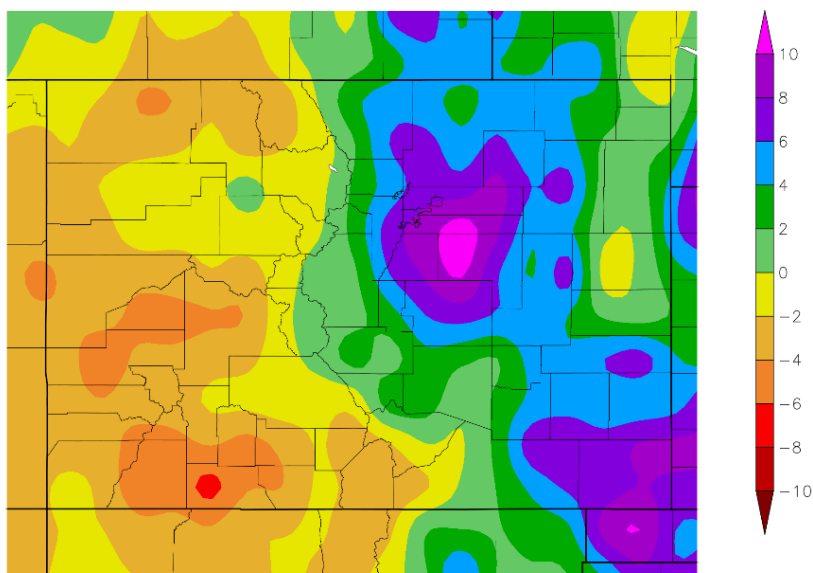
Percent of Normal Precipitation (%)
4/16/2023 – 10/15/2023



Generated 10/16/2023 at HPRCC using provisional data.

NOAA Regional Climate Centers

Departure from Normal Precipitation (in)
4/16/2023 – 10/15/2023



Generated 10/16/2023 at HPRCC using provisional data.

NOAA Regional Climate Centers

Figure 4. Precipitation over last 6 months

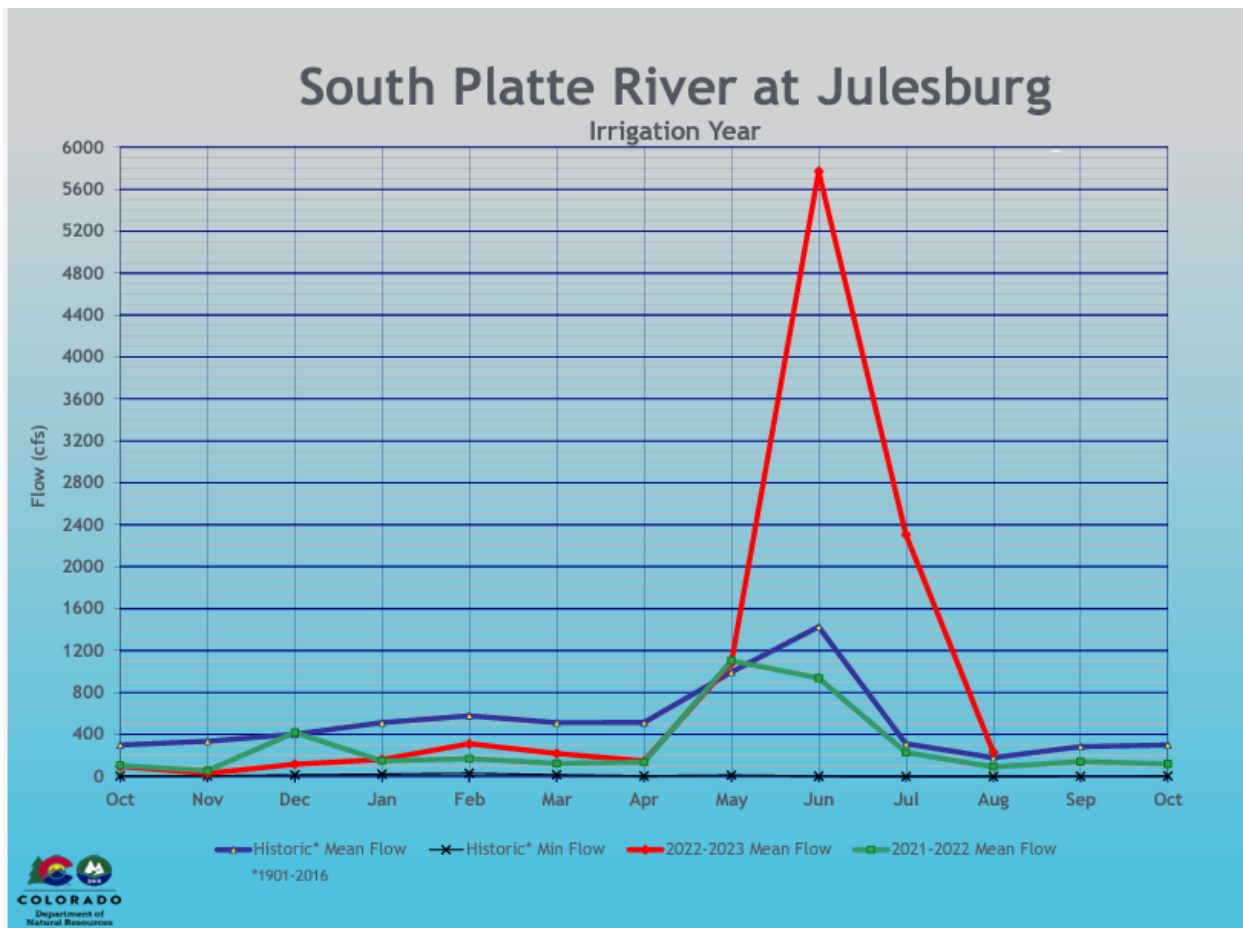


Figure 5. Flow at Julesburg

Reservoir Storage

Reservoirs in the lower South Platte basin (Water Districts 1 and 64) were slow to fill this year due to persistent cold, snow, and ice making it difficult to run water. Despite their slow start, reservoirs below Kersey were able to maintain storage much later into the year due to high flow during May, June and July. At the end of September 2023, reservoirs in the South Platte were at 134% of median storage levels.

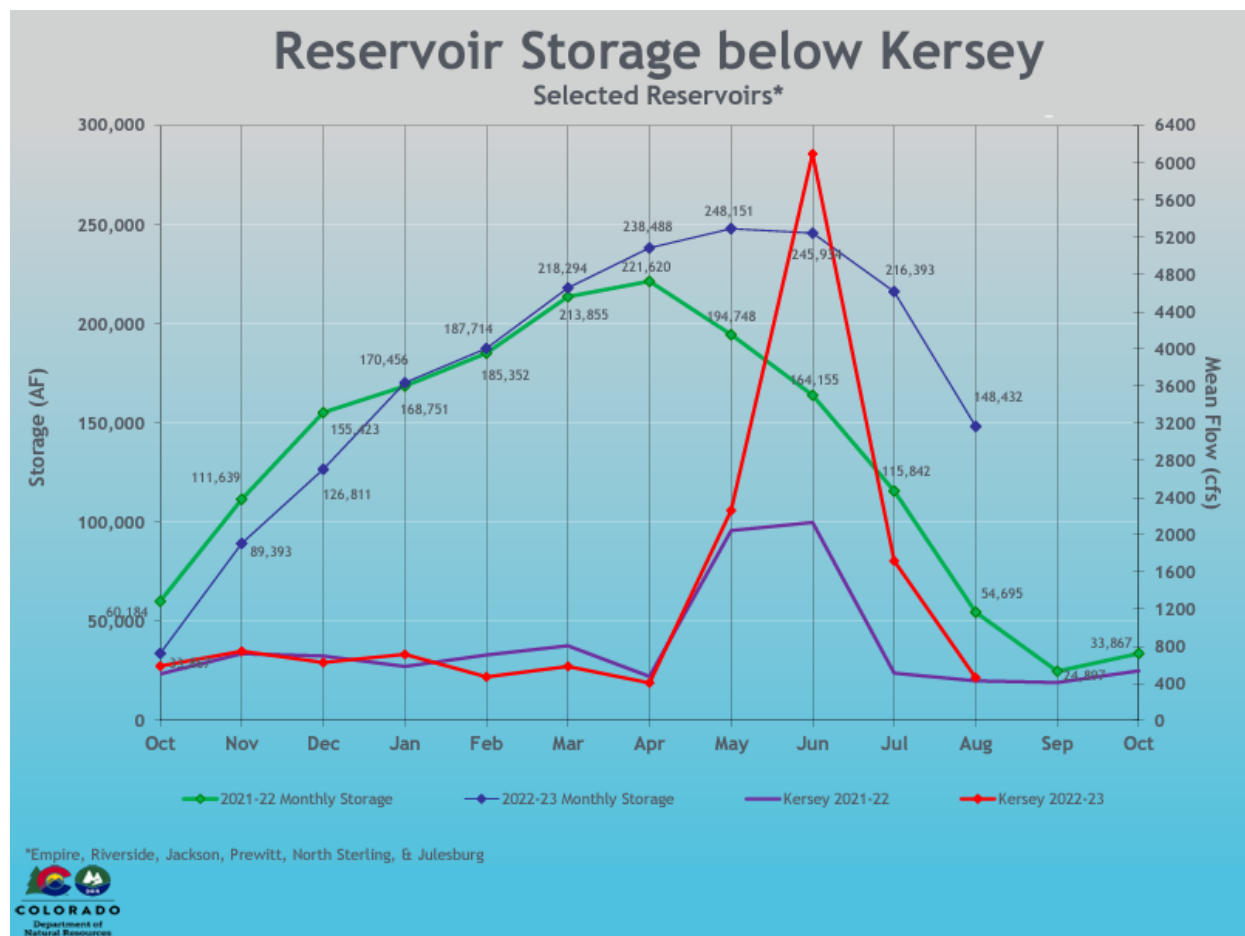


Figure 6. Reservoir storage below Kersey

Long-Term Forecast

NOAA climate prediction center is showing that over the month of October, there is a higher probability of above normal temperatures and above normal precipitation across most of the state of Colorado. The three month outlook shows equal chances of above and below normal temperatures and equal changes of above and below normal precipitation for the South Platte Basin.

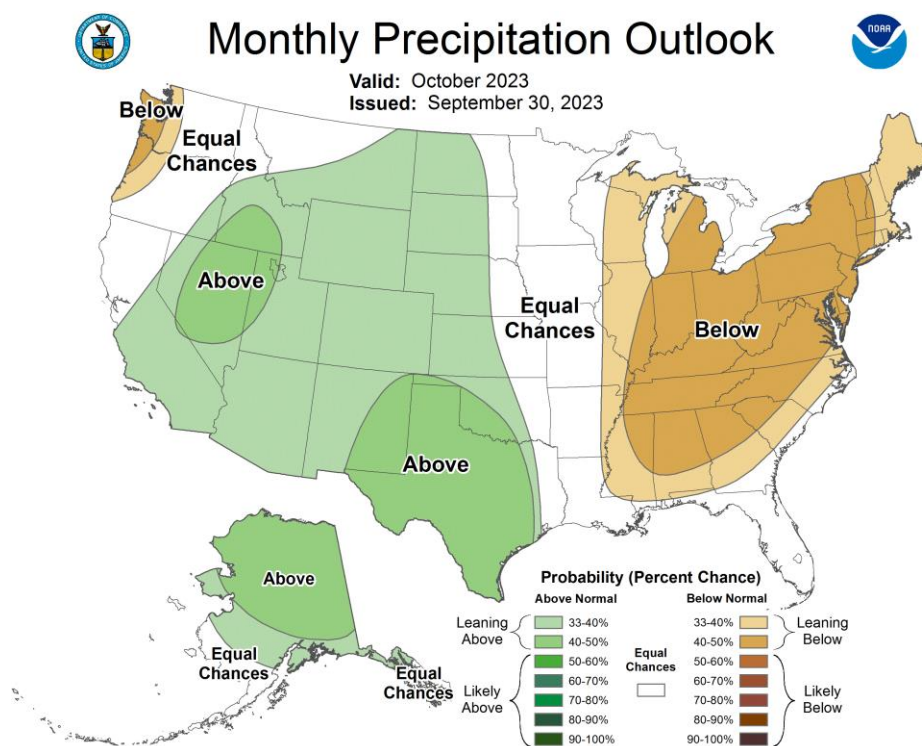
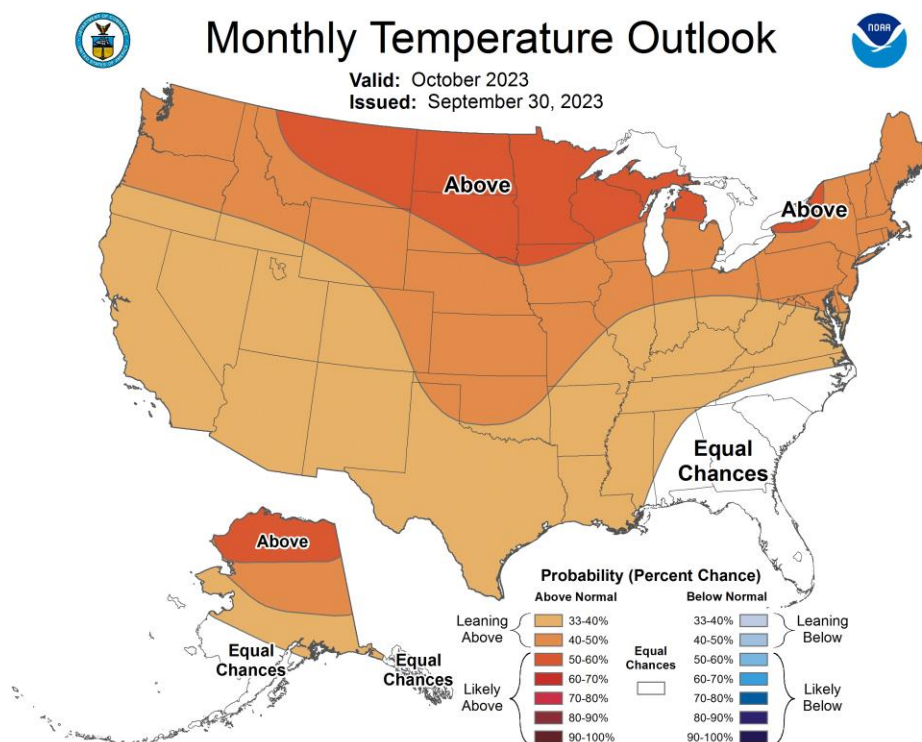


Figure 7. Long term forecast - October 2023

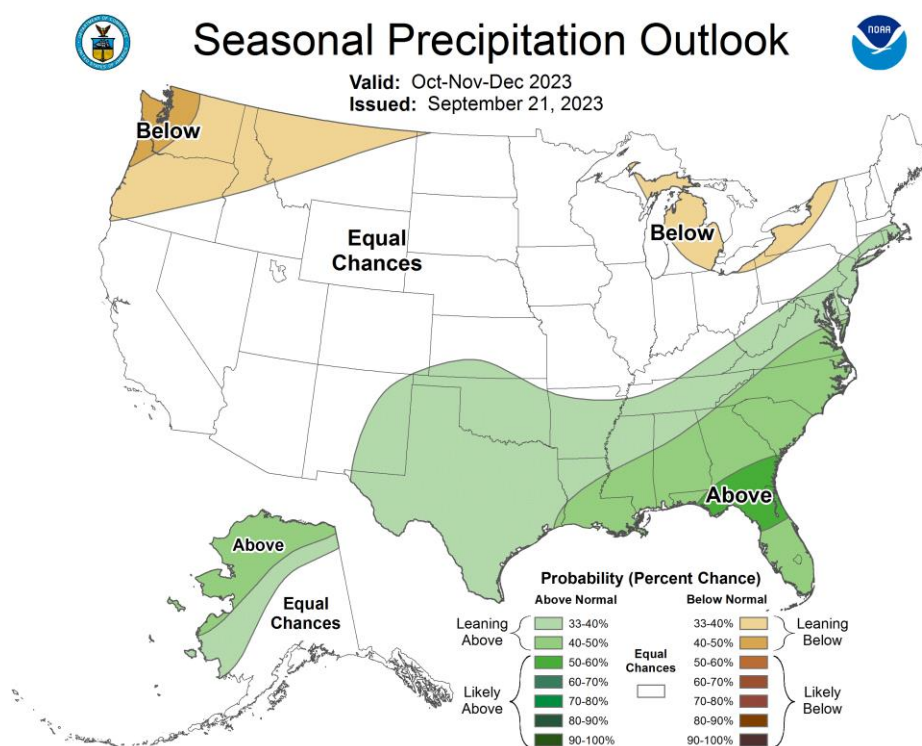
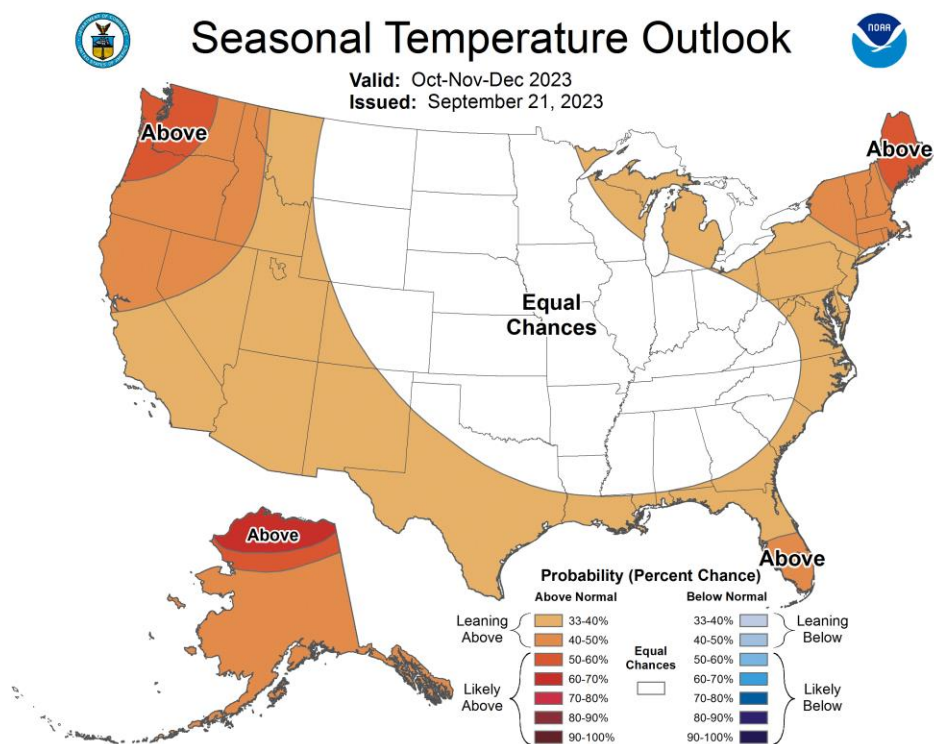


Figure 8. Long term forecast - 3 month

References

30-day forecast: <https://www.cpc.ncep.noaa.gov/products/predictions/30day/>

Colorado Climate Center: <https://climate.colostate.edu/>

Colorado DWR, Division 1 office: <https://dwr.colorado.gov/division-offices/division-1-office>

Colorado DWR, Drought & Surface Water Supply Index:
<https://dwr.colorado.gov/services/water-administration/drought-and-swsi>

Colorado's Water Availability Task Force: <https://cwcb.colorado.gov/water-availability-flood-task-forces>

Drought Monitor: <https://droughtmonitor.unl.edu/Maps/MapArchive.aspx>

Drought Monitor Class Change: <https://droughtmonitor.unl.edu/Maps/ChangeMaps.aspx>

High Plains Regional Climate Center: <https://hprcc.unl.edu/maps.php?map=ACISClimateMaps>

National Weather Service: https://www.weather.gov/bou/co_precipitationtemperature

NRCS, Water Supply and Data Products:
<https://www.nrcs.usda.gov/wps/portal/wcc/home/quicklinks/states/colorado/products/watersupply>

Snow Water Equivalent, Colorado: https://www.weather.gov/bou/co_snowpack

Snow Water Equivalent, South Platte Basin:
https://www.nrcs.usda.gov/wps/portal/nrcs/detail/co/snow/products/?cid=nrcs144p2_063323

Three Month Precipitation and Temperature Outlooks:
http://www.cpc.ncep.noaa.gov/products/predictions/long_range/seasonal.php?lead=1