

## Utah Water Assessment & Conditions Monitoring (Drought Webinar)

# The meeting will begin shortly







Thank you to our contributors









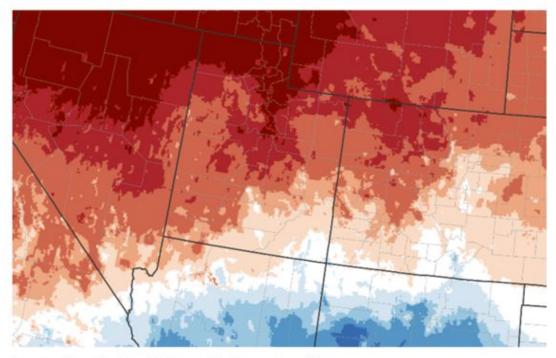
# Utah Water Assessment & Conditions Monitoring Webinar

October 25, 2022

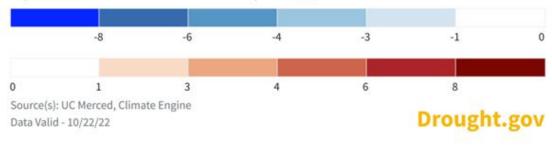
### 7-Day and 30-Day Temperature Anomaly

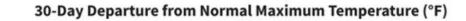
7-Day Departure from Normal Maximum Temperature (°F)



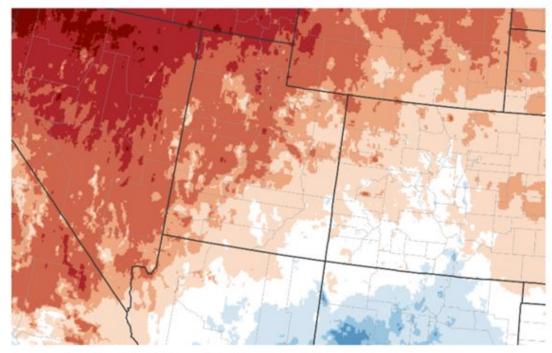


Departure from the 1991-2020 Normal Max Temperature (°F)

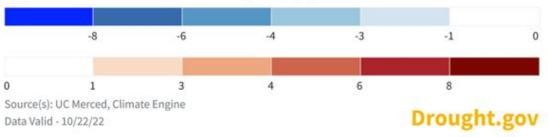






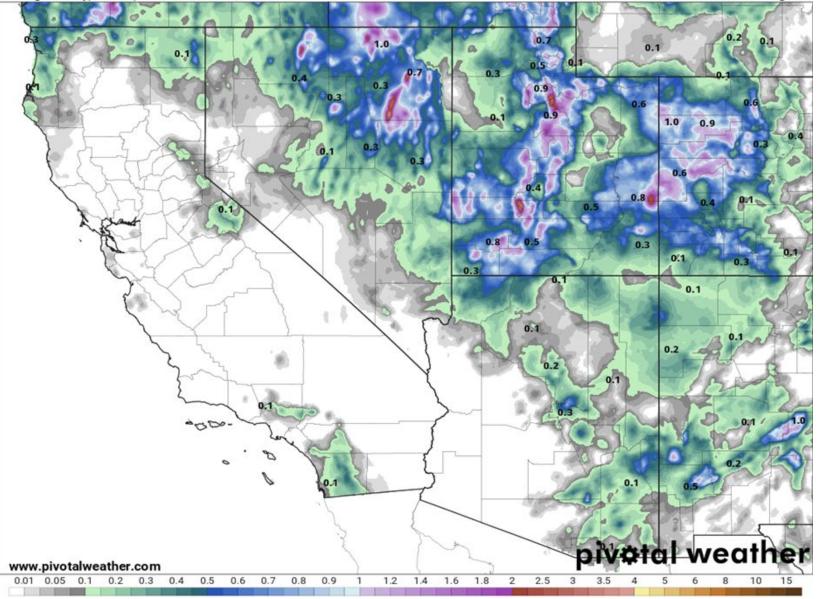


Departure from the 1991–2020 Normal Max Temperature (°F)



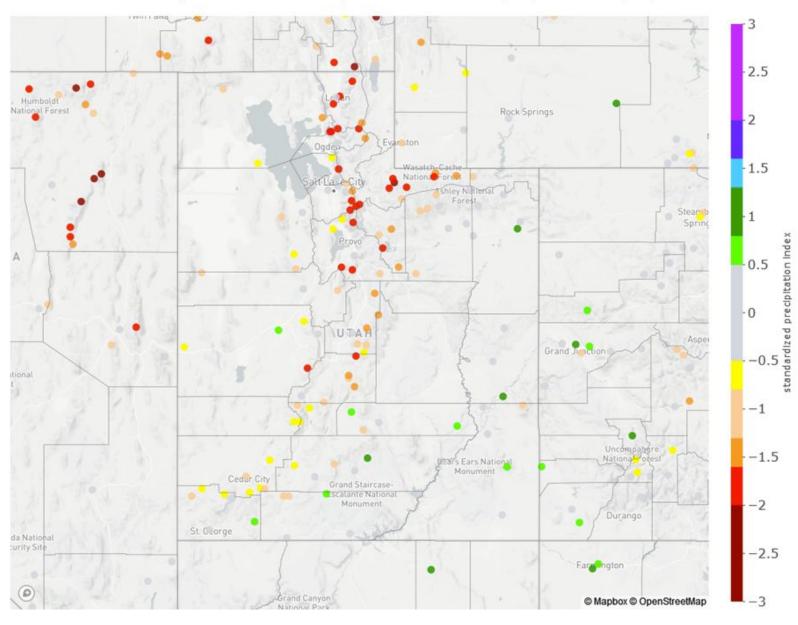
## 3-day Observed Precipitation 72-Hour Stage IV Precipitation Analysis (in) Ending Monday, Oct. 24, 2022 at 5 a.m. PDT

Init: Mon 2022-10-24 12z NCEP Stage IV

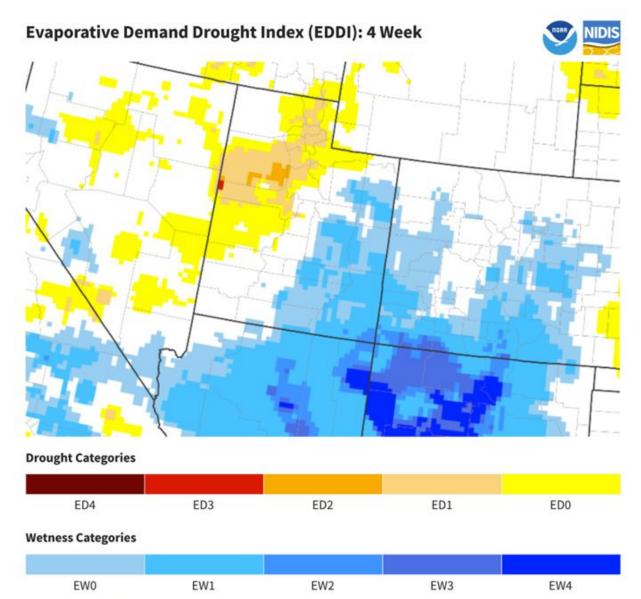


### 30-day SPI

30-day Standardized Precipitation Index: 2022/09/24 - 2022/10/23



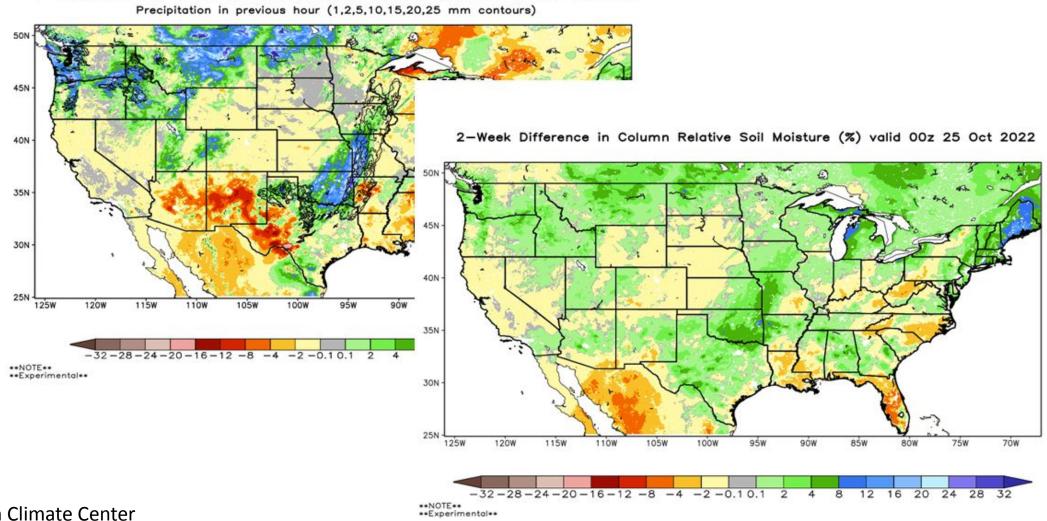
### EDDI (4-week)



Source(s): NOAA Physical Sciences Laboratory Data Valid - 10/18/22

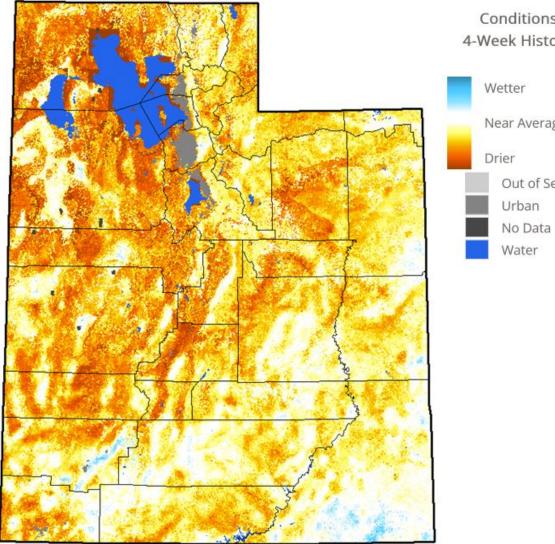
#### Drought.gov

#### Change in Soil Moisture



1-Week Difference in 10-40 cm Relative Soil Moisture (%) valid 00z 25 Oct 2022

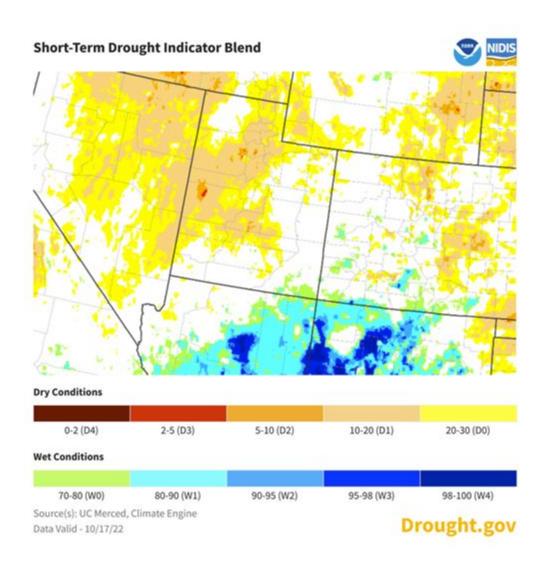
### Quick-DRI Short Term Drought Stress

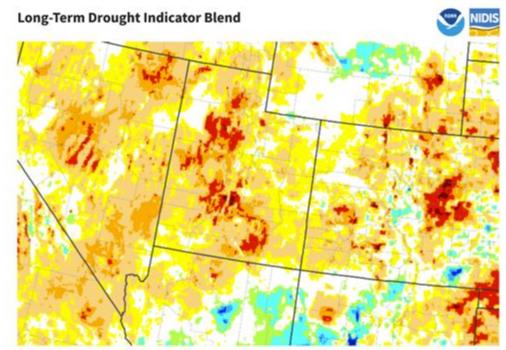


Conditions Relative to 4-Week Historical Normals



### **NIDIS Drought Indicator Blends**





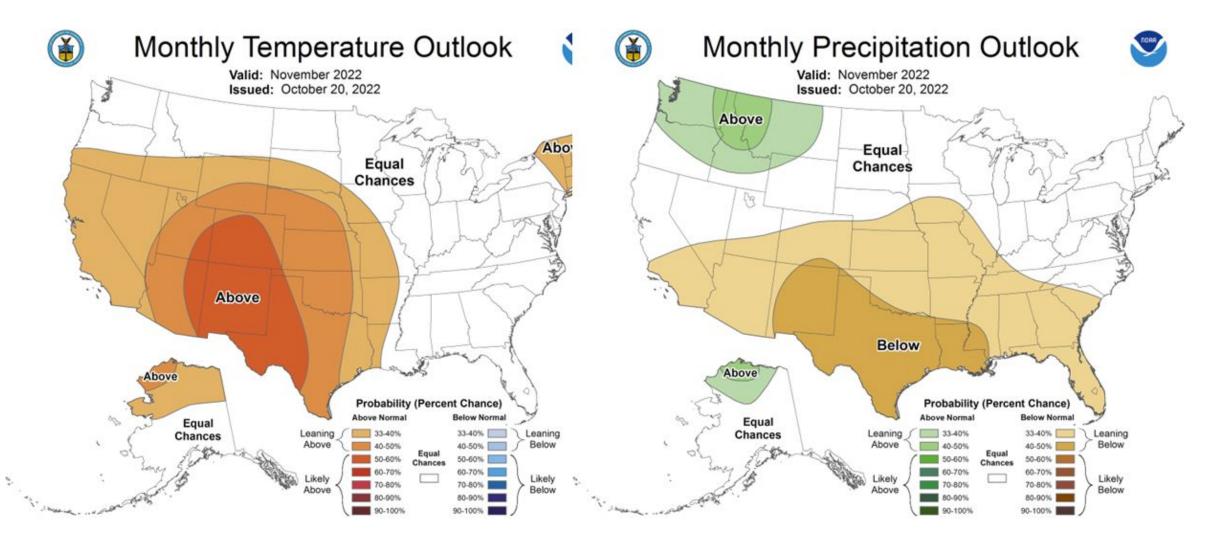
#### **Dry Conditions**

0-2 (D4)	2-5 (D3)	5-10 (D2)	10-20 (D1)	20-30 (D0)	

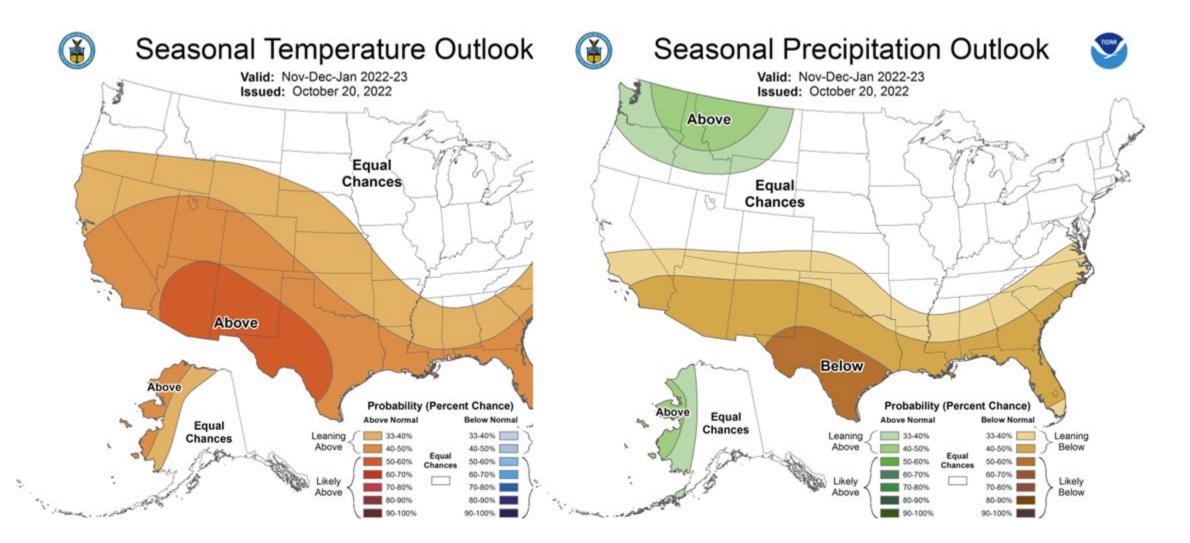
Wet Conditions

70-80 (W0)	80-90 (W1)	90-95 (W2)	95-98 (W3)	98-100 (W4)
Source(s): UC Merced,	Climate Engine			
Data Valid - 10/17/22			D	rought.gov

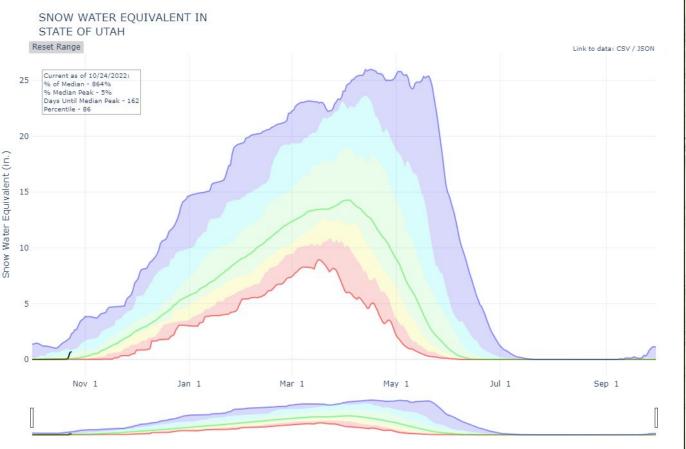
## CPC One-Month Outlook



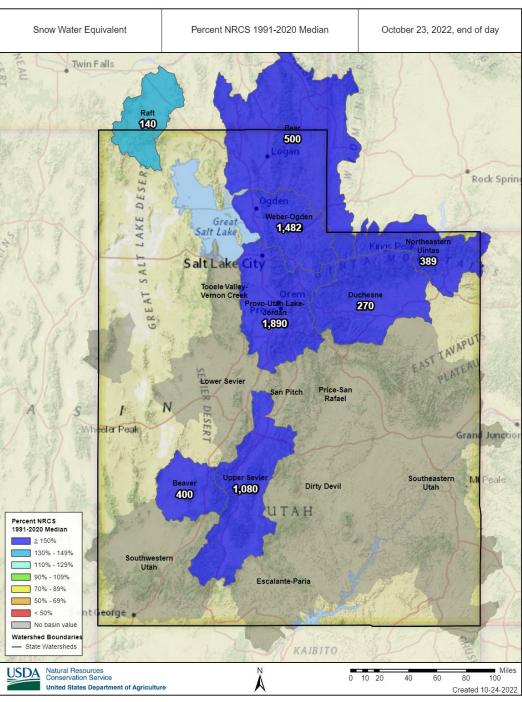
## CPC Three-Month Outlook



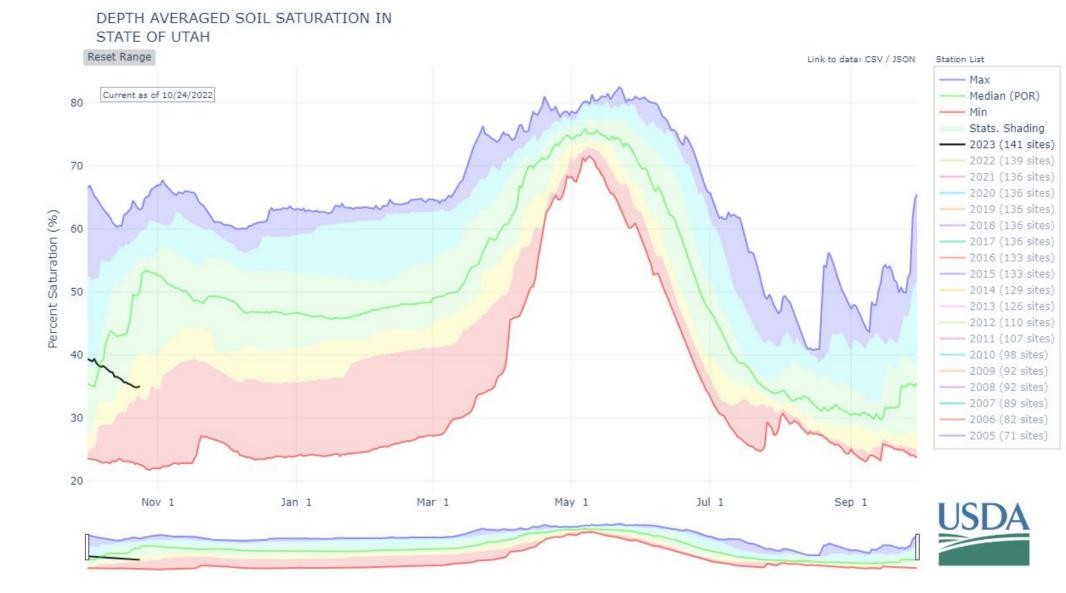
### Snowpack



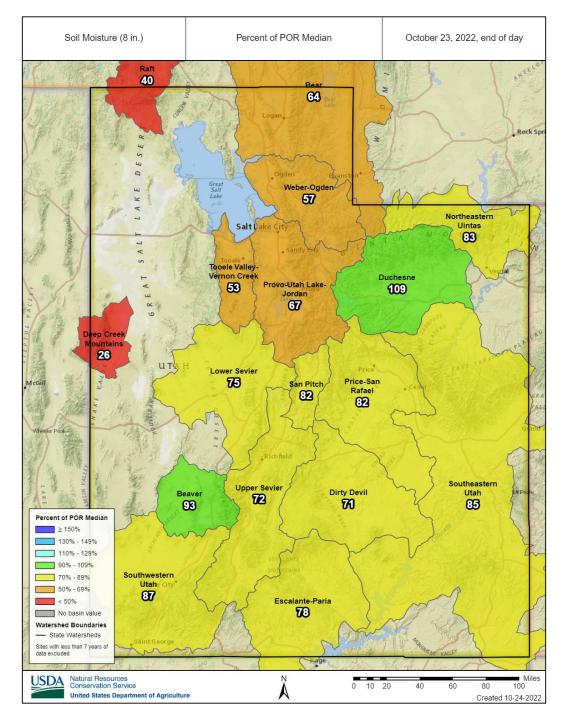
Agency - NRCS Snow Survey Presenter - Jordan Clayton

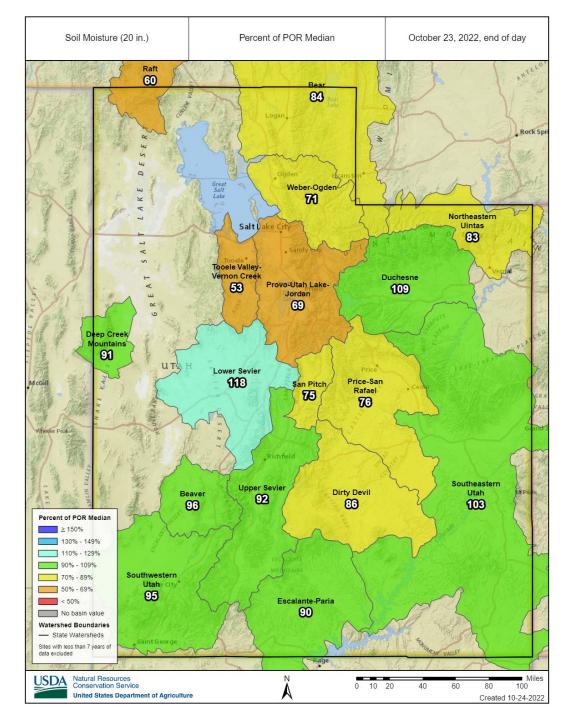


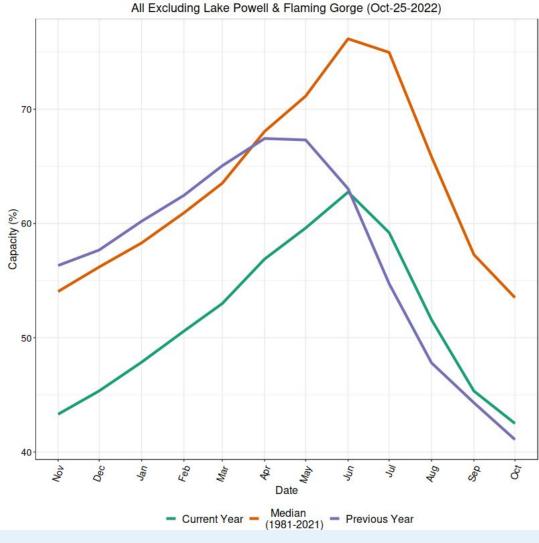
#### Soil Moisture



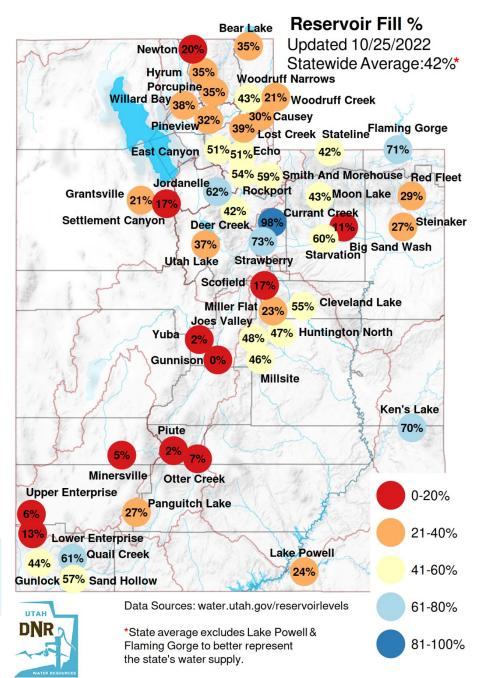
Agency - NRCS Snow Survey Presenter - Jordan Clayton





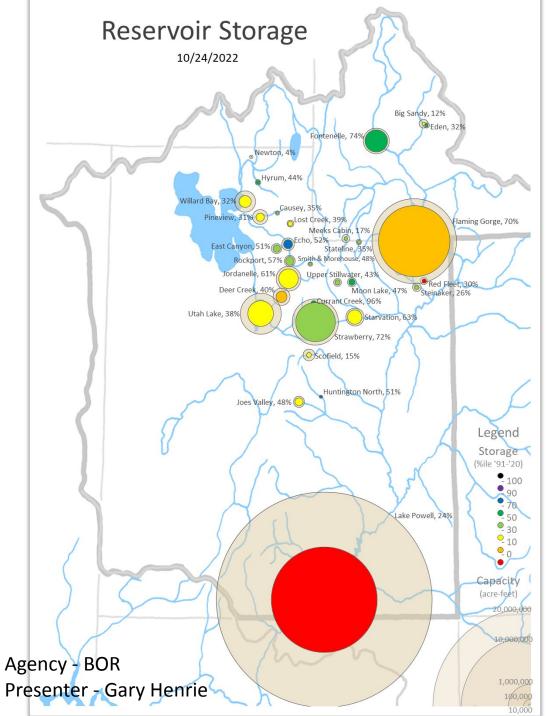


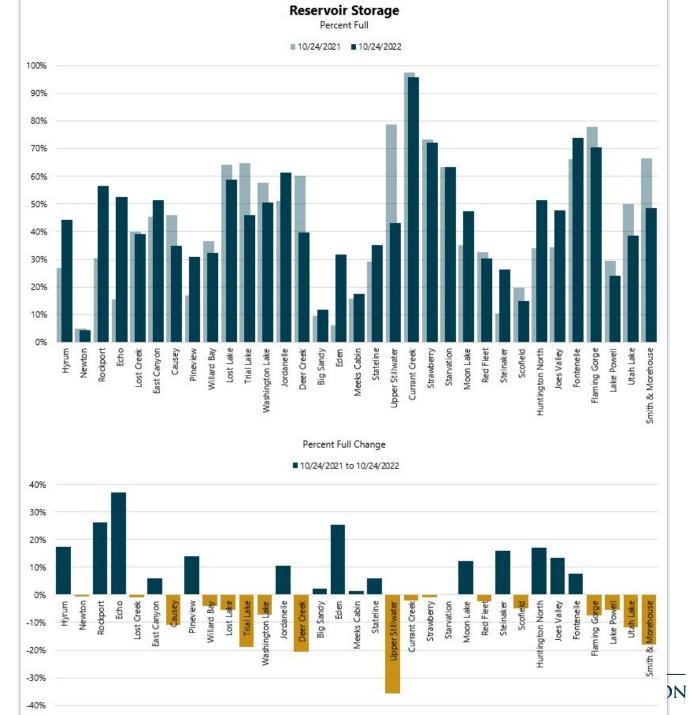
Outdoor watering is ending Reservoir levels should be at or close to lowest until spring

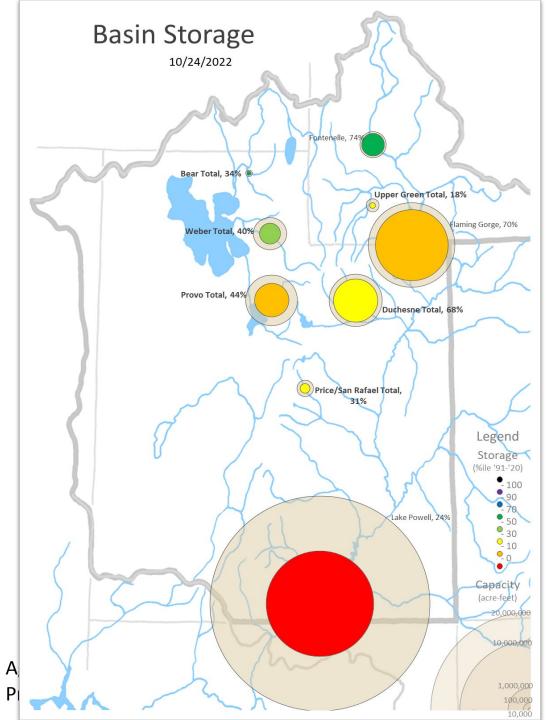


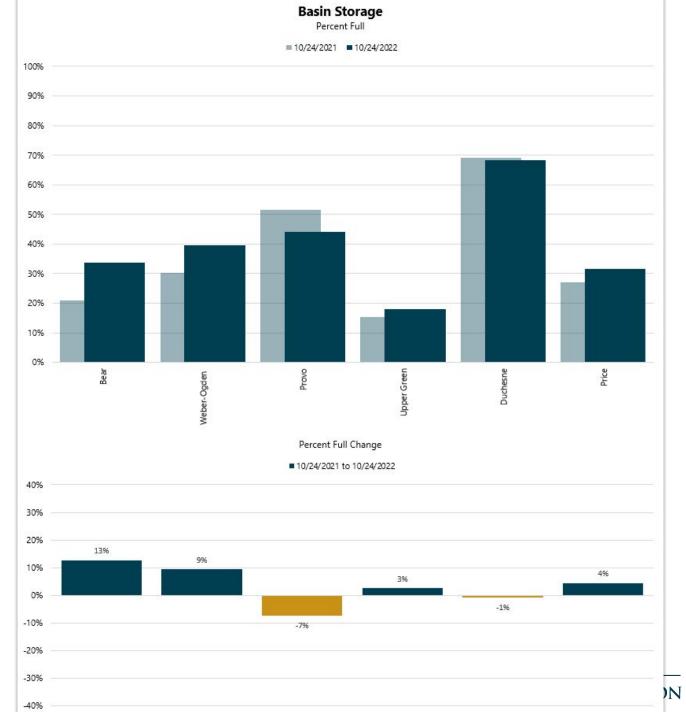
Agency - Utah Division of Water Resources Presenter - Laura Haskell

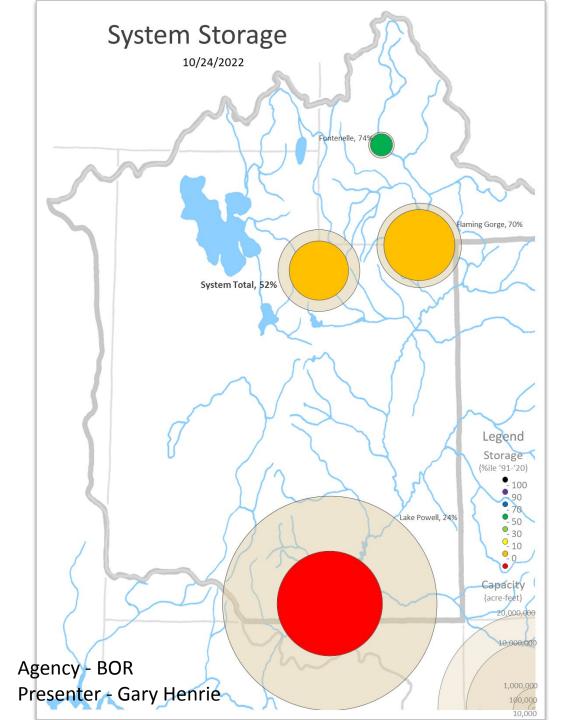
#### Total capacity including these is 36%

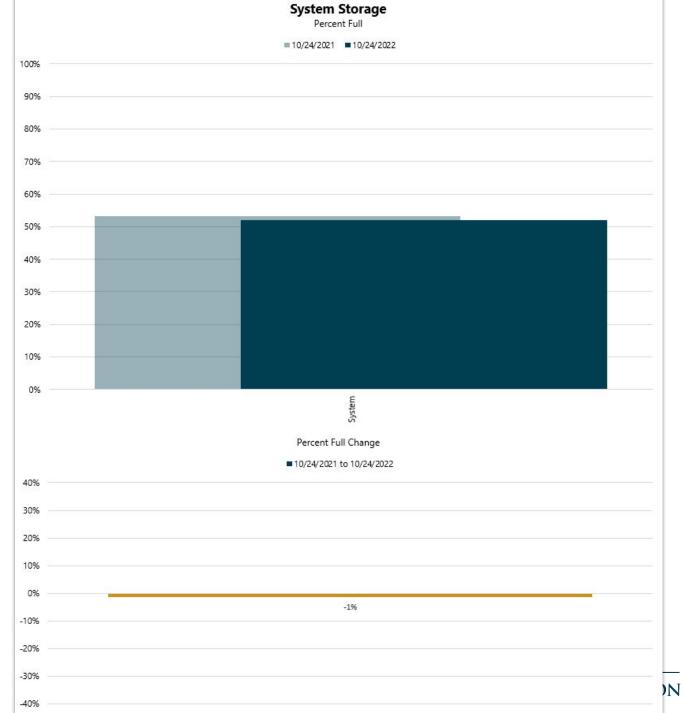




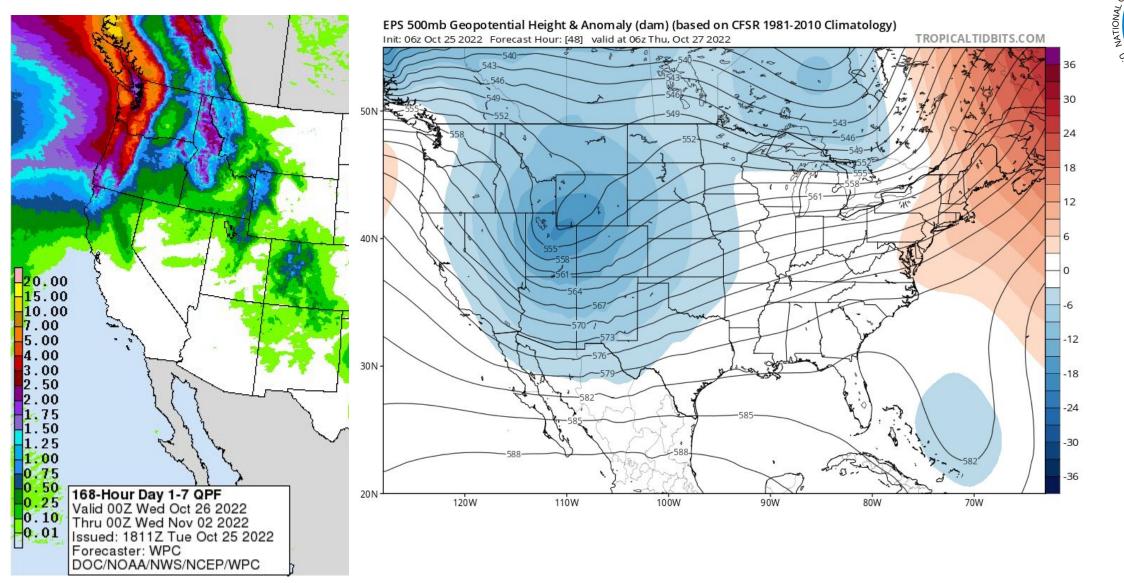








### Weather Forecast Office Utah Day 1-7 Outlook

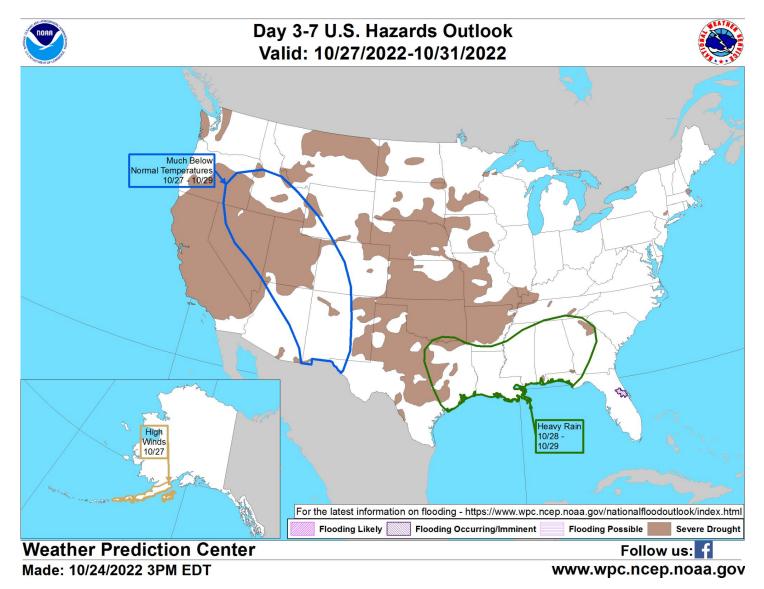


ND ATMOSPHER

NOAA

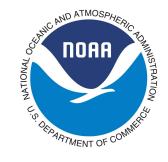
OF ARTMENT OF CON

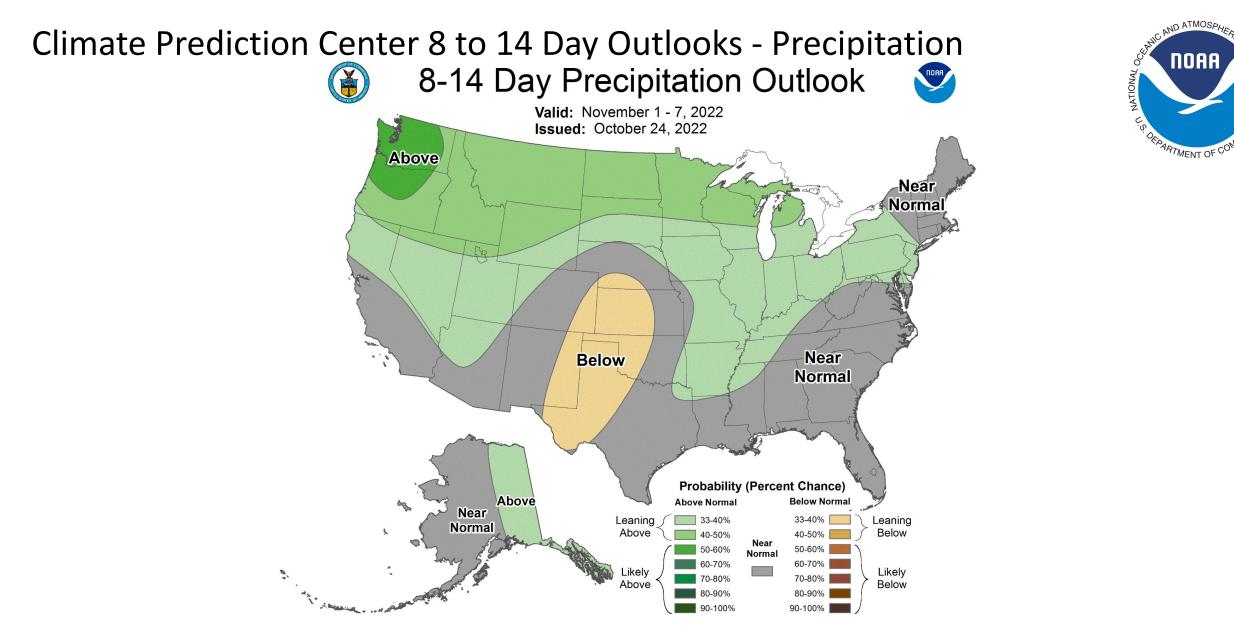
### Weather Prediction Center U.S. Day 3-7 Hazards Outlook



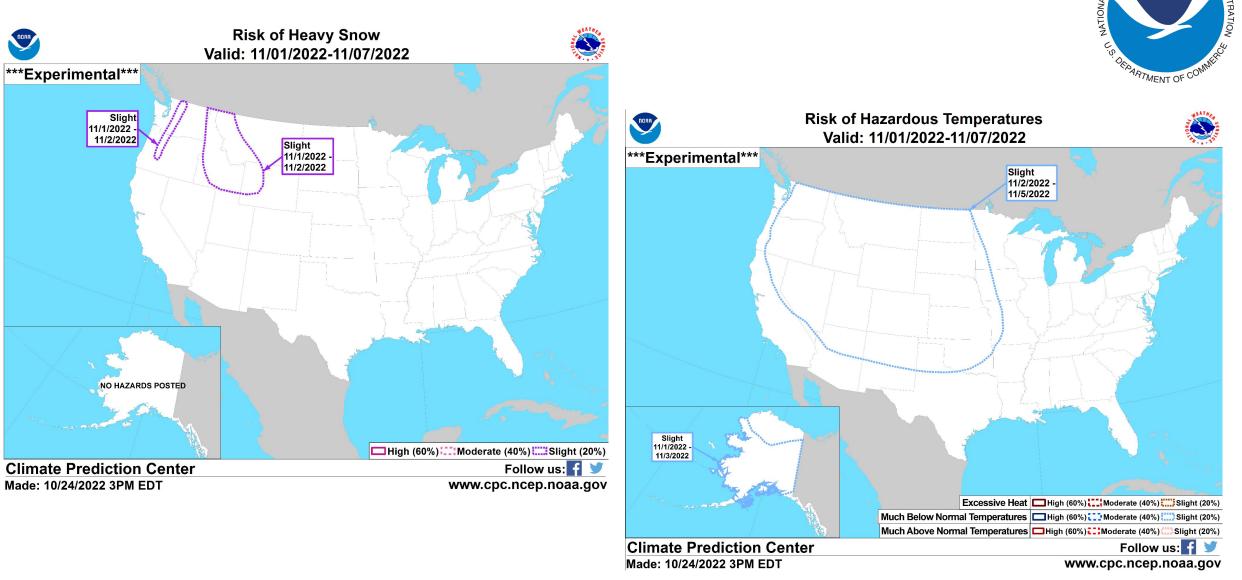
NOAR CAND ATMOSPHERIC TAMUSTRATION

#### Climate Prediction Center 8 to 14 Day Outlooks - Temperature 8-14 Day Temperature Outlook NORA Valid: November 1 - 7, 2022 Issued: October 24, 2022 Above Below Near Normal 12 Near Normal **Probability (Percent Chance)** Above Normal Below Normal 5 33-40% Leaning Leaning 33-40% Below Above Below 40-50% 40-50% Near 50-60% 50-60% Normal 60-70% 60-70% Likely Likely 70-80% Above Below 80-90% 90-100% 90-100%



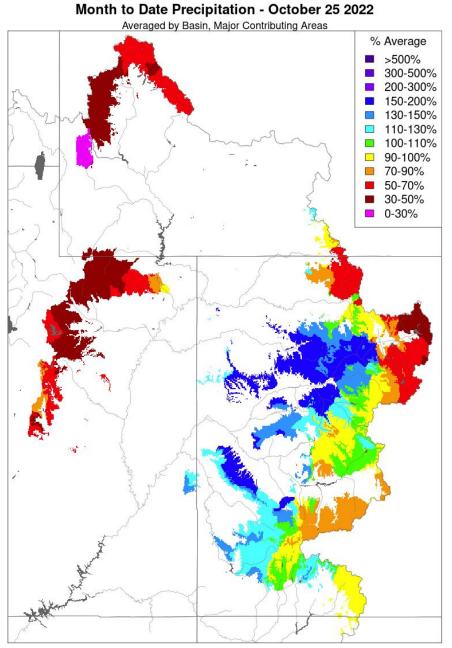


### Climate Prediction Center U.S. Week-2 Hazards Outlook



ATMOSA

NOAA

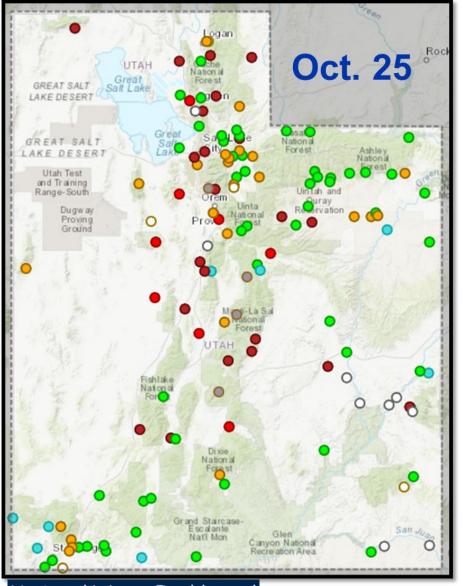


THE STREET OF COMMERCIAL

Recent storms have been beneficial to the Upper Colorado and Great Basin areas. A storm forecasted over the next few days is expected to bring precipitation to the Upper Green River Basin. It's still early in the season, but it's a good start!

Prepared by NOAA, Colorado Basin River Forecast Center Salt Lake City, Utah, www.cbrfc.noaa.gov

### **Current Streamflow Conditions**



#### National Water Dashboard

\*Sites must have at least 10 years of streamflow record to be ranked on this graphic

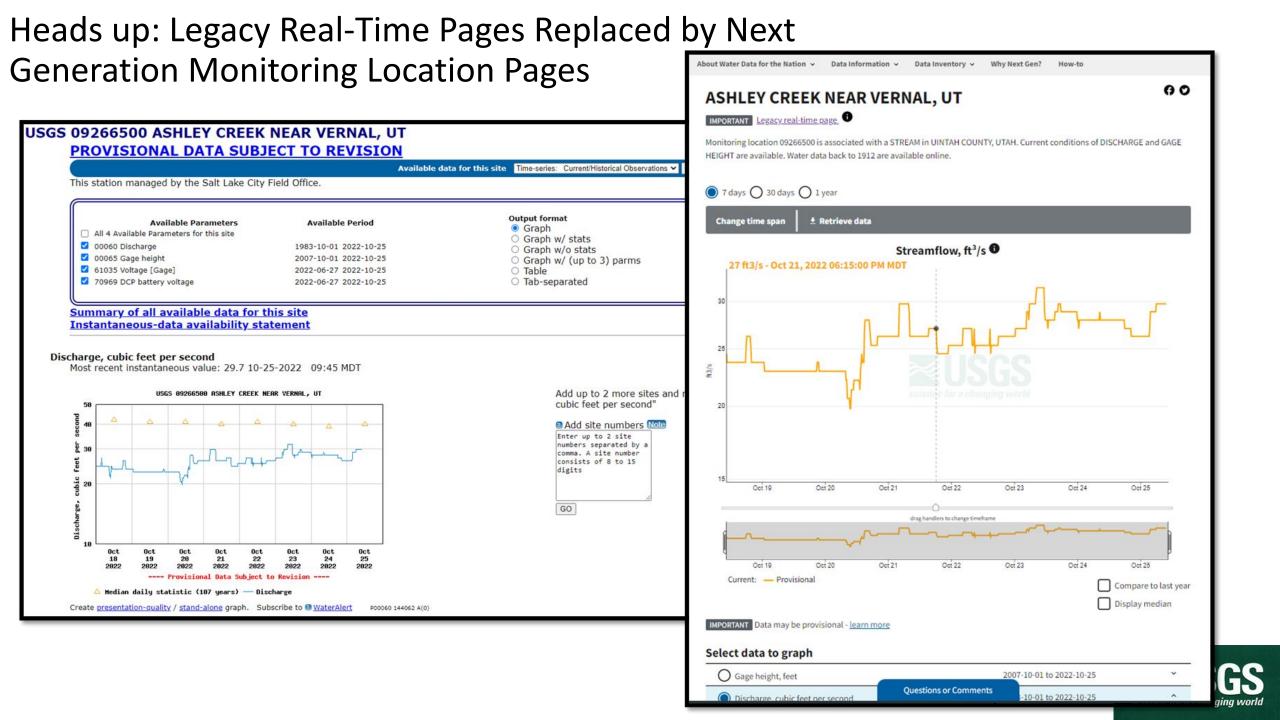
### Oct. 11 Oct. 25

Day-of-Year Status	% G	ages
All-time high for this day-of-year	0.0%	0.0%
Much above normal for this day-of-year	1.5%	0.0%
Above normal for this day-of-year	3.6%	6.6%
Normal for this day-of-year	35.8%	39.4%
Below normal for this day-of-year	22.6%	18.2%
Much below normal for this day-of-year	20.4%	16.1%
All-time low for this day-of-year	4.4%	6.6%
Not ranked - insufficient record	8.0%	8.0%
Not ranked - no measurement	3.6%	1.5%

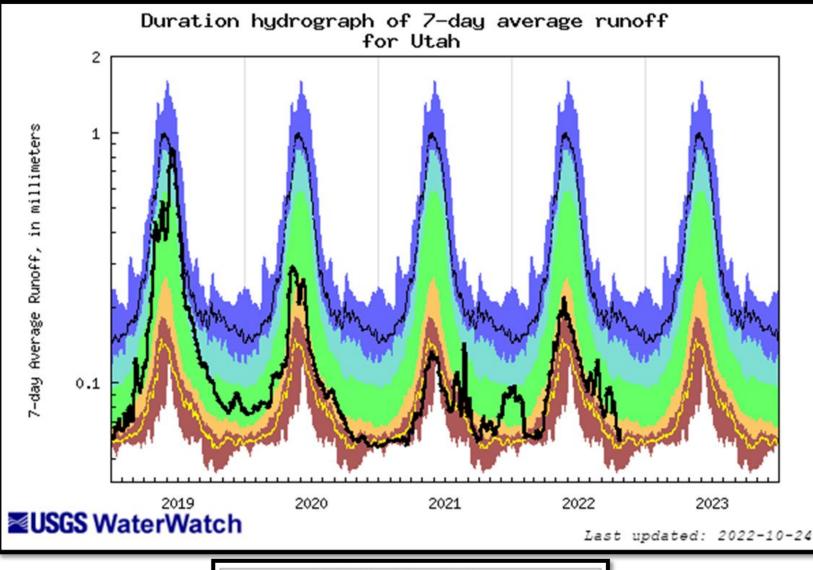
St	reamflow: Status	
•	Above flood stage	
0	All-time high for this day	100 <sup>th</sup> percentile (maximum)
	Much above normal	>90 <sup>th</sup> percentile
٠	Above normal	76 <sup>th</sup> – 90 <sup>th</sup> percentile
	Normal	25 <sup>th</sup> – 75 <sup>th</sup> percentile
	Below normal	10 <sup>th</sup> – 24 <sup>th</sup> percentile
	Much below normal	<10 <sup>th</sup> percentile
	All-time low for this day	0 <sup>th</sup> percentile (minimum)
0	Not flowing	
•	Not ranked	
	Measurement flag	
0	Recent measurement	t unavailable

Agency - USGS UT WSC Presenter - Ryan Rowland





### Area Based Runoff Duration Hydrograph for Utah



Area based runoff computed from mixed regulated and unregulated streamflows

_	and the second se	Apialia	tion - Pe	Contine	010330	3	-
lowest- 0th percentile	5	10-24	25-75	76-90	95	90th percentile -highest	Runof
Much below Normal		Below normal	Normal	Above	Much above normal		

Agency - USGS UT WSC Presenter - Ryan Rowland



#### Stational Water Dashboard Q Find a place Great Sait Lake Bay Sti DESERT North Ogden Plain Cit Ogden **GSL South Side** Hooper Clearfield Air Force Utah Test and Training Causeway Rand Range-North Syracuse Layton (10010024)Great Salt Lake Cavsville Morgan Box Elder PUDDLE Tooele armington VALLEY Utah Test PUDDLE VALLE and Training Range-North Great Salt Lake Bountiful **GSL Saltair** (10010000) RIPPLE VALLEY Lake West East Magna City Murray



### Great Salt Lake Water Surface Elevation (South Arm)

### Great Salt Lake Water Surface Elevation (South Arm)

#### USGS USGS 10010024 GSL S. SIDE OF CAUSEWAY, 6 MILES E OF LAKESIDE, UT surface 4189.40 feet uater 1929, 4189.20 NGVD reservoir 4189.00 above 4188.80 P DAILY Lake or elevation 4188.60 4188.40 Sep 17 Oct 22 Sep 10 Sep 03 Sep 24 Oct 01 Oct 08 **Oct 15** 2022 2022 2022 2022 2022 2022 2022 2022 Provisional Data Subject to Revision ----

Mean daily value 10/24/2022 = 4,188.8'

- Mean daily value 10/10/2022 = 4,188.9'
- Currently 2.6' below seasonal max in April



#### Great Salt Lake Hydro Mapper

#### Great Salt Lake at Saltair Boat Harbor, UT

Monitors lake elevation in the south arm and is located in the GSL Marina harbor, at the southern end of GSL. Water surface elevation of GSL have been combined such that this gage is associated with an elevation record dating back to 1847. Some data included on this graph are provisional and may be revised.

Note that as of September 25, 2022, data for the USCS Great Salt Lake at Saltair Boat Harbor gage are temporarily unavailable due to low lake levels. Current lake levels for the southern half of the lake are available via the USCS Great Salt Lake gage on the south side of the railroad causeway (site ID 10010024), which has been added to the plot below.

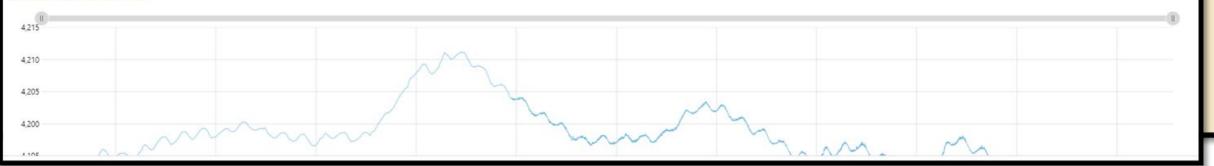
#### USGS Gaging Station 10010000 and USGS Gaging Station 10010024



#### Great Salt Lake Near Saline, UT

Monitors lake elevation in the north arm and is located about 3.4 miles northwest of Saline, UT, in the historic Little Valley boat harbor. Water surface elevation measured by this gage is representative of the portion of GSL north of the railroad causeway. This gage has an elevation record dating back to 1966. Some data included on this graph are provisional and may be revised.

#### USGS Gaging Station 10010100

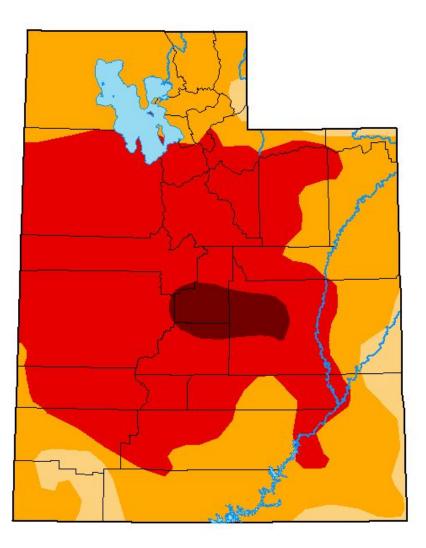


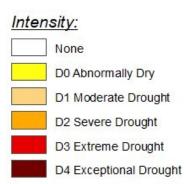




#### U.S. Drought Monitor Utah

#### October 18, 2022 (Released Thursday, Oct. 20, 2022) Valid 8 a.m. EDT





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:

Adam Hartman NOAA/NWS/NCEP/CPC



droughtmonitor.unl.edu