

# Utah Drought Monitor Webinar

# The meeting will begin shortly

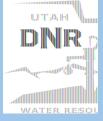




Thank you to our contributors





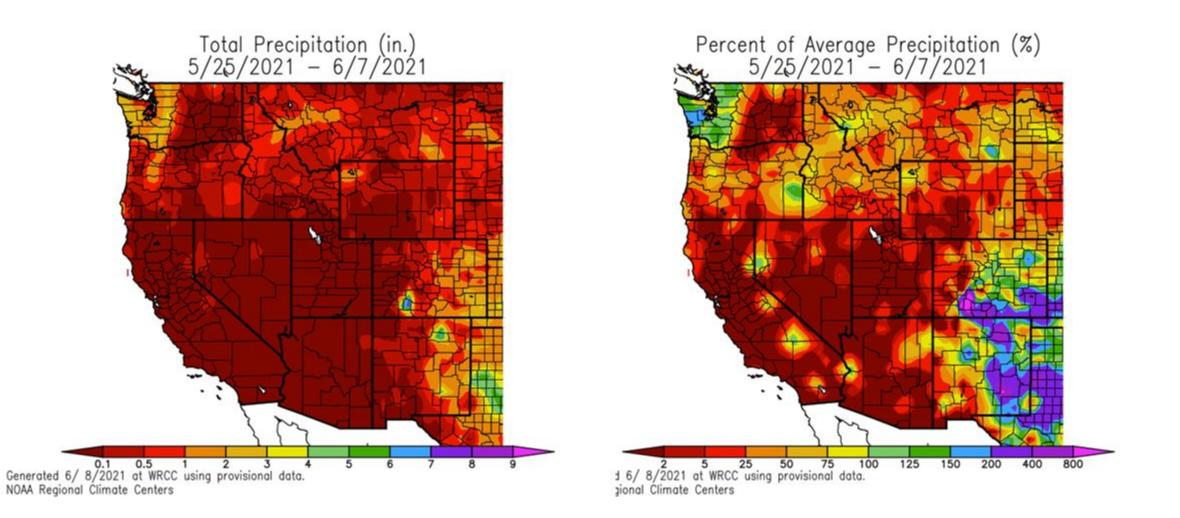




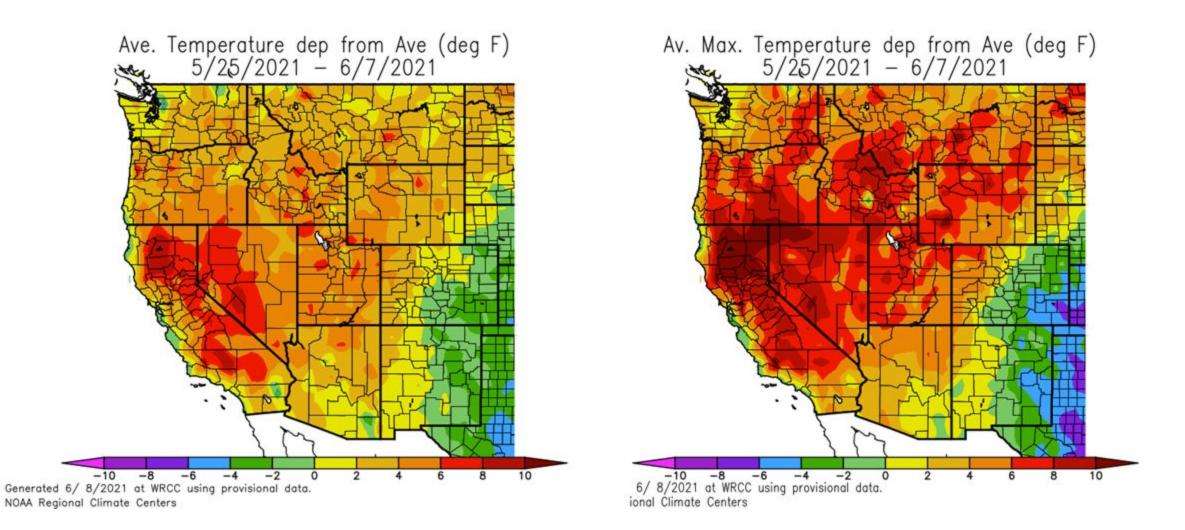
# Utah Drought Monitor Webinar

June 8, 2021

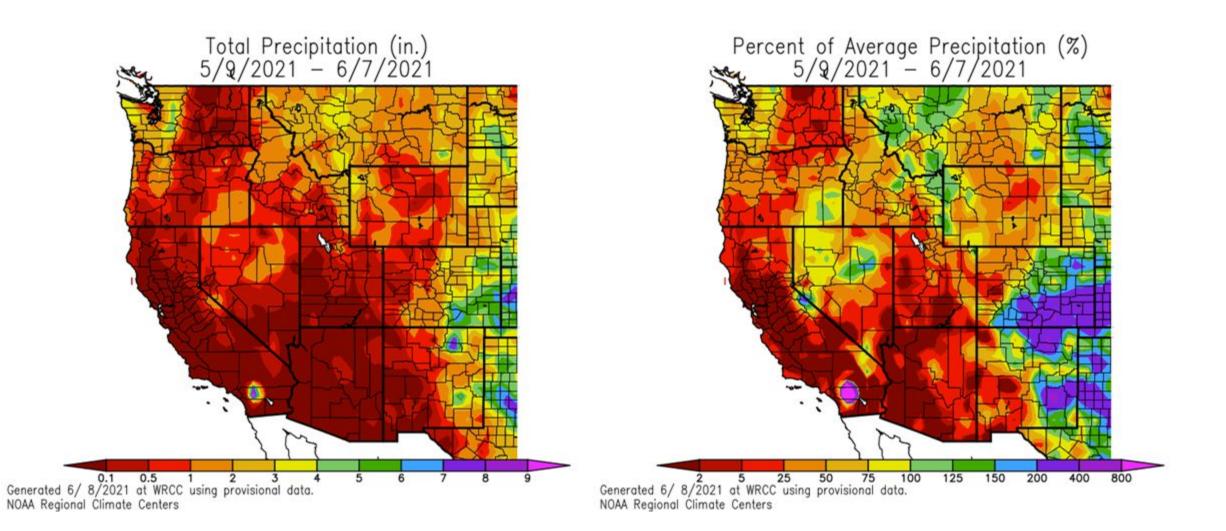
#### Precipitation 14 day history (Percent of Average)



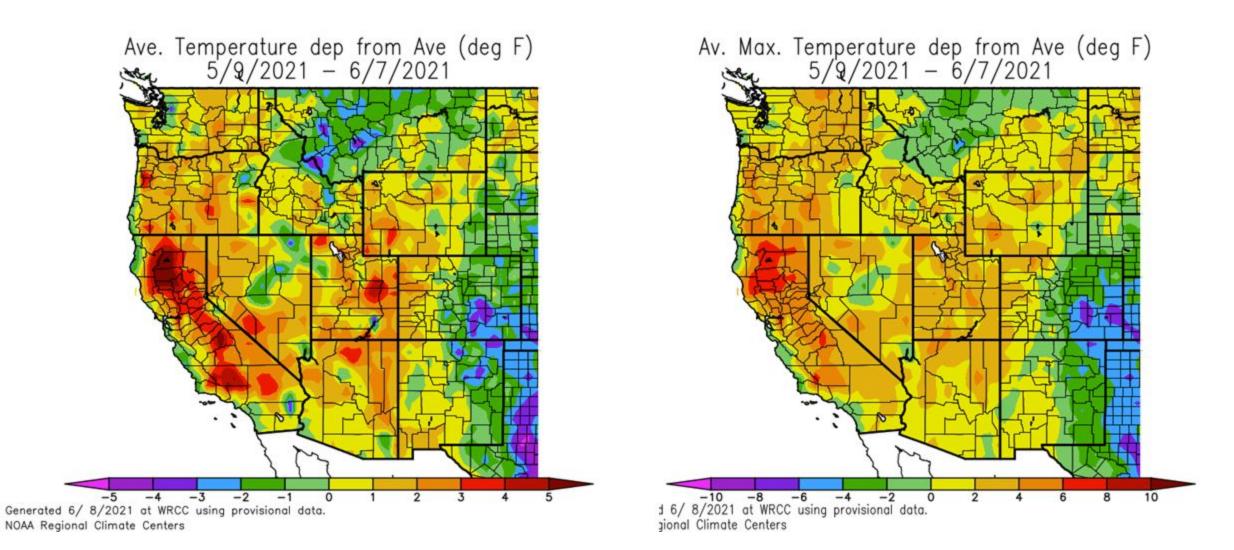
#### Temperature 14 day (Related to Average)



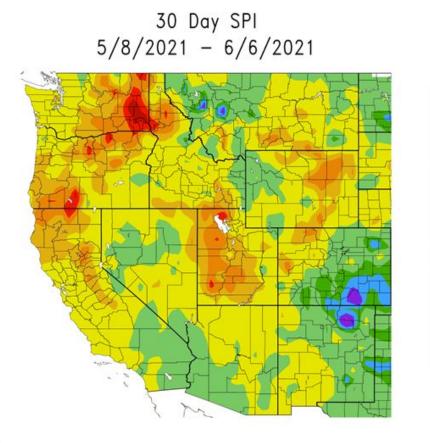
#### Precipitation 30 day history (Percent of Average)



#### Temperature 30 day (Related to Average)



# 30 Day Standardized Precipitation Index and May's Evaporative Demand Drought Index



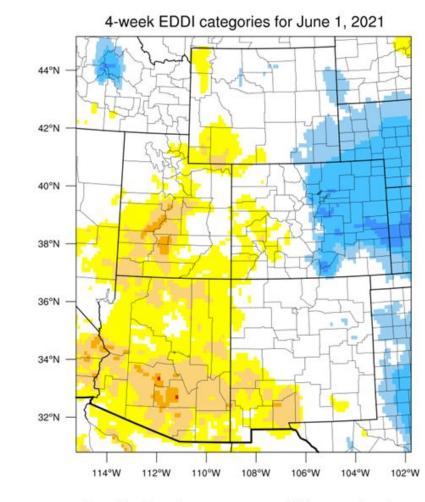
Generated 6/8/2021 at HPRCC using provisional data.

NOAA Regional Climate Centers

-1.5

-2 -2.5

-3

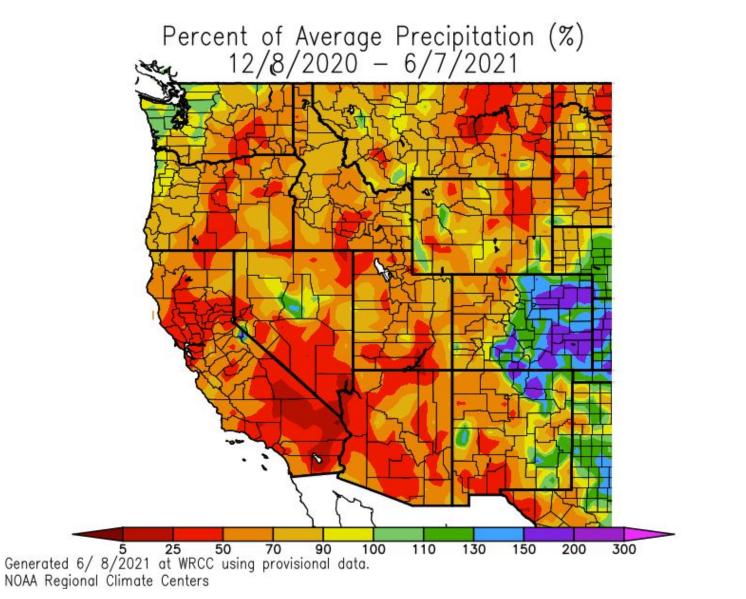


Drought categories					_	Wetness categories			
ED4 E	ED3	ED2	ED1	ED0	EWO	EW1	EW2	EW3	EW4

100% 98% 95% 90% 80% 70% 30% 20% 10% 5% 2% 0% (EDDI-percentile category breaks: 100% = driest; 0% = wettest)

Generated by NOAA/ESRL/Physical Sciences Laboratory

## Precipitation anomaly over last 6 months



### Precipitation & Evapotranspiration

Station Name	Location	Last Updated	ETo inches		ETc inches		Precipitation inches		Irrigation Requirement inches	
			Last 24 hour	Last 7 Days	Last 24 hour	Last 7 Days	Last 24 hour	Last 7 Days	Last 24 hour	Last 7 Days
<u>Logan, UT</u>	Logan	06/08/2021 10:00 am	0.25"	1.71"	0.00"	0.00"	0.00"	0.00"	0.21	1.39"
<u>Brigham City, UT VWS</u>	Brigham City	06/08/2021 11:00 am	0.30"	1.92"	0.25"	1.56"	0.00"	0.00"	0.25	1.56"
Randolph, UT VWS	Randolph	06/08/2021 11:00 am	0.29"	1.84"	0.24"	1.49"	0.00"	0.00"	0.24"	1.49"
Weber Basin Water	Layton	06/08/2021 11:00 am	0.26"	1.68"	0.21"	1.36"	0.00"	0.00"	0.21"	1.36"
Morgan, UT VWS	Morgan	06/08/2021 11:00 am	0.30"	1.92"	0.25"	1.55"	0.00"	0.00"	0.25	1.55"
North Salt Lake, UT VWS	North Salt Lake	06/08/2021 11:00 am	0.32"	1.93"	0.26"	1.56"	0.00"	0.00"	0.26	1.56"
Park City, UT VWS	Park City	06/08/2021 11:00 am	0.30"	1.83"	0.25"	1.49"	0.00"	0.00"	0.25"	1.49"
Solamere	Park City	06/08/2021 08:15 am	0.23"	1.51"	0.19"	1.22"	0.00"	0.00"	0.19"	1.22"
Tooele, UT VWS	Tooele	06/08/2021 11:00 am	0.35"	2.00"	0.28"	1.62"	0.00"	0.00"	0.28"	1.62"
Jordan Valley WCD	West Jordan	06/08/2021 12:00 am	0.37"	2.06"	0.30"	1.67"	0.00"	0.00"	<mark>0.30</mark> "	1.67"
Daybreak, UT VWS	South Jordan	06/08/2021 11:00 am	0.36"	2.09"	0.29"	1.70"	0.00"	0.00"	0.29"	1.70"
Provo, UT VWS	Provo	06/08/2021 11:00 am	0.33"	2.06"	0.27"	1.67"	0.00"	0.00"	0.27"	1.67"
Heber City, UT VWS	Heber City	06/08/2021 11:00 am	0.29"	1.84"	0.24"	1.49"	0.00"	0.00"	0.24"	1.49"
Duchesne, UT VWS	Duchesne	06/08/2021 11:00 am	0.31"	2.01"	0.25"	1.63"	0.00"	0.00"	0.25"	1.63"
Vernal, UT VWS	Vernal	06/08/2021 11:00 am	0.31"	1.91"	0.26"	1.55"	0.00"	0.00"	0.26"	1.55"
Manilla, UT VWS	Manilla	06/08/2021 11:00 am	0.30"	1.71"	0.24"	1.39"	0.00"	0.05"	0.24"	1.35"
Nephi, UT VWS	Nephi	06/08/2021 11:00 am	0.30"	1.96"	0.25"	1.59"	0.00"	0.00"	0.25	1.59"
Delta, UT VWS	Delta	06/08/2021 11:00 am	0.35"	1.98"	0.29"	1.60"	0.00"	0.00"	0.29"	1.60"
Manti, UT VWS	Manti	06/08/2021 11:00 am	0.29"	1.97"	0.23"	1.60"	0.00"	0.00"	0.23"	1.60"
Richfield, UT VWS	Richfield	06/08/2021 11:00 am	0.30"	1.96"	0.25"	1.59"	0.00"	0.00"	0.25"	1.59"
Circleville, UT VWS	Circleville	06/08/2021 11:00 am	0.32"	2.08"	0.26"	1.69"	0.00"	0.00"	0.26"	1.69"
Price, UT VWS	Price	06/08/2021 11:00 am	0.34"	2.15"	0.28"	1.74"	0.00"	0.00"	0.28	1.74"
Castle Dale, UT VWS	Castle Dale	06/08/2021 11:00 am	0.31"	2.00"	0.25"	1.62"	0.00"	0.00"	0.25"	1.62"
Loa, UT VWS	Loa	06/08/2021 11:00 am	0.29"	1.94"	0.23"	1.57"	0.00"	0.00"	0.23	1.57"
Escalante, UT VWS	Escalante	06/08/2021 11:00 am	0.29"	2.06"	0.24"	1.67"	0.00"	0.00"	0.24"	1.67"
Moab, UT VWS	Moab	06/08/2021 11:00 am	0.34"	2.04"	0.28"	1.66"	0.00"	0.00"	0.28"	1.66"
Blanding, UT VWS	Blanding	06/08/2021 11:00 am	0.30"	1.96"	0.24"	1.59"	0.00"	0.00"	0.24"	1.59"
Beaver, UT VWS	Beaver	06/08/2021 11:00 am	0.29"	1.95"	0.24"	1.58"	0.00"	0.00"	0.24"	1.58"
Cedar City, UT VWS	Cedar City	06/08/2021 11:00 am	0.33"	2.09"	0.27"	1.69"	0.00"	0.00"	0.27	1.69"
St. George, UT VWS	St. George	06/08/2021 11:00 am	0.33"	2.38"	0.27"	1.93"	0.00"	0.00"	0.27"	1.93"
Kanab, UT VWS	Kanab	06/08/2021 11:00 am	0.29"	2.00"	0.23"	1.62"	0.00"	0.00"	0.23"	1.62"

Agency - Lawn Watering Guide Presenter - Laura Haskell

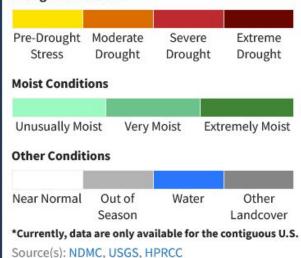
## VegDri Index

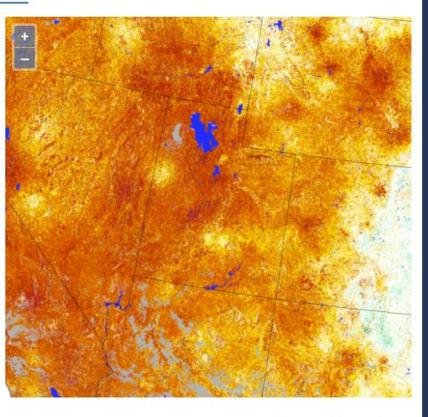
#### U.S. Vegetation and Drought

#### Evaporative Stress Index VegDRI Vegetation Health Index

The Vegetation Drought Response Index (VegDRI) is a weekly depiction of drought's effects on vegetation stress across the contiguous United States, produced by the National Drought Mitigation Center, the U.S. Geological Survey's National Center for Earth Resources Observation and Science, and the High Plains Regional Climate Center. Learn more.

#### **Drought Conditions**





Updates Weekly - 06/08/21

## **Evaporative Stress Index**

#### U.S. Vegetation and Drought

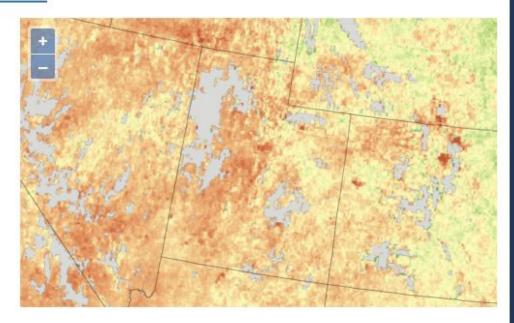
#### Evaporative Stress Index VegDRI Vegetation Health Index

The Evaporative Stress Index (ESI) describes temporal anomalies in evapotranspiration (ET), highlighting areas with anomalously high or low rates of water use across the land surface. The ESI also demonstrates capability for capturing early signals of "flash drought," brought on by extended periods of hot, dry, and windy conditions leading to rapid soil moisture depletion. Learn more.

#### **Standardized ET/PET Anomolies**

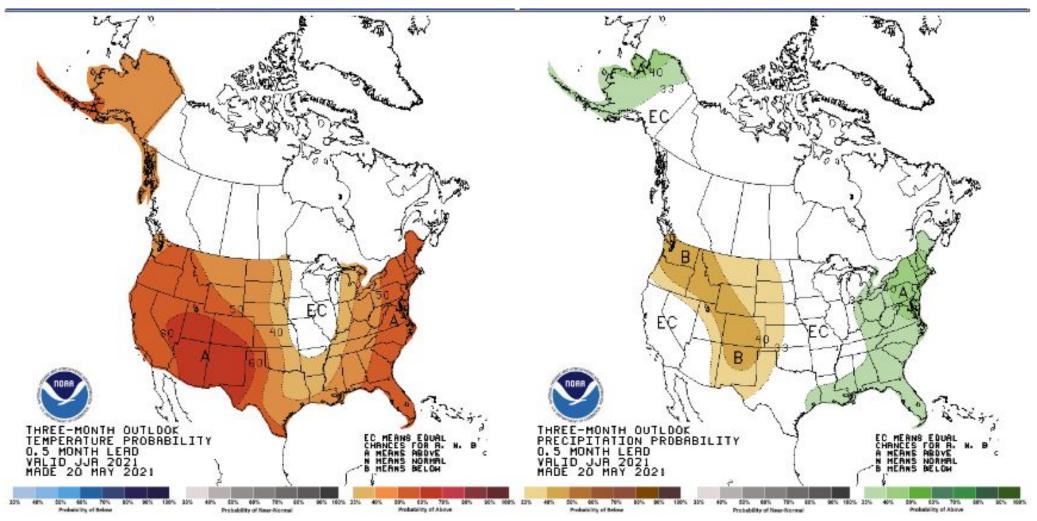
-2 <b>σ</b> <	-1σ	0	+1σ	>+2 <b>0</b>

\*Currently, data are only available for the contiguous U.S. Source(s): NASA SERVIR

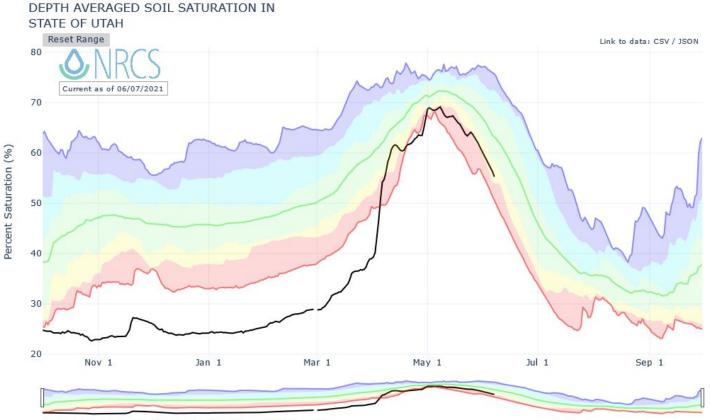


Last Updated - 06/08/21

## June-Aug Outlook

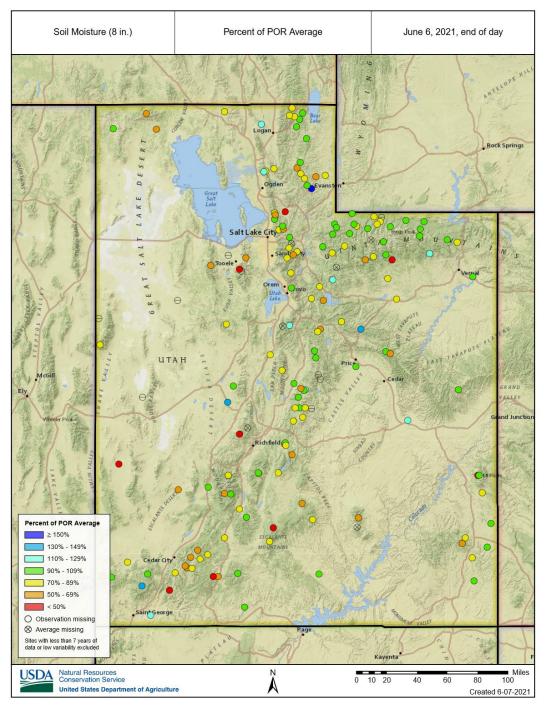


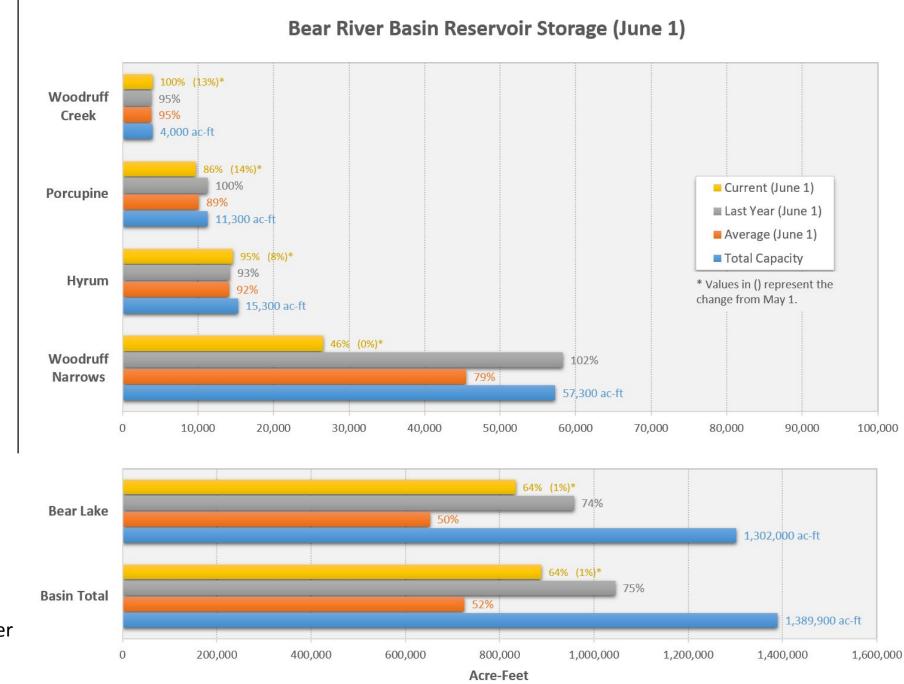
#### Soil Moisture



Statistical shading breaks at 10th, 30th, 50th, 70th, and 90th Percentiles. For more information visit: 30 year normals calculation description.

Agency - NRCS Snow Survey Presenter - Jordan Clayton



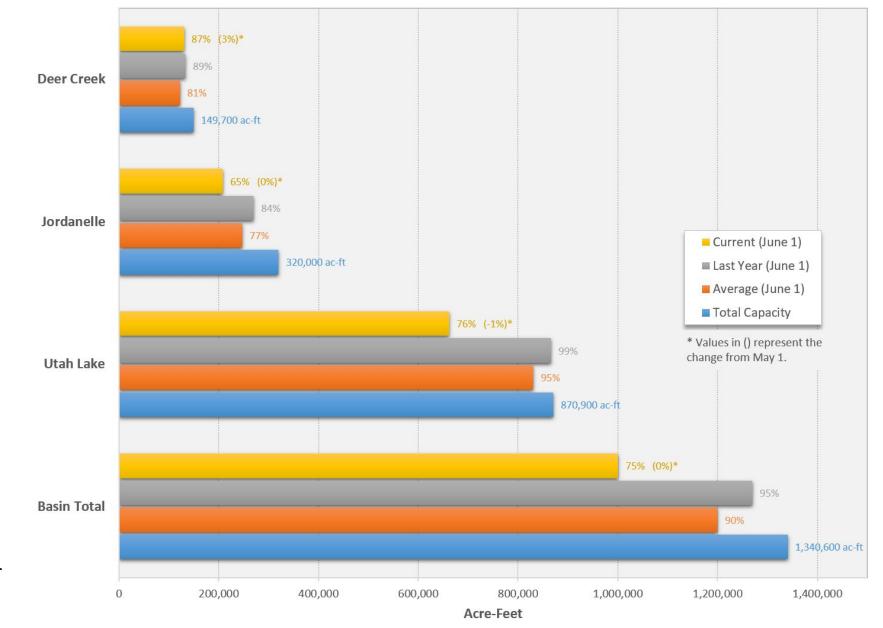


Agency - Division of Water Resources w/ NRCS data Presenter - Laura Haskell

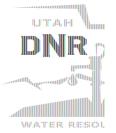
WATER RESOL

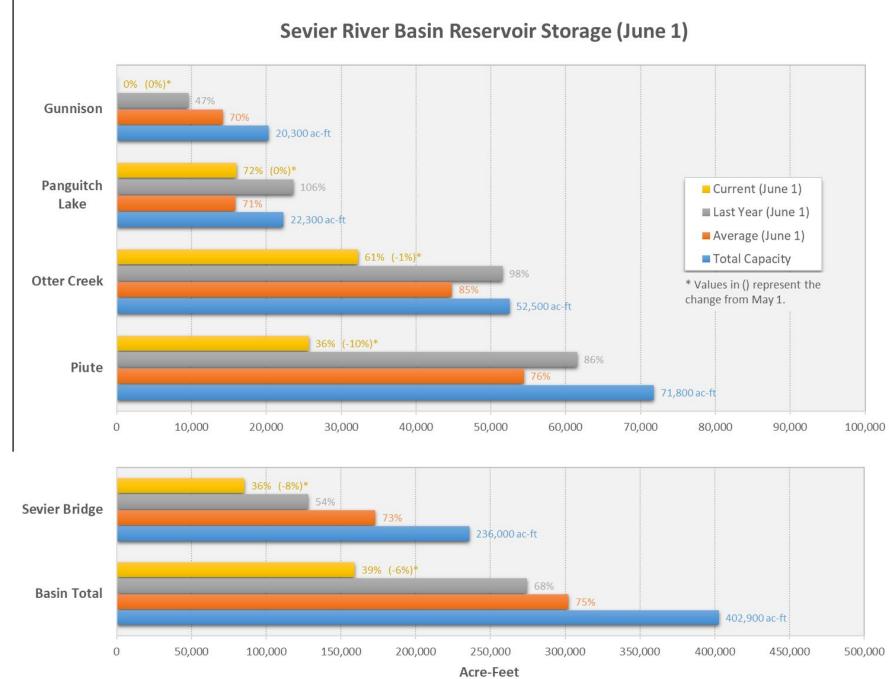
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#### Utah Lake Basin Reservoir Storage (June 1)



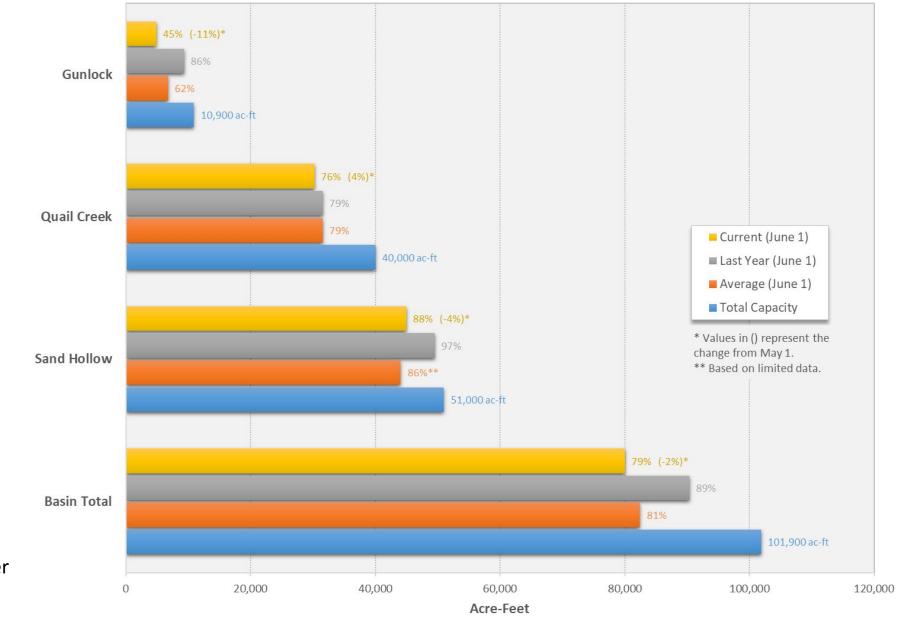
Agency - Division of Water Resources w/ NRCS data Presenter - Laura Haskell





Agency - Division of Water Resources w/ NRCS data Presenter - Laura Haskell UTAH

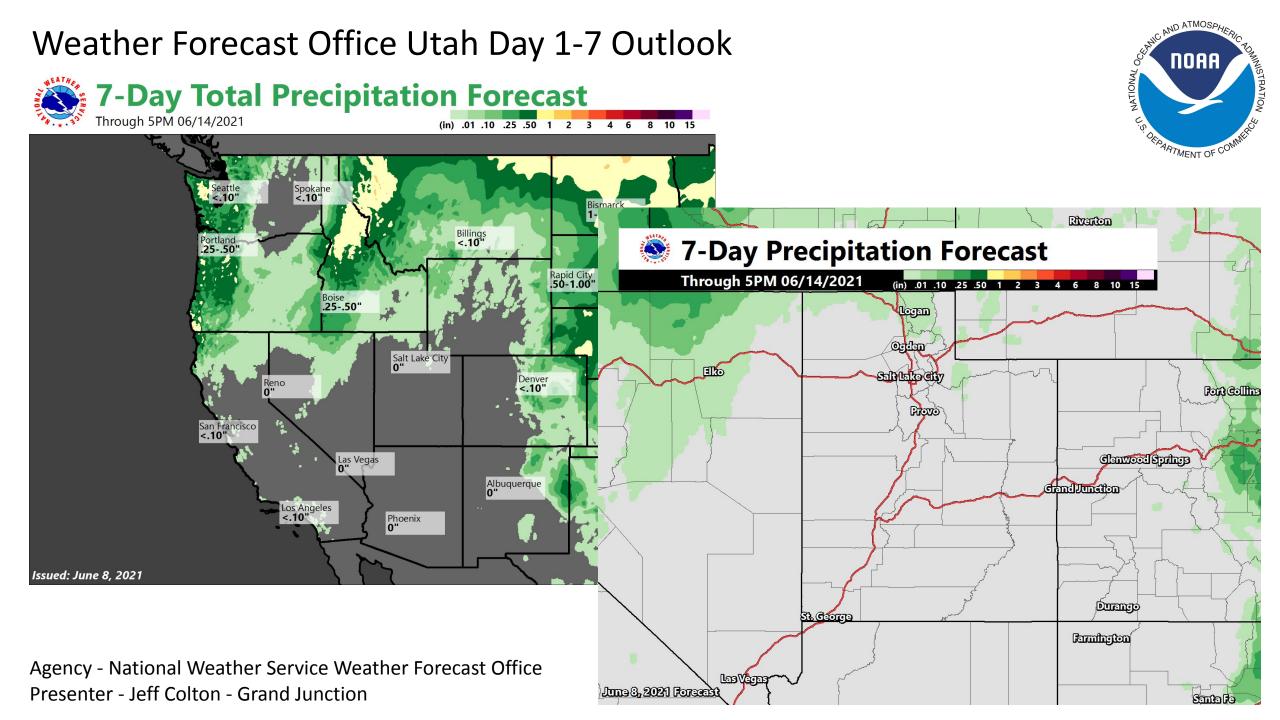
#### Virgin River Basin Reservoir Storage (June 1)



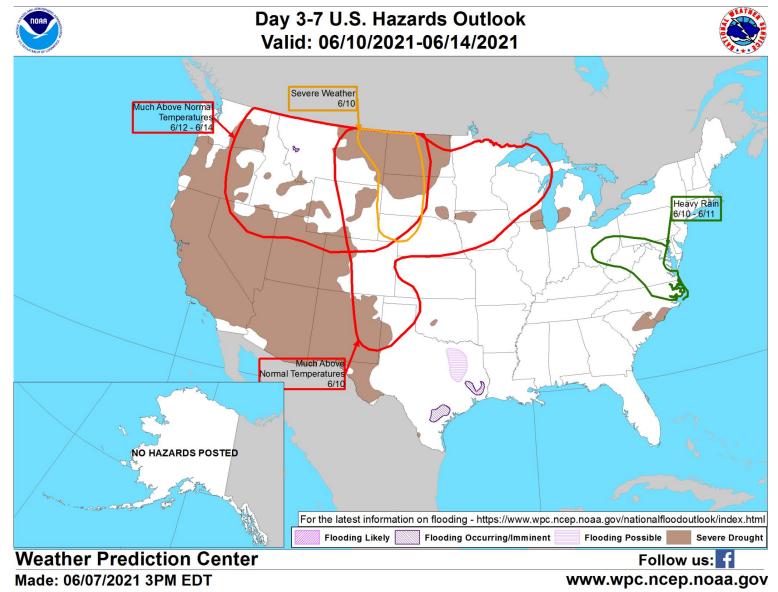
Agency - Division of Water Resources w/ NRCS data Presenter - Laura Haskell

WATER RESOL

UTAH



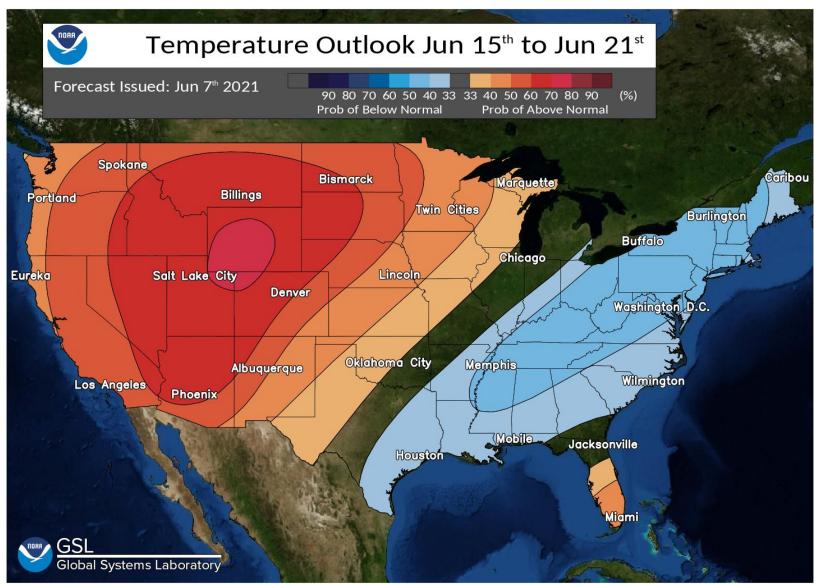
### Weather Prediction Center U.S. Day 3-7 Hazards Outlook



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Agency - National Weather Service Weather Forecast Office Presenter - Jeff Colton - Grand Junction

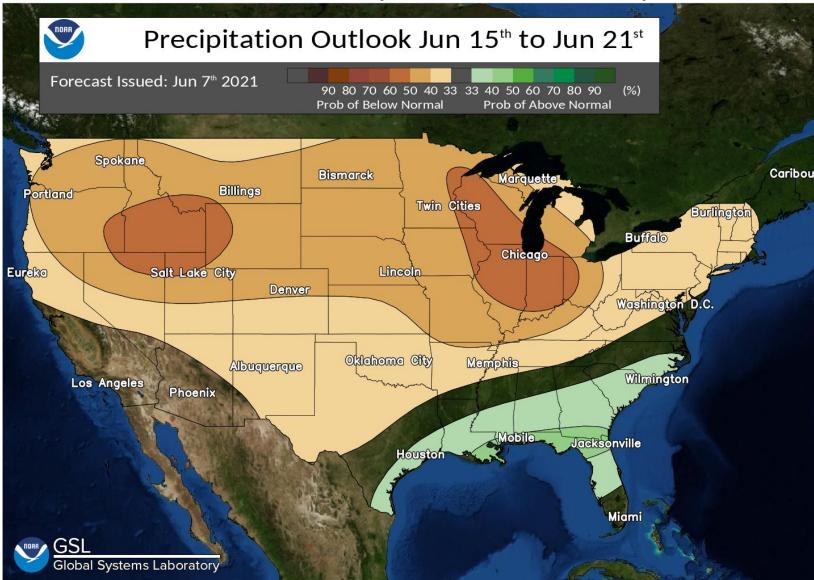
### Climate Prediction Center 8 to 14 Day Outlooks - Temperature



Agency - National Weather Service Weather Forecast Office Presenter - Jeff Colton - Grand Junction

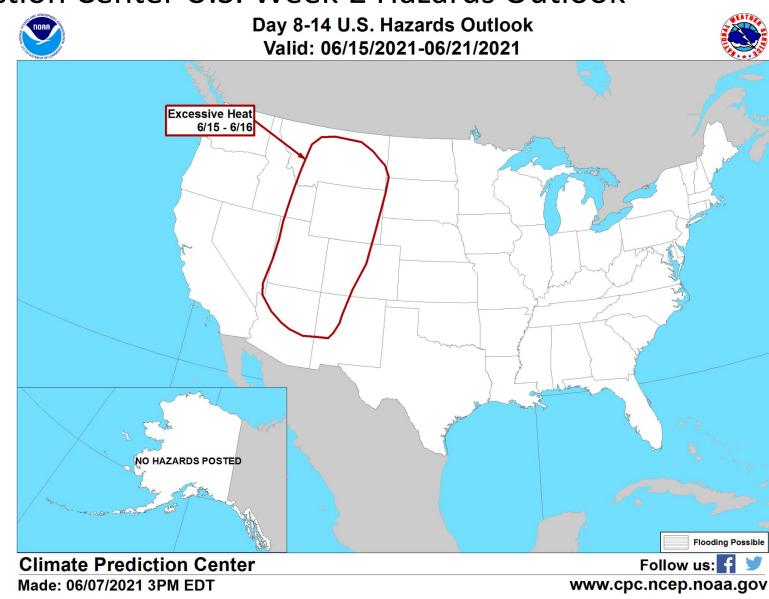


### Climate Prediction Center 8 to 14 Day Outlooks - Precipitation





Agency - National Weather Service Weather Forecast Office Presenter - Jeff Colton Grand Junction



ND ATMOSP

NOAA

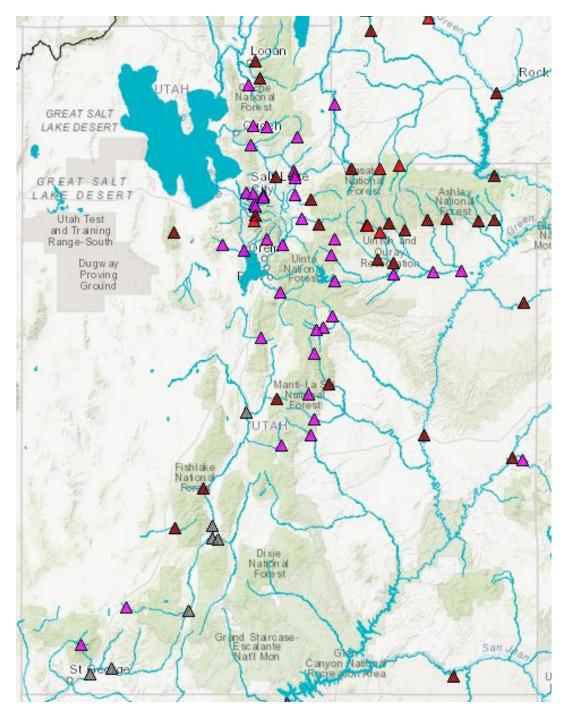
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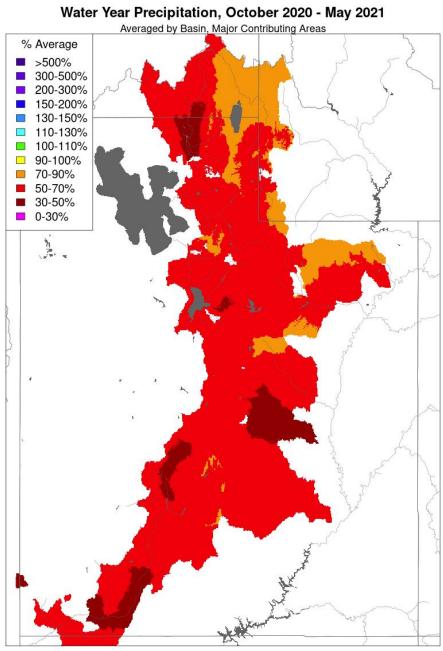
Climate Prediction Center U.S. Week-2 Hazards Outlook

Agency - National Weather Service Weather Forecast Office Presenter - Jeff Colton - Grand Junction

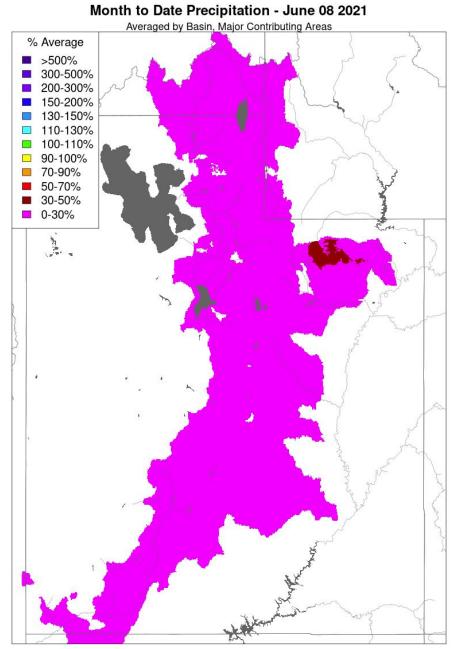




Very dry conditions continue to drive water supply forecasts well below average. Most forecasts are below 30% of average.



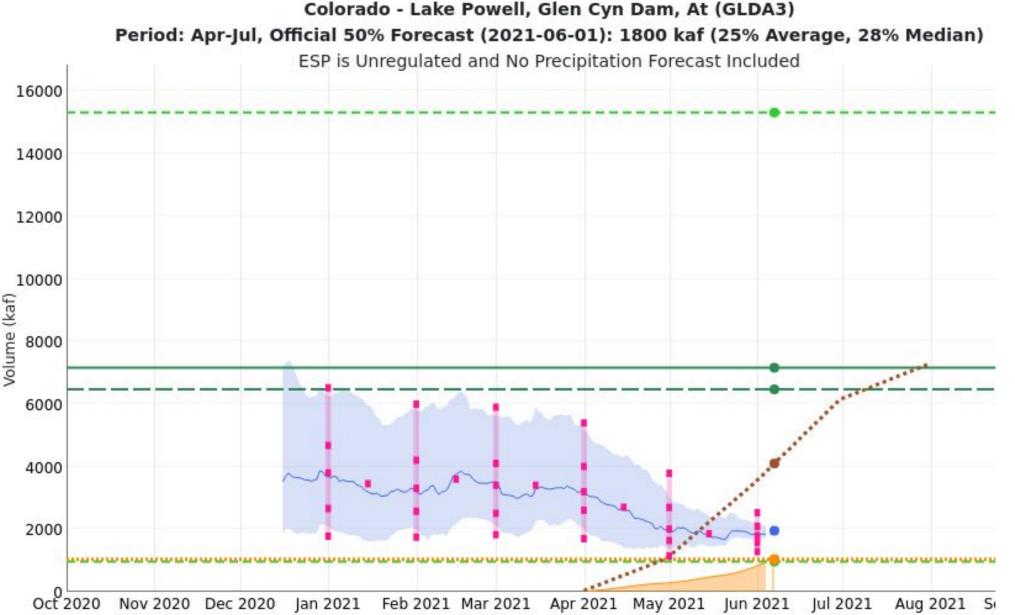
Prepared by NOAA, Colorado Basin River Forecast Center Salt Lake City, Utah, www.cbrfc.noaa.gov



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



Precipitation conditions have been well below average for the water year, and June has also been below average. Precipitation is the primary driver to our model.



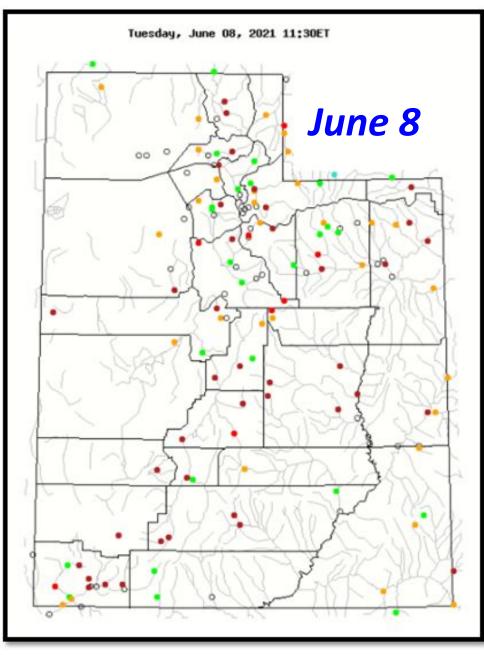
Current forecast would be the 3rd driest on record for seasonal runoff into Lake Powell. Most locations are seeing flows in the top 5 of historical records.

IN ATMOSA

NOAA

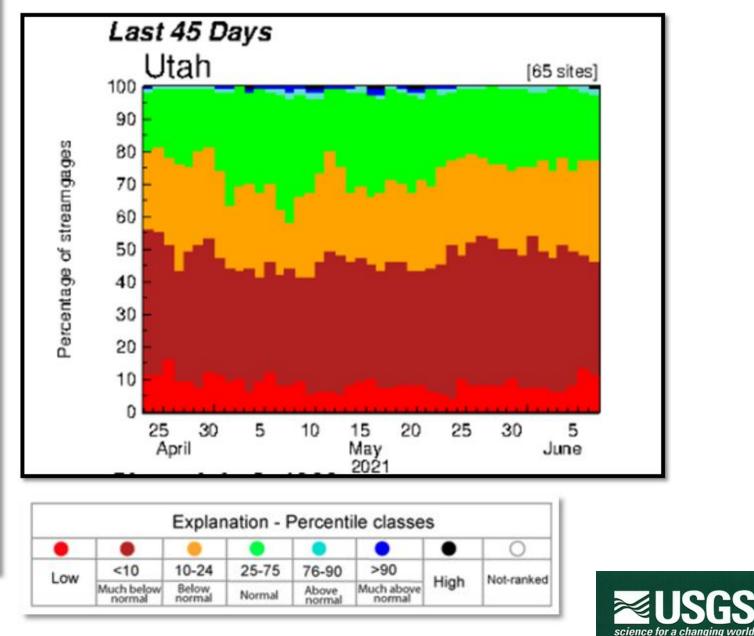
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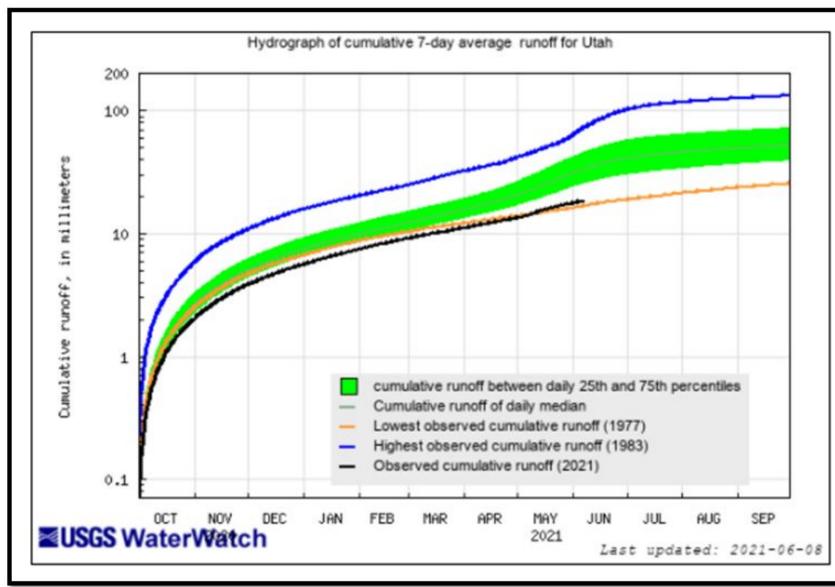


Agency - U.S. Geological Survey Presenter - Ryan Rowland - Utah Water Science Center

## **Current Streamflow Conditions**



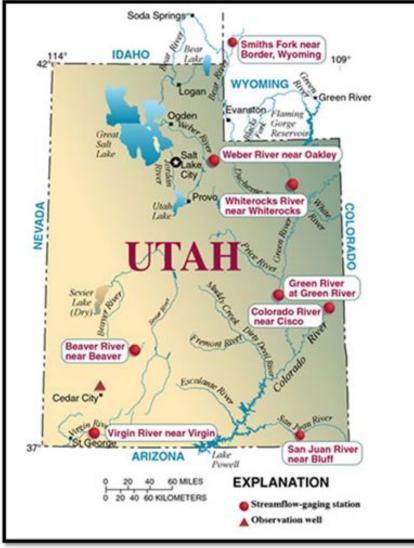
### **Current Streamflow Conditions**

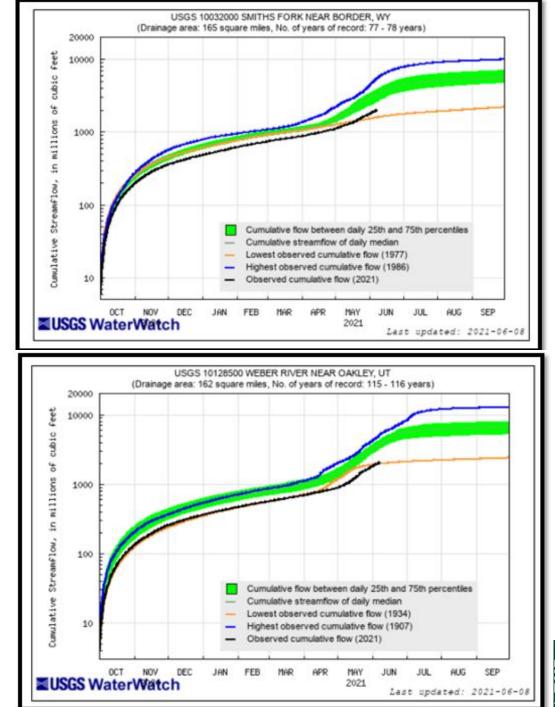


Cumulative 7day average runoff for water year 2021 is near the lowest on record

Science for a changing world

## Streamflow Conditions at Long Term Sites

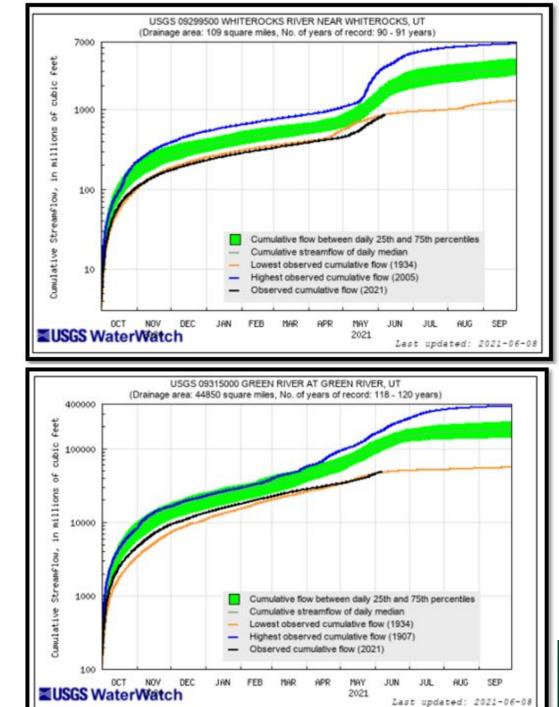






## Streamflow Conditions at Long Term sites

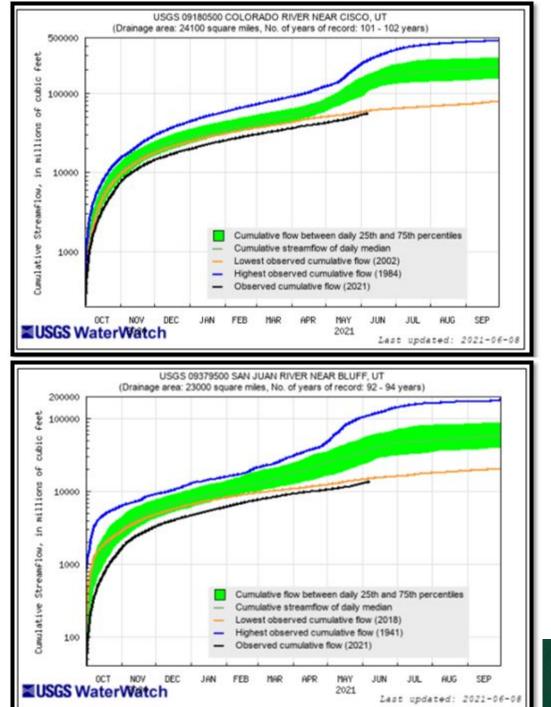






## Streamflow Conditions at Long Term sites

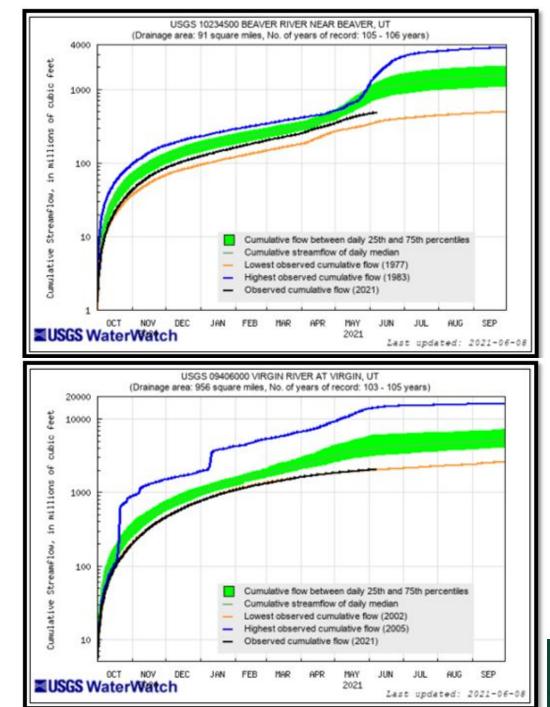






### Streamflow Conditions at Long Term Sites

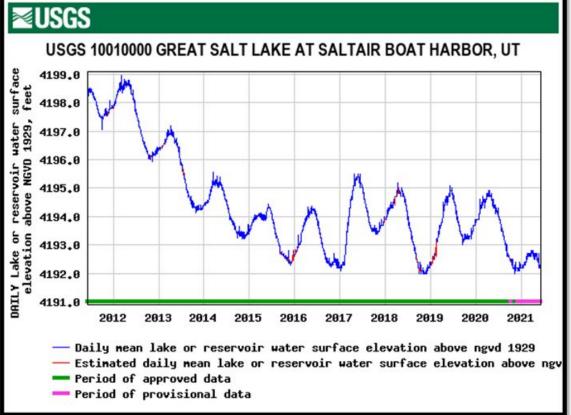




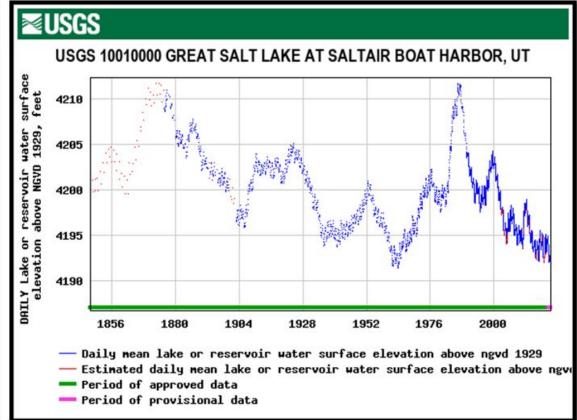


## **Great Salt Lake Water Surface Elevation**

#### The last 10 years...



#### From 1847 to present...

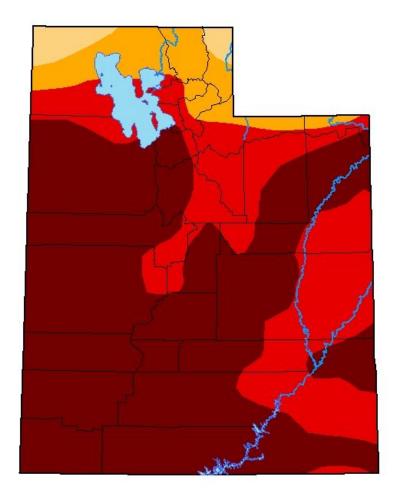


#### 🖵 4,191.9' today

Agency - U.S. Geological Survey Presenter - Ryan Rowland - Utah Water Science Center Historic low measurement 4,191.35' (1963)



#### U.S. Drought Monitor Utah





Intensity:

Author:

Brian Fuchs

USDA

None

D0 Abnormally Dry D1 Moderate Drought

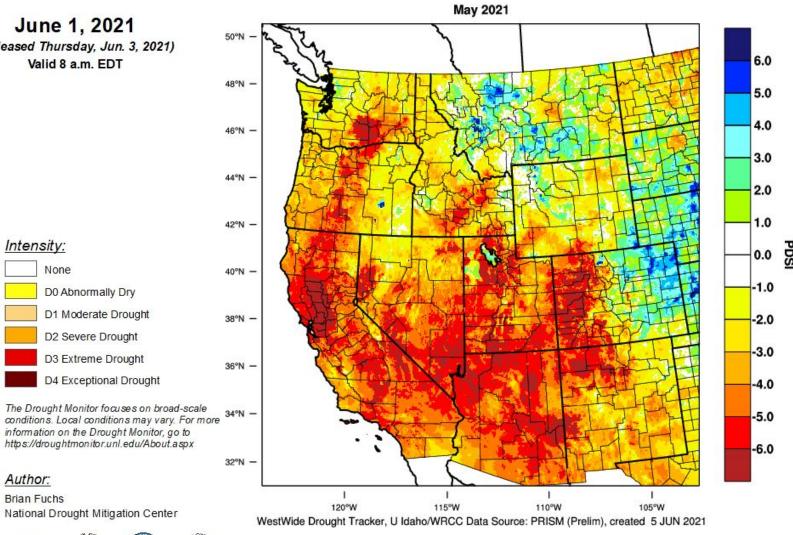
D2 Severe Drought

D3 Extreme Drought

D4 Exceptional Drought

information on the Drought Monitor, go to https://droughtmonitor.unl.edu/About.aspx

National Drought Mitigation Center



Western United States - PDSI

droughtmonitor.unl.edu