

# Utah Water Conditions (drought webinar)

## The meeting will begin shortly









Thank you to our contributors





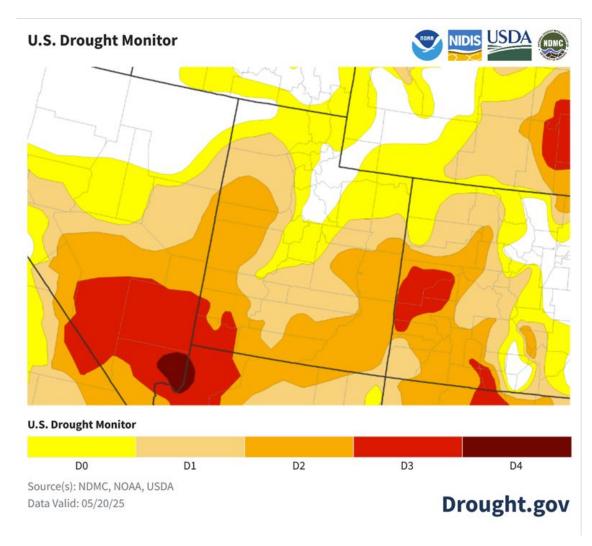


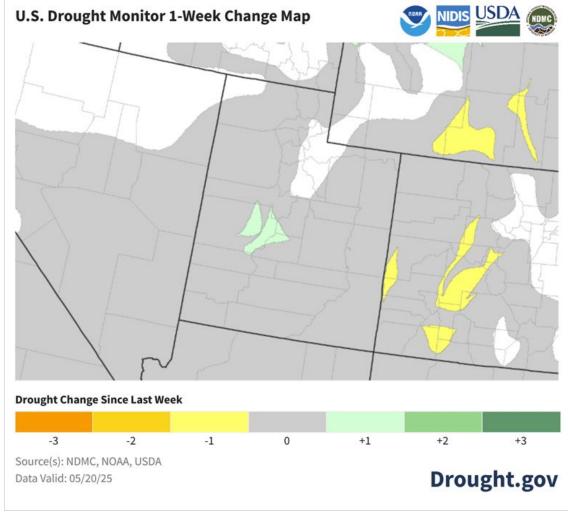


# Utah Water Conditions Update

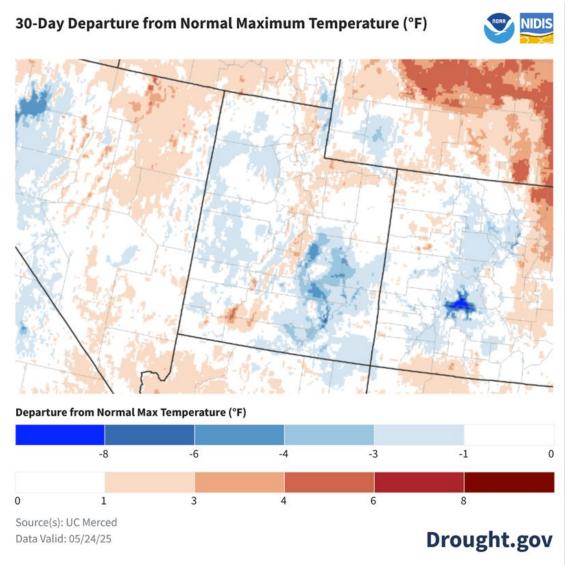
May 27, 2025

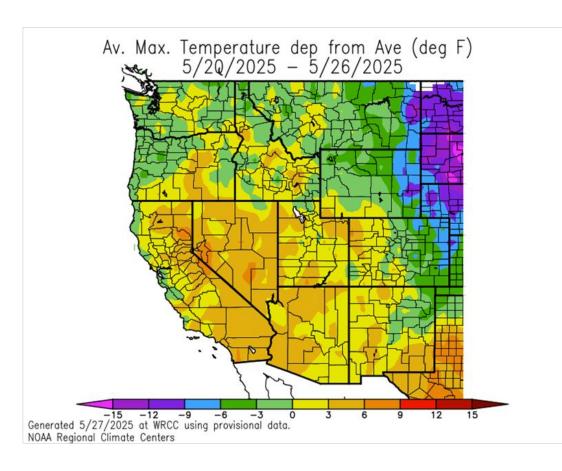
## Drought Conditions and 1-Week Change Map



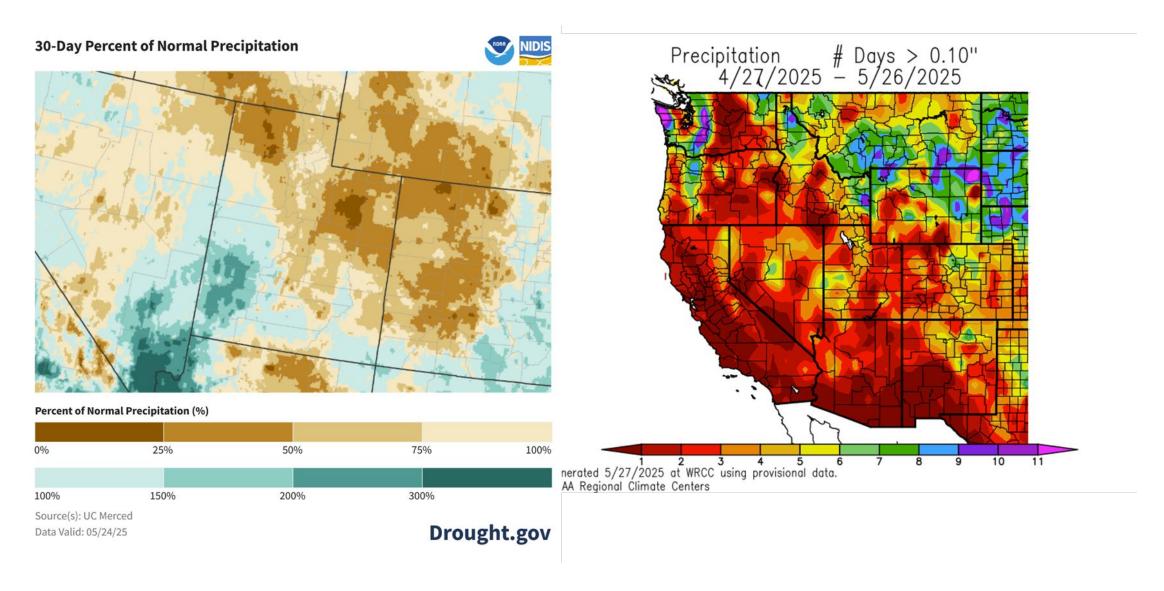


## **Temperature Summary**





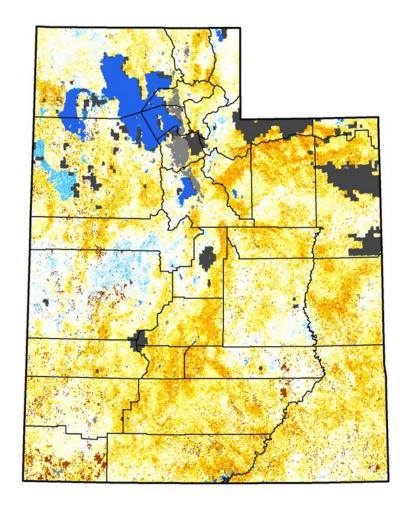
## **Precipitation Summary**



Agency - Utah Climate Center Presenter - Jon Meyer

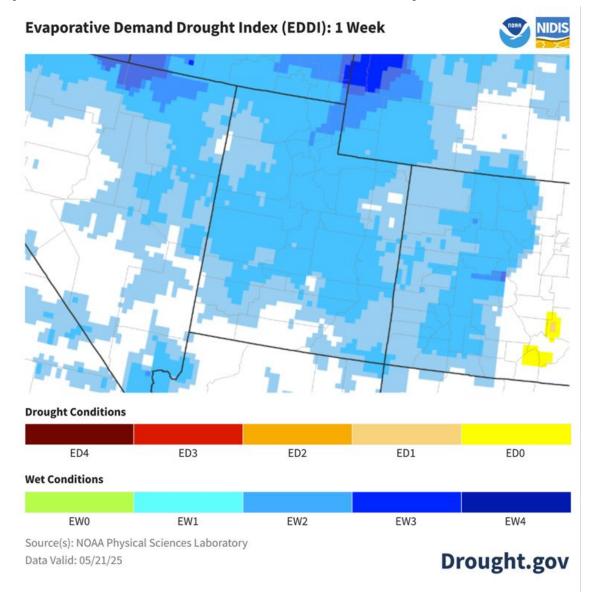
## **Short-term Drought Pressure**

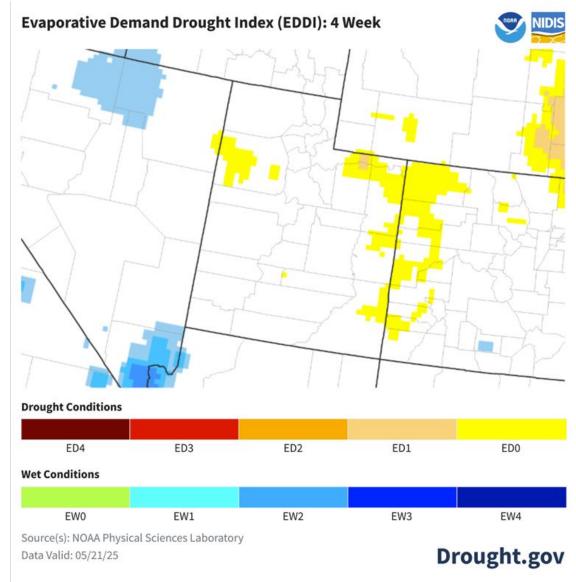




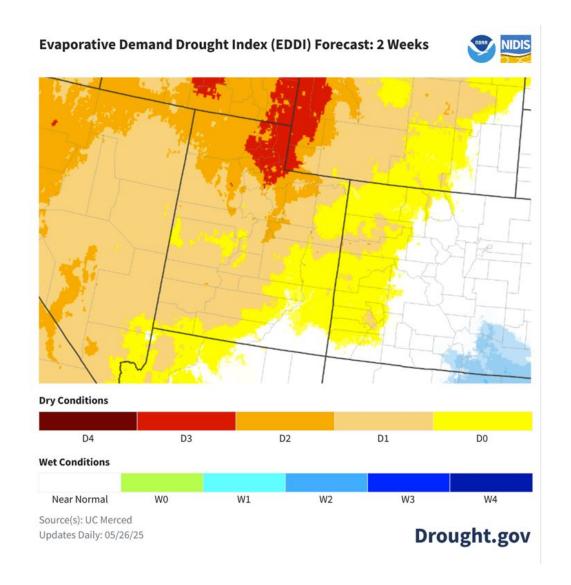
May 25, 2025 (Week 21) Conditions Relative to 4-Week Historical Average Wetter Near Average Drier **Out of Season** Urban No Data Water **■USGS** USDA

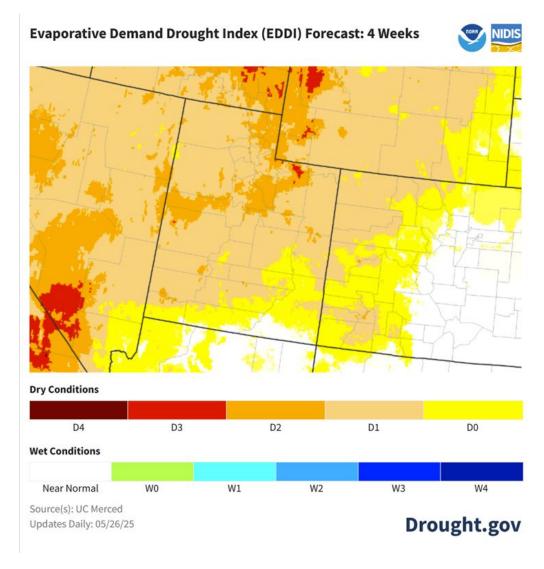
## **Evaporative Demand Summary**



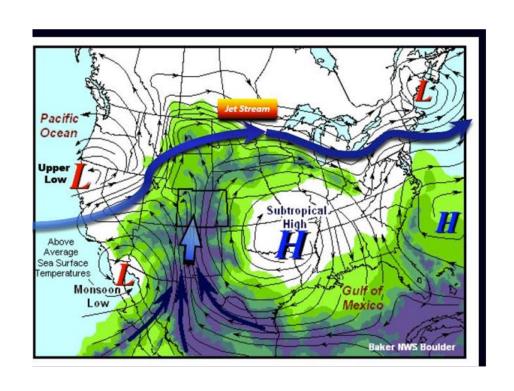


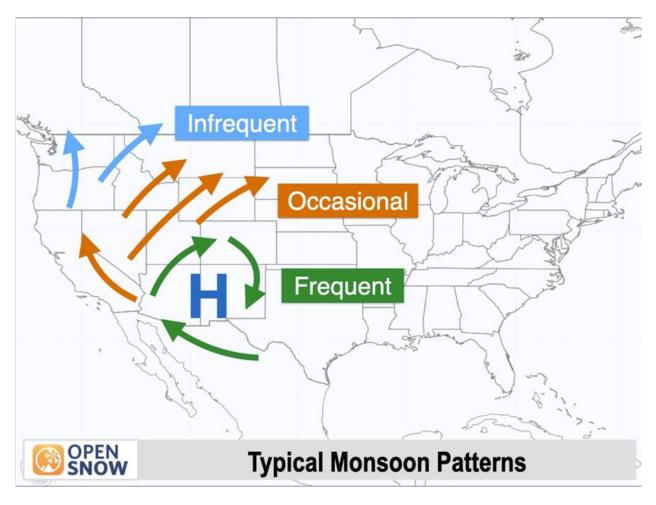
## **Evaporative Demand Outlook**



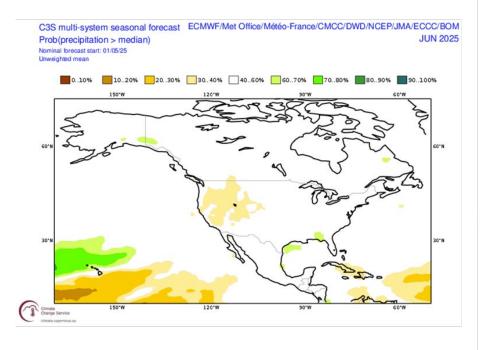


## Monsoon Outlook: A look at the role of the upper-level high pressure

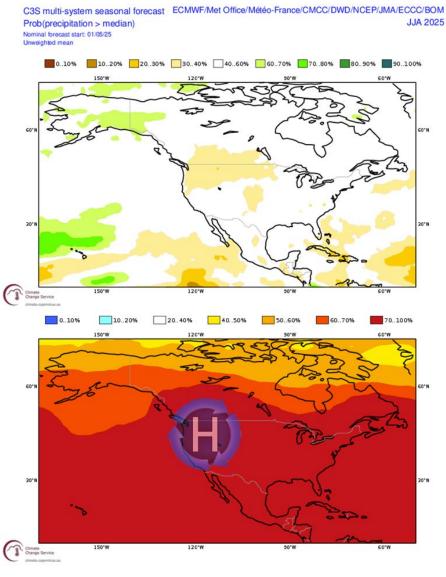




### Global Seasonal Ensemble Outlooks



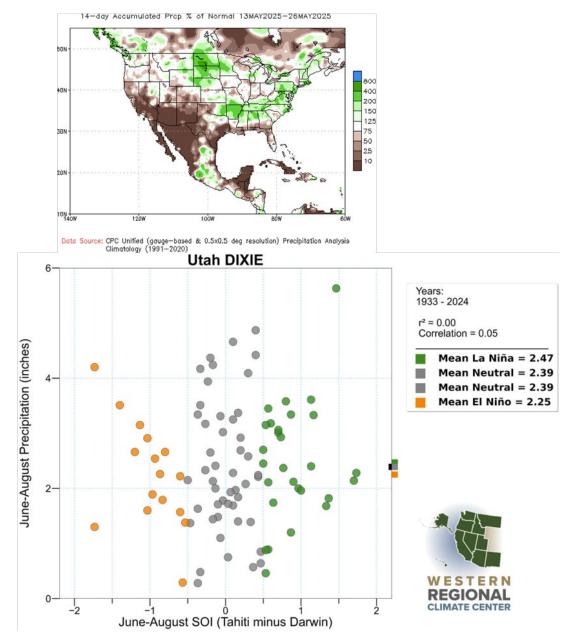
Models continue to place the West under broad high pressure. The northern and western extent is potential cause for concern for Utah's moisture transport, but much uncertainty of summer event-scale weather patterns vs the seasonal pattern exists.



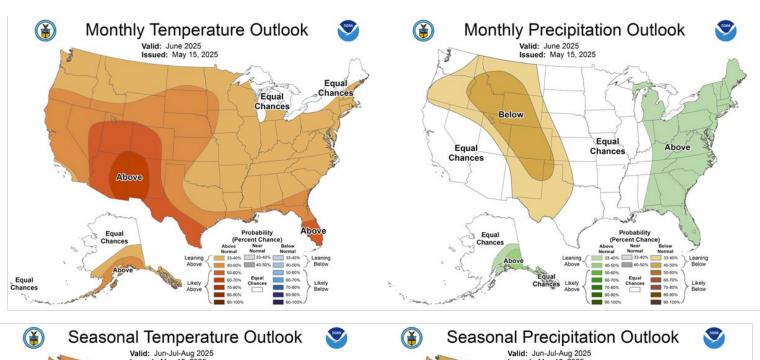
### Global Seasonal Ensemble Outlooks

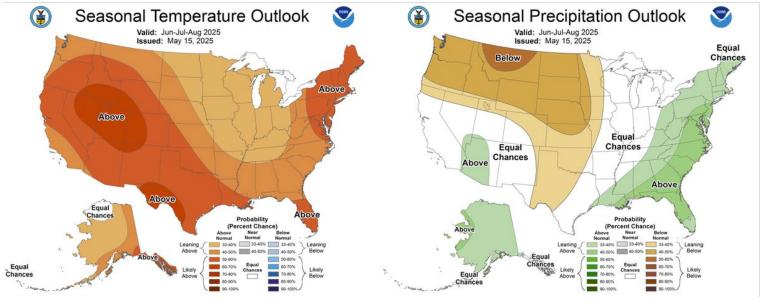
#### Considerations for Monsoon outlook:

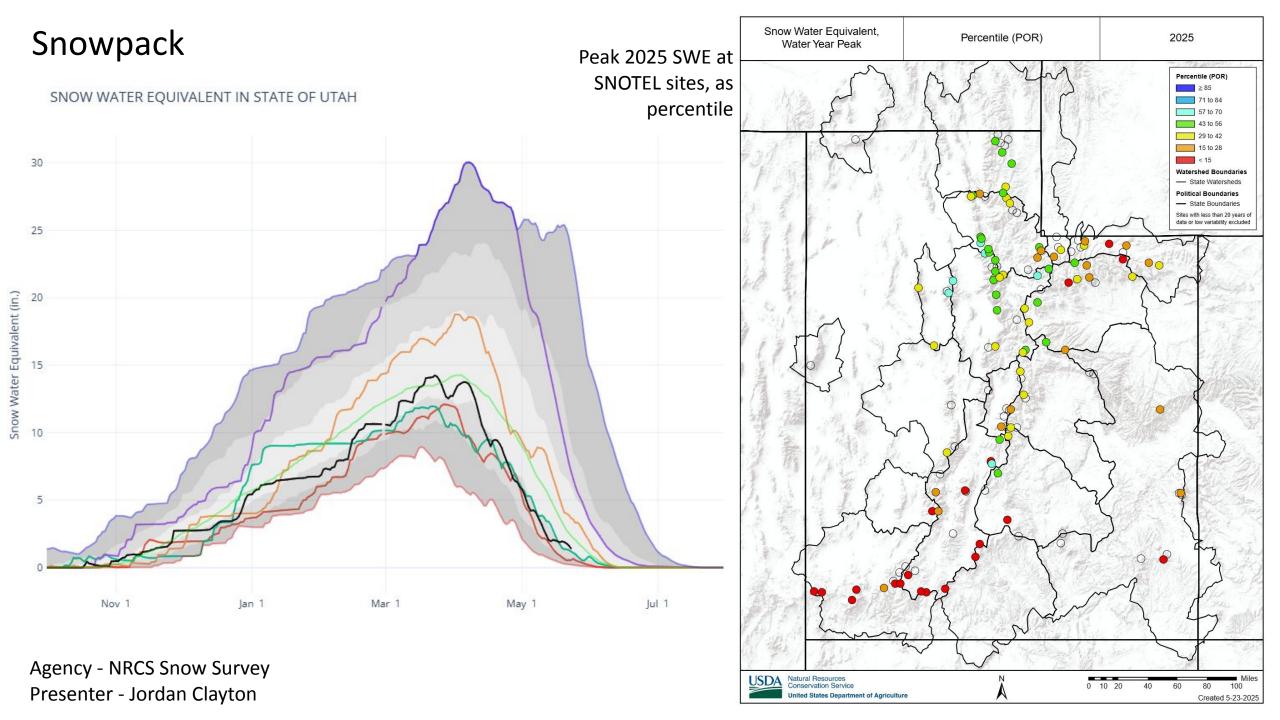
- Dry soils in the region will generally allow early onset; -> potential for longer season and more daily chances for monsoon humidity to move into Utah
- 2. ENSO Neutral conditions expected this summer, but no relationship even in southern Utah!
- 3. Tropical oscillations (MJO) not presently expected to influence onset.
- 4. Cool start to eastern Pacific SST's can pump the brakes on large-scale ocean evaporation; could limit early-intensity.



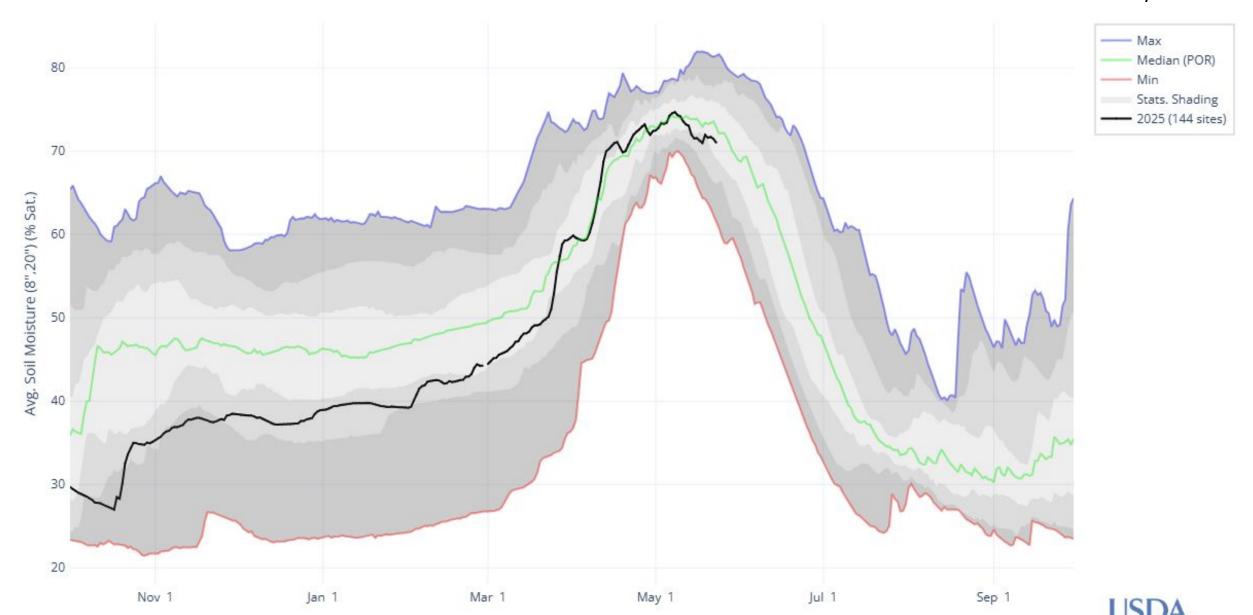
### **CPC June and June-August Outlooks**

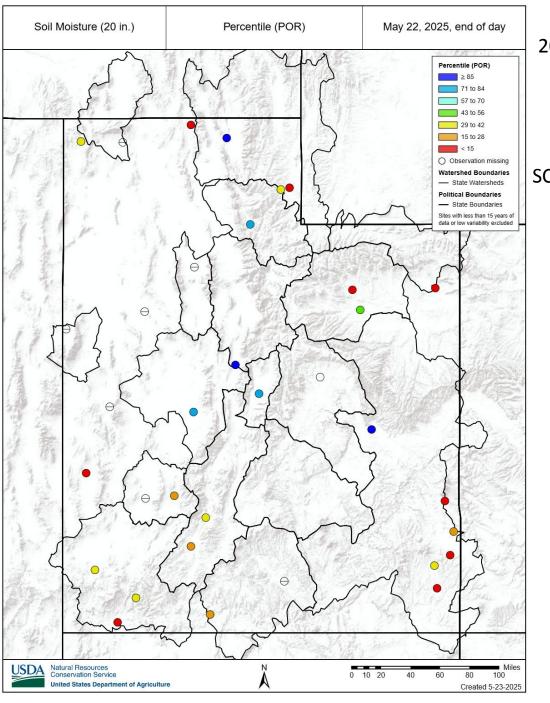






Agency - NRCS Snow Survey Presenter - Jordan Clayton

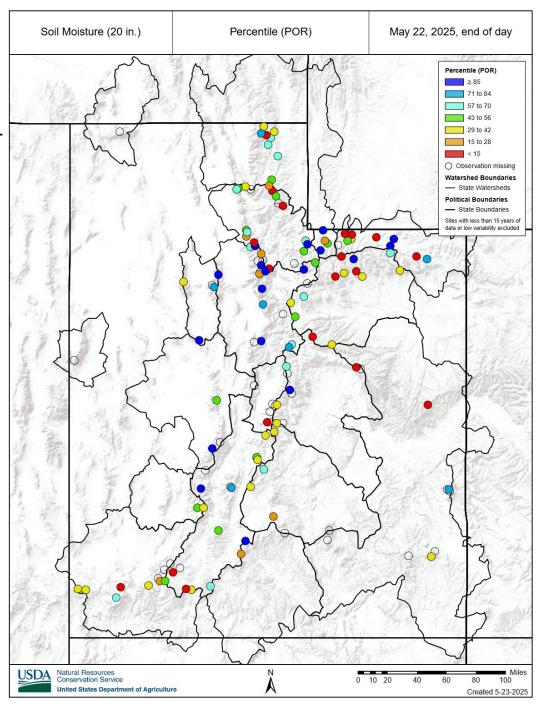




20" soil moisture, as percentile

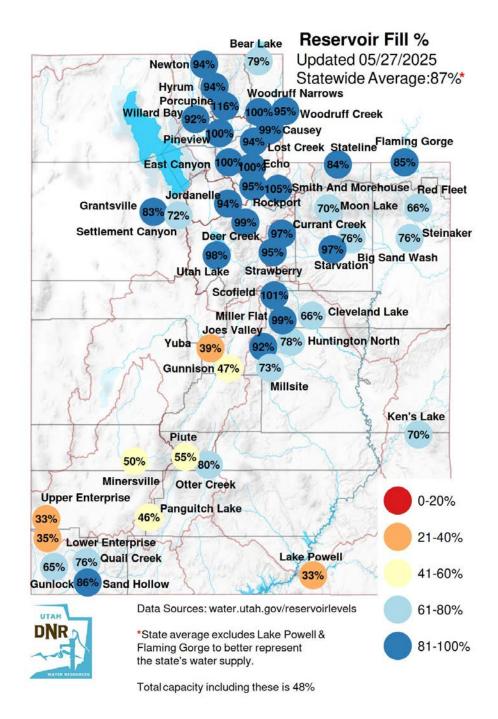
**SNOTEL** 

**SCAN** 



Northern reservoirs doing well

Southern/central reservoirs are lower comparatively



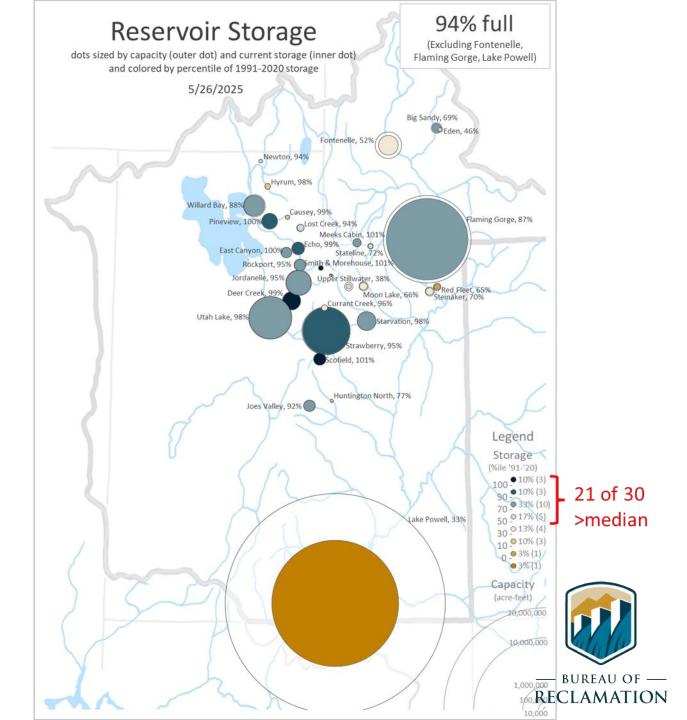
Agency - Division of Water Resources
Presenter - Laura Haskell

#### Reservoir Levels

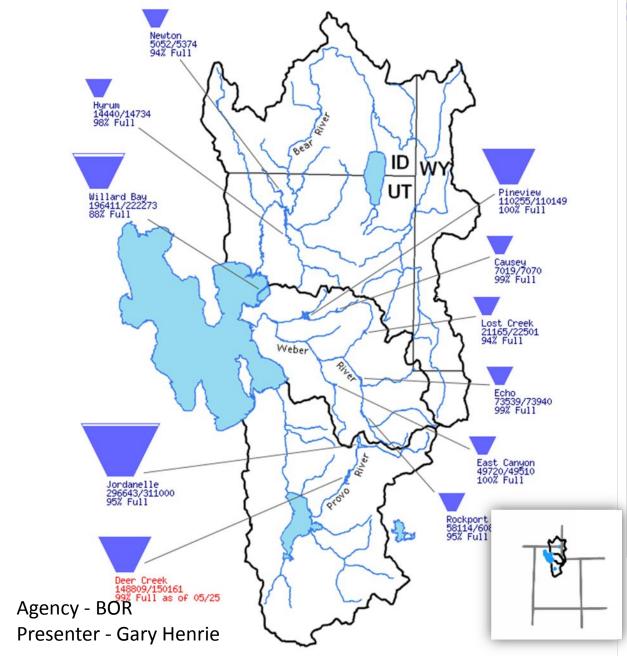
• Overall reservoir storage is at 94% full (Excluding Powell, Flaming Gorge, Fontenelle)

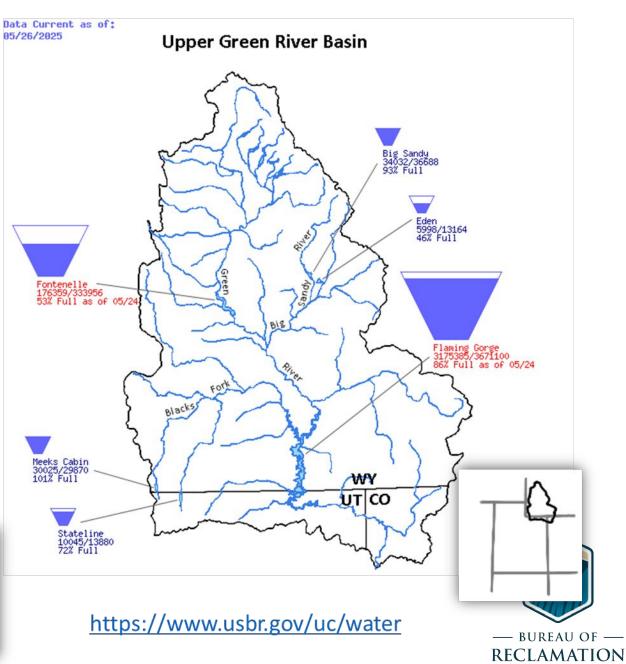
- Individual reservoirs range from 46-100% full
  - 21/30 are above the 30-year median

- Outlook
  - storage is near peak

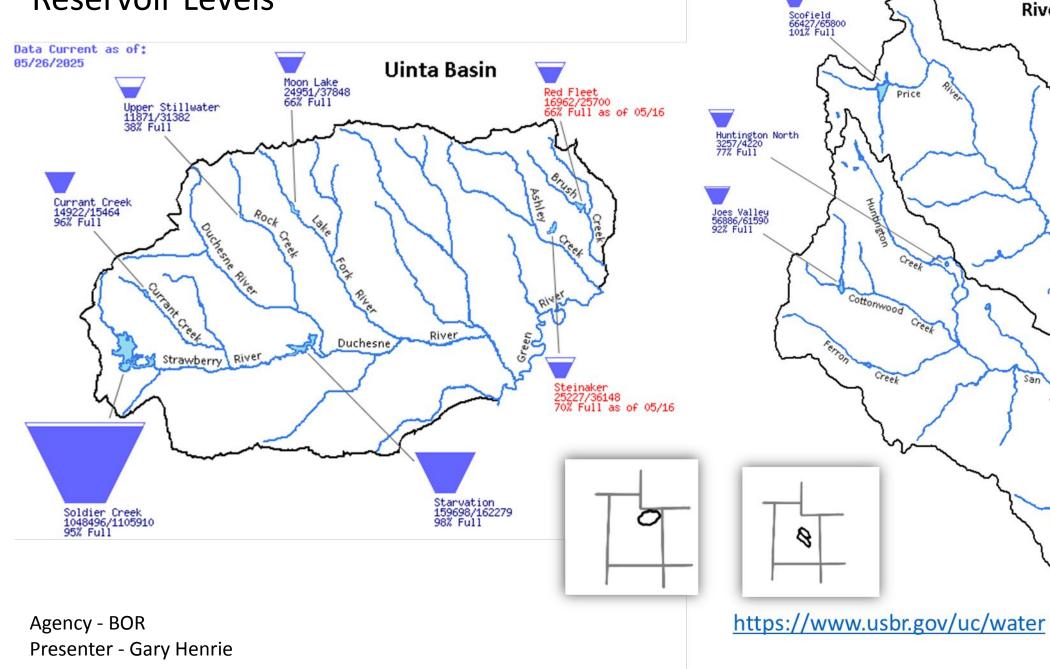


Bear, Weber, and Provo
Reservoir Levels River Basins





### Reservoir Levels



Data Current as of:

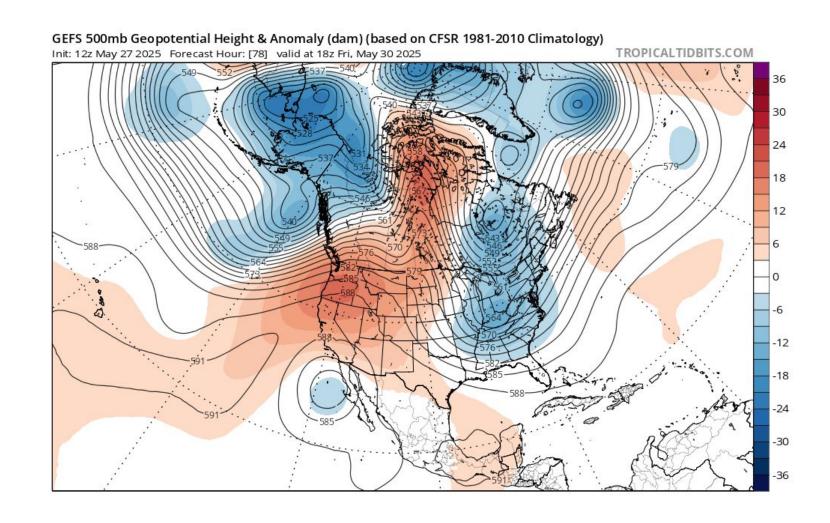
Price and San Rafael

**River Basins** 

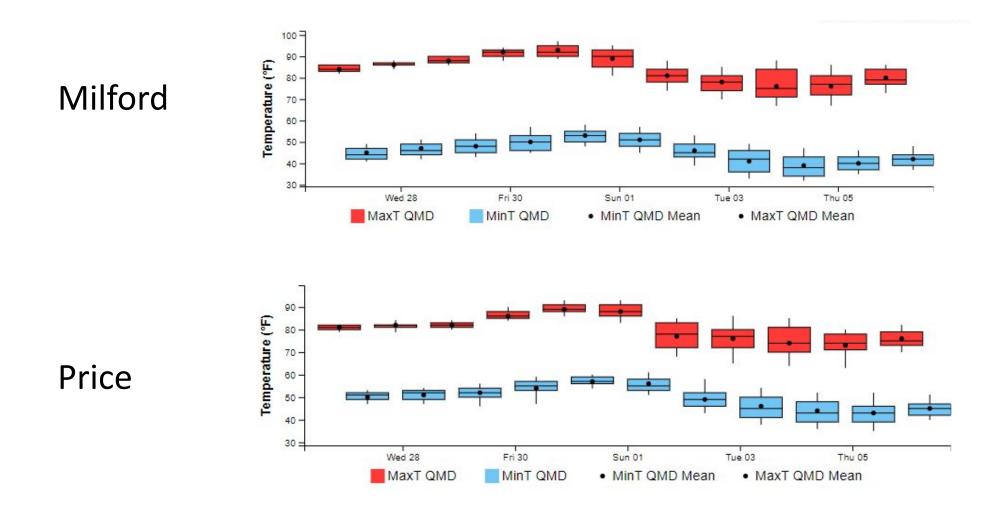
San

05/26/2025



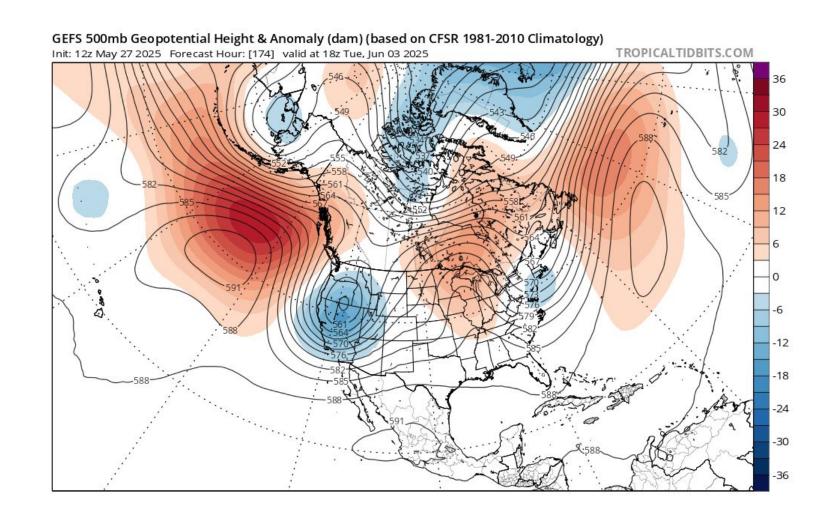




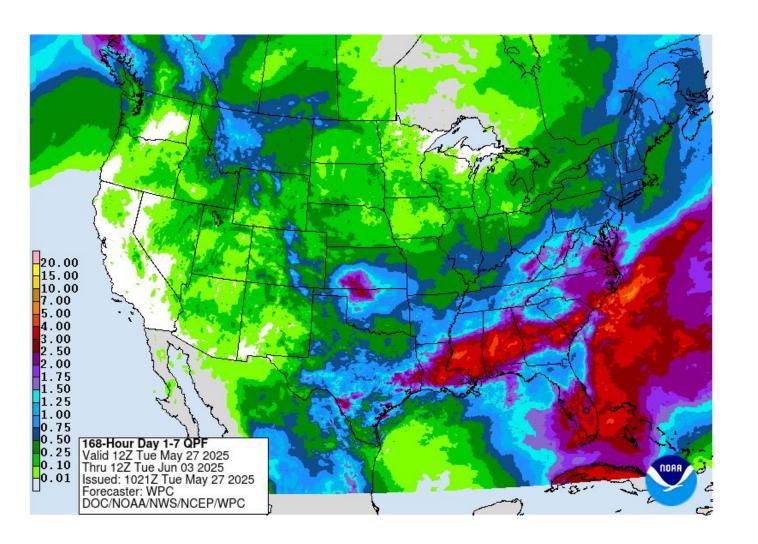


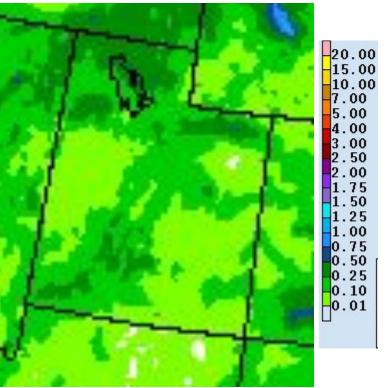
Agency - National Weather Service Weather Forecast Office Presenter - Glen Merrill





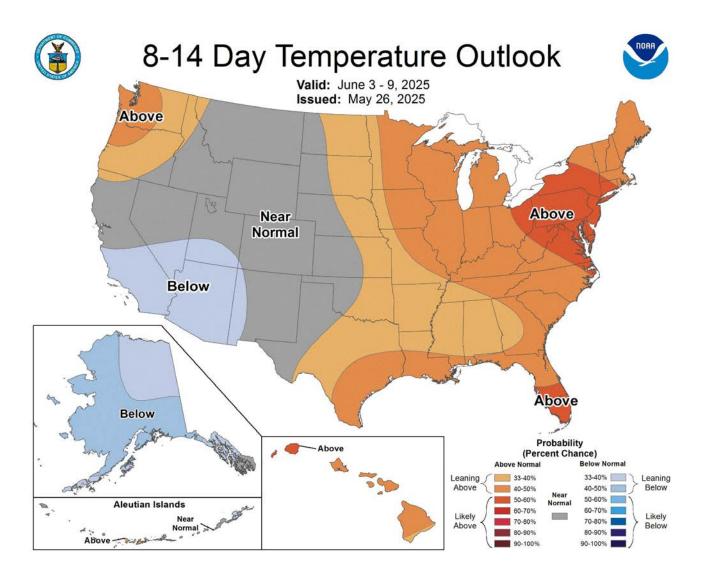






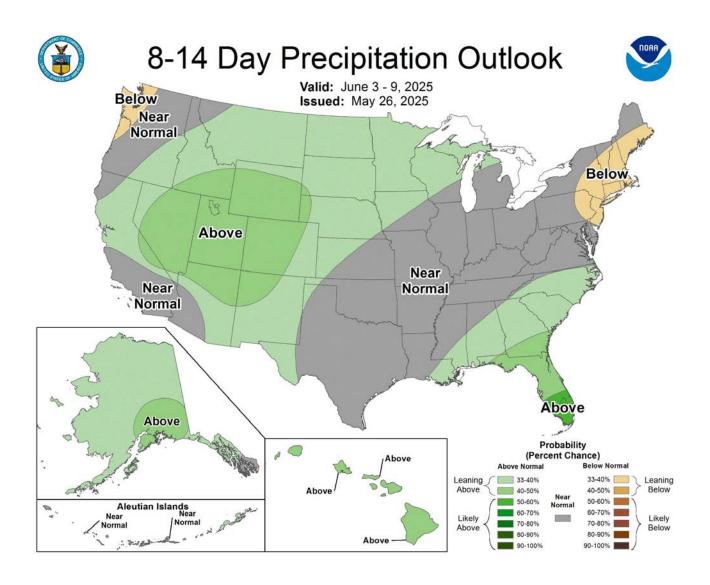
Agency - National Weather Service Weather Forecast Office Presenter - Glen Merrill

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





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

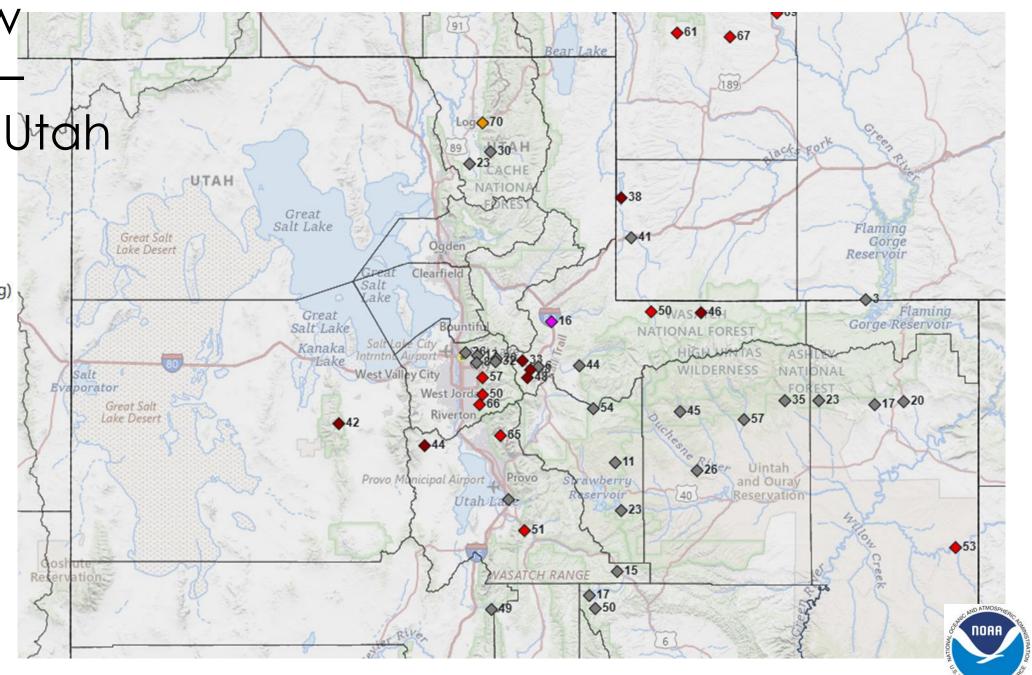




Peak Flow Forecast – Northern Utah

#### **Percent Average**

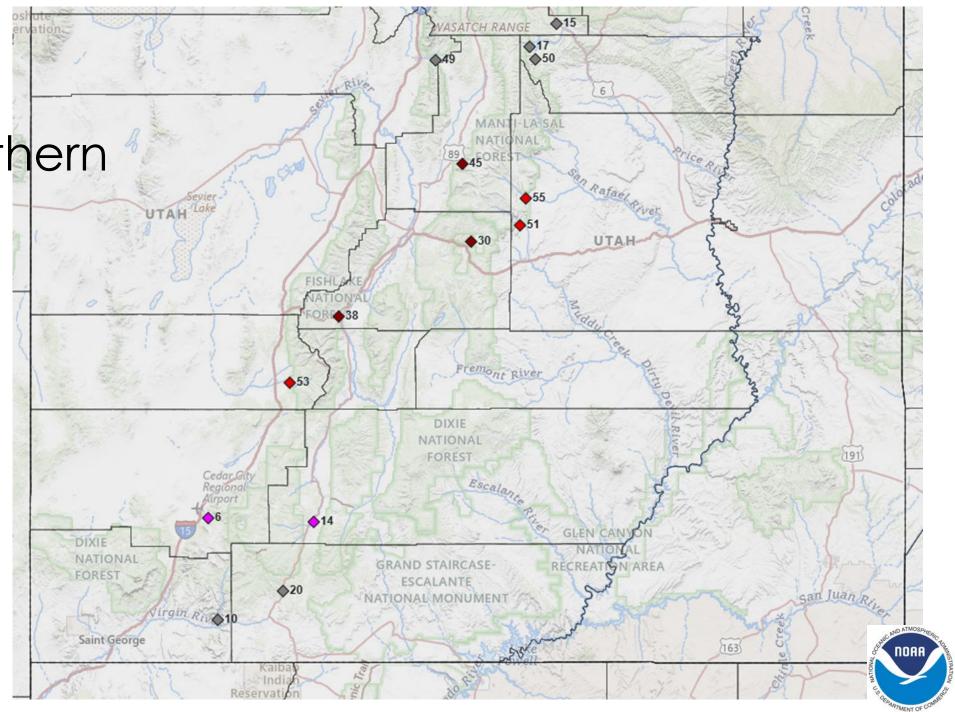
- ♦ No Forecast
- ♦ No Stats/Already Peak(ed/ing)
- ♦ < 30%
  </p>
- 30-50%
- ◆ 50-70%
- ♦ 70-90%
- ♦ 90-100%
- ♦ 100-110%
- ♦ 110-130%
- ◆ 130-150%
- ◆ 150-200%
- ◆ 200-300%
- **♦** 300-500
- → >500%



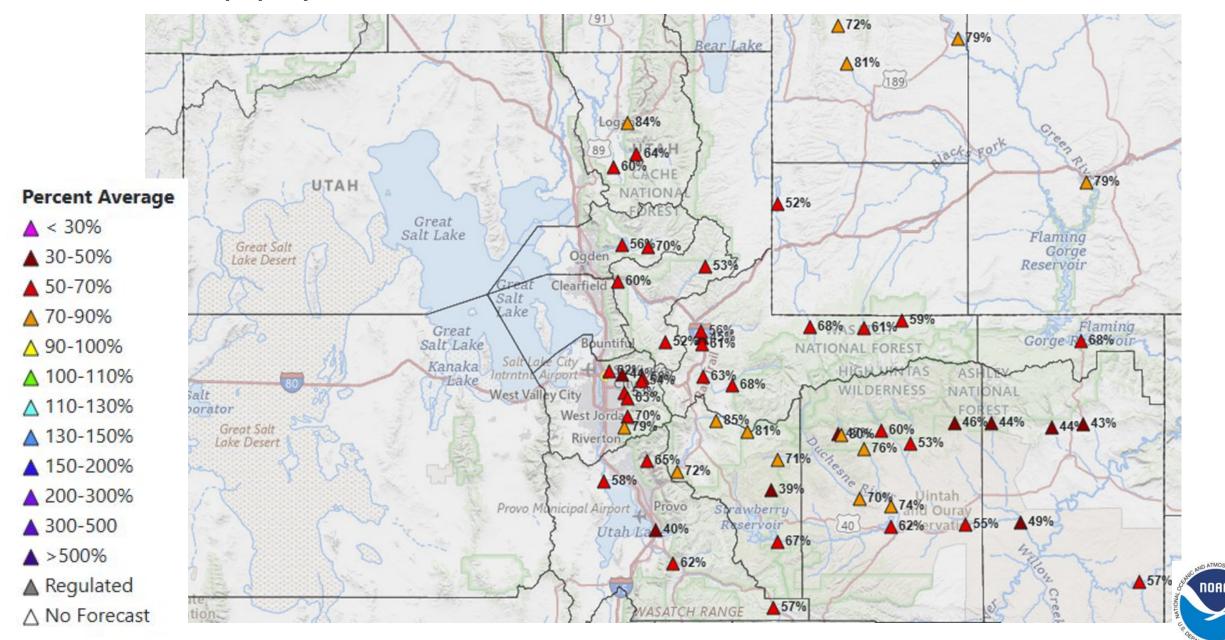
Peak Flow Forecast – Central/Southern Utah

#### **Percent Average**

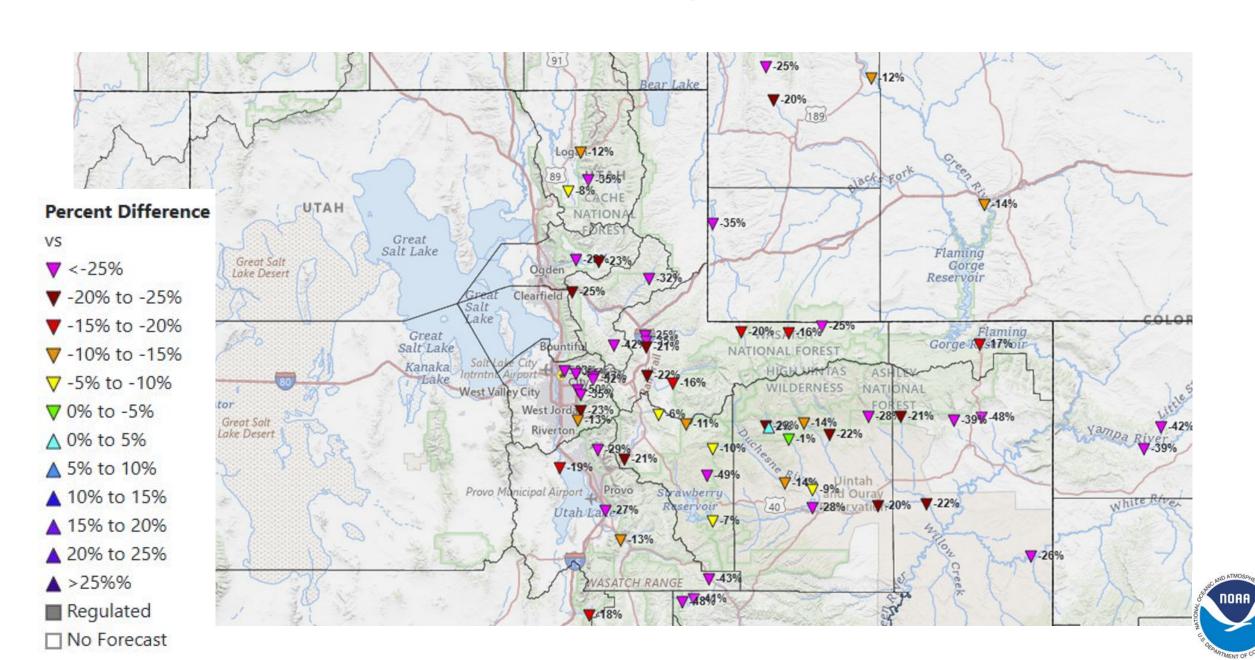
- ♦ No Forecast
- No Stats/Already Peak(ed/ing)
- ♦ < 30%
  </p>
- ◆ 30-50%
- ♦ 50-70%
- ♦ 70-90%
- ♦ 90-100%
- ♦ 100-110%
- ♦ 110-130%
- ♦ 130-150%
- **♦** 150-200%
- ◆ 200-300%
- ◆ 300-500
- → >500%



## Water Supply Forecast – Northern Utah



## Water Supply Forecast: Change From April 1



## Water Supply Forecast – Central/Southern Utah

#### Percent Average

A < 30%

▲ 30-50%

▲ 50-70%

A 70-90%

△ 90-100%

△ 100-110%

△ 110-130%

▲ 130-150%

▲ 150-200%

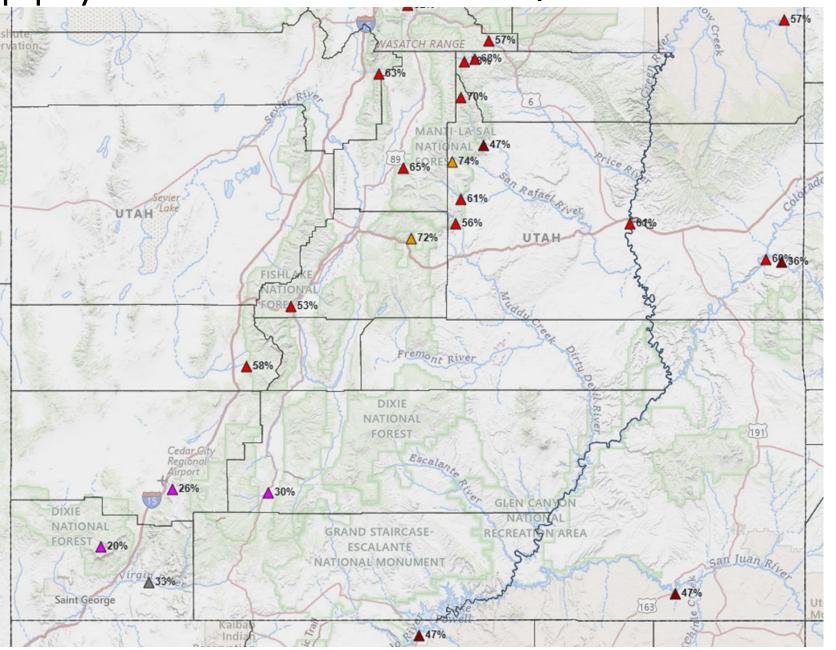
▲ 200-300%

▲ 300-500

▲ >500%

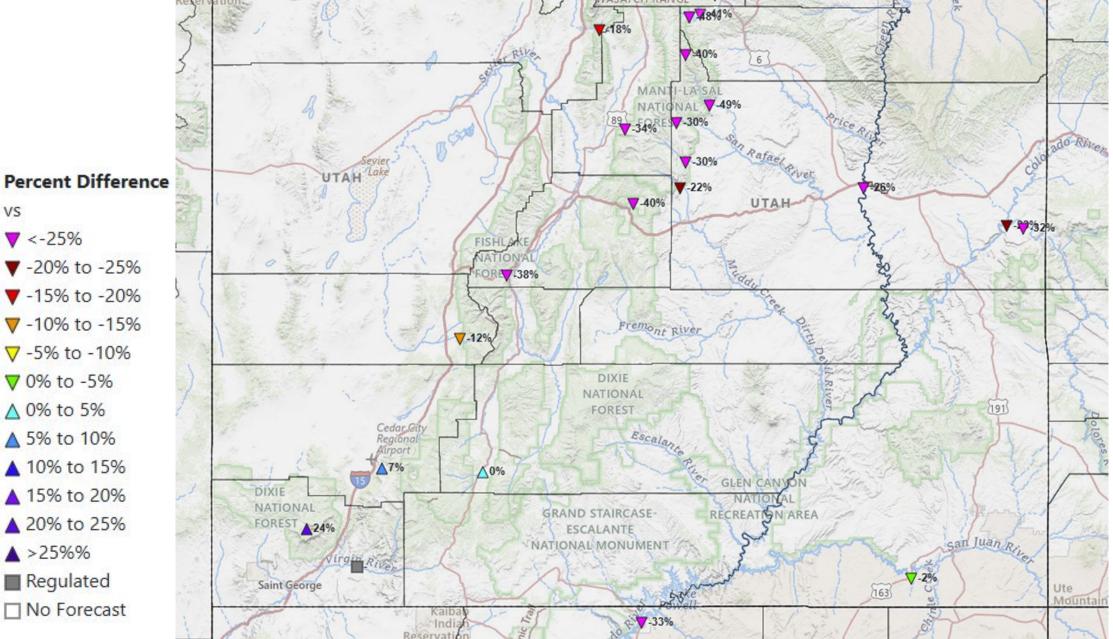
▲ Regulated

△ No Forecast





Water Supply Forecast: Change From Previous Meeting V4841%



▼ <-25%

▽ -5% to -10%

∇ 0% to -5%

△ 0% to 5%

△ 5% to 10%

▲ 10% to 15%

▲ 15% to 20%

▲ 20% to 25%

A > 25%%

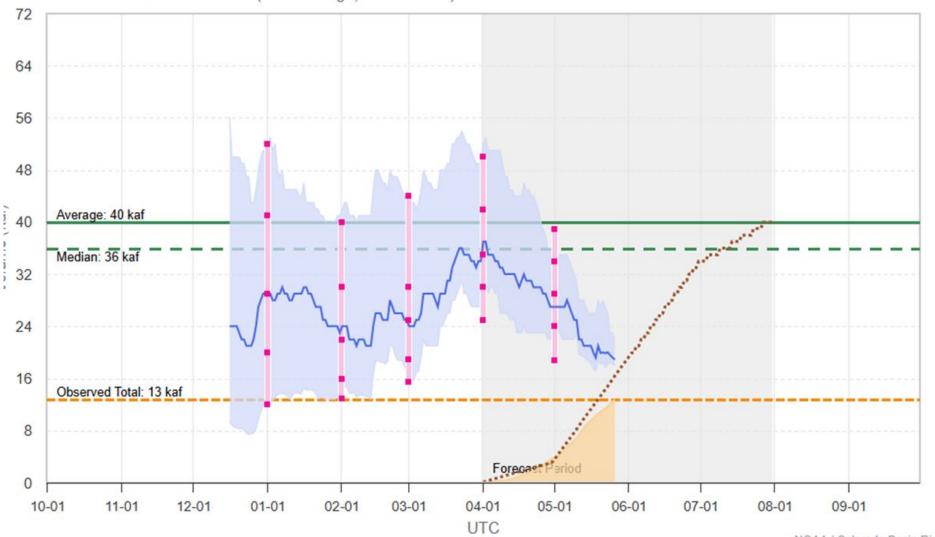
Regulated

■ No Forecast



#### 2025 Water Supply Forecast - Huntington Ck - Power Plant, Blo -Huntington, Nr (HPBU1)

ESP is Unregulated and No Precipitation Forecast Included
Official 50% Fcst (2025-05-01): 29 kaf (72% Avg, 81% Med), (41% of Yrs Below Fcst, 21 Highest Flow / 34 Tot Yrs)
ESP 50% Fcst (2025-05-26): 18.9 kaf (47% Avg, 52% Med), (11% of Yrs Below Fcst, 31 Highest Flow / 34 Tot Yrs)
Observed Volume: 12.8 kaf (32% Average, 36% Median)

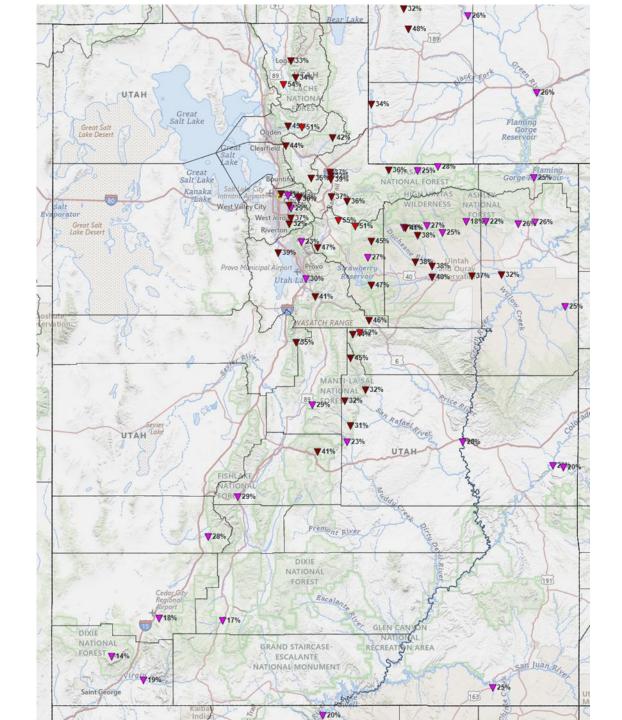


- Observed Accumulation
- · · · Normal Accumulation
- ESP 50
- ESP 10-90
- Official 10-90
- Official 10
- Official 30
- Official 50
- Official 70
- Official 90

# Observed: Percent of Average

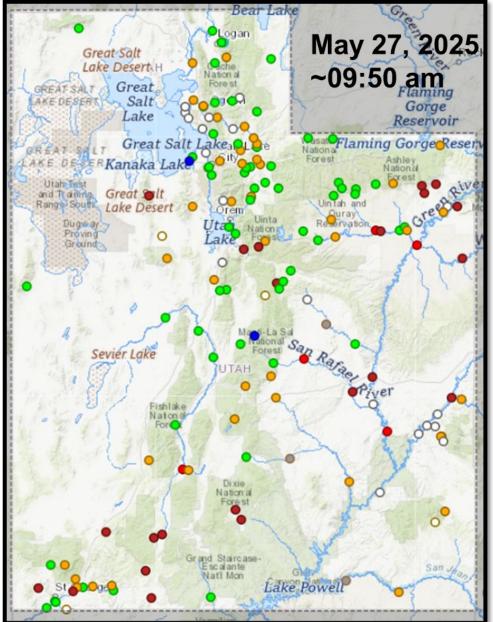
#### **Percent Period Average**

- ▼ < 30%
- ▼ 30-50%
- **V** 50-70%
- **▼** 70-90%
- ▽ 90-100%
- **▼** 100-110%
- ▼ 110-130%
- **▼** 130-150%
- **T** 150-200%
- **7** 200-300%
- ▼ 300-500
- ▼ >500%
- **▼** Regulated
- ∇ No Forecast





## **Current Streamflow Conditions**



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

Percentage of Gages

Day-of-Year Status	May 6	May 27
All-time high for this day-of-year	0.6%	0.0%
Much above normal for this day-of-year	3.8%	1.3%
Above normal for this day-of-year	3.8%	0.6%
Normal for this day-of-year	53.5%	38.4%
Below normal for this day-of-year	15.9%	26.4%
Much below normal for this day-of-year	5.7%	13.8%
All-time low for this day-of-year	0.6%	3.1%
Not ranked - insufficient record	12.1%	13.2%
Not ranked - stream not flowing	1.9%	2.5%

Streamflow: Status

Above flood stage

All-time high for this 100<sup>th</sup> percentile (maximum)

Much above normal >90<sup>th</sup> percentile

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 oth percentile (minimum)

Not flowing

Not ranked

Measurement flag

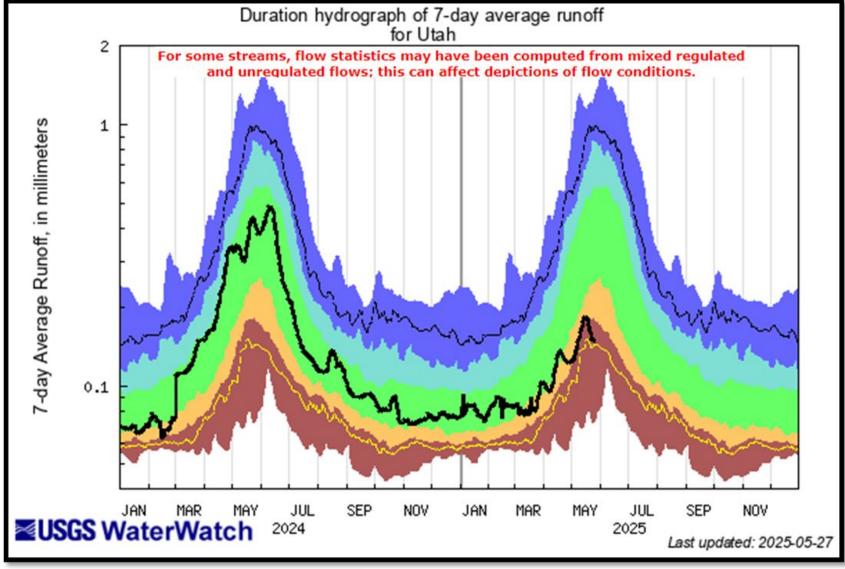
Recent measurement unavailable

Provisional data, subject to revision

Agency - USGS Utah WSC Presenter - Ryan Rowland



## Utah Area-Based Runoff Duration Hydrograph



Explanation - Percentile classes

76-90

Much above normal

25-75

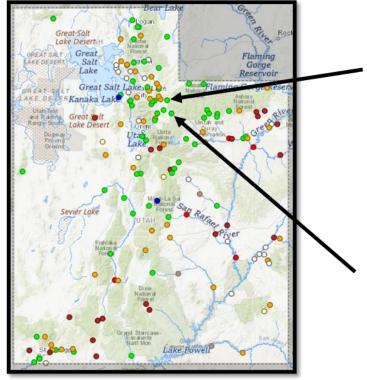
Normal

Provisional data, subject to revision

The Runoff Duration Hydrograph is a graphical presentation of area-based runoff (the black line) calculated as a weighted average of HUC 8-runoff, plotted over the long-term statistics of runoff for each day or month of the year for each area.

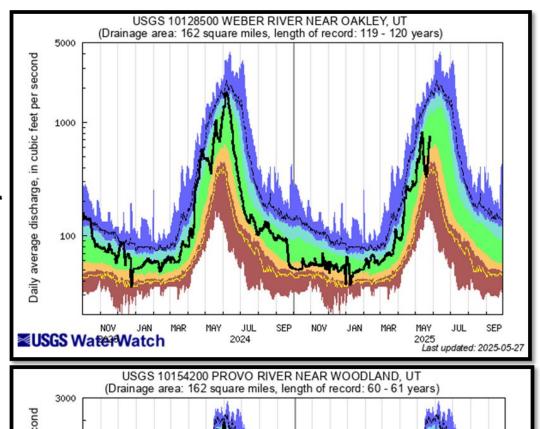


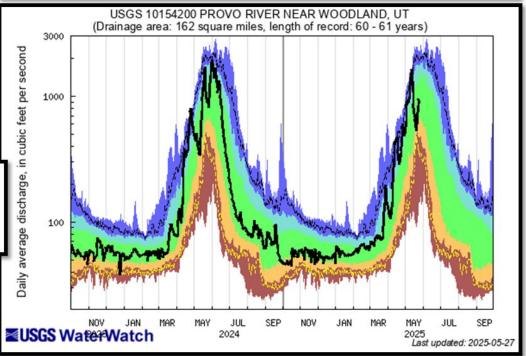
## Streamflow at Selected Gages



	E	xplana	tion - Pe	ercentile	classes	3	
							_
lowest- 10th percentile	5	10-24	25-75	76-90	95	90th percentile -highest	Flow
Much below Normal		Below normal	Normal	Above normal	Much above normal		11011

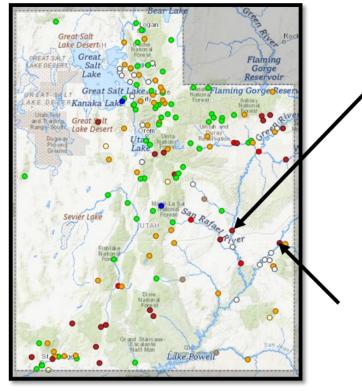
Provisional data, subject to revision





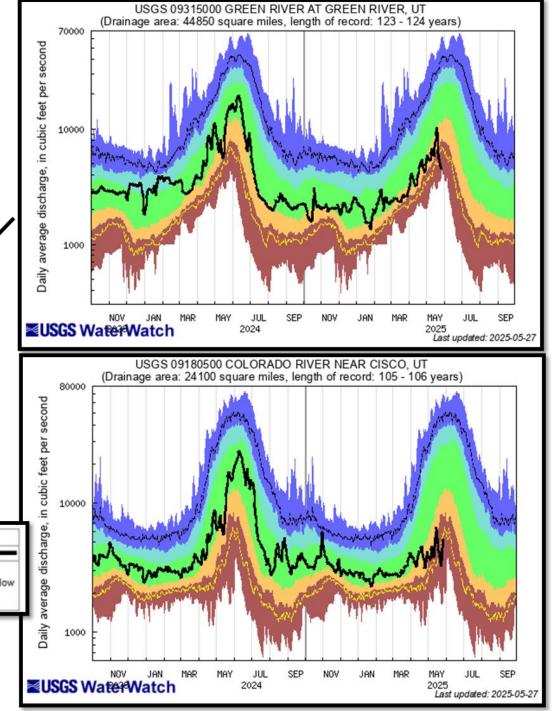


## Streamflow at Selected Gages



	E	xplana	tion - Pe	ercentile	classes	S	
lowest- 10th percentile	5	10-24	25-75	76-90	95	90th percentile -highest	Flow
Much below Normal		Below normal	Normal	Above normal	Much above normal		1104

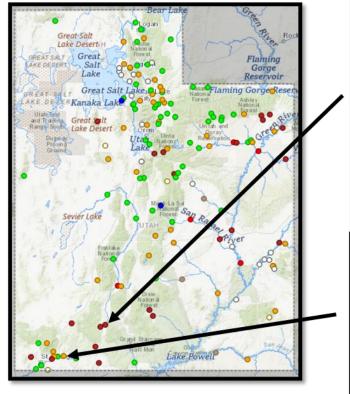
Provisional data, subject to revision

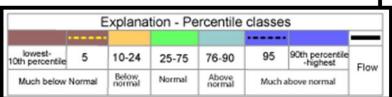




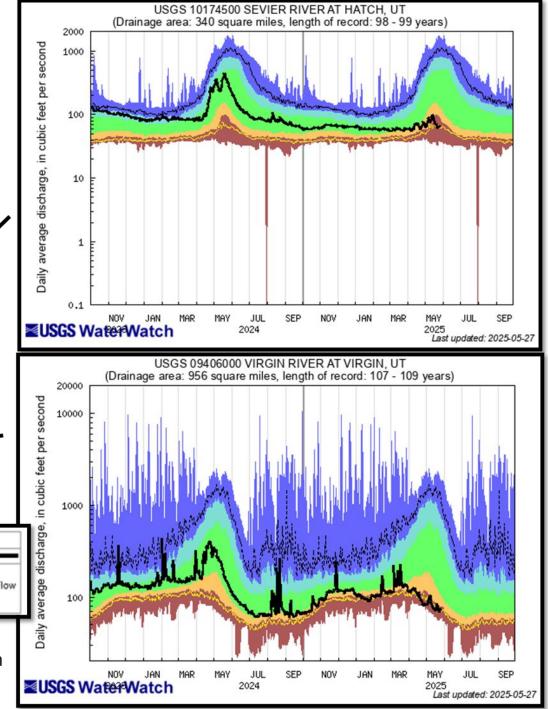


## Streamflow at Selected Gages



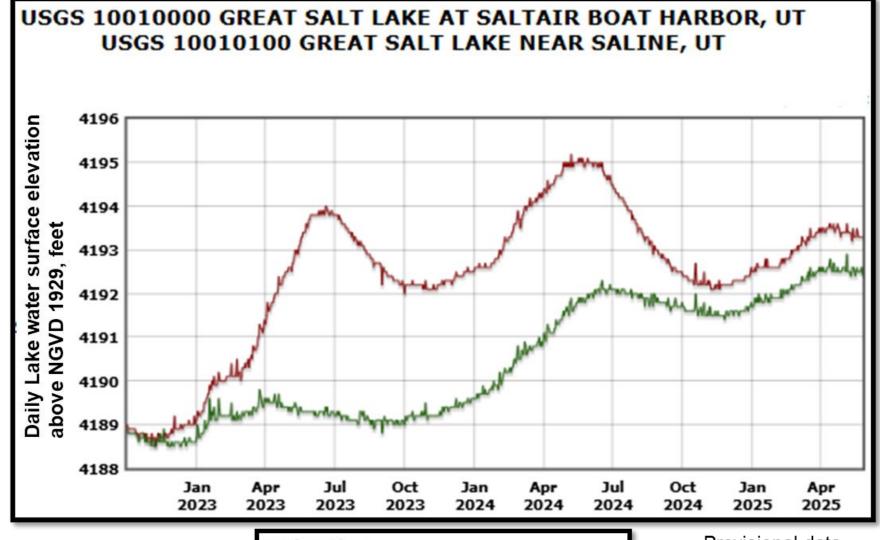


Provisional data, subject to revision





### **Great Salt Lake Water Surface Elevations**



Agency - USGS Utah WSC Presenter - Ryan Rowland Explanation

USGS 10010000 (Mean)

USGS 10010100 (Mean), elevation

Provisional data, subject to revision

## Daily Values 5/26/2025

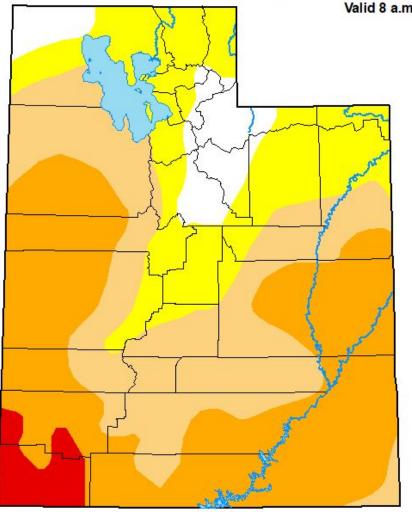
- South Arm: 4,193.3'
  - Down 0.3' since seasonal peak Apr. 2025
- North Arm: 4,192.4'
  - Down 0.5' since seasonal peak in May 2025



## U.S. Drought Monitor Utah

May 20, 2025

(Released Thursday, May. 22, 2025) Valid 8 a.m. EDT



#### 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:

Rocky Bilotta NCEI/NOAA









droughtmonitor.unl.edu

To report on conditions between meetings:

Submit a report on CMOR drought website Email <u>Lhaskell@utah.gov</u> email <u>drought@utah.gov</u>