



Utah Water Conditions Update

(drought webinar)

The meeting will begin shortly



Thank you to our contributors

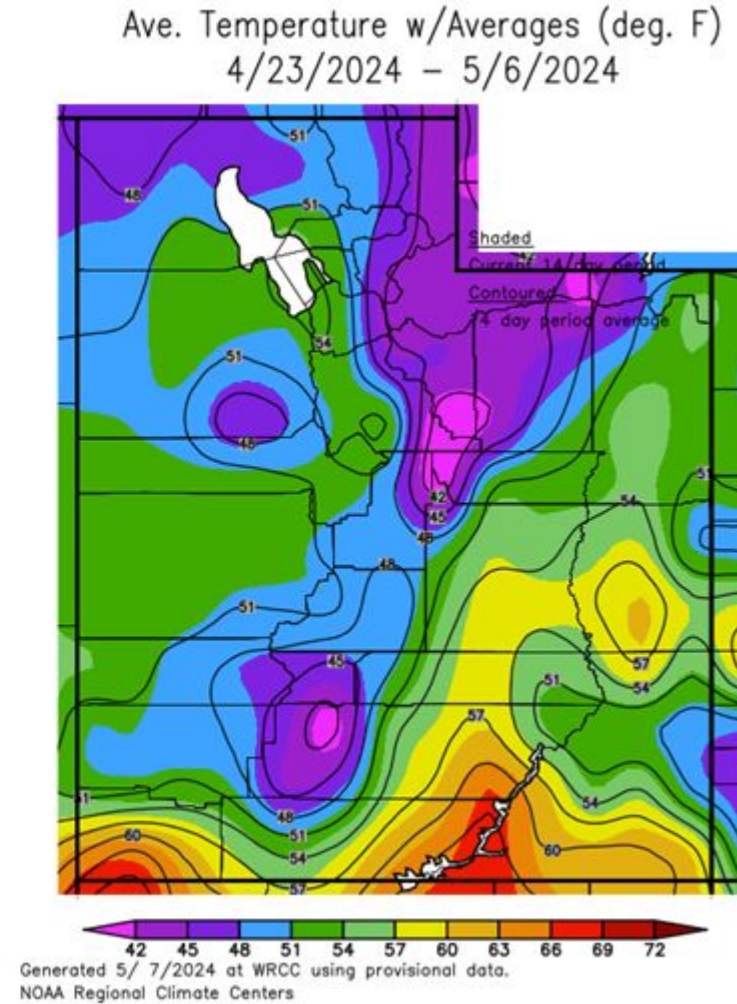
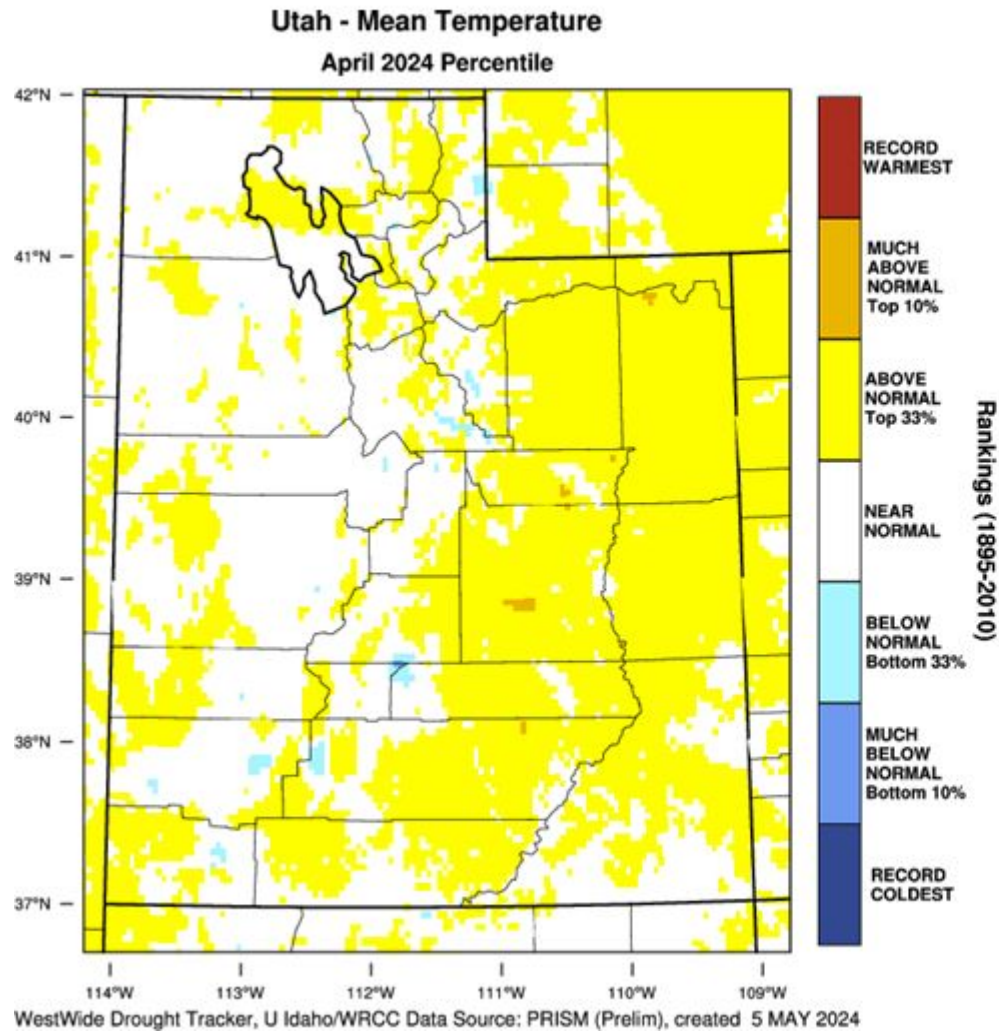




Utah Water Conditions Update

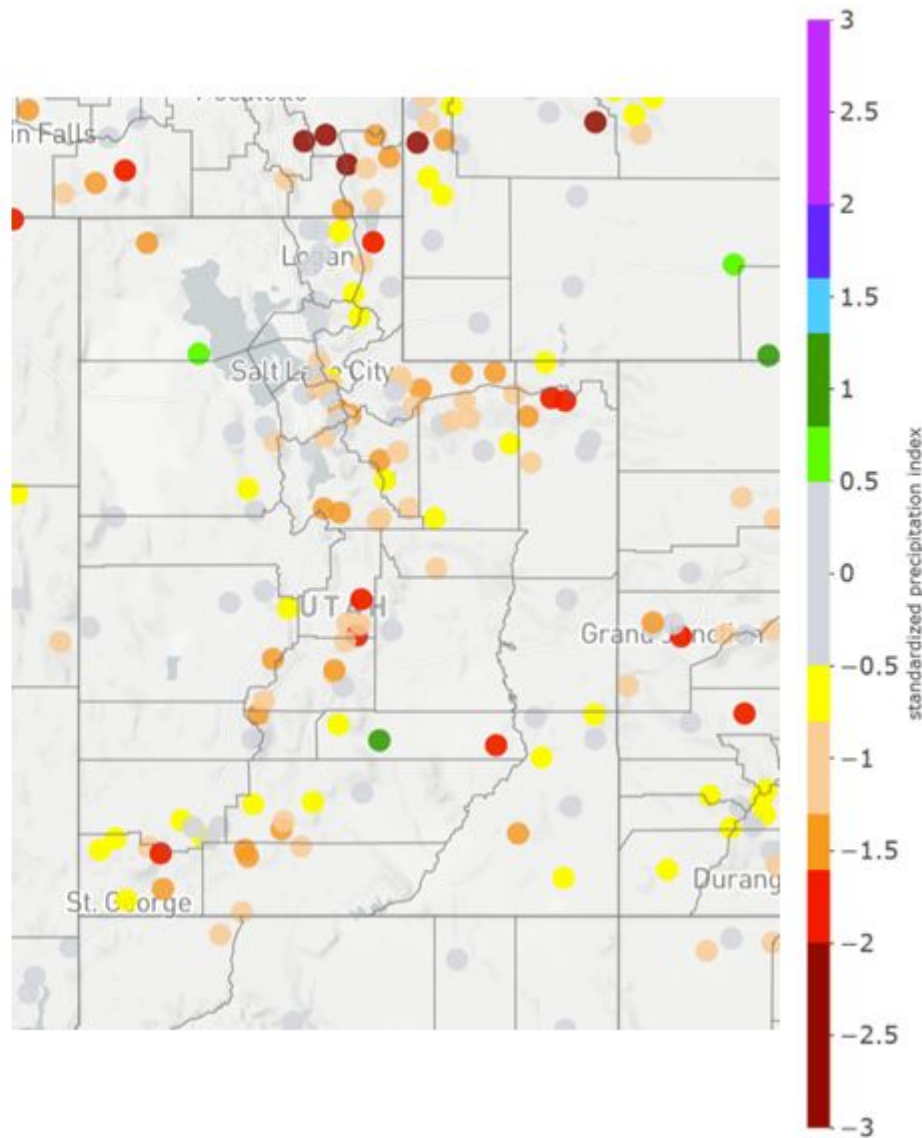
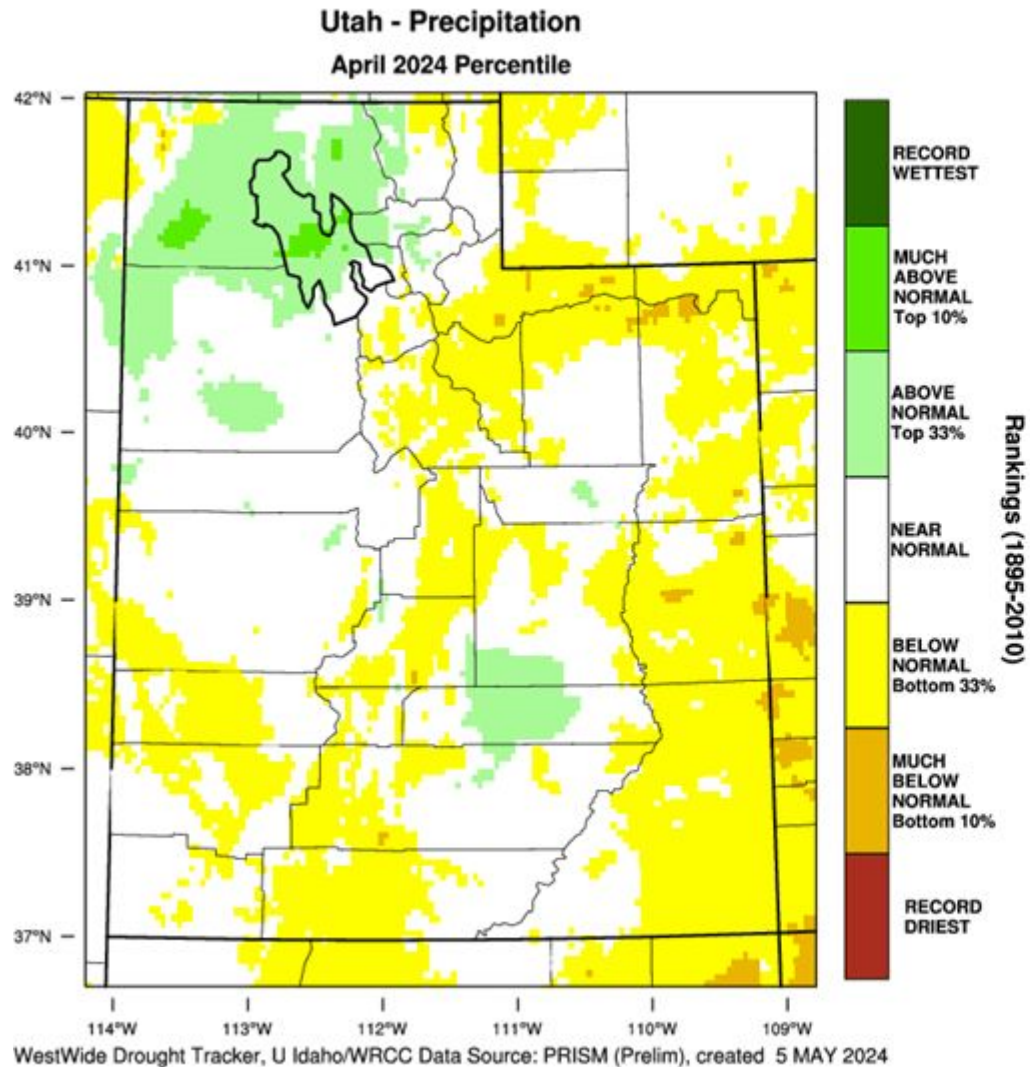
May 7, 2024

Recent Temperatures



Recent Precipitation

30-day Standardized Precipitation Index: 2024/04/03 - 2024/05/02

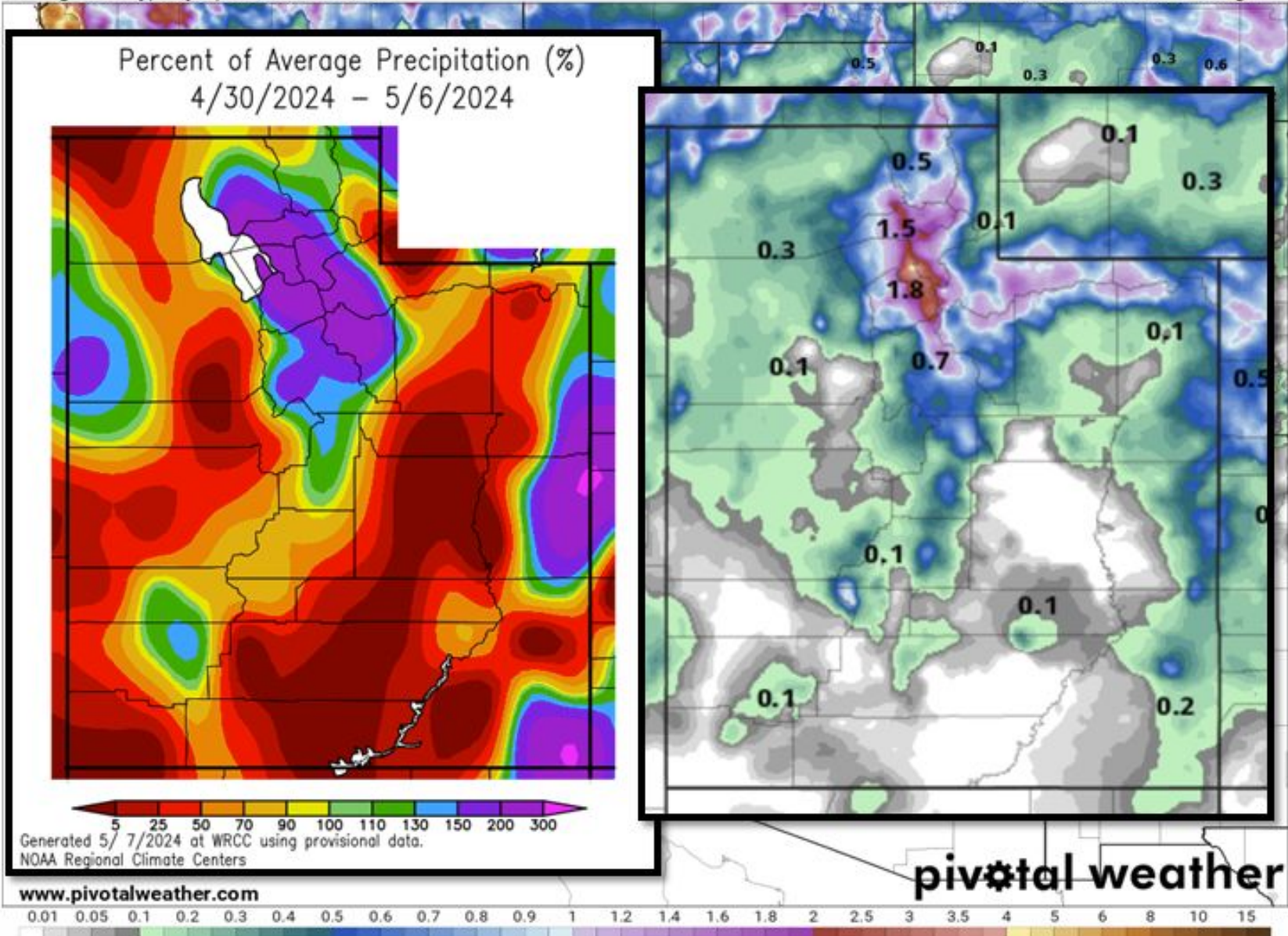


Agency - Utah Climate Center
Presenter - Jon Meyer

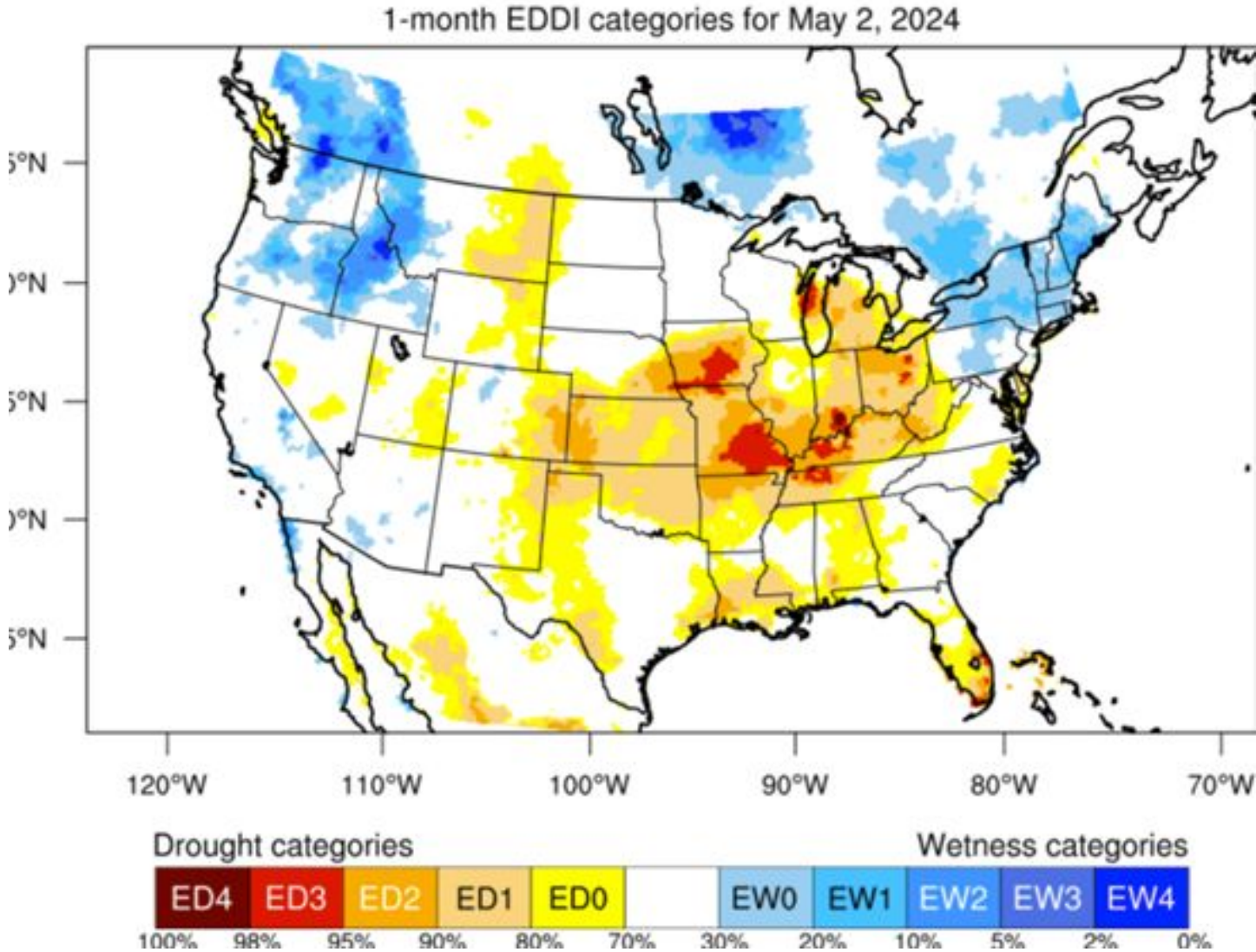
Recent Precipitation

168-Hour Stage IV Precipitation Analysis (in)
Ending Tuesday, May 7, 2024 at 5 a.m. PDT

Init: Tue 2024-05-07 12z NCEP Stage IV



April Evaporative Demand Drought Index

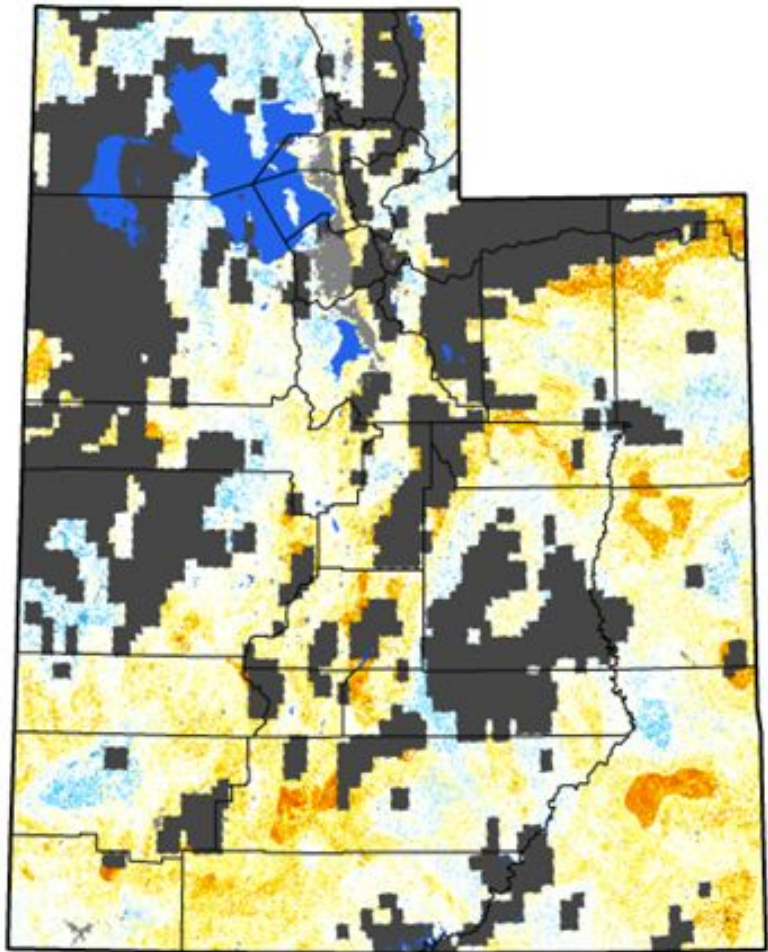


Agency - Utah Climate Center
Presenter - Jon Meyer

Recent drought pressure conditions

Quick Drought Response Index Utah

May 5, 2024
(Week 18)



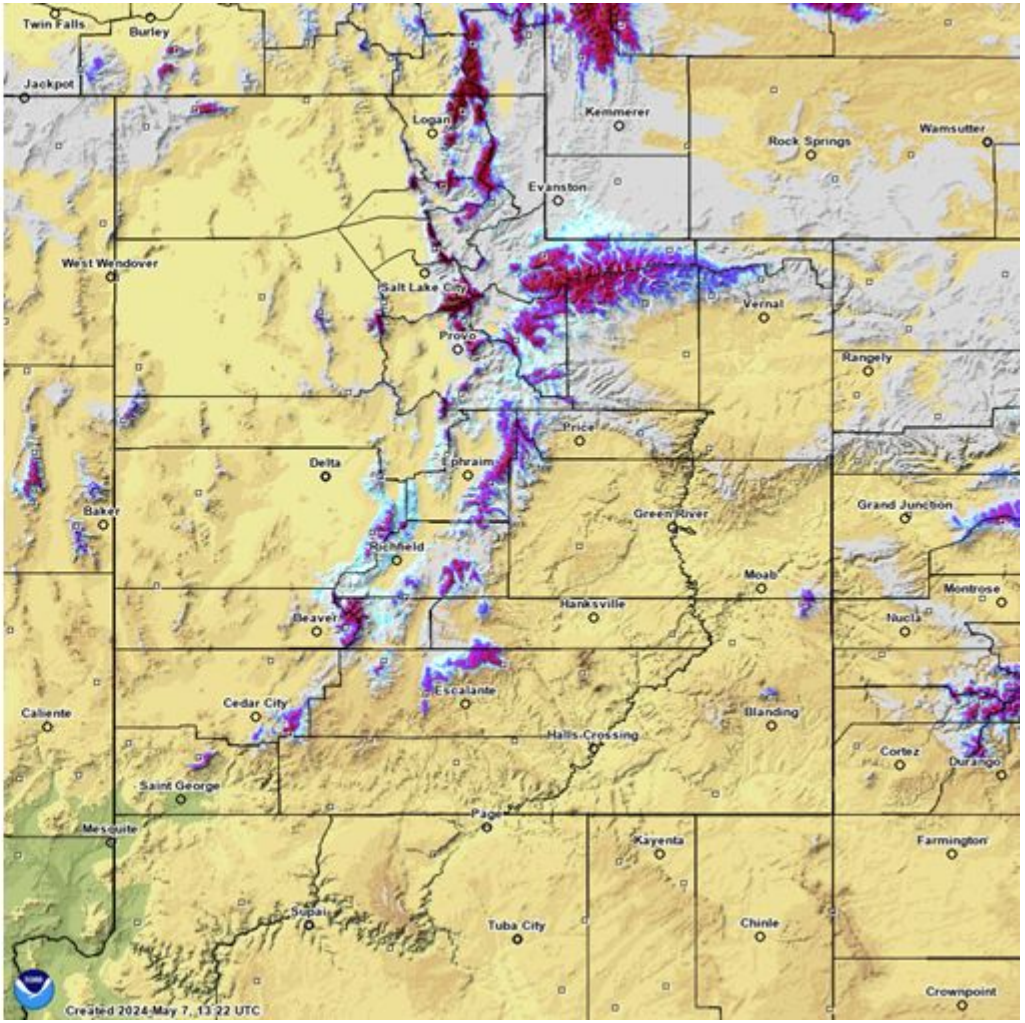
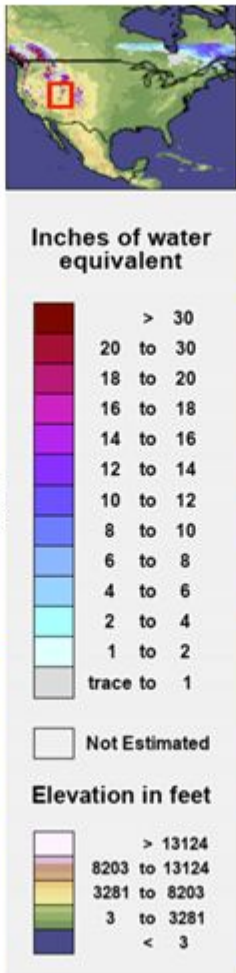
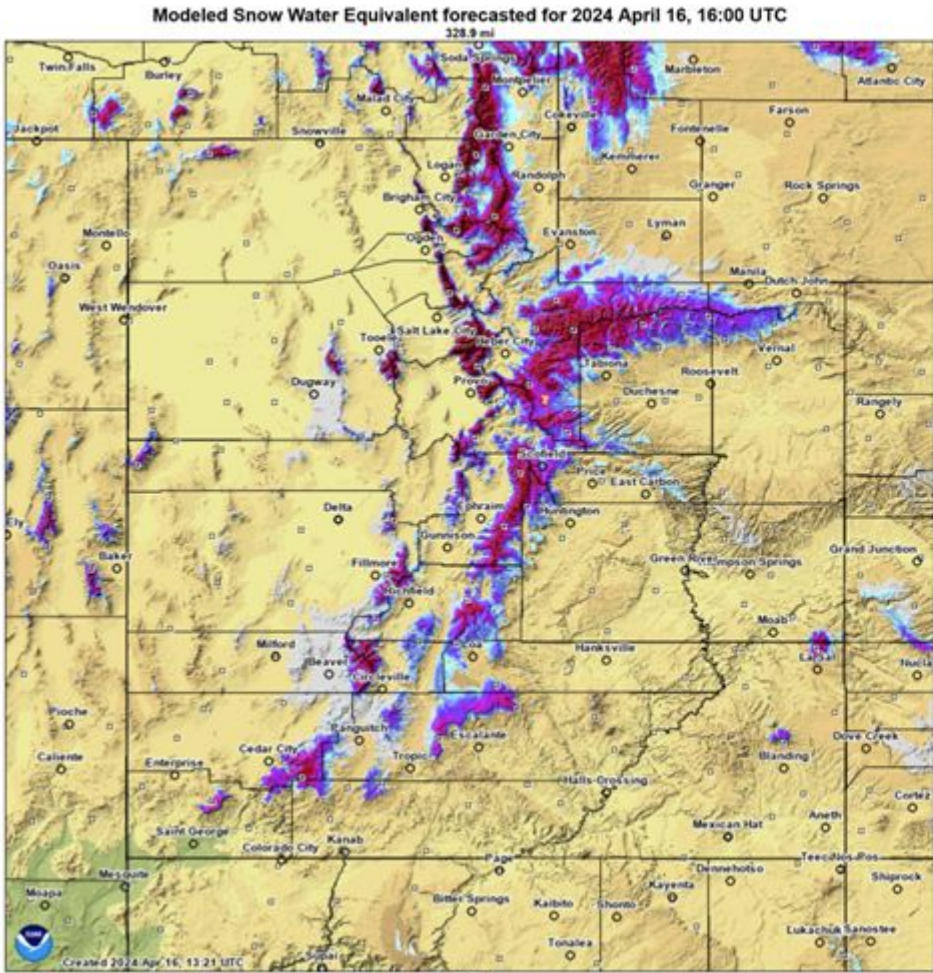
Conditions Relative to 4-Week Historical Average

- Wetter
- Near Average
- Drier
- Out of Season
- Urban
- No Data
- Water



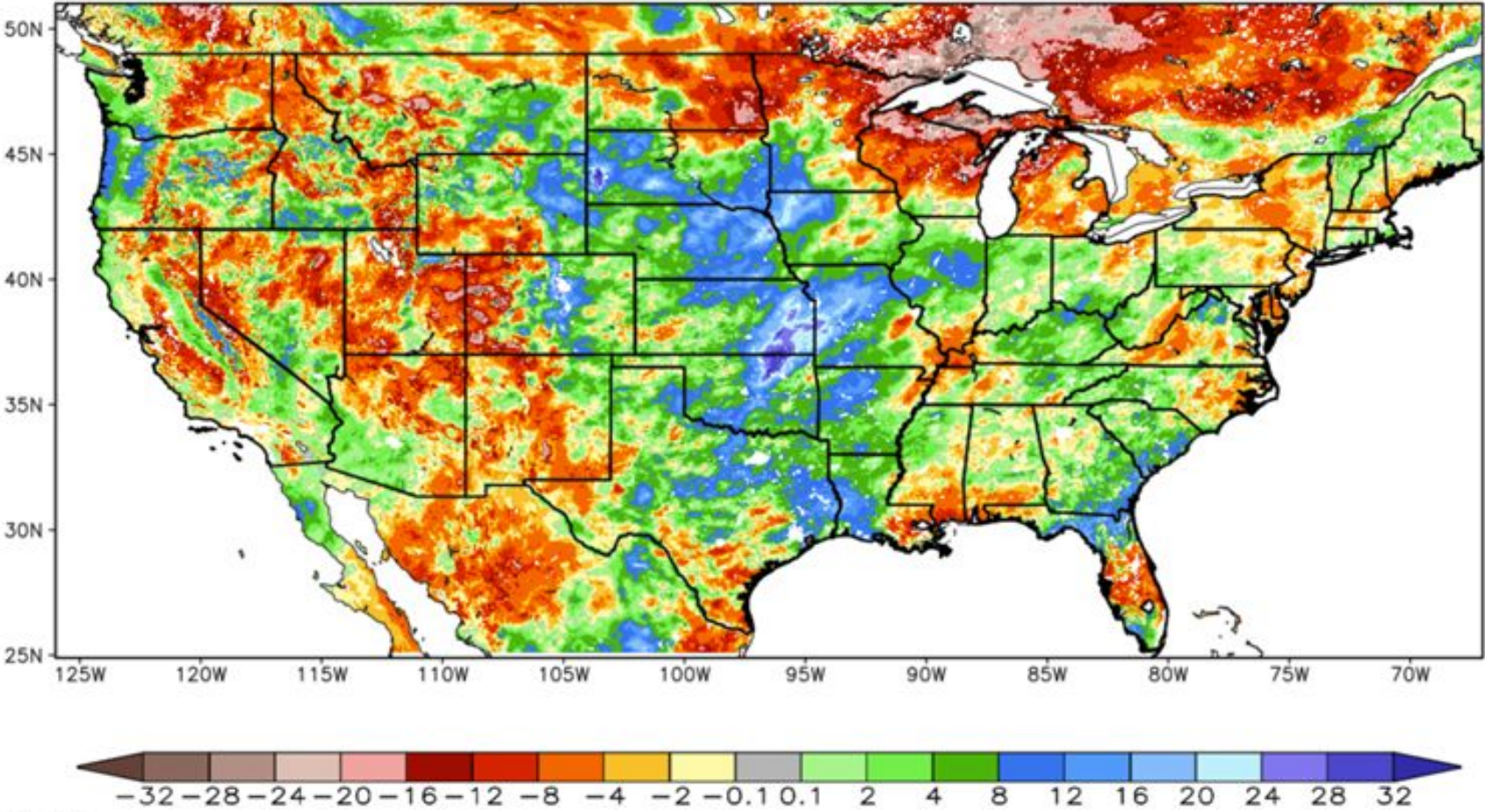
Agency - Utah Climate Center
Presenter - Jon Meyer

Snowpack changes



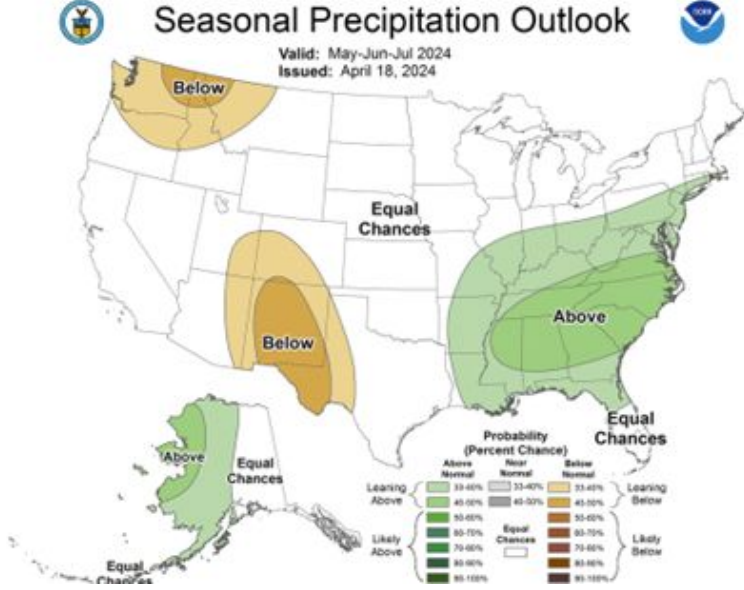
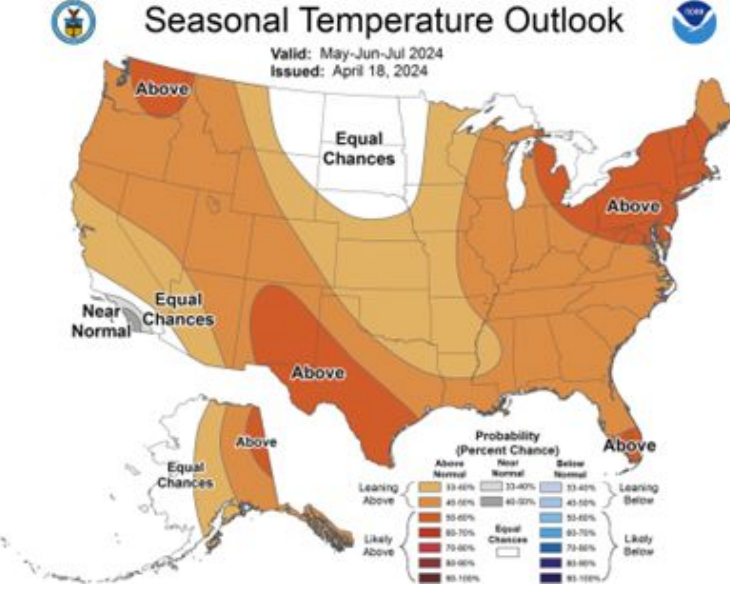
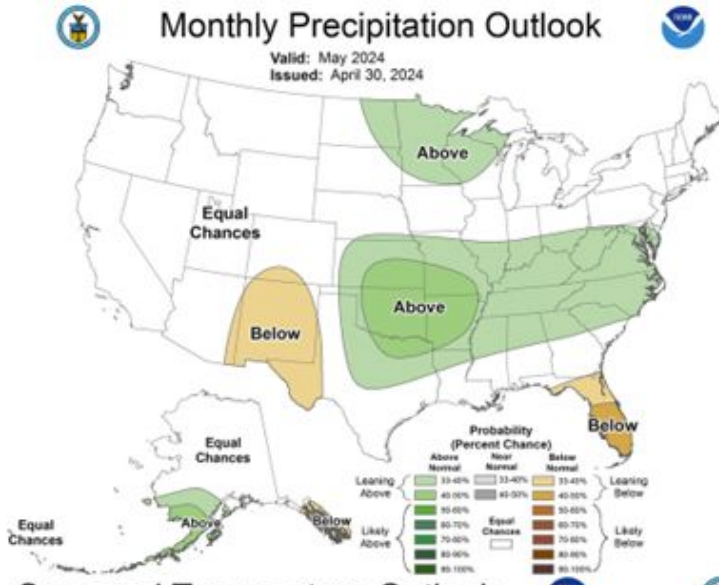
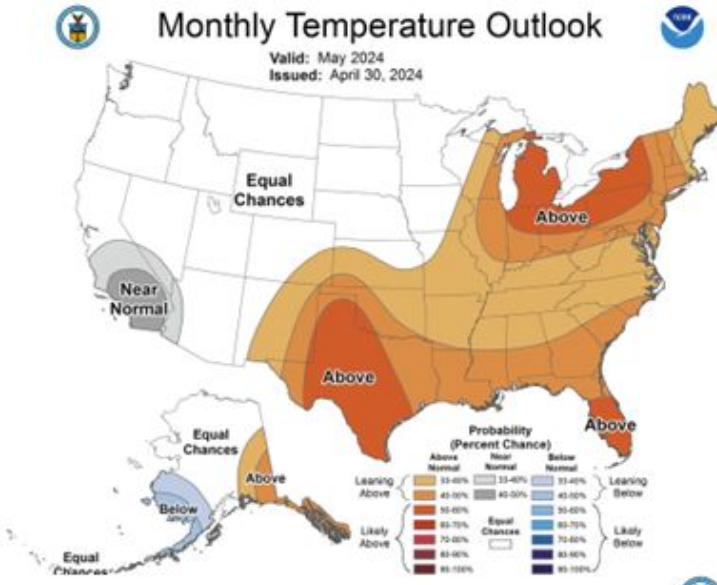
Year-over-Year Soil Moisture Changes

1-Year Difference in Column Relative Soil Moisture (%) valid 12z 07 May 2024



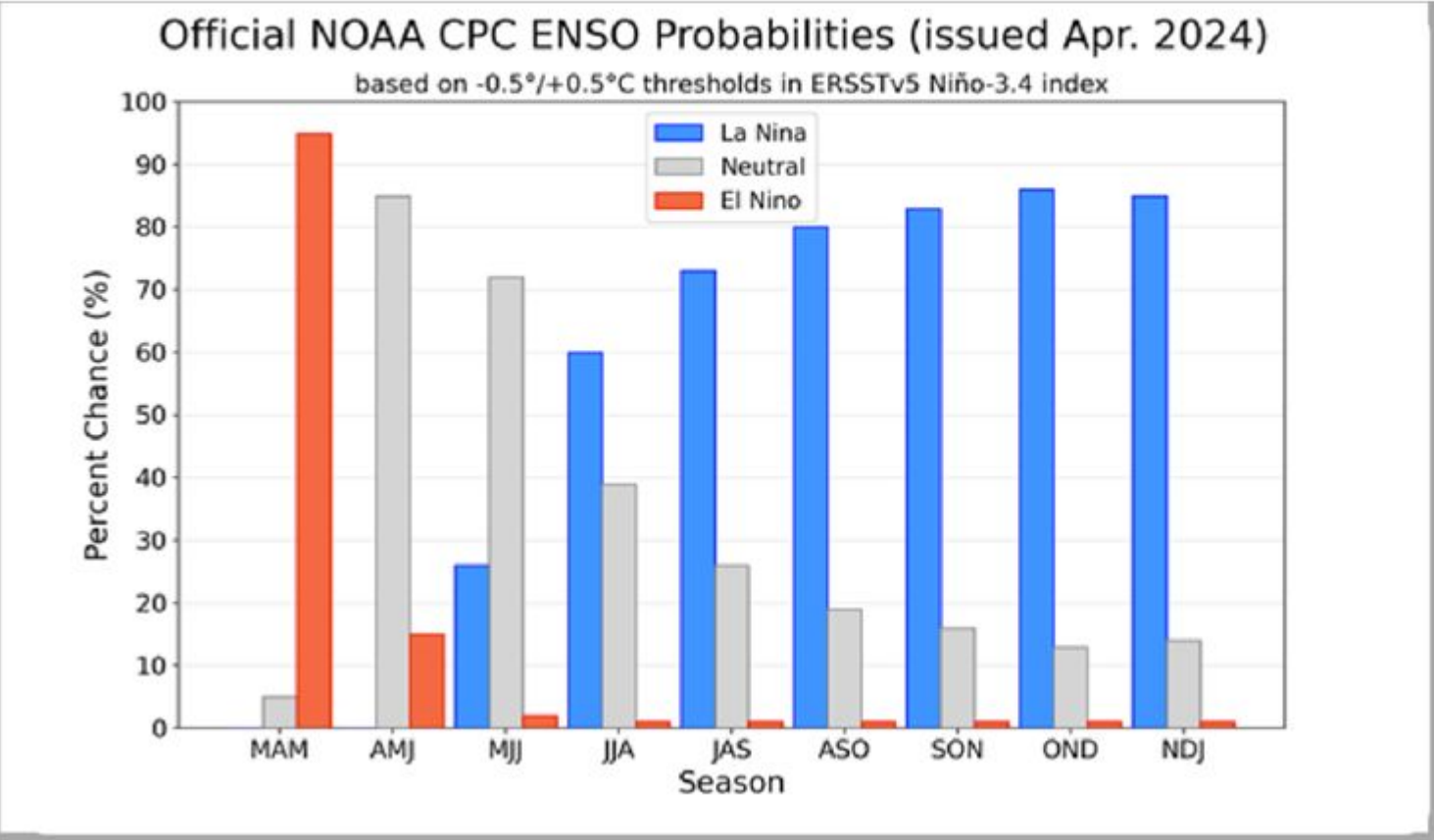
NOTE

CPC Monthly and Seasonal Outlooks



Transition to La Nina this Summer/Fall

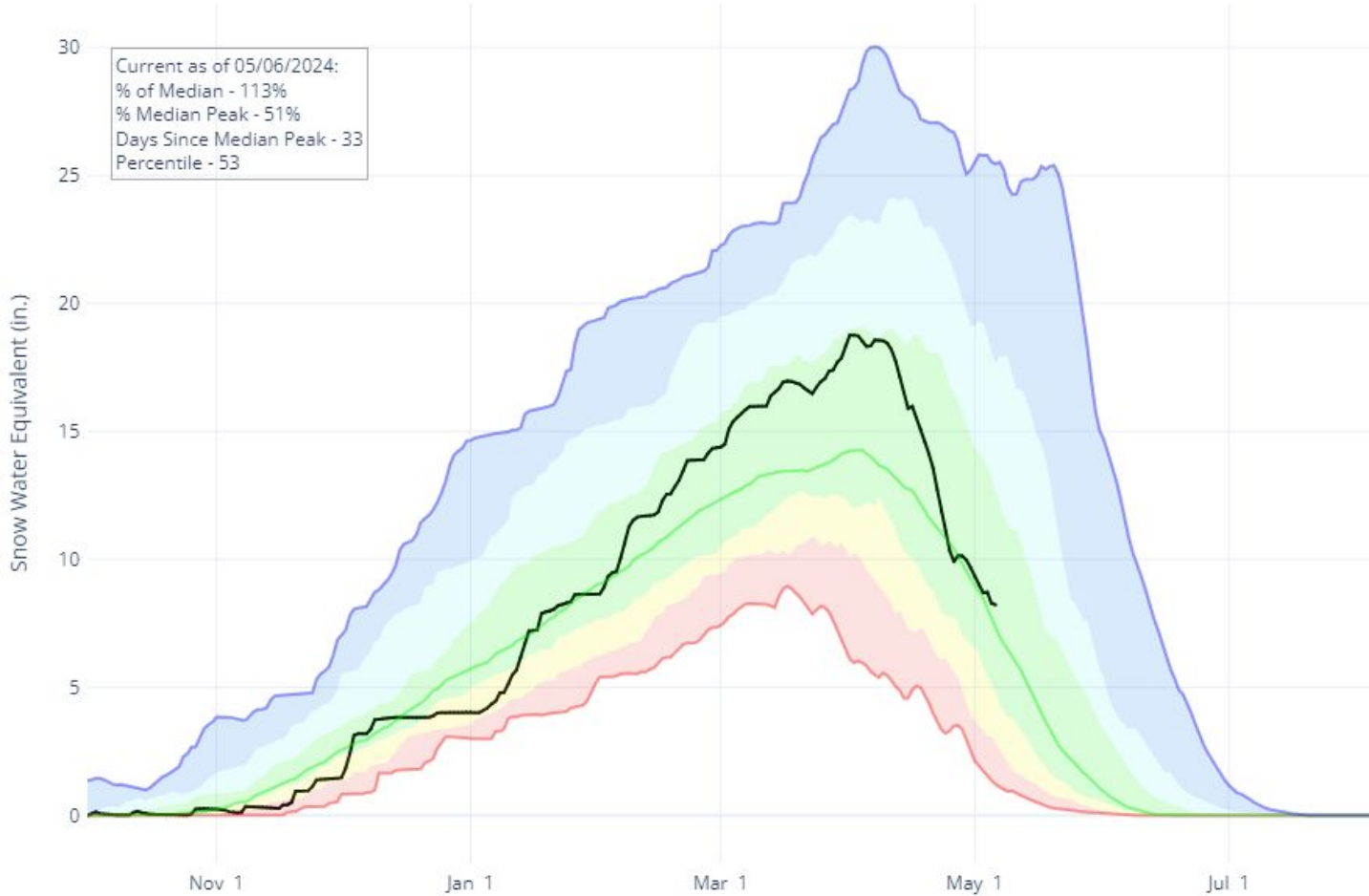
A transition from El Niño to ENSO-neutral is likely by April-June 2024 (85% chance)
Odds of La Niña developing by June-August 2024 (60% chance).*



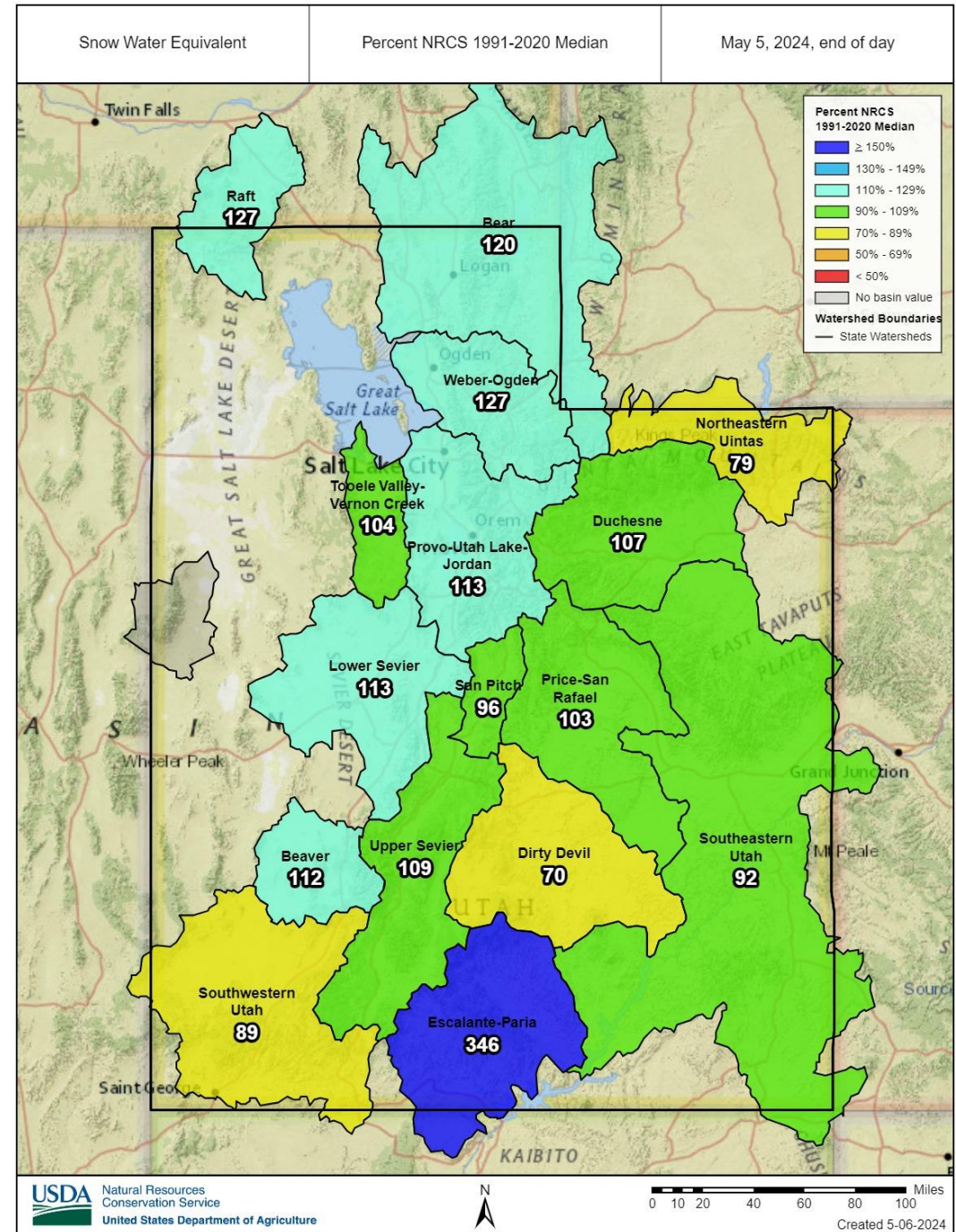
MJO is strengthening and could accelerate the eastern Pacific tropical cyclone season's arrival

Snowpack

SNOW WATER EQUIVALENT IN STATE OF UTAH

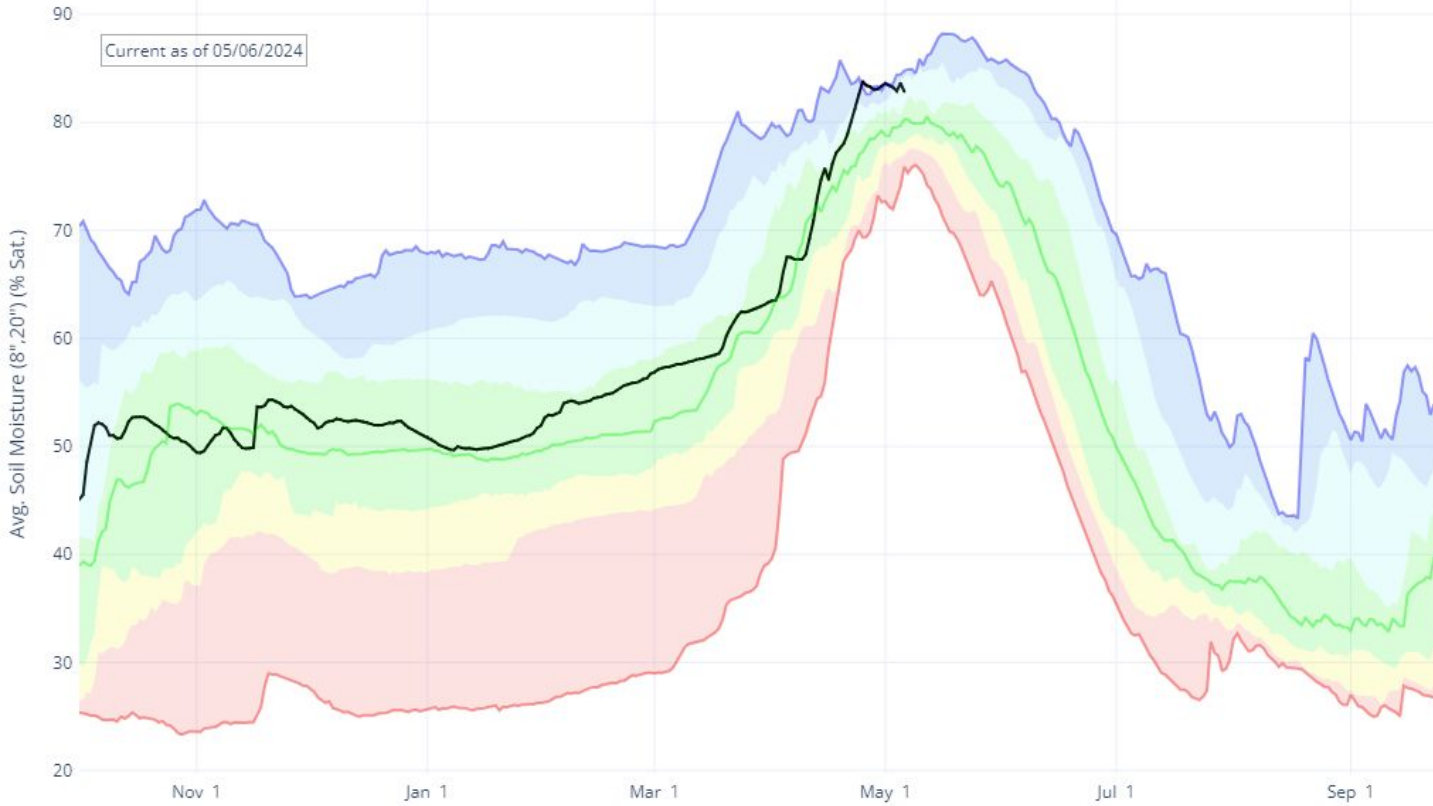


Agency - NRCS Snow Survey
 Presenter - Jordan Clayton

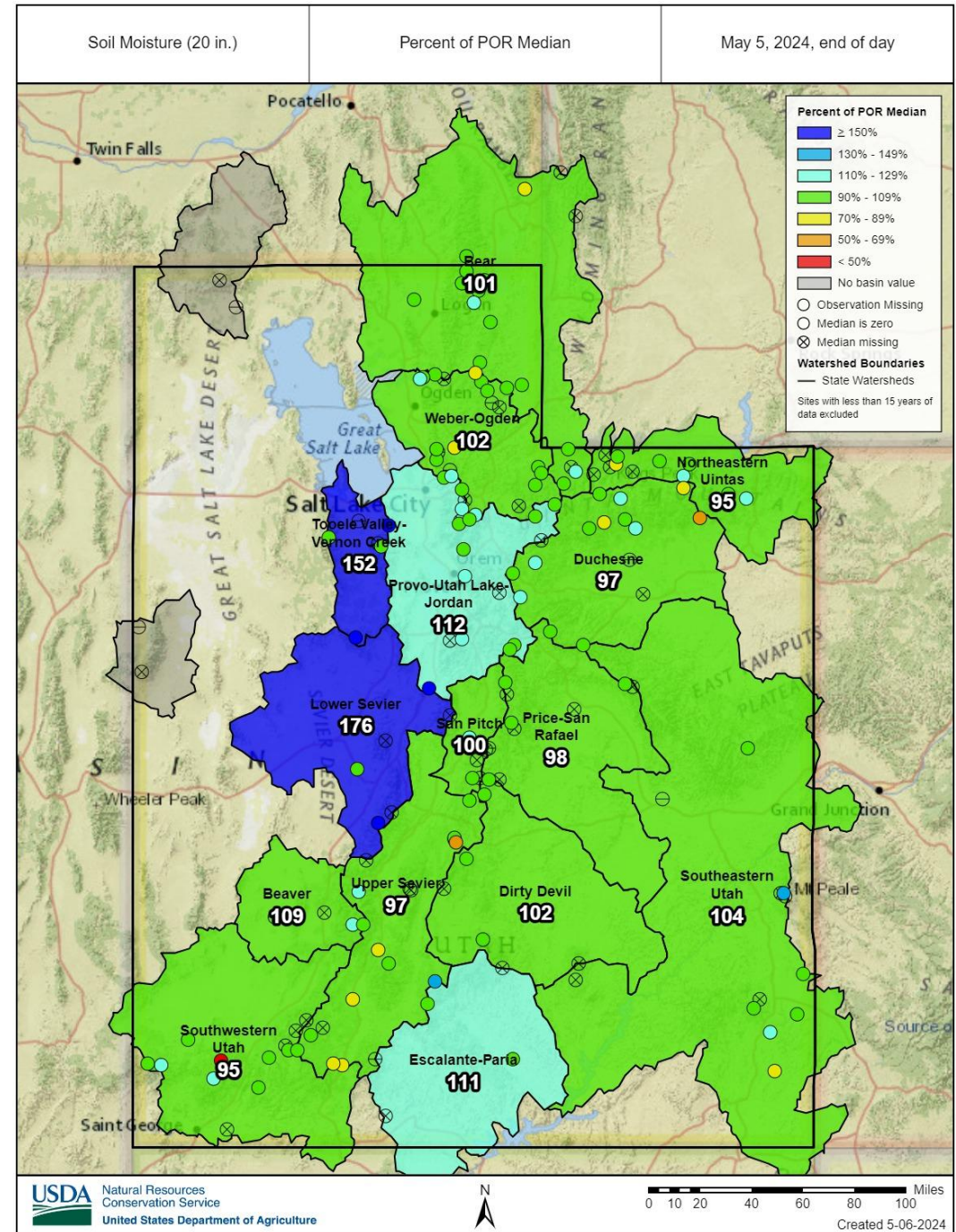


Soil Moisture

AVG. SOIL MOISTURE (8",20") IN STATE OF UTAH

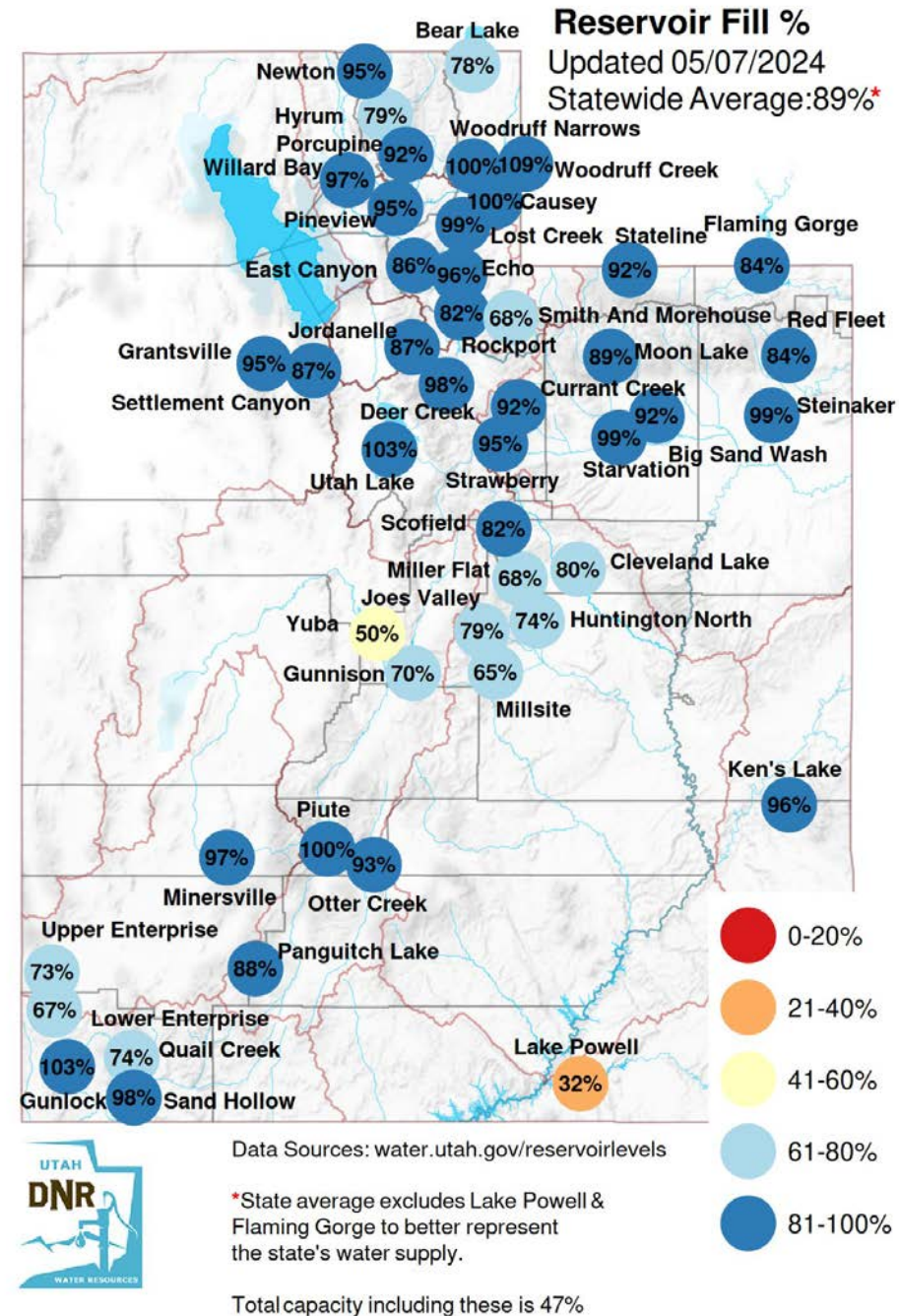


Agency - NRCS Snow Survey
 Presenter - Jordan Clayton



With the exception of Yuba Lake,
all reservoirs are 65% full or more

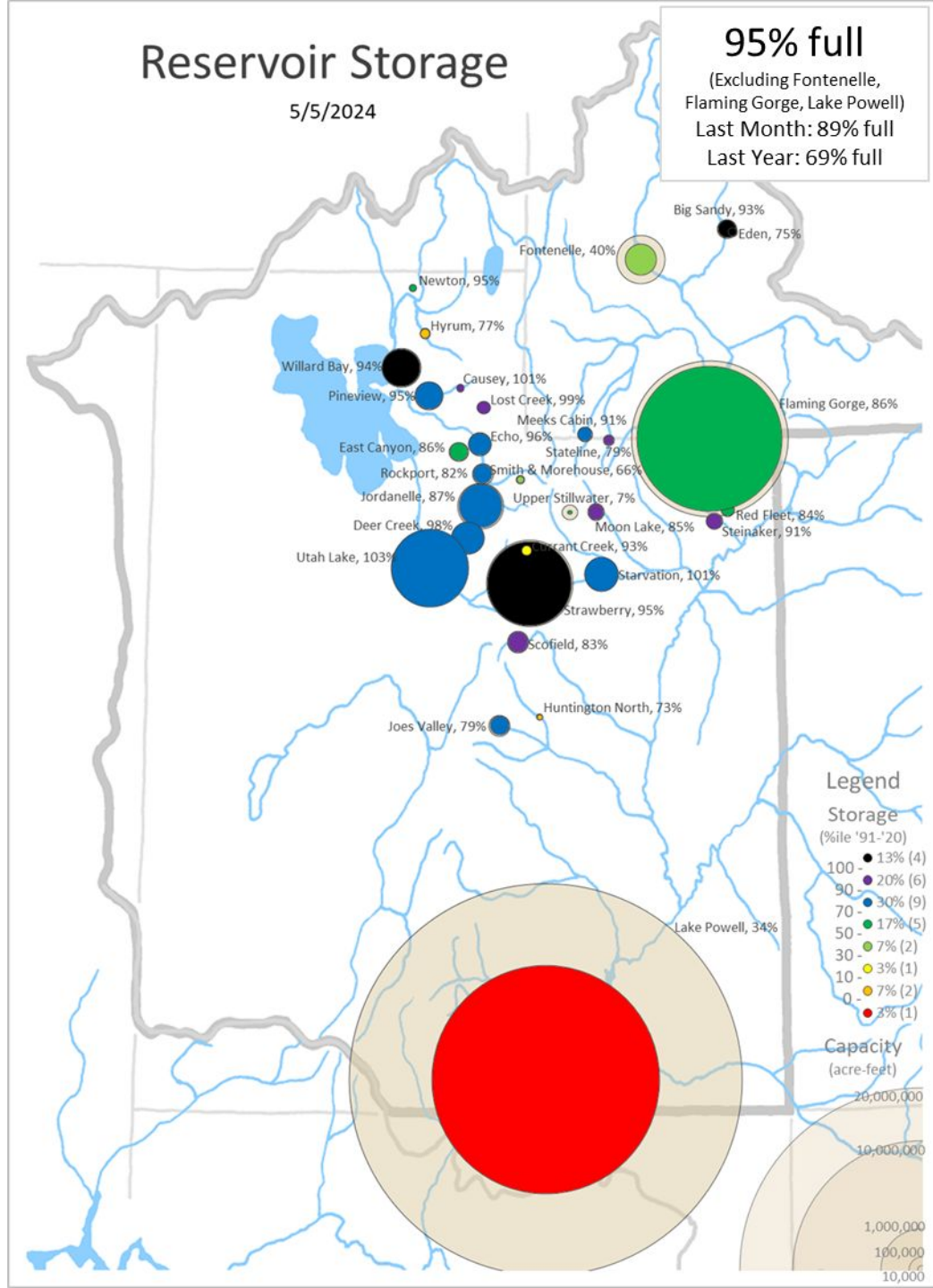
Yuba is 16% below median,
coming up from work done on the
dam last year



Reservoir Levels

- Reservoir storage generally 80-100% full
- Reclamation reservoirs are forecasted to fill (not Lake Powell)
- Positioned well for runoff

Agency - BOR
Presenter - Gary Henrie

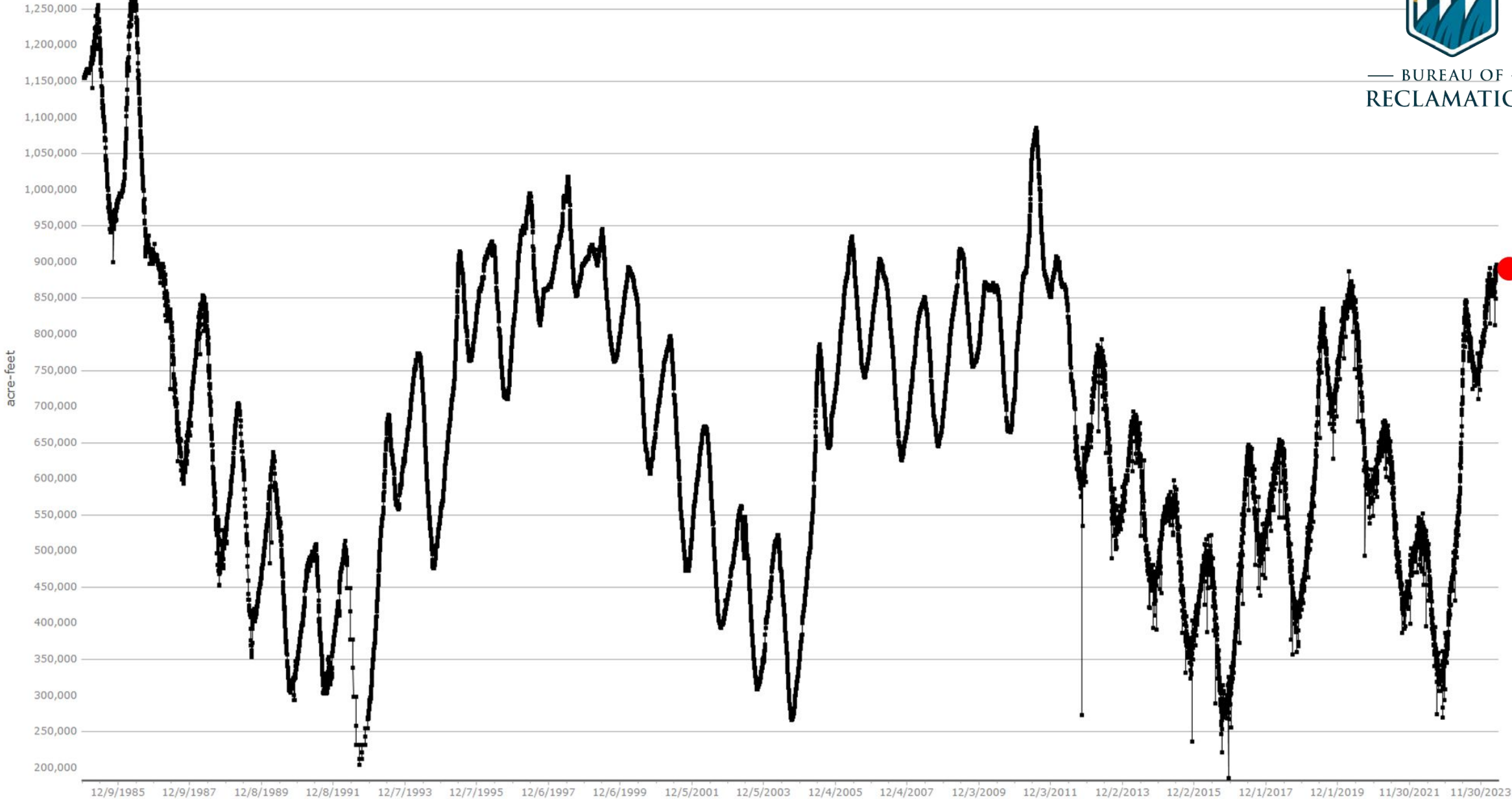


Reservoir Levels

UTAH LAKE storage



BUREAU OF RECLAMATION



Reservoir Levels

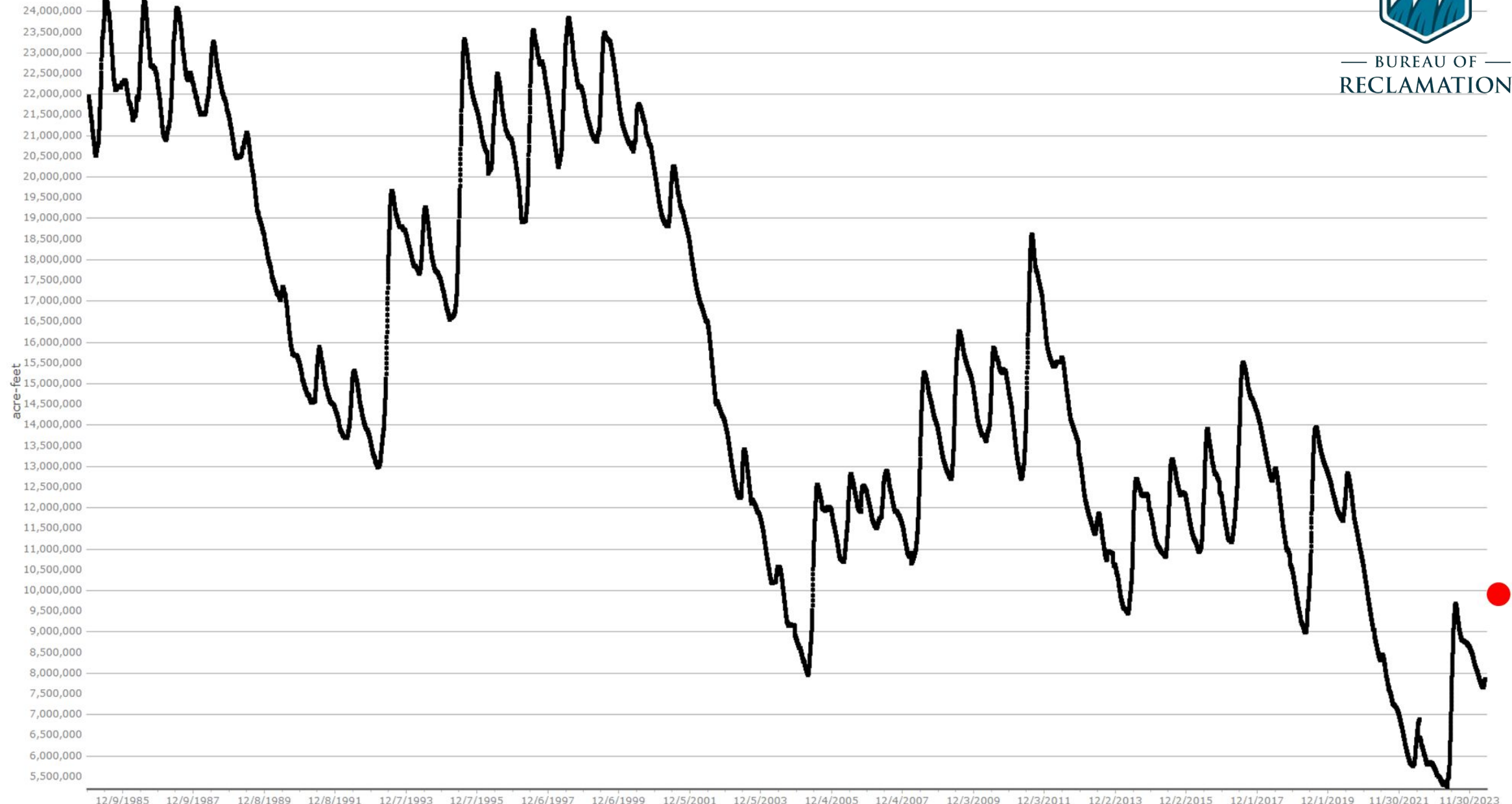


Reservoir Levels

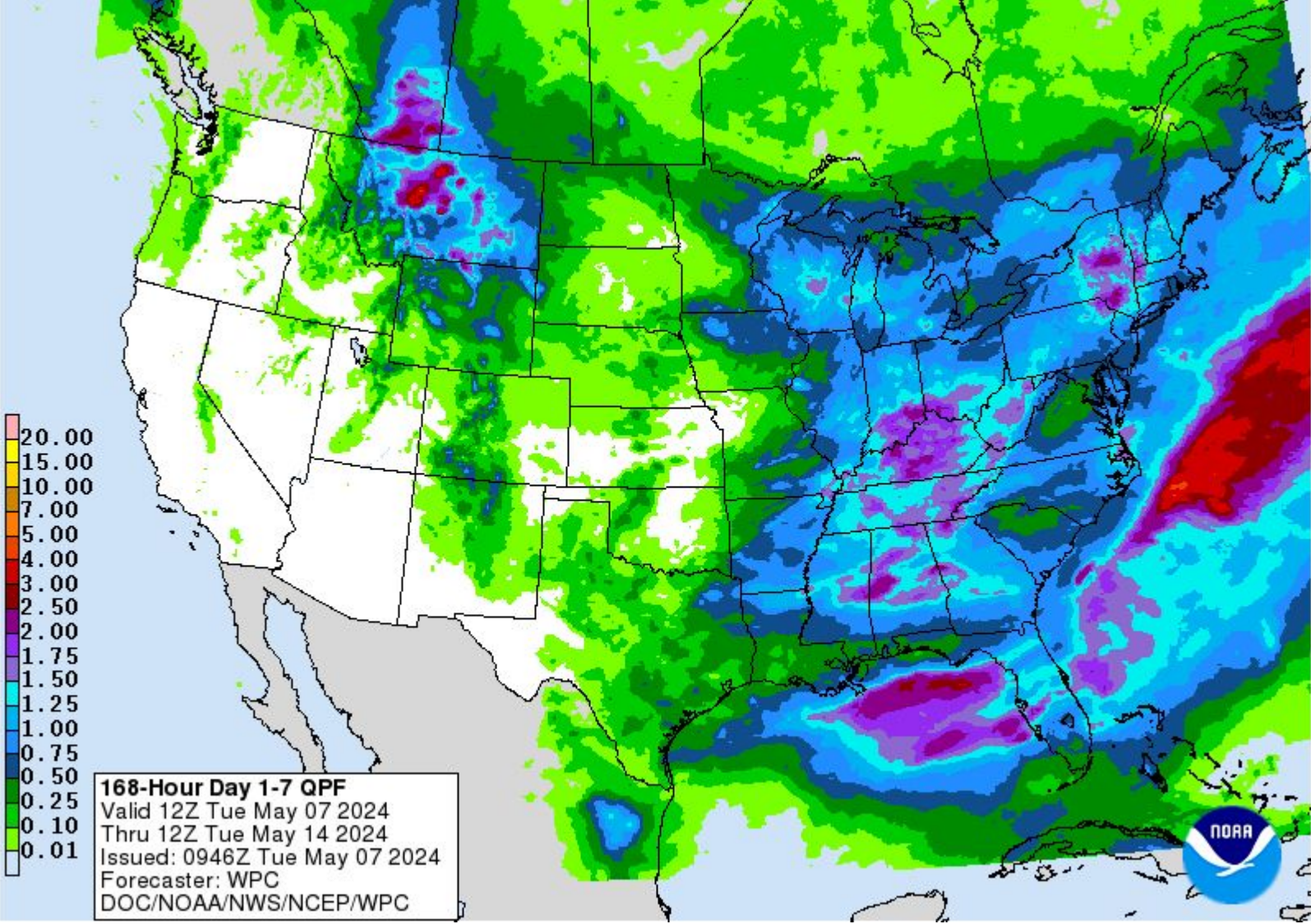


BUREAU OF RECLAMATION

LAKE POWELL storage



Weather Forecast Office Utah Day 1-7 Outlook

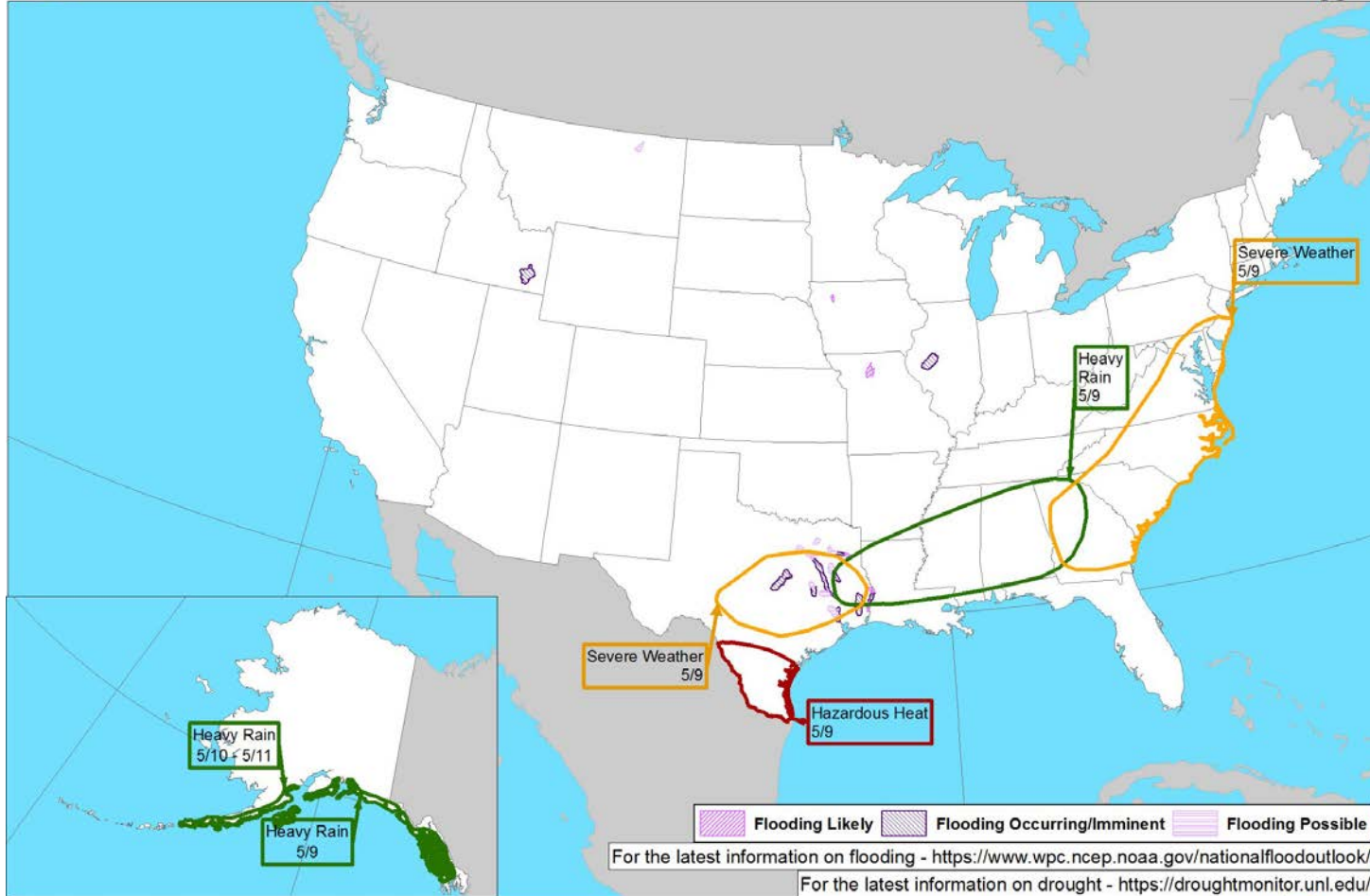


Agency - National Weather Service Weather Forecast Office
Presenter - Christine Kruse

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



Day 3-7 U.S. Hazards Outlook
Valid: 05/09/2024-05/13/2024



Weather Prediction Center
Made: 05/06/2024 03:32 PM EDT

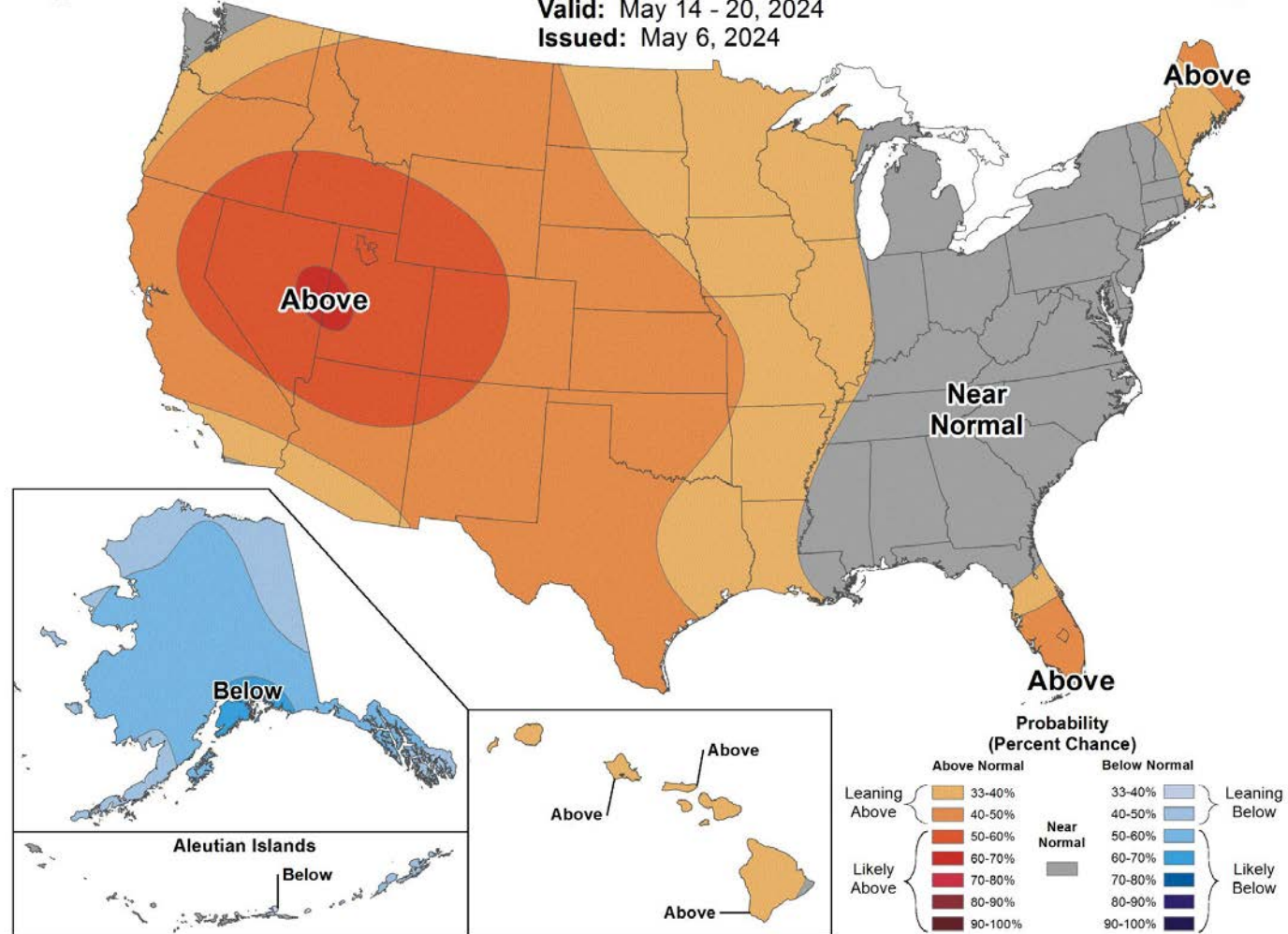
Follow us:
www.wpc.ncep.noaa.gov

Climate Prediction Center 8 to 14 Day Outlooks - Temperature



8-14 Day Temperature Outlook

Valid: May 14 - 20, 2024
Issued: May 6, 2024



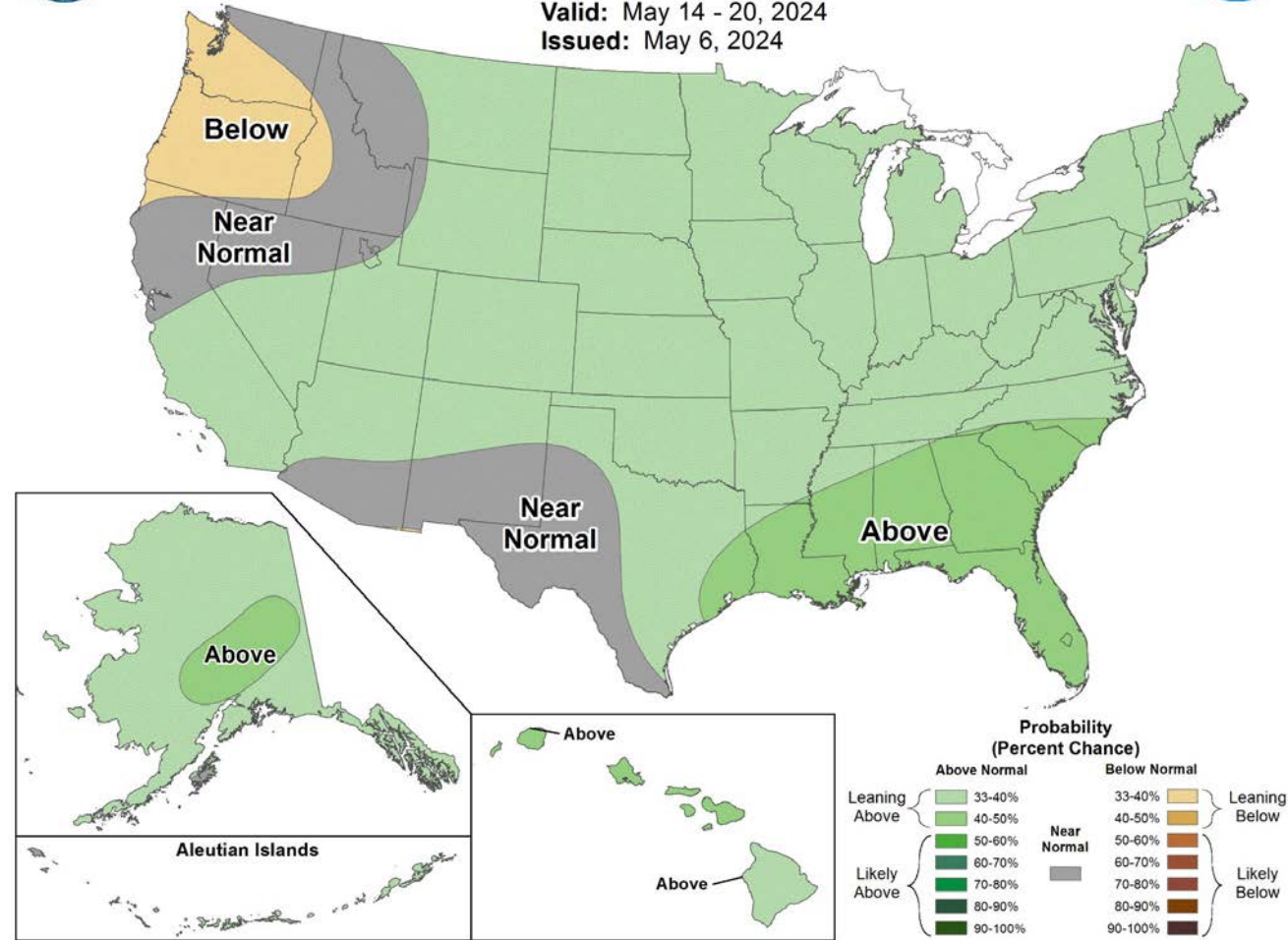
Climate Prediction Center 8 to 14 Day Outlooks - Precipitation



8-14 Day Precipitation Outlook



Valid: May 14 - 20, 2024
Issued: May 6, 2024



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



Day 8-14 U.S. Hazards Outlook
Valid: 05/14/2024-05/20/2024



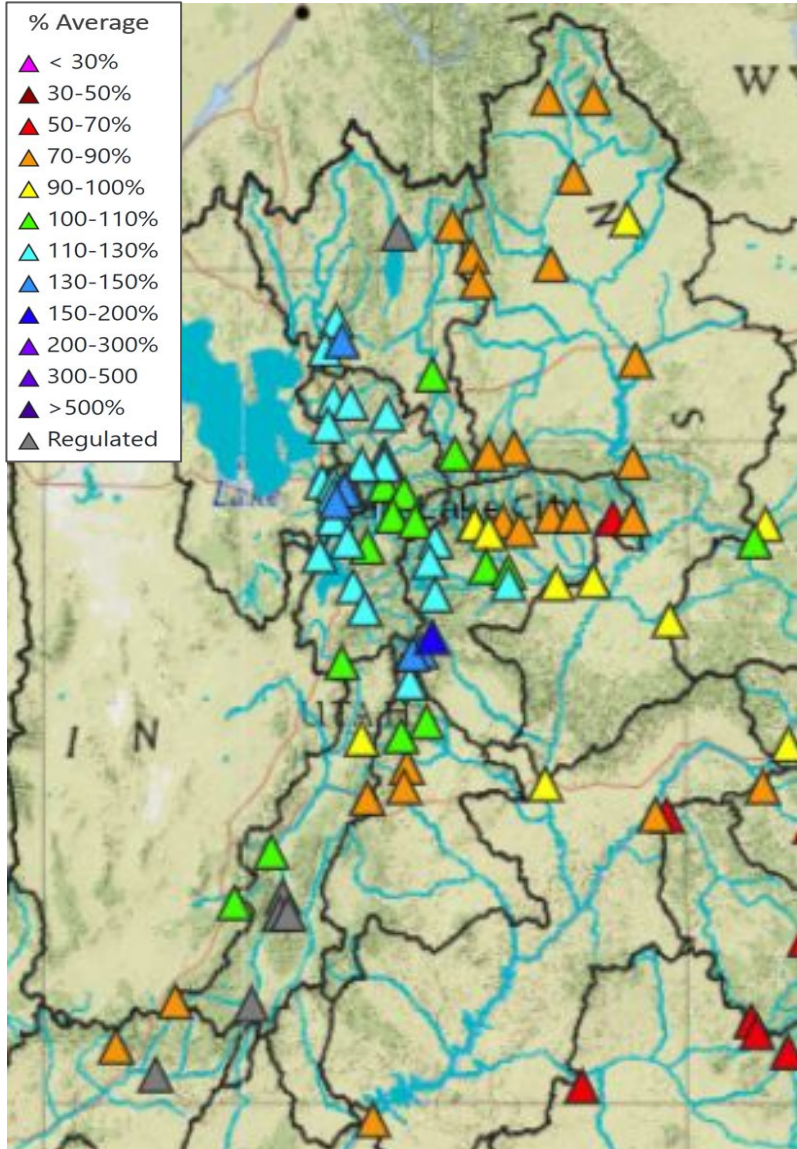
Climate Prediction Center
Made: 05/06/2024 3PM EDT

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CBRFC Utah Water Supply Forecasts



May 1 Forecast April-July Volume (%avg)



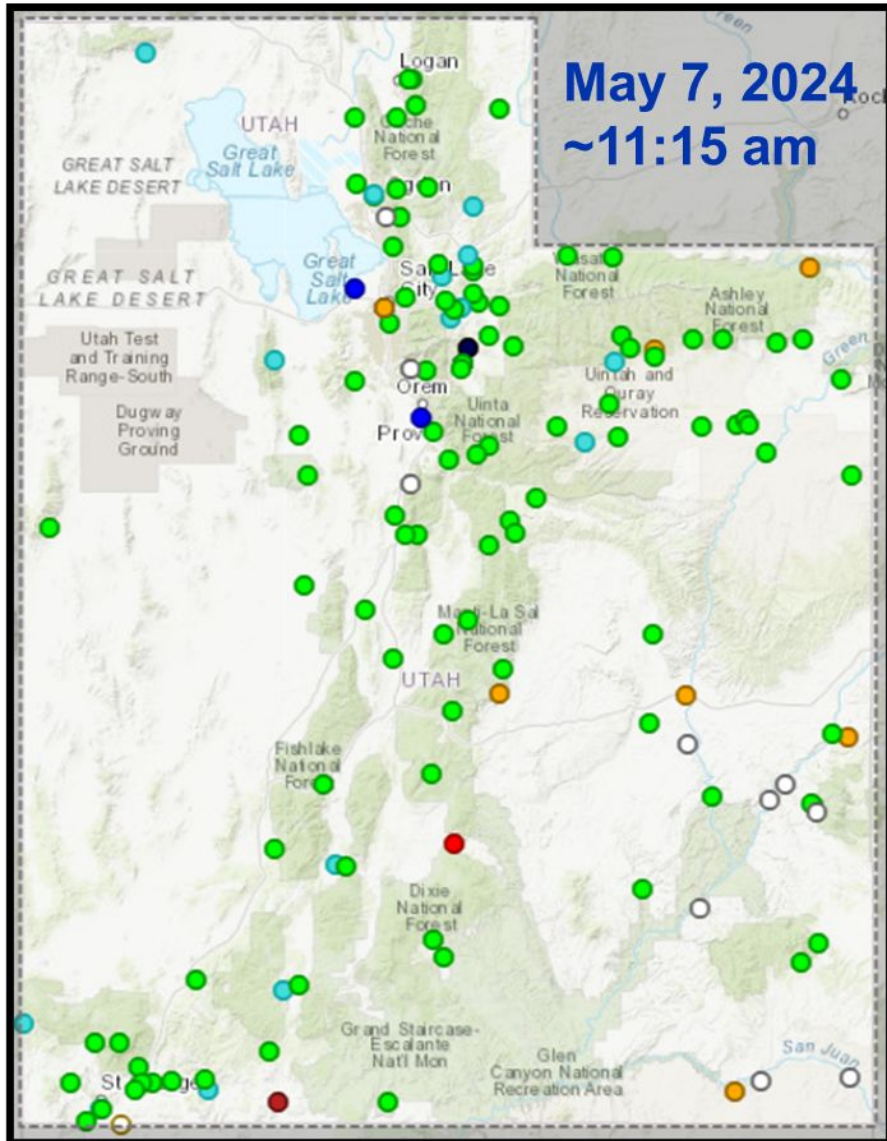
Colorado Basin River Forecast Center Water Supply Forecasts May 1, 2024			
UTAH			
Basin	Volume (KAF)	%Normal (1991-2020)	Period
Bear-UT/WY State Line	111	102	Apr-Jul
Weber-Oakley	117	105	Apr-Jul
Big Cottonwood Creek	39	115	Apr-Jul
Provo-Woodland	105	109	Apr-Jul
Duchesne-Tabiona	108	105	Apr-Jul
Sevier-Hatch (*Regulated)	41	85	Apr-Jul
Virgin-Virgin (*Regulated)	45	80	Apr-Jul

May 1 Apr-Jul runoff volumes are near normal to above normal

The timing and magnitude of spring runoff is ultimately a result of SWE conditions, spring weather, and antecedent soil moisture conditions

Water Supply Forecasts (April - July) Summary	
Watershed	May 2024 Median
Bear River Basin	105%
Weber River Basin	123%
Six Creeks Basin	124%
Provo River Basin	111%
Duchesne River Basin	95%
Virgin and Sevier River Basins	95%

Current Streamflow Conditions



Day-of-Year Status	# Gages	% Gages
All-time high for this day-of-year	2	1.4%
Much above normal for this day-of-year	3	2.2%
Above normal for this day-of-year	15	10.8% █
Normal for this day-of-year	99	71.2% █
Below normal for this day-of-year	7	5.0% █
Much below normal for this day-of-year	1	0.7%
All-time low for this day-of-year	1	0.7%
Not ranked - insufficient record	10	7.2% █
Not ranked - stream not flowing	1	0.7%

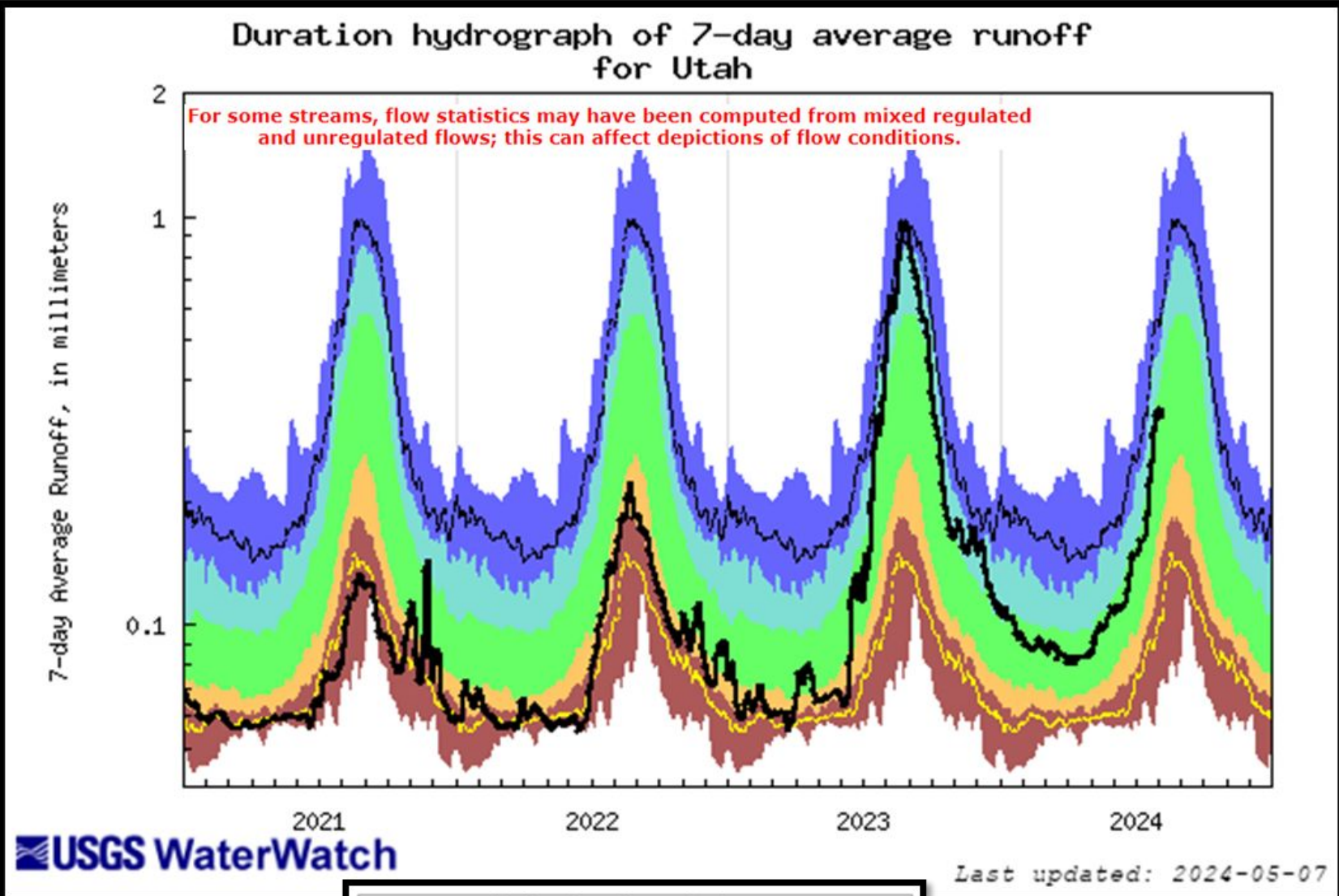
Streamflow: Status

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

Agency - USGS Utah WSC
Presenter - Ryan Rowland



Utah Area-Based Runoff Duration Hydrograph



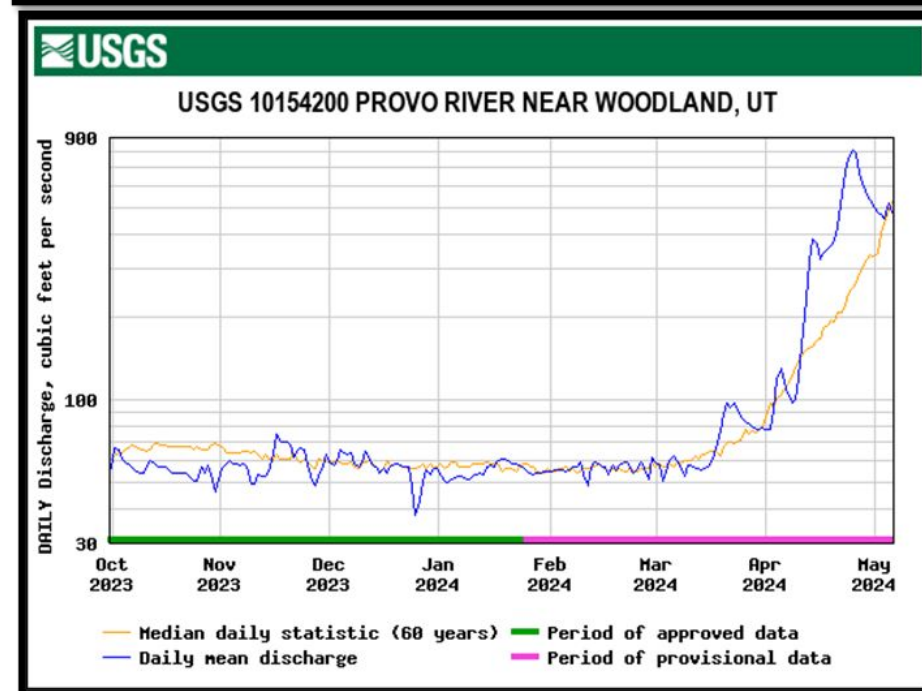
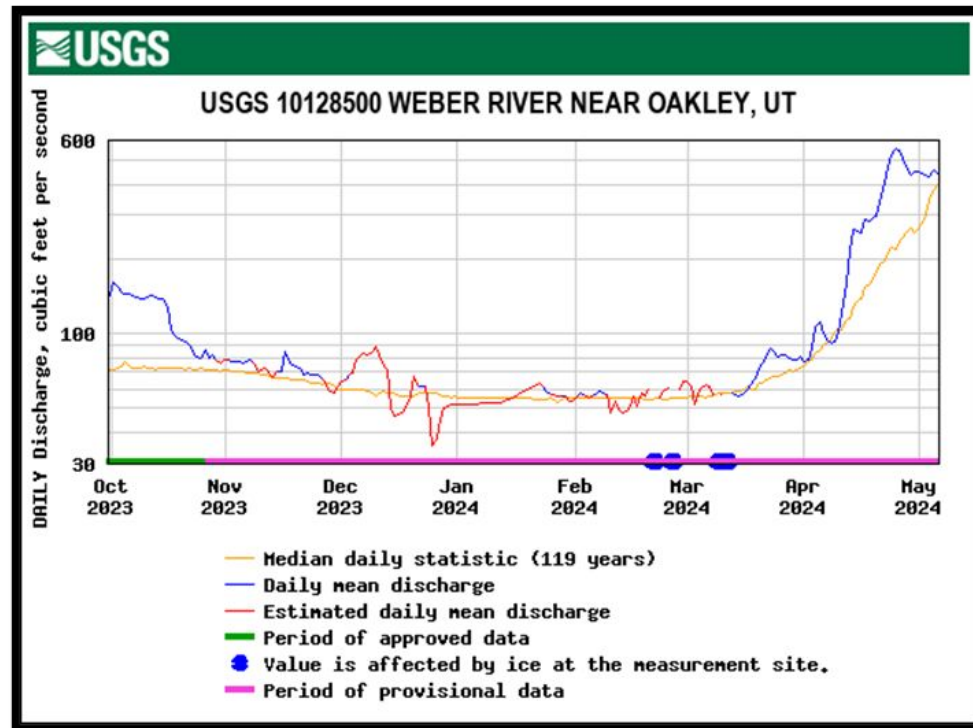
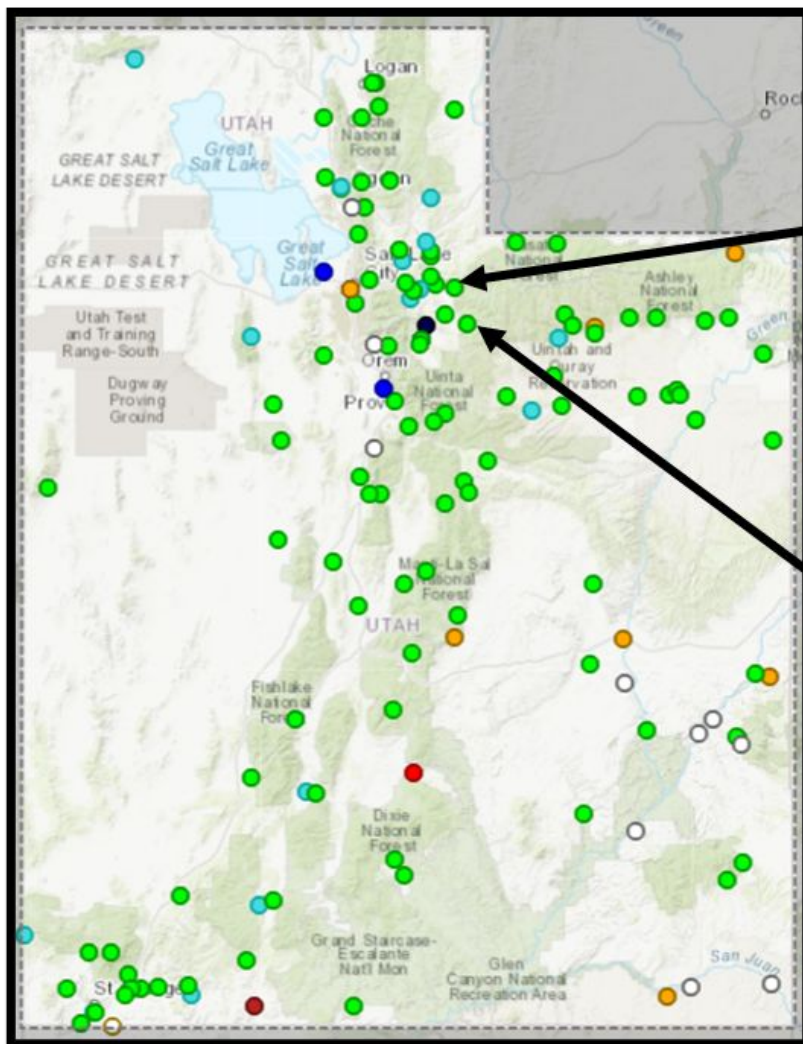
The Runoff Duration Hydrograph is a graphical presentation of area-based runoff (the black line) calculated as a weighted average of HUC 8-runoff, plotted over the long-term statistics of runoff for each day or month of the year for each area.

Explanation - Percentile classes						
lowest-10th percentile	5	10-24	25-75	76-90	95	90th percentile - highest
Much below Normal	Below normal	Normal	Above normal	Much above normal		Runoff

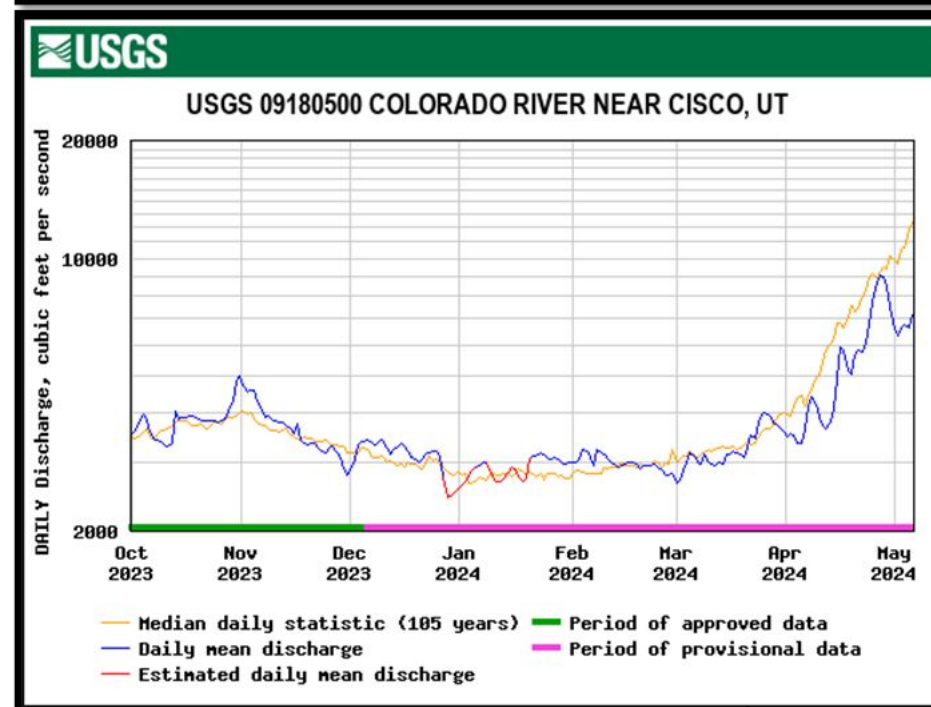
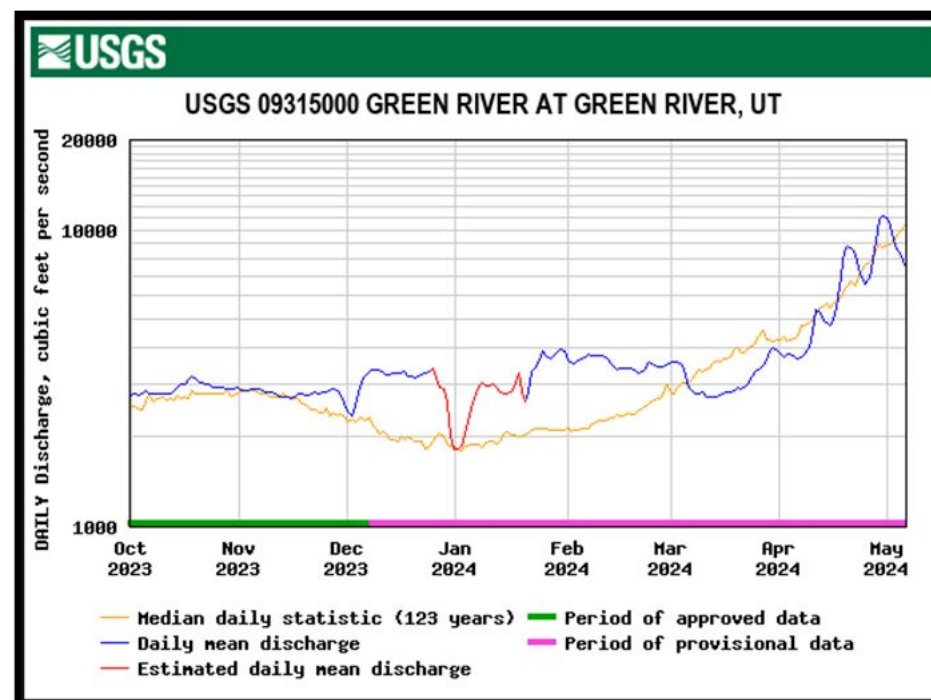
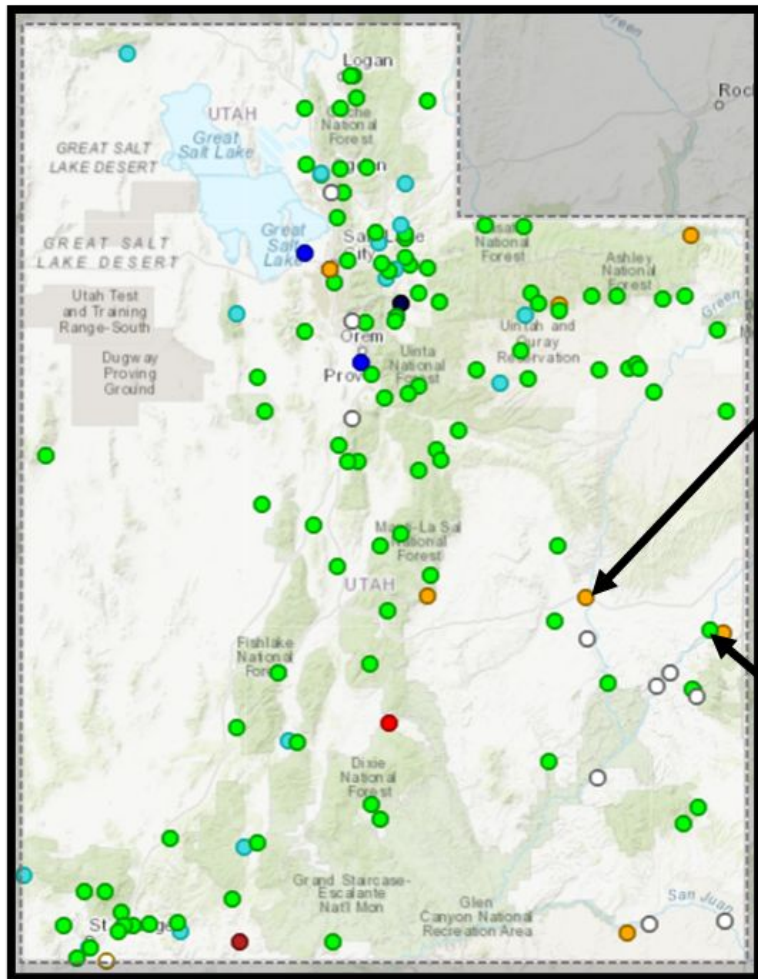
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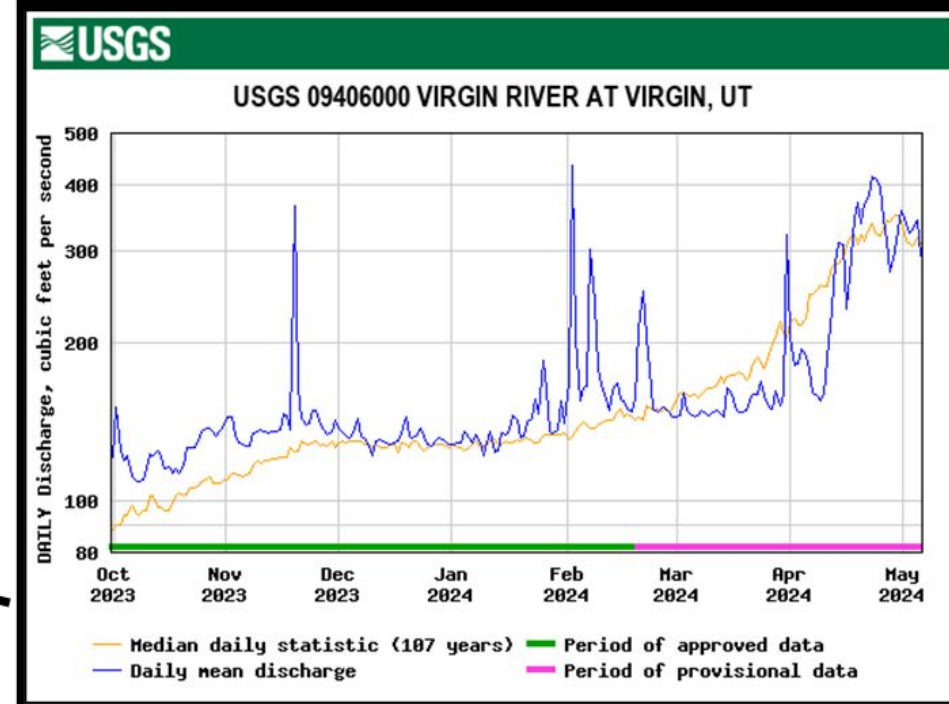
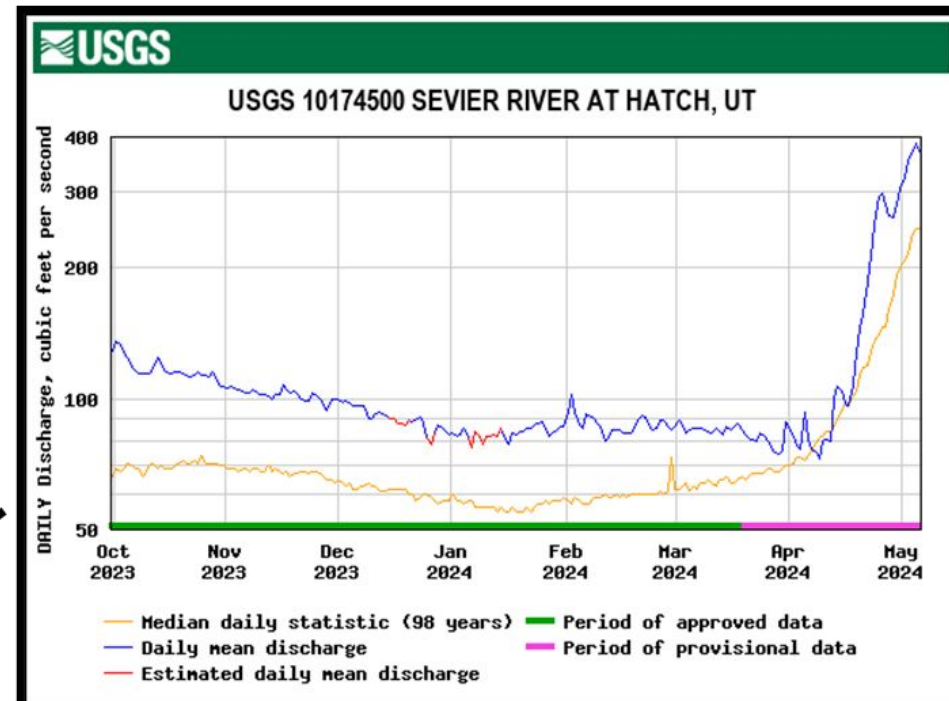
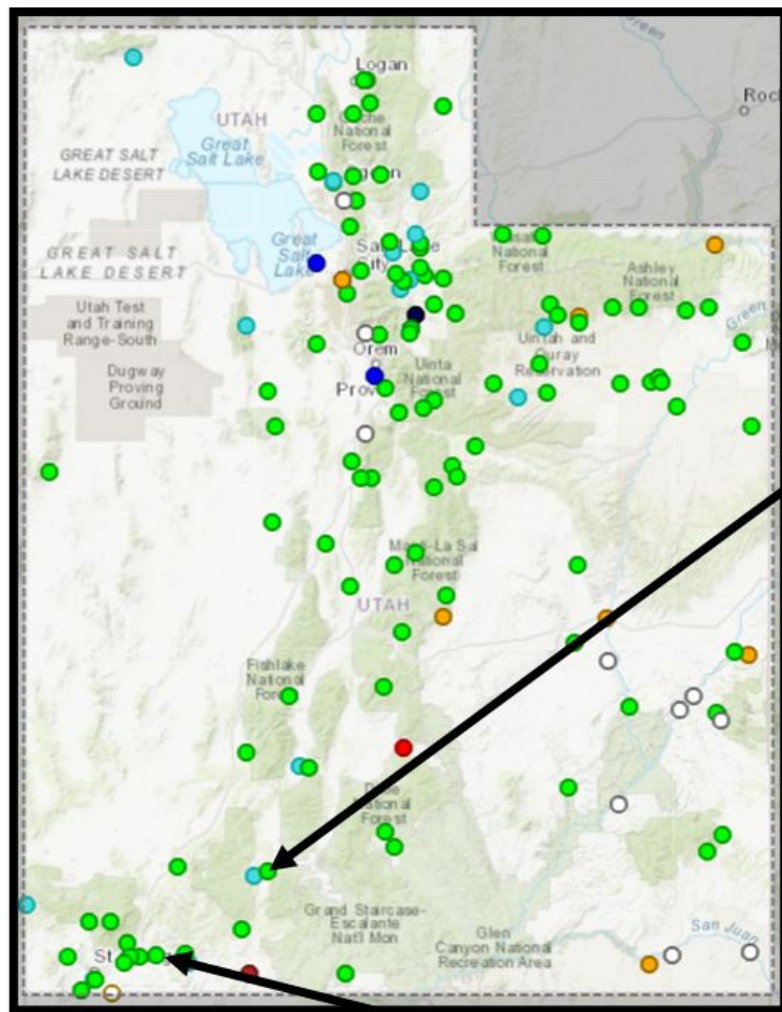
Streamflow at Selected Gages



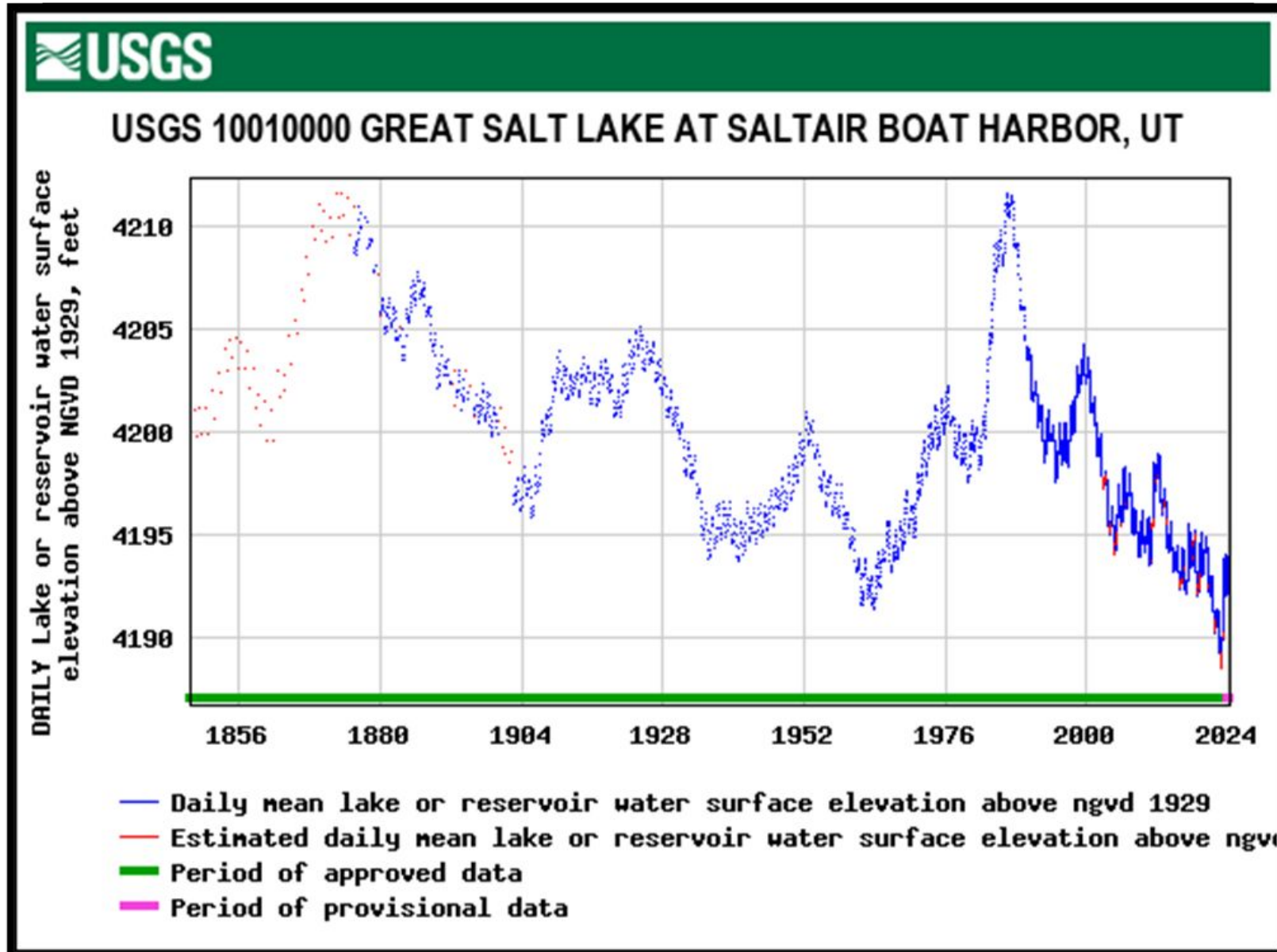
Streamflow at Selected Gages



Streamflow at Selected Gages

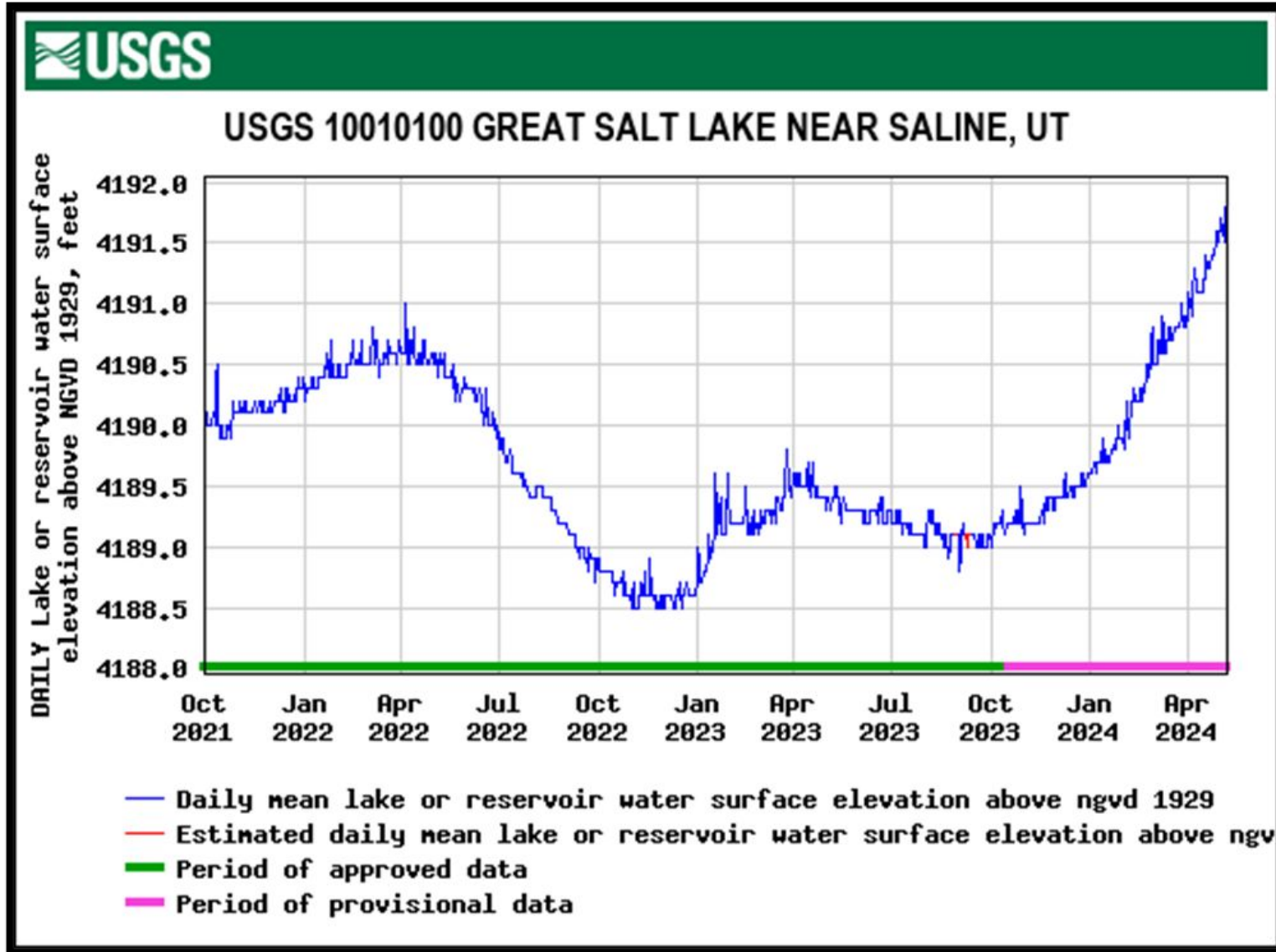


Great Salt Lake Water Surface Elevation - South Arm



- Daily value
5/6/2024 =
4,194.9'
- Up 2.9' since
seasonal
minimum in
October 2023

Great Salt Lake Water Surface Elevation - North Arm



- Daily value
5/6/2024 =
4,191.8'
- Up 3.0' since
seasonal
minimum in
September
2023

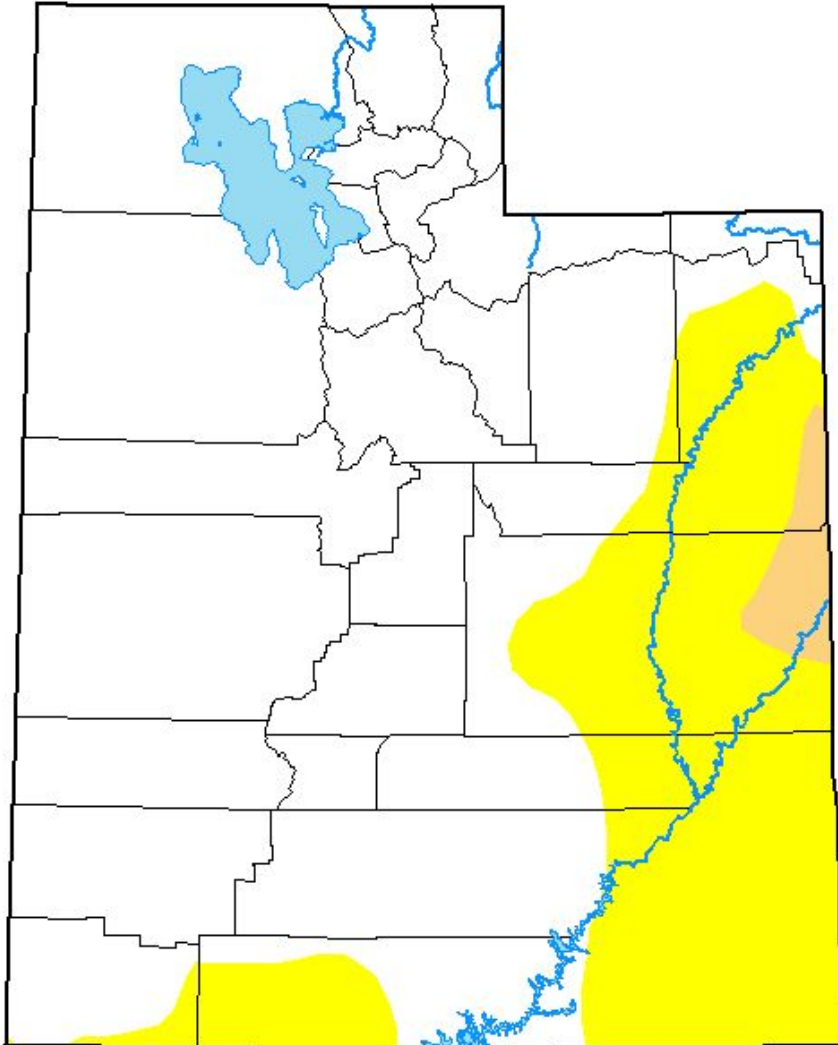
U.S. Drought Monitor

Utah







April 30, 2024

(Released Thursday, May 2, 2024)

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:

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National Drought Mitigation Center



droughtmonitor.unl.edu

To report on conditions between meetings:

Submit a report on CMOR drought website

Email Lhaskell@utah.gov

email drought@utah.gov