



Utah Water Conditions (drought webinar)

The meeting will begin shortly



Thank you to our contributors



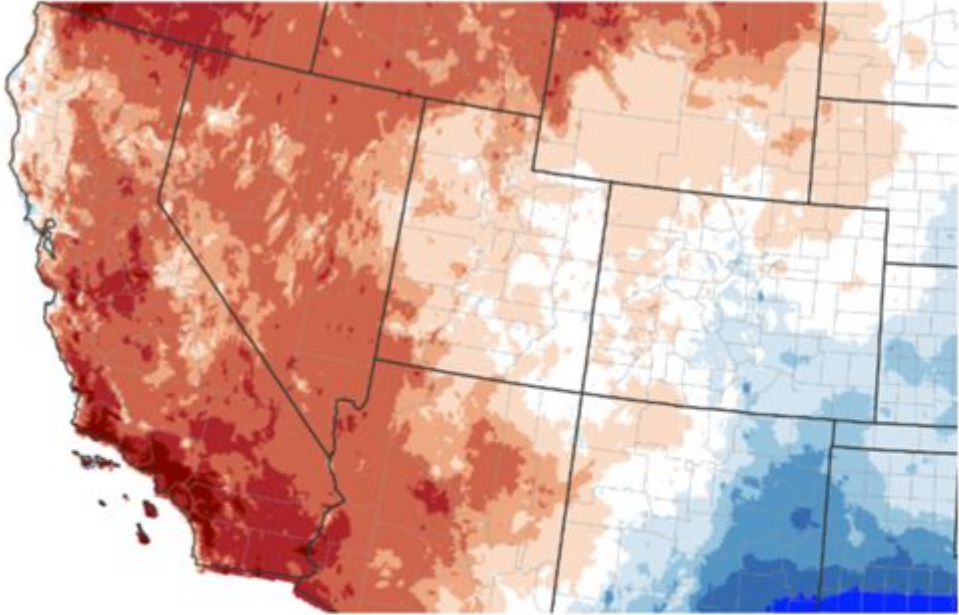


Utah Water Conditions Update

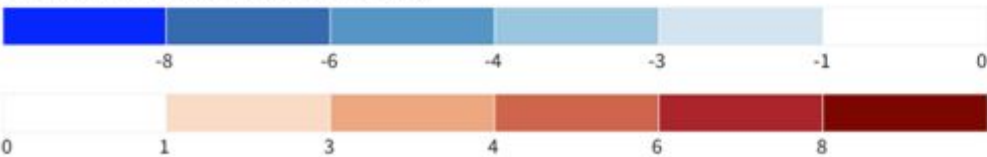
September 10, 2024

Temperature

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



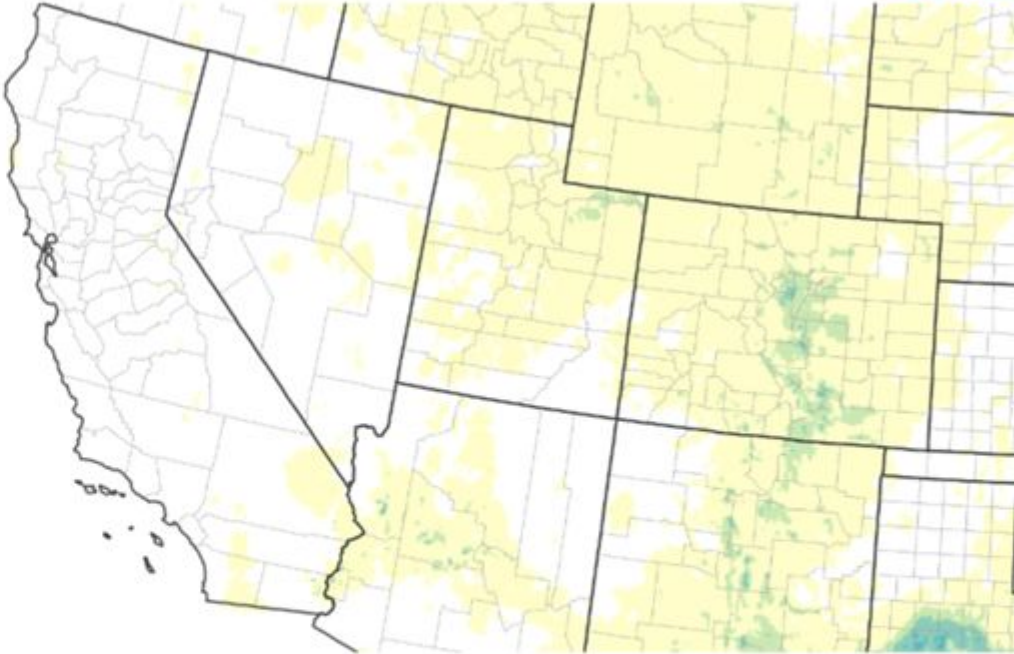
Departure from Normal Max Temperature (°F)



Source(s): UC Merced
Data Valid: 09/07/24

Drought.gov

7-Day Total Precipitation (Inches)



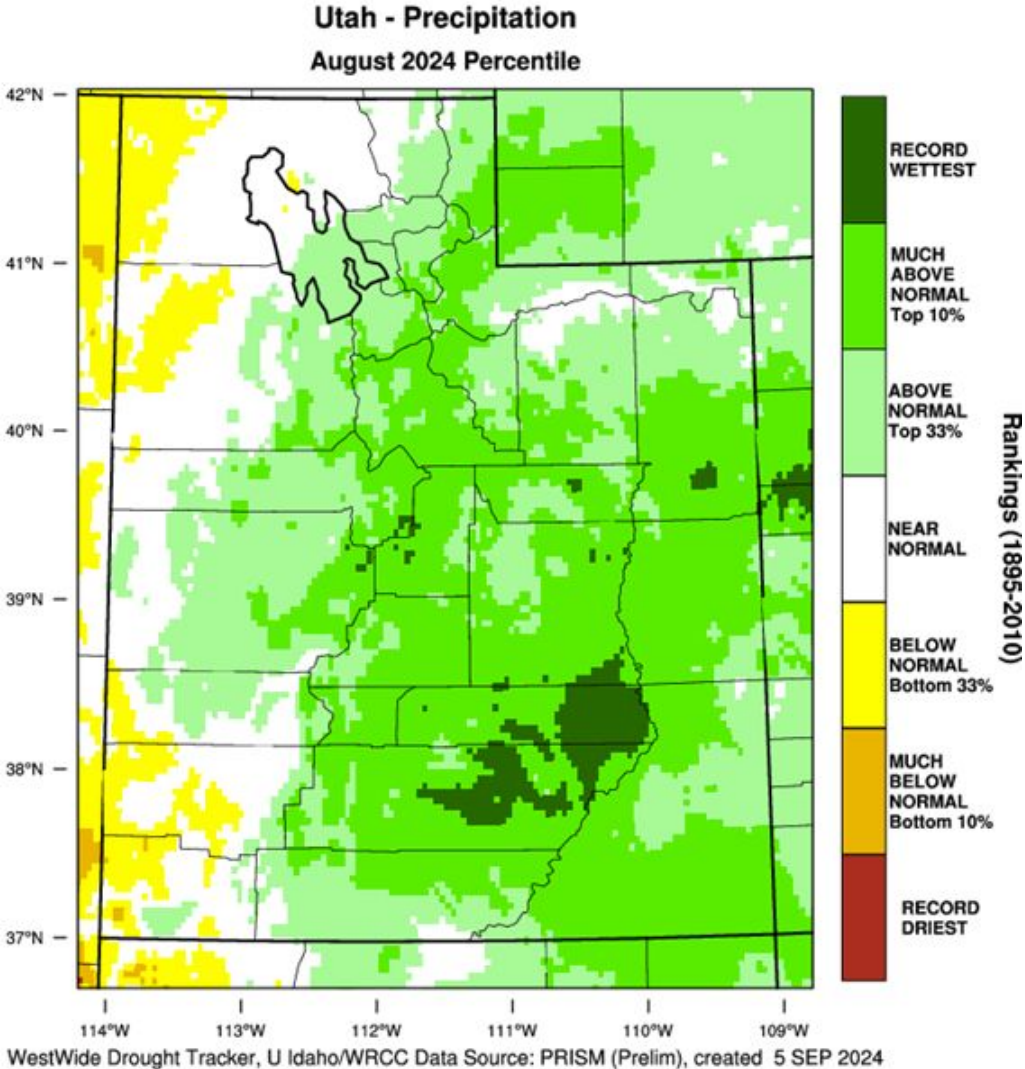
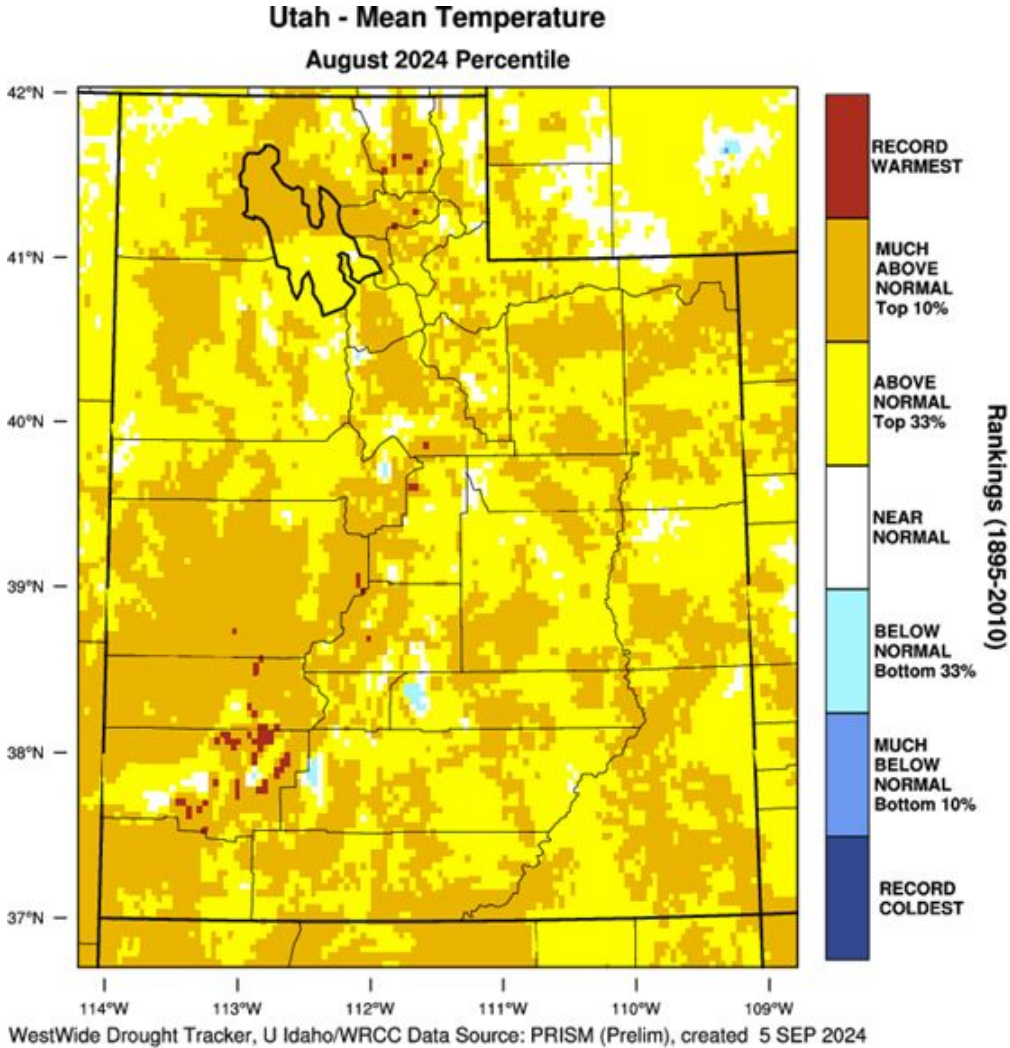
Inches of Precipitation



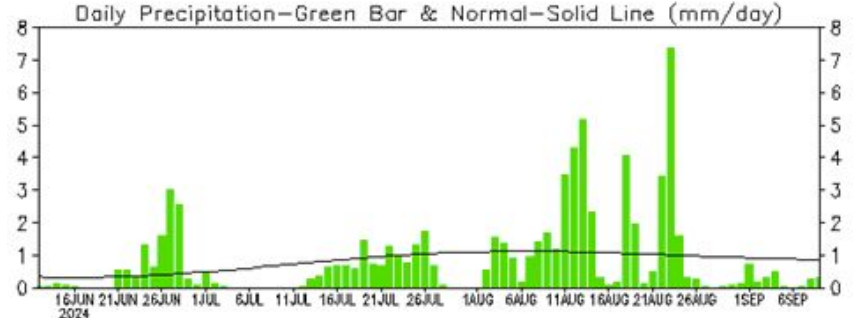
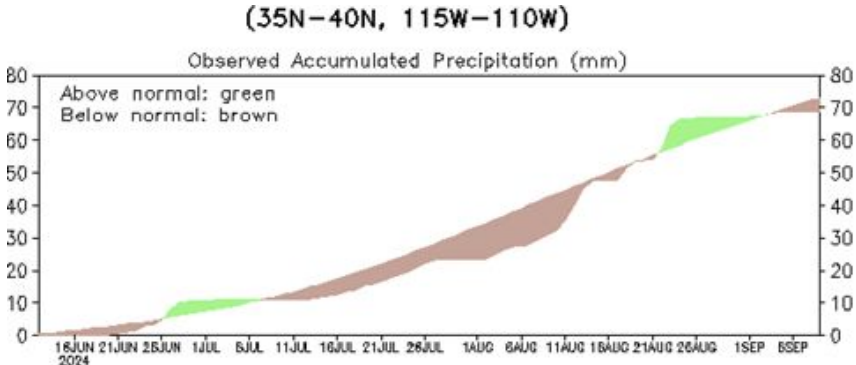
Source(s): UC Merced
Data Valid: 09/07/24

Drought.gov

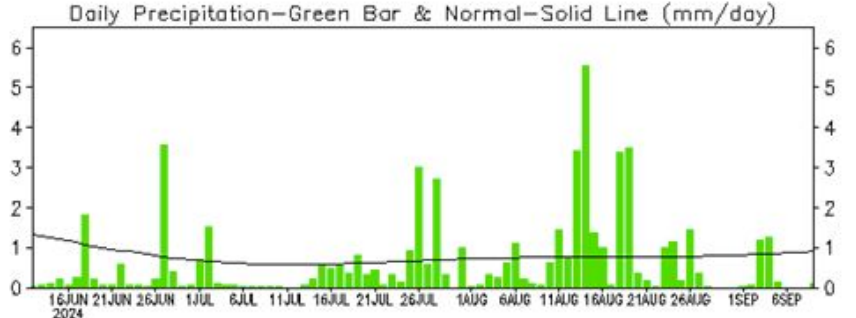
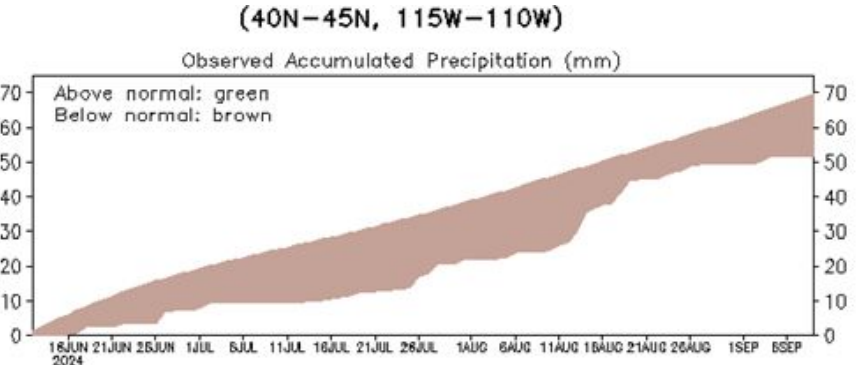
August Precipitation



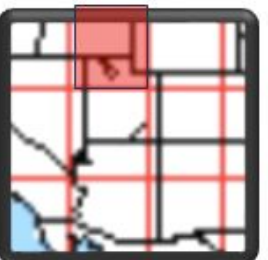
Summer Monsoon Overview



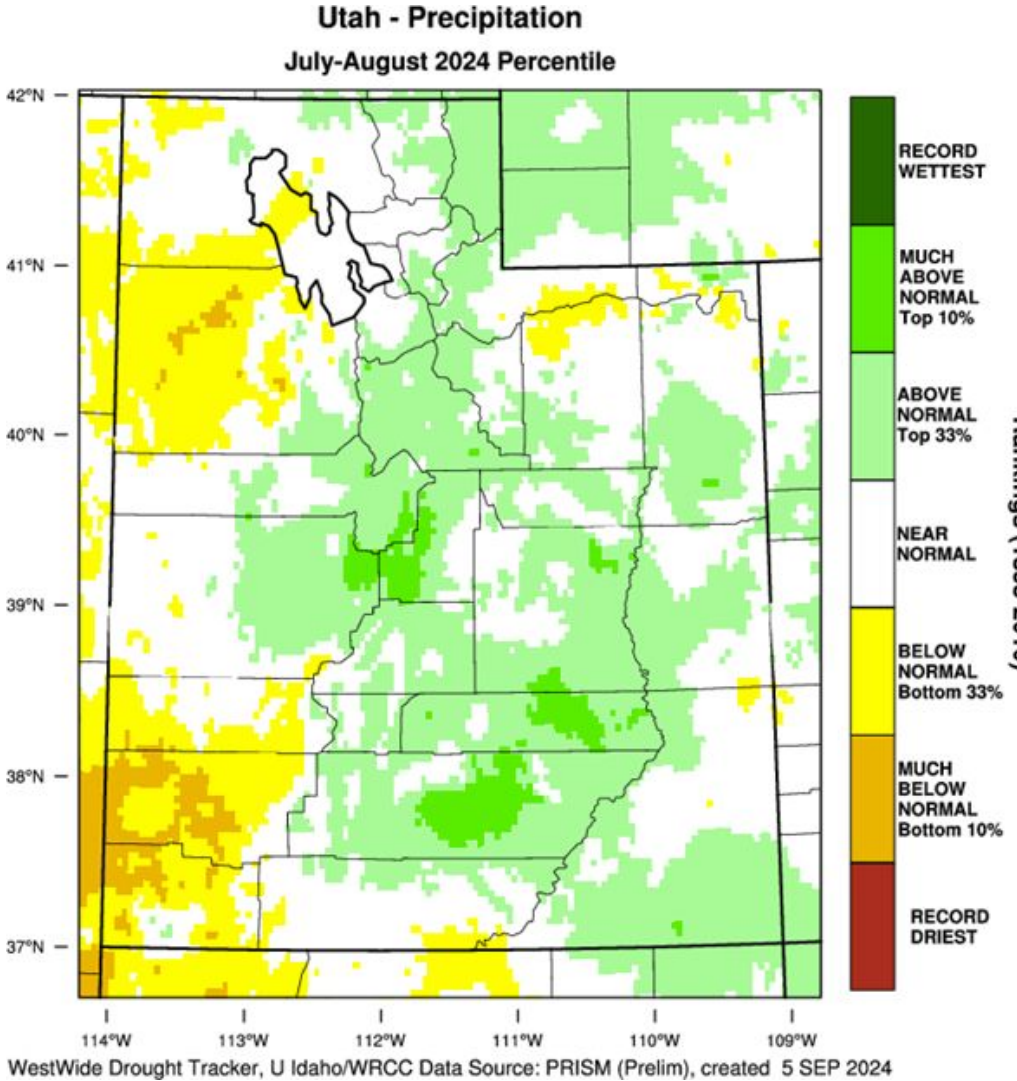
Data Source: CPC (Gauge-Based) Unified Precipitation (Climatology 1991-2020)
(updated on 00Z09SEP2024)



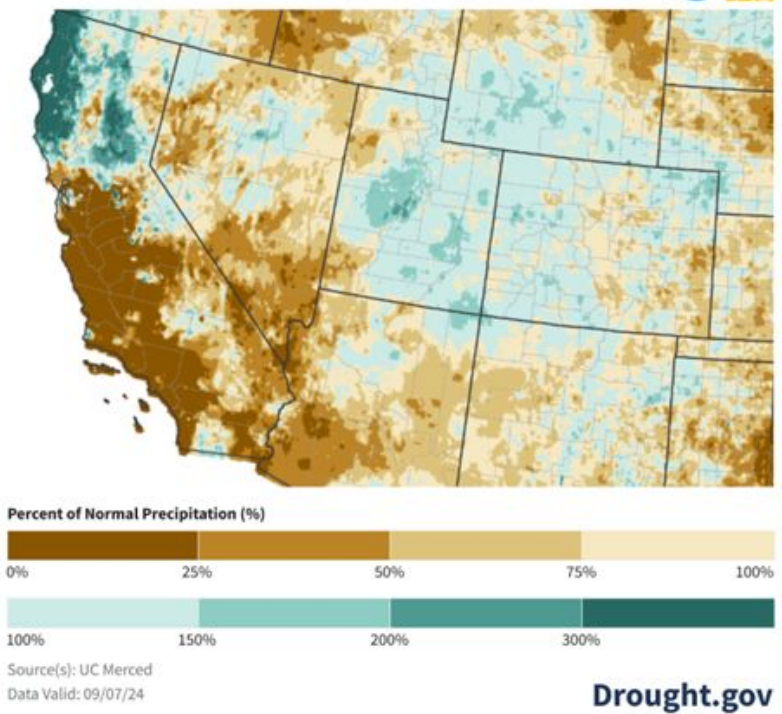
Data Source: CPC (Gauge-Based) Unified Precipitation (Climatology 1991-2020)
(updated on 00Z09SEP2024)



July-August Precipitation



60-Day Percent of Normal Precipitation

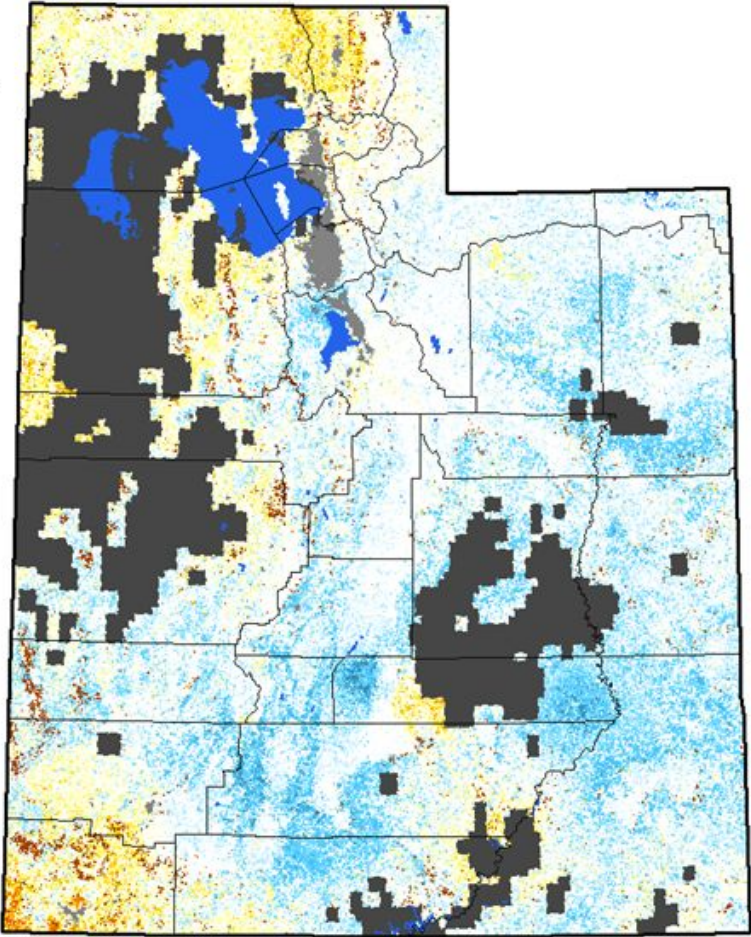


Agency - Utah Climate Center
Presenter - Jon Meyer

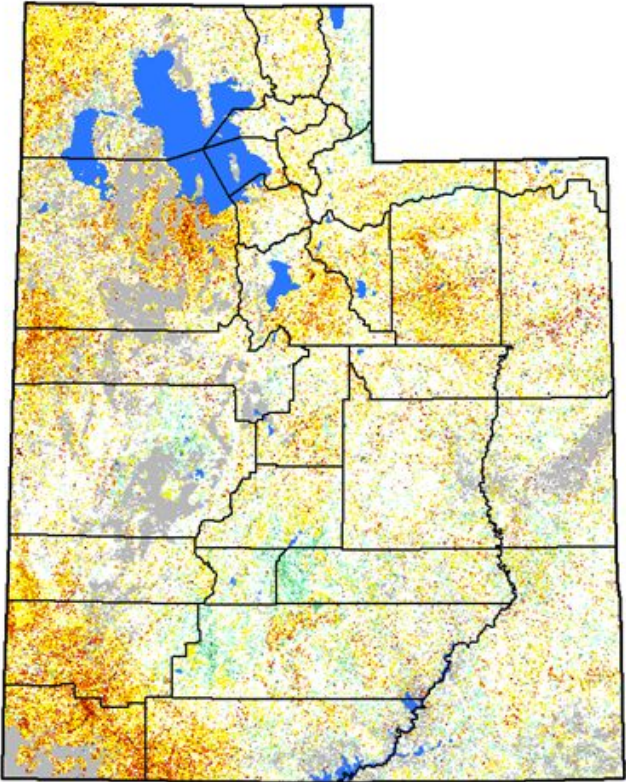
Drought Metrics

August 18, 2024
(Week 33)

Conditions Relative to
4-Week Historical Average

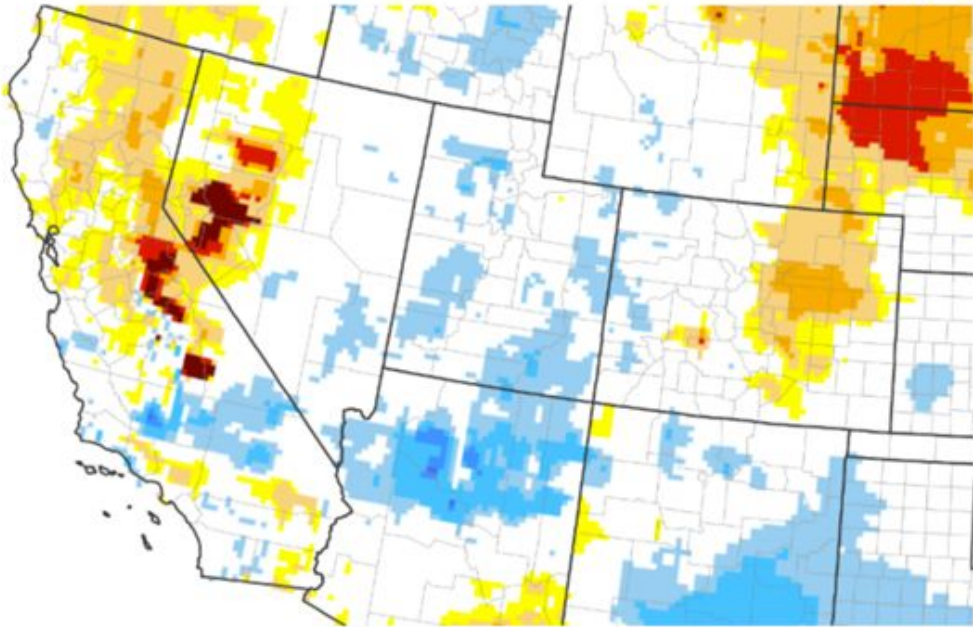


Map for August 25, 2024



Evaporative Demand Drought Index (EDDI)

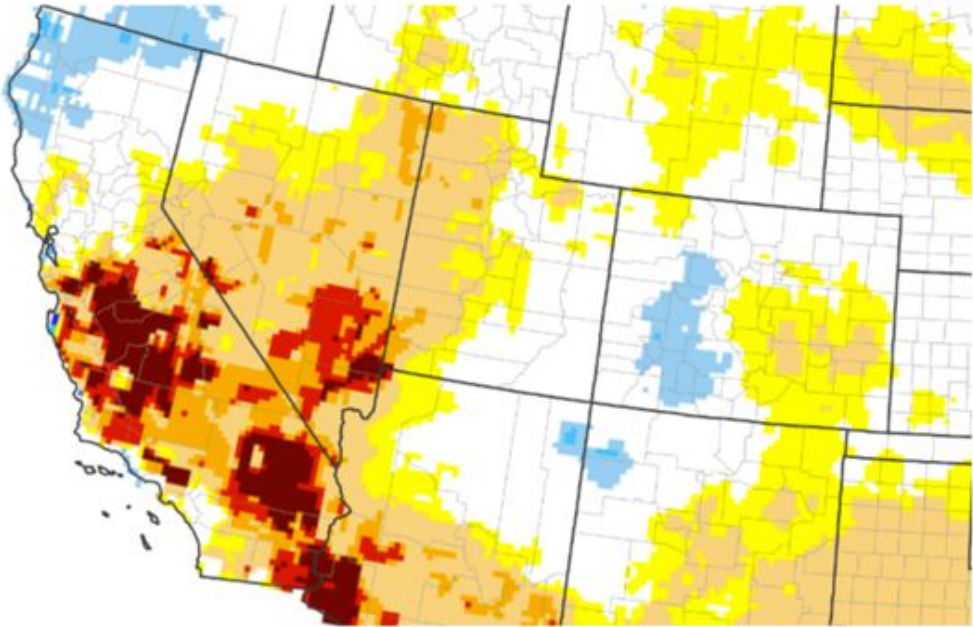
Evaporative Demand Drought Index (EDDI): 1 Week



Source(s): NOAA Physical Sciences Laboratory
Data Valid: 09/04/24

Drought.gov

Evaporative Demand Drought Index (EDDI): 4 Week

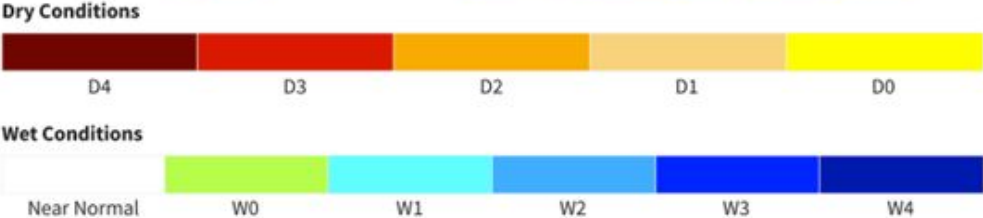
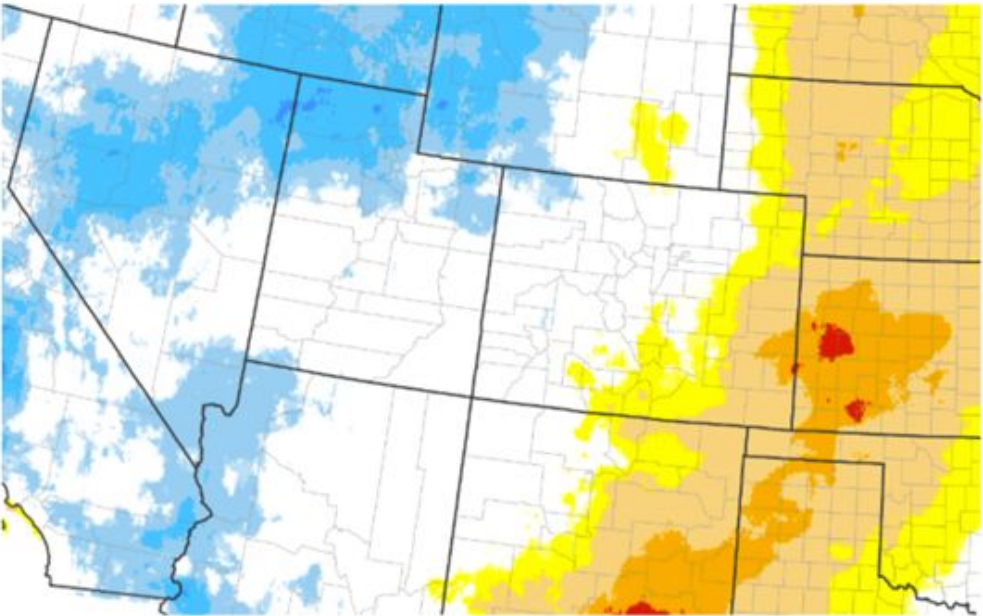


Source(s): NOAA Physical Sciences Laboratory
Data Valid: 09/04/24

Drought.gov

EDDI Forecasts

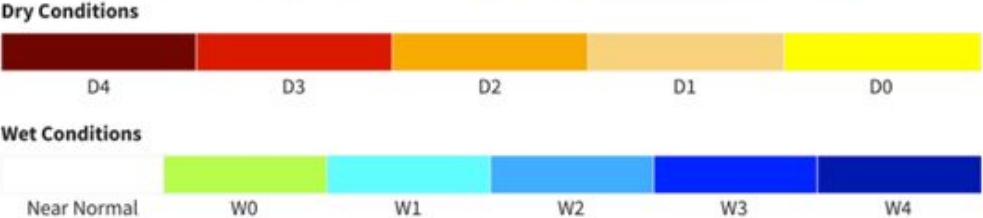
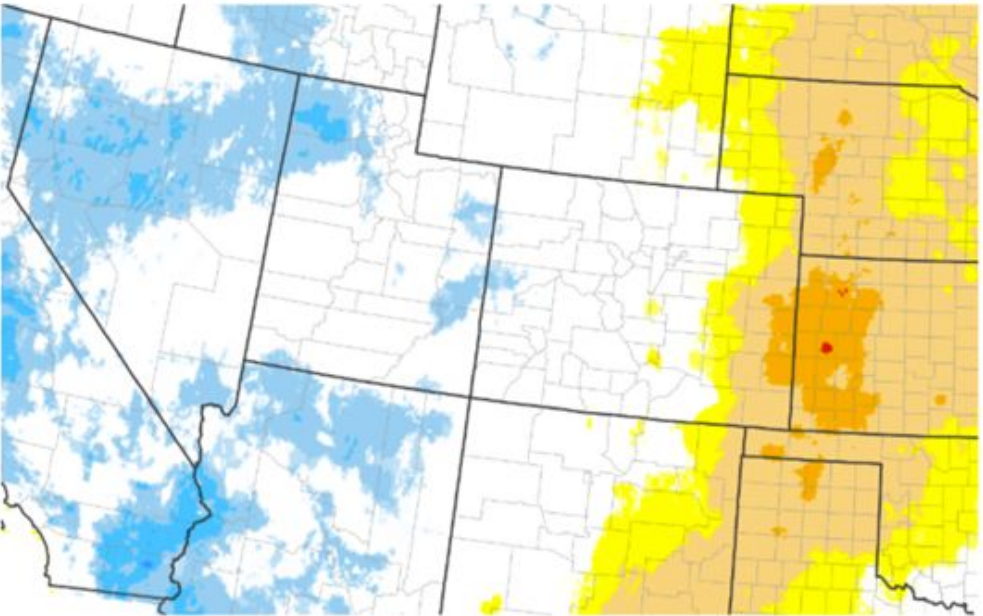
Evaporative Demand Drought Index (EDDI) Forecast: 2 Weeks



Source(s): UC Merced
Updates Daily: 09/09/24

Drought.gov

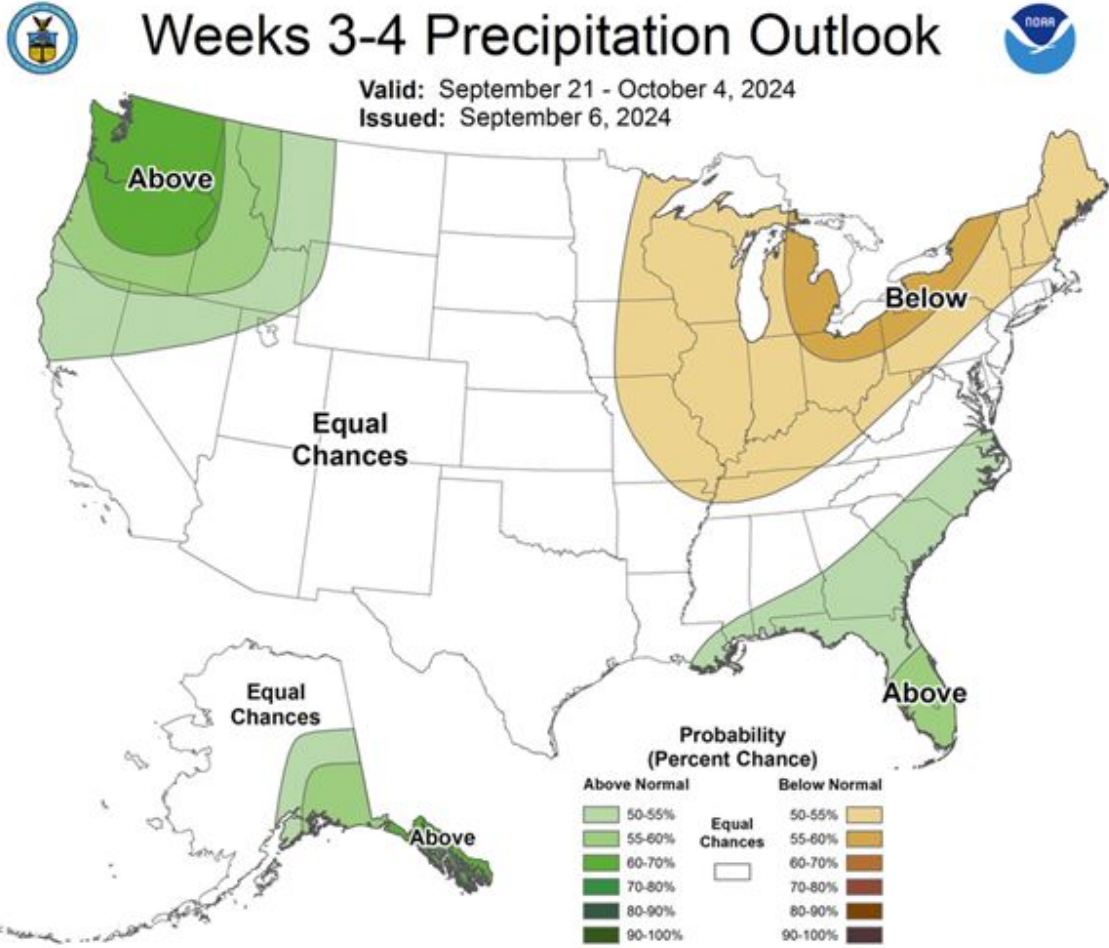
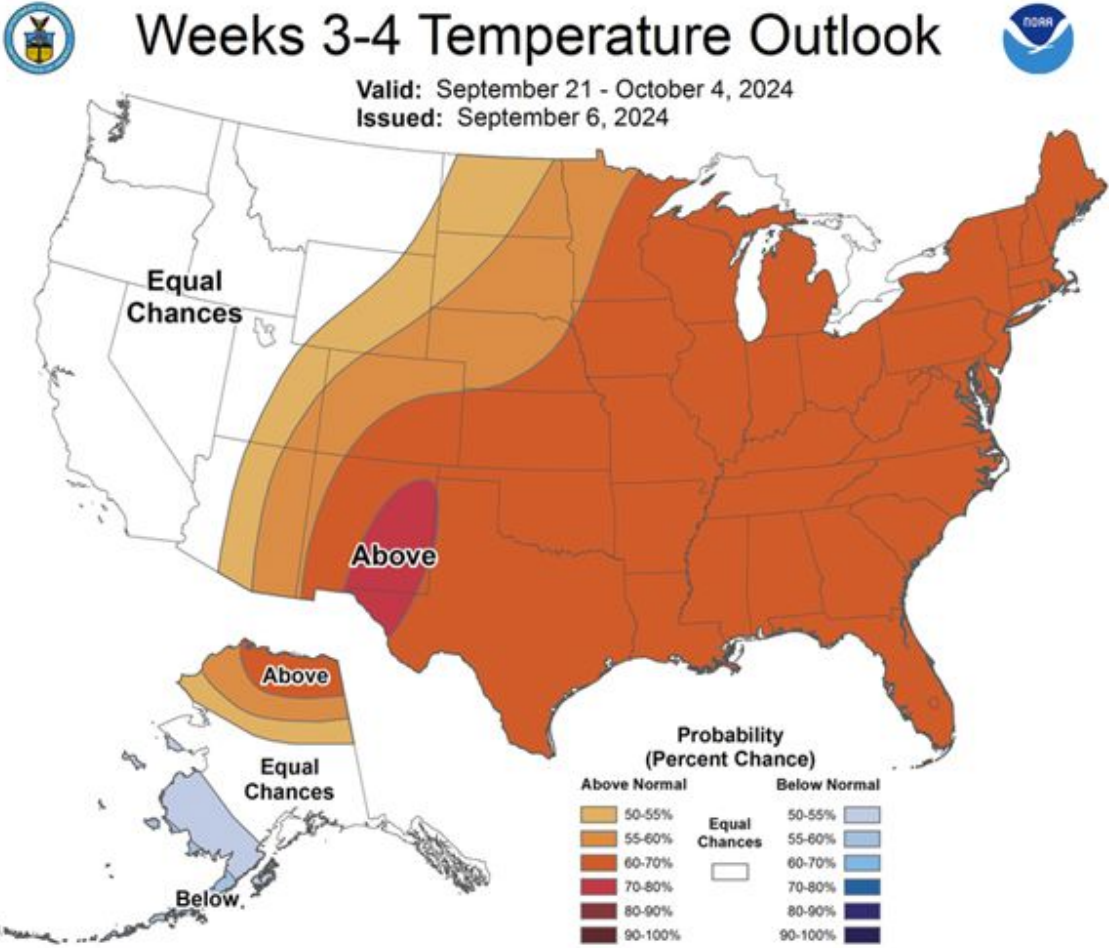
Evaporative Demand Drought Index (EDDI) Forecast: 4 Weeks



Source(s): UC Merced
Updates Daily: 09/09/24

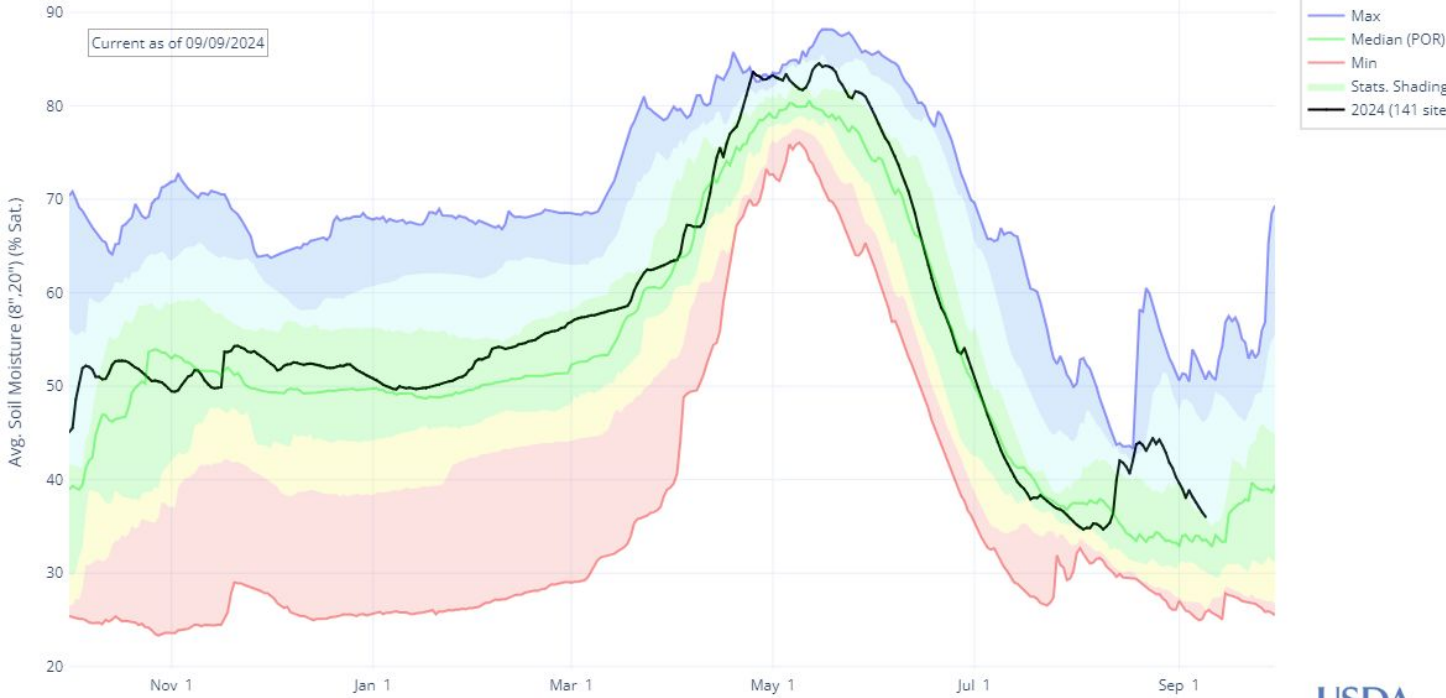
Drought.gov

Climate Prediction Center Outlooks (Week 3-4)

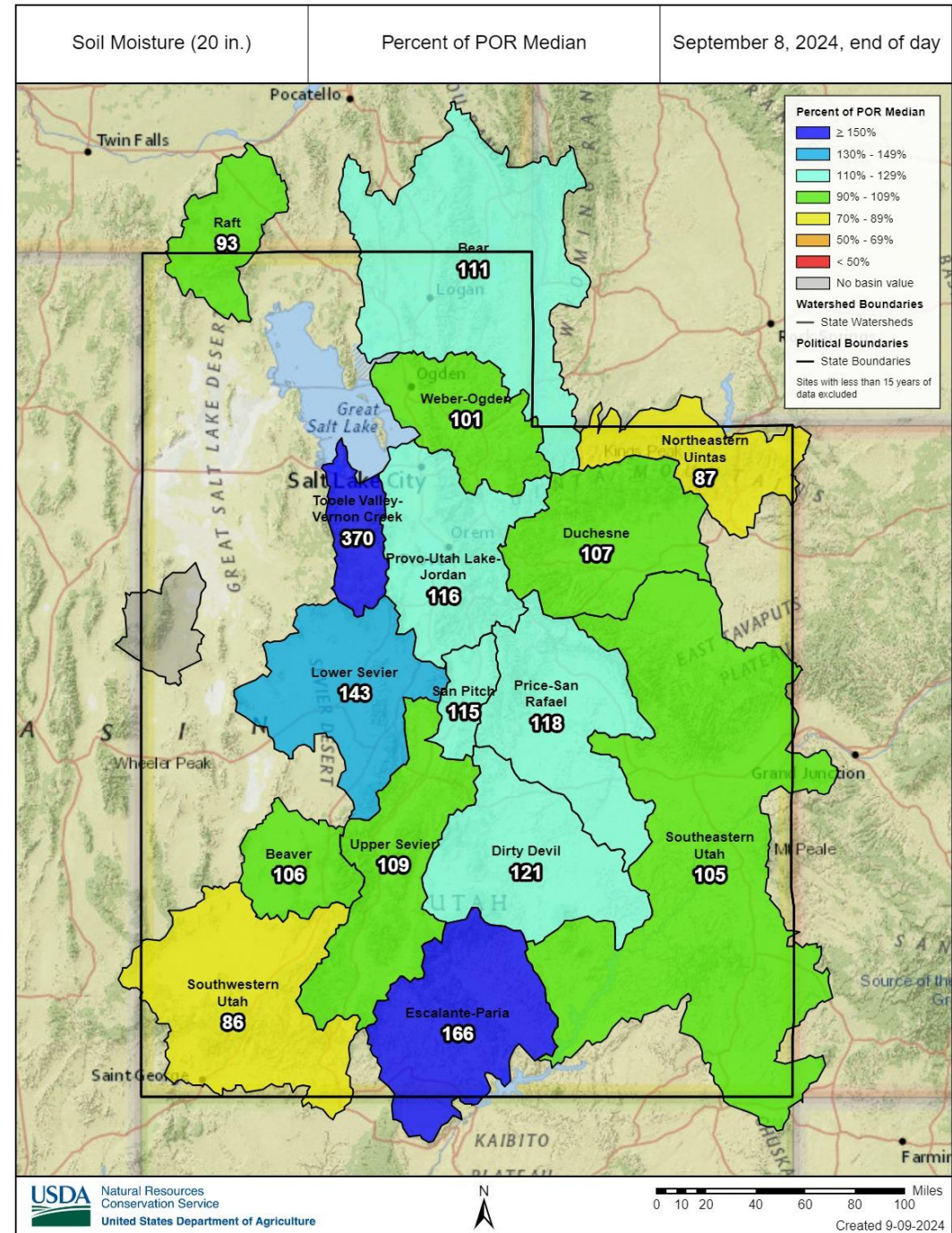


Soil Moisture

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

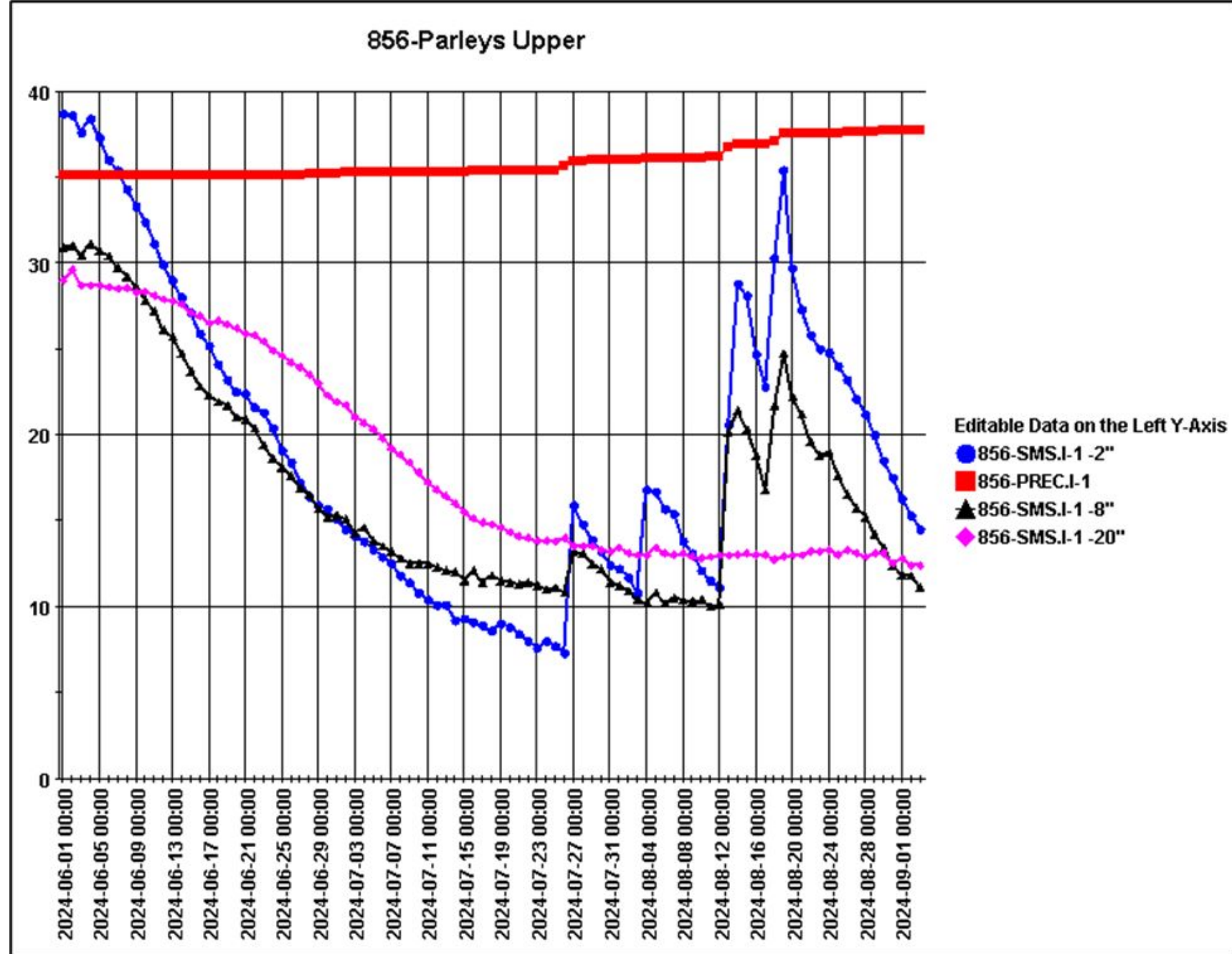


Agency - NRCS Snow Survey
 Presenter - Jordan Clayton

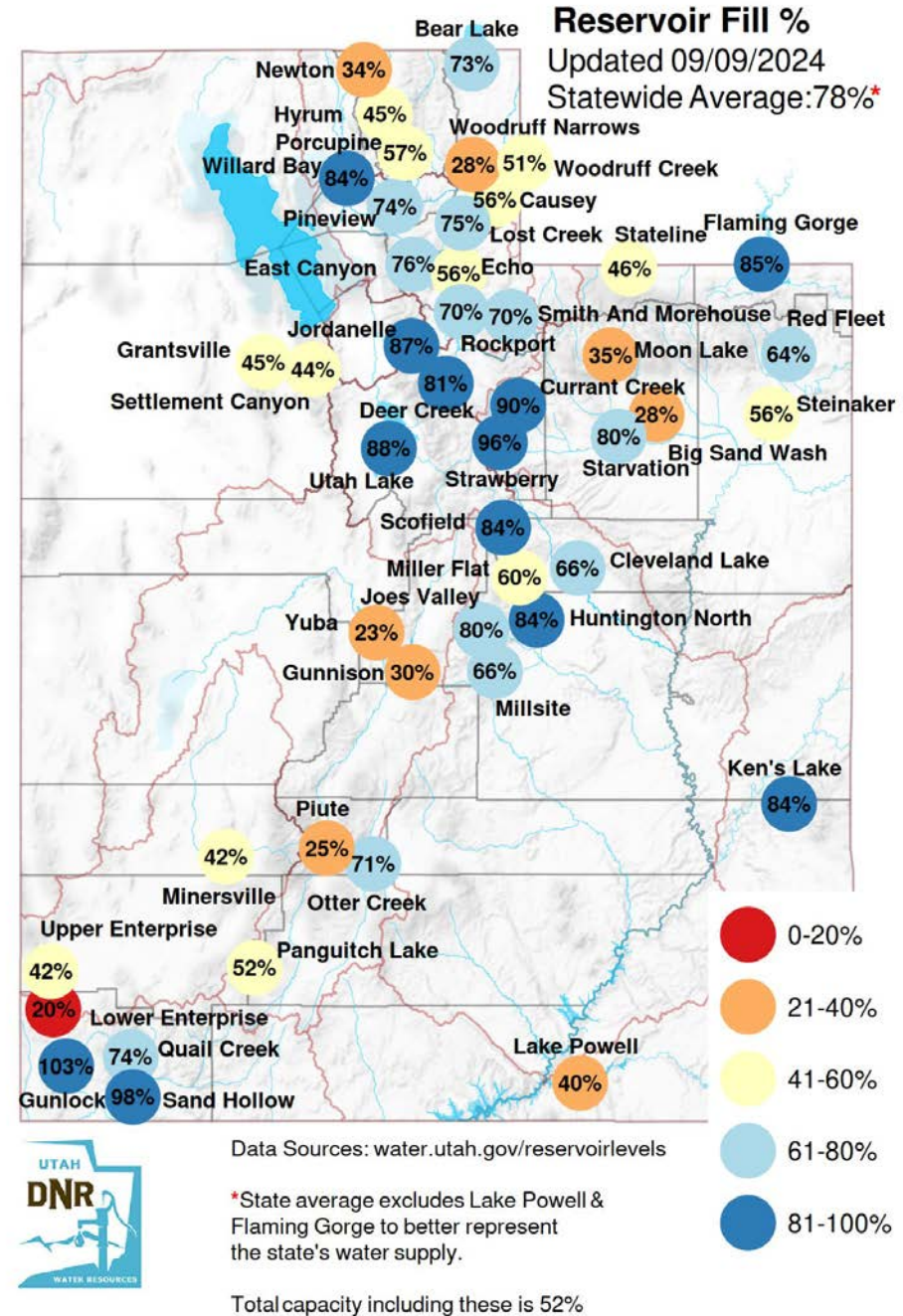


Soil Moisture

- Precipitation and soil moisture at the Parleys Upper SNOTEL site since June 1, 2024.
- Note the prolonged period of minimal rainfall (flat portion of red line) until the summer monsoon arrived in August, and pronounced response in the soil moisture level of the 2" sensor (blue line), moderate response at 8" depth (black line), and lack of response at 20" depth (pink line).
- While replenishing mountain soil moisture is quite important, these data underscore that summer precipitation does little to improve Utah's immediate water supply conditions ("hydrological drought"). The benefit is longer term since it relates to the subsequent snowmelt runoff efficiency.

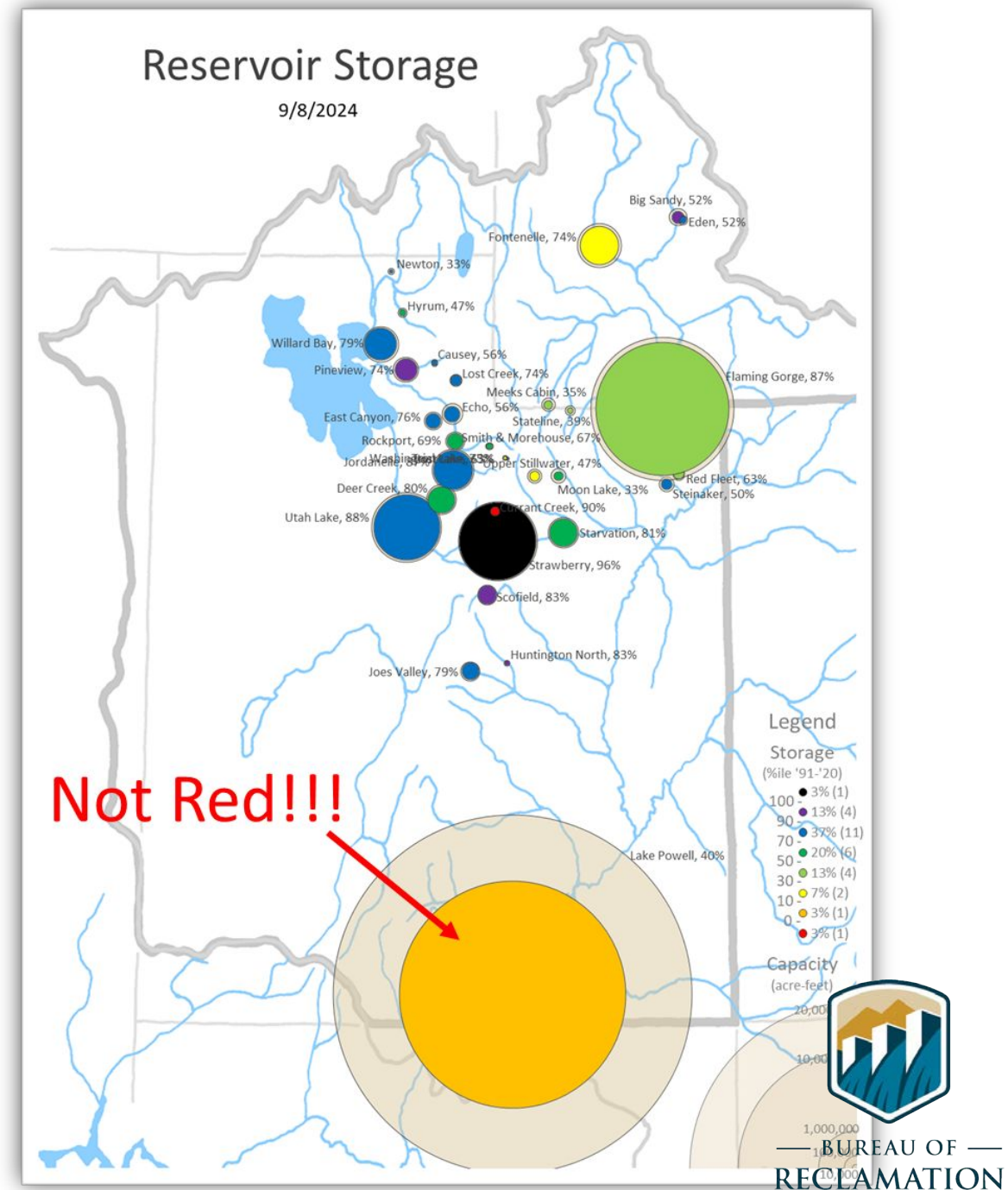


Reservoirs are typical for this time of year. With the exception of Yuba Lake, reservoirs in the 40% full and less are typically at that level.



Reservoir Levels

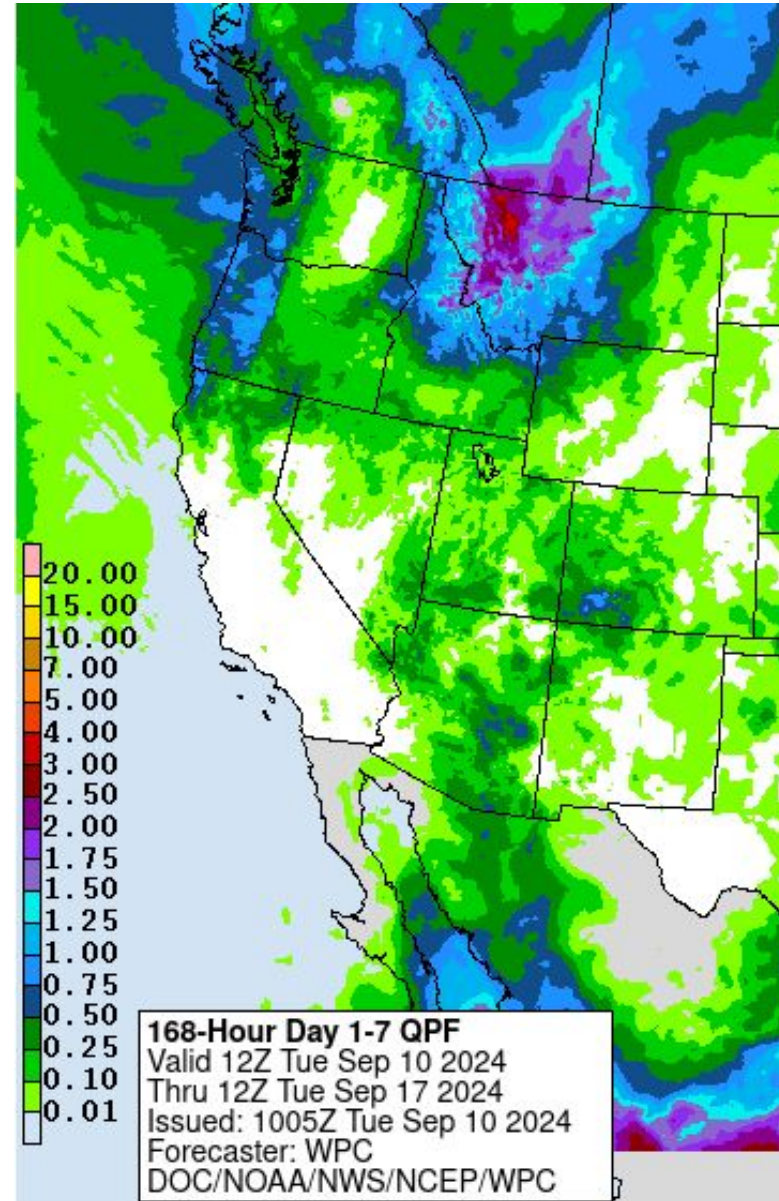
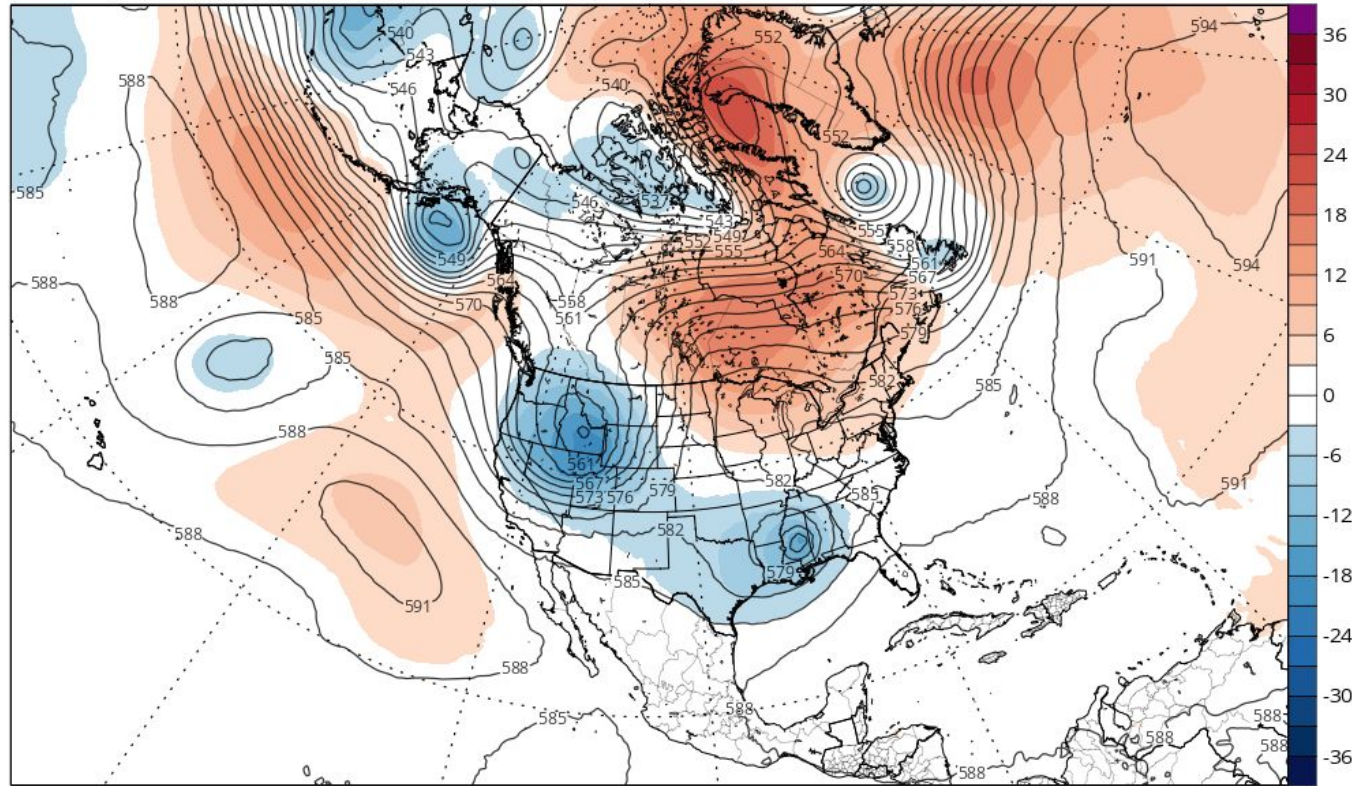
- Irrigation season will be winding down over the next month or two.
- Reservoir storage overall is at 84% full (Reclamation reservoirs, excl. Powell, Flaming Gorge, Fontenelle) with individual reservoirs generally being above to well above median. Storage will end the water year similarly above median.
- Strawberry is as high as it has ever been this time of year!
- Lake Powell is more than 6 feet higher than last year at this time and recently rose to just above the 1991-2020 minimum for this time of year, so this map now colors it orange!! (Hopefully, it'll stay out of the red for a while.)



Weather Forecast Office Utah Day 1-7 Outlook



GFS 500mb Geopotential Height & Anomaly (dam) (based on CFSR 1981-2010 Climatology)
Init: 12z Sep 10 2024 Forecast Hour: [48] valid at 12z Thu, Sep 12 2024 TROPICALTIDBITS.COM



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

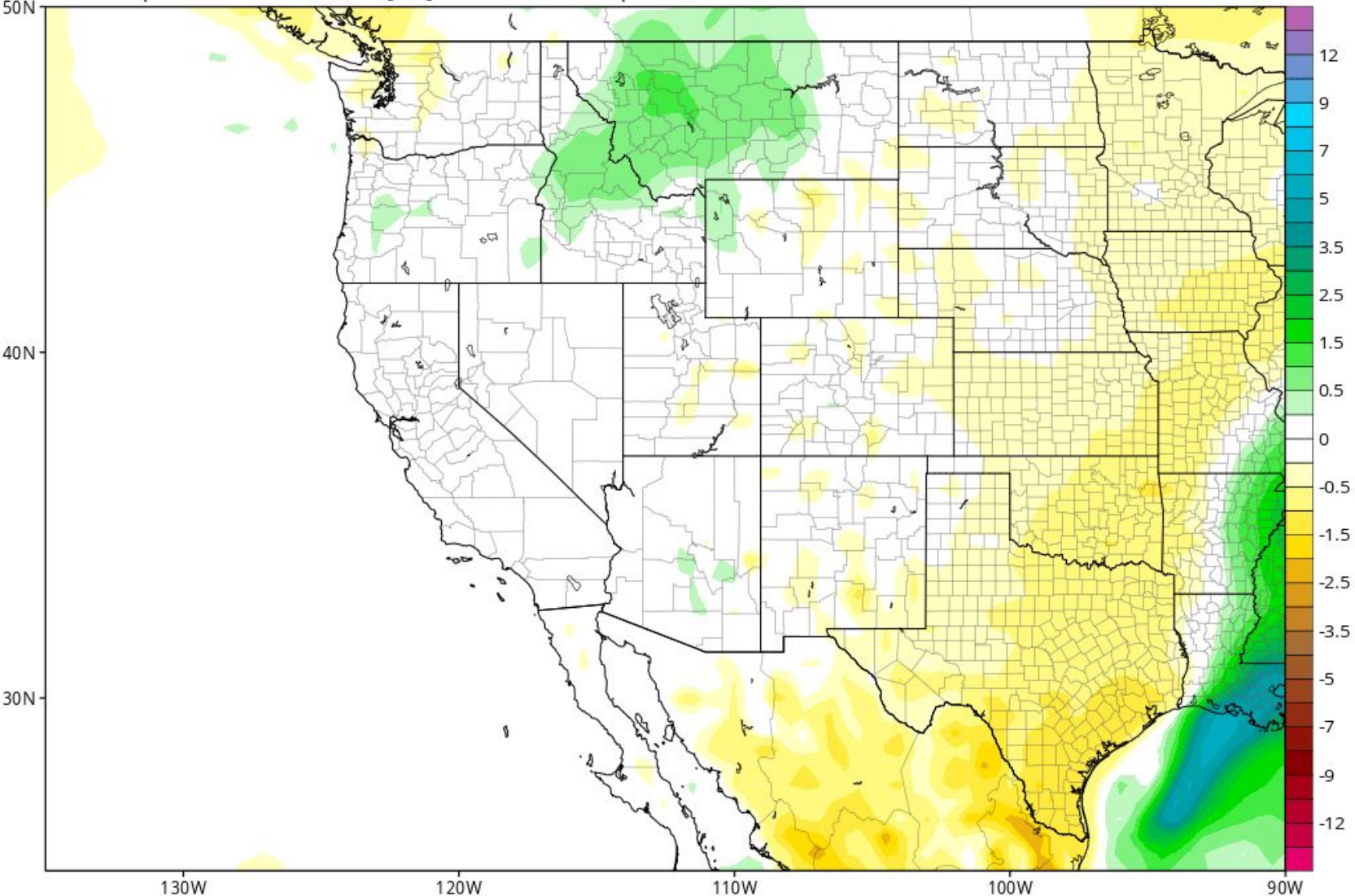
Weather Forecast Office Utah Day 1-7 Outlook



GEFS Accumulated Precip. Anomaly (in) from 12z10Sep2024 to 12z17Sep2024 (Days 1-7)

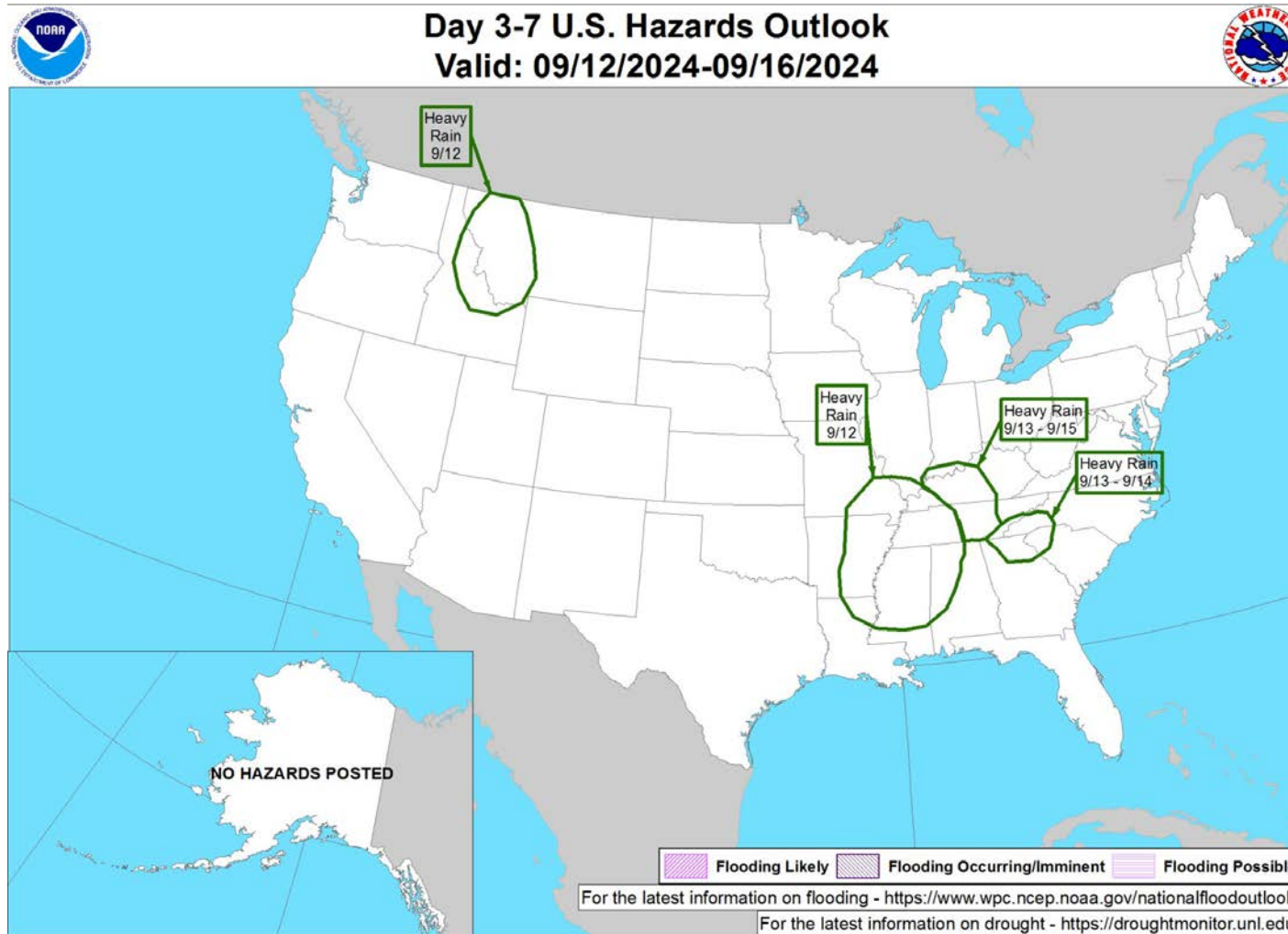
Init: 12z Sep 10 2024 Forecast Hour: [168] valid at 12z Tue, Sep 17 2024

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

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



Weather Prediction Center
Made: 09/09/2024 03:27 PM EDT

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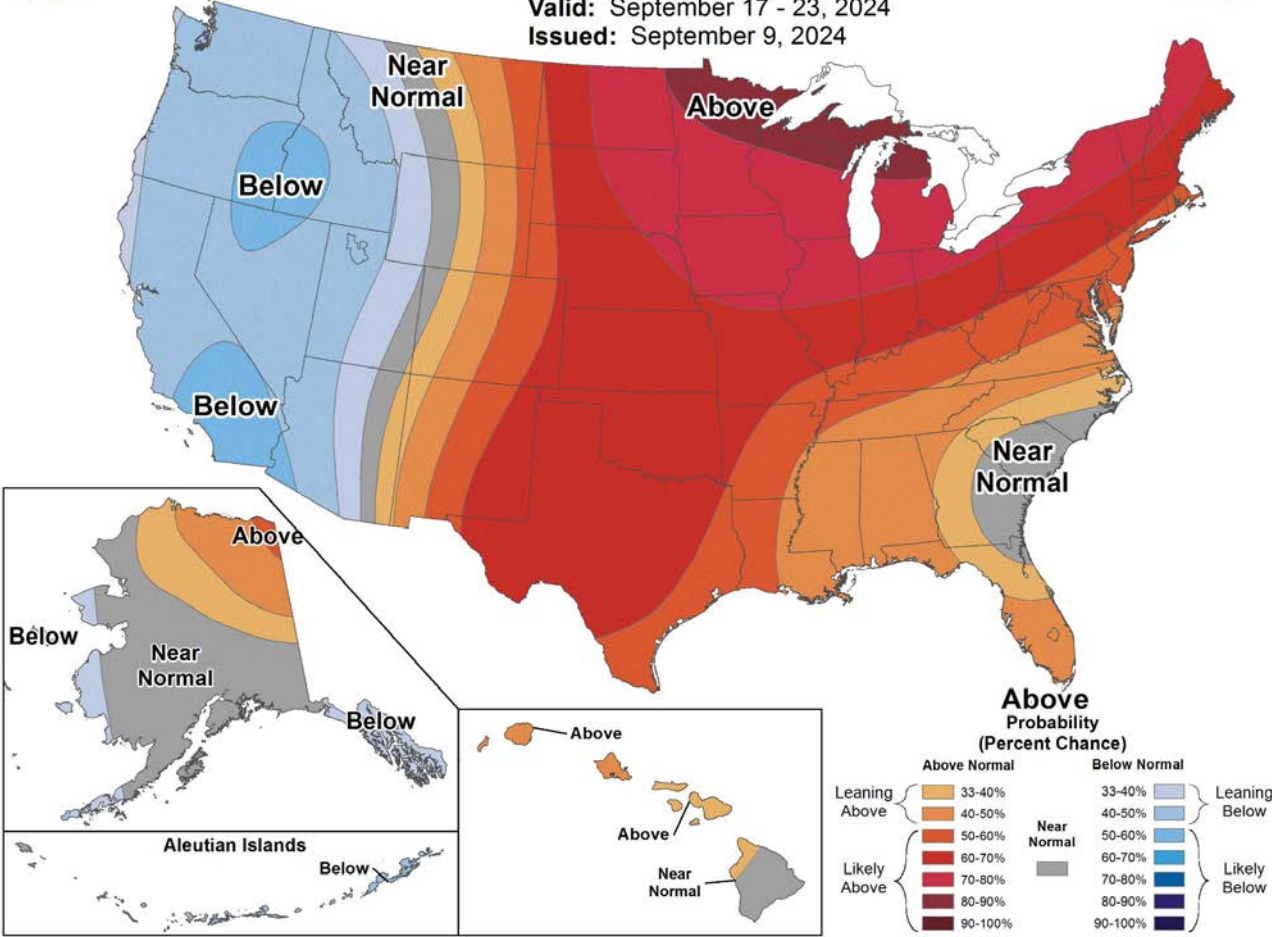
Agency - National Weather Service Weather Forecast Office
Presenter - Glen Merrill

Climate Prediction Center 8 to 14 Day Outlooks - Temperature



8-14 Day Temperature Outlook

Valid: September 17 - 23, 2024
 Issued: September 9, 2024



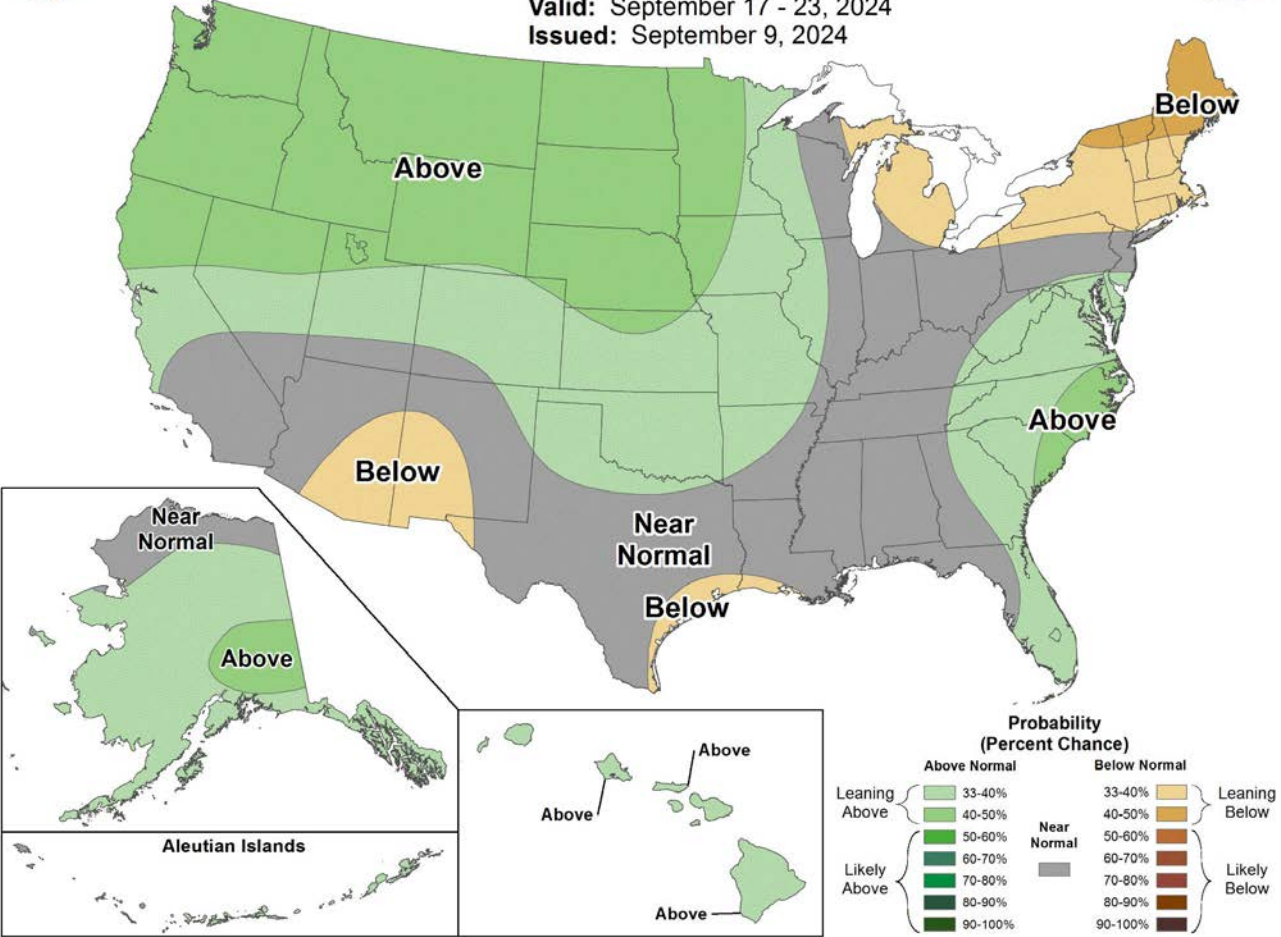
Climate Prediction Center 8 to 14 Day Outlooks - Precipitation



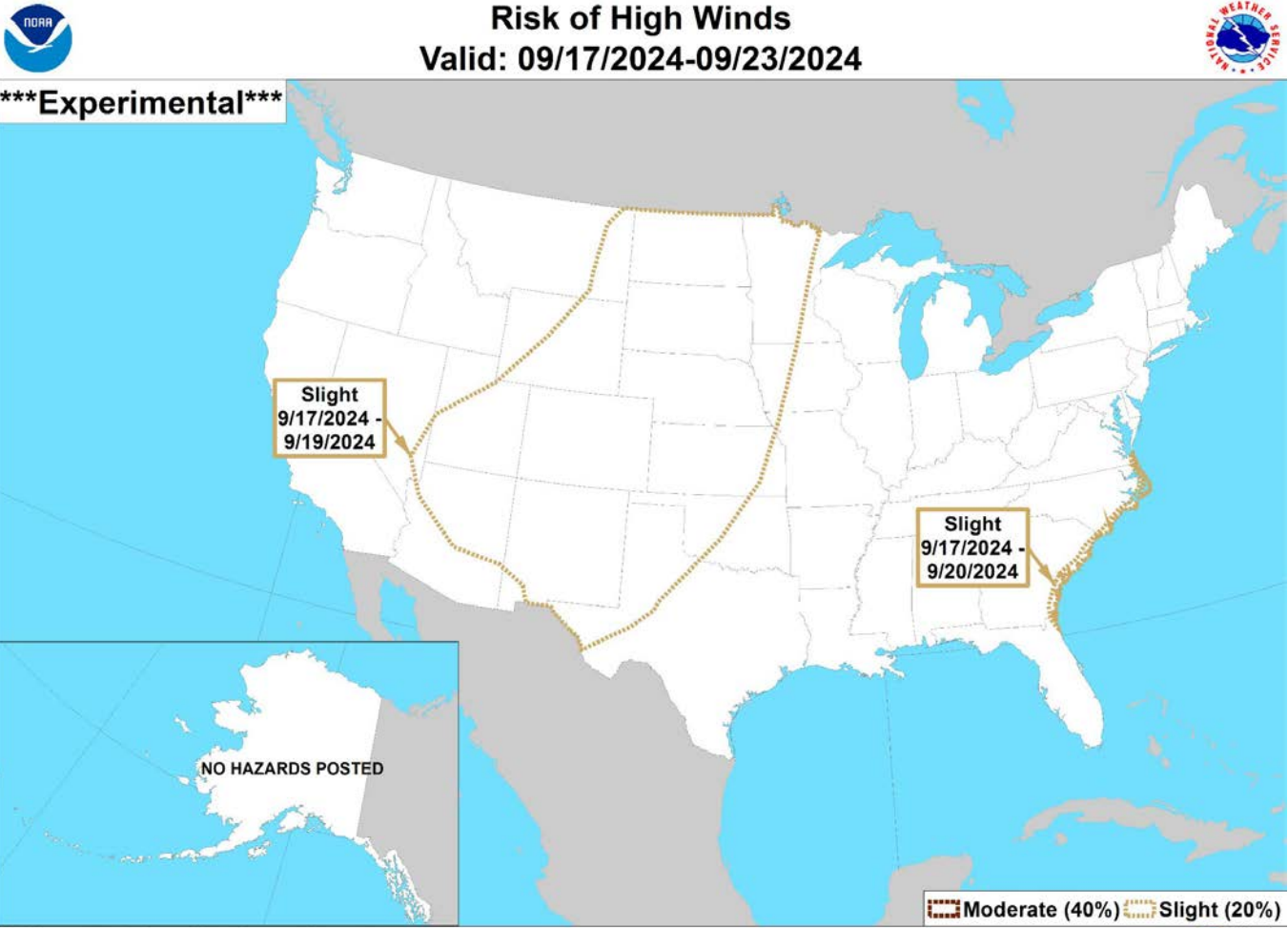
8-14 Day Precipitation Outlook



Valid: September 17 - 23, 2024
Issued: September 9, 2024



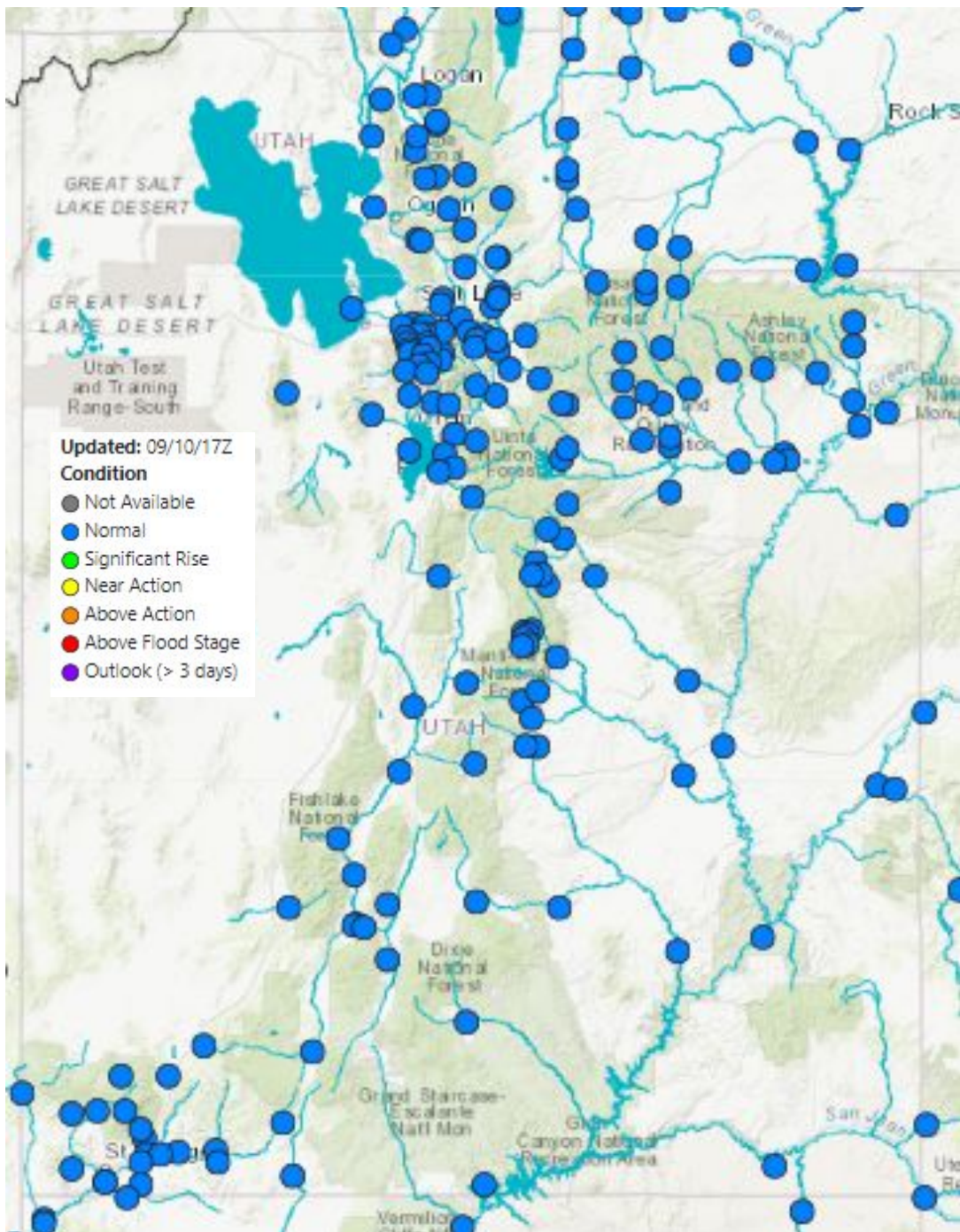
Climate Prediction Center U.S. Week-2 Hazards Outlook



Climate Prediction Center
Made: 09/09/2024 3PM EDT

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



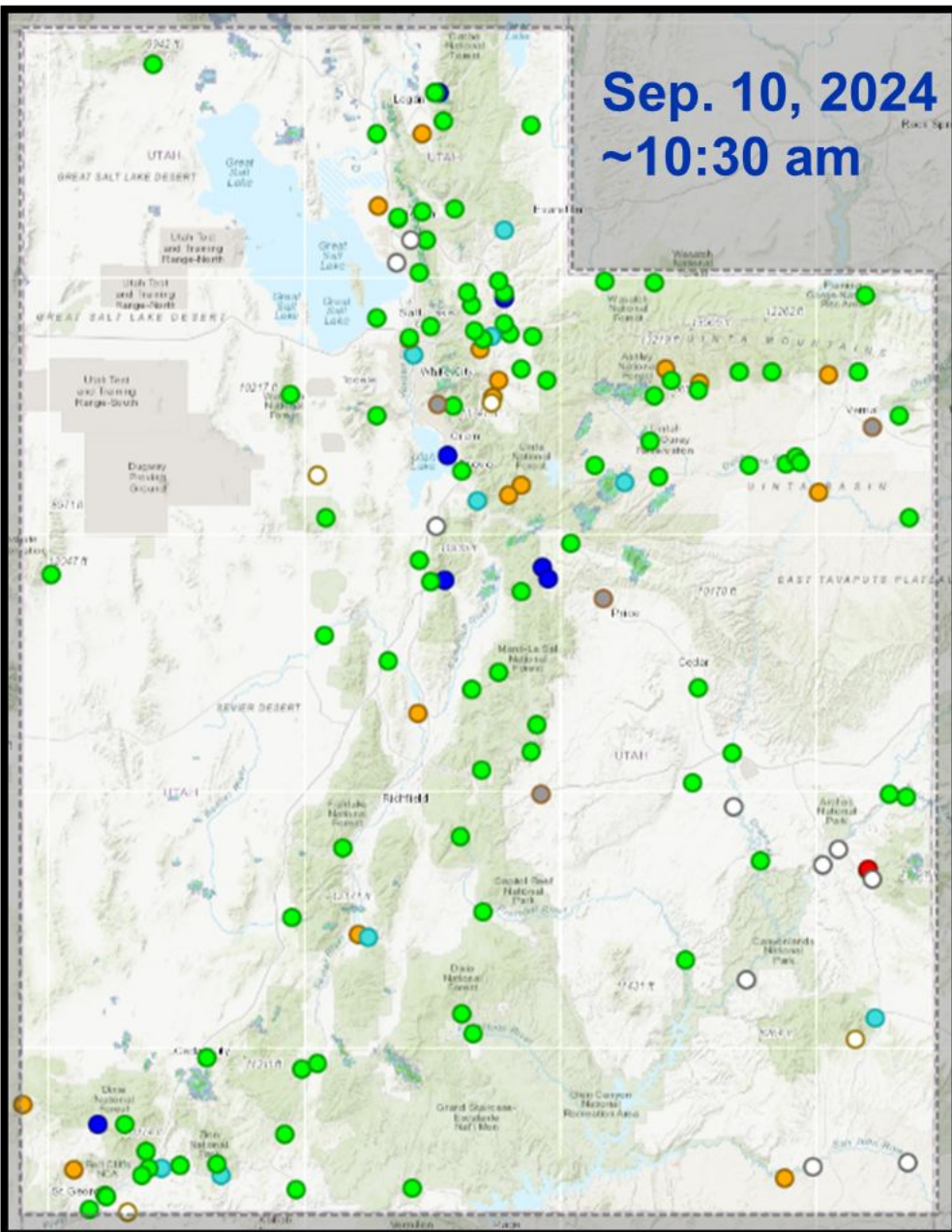
No significant hydrologic activity is forecasted over the next 10 days. Typically, this time of year is calm and we're working on developing our model for next year's runoff season. This is a great time to submit requests to us for any changes you would like to see next water year.

paul.miller@noaa.gov

Current Streamflow Conditions

08/20/2024

09/10/2024



Sep. 10, 2024
~10:30 am

Day-of-Year Status	% Gages	% Gages
All-time high for this day-of-year	2.8%	0.0%
Much above normal for this day-of-year	3.5%	4.9%
Above normal for this day-of-year	18.3%	6.3%
Normal for this day-of-year	52.8%	63.6%
Below normal for this day-of-year	7.0%	11.9%
Much below normal for this day-of-year	3.5%	0.0%
All-time low for this day-of-year	0.0%	0.7%
Not ranked - insufficient record	9.2%	9.1%
Not ranked - stream not flowing	0.7%	2.8%
Not ranked - no recent measurement	2.1%	0.7%

Streamflow:

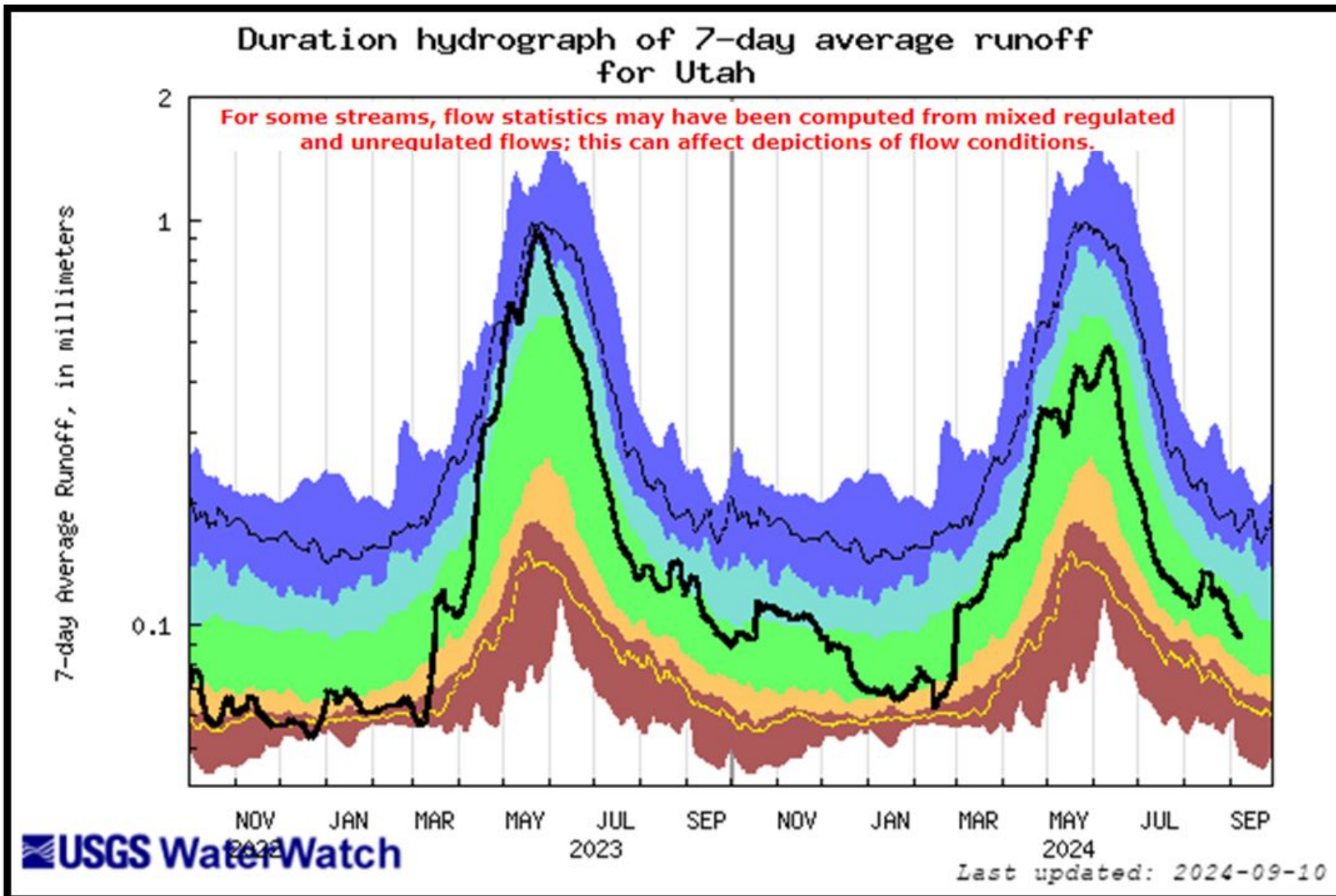
- Above flood stage
- All-time high for this day (100th percentile (maximum))
- Much above normal (>90th percentile)
- Above normal (76th – 90th percentile)
- Normal (25th – 75th percentile)
- Below normal (10th – 24th percentile)
- Much below normal (<10th percentile)
- All-time low for this day (0th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

Provisional data, subject to revision

Agency - USGS Utah WSC
Presenter - Ryan Rowland



Utah Area-Based Runoff Duration Hydrograph



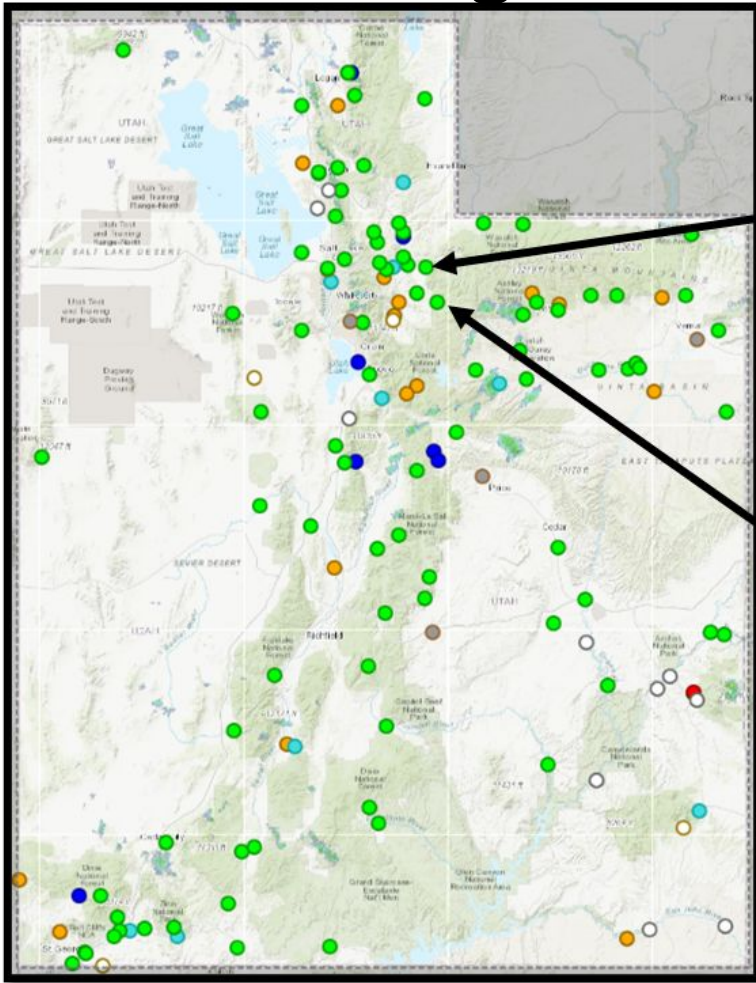
- The Runoff Duration Hydrograph is a graphical presentation of area-based runoff (the black line) calculated as a weighted average of HUC 8-runoff, plotted over the long-term statistics of runoff for each day or month of the year for each area.

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

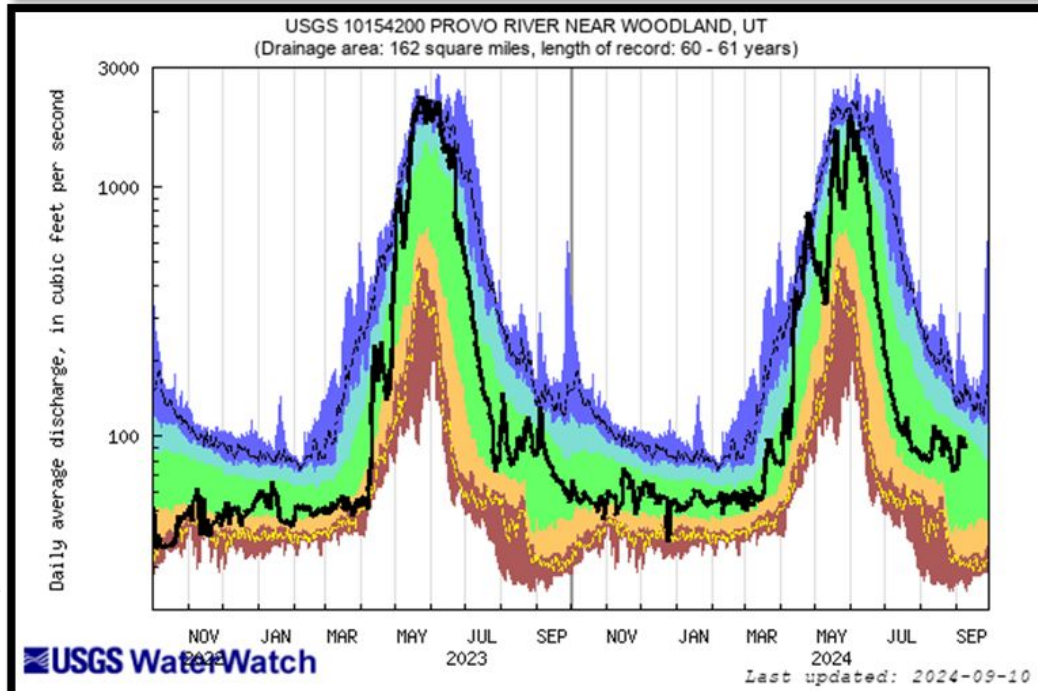
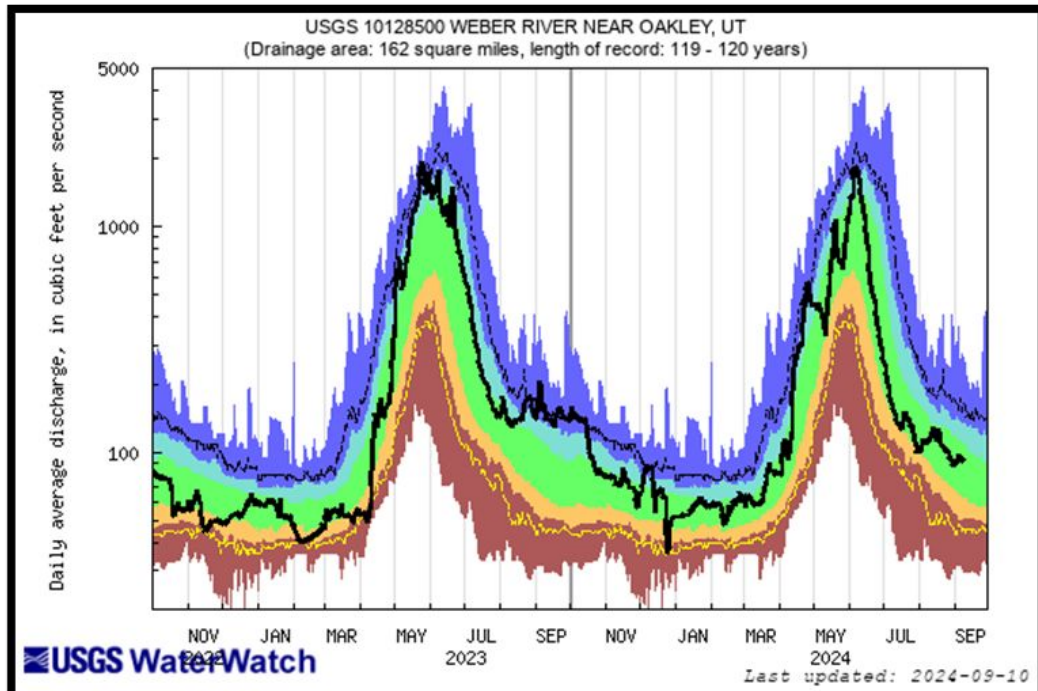
Provisional data,
subject to revision

Agency - USGS Utah WSC
Presenter - Ryan Rowland

Streamflow at Selected Gages

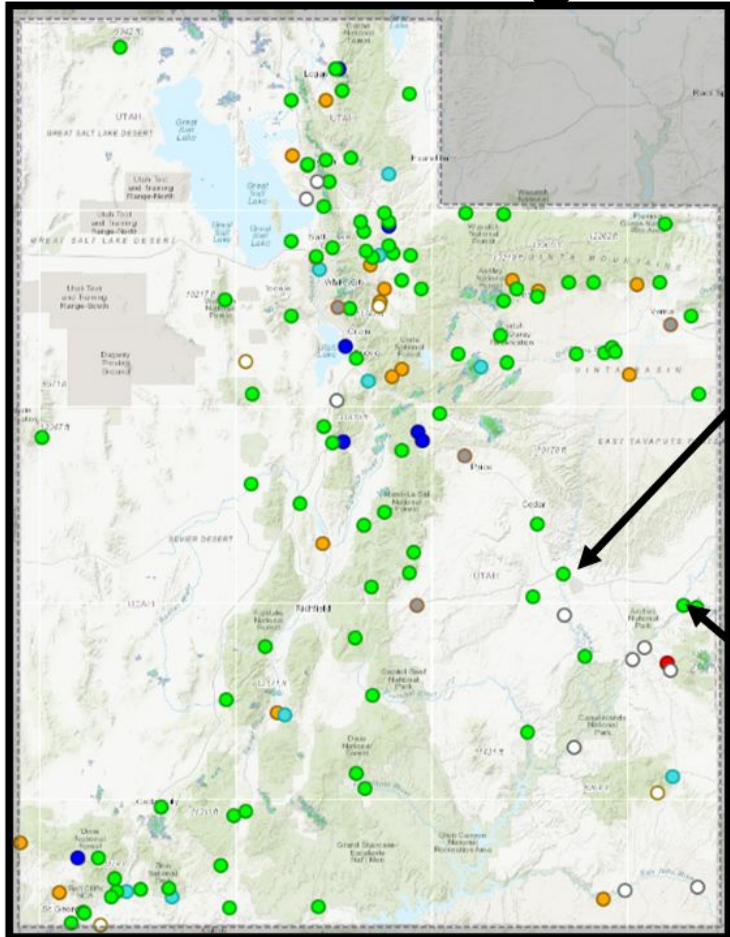


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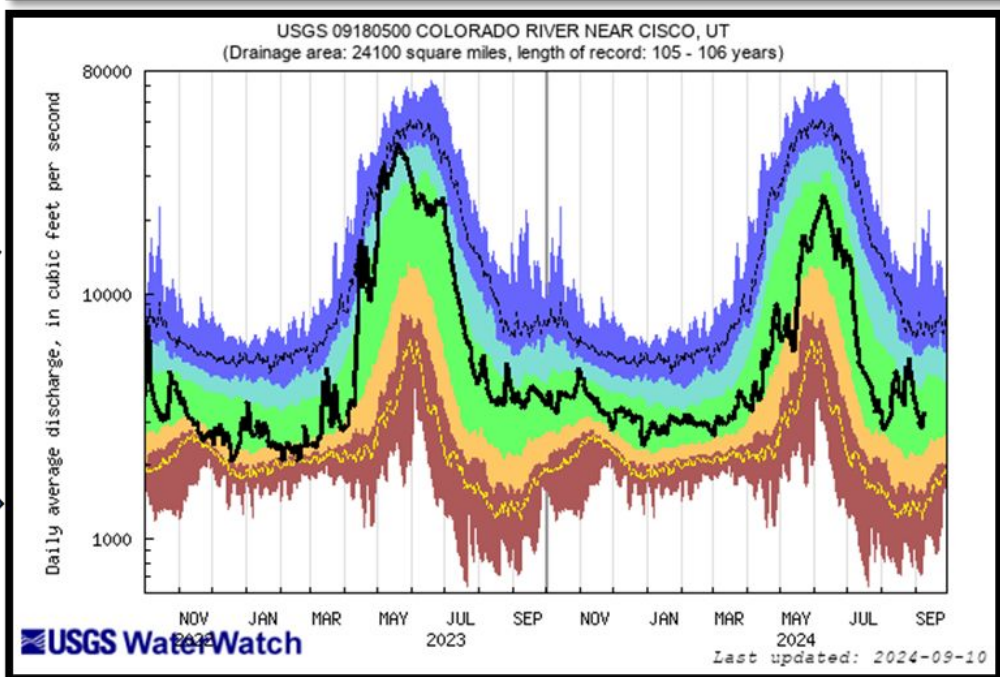
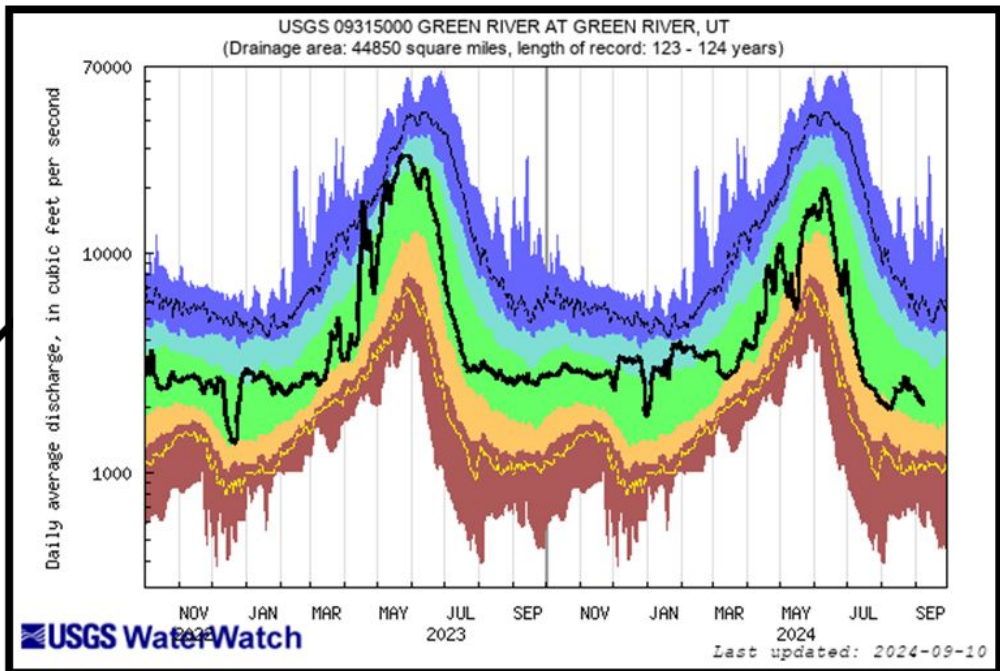


Provisional data, subject to revision

Streamflow at Selected Gages

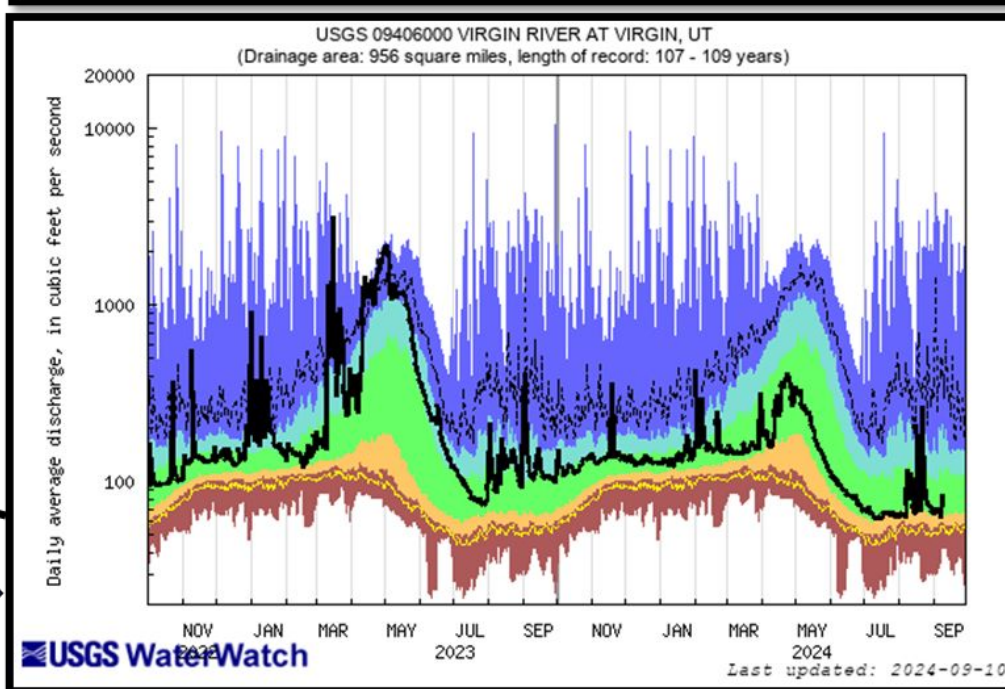
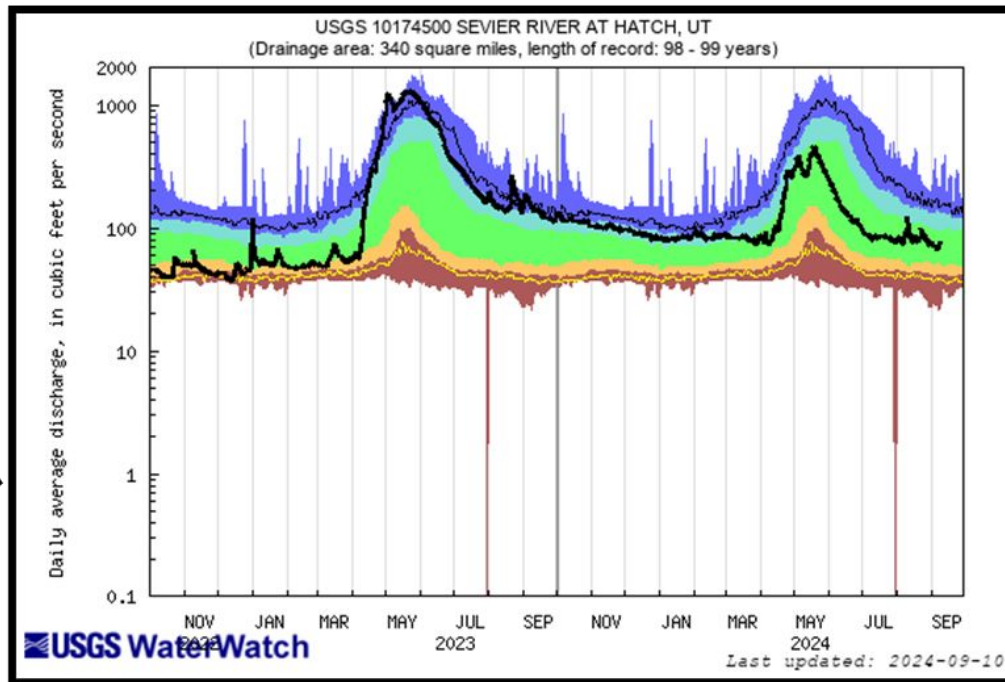
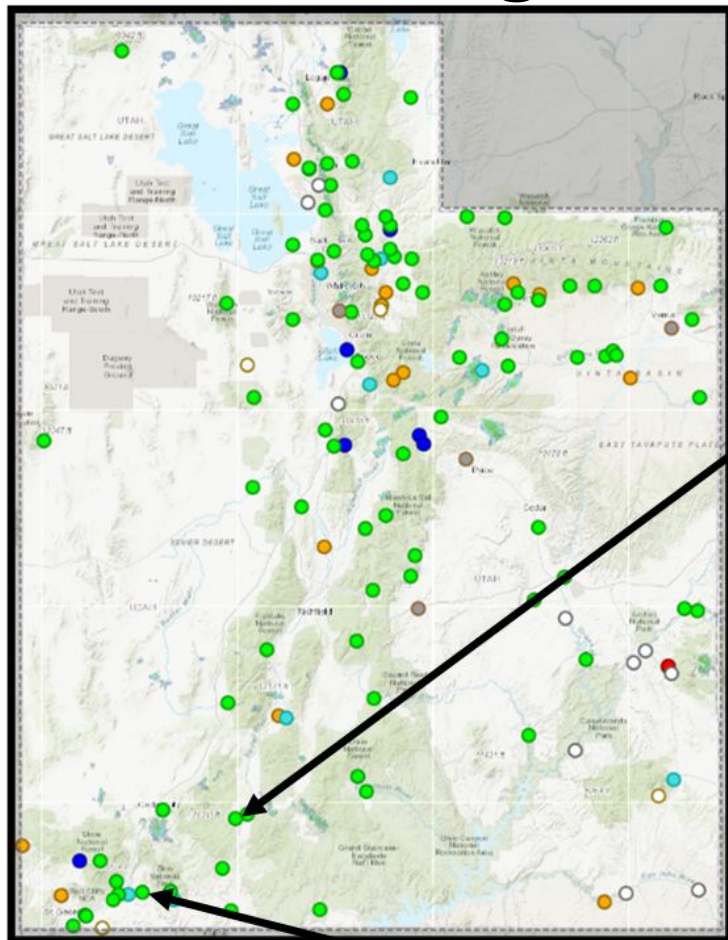


Explanation - Percentile classes							
lowest-10th percentile	5	10-24	25-75	76-90	95	90th percentile - highest	Flow
Much below Normal		Below normal	Normal	Above normal		Much above normal	



Provisional data, subject to revision

Streamflow at Selected Gages

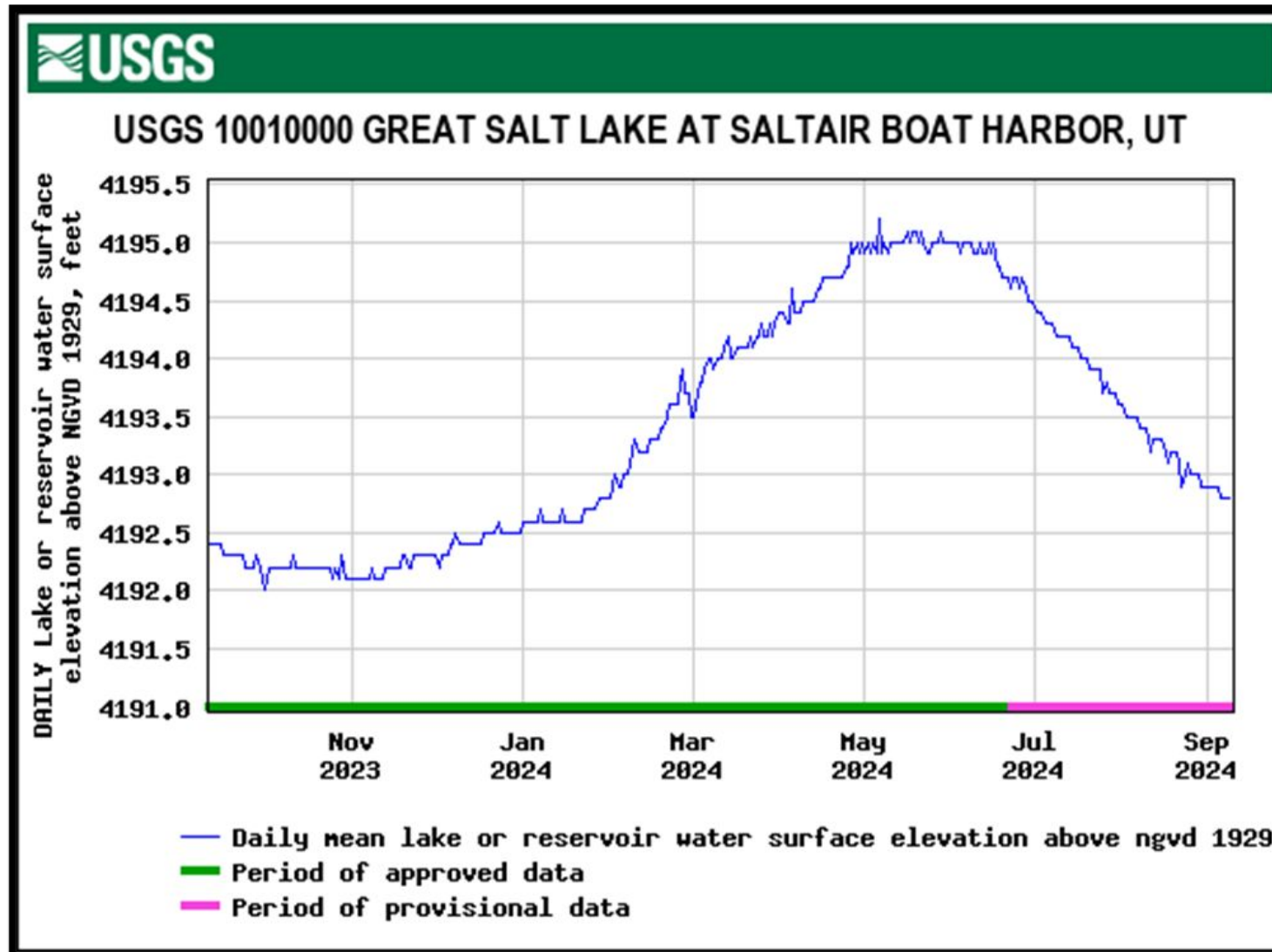


Explanation - Percentile classes

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Much below normal	Below normal	Normal	Above normal	Much above normal			

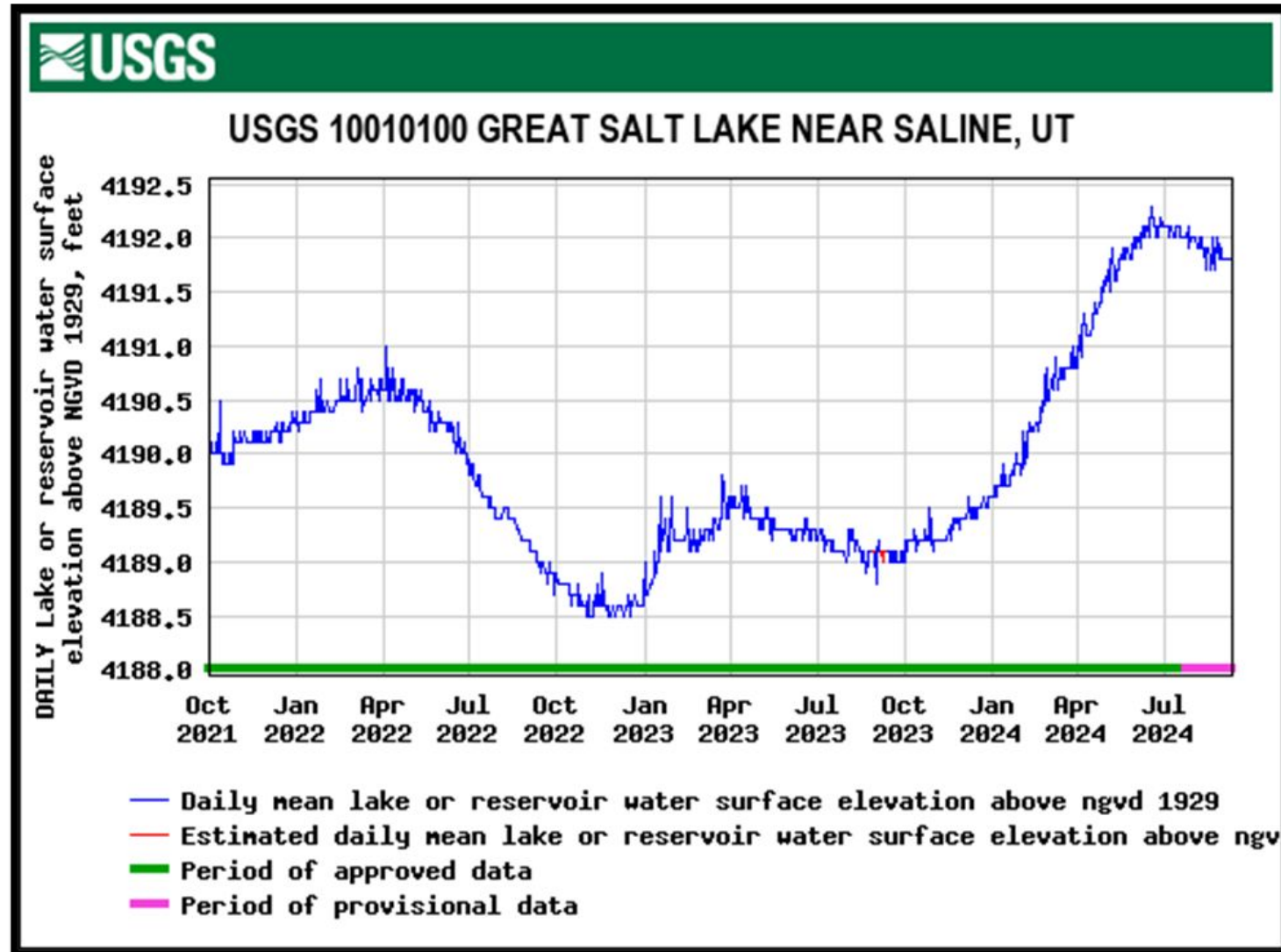
Provisional data, subject to revision

Great Salt Lake Water Surface Elevation – South Arm



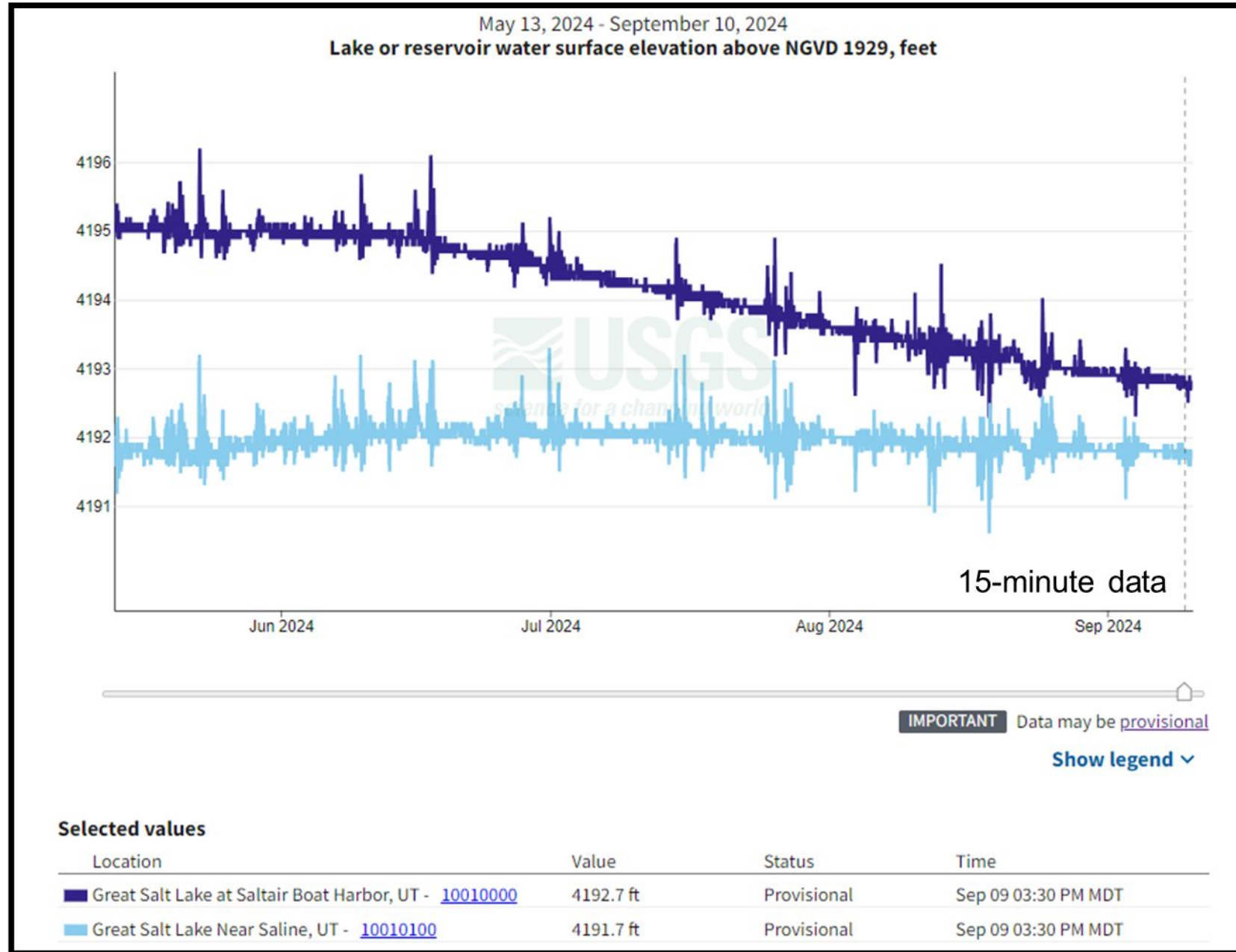
- ❑ Daily value 9/9/2024 = 4,192.8'
- ❑ Daily value 8/19/2024 = 4,193.2'
- ❑ Down 2.4' since Seasonal peak on 5/7/2024

Great Salt Lake Water Surface Elevation – North Arm



- ❑ Daily value 9/9/2024 = 4,191.8'
- ❑ Daily value 8/19/2024 = 4,191.8'
- ❑ Down 0.5' since Seasonal peak on 6/17/2024

Great Salt Lake Water Surface Elevations



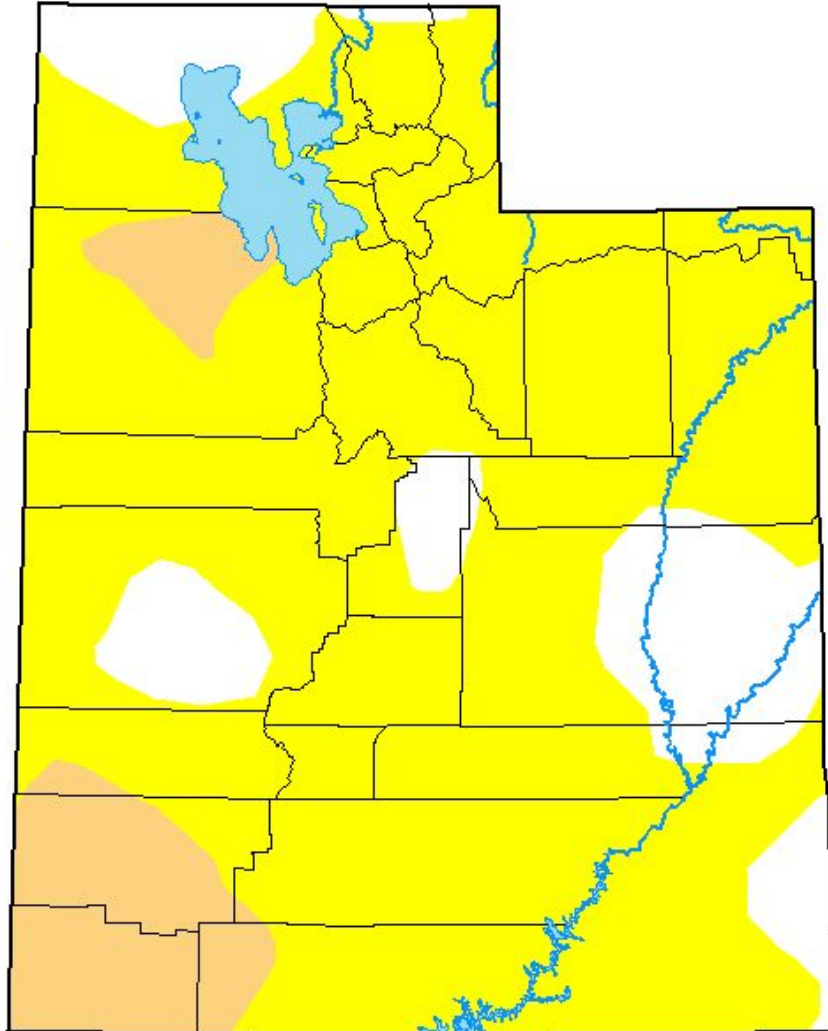
U.S. Drought Monitor

Utah







September 3, 2024

(Released Thursday, Sep. 5, 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:

Lindsay Johnson
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