

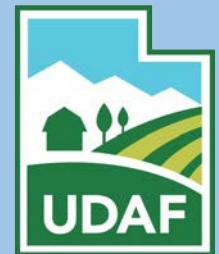


Utah Water Assessment & Conditions Monitoring (Drought Webinar)

The meeting will begin shortly



Thank you to our contributors



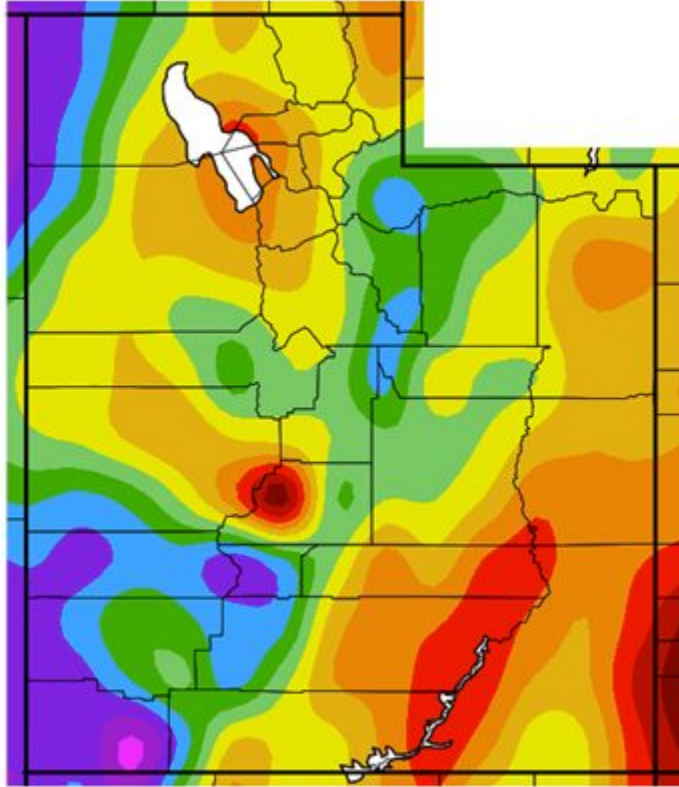


Utah Water Assessment & Conditions Monitoring Webinar

September 12, 2023

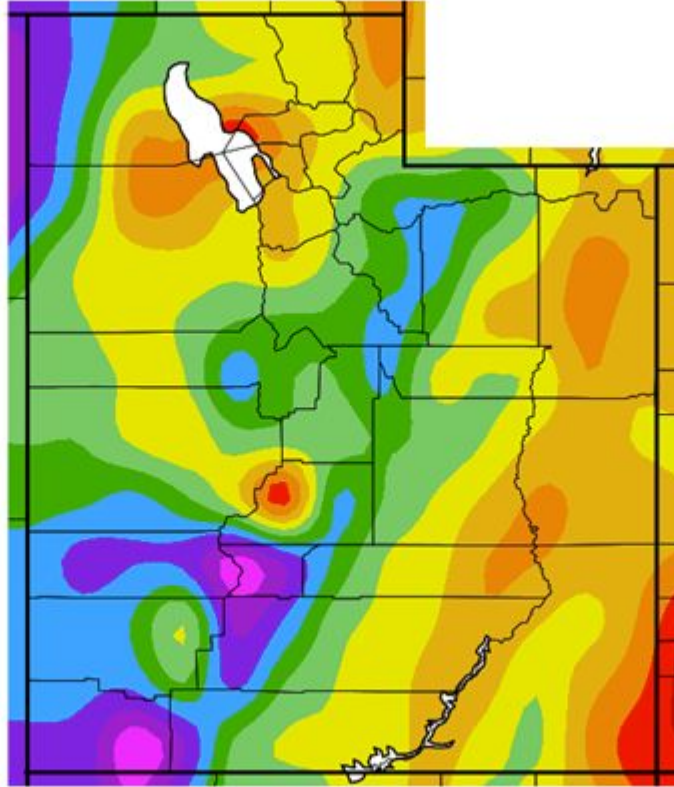
Temperature Departure from Avg. (14-day; 30-day; 90-day)

Av. Max. Temperature dep from Ave (deg F)
8/29/2023 – 9/11/2023



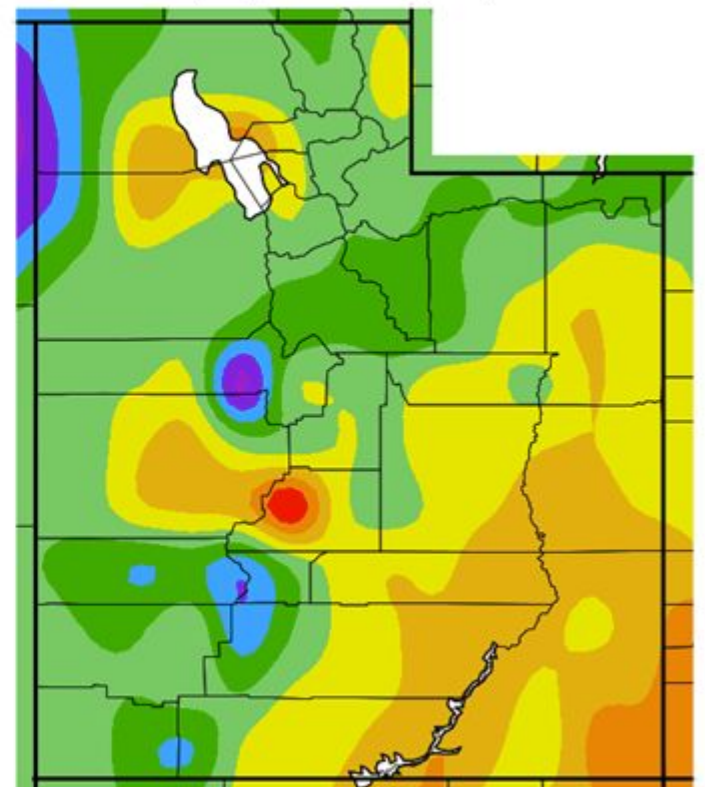
Generated 9/12/2023 at WRCC using provisional data.
NOAA Regional Climate Centers

Av. Max. Temperature dep from Ave (deg F)
8/13/2023 – 9/11/2023



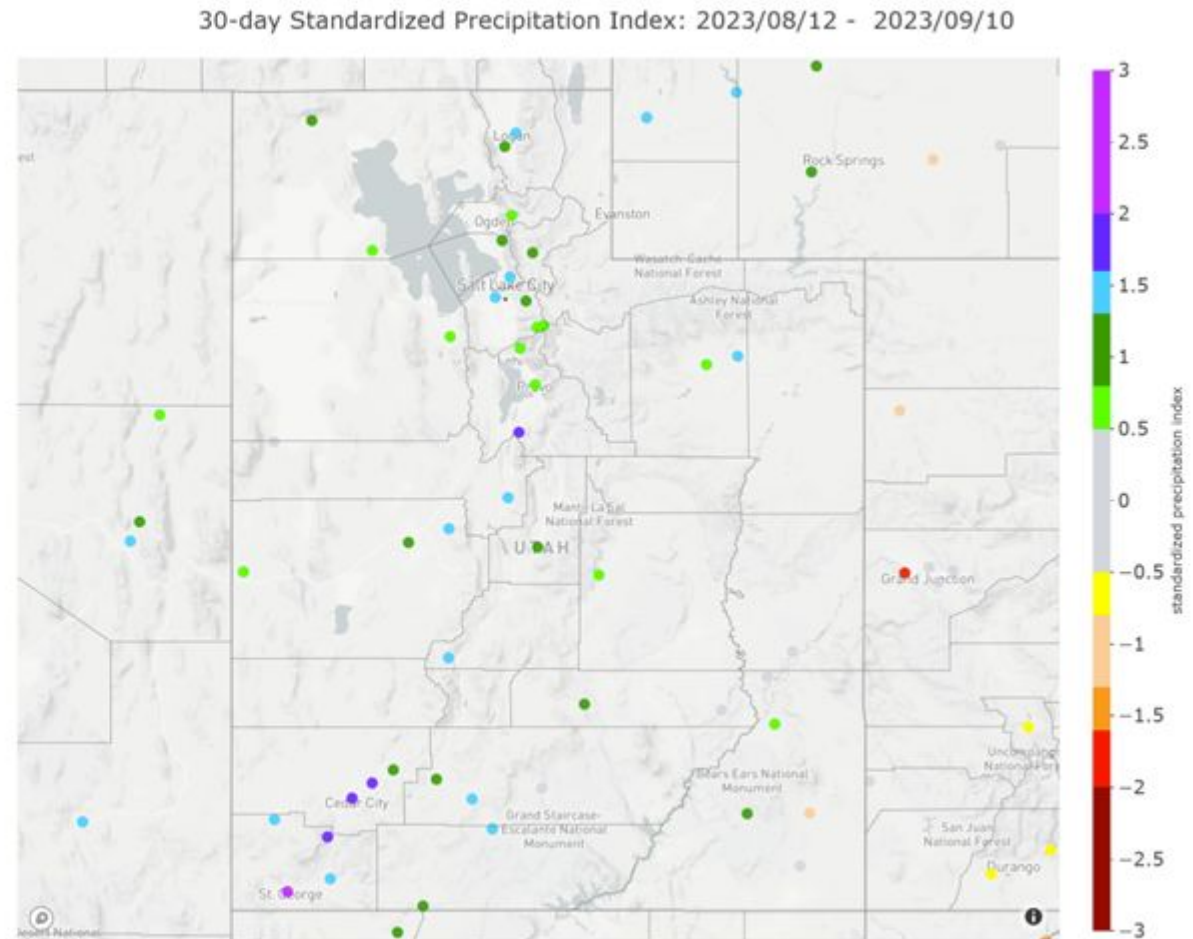
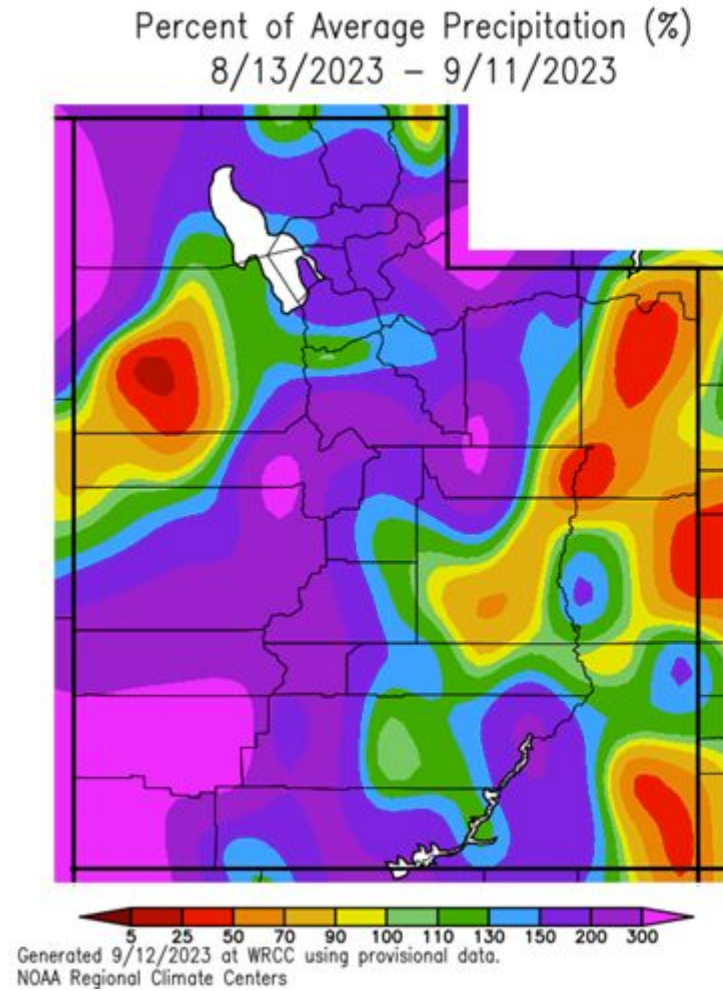
Generated 9/12/2023 at WRCC using provisional data.
NOAA Regional Climate Centers

Av. Max. Temperature dep from Ave (deg F)
6/14/2023 – 9/11/2023



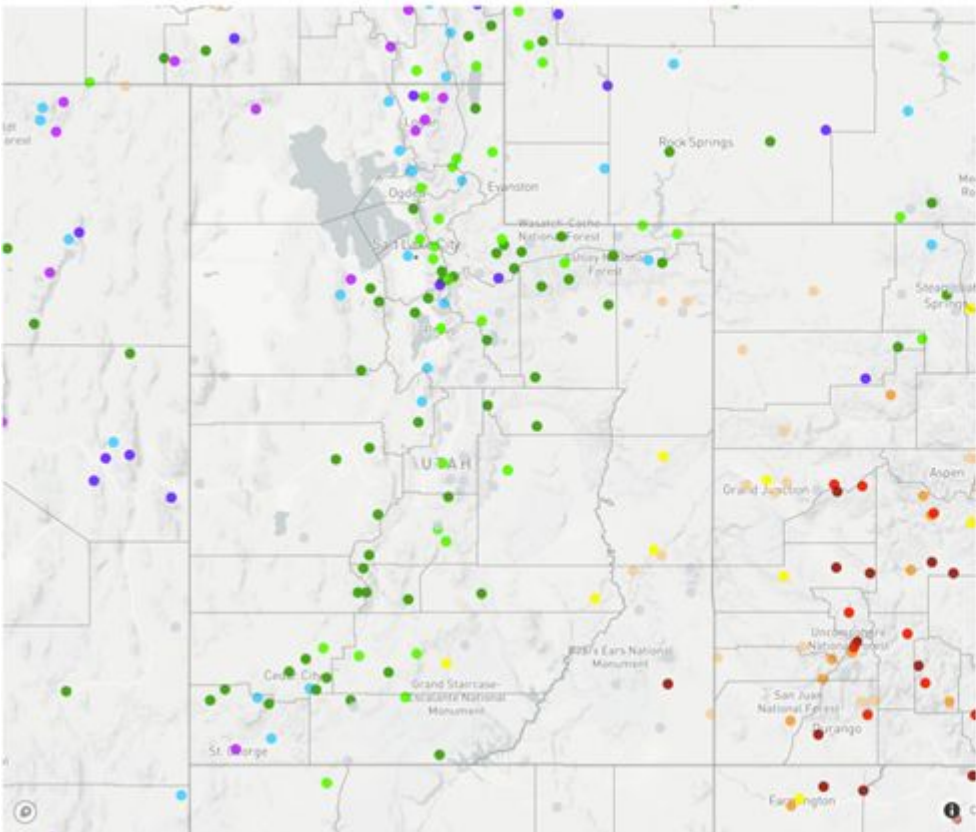
Generated 9/12/2023 at WRCC using provisional data.
NOAA Regional Climate Centers

Precipitation

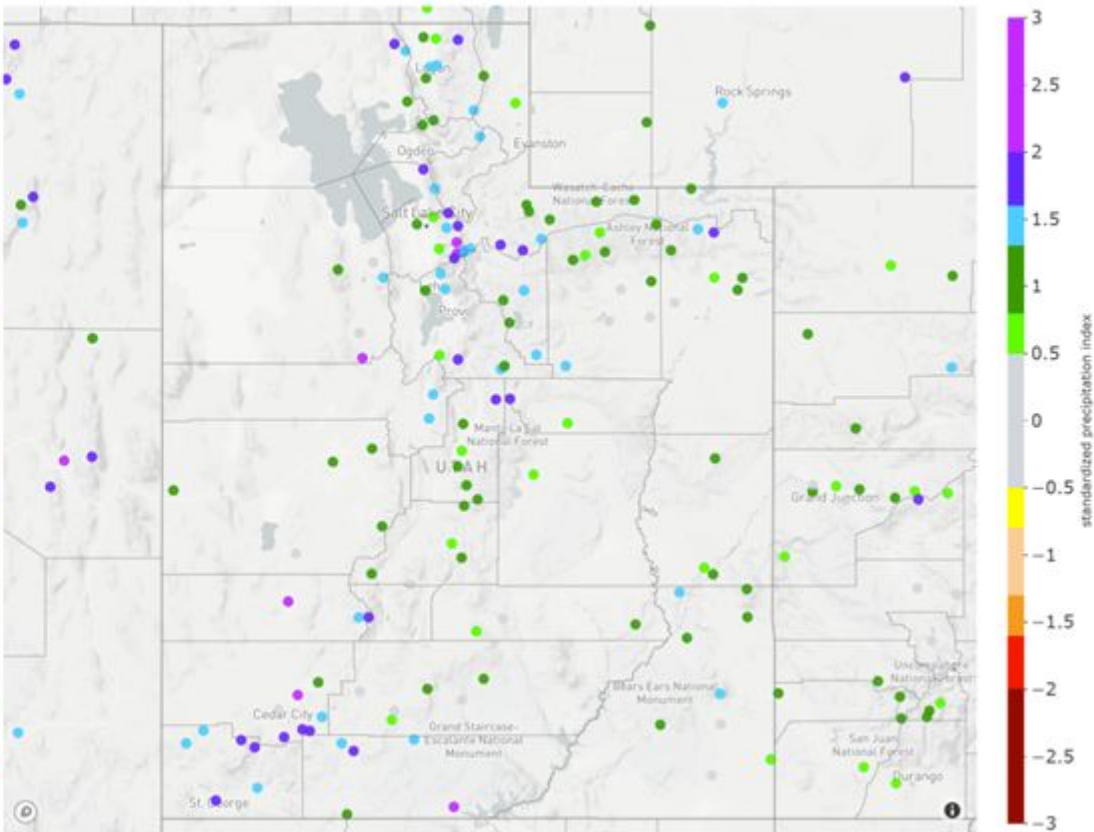


Long-range Standardized Precipitation Index (SPI)

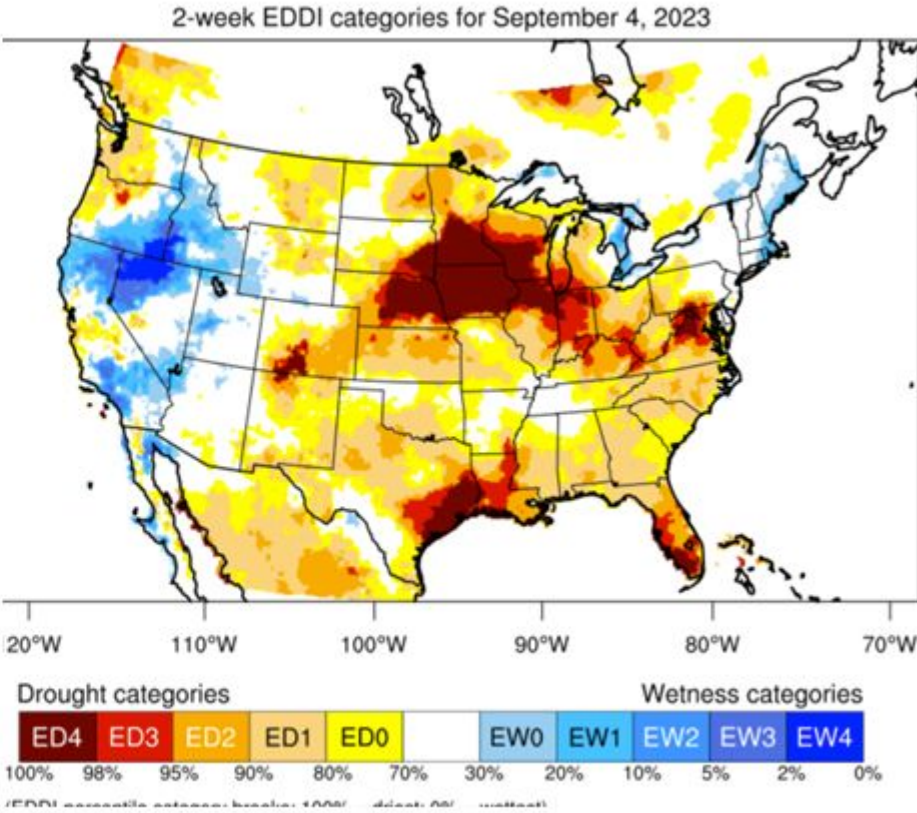
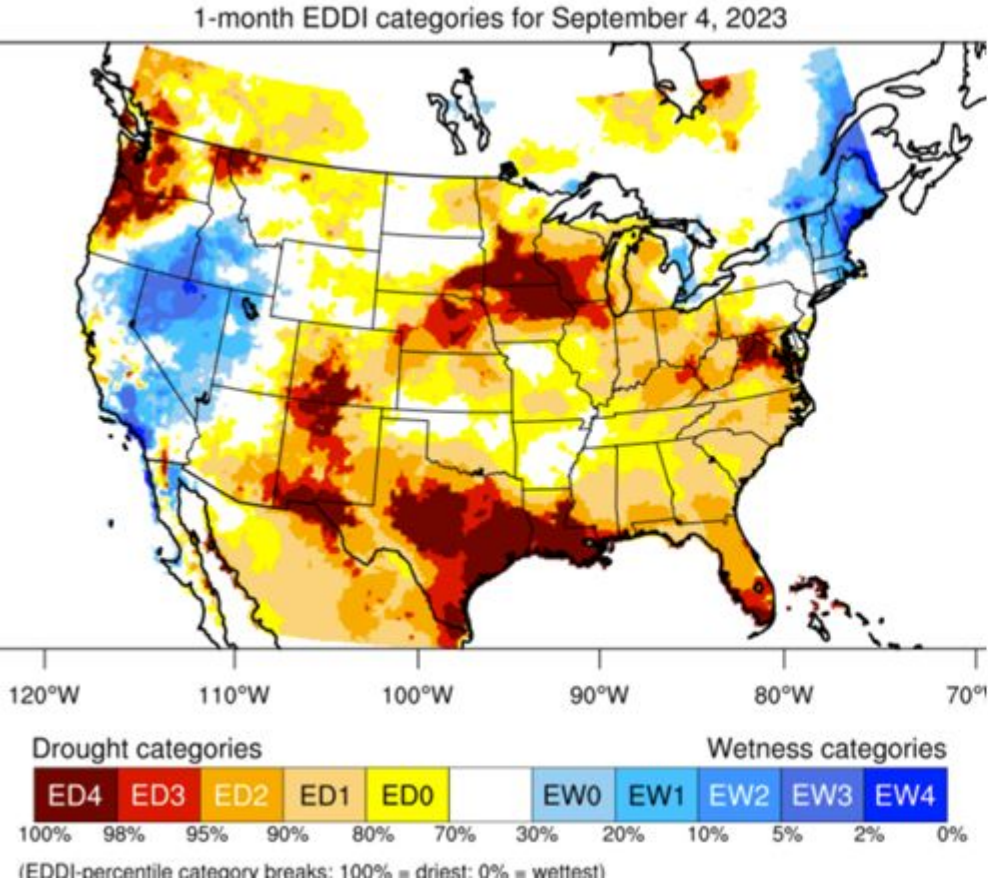
90-day Standardized Precipitation Index: 2023/06/13 - 2023/09/10



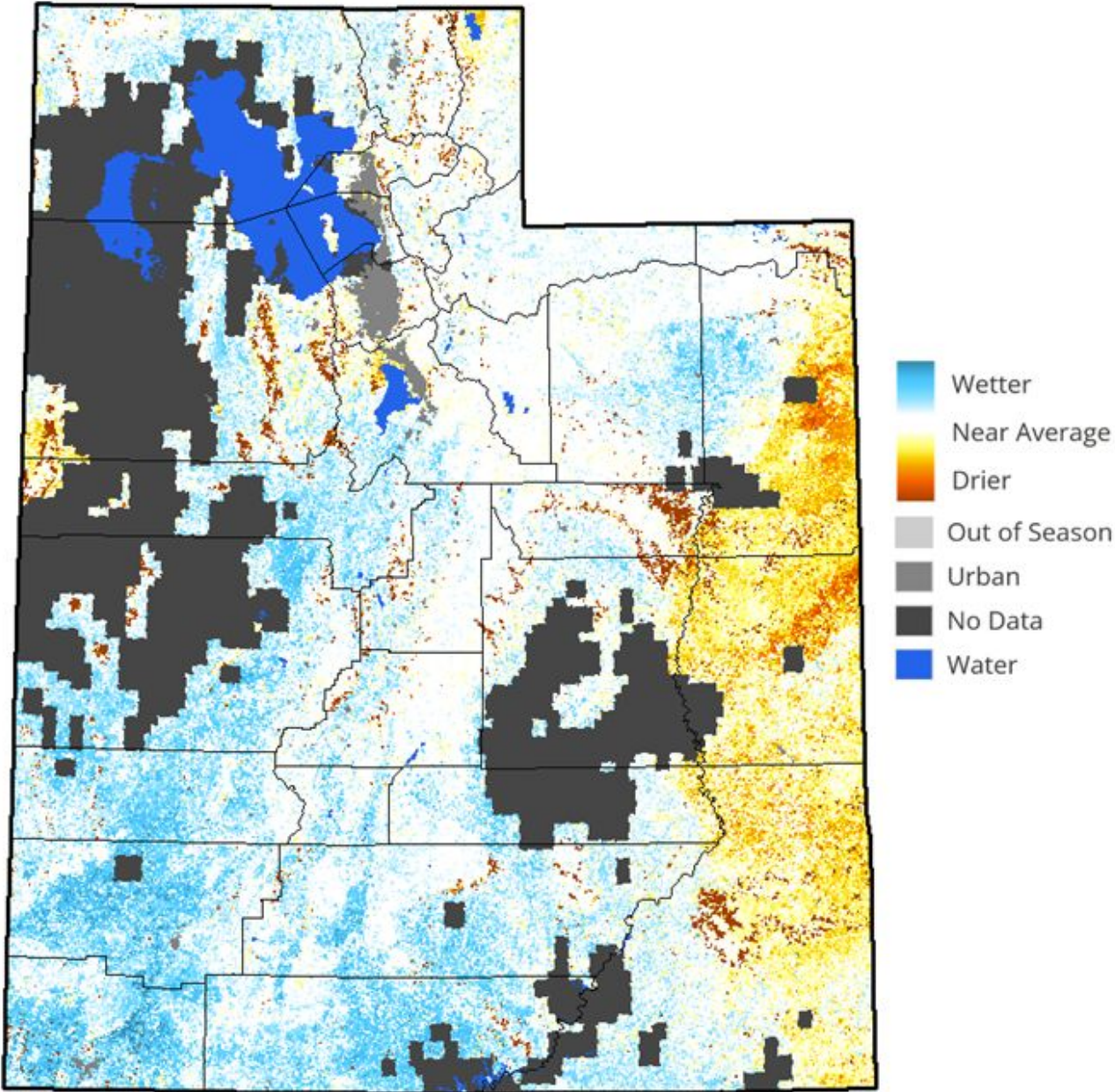
Water-year-to-date Standardized Precipitation Index: 2022/10/01 - 2023/09/10



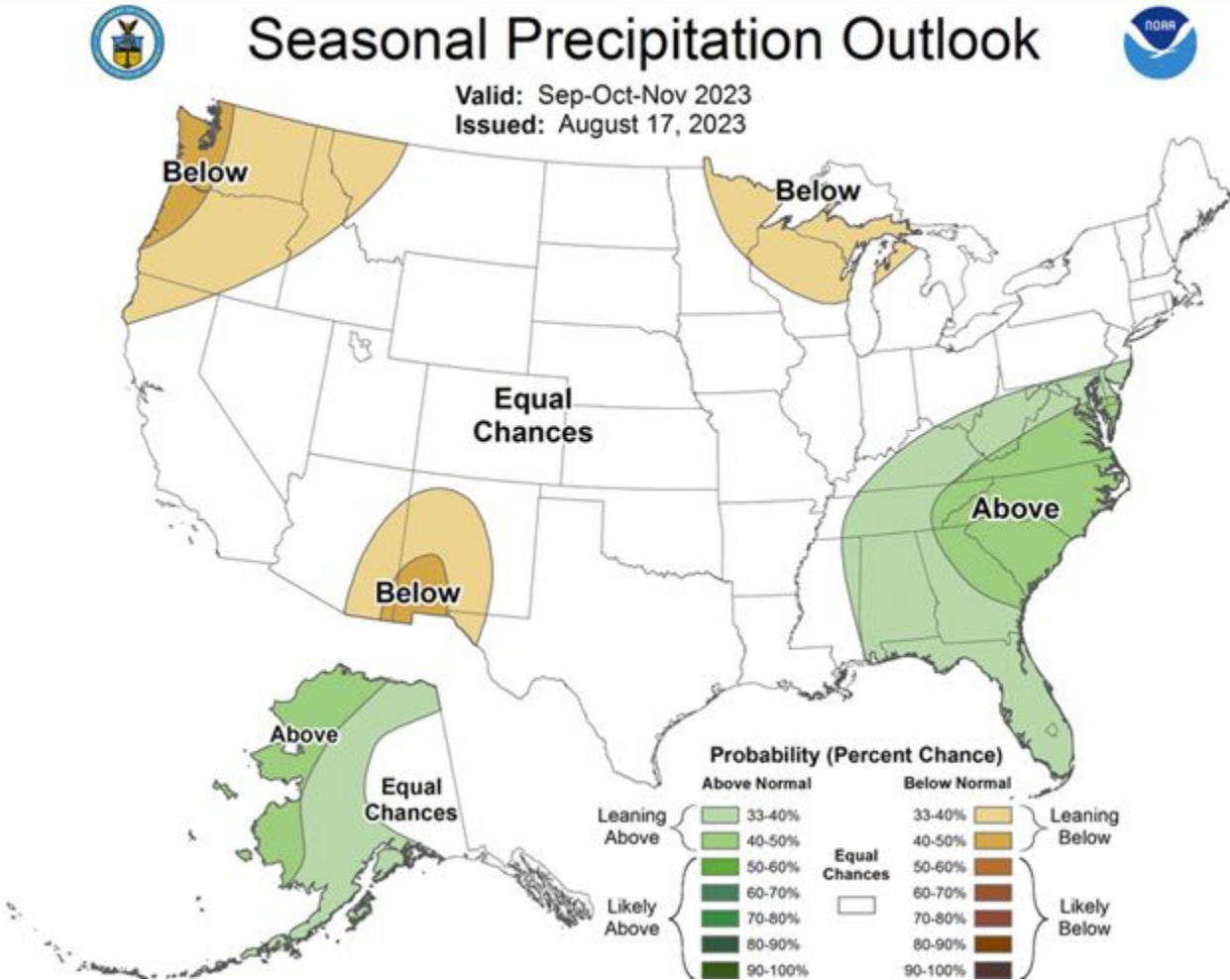
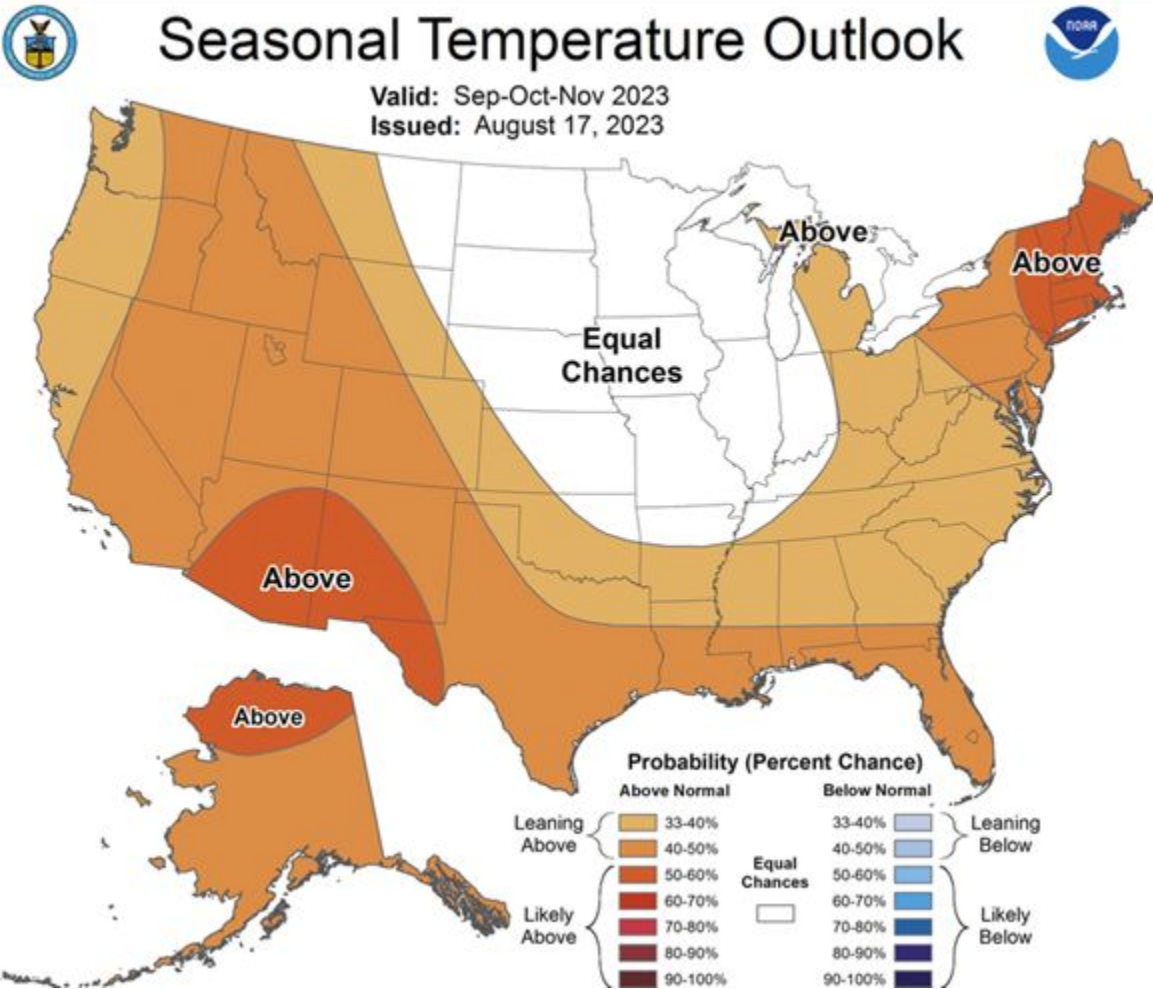
Evaporative Demand Drought Index (EDDI)



QuikDRI



CPC Sept-November Outlook

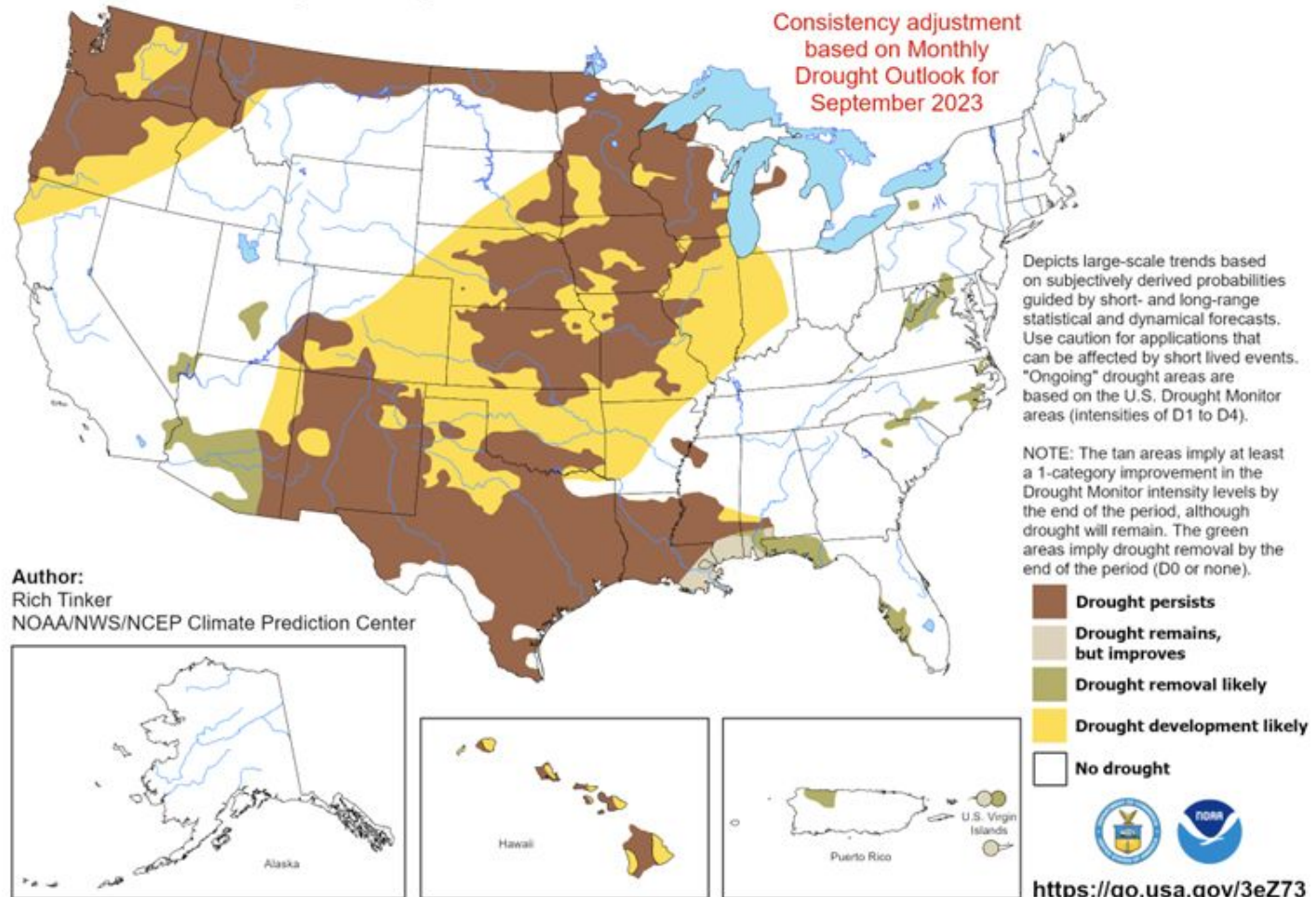


CPC Drought Tendency

U.S. Seasonal Drought Outlook Drought Tendency During the Valid Period

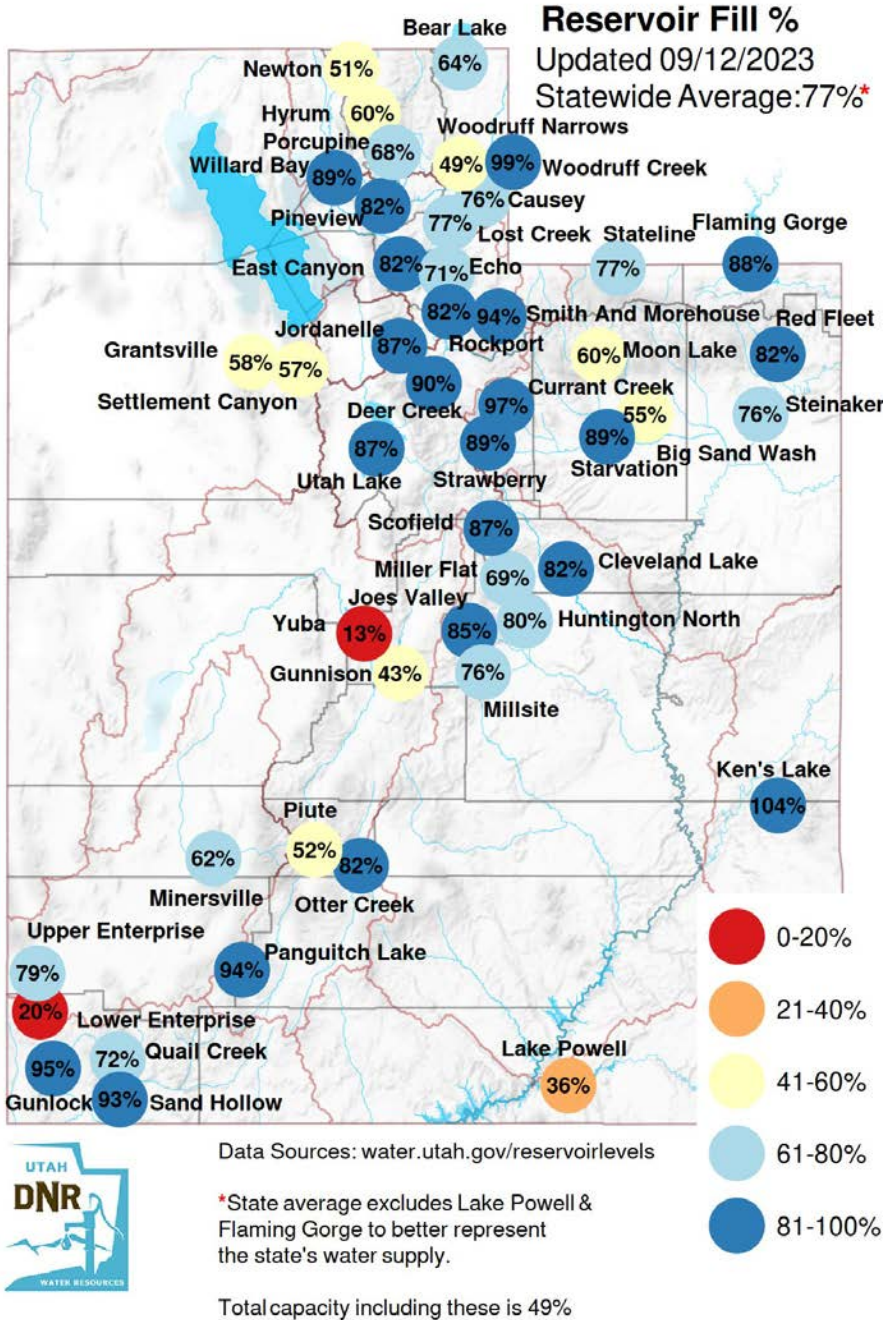
Valid for September 1 - November 30, 2023
Released August 31, 2023

Consistency adjustment
based on Monthly
Drought Outlook for
September 2023



<https://go.usa.gov/3eZ73>

With the exception of Lake Powell (Colorado River System) and Yuba Lake (construction work), nearly every reservoir in the state is above median for this time of year

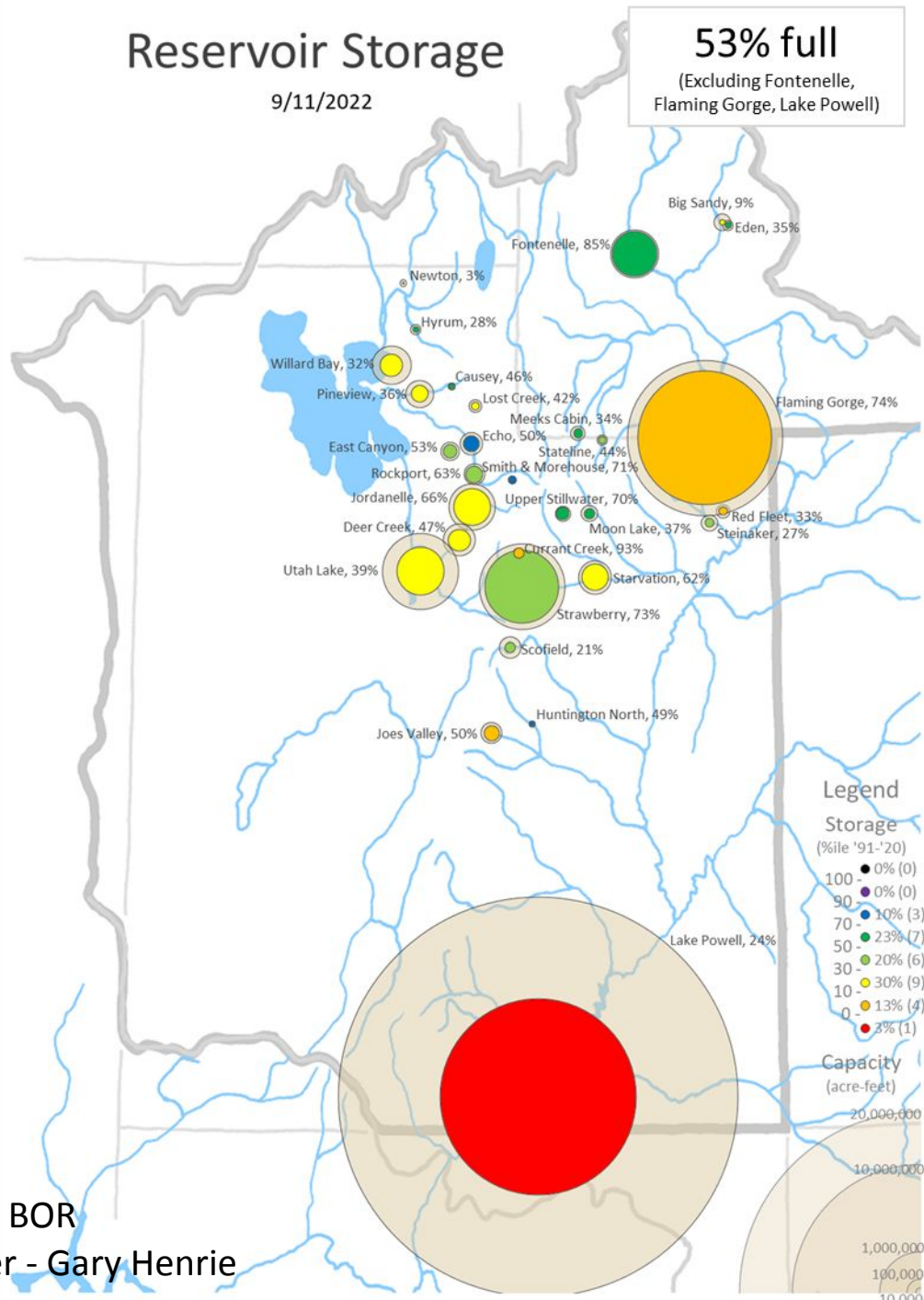


Reservoir Storage

9/11/2022

53% full

(Excluding Fontenelle,
Flaming Gorge, Lake Powell)

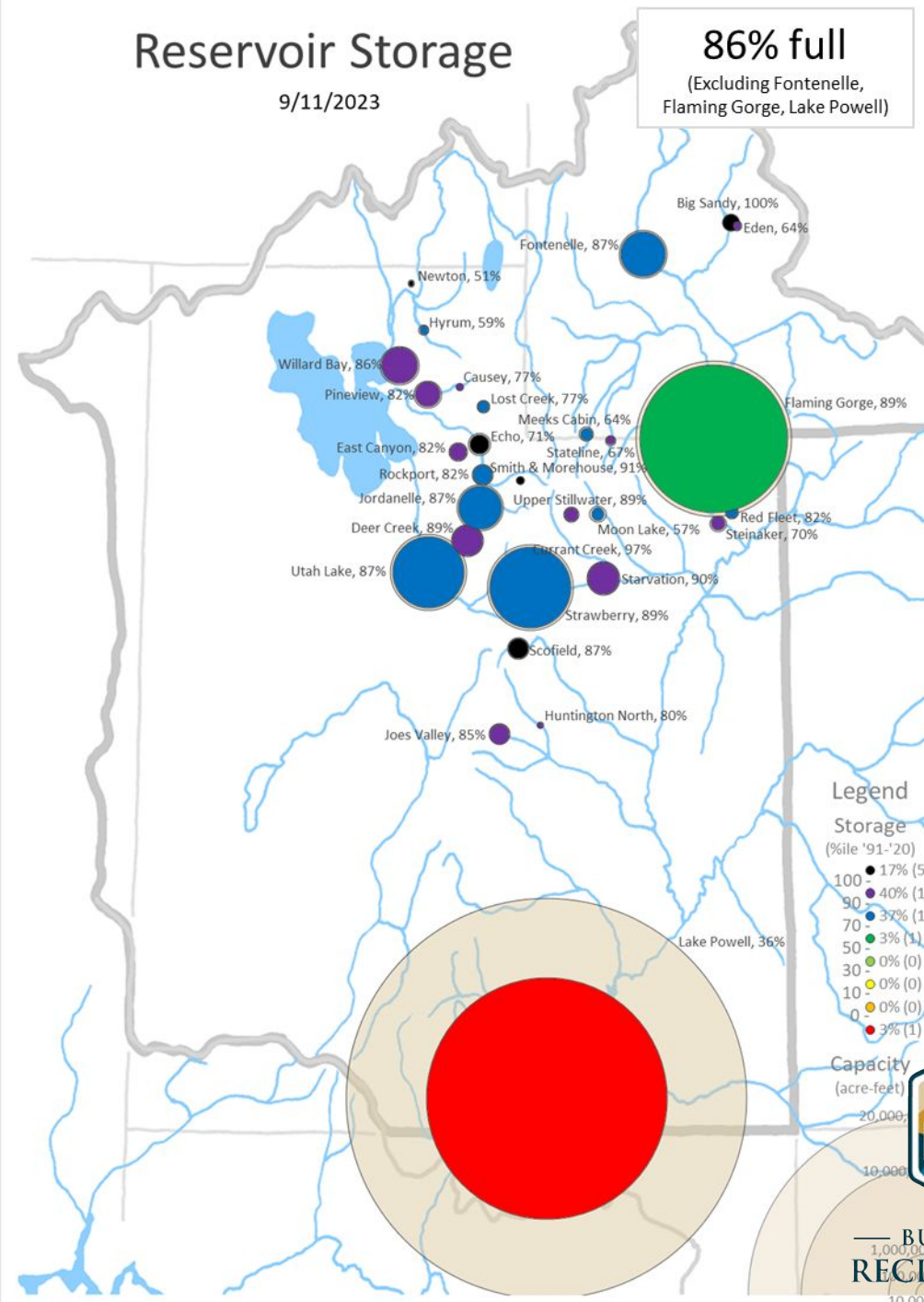


Reservoir Storage

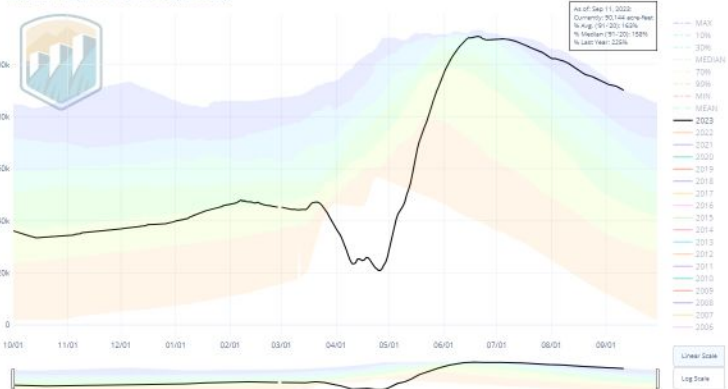
9/11/2023

86% full

(Excluding Fontenelle,
Flaming Gorge, Lake Powell)



PINEVIEW RESERVOIR - STORAGE (acre-feet)



UTAH LAKE - POOL ELEVATION (feet)



LAKE POWELL - POOL ELEVATION (feet)

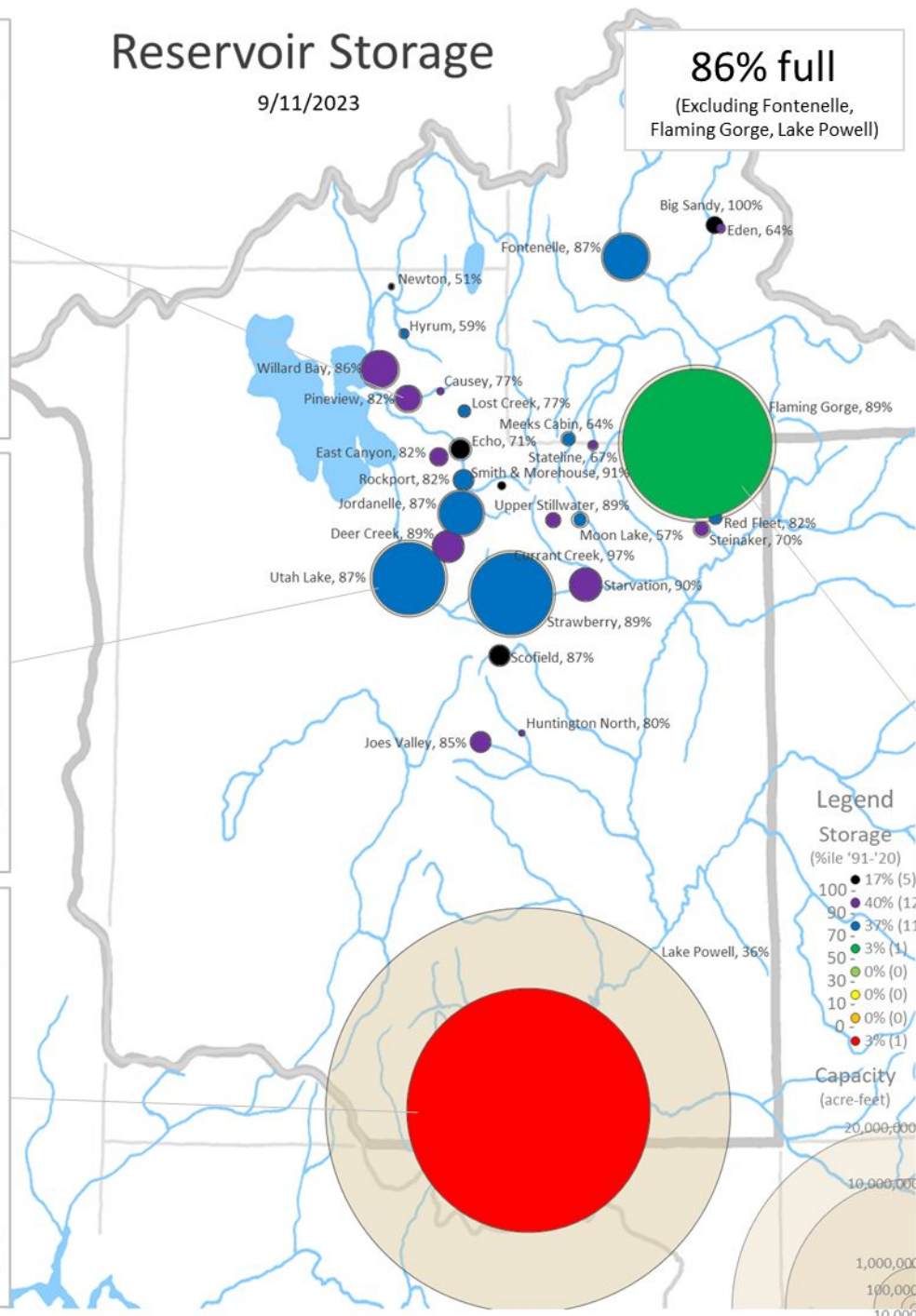


Reservoir Storage

9/11/2023

86% full

(Excluding Fontenelle,
Flaming Gorge, Lake Powell)



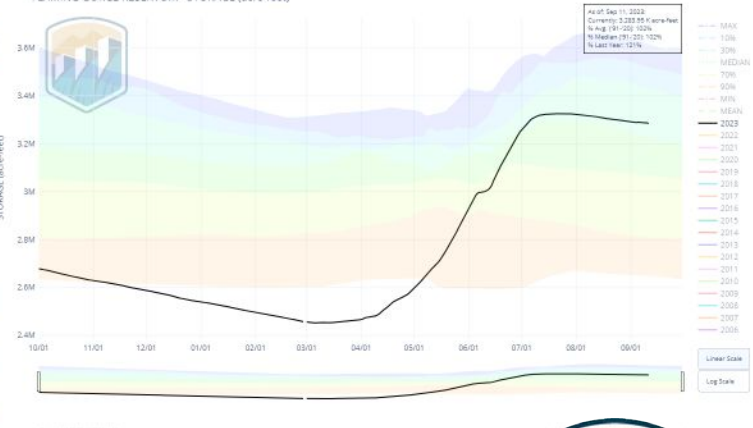
Compared to last year:

- Utah Lake +5 ft (420,000 af, 48%!)
- Flaming Gorge +572,000 af (15%)
- Powell +43.6 ft (2.96Maf, 12%)

Current:

- Storage is coming down, but is still very high (~90th percentile)
- Water year is coming to a close
- Carryover storage will be very high

FLAMING GORGE RESERVOIR - STORAGE (acre-feet)

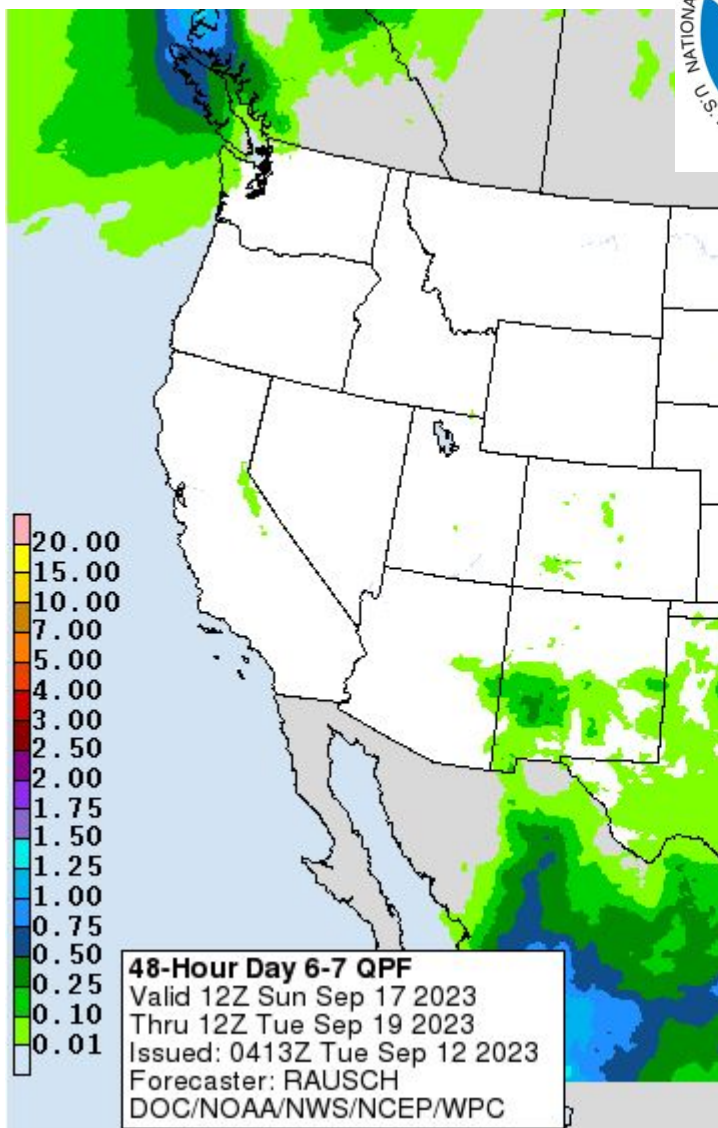
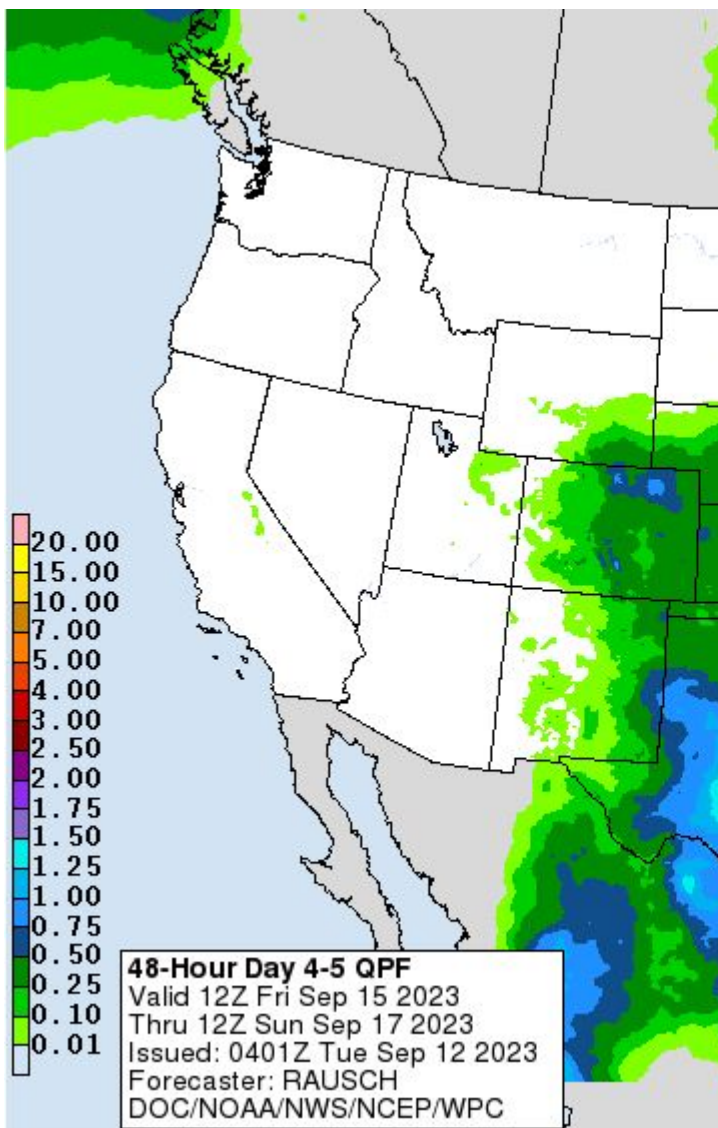
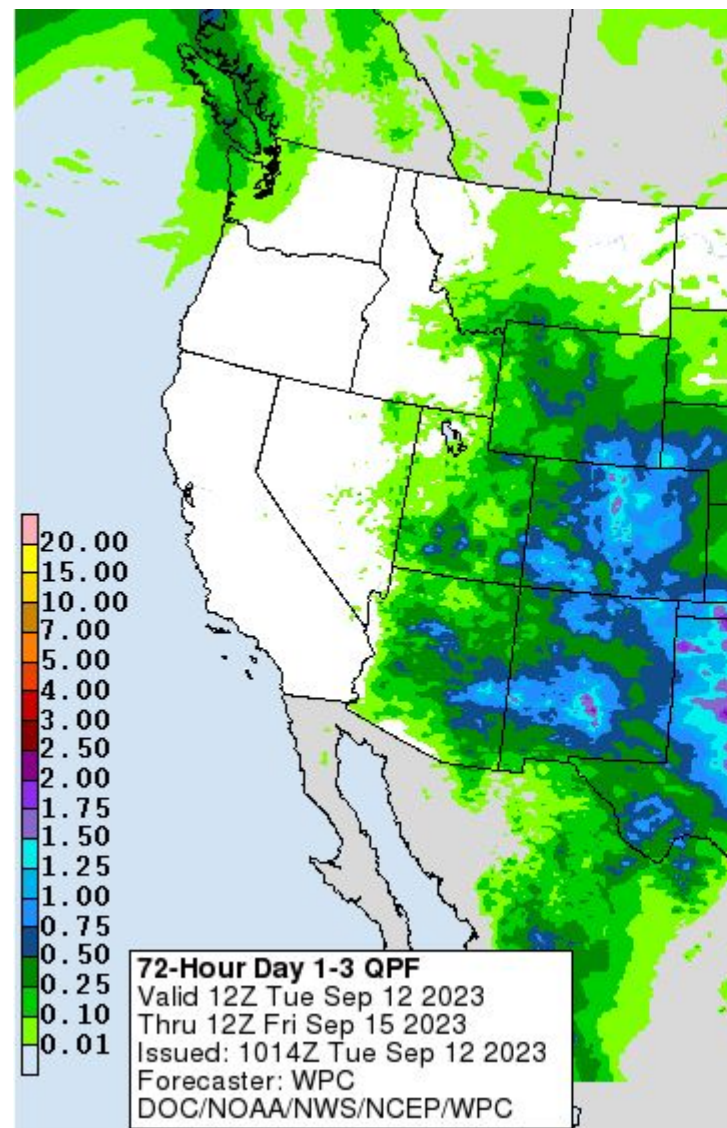


BUREAU OF
RECLAMATION

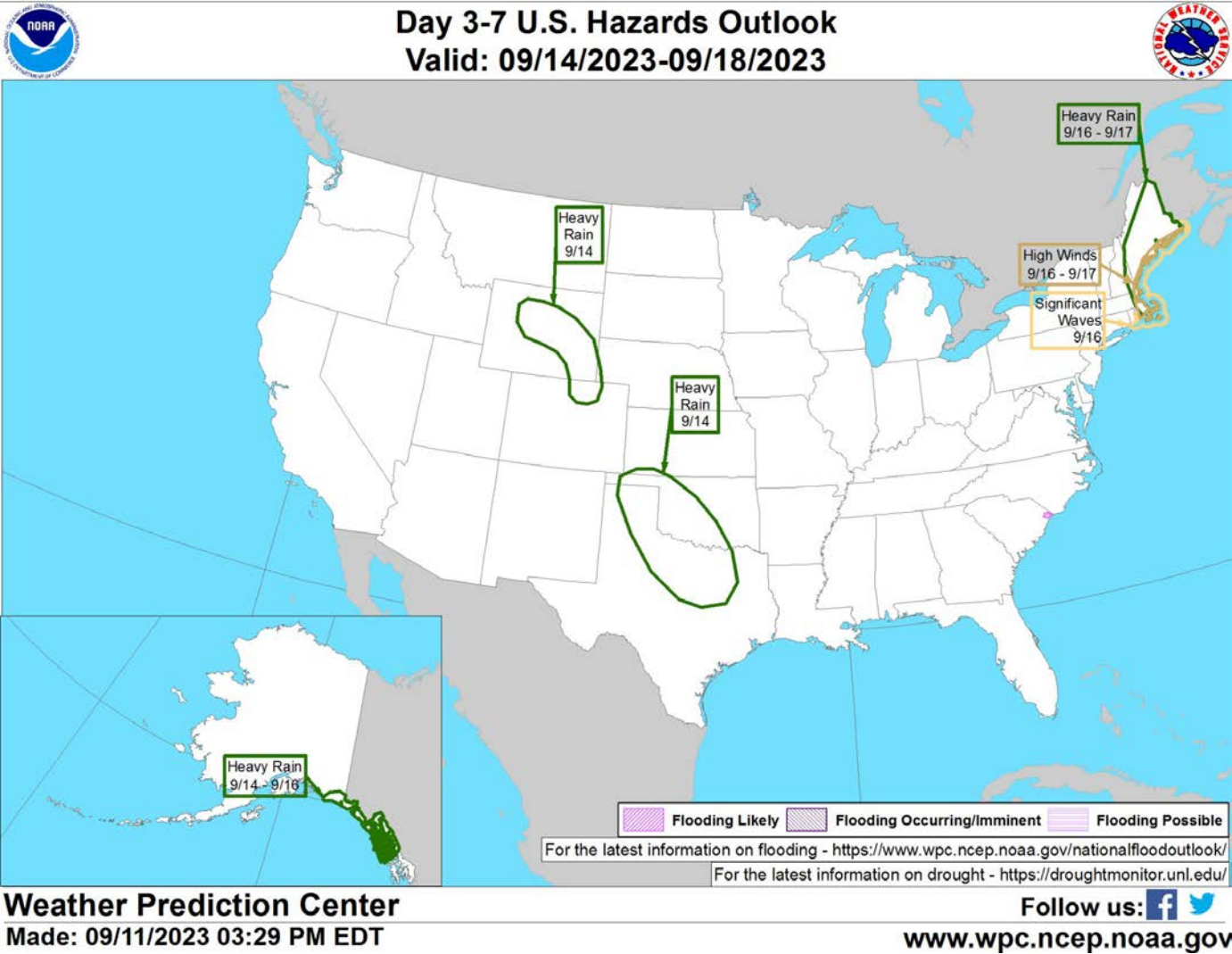
Agency - BOR

Presenter - Gary Henrie

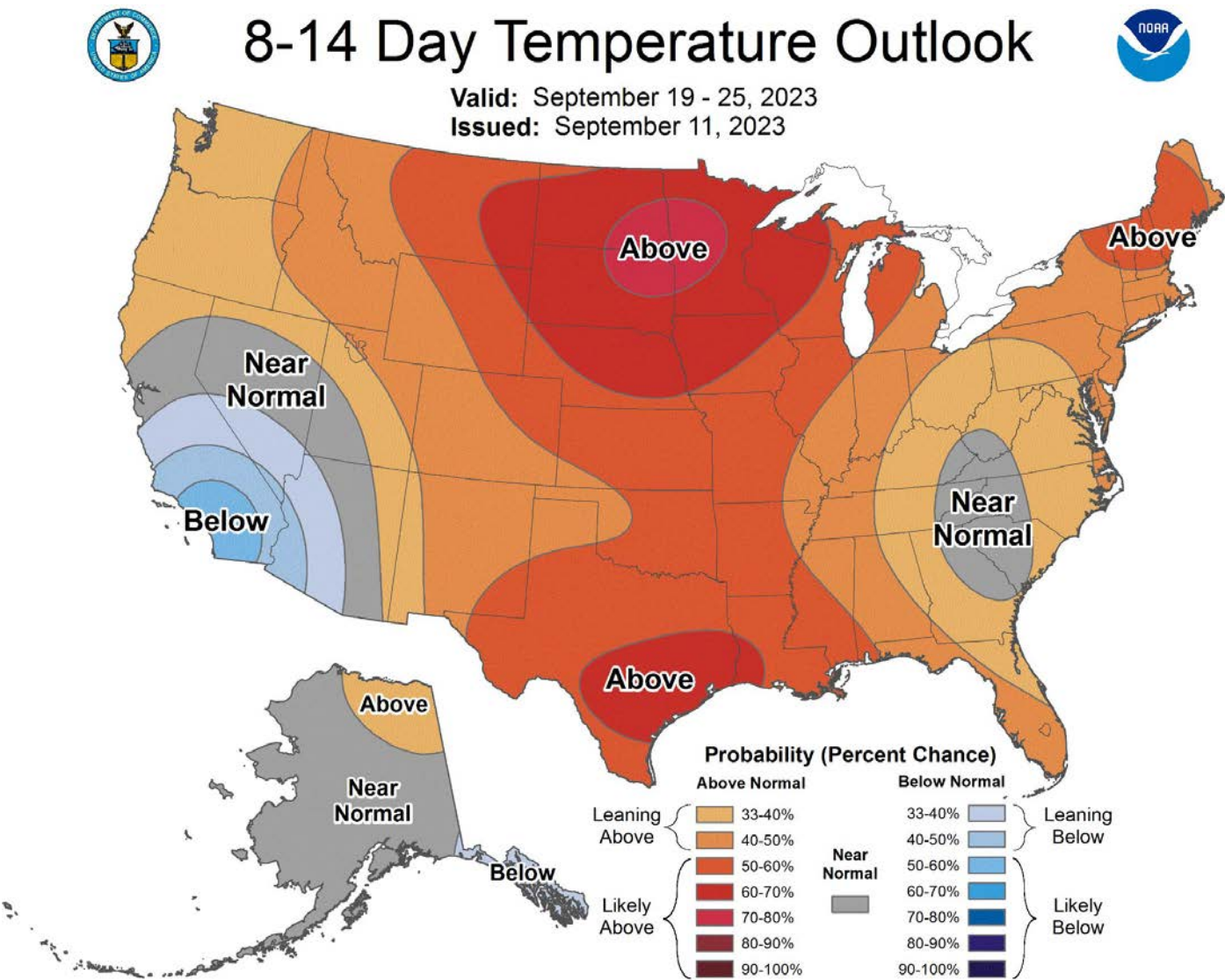
Weather Forecast Office Utah Day 1-7 Outlook



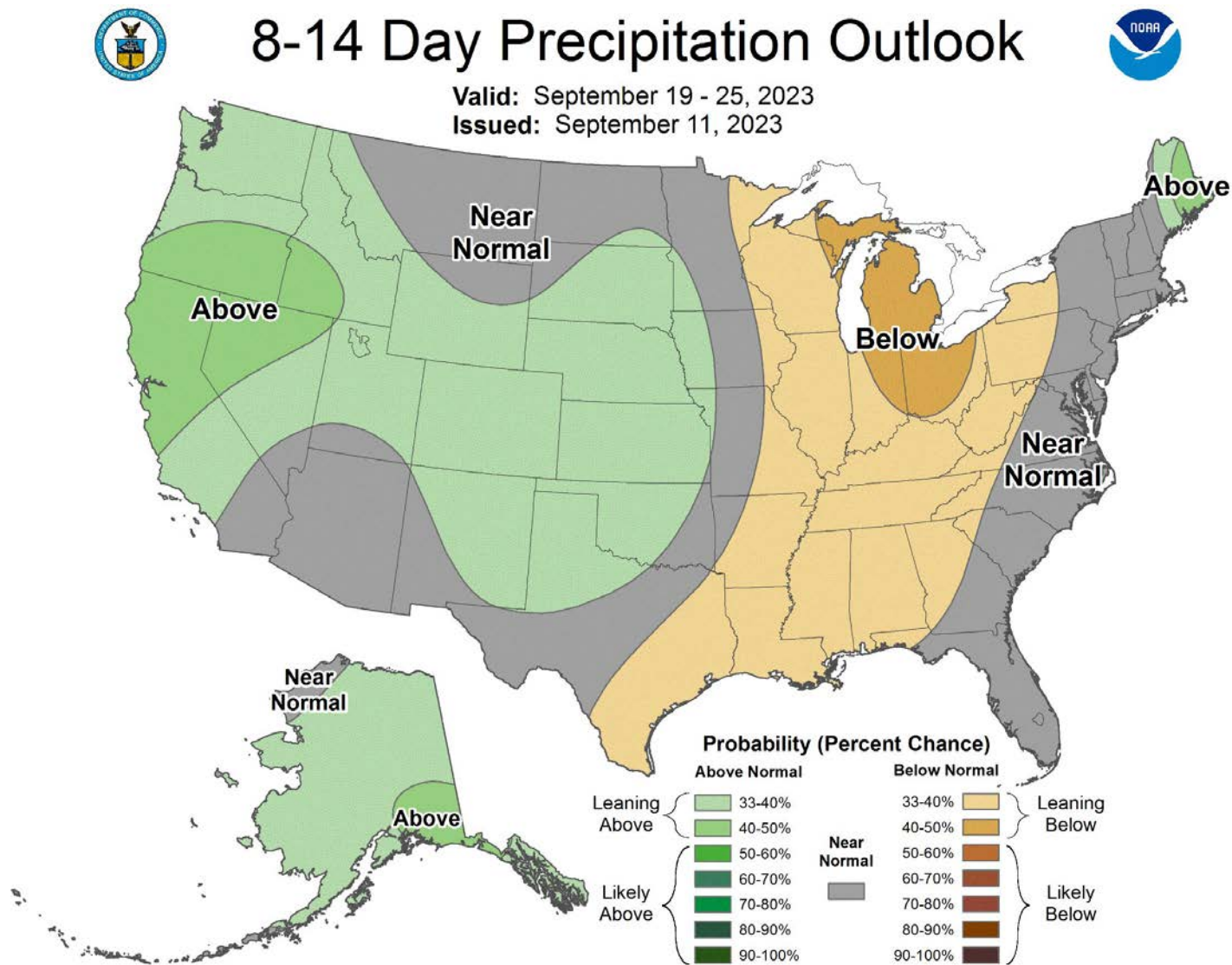
Weather Prediction Center U.S. Day 3-7 Hazards Outlook



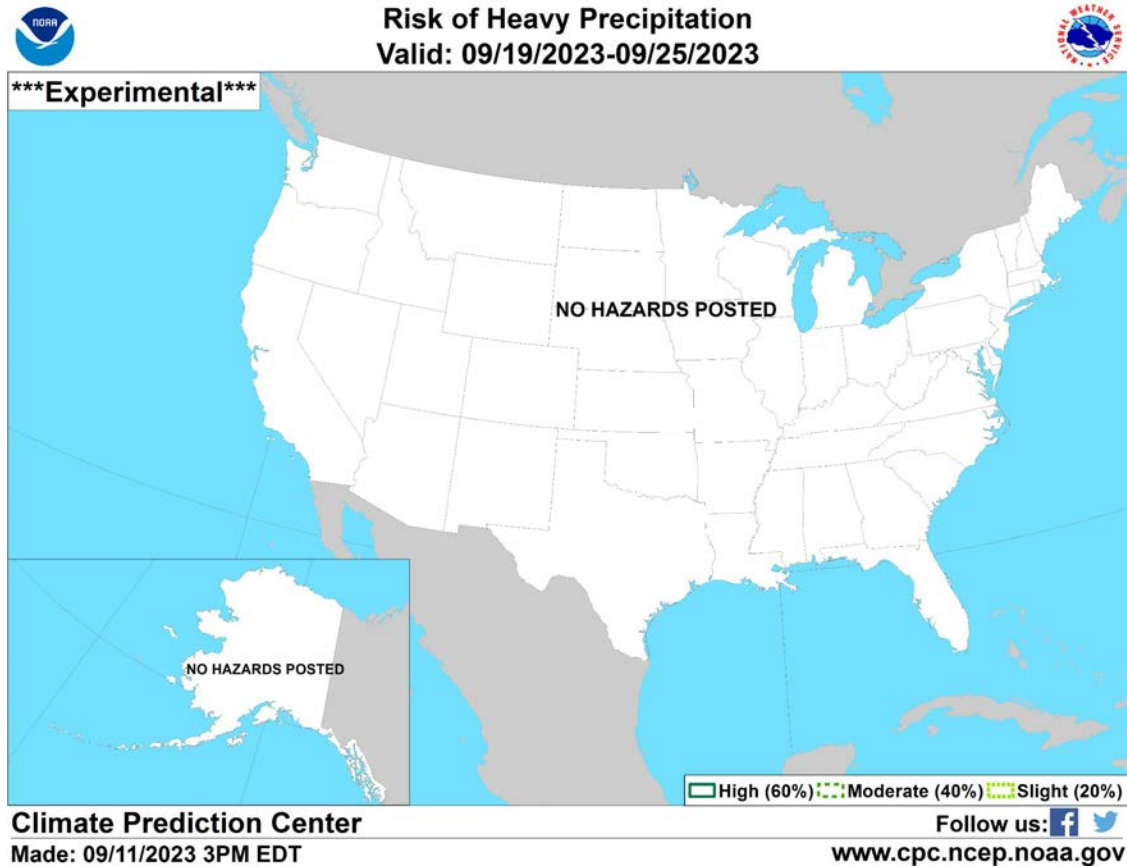
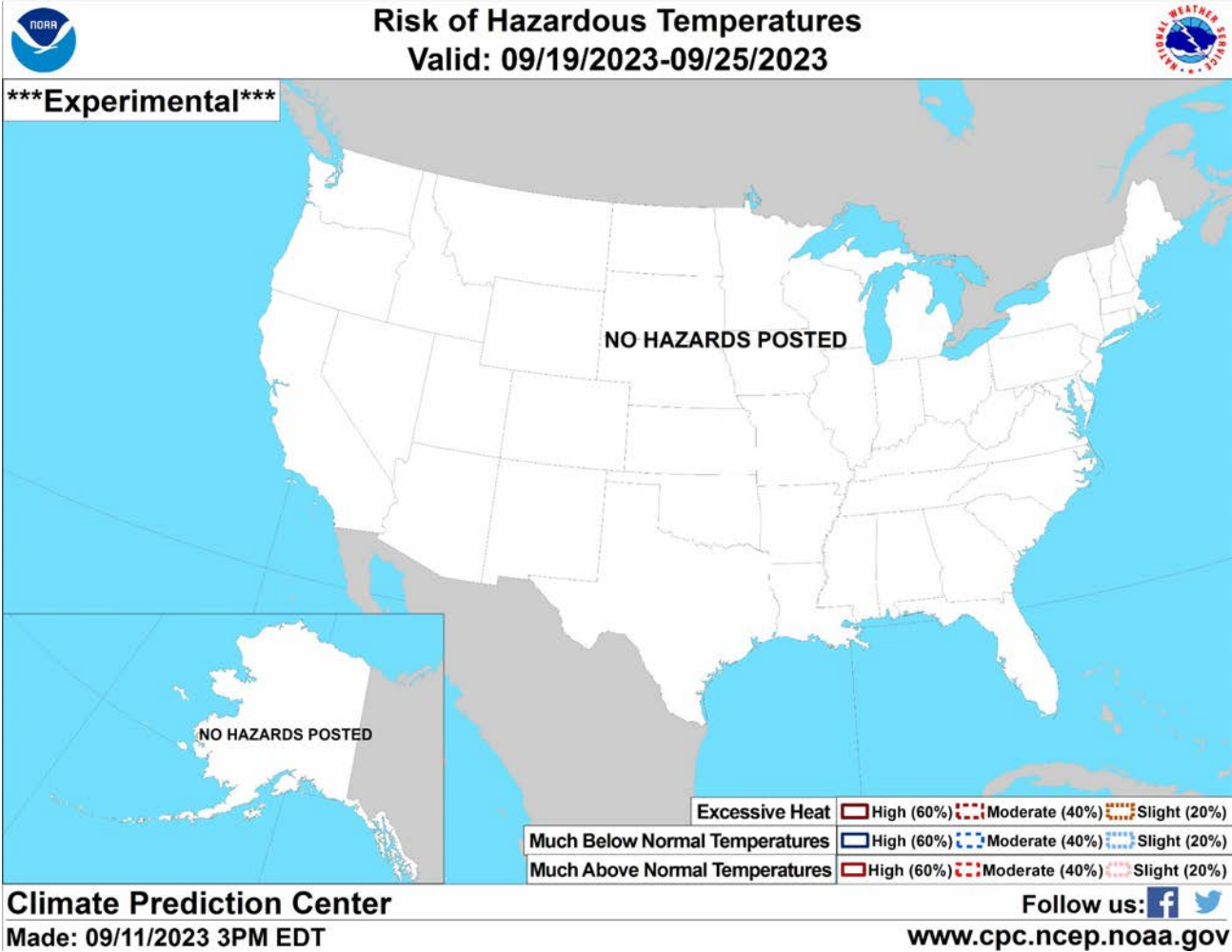
Climate Prediction Center 8 to 14 Day Outlooks - Temperature

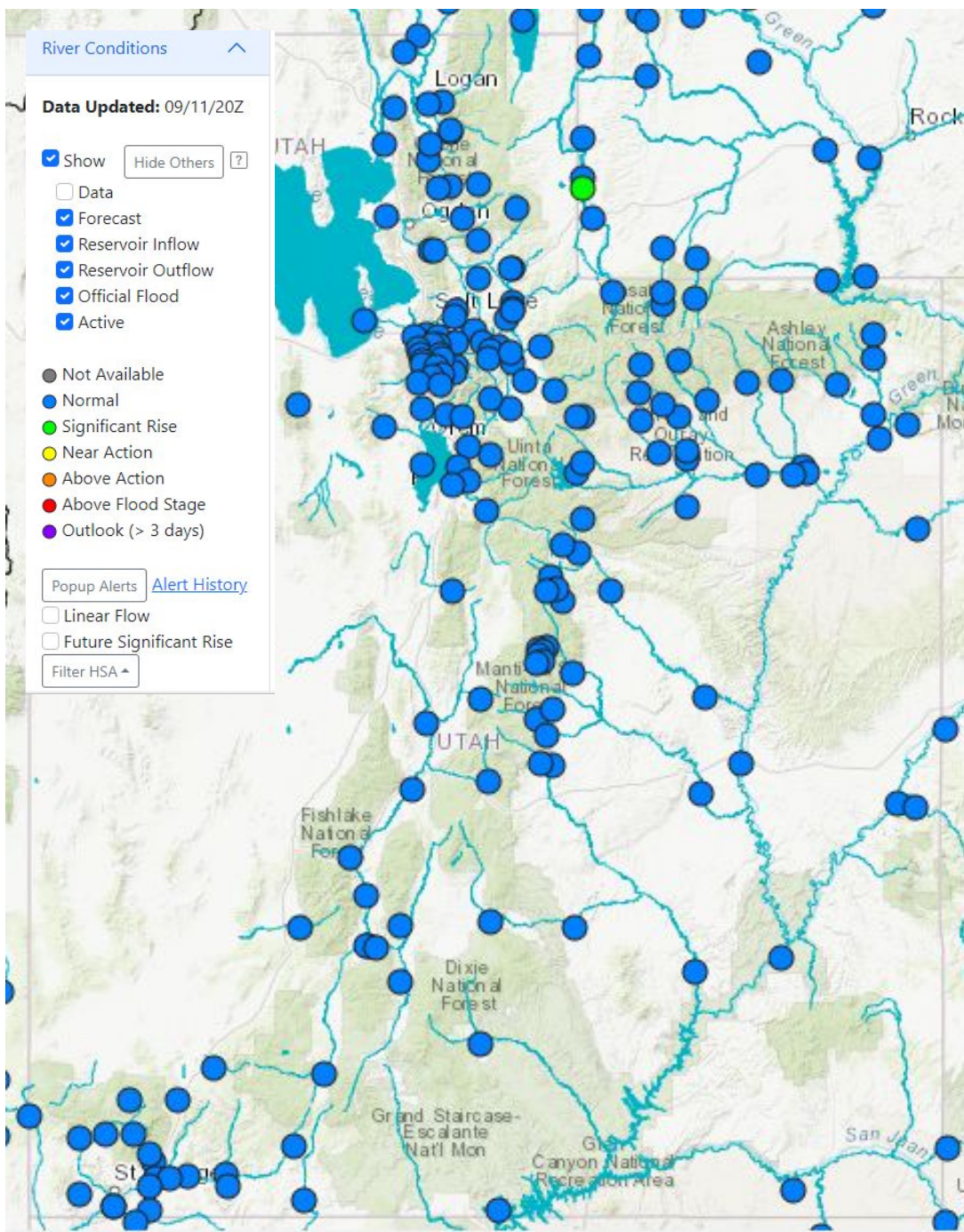


Climate Prediction Center 8 to 14 Day Outlooks - Precipitation



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





Water Supply forecasts for this year have ended, so this is the time of year that we tend to focus on model development and research needs, in addition to our regular 10-day deterministic forecasts that we produce every day.

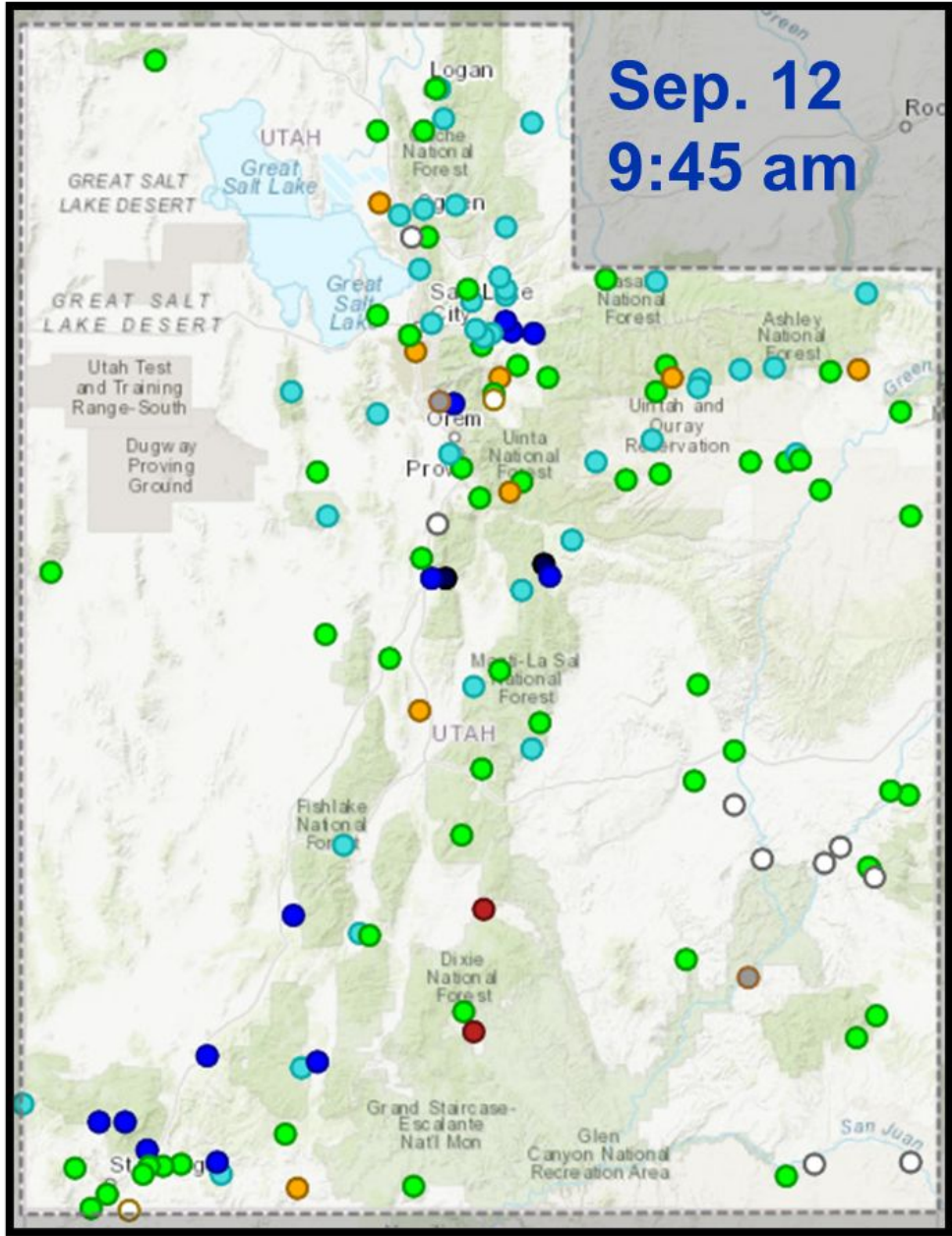
Among the more active areas of focus right now:

- Continued investigation in the use of remotely sensed information, including snowpack monitoring from low-flying aircraft
- Improved flash flood guidance for Weather Forecast Offices
- Continued development of short-term probabilistic forecasts; experimental forecasts are currently available through our website
- Continued collaboration with researchers to improve precipitation and temperature forecast lead time

Our annual Year In Review document was recently published for WY 2022 and is available on our website.

Save the Date for our Stakeholder Engagement Meeting. More details will be forthcoming, but the meeting will take place on November 8 - 9. E-mail paul.miller@noaa.gov to get on the distribution list if you would like more information as it becomes available.

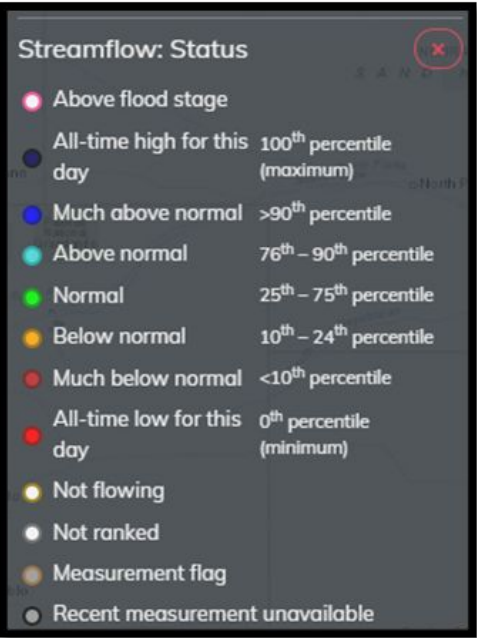
Current Streamflow Conditions



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

Aug. 8 Sep. 12

Day-of-Year Status	% Gages	% Gages
All-time high for this day-of-year	0.7%	1.4%
Much above normal for this day-of-year	5.1% █	9.4% █
Above normal for this day-of-year	24.6% █	27.5% █
Normal for this day-of-year	52.9% █	43.5% █
Below normal for this day-of-year	2.9% █	6.5% █
Much below normal for this day-of-year	2.9% █	2.2% █
All-time low for this day-of-year	0.7%	0.0%
Not ranked - insufficient record	8.0% █	8.0% █
Not ranked - stream not flowing	0.7%	1.4%

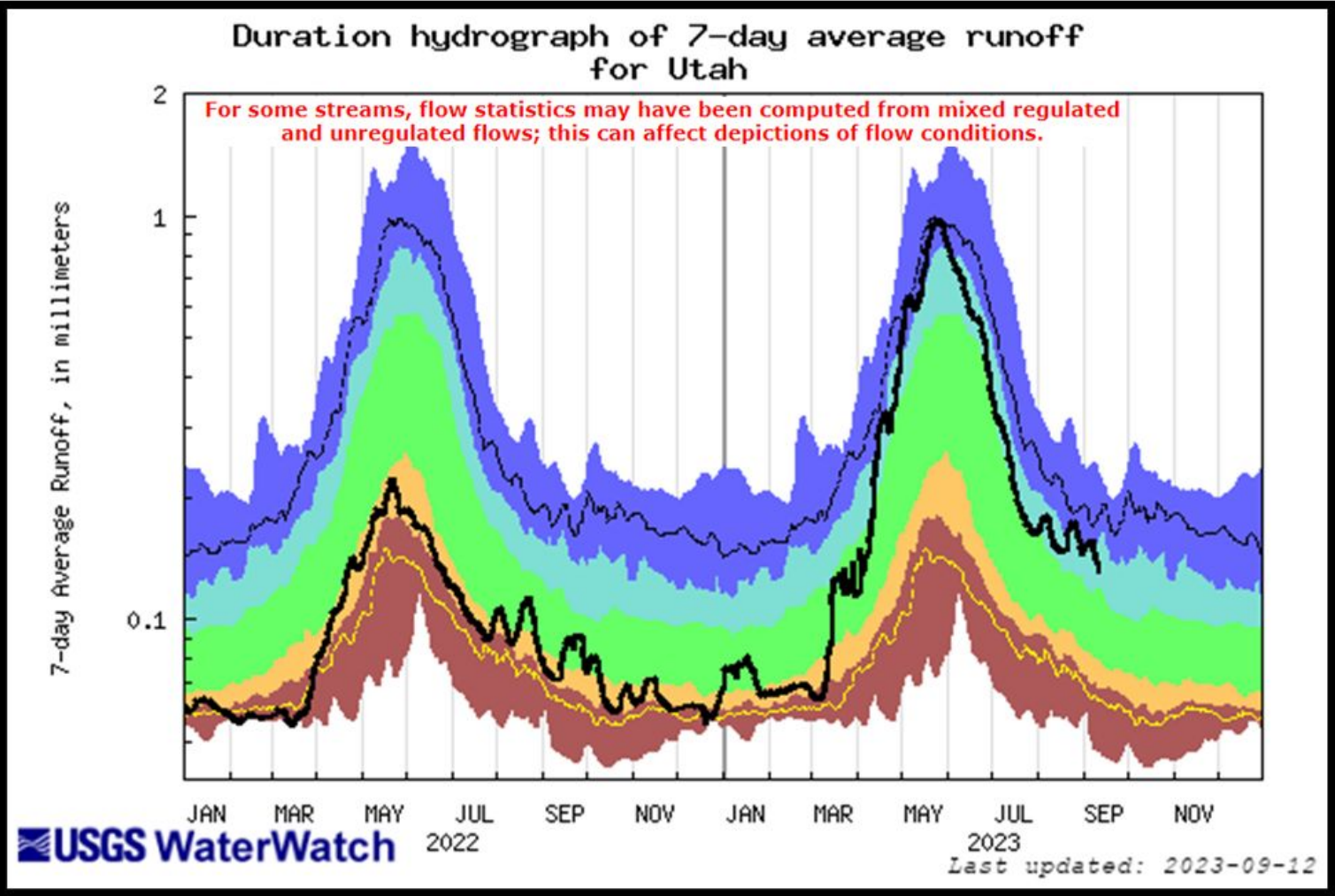


Provisional data, subject to revision

Agency - USGS Utah Water Science Ctr
Presenter - Ryan Rowland



Utah Area-Based Runoff Duration Hydrograph

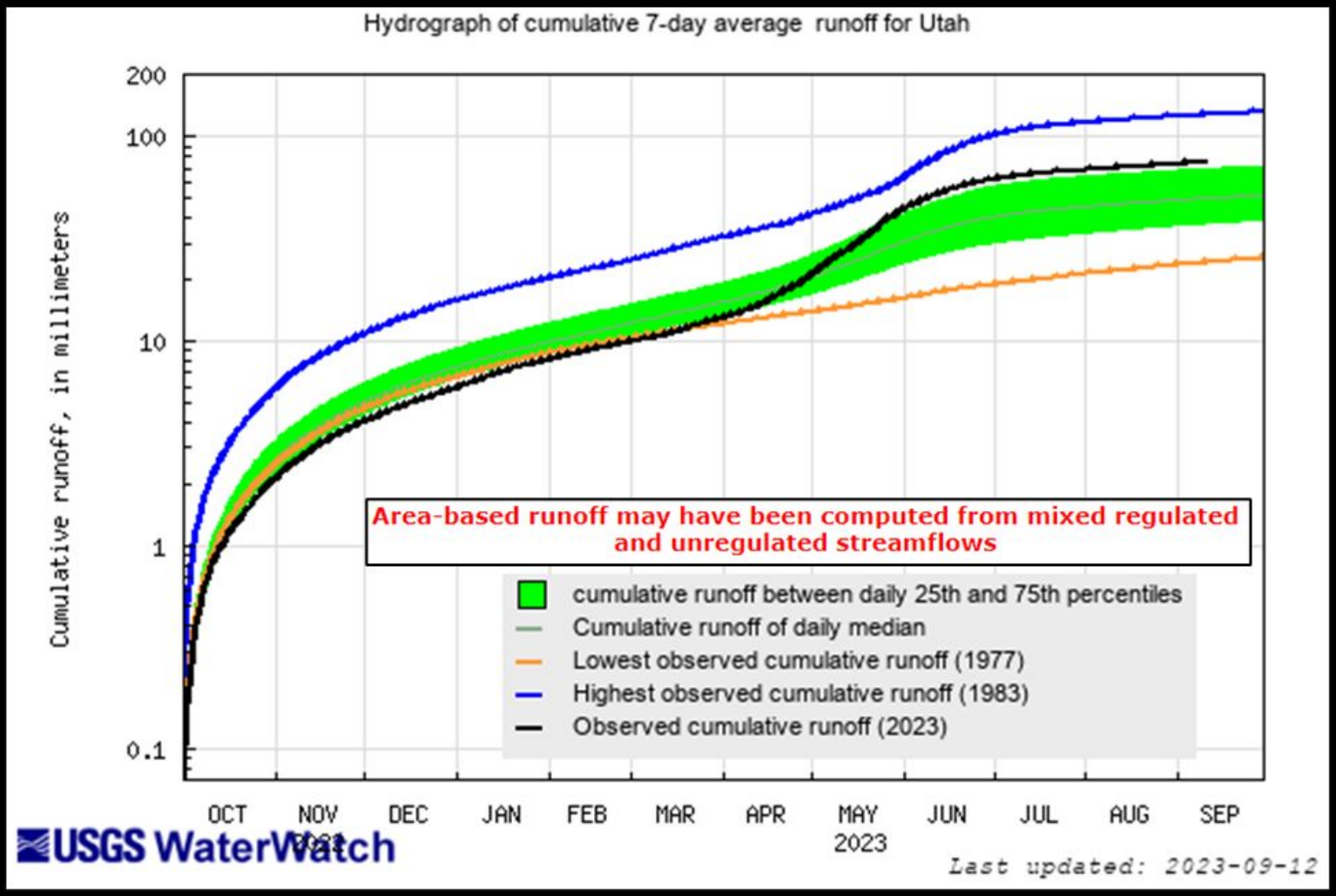


❑ The Runoff Duration Hydrograph is a graphical presentation of area-based runoff (the black line) calculated as a weighted average of HUC 8-runoff, plotted over the long-term statistics of runoff for each day or month of the year for each area.

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

Provisional data, subject to revision

Utah Cumulative Area-Based Runoff Hydrograph



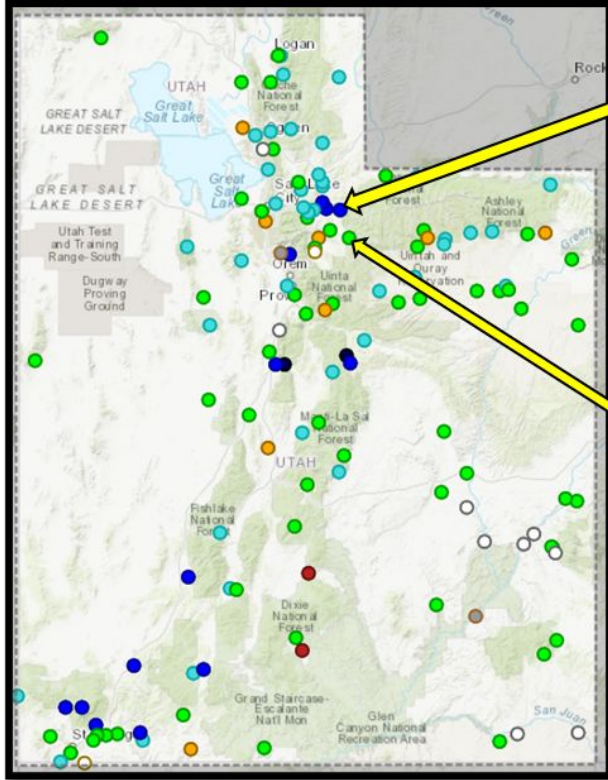
❑ The Cumulative Runoff Duration Hydrograph is a graphical presentation of cumulative daily area-based runoff (the black line), plotted over the cumulative long-term statistics of runoff for each day or month of the year for each area.

❑ Area-based runoff is calculated as a weighted average of HUC8-runoff.

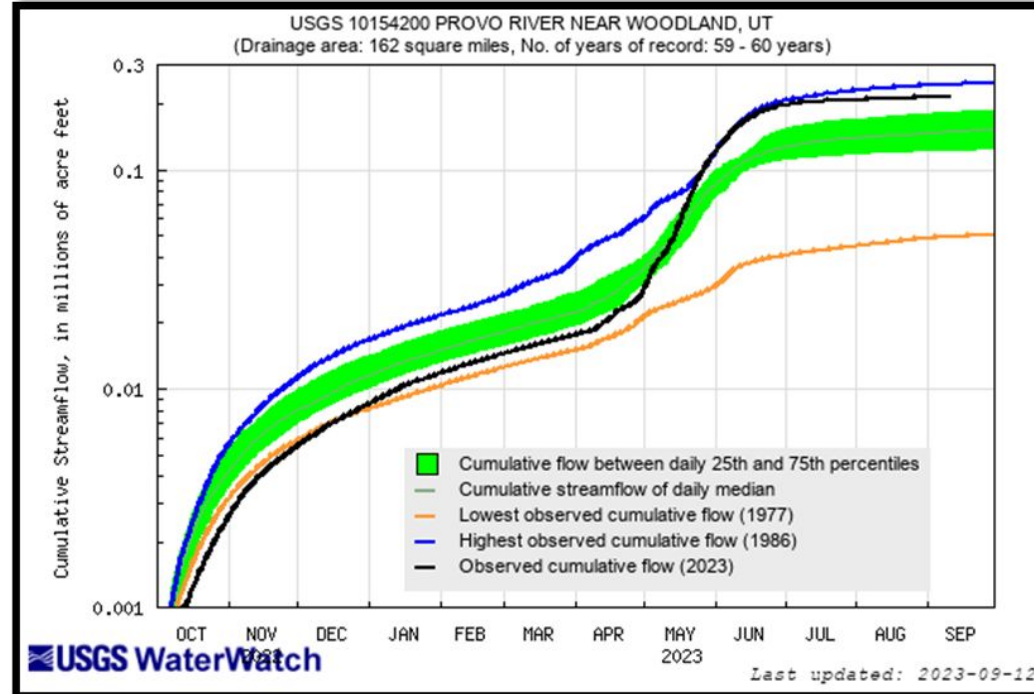
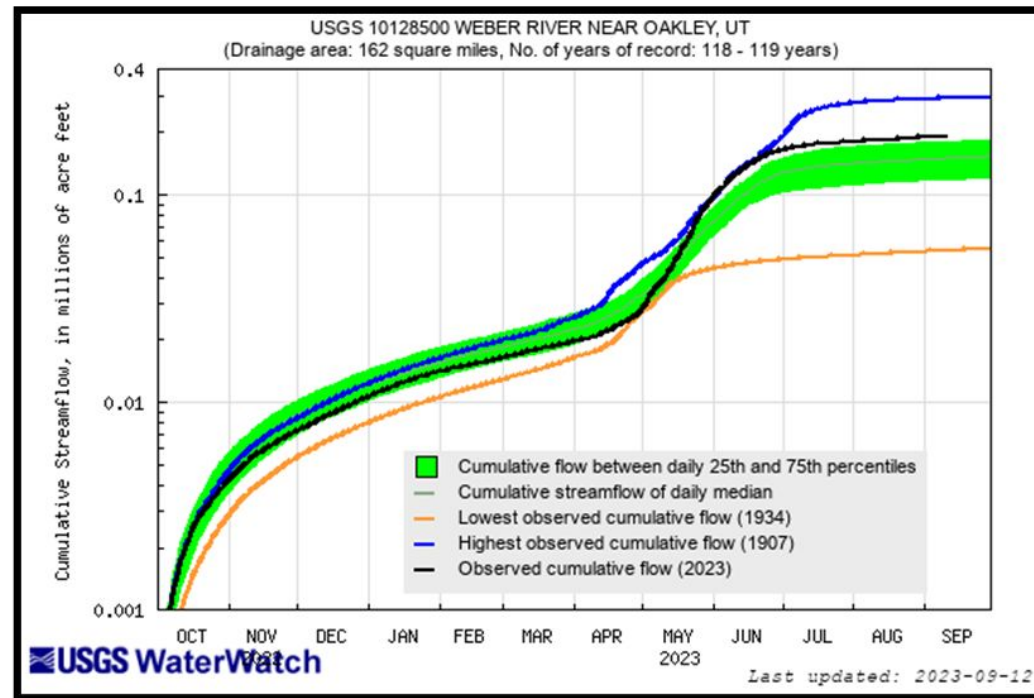
Explanation - Percentile classes						
lowest-10th percentile	5	10-24	25-75	76-90	95	90th percentile-highest
Much below Normal	Below normal	Normal	Above normal	Much above normal		Runoff

Provisional data, subject to revision

Cumulative Streamflow Hydrograph for Selected Gages

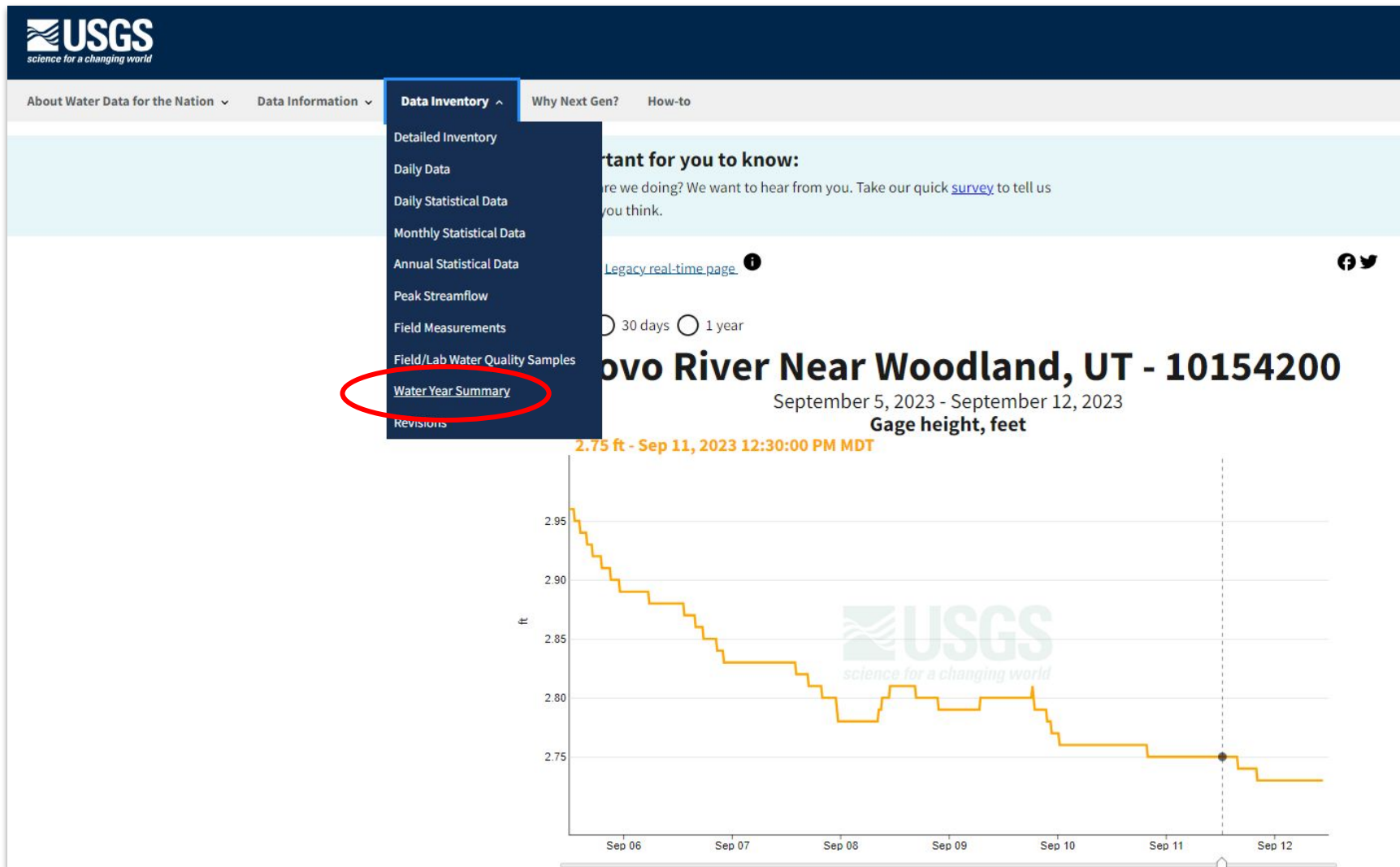


Provisional data, subject to revision



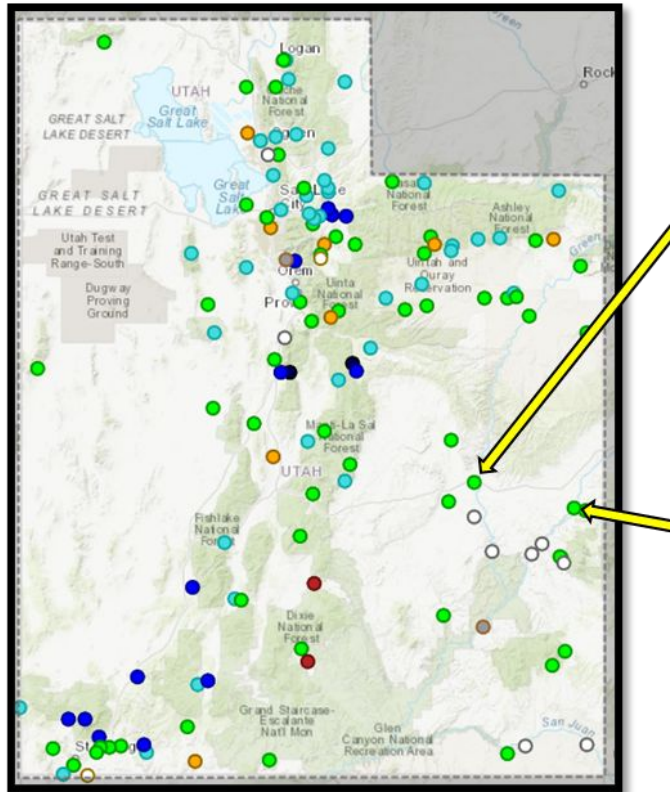
Flows Impacted by transbasin diversion

View the *Water Year Summary* for information regarding regulation at a gage

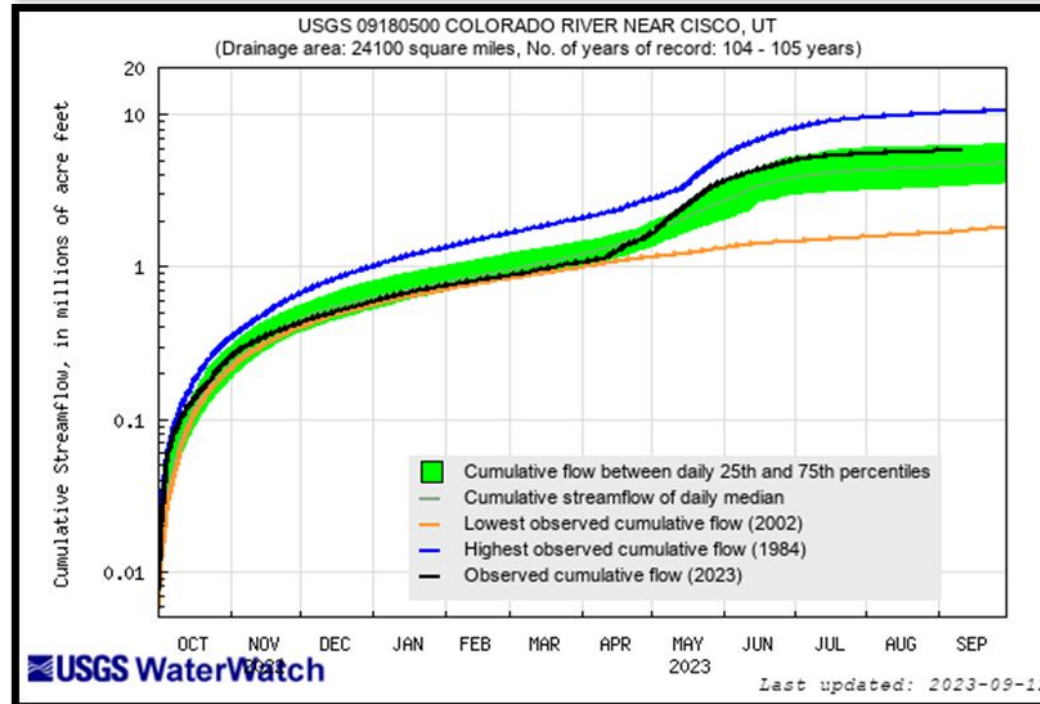
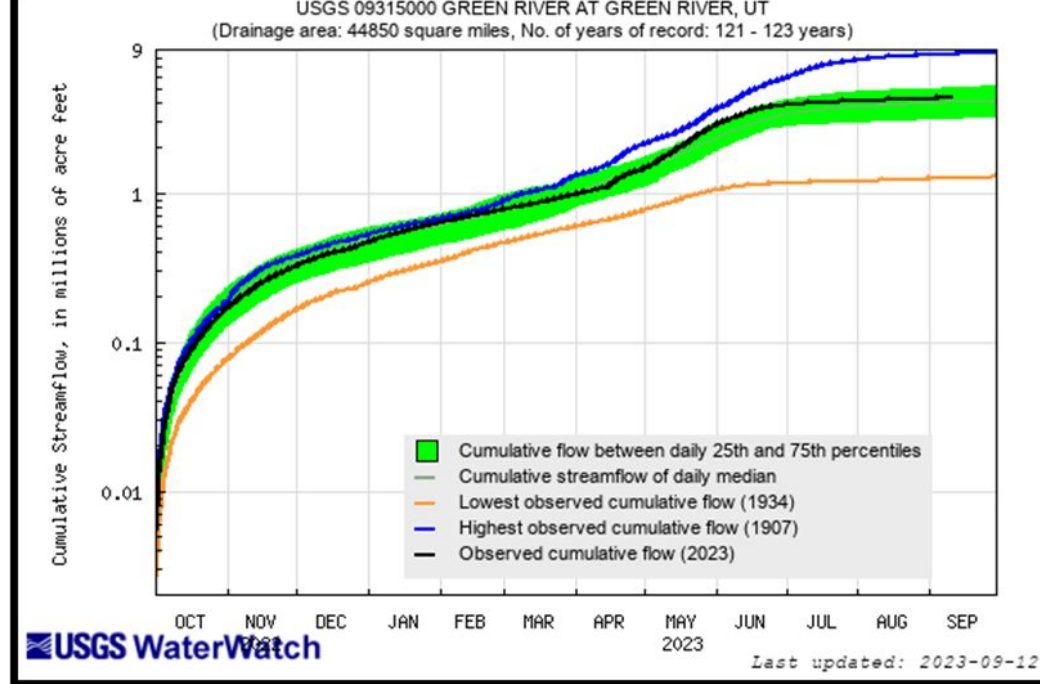


REMARKS - Records include flow of Duchesne Tunnel, transbasin diversion. Flow also affected by some small irrigation diversions above station and by storage in several small reservoirs at headwaters. Information on these diversions is available from the Provo River Water Commissioner's Report. Records are generally good except for estimated daily discharges, which are fair.

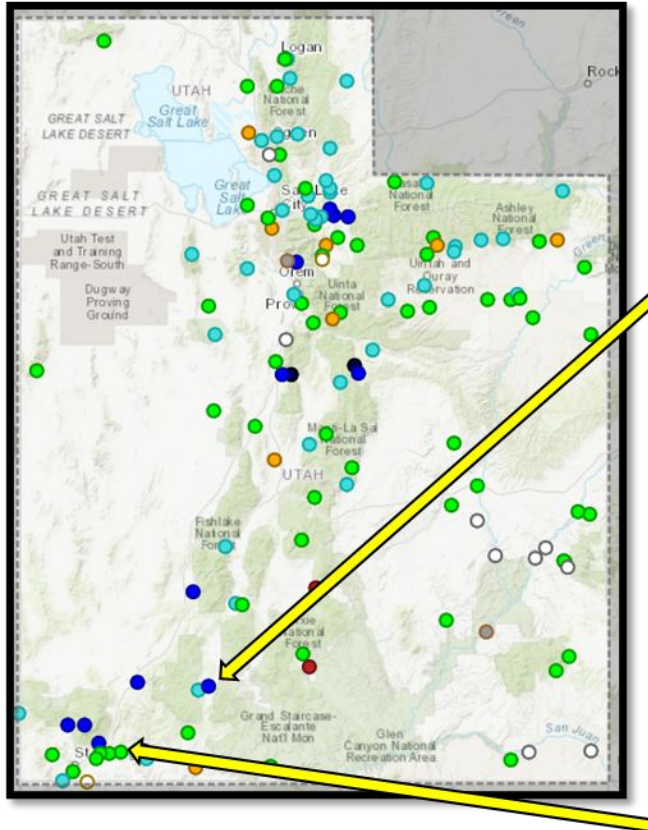
Cumulative Streamflow Hydrograph for Selected Gages



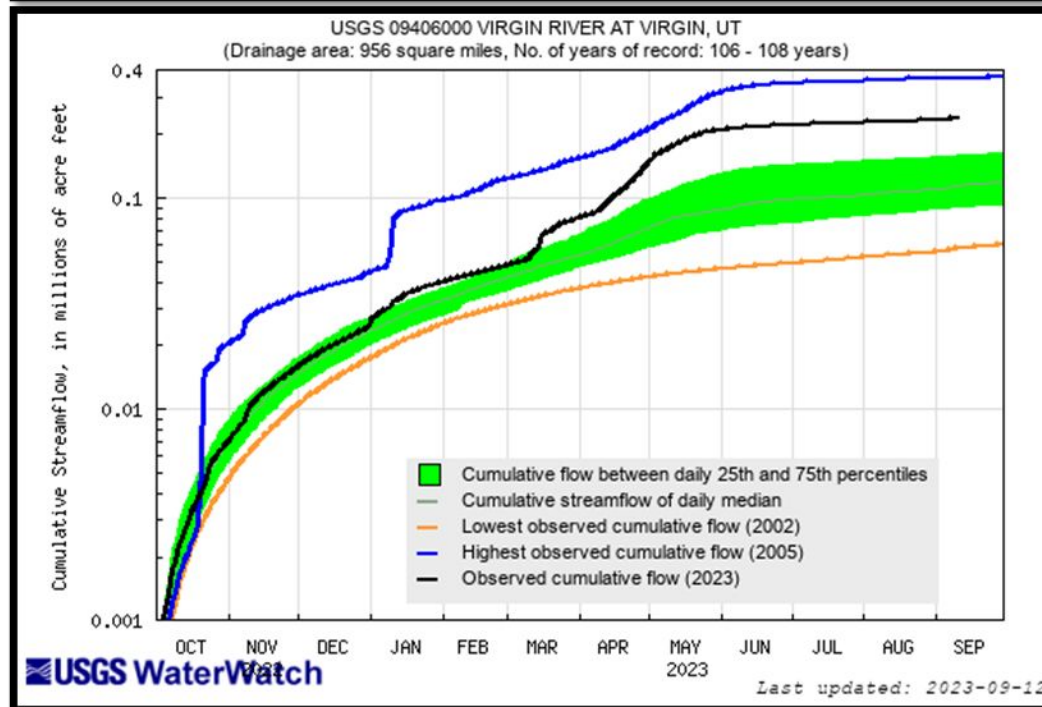
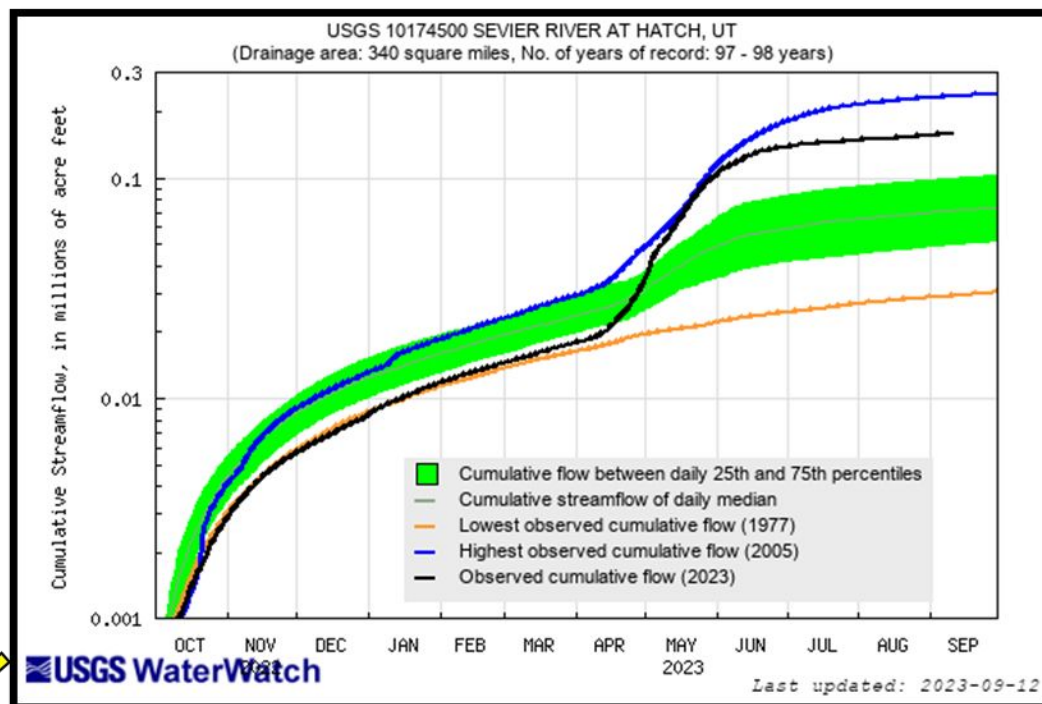
Provisional data, subject to revision



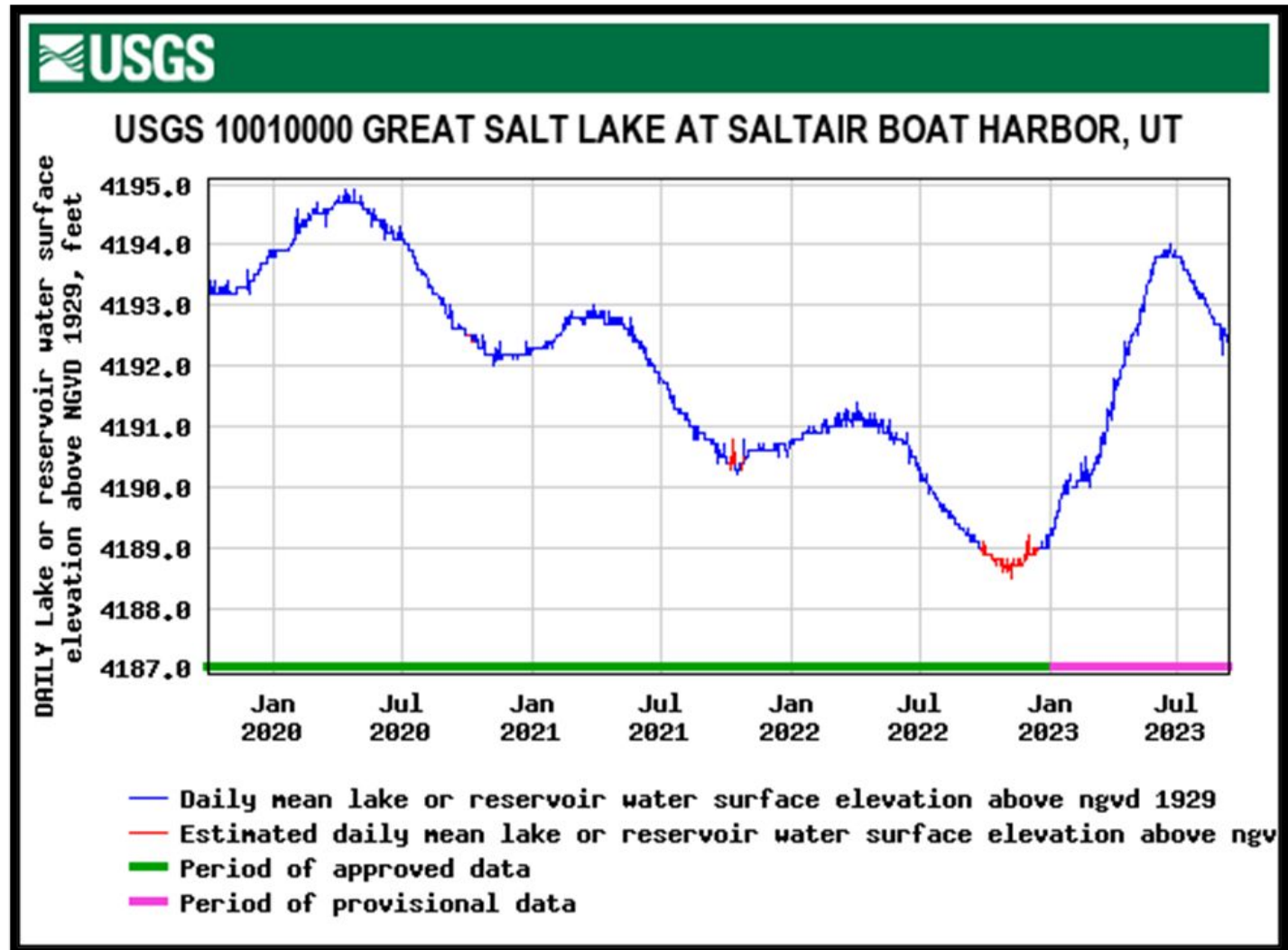
Cumulative Streamflow Hydrograph for Selected Gages



Provisional data, subject to revision



Great Salt Lake Water Surface Elevation – South Arm



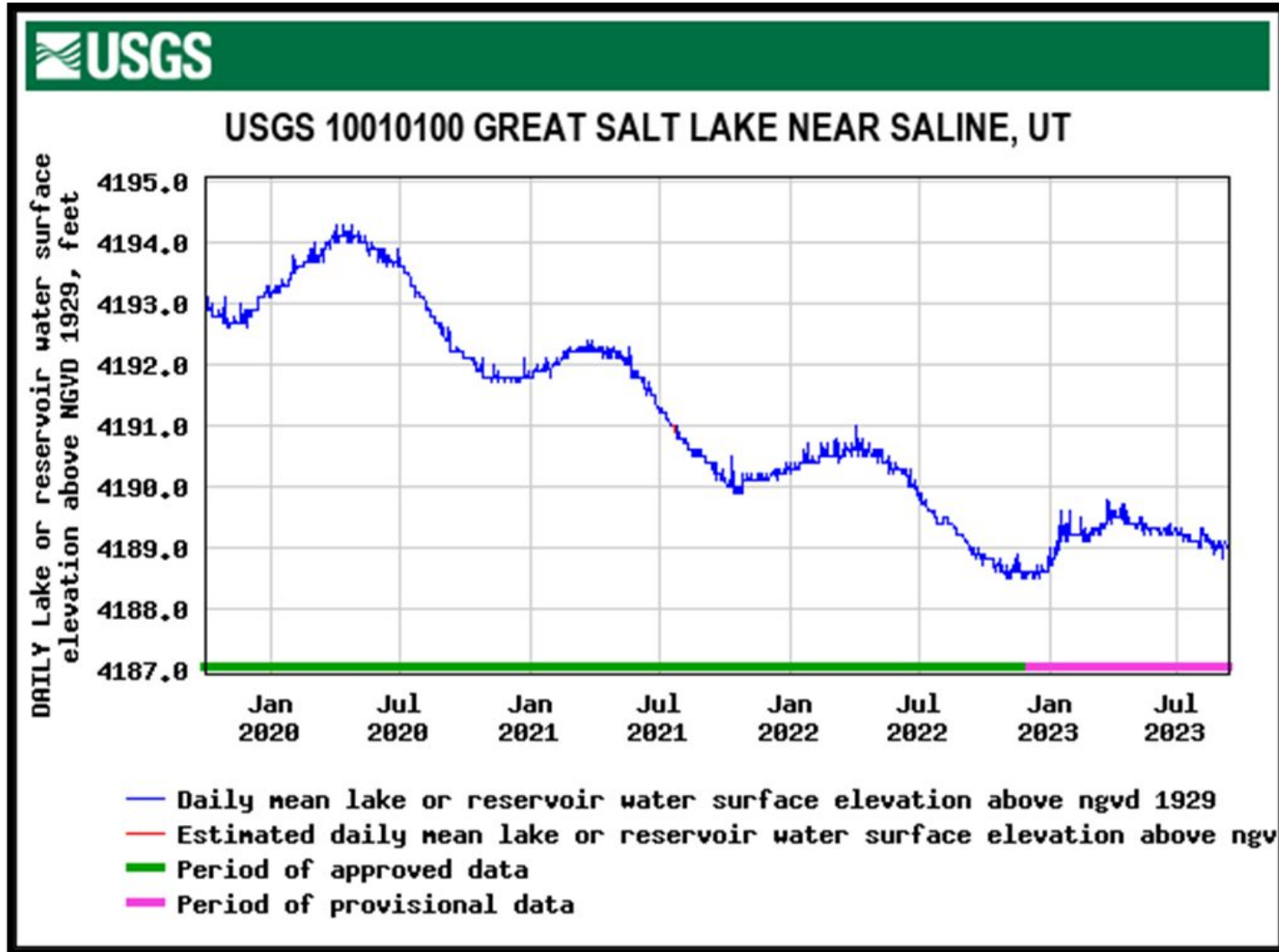
□ Daily value
9/11/2023 =
4,192.4'

□ Daily value
8/7/2023 =
4,193.1'

□ Peaked at
4,194.0' on 6/19
and 6/20/2023

□ Berm at
causeway
breach raised to
4,192' 2/9/2023

Great Salt Lake Water Surface Elevation – North Arm



❑ Daily value
9/11/2023 =
4,189.1'

❑ Daily value
8/7/2023 =
4,189.2'

❑ Peaked at
4,189.8' on
3/24/2023

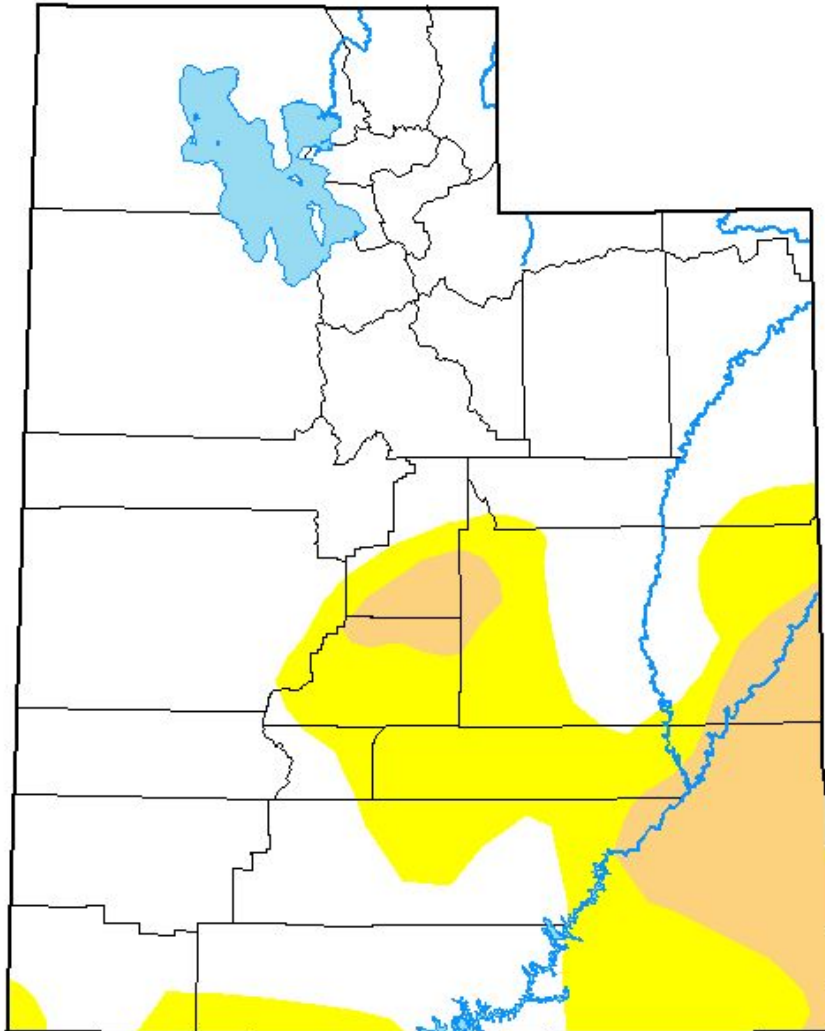
U.S. Drought Monitor

Utah







September 5, 2023

(Released Thursday, Sep. 7, 2023)

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:

Richard Tinker
CPC/NOAA/NWS/NCEP



droughtmonitor.unl.edu

To report on conditions between meetings:

Submit a report on CMOR drought website

Email Lhaskell@utah.gov

email drought@utah.gov