



Utah Water Assessment & Conditions Monitoring (Drought Webinar)

The meeting will begin shortly



Thank you to our contributors





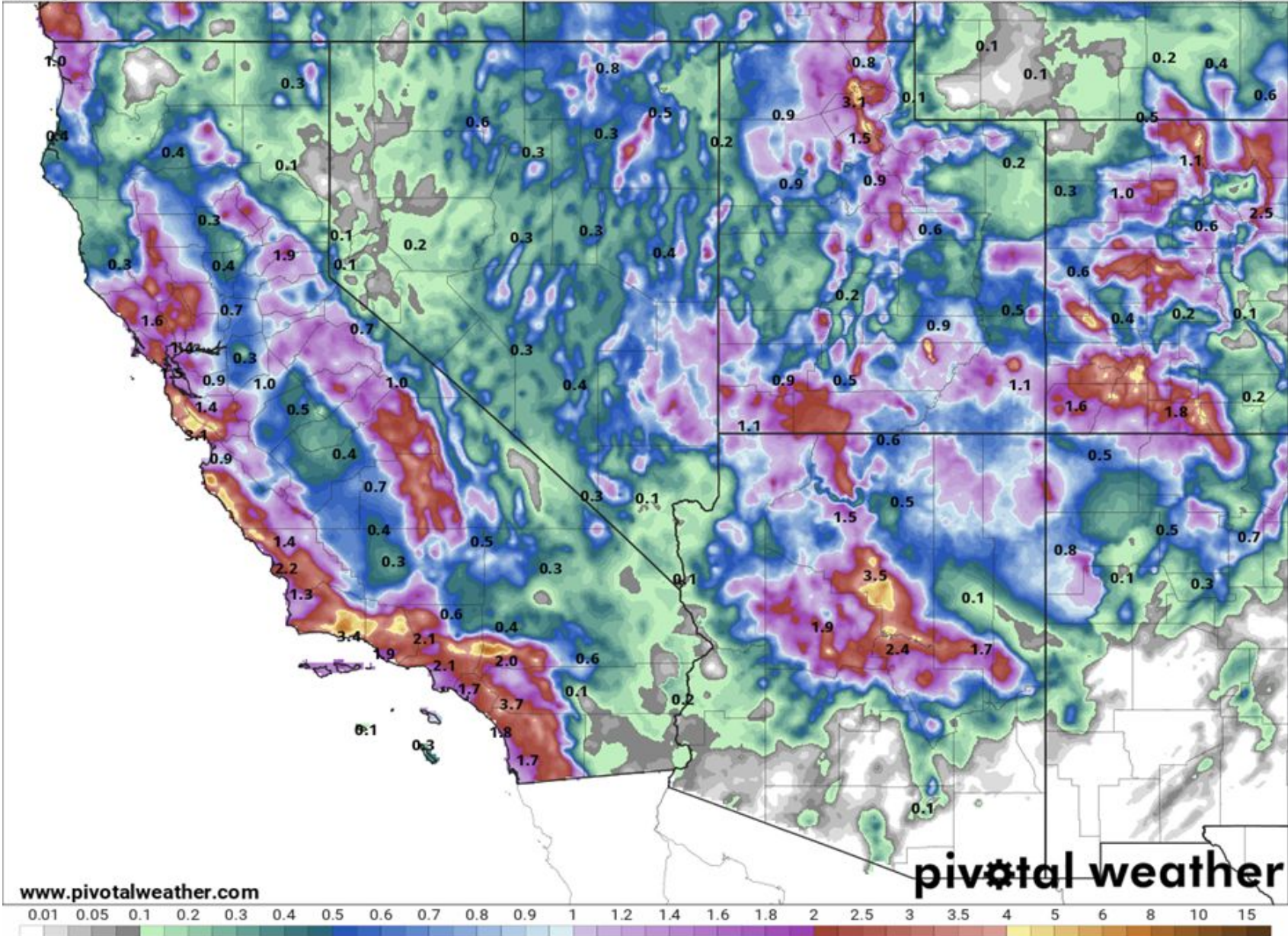
Utah Water Assessment & Conditions Monitoring Webinar

March 28, 2023

Precipitation 7 day history (Percent of Average)

168-Hour Stage IV Precipitation Analysis (in)
Ending Monday, Mar. 27, 2023 at 5 a.m. PDT

Init: Mon 2023-03-27 12z NCEP Stage IV

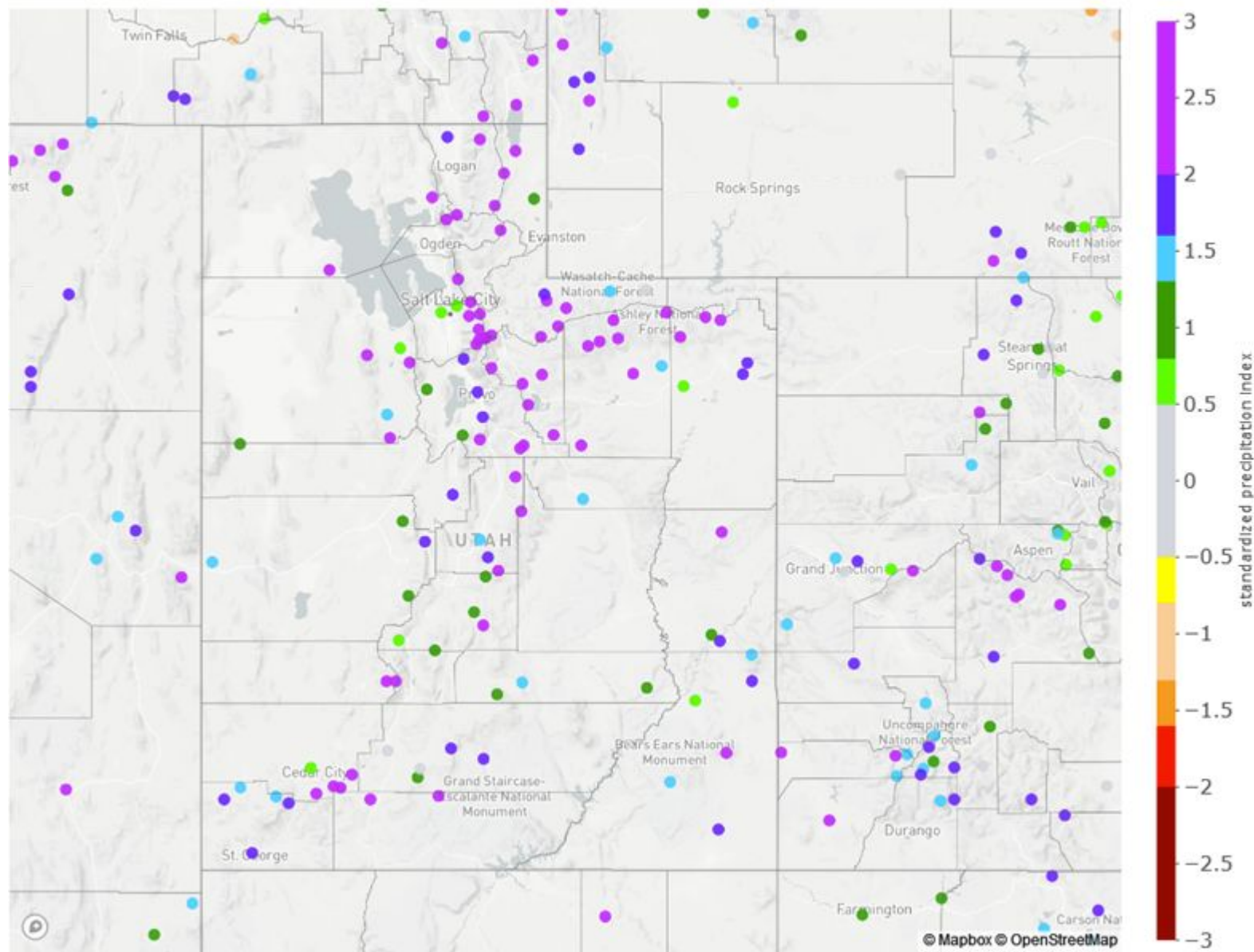


Agency - Utah Climate Center
Presenter - Jon Meyer

www.pivotalweather.com

30-day SPI

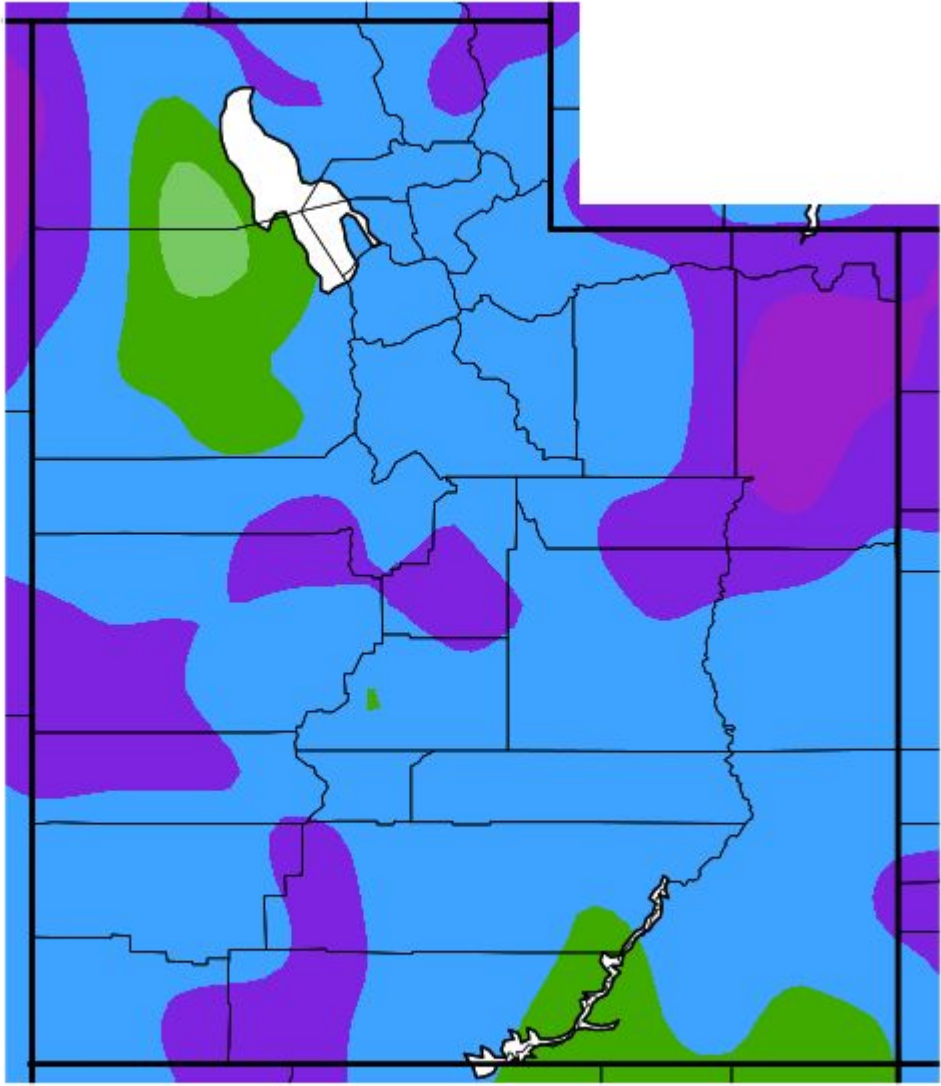
30-day Standardized Precipitation Index: 2023/02/25 - 2023/03/26



Agency - Utah Climate Center
Presenter - Jon Meyer

Max Temp 30-day history (Anomaly)

Av. Max. Temperature dep from Ave (deg F)
2/26/2023 – 3/27/2023

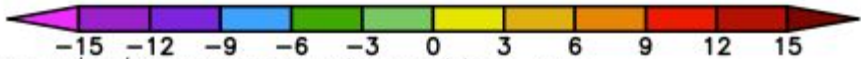
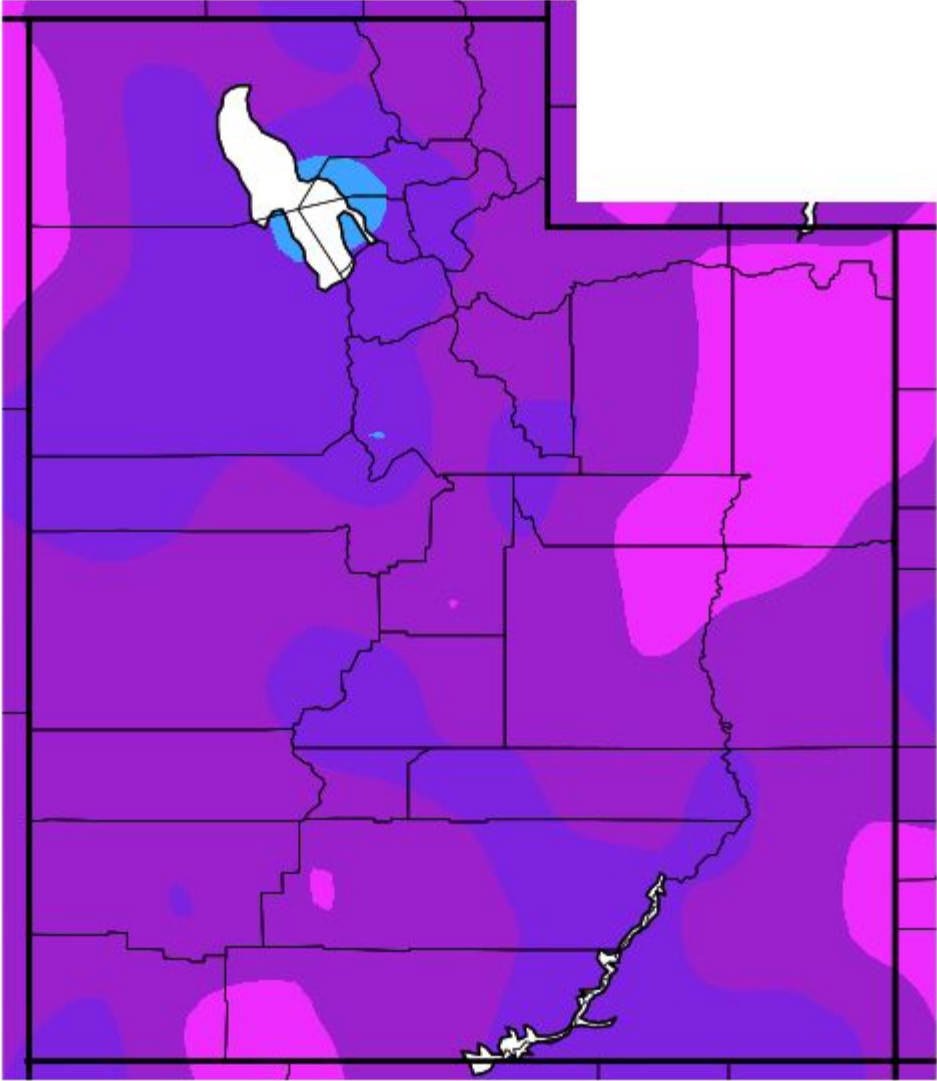


Agency - Utah Climate Center
Presenter - Jon Meyer

Generated 3/28/2023 at WRCC using provisional data.
NOAA Regional Climate Centers

Max Temp 14-day history (Anomaly)

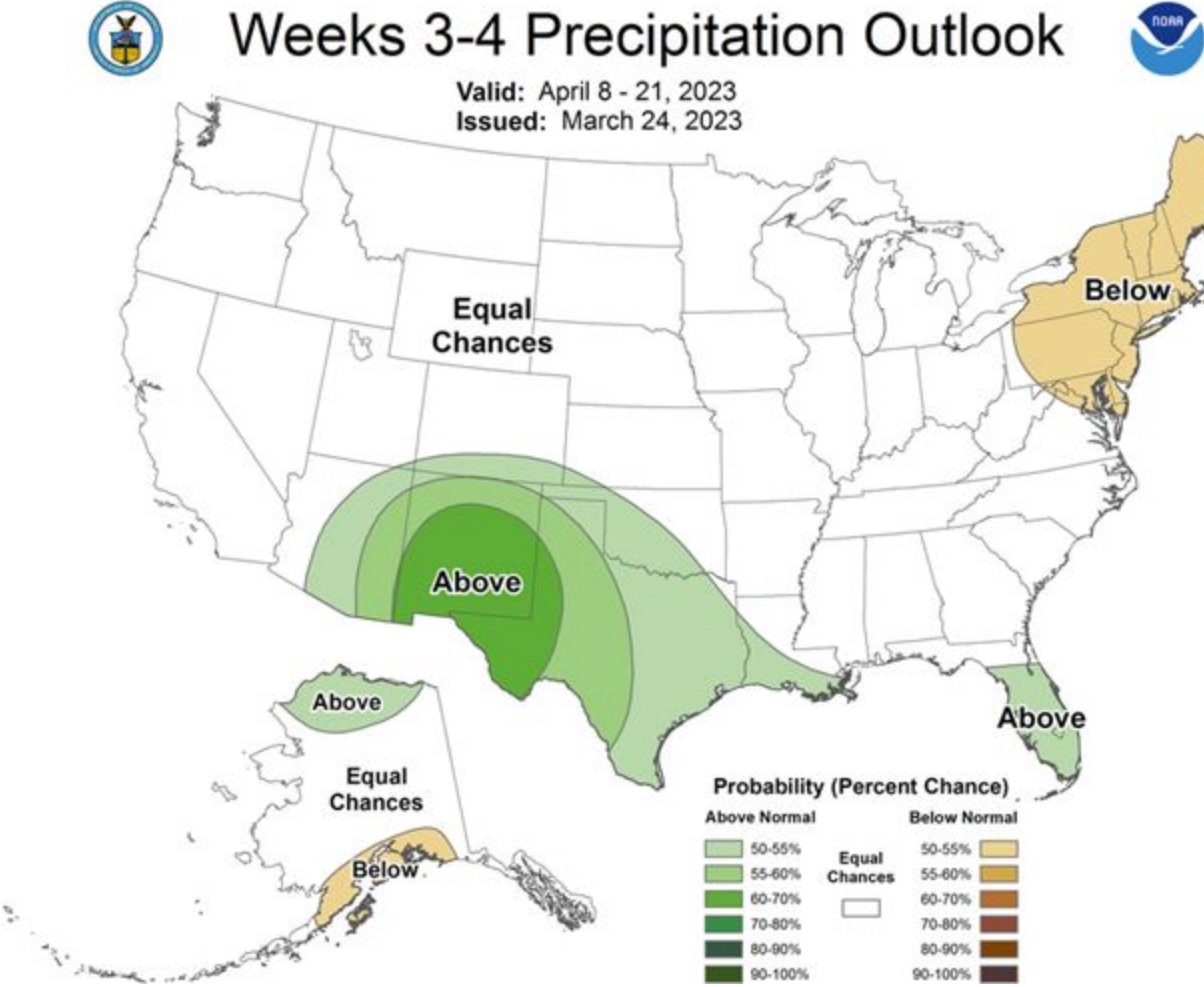
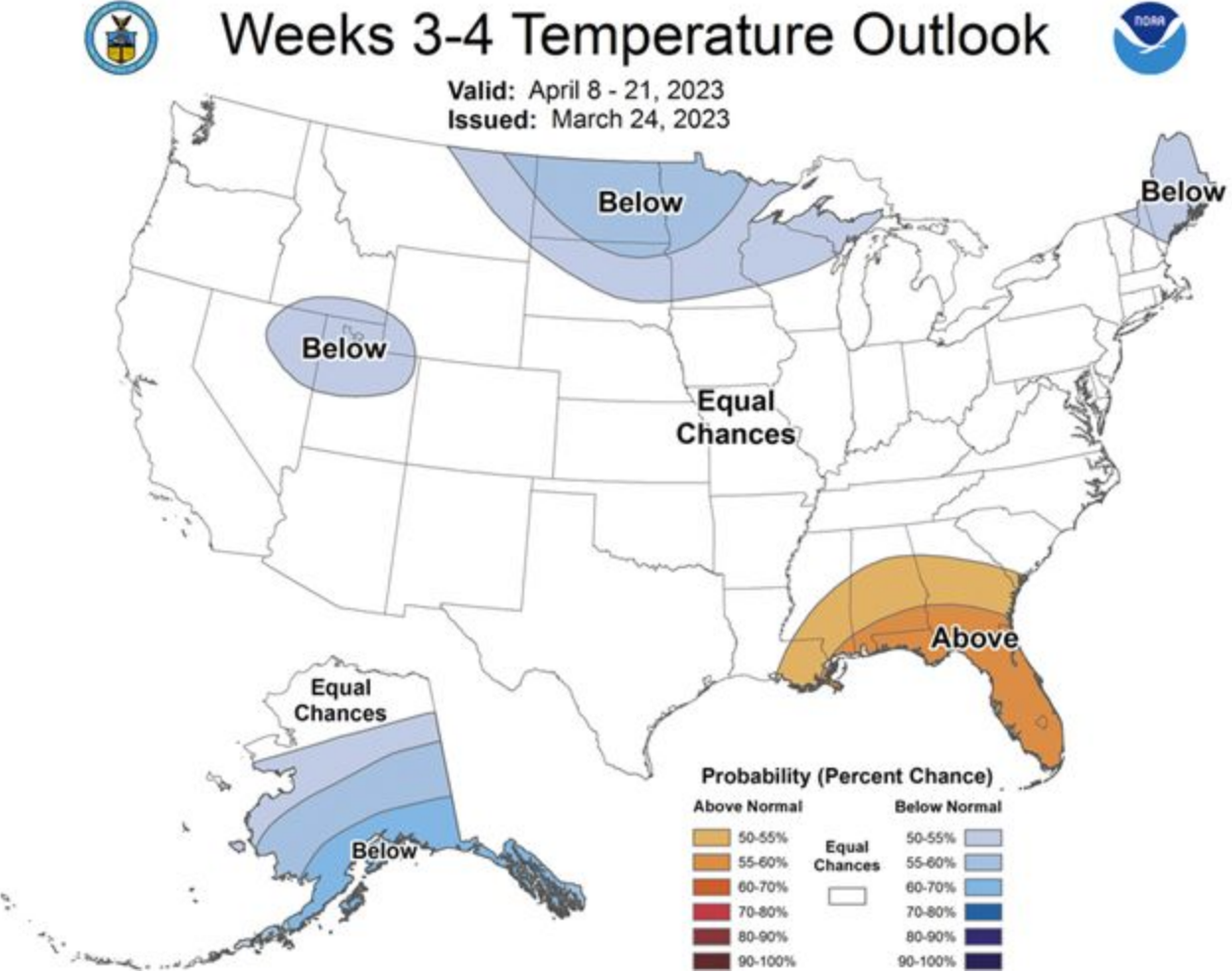
Av. Max. Temperature dep from Ave (deg F)
3/14/2023 – 3/27/2023



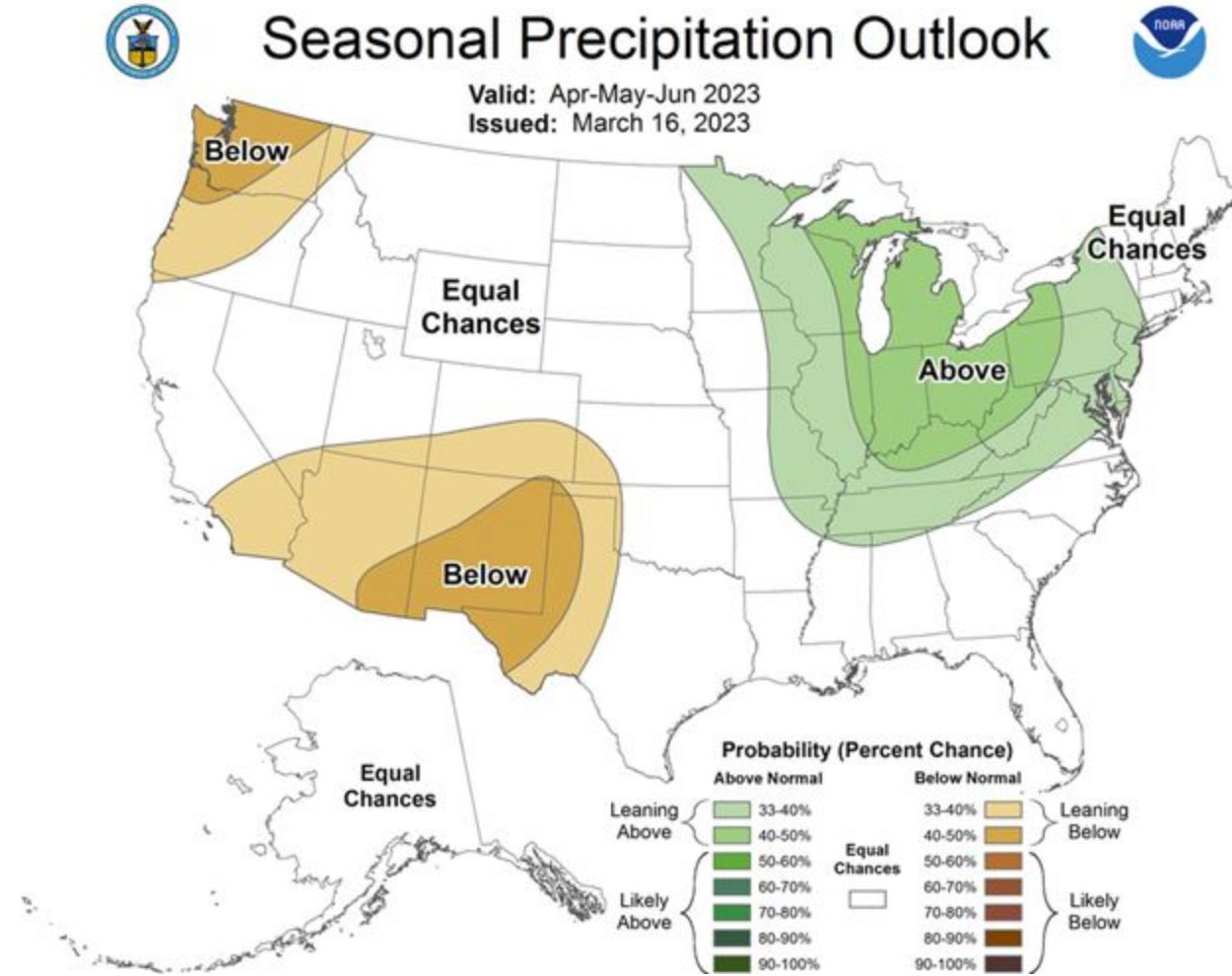
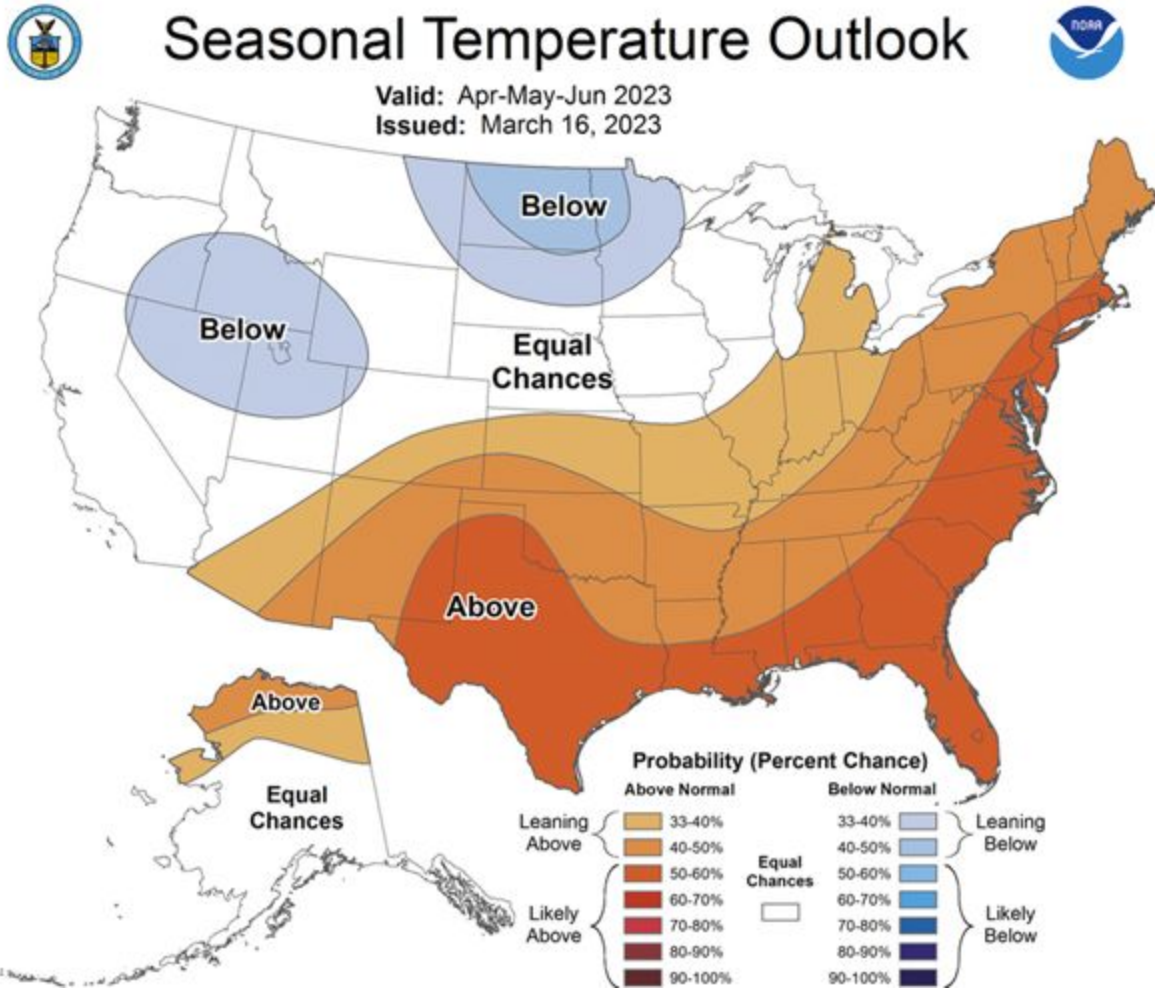
Generated 3/28/2023 at WRCC using provisional data.
NOAA Regional Climate Centers

Agency - Utah Climate Center
Presenter - Jon Meyer

Sub-seasonal (Week 3-4) outlook



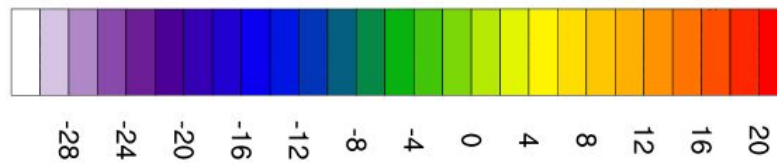
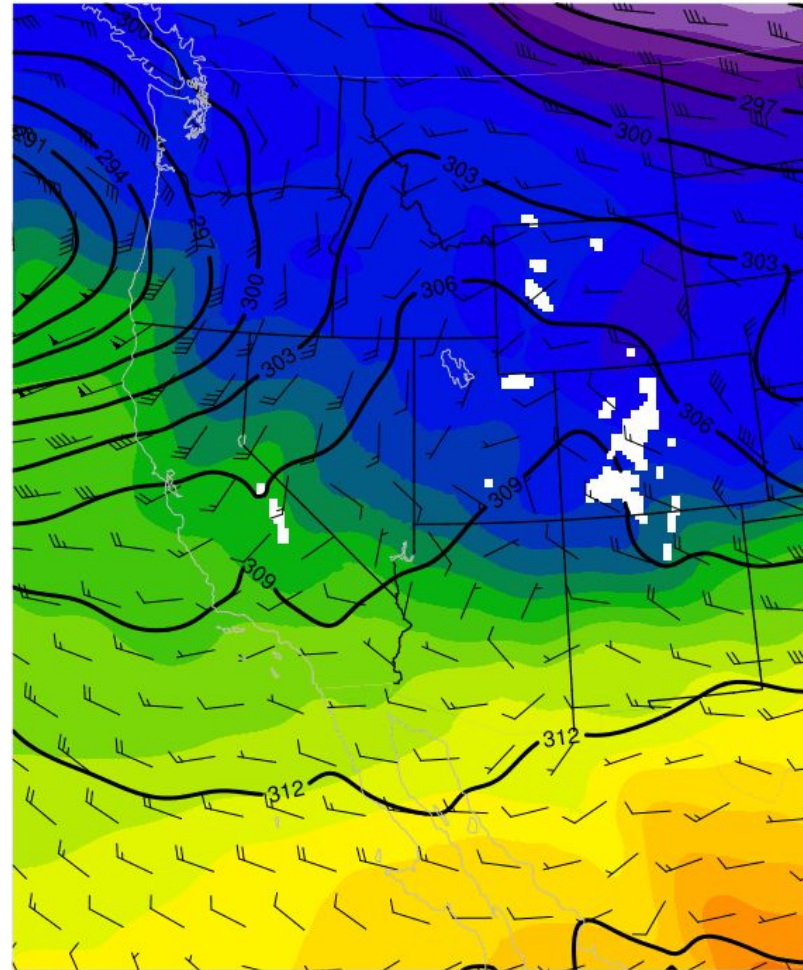
3-month (April-June) outlook



UCC 1-month Forecast Model (temperatures)

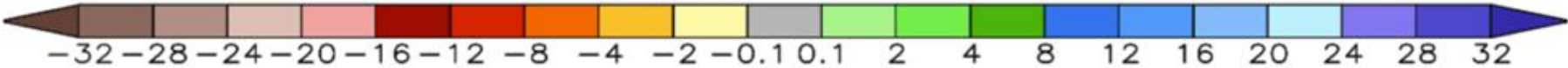
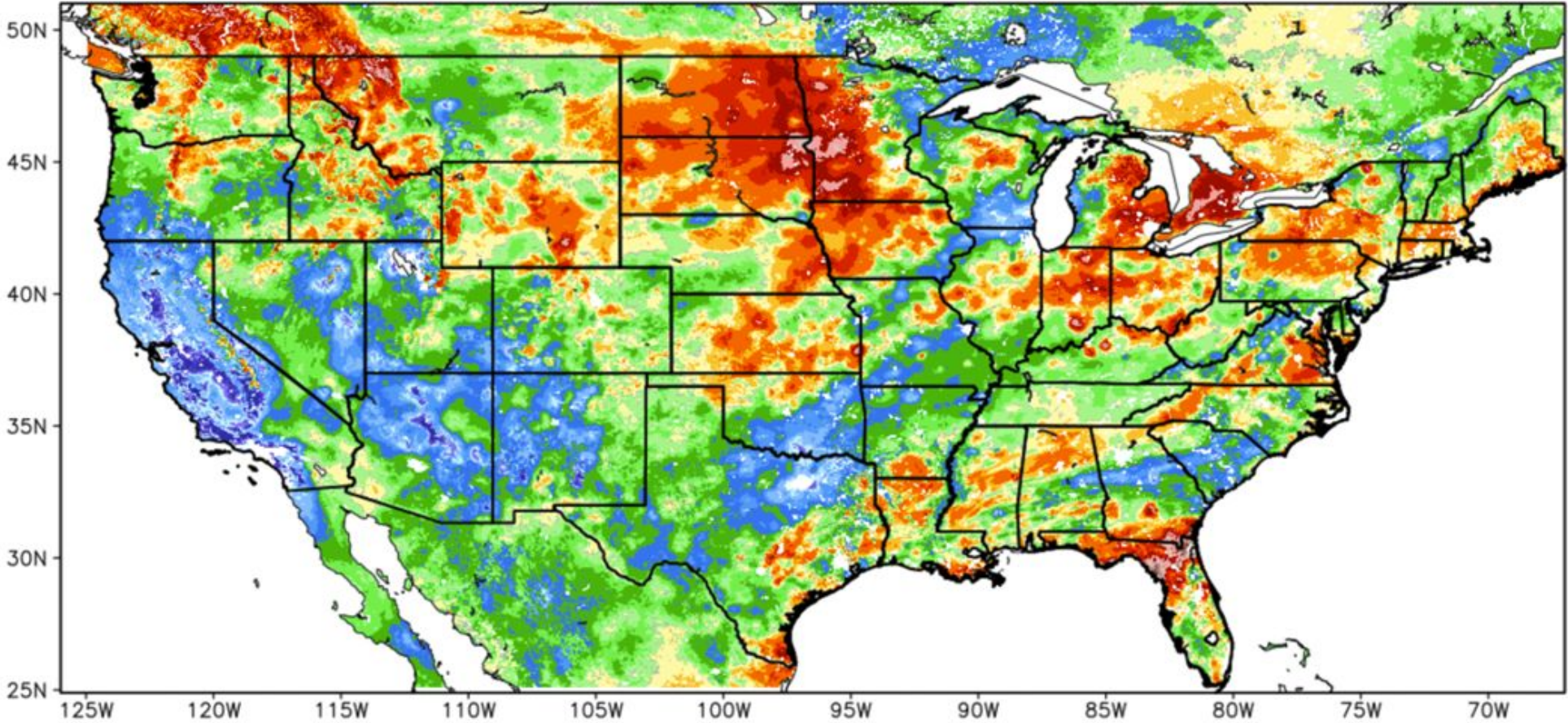
700-mb Height (dam), Temp (°F)
F000 Valid Tue 2023-03-28 00z

Init: Tue 2023-03-28 00z



Year-Over-Year Soil Moisture Change

1-Year Difference in Column Relative Soil Moisture (%) valid 12z 28 Mar 2023



****NOTE****

Agency - Utah Climate Center
Presenter - Jon Meyer

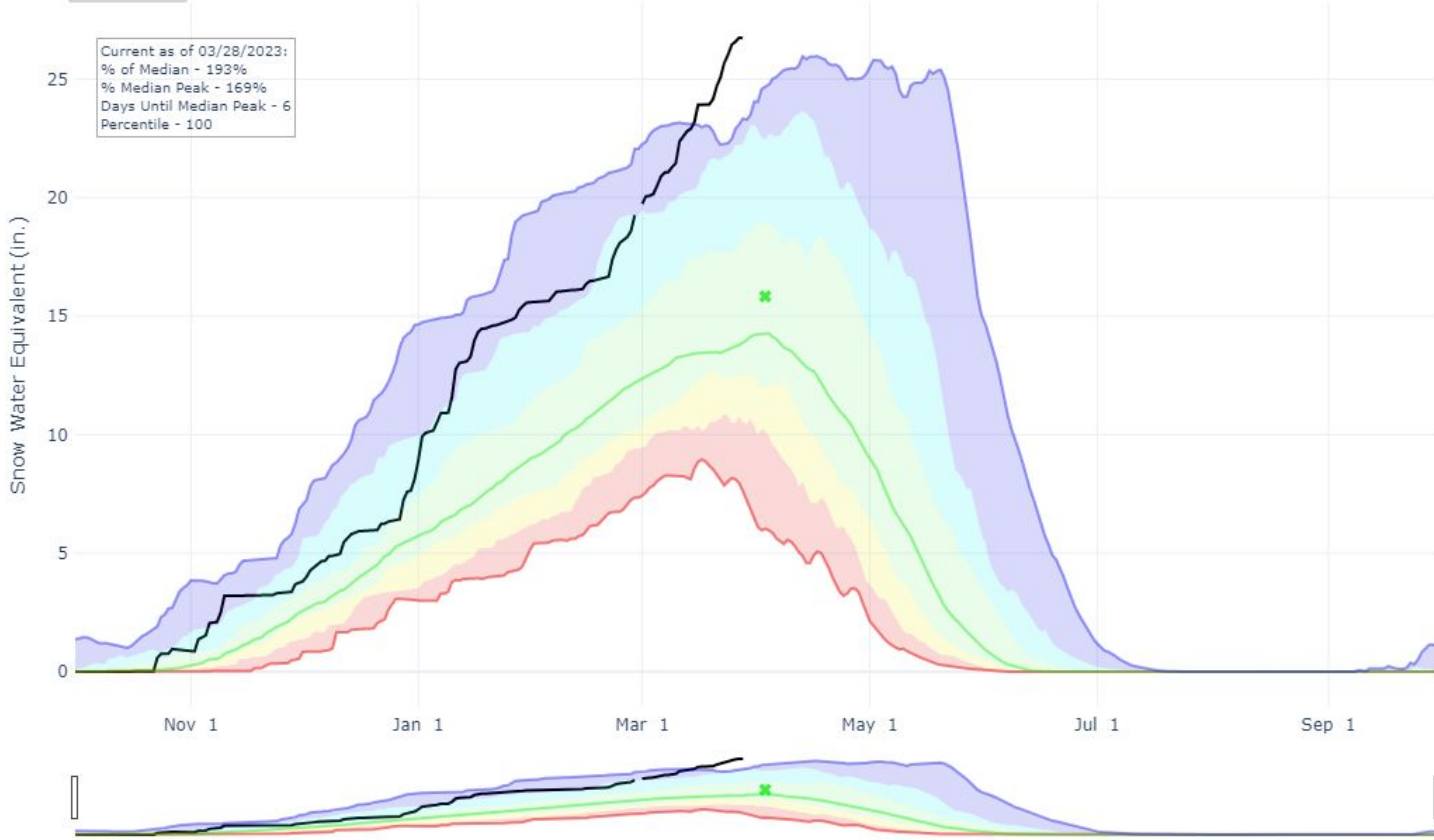
Statewide SWE

SNOW WATER EQUIVALENT IN STATE OF UTAH

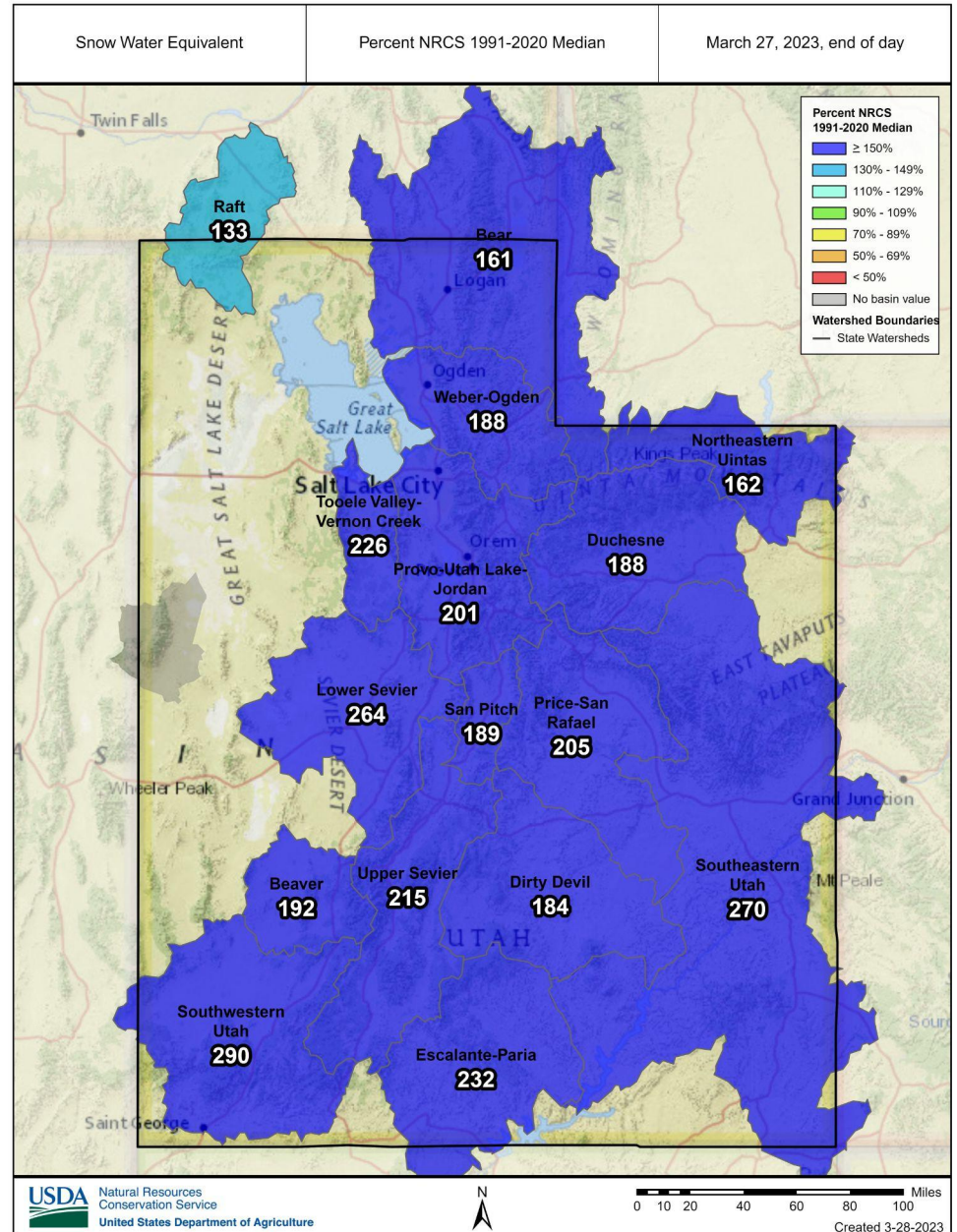
Reset Range

Current as of 03/28/2023:
 % of Median - 193%
 % Median Peak - 169%
 Days Until Median Peak - 6
 Percentile - 100

[Link to data: CSV / JSON](#)



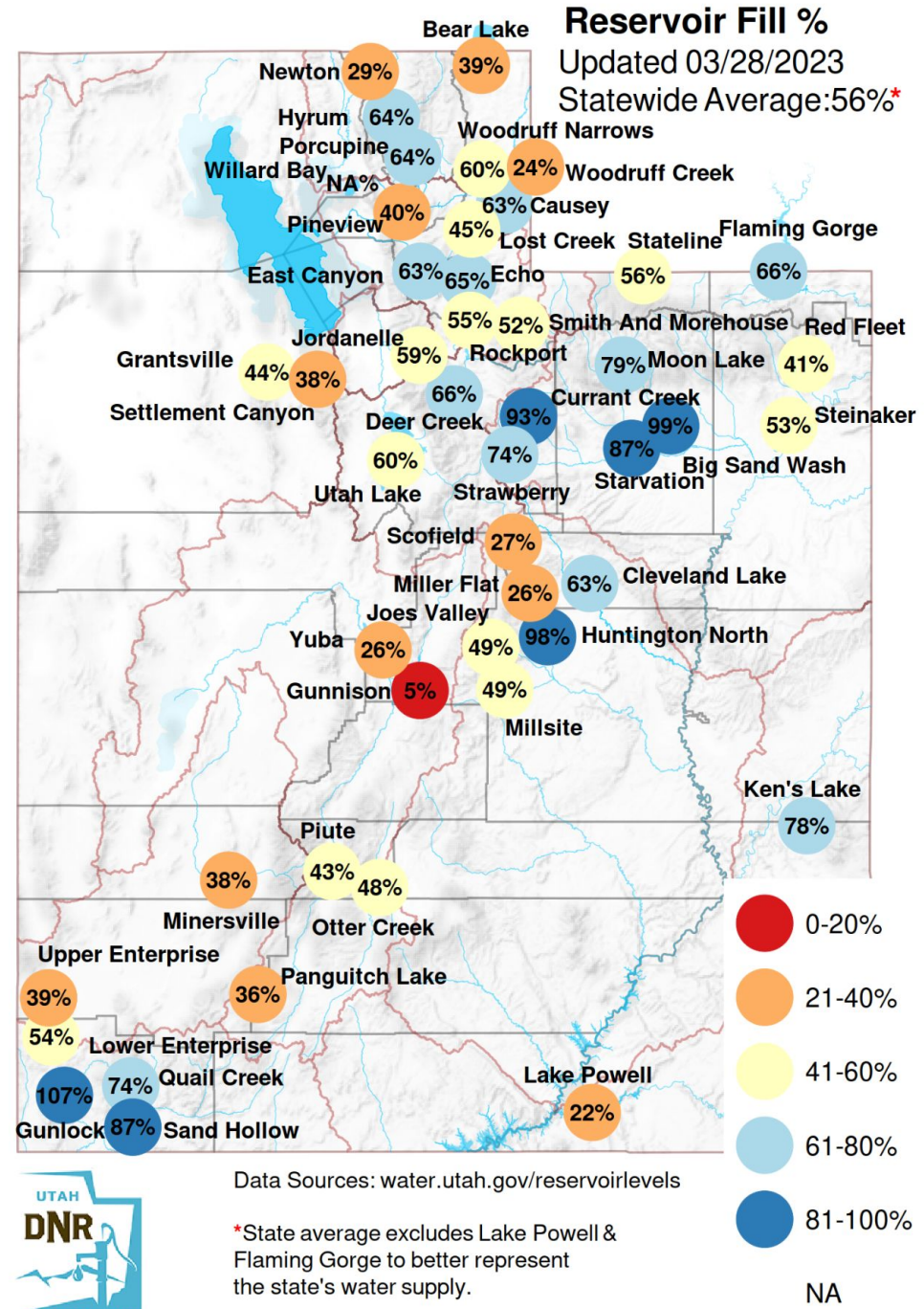
Current SWE 26.7 inches
 Previous (1983) Max Peak 26.0 inches
 SWE May 20, 1983 was 25.4 inches



Current Statewide Average is 56%
 Median Average is 61%

Gunnison is the only reservoir below 20%
 12 reservoirs are between 21-40%

Median statewide peak is first of June at 74%



Reservoir Levels

Reservoir Storage

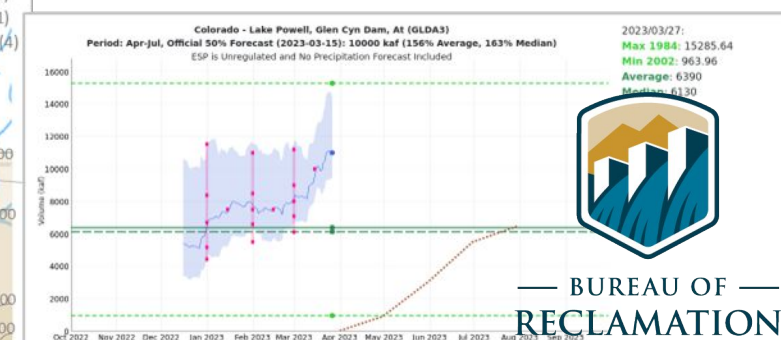
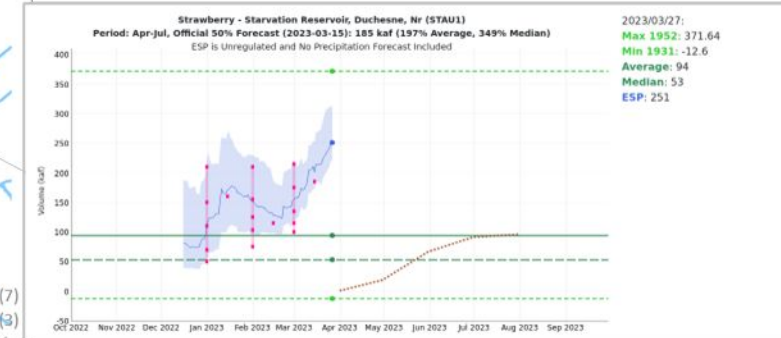
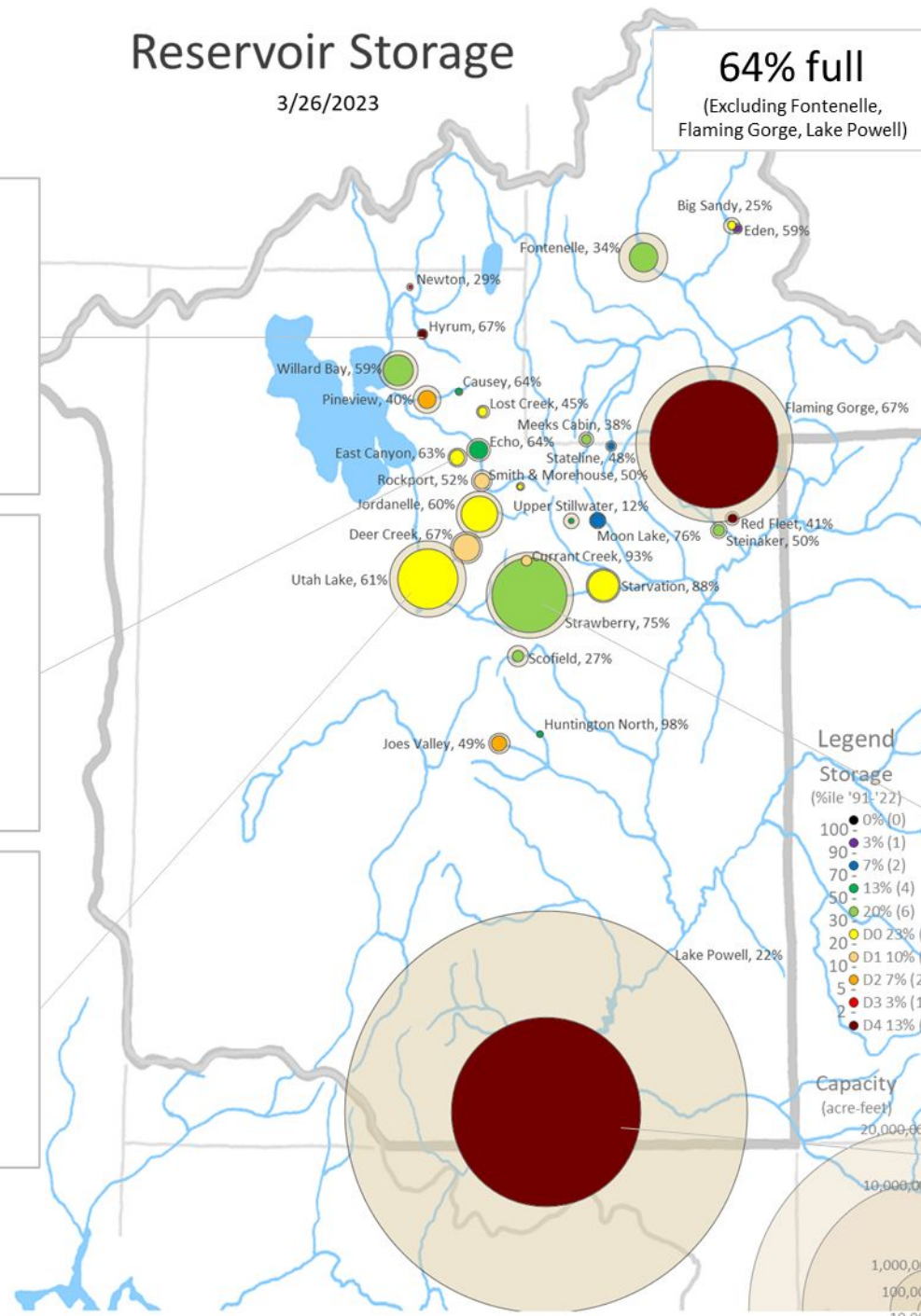
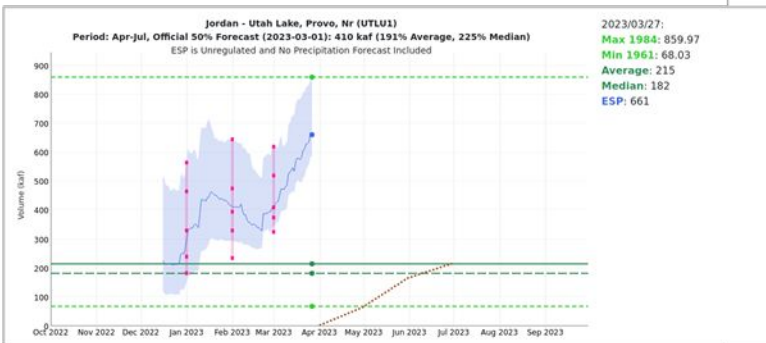
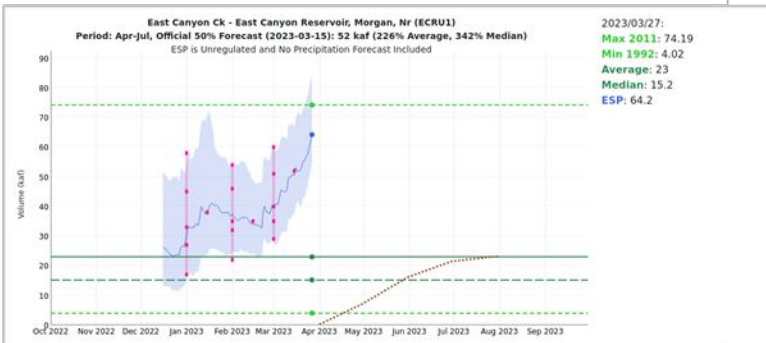
3/26/2023

64% full

(Excluding Fontenelle, Flaming Gorge, Lake Powell)

No significant changes since last meeting:

- Overall storage increased ~3% to 64% full
- Cold temperatures have kept the snow in place.
- We haven't seen rain-on-snow or snowmelt inflows.
- Reservoirs continue to slowly fill at ~typical baseflow rates.



BUREAU OF RECLAMATION

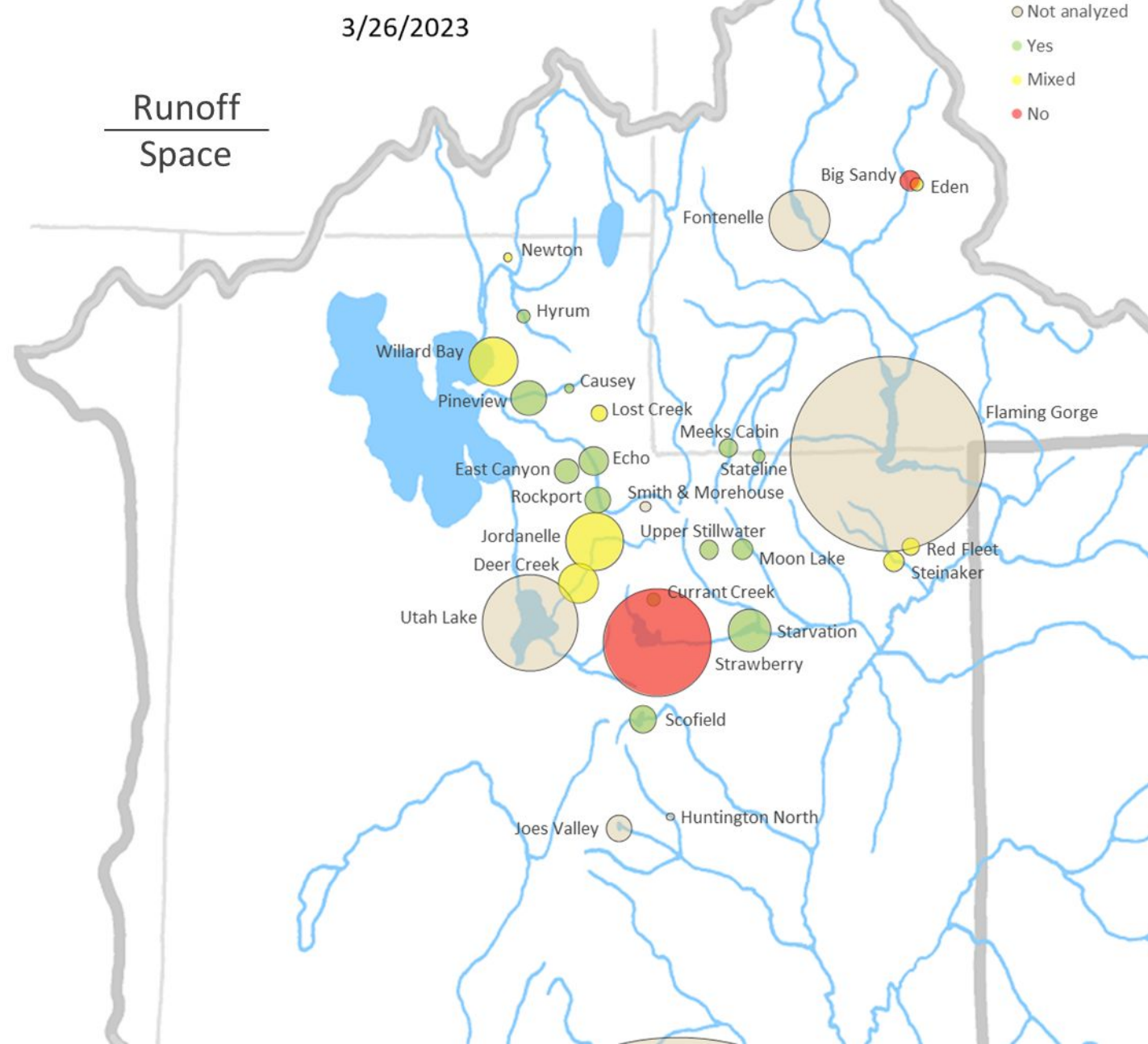
Agency - BOR
Presenter - Gary Henrie

Reservoir Levels

Have they filled in similar years?

3/26/2023

Runoff
Space

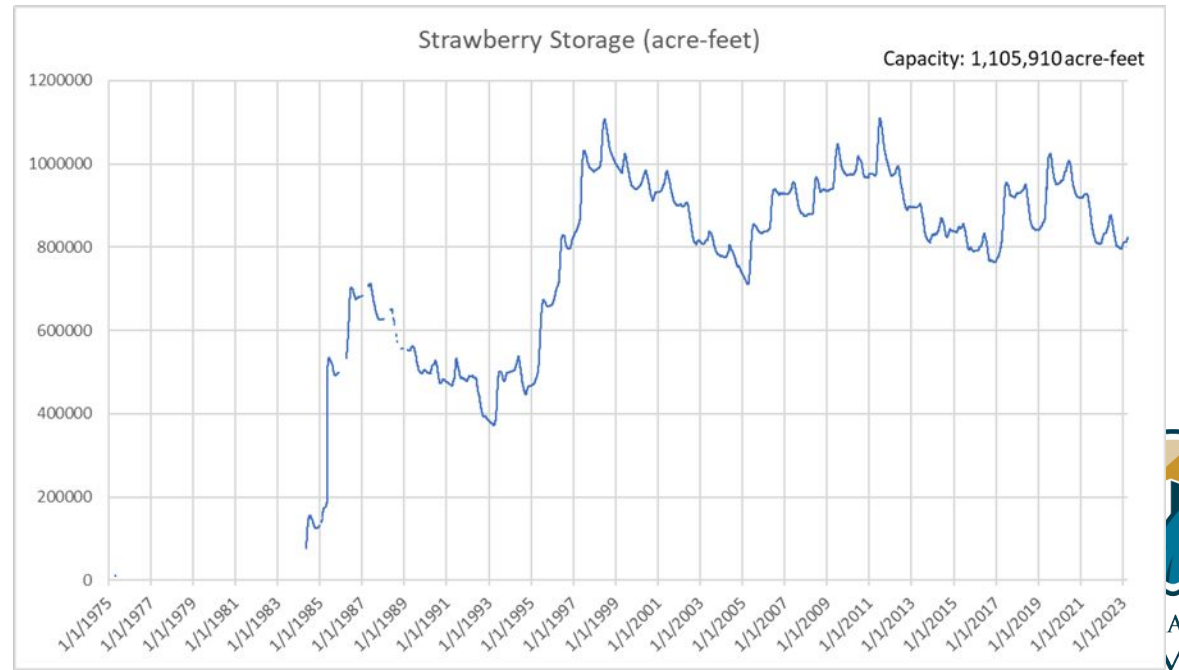
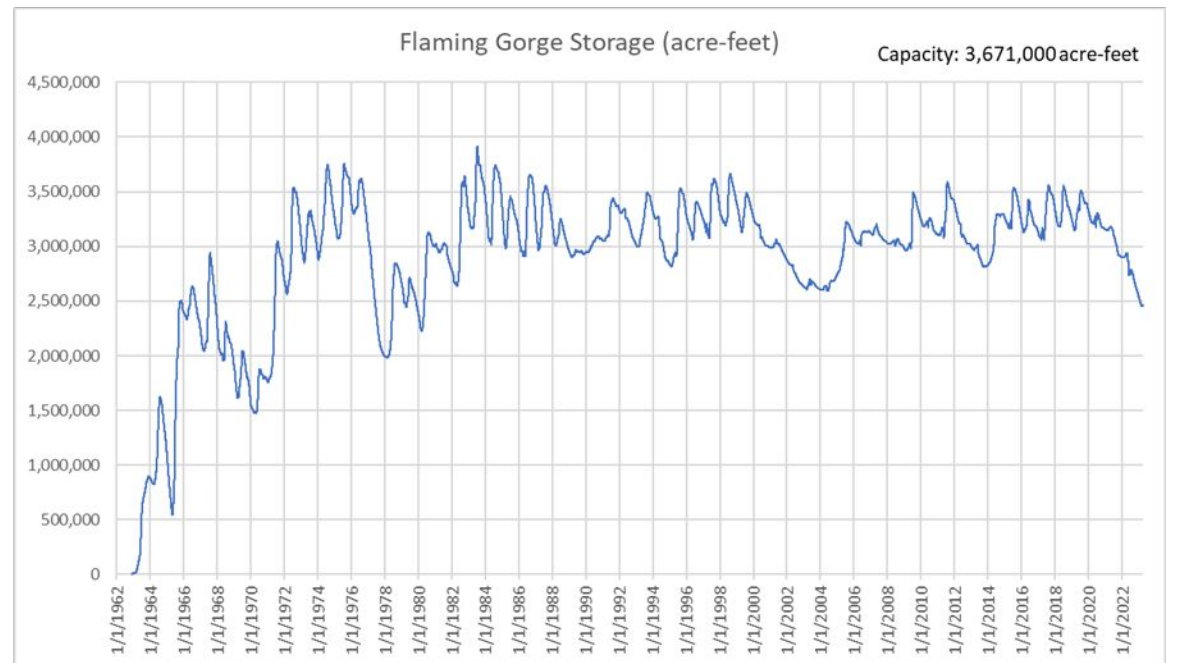
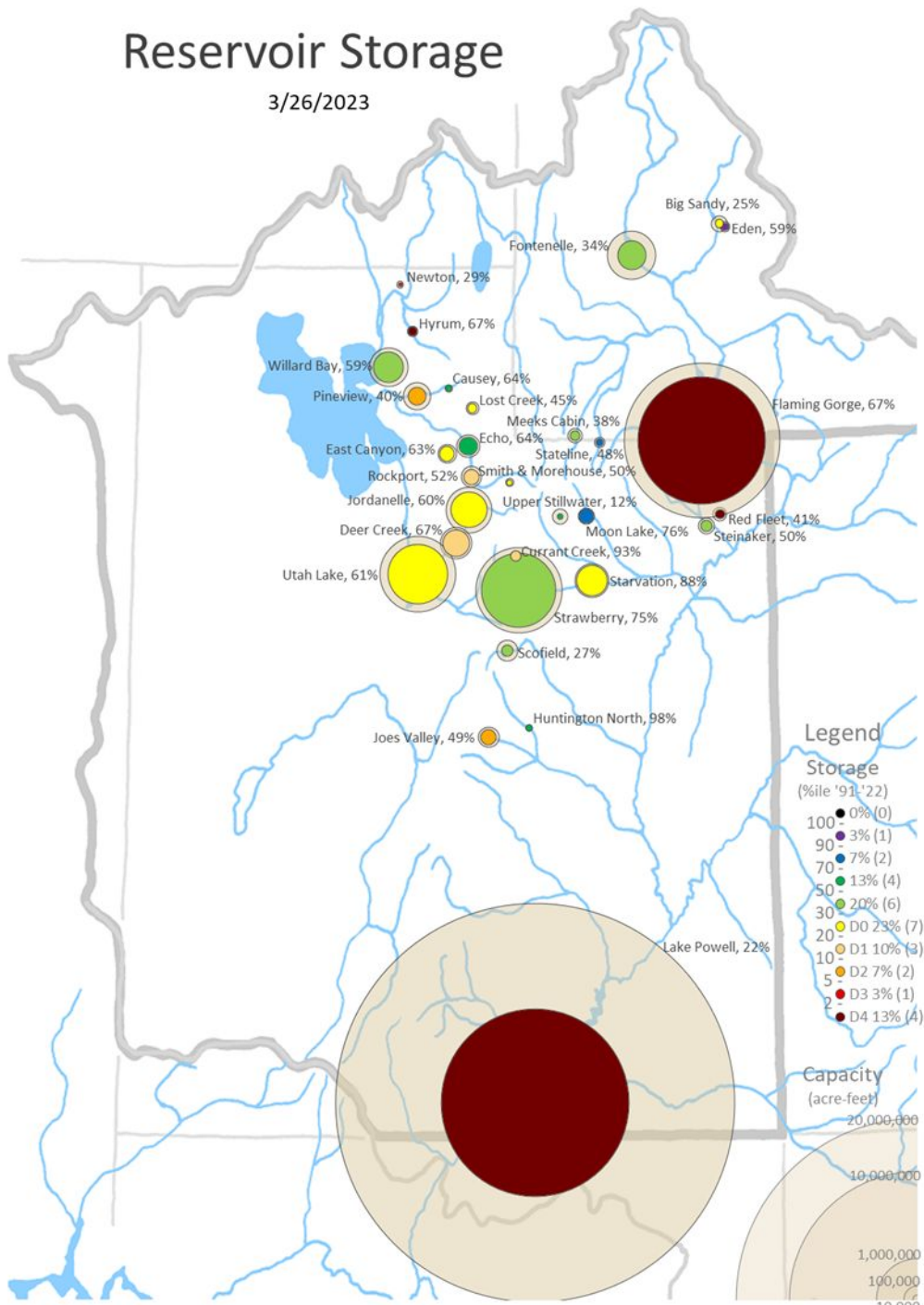


Agency - BOR
Presenter - Gary Henrie

Res

Reservoir Storage

3/26/2023



Agency Present

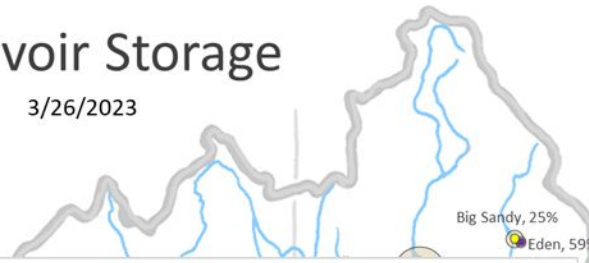


AU OF EXTENSION

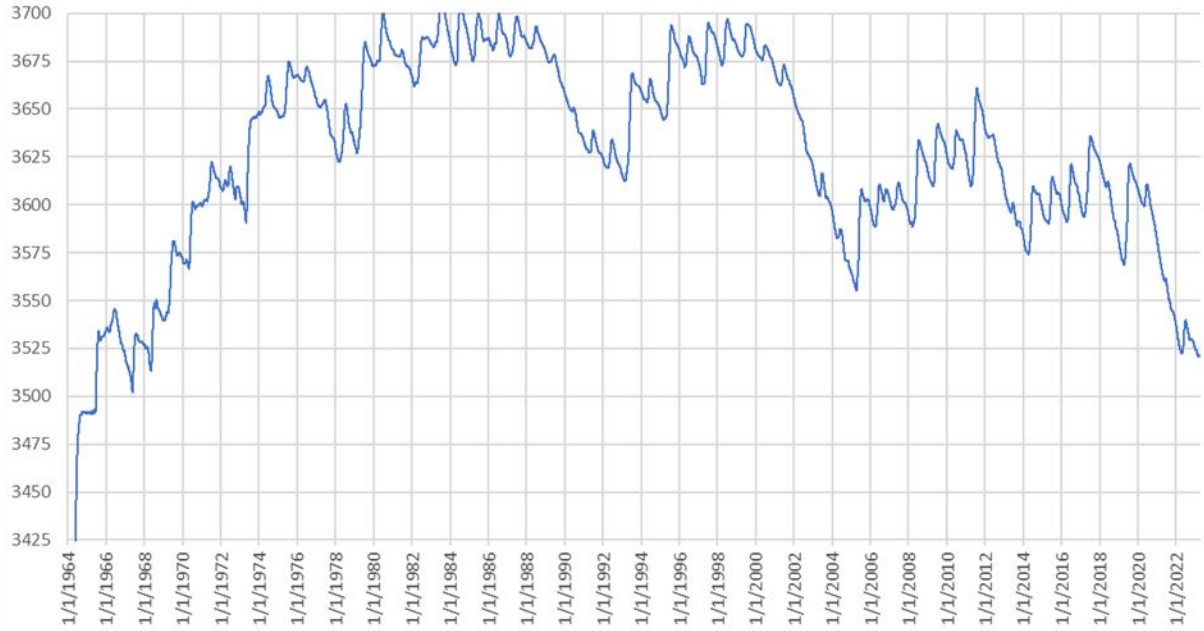
Reservoir L

Reservoir Storage

3/26/2023

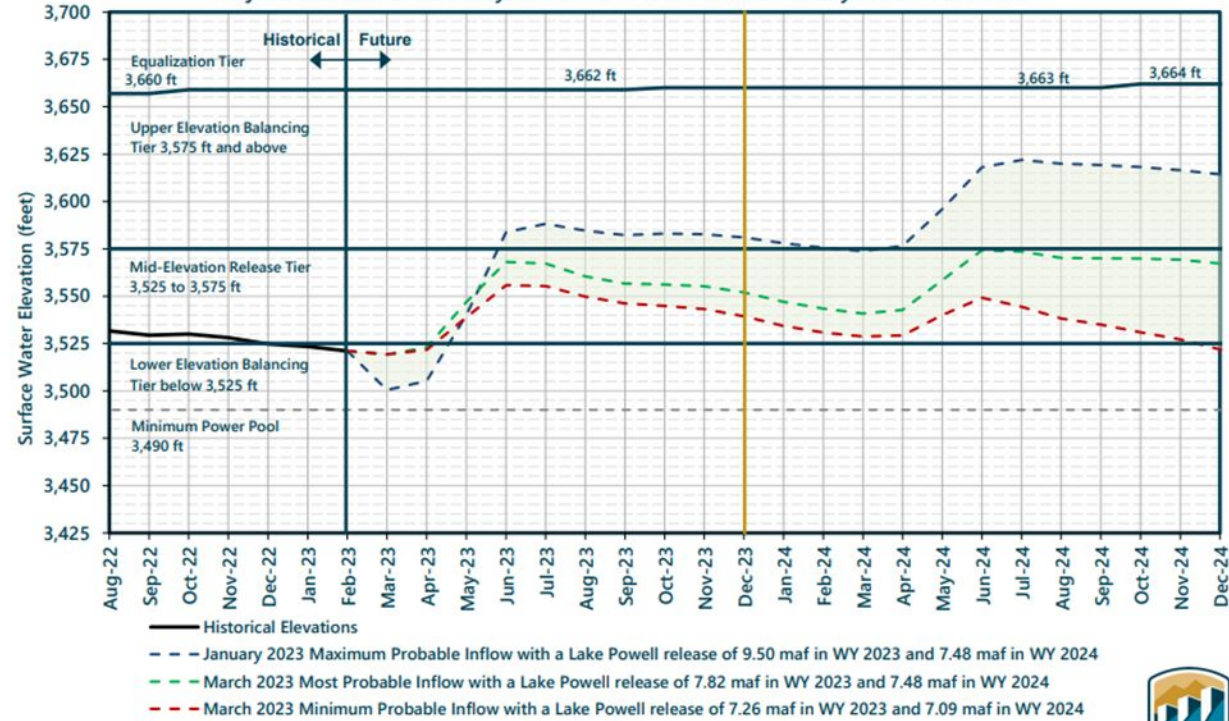


Lake Powell Pool Elevation (feet)

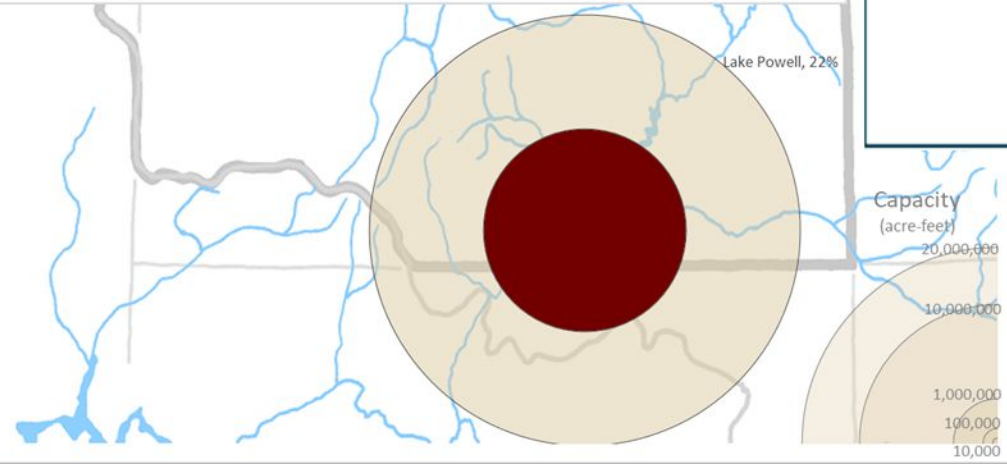


Lake Powell End of Month Elevations¹

Projections from the January and March 2023 24-Month Study Inflow Scenarios



¹ Projected Lake Powell end of month physical elevations from the latest 24-Month Study inflow scenarios. The Drought Response Operations Agreement (DROA) is available online at: <https://www.usbr.gov/dcp/finaldocs.html>.



Agency - BOR
Presenter - Gary He



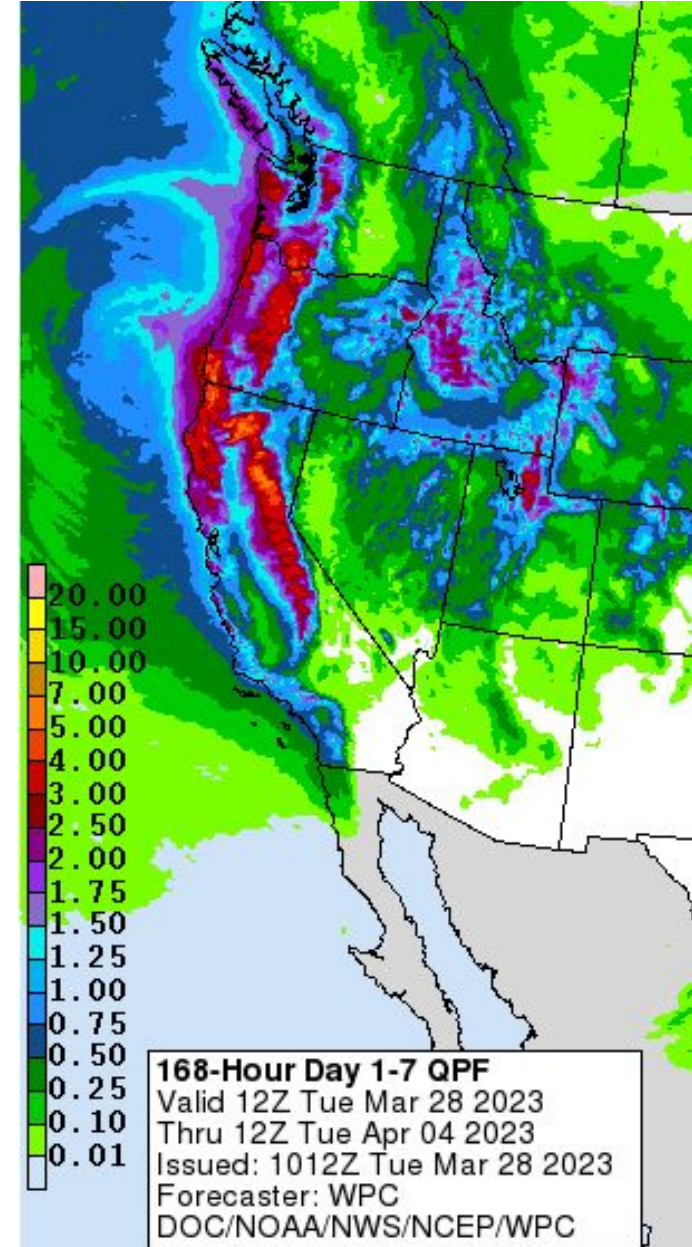
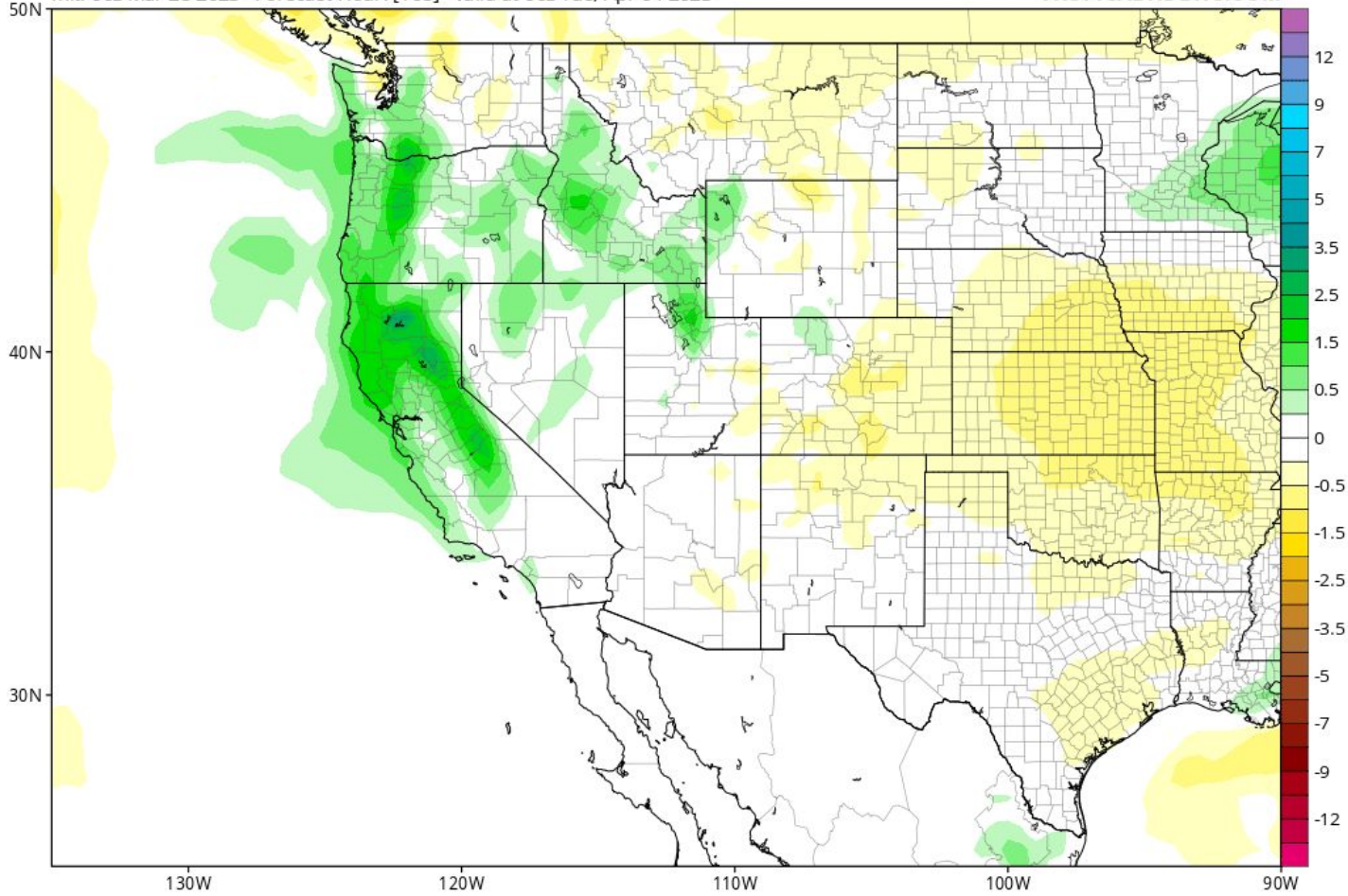
BUREAU OF RECLAMATION

Weather Forecast Office Utah Day 1-7 Outlook

GEFS Accumulated Precip. Anomaly (in) from 06z28Mar2023 to 06z04Apr2023 (Days 1-7)

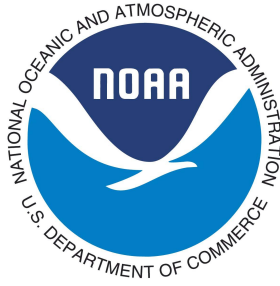
Init: 06z Mar 28 2023 Forecast Hour: [168] valid at 06z Tue, Apr 04 2023

TROPICALTIDBITS.COM

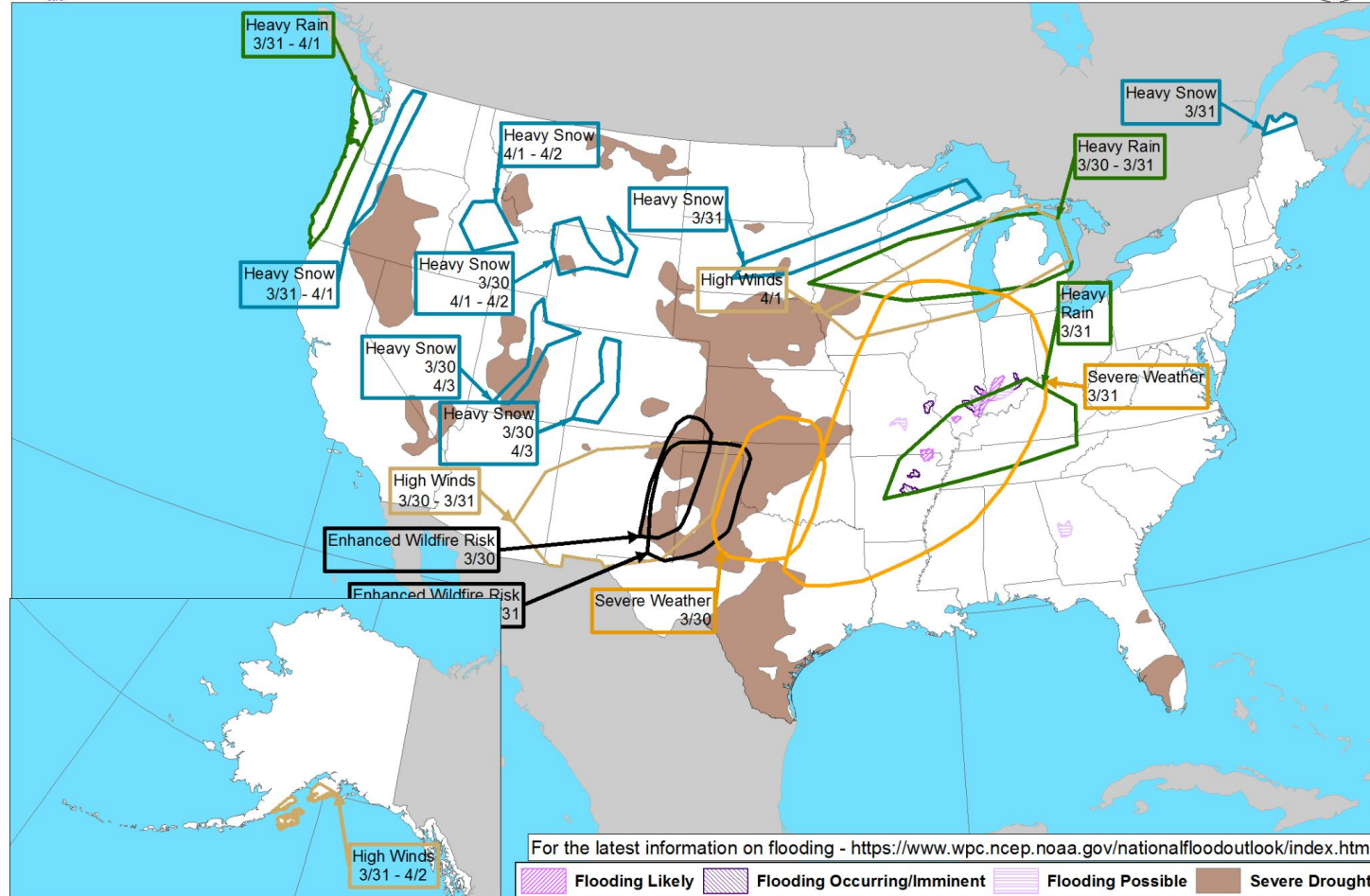


Agency - National Weather Service Weather Forecast Office
Presenter - Glen Merrill

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



Day 3-7 U.S. Hazards Outlook
Valid: 03/30/2023-04/03/2023



Weather Prediction Center

Made: 03/27/2023 3PM EDT

Follow us:

www.wpc.ncep.noaa.gov

Agency - National Weather Service Weather Forecast Office

Presenter - Glen Merrill

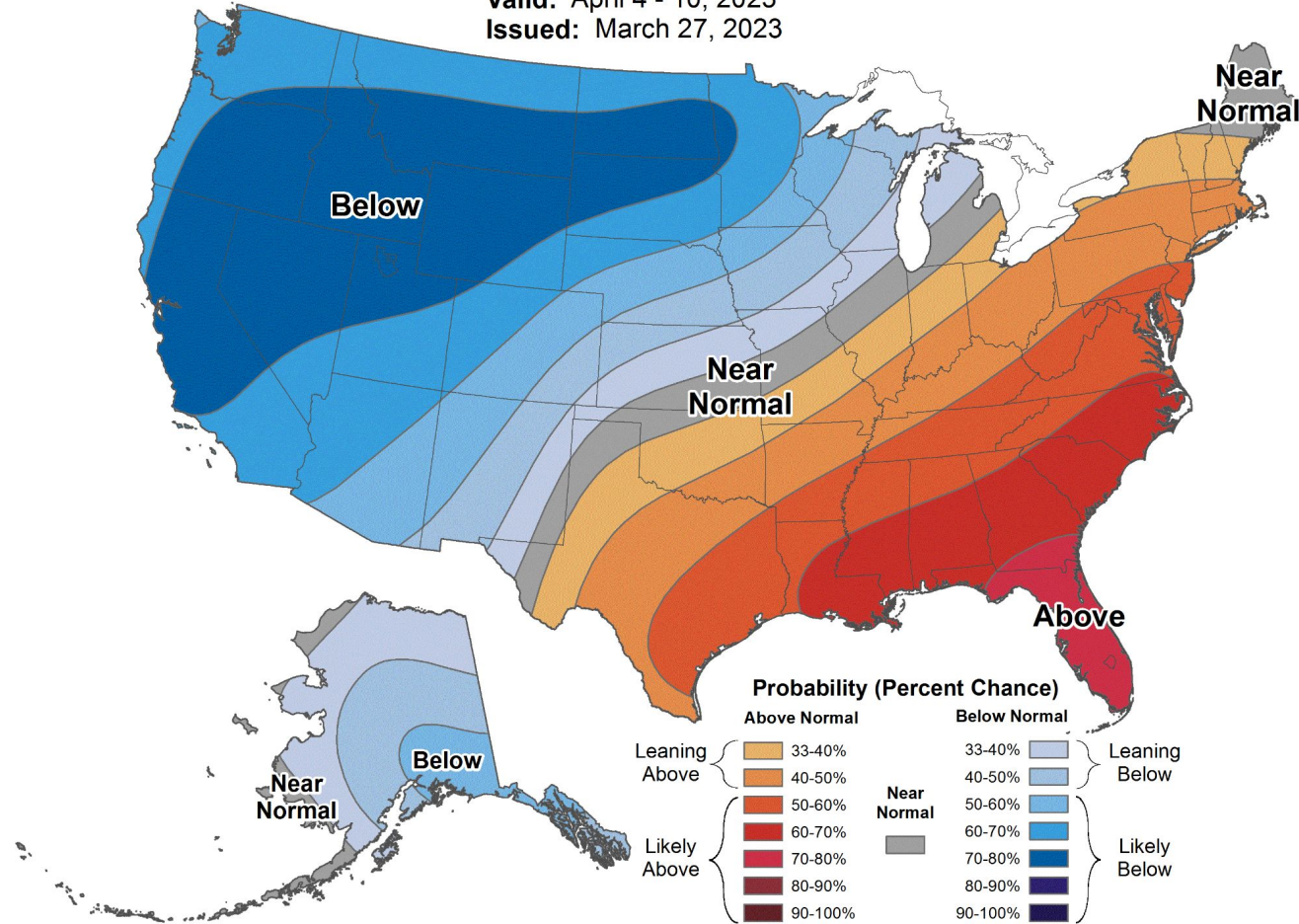
Climate Prediction Center 8 to 14 Day Outlooks - Temperature



8-14 Day Temperature Outlook



Valid: April 4 - 10, 2023
Issued: March 27, 2023



Agency - National Weather Service Weather Forecast Office

Presenter - Glen Merrill

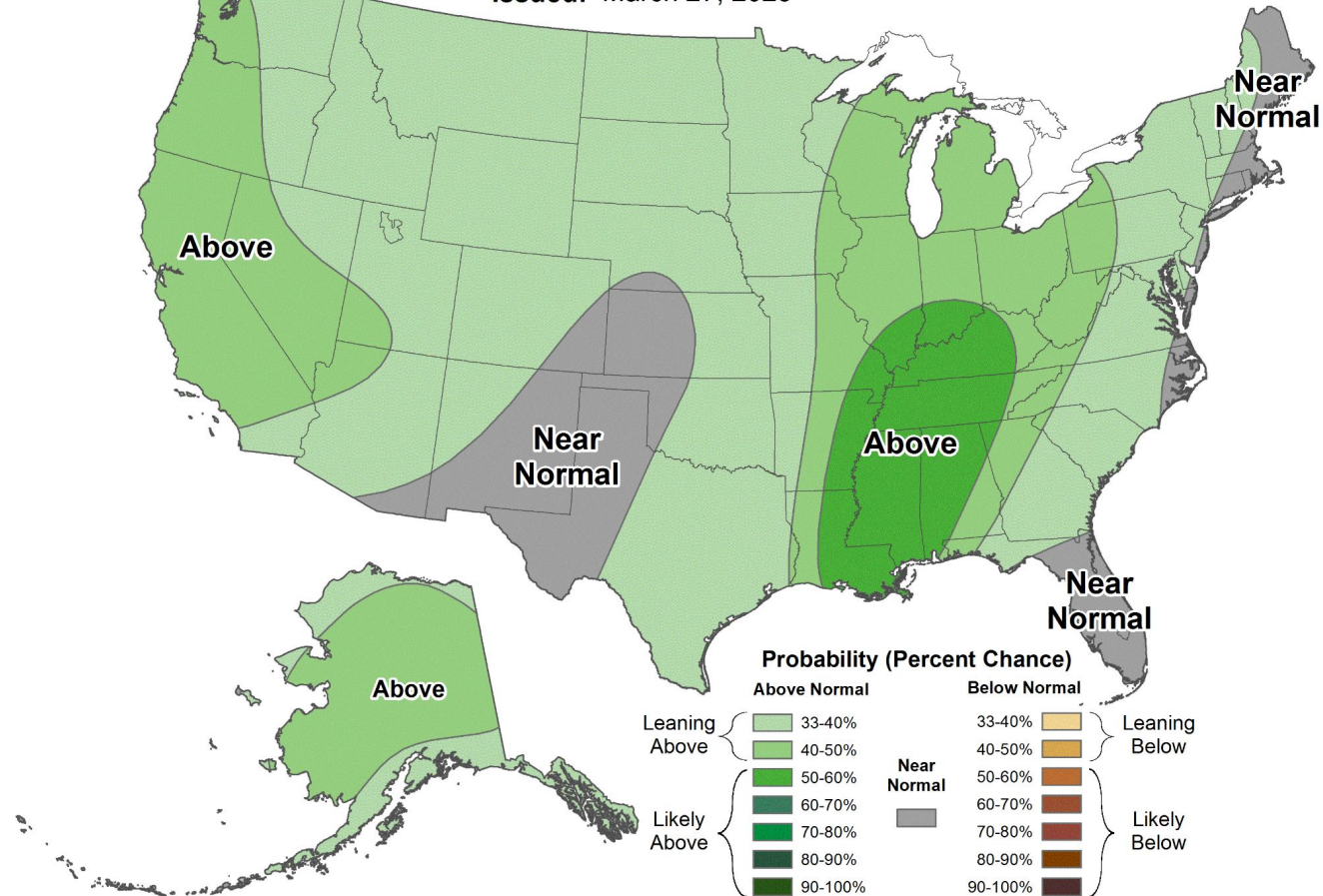
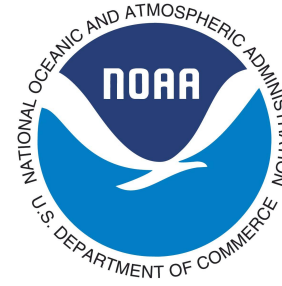
Climate Prediction Center 8 to 14 Day Outlooks - Precipitation



8-14 Day Precipitation Outlook



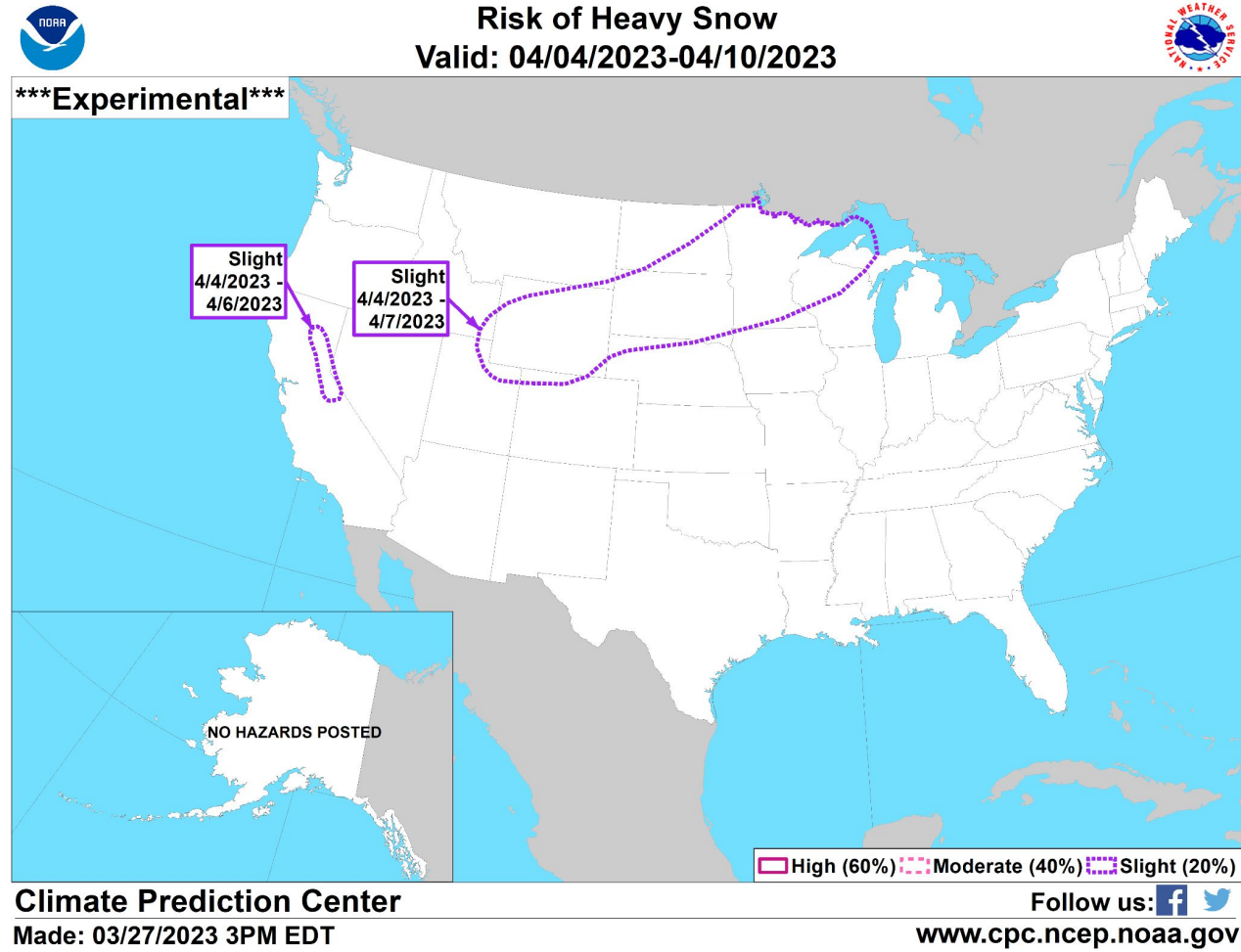
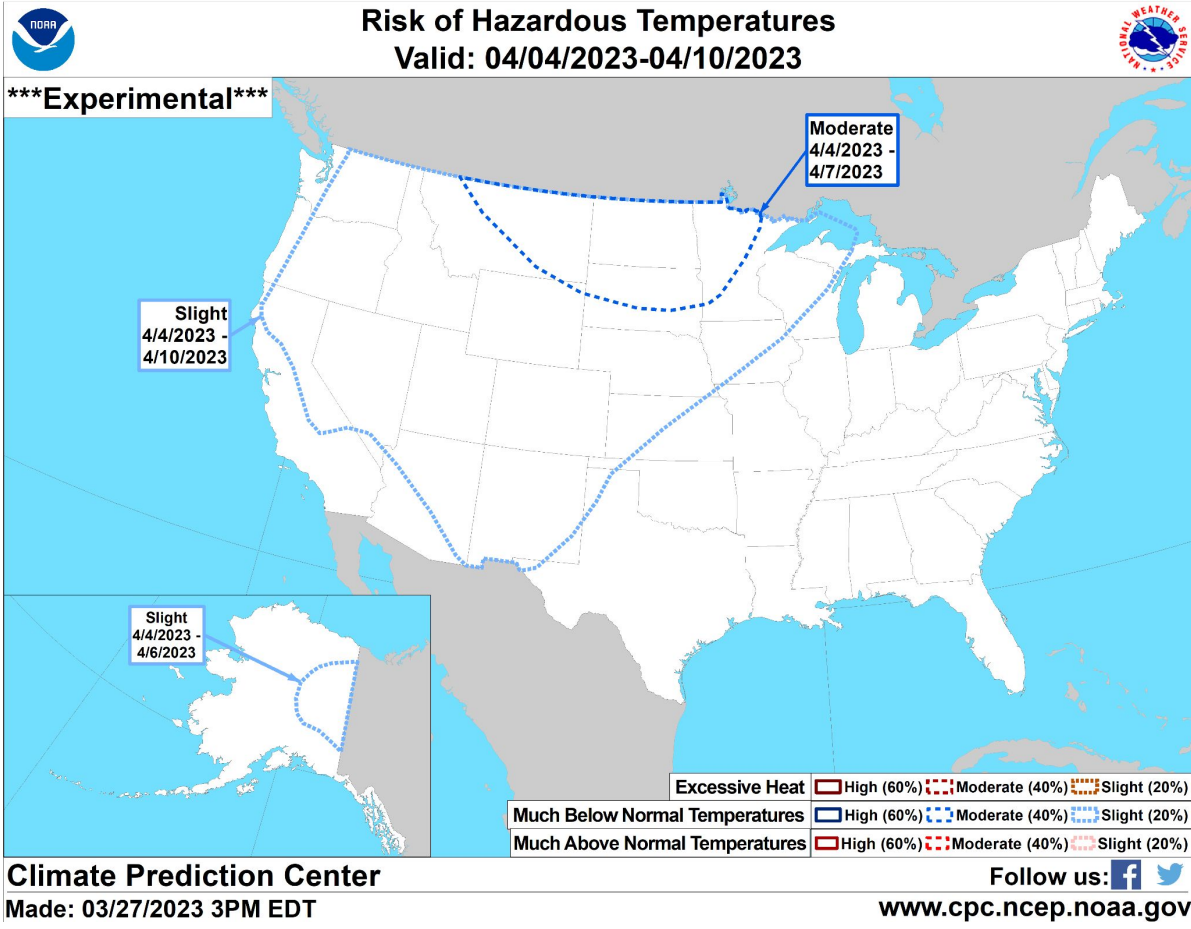
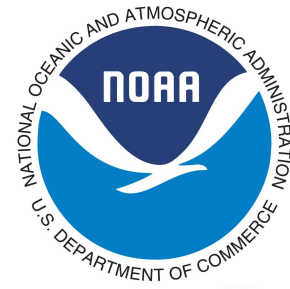
Valid: April 4 - 10, 2023
Issued: March 27, 2023



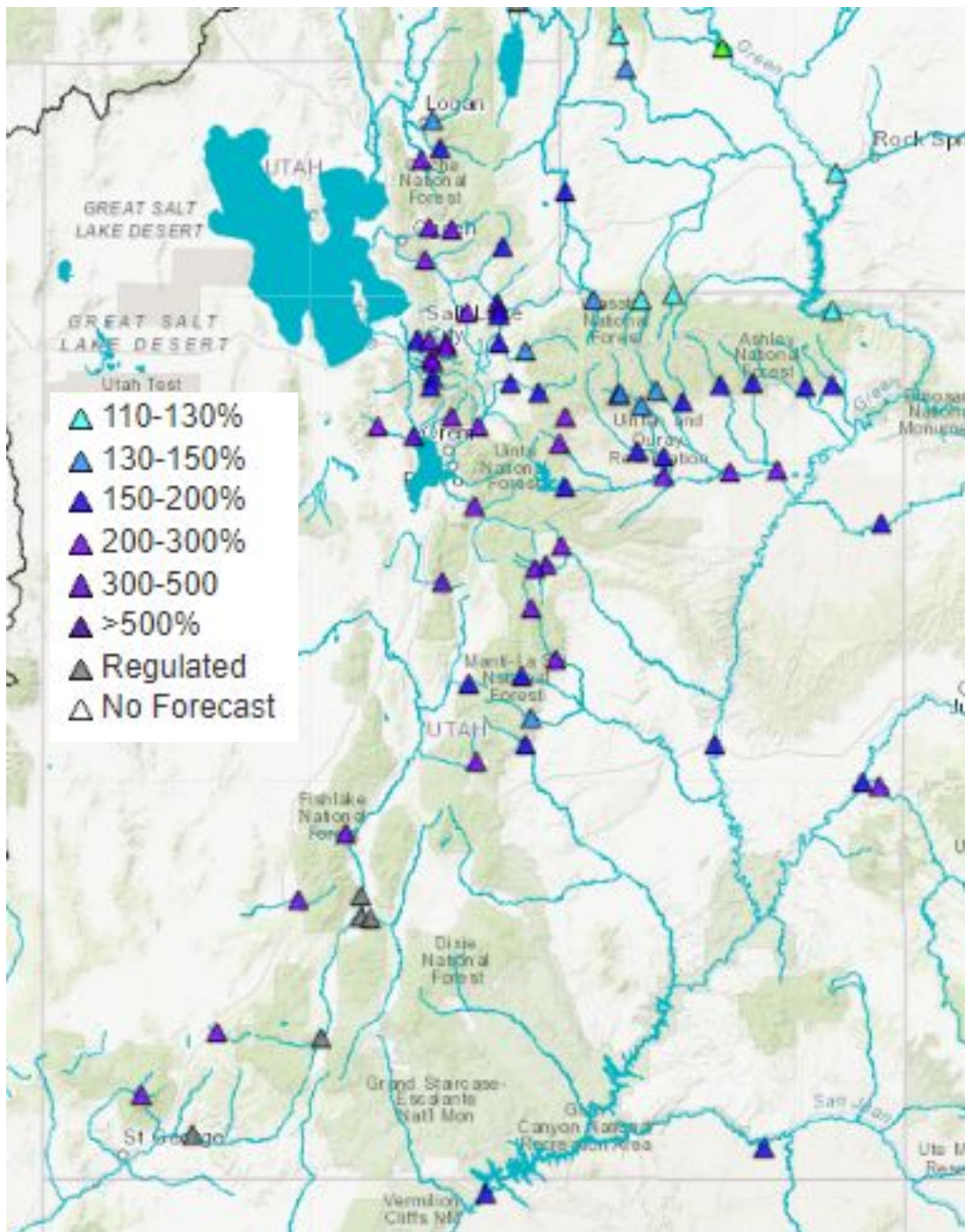
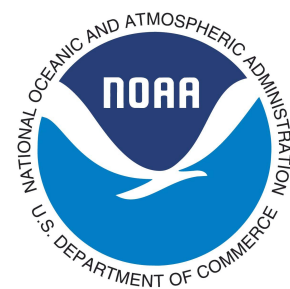
Agency - National Weather Service Weather Forecast Office

Presenter - Glen Merrill

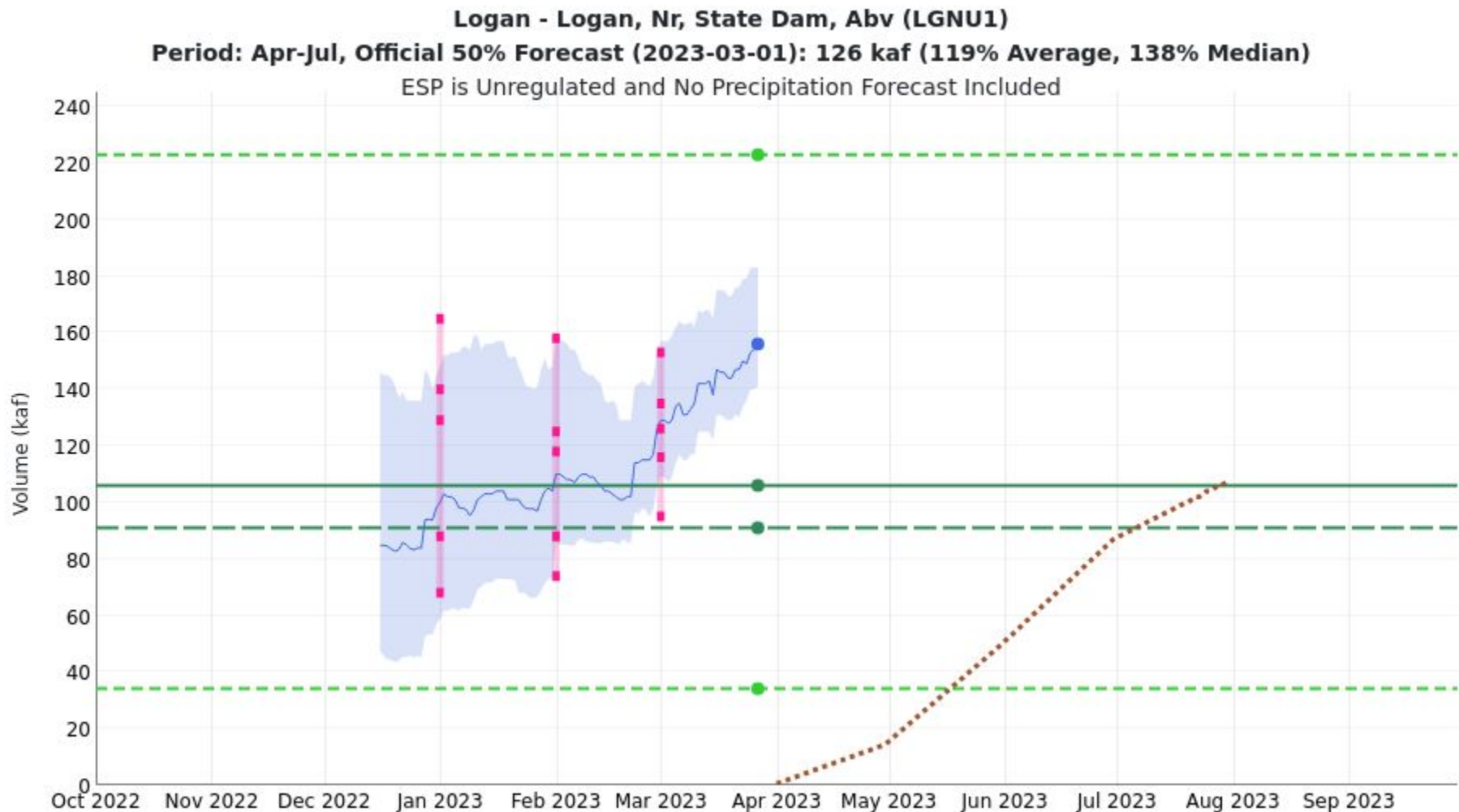
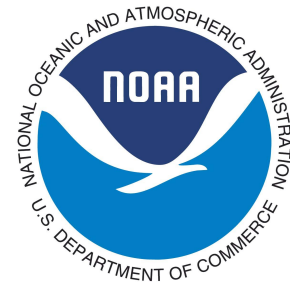
Climate Prediction Center U.S. Week-2 Hazards Outlook



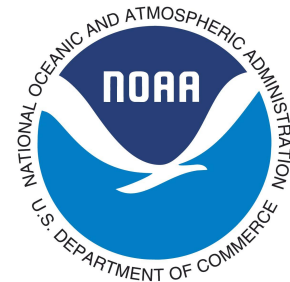
Agency - National Weather Service Weather Forecast Office
Presenter - Glen Merrill



- Recent storm events since our last official forecasts have pushed water supply forecasts over Utah even higher
- Water supply forecasts range from about 115% of average in the Lower Green River area to over 200% of average in the Six Creeks area
- Some flood potential in areas



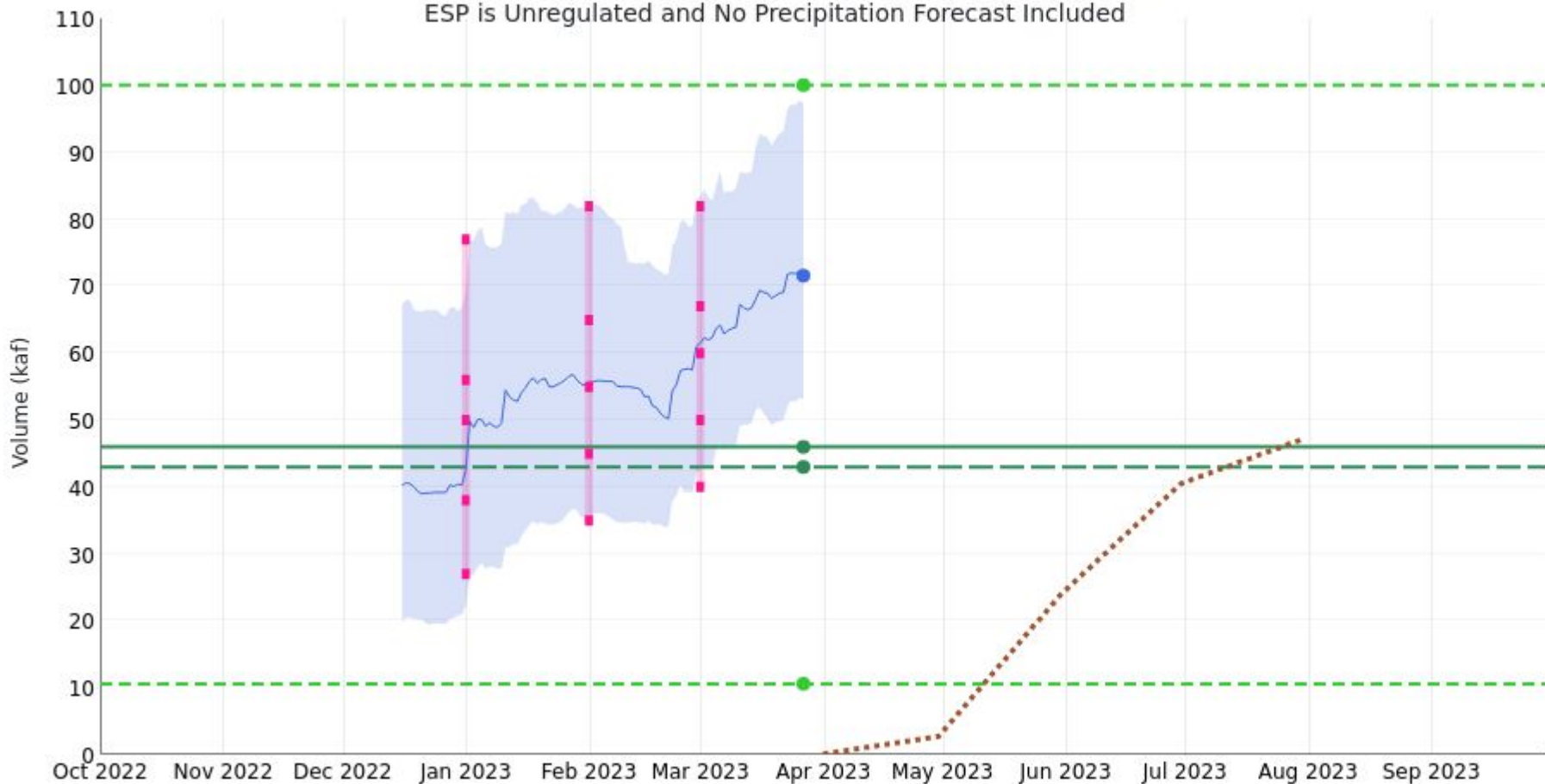
2023/03/27:
Max 1986: 222.92
Min 1977: 34.12
Average: 106
Median: 91
ESP: 156



Ashley Ck - Vernal, Nr (ASHU1)

Period: Apr-Jul, Official 50% Forecast (2023-03-01): 60 kaf (130% Average, 140% Median)

ESP is Unregulated and No Precipitation Forecast Included



2023/03/27:

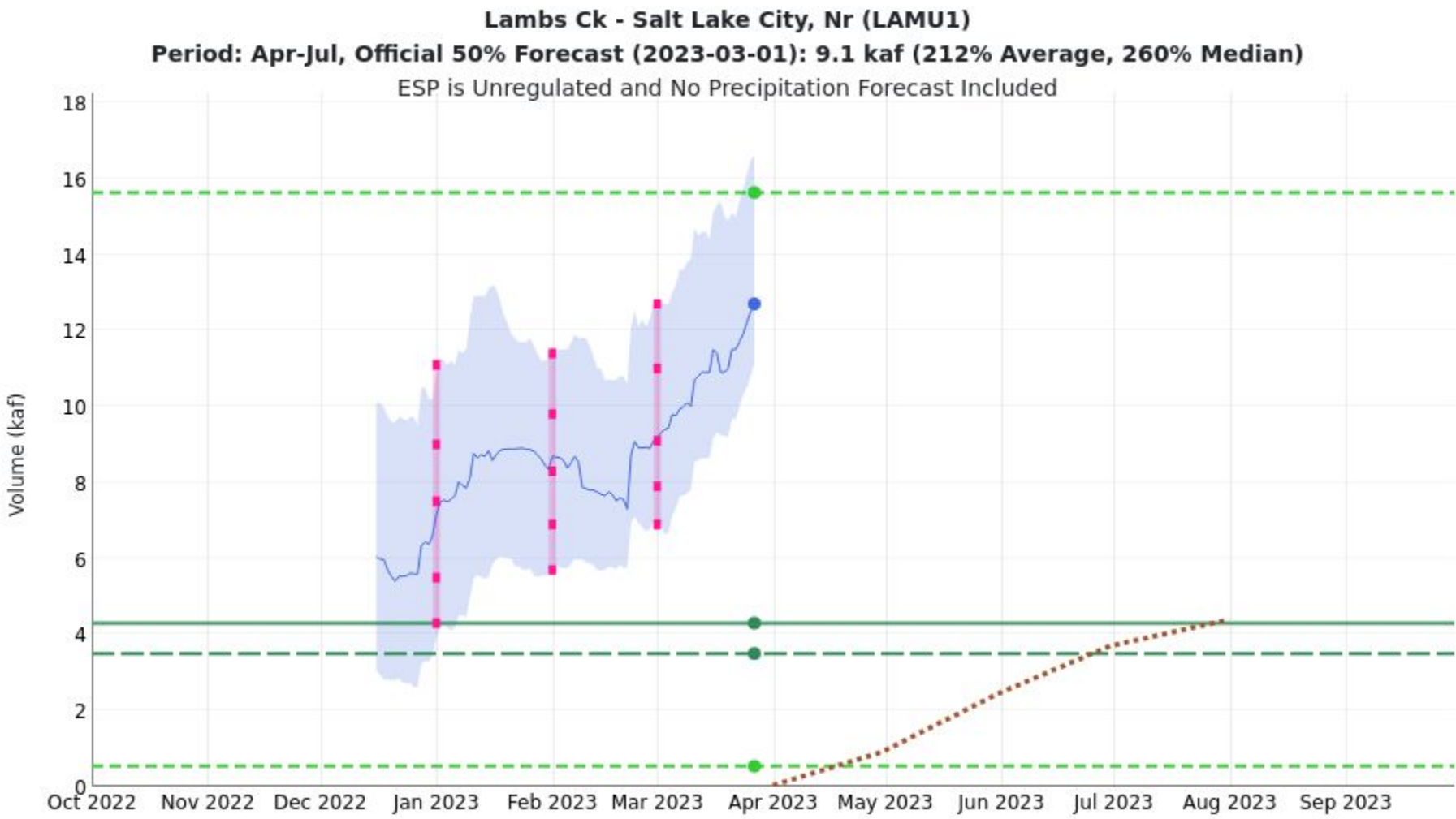
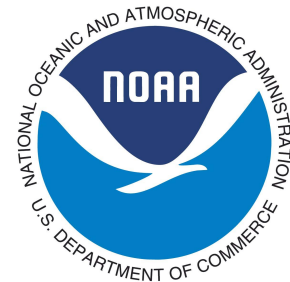
Max 1921: 100.08

Min 2002: 10.59

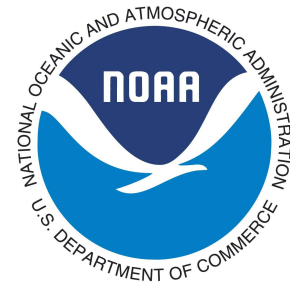
Average: 46

Median: 43

ESP: 71.6



2023/03/27:
Max 1984: 15.63
Min 1992: 0.53
Average: 4.3
Median: 3.5
ESP: 12.7



Santa Clara - Pine Valley, Nr (STCU1)

Period: Apr-Jul, Official 50% Forecast (2023-03-01): 8.5 kaf (170% Average, 266% Median)

ESP is Unregulated and No Precipitation Forecast Included

2023/03/27:

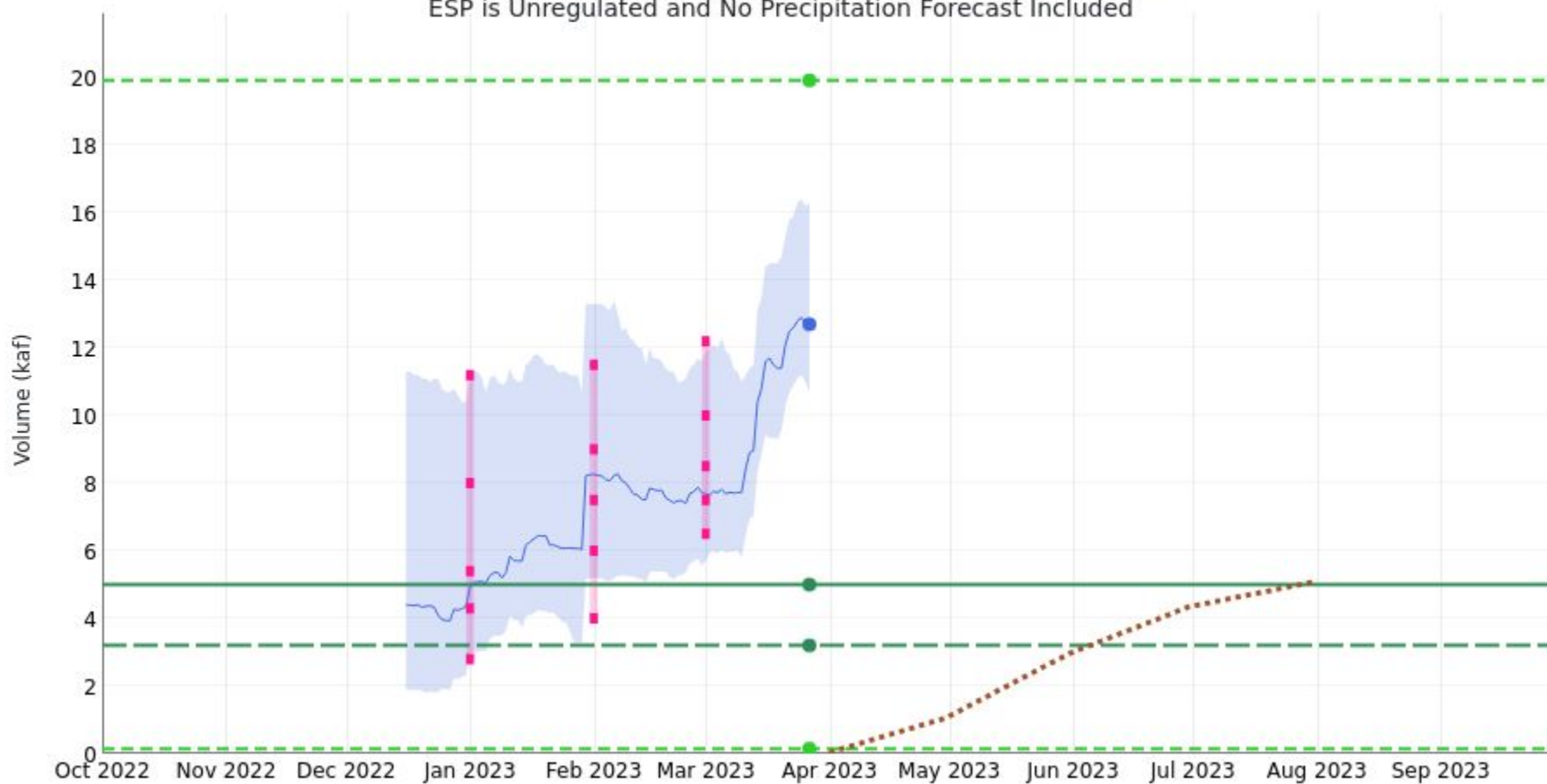
Max 2005: 19.91

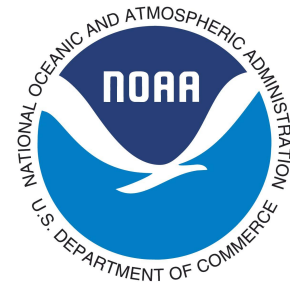
Min 2002: 0.15

Average: 5

Median: 3.2

ESP: 12.7

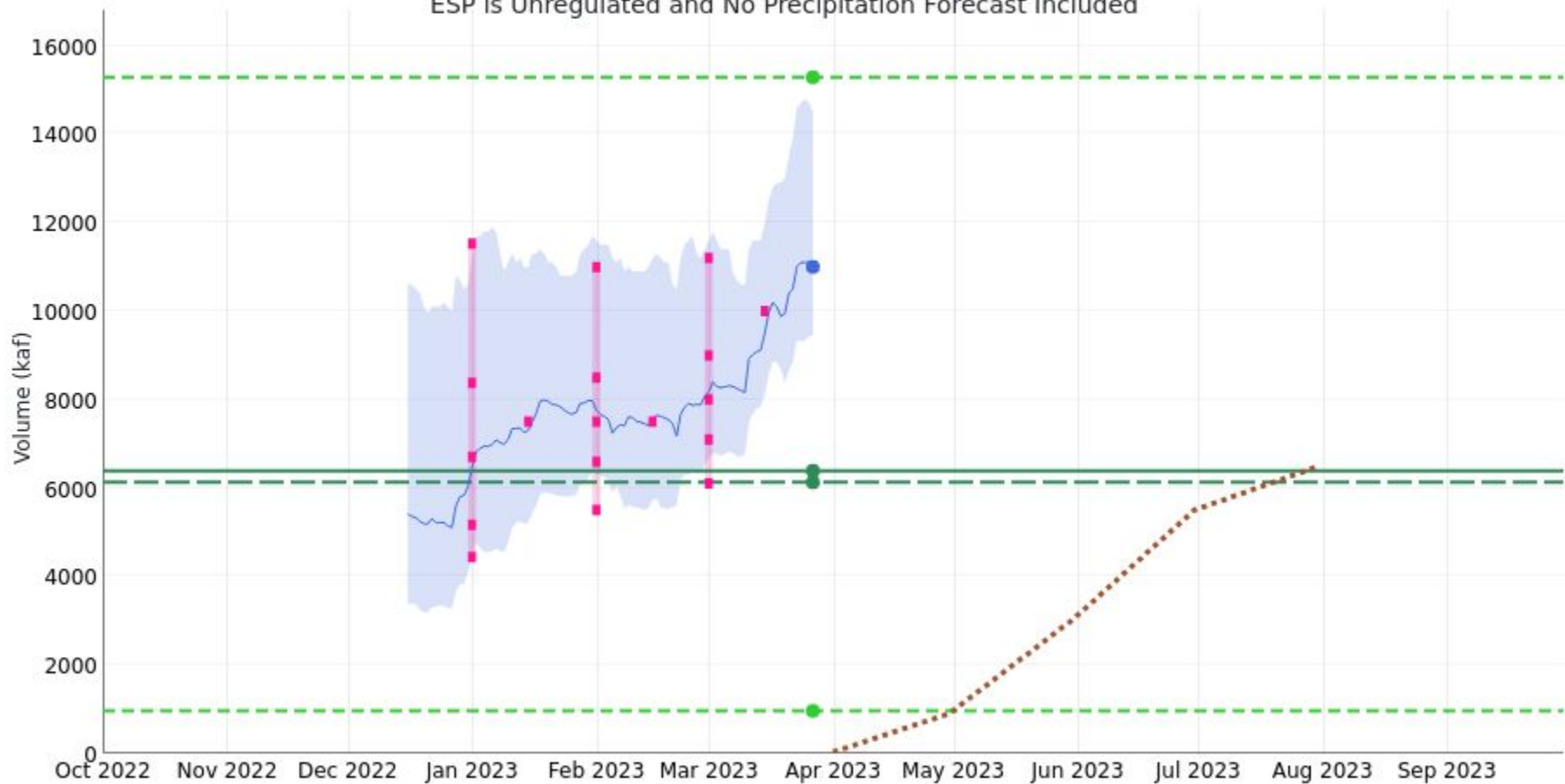




Colorado - Lake Powell, Glen Cyn Dam, At (GLDA3)

Period: Apr-Jul, Official 50% Forecast (2023-03-15): 10000 kaf (156% Average, 163% Median)

ESP is Unregulated and No Precipitation Forecast Included



2023/03/27:

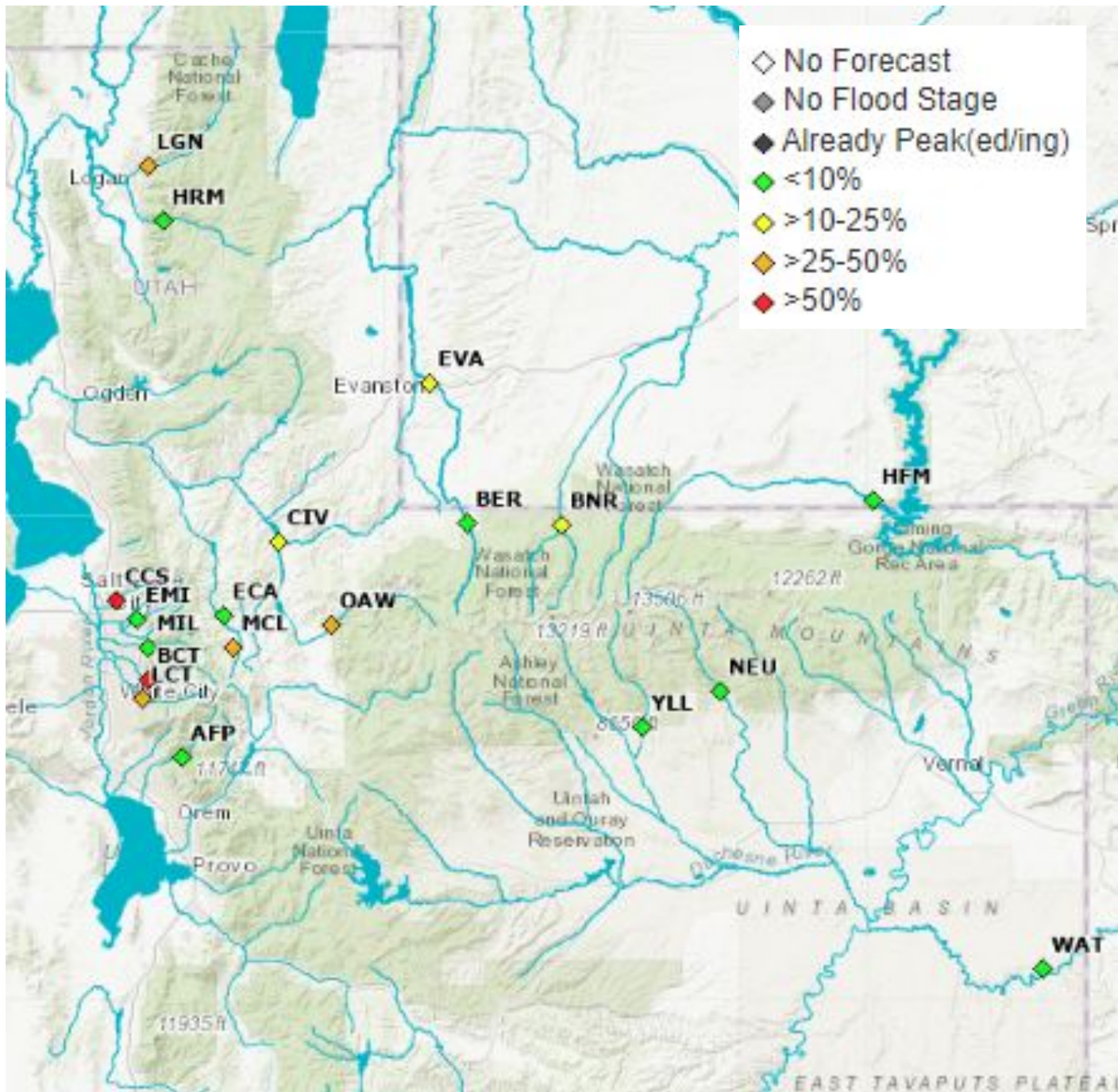
Max 1984: 15285.64

Min 2002: 963.96

Average: 6390

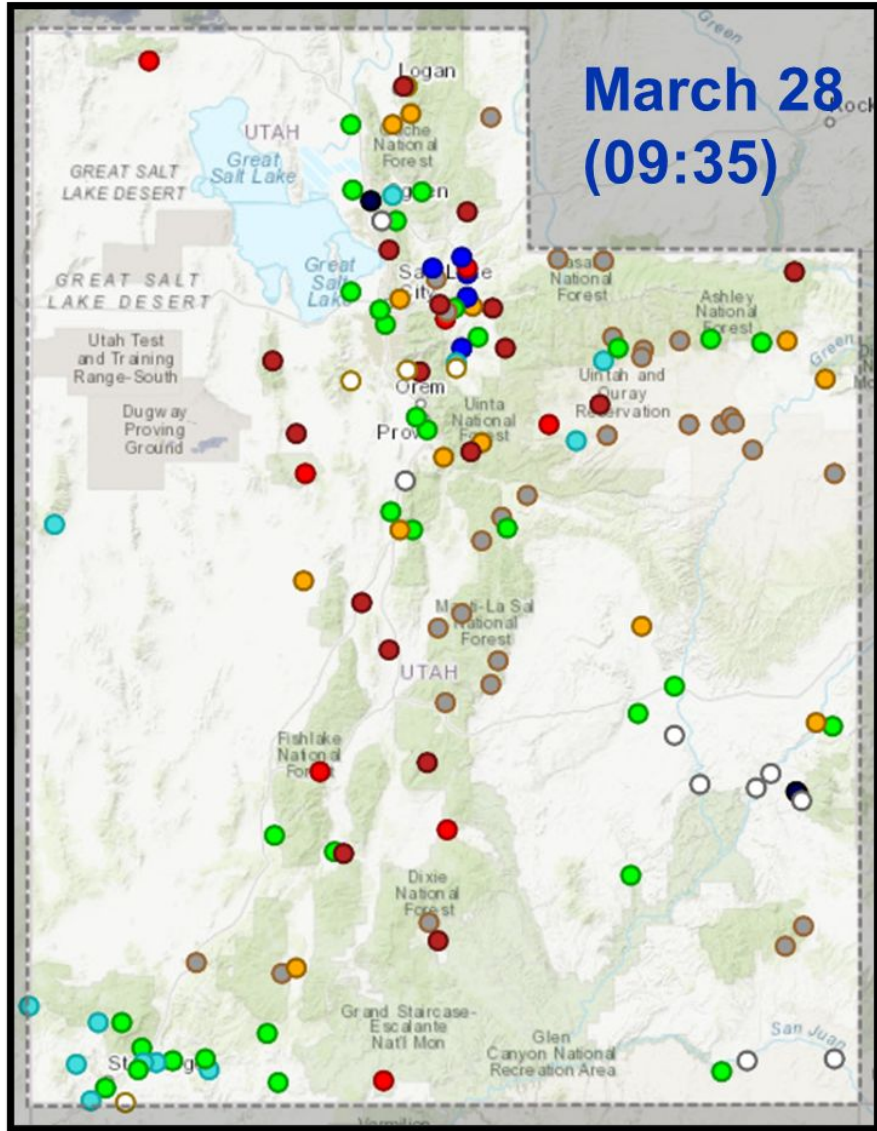
Median: 6130

ESP: 11000



- We also produce a peak flow product over a subset of sites over the State of Utah
- Highest flooding potential in the Six Creeks area
- Highly dependent on temperature and precipitation

Current Streamflow Conditions



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

Provisional data, subject to revision

Mar 7 Mar 28

Day-of-Year Status	% Gages	% Gages
All-time high for this day-of-year	0.0%	1.5%
Much above normal for this day-of-year	0.0%	3.6%
Above normal for this day-of-year	4.4%	10.9%
Normal for this day-of-year	27.0%	24.1%
Below normal for this day-of-year	19.0%	9.5%
Much below normal for this day-of-year	10.9%	13.1%
All-time low for this day-of-year	3.6%	5.8%
Not ranked - insufficient record	7.3%	7.3%
Not ranked - no measurement	2.9%	19.7%
Not ranked - no recent measurement	22.6%	1.5%
Not ranked - stream not flowing	2.2%	2.9%

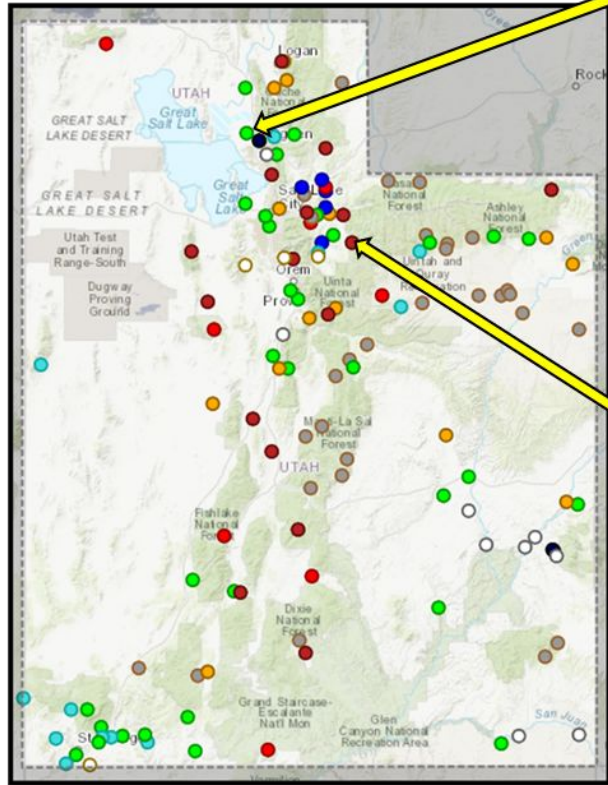
Streamflow: Status

- 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

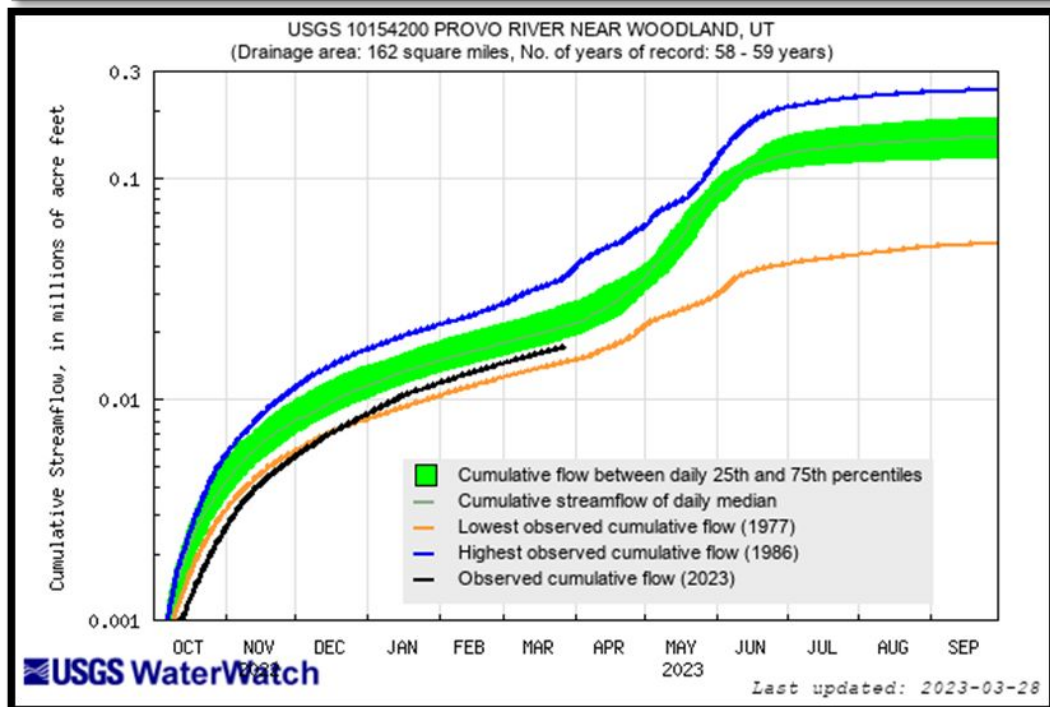
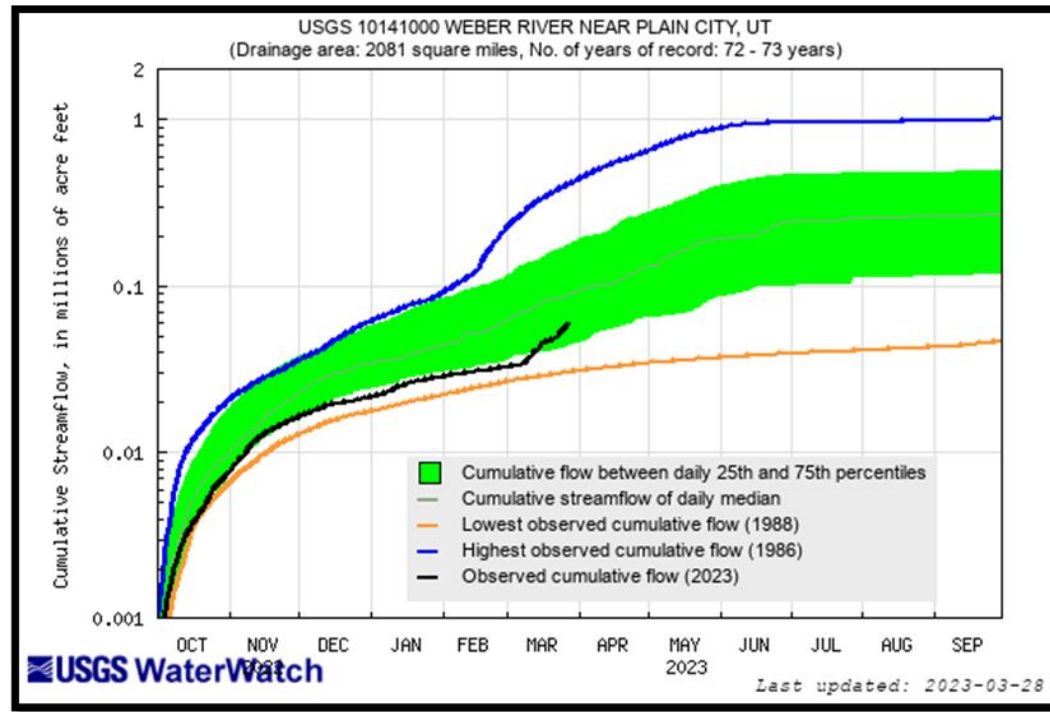
Agency - USGS Utah WSC
 Presenter - Laura Haskell on behalf of
 Ryan Rowland



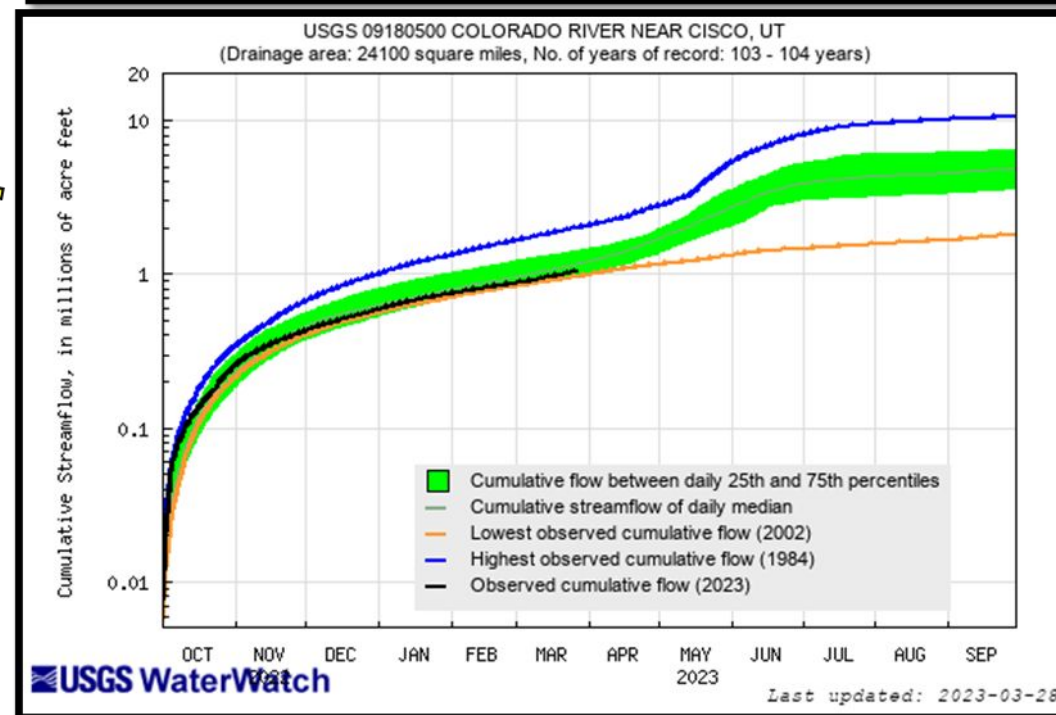
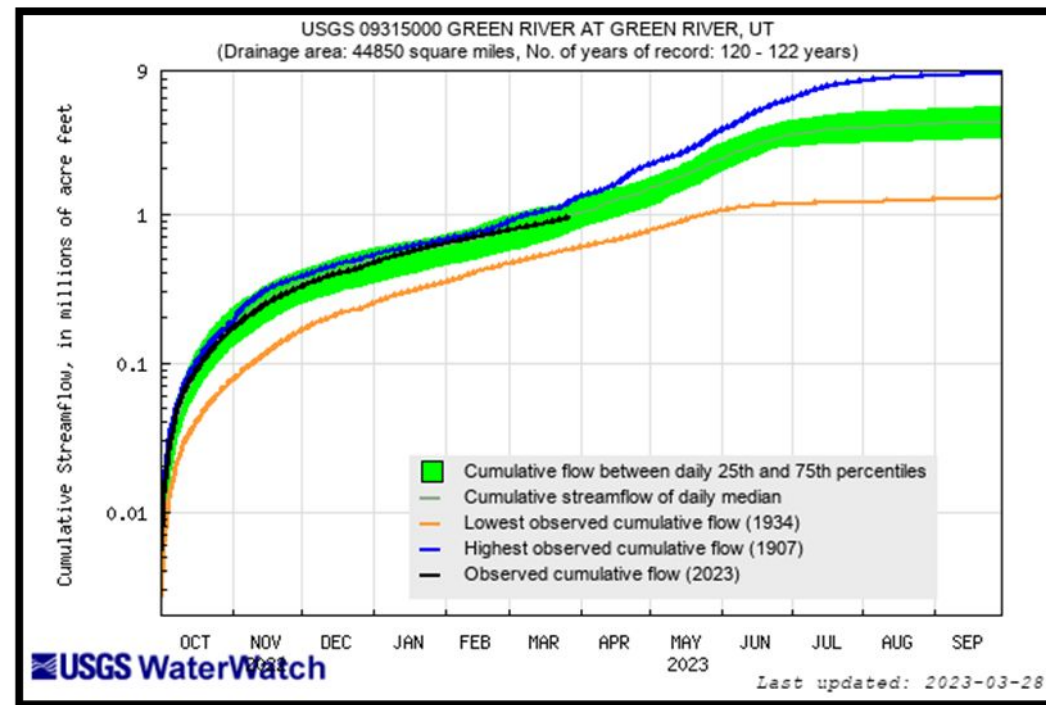
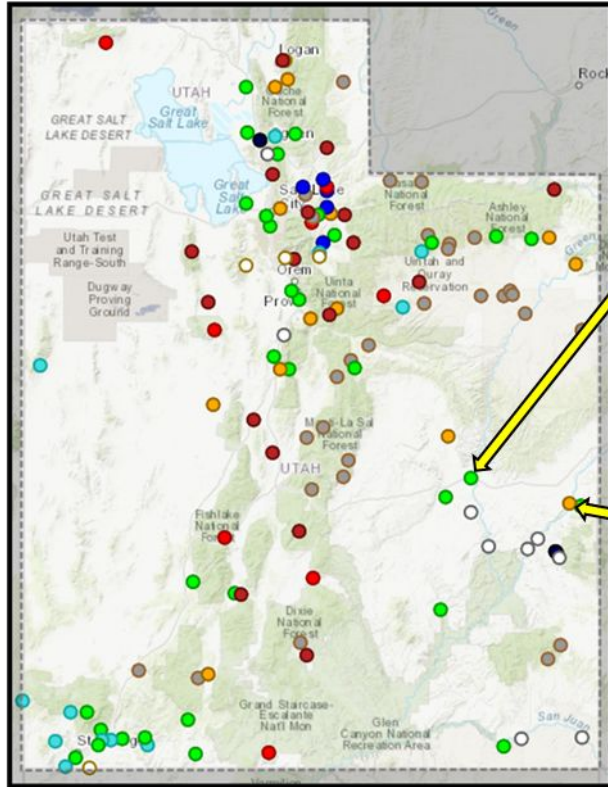
Cumulative Streamflow at Selected Gages



Provisional data, subject to revision

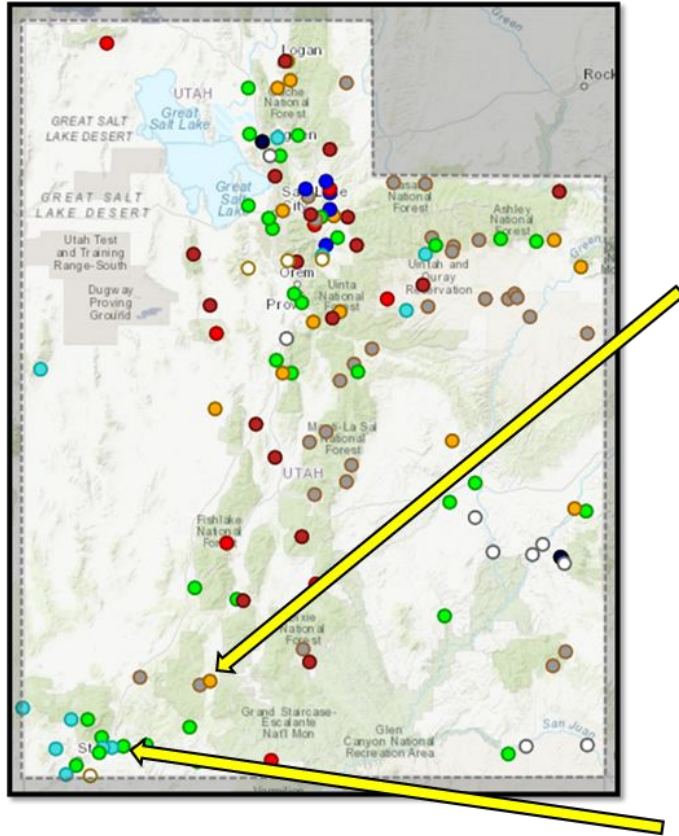


Cumulative Streamflow at Selected Gages

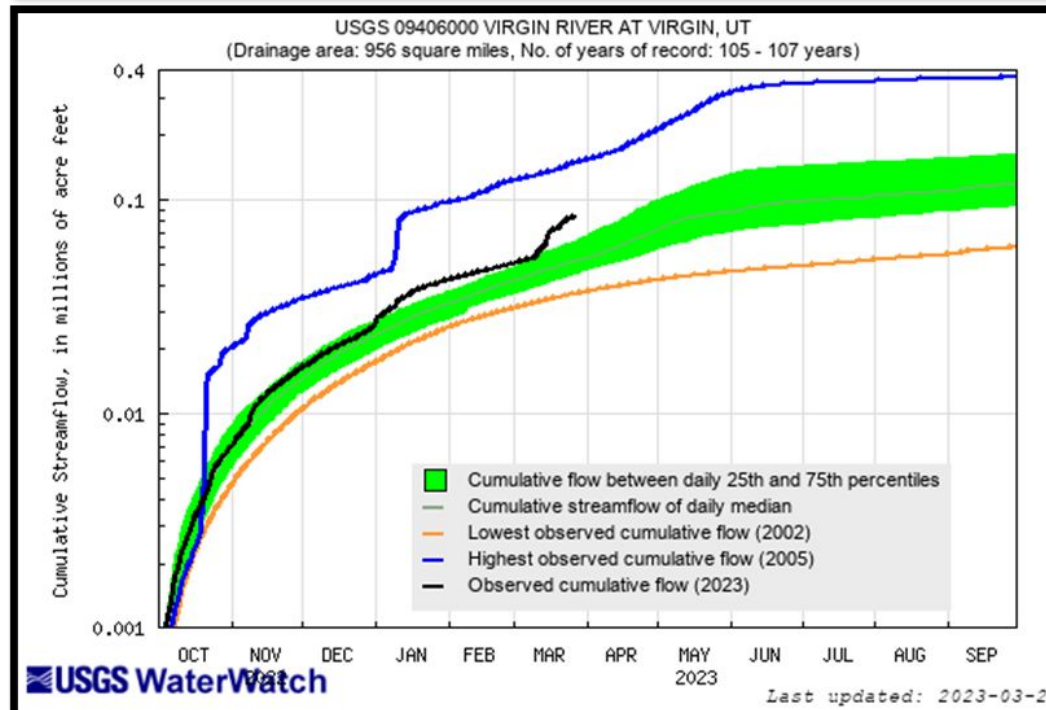
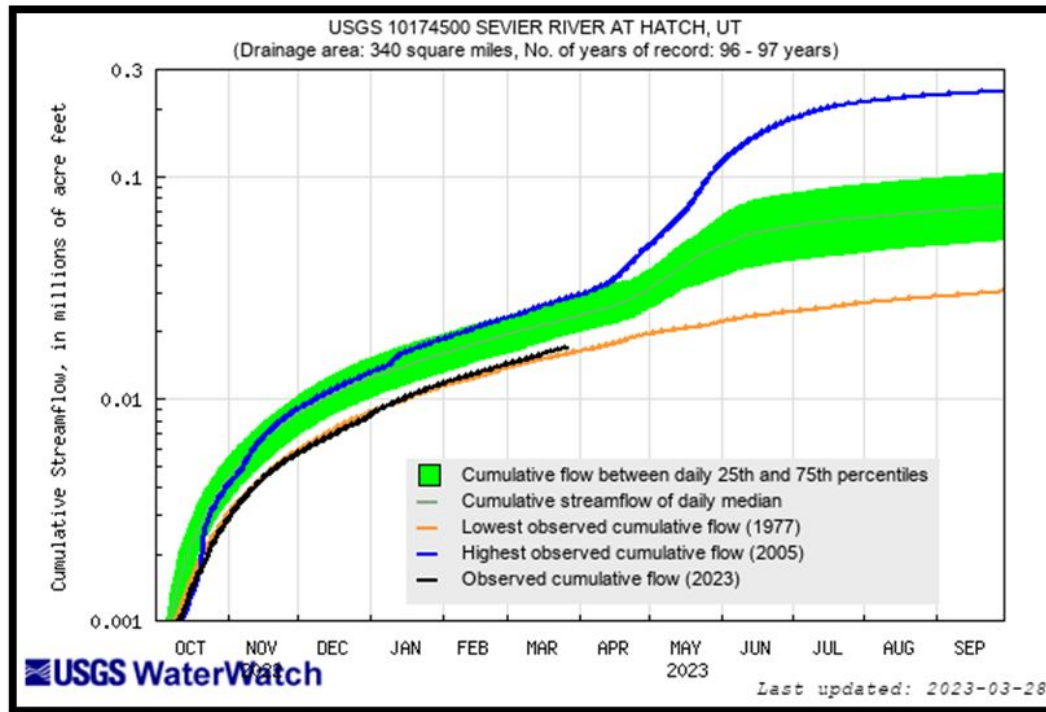


Provisional data, subject to revision

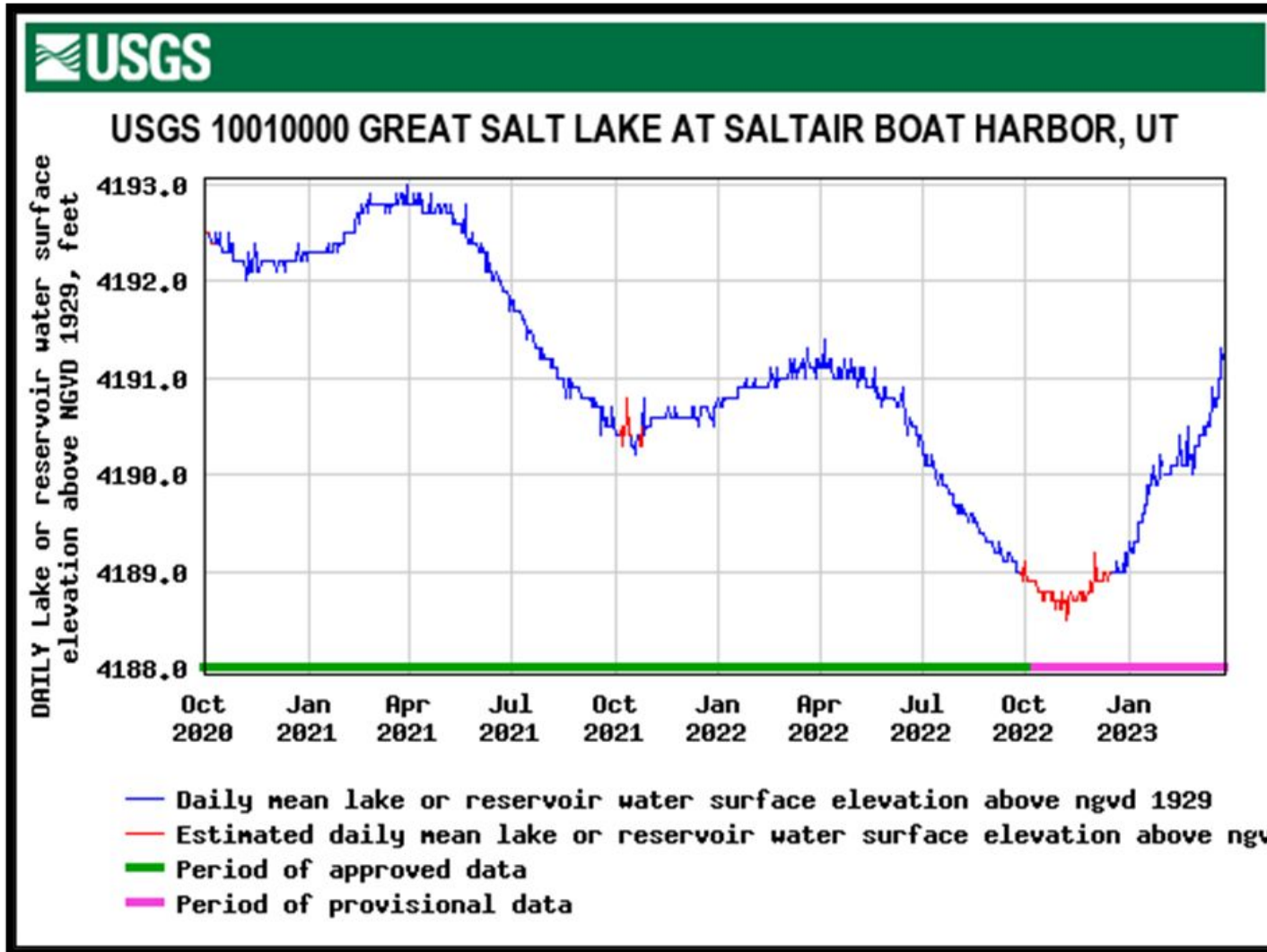
Cumulative Streamflow at Selected Gages



Provisional data, subject to revision



Great Salt Lake Water Surface Elevation - South Arm

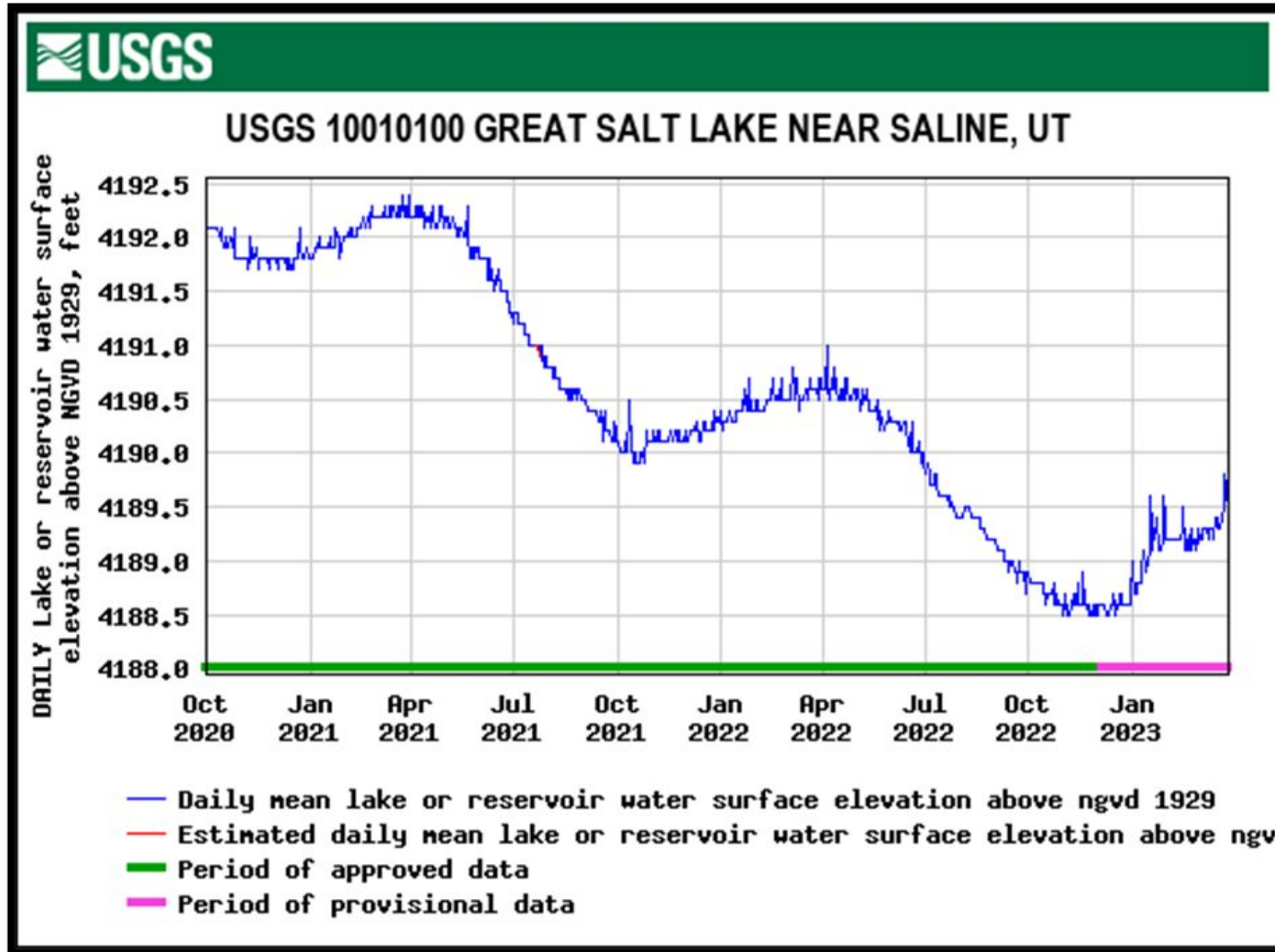


- Daily value 3/27/2023 = 4,191.2'
- Daily value 3/6/2023 = 4,190.4'
- Up 2.7' since November

Provisional data, subject to revision

Agency - USGS Utah WSC
Presenter - Laura Haskell on behalf of
Ryan Rowland

Great Salt Lake Water Surface Elevation - North Arm



- ❑ Daily value 3/27/2023 = 4,189.5'
- ❑ Daily value 3/6/2023 = 4,189.3'
- ❑ Up 1.0' since November

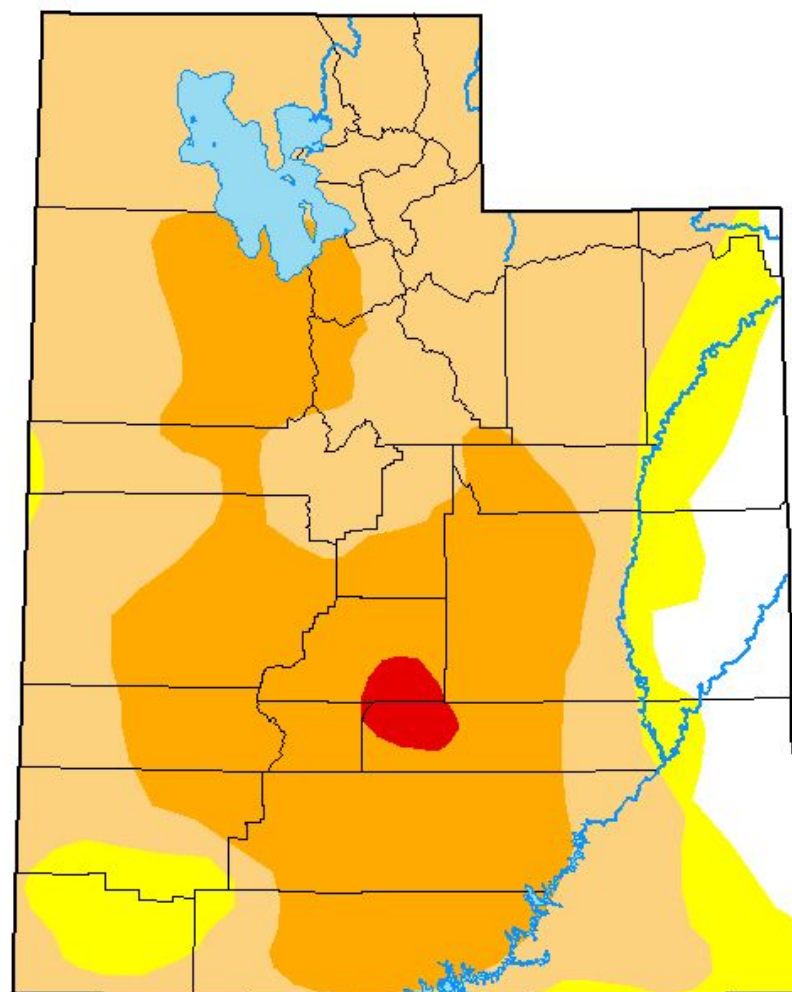
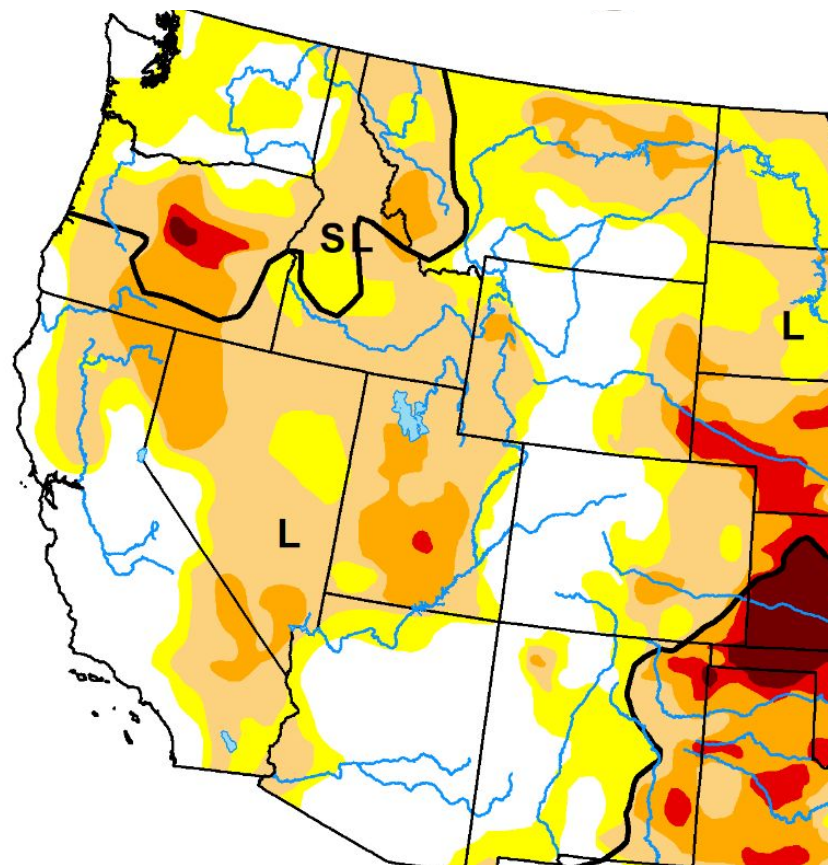
Provisional data, subject to revision

Agency - USGS Utah WSC
Presenter - Laura Haskell on behalf of
Ryan Rowland









U.S. Drought Monitor Utah

March 21, 2023
(Released Thursday, Mar. 23, 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:

Curtis Riganti
National Drought Mitigation Center



droughtmonitor.unl.edu