

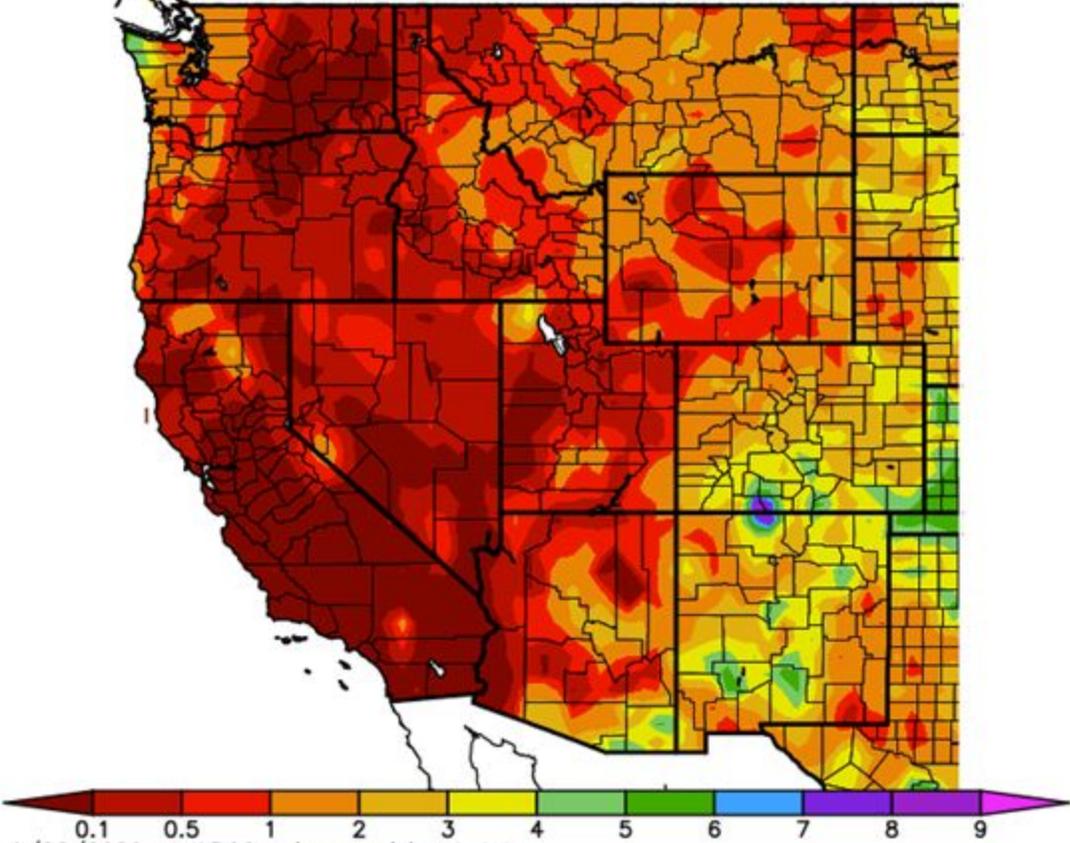


Utah Drought Monitor Webinar

September 22, 2020

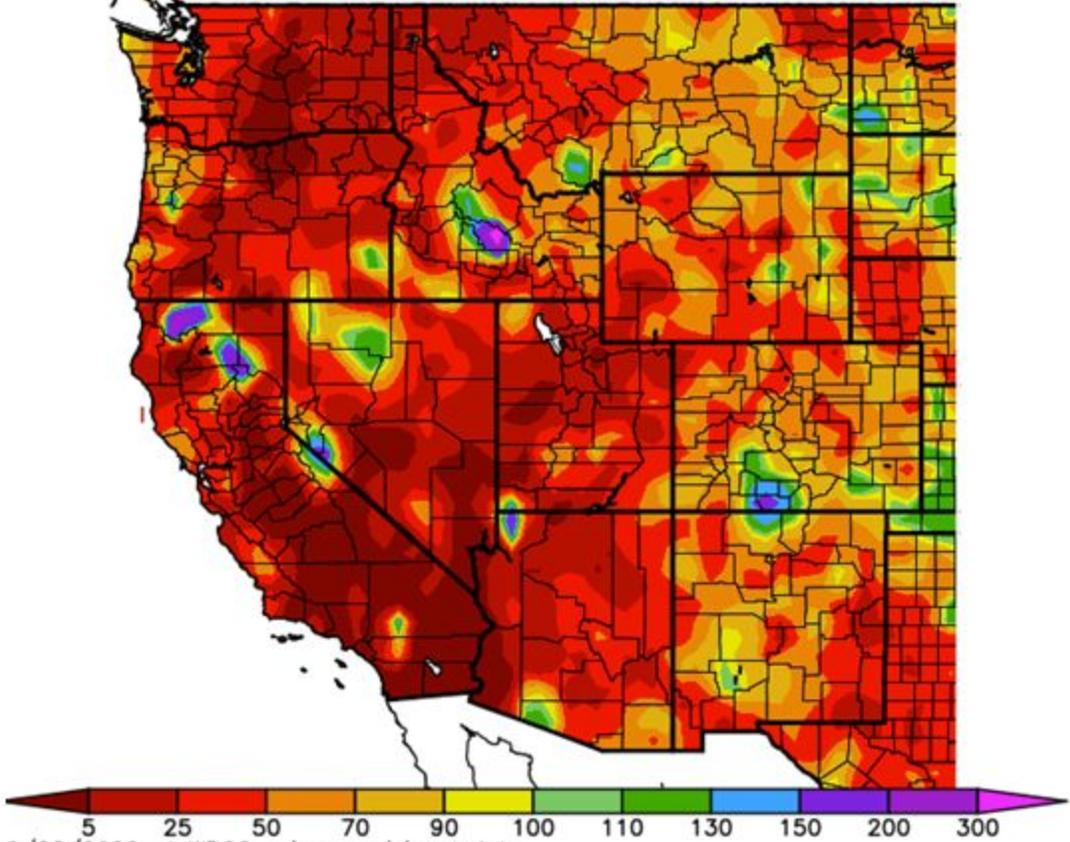
Precipitation 60 day history (Percent of Average)

Total Precipitation (in.)
7/24/2020 - 9/21/2020



Generated 9/22/2020 at WRCC using provisional data.
NOAA Regional Climate Centers

Percent of Average Precipitation (%)
7/24/2020 - 9/21/2020

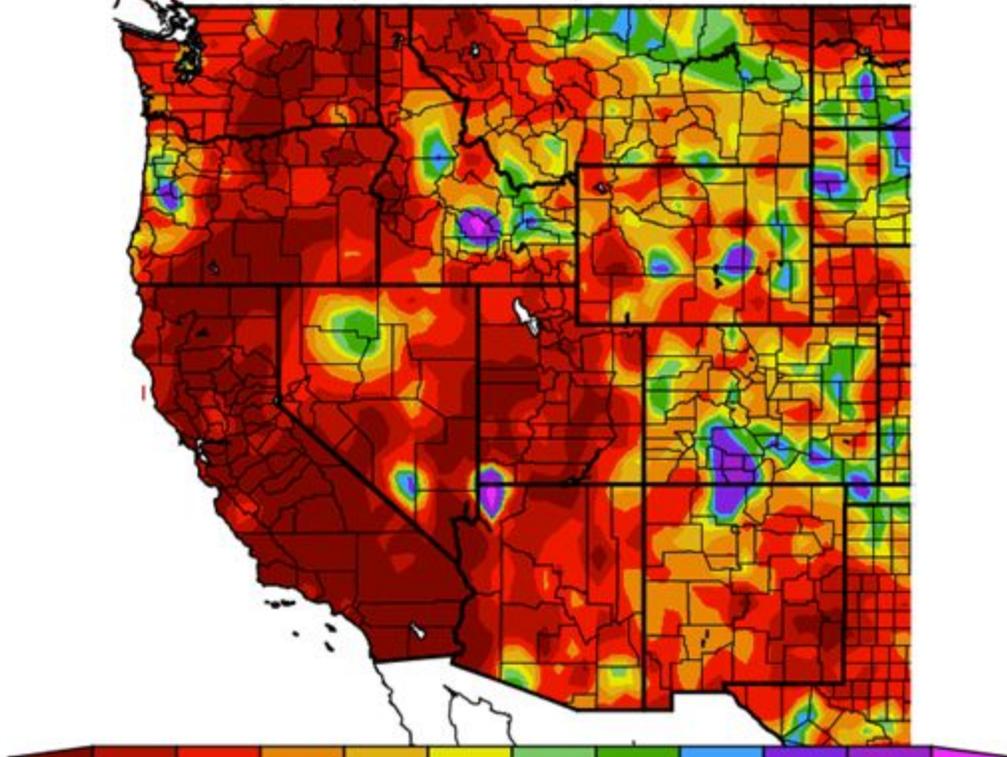
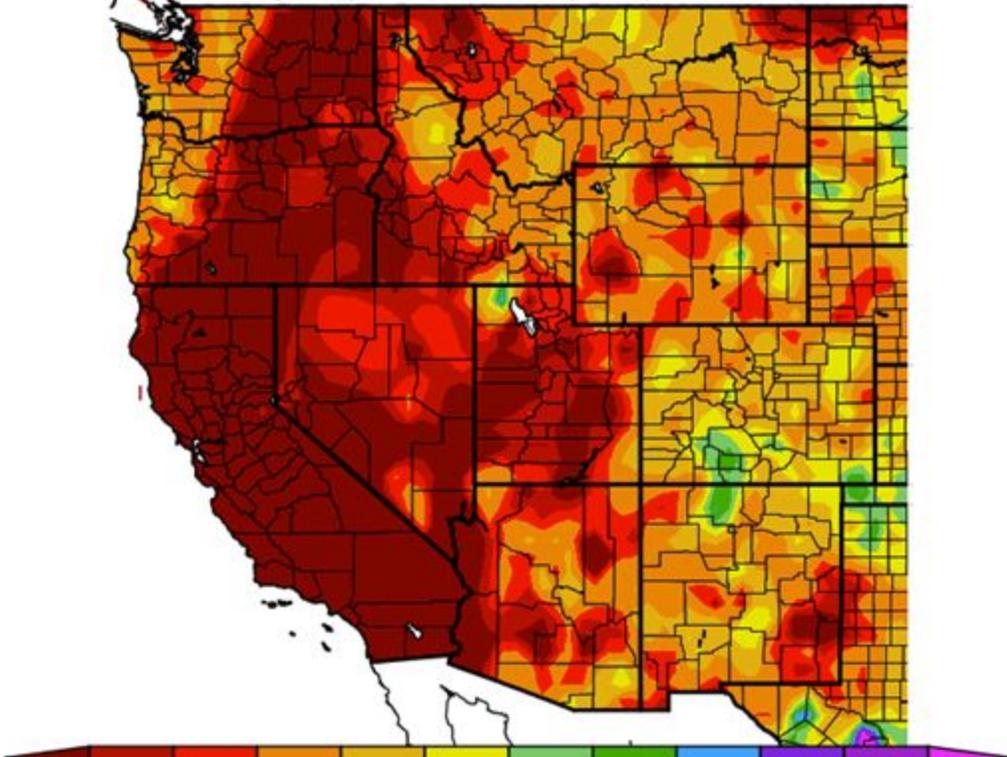


Generated 9/22/2020 at WRCC using provisional data.
NOAA Regional Climate Centers

Precipitation 30 day history (Percent of Average)

Total Precipitation (in.)
8/23/2020 - 9/21/2020

Percent of Average Precipitation (%)
8/23/2020 - 9/21/2020

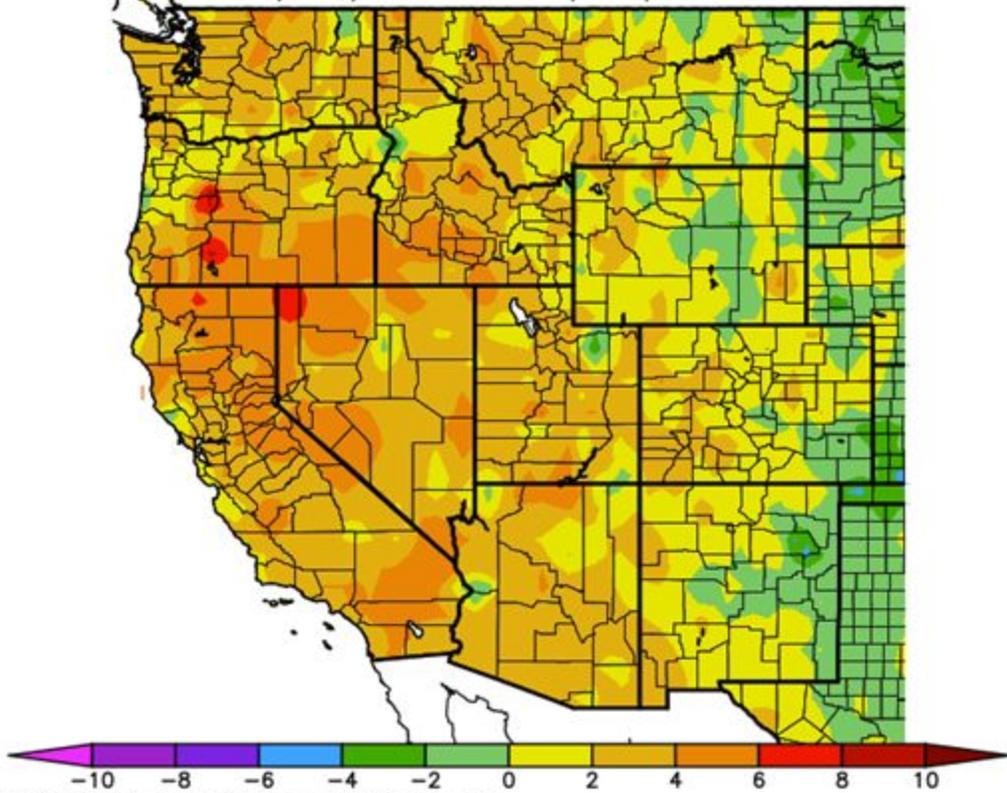


Generated 9/22/2020 at WRCC using provisional data.
NOAA Regional Climate Centers

Generated 9/22/2020 at WRCC using provisional data.
NOAA Regional Climate Centers

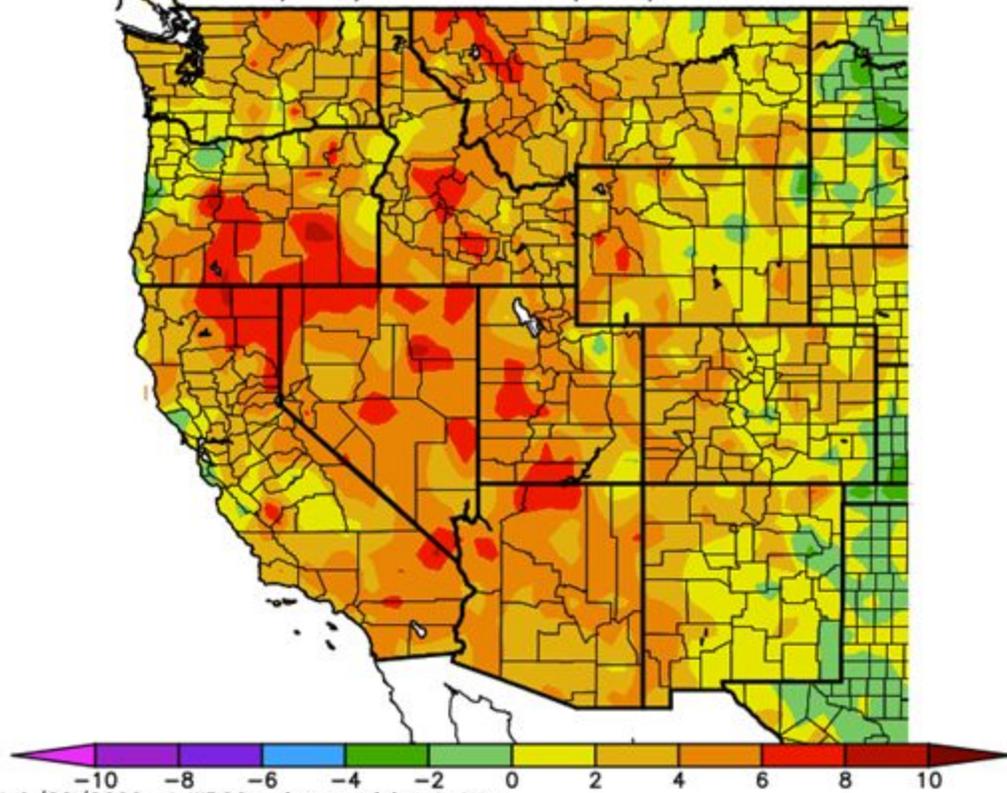
Temperature 30 day (Related to Average)

Ave. Temperature dep from Ave (deg F)
8/23/2020 - 9/21/2020



Generated 9/22/2020 at WRCC using provisional data.
NOAA Regional Climate Centers

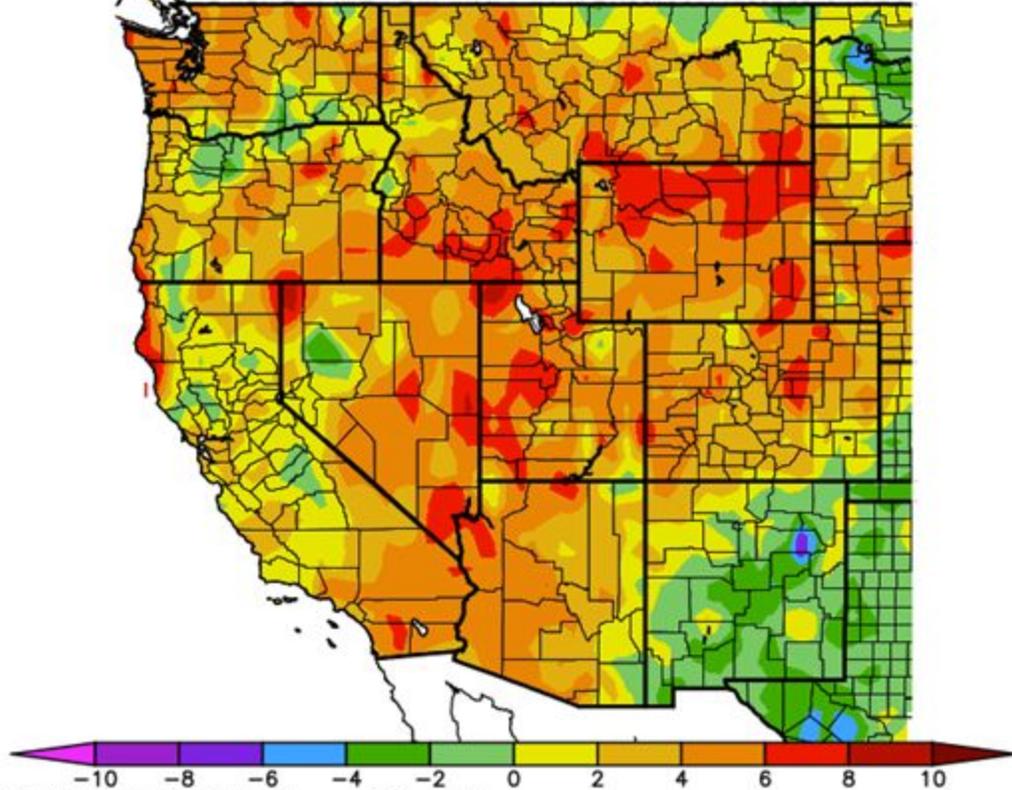
Av. Max. Temperature dep from Ave (deg F)
8/23/2020 - 9/21/2020



Generated 9/22/2020 at WRCC using provisional data.
NOAA Regional Climate Centers

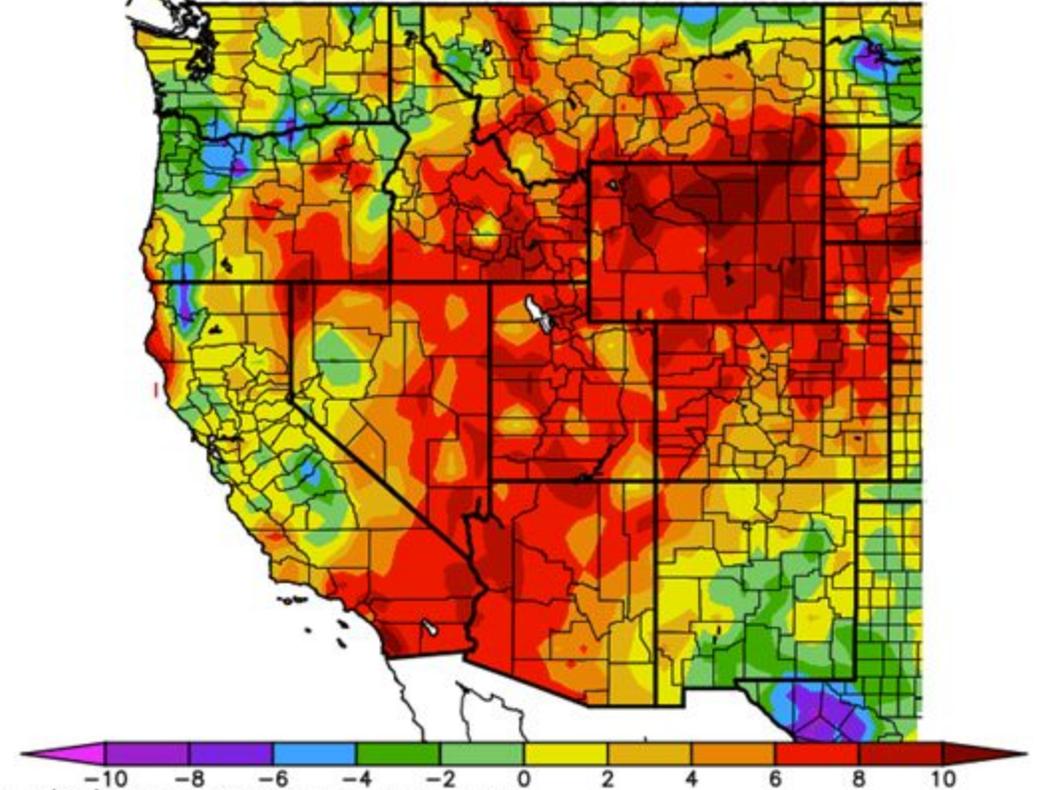
Temperature 7 day (Related to Average)

Ave. Temperature dep from Ave (deg F)
9/15/2020 - 9/21/2020



Generated 9/22/2020 at WRCC using provisional data.
NOAA Regional Climate Centers

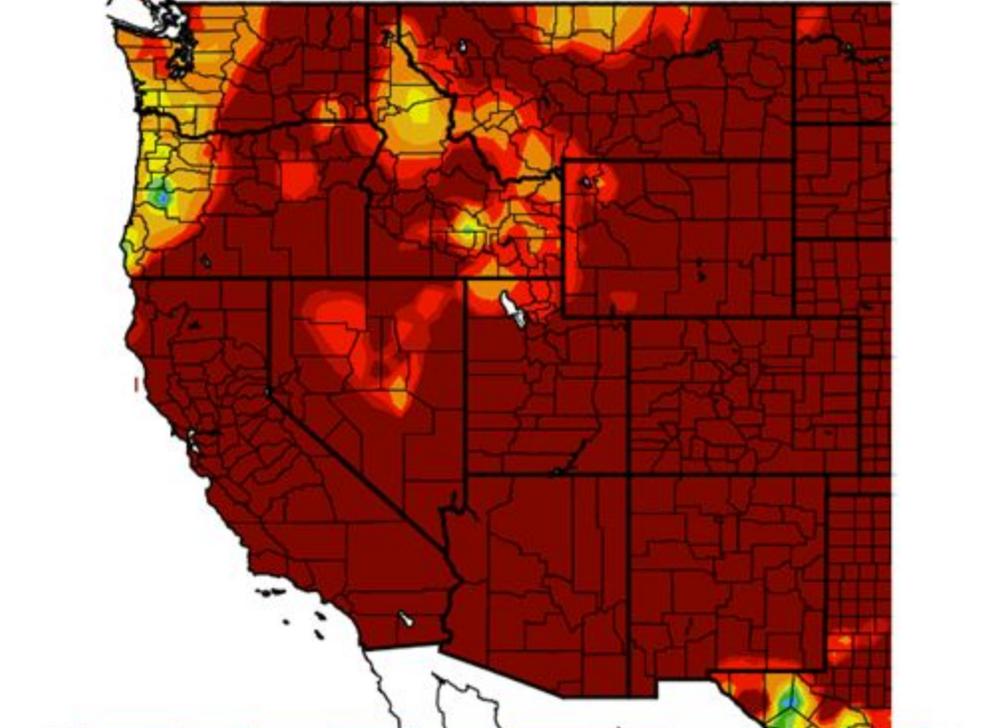
Av. Max. Temperature dep from Ave (deg F)
9/15/2020 - 9/21/2020



Generated 9/22/2020 at WRCC using provisional data.
NOAA Regional Climate Centers

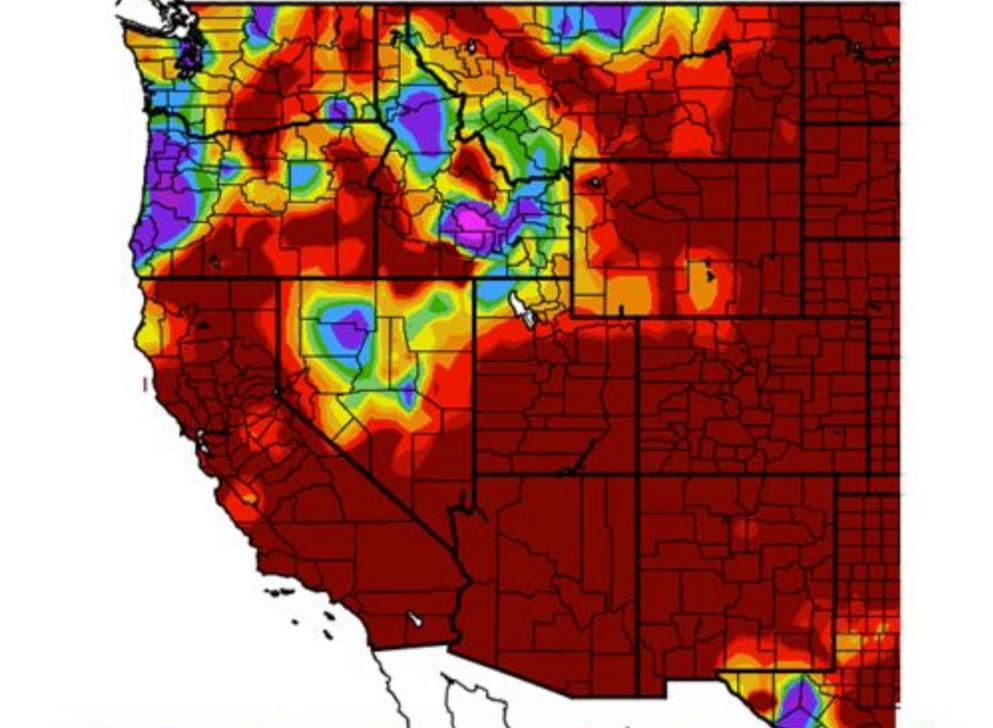
Precipitation 7 day history (Percent of Average)

Total Precipitation (in.)
9/15/2020 - 9/21/2020



Generated 9/22/2020 at WRCC using provisional data.
NOAA Regional Climate Centers

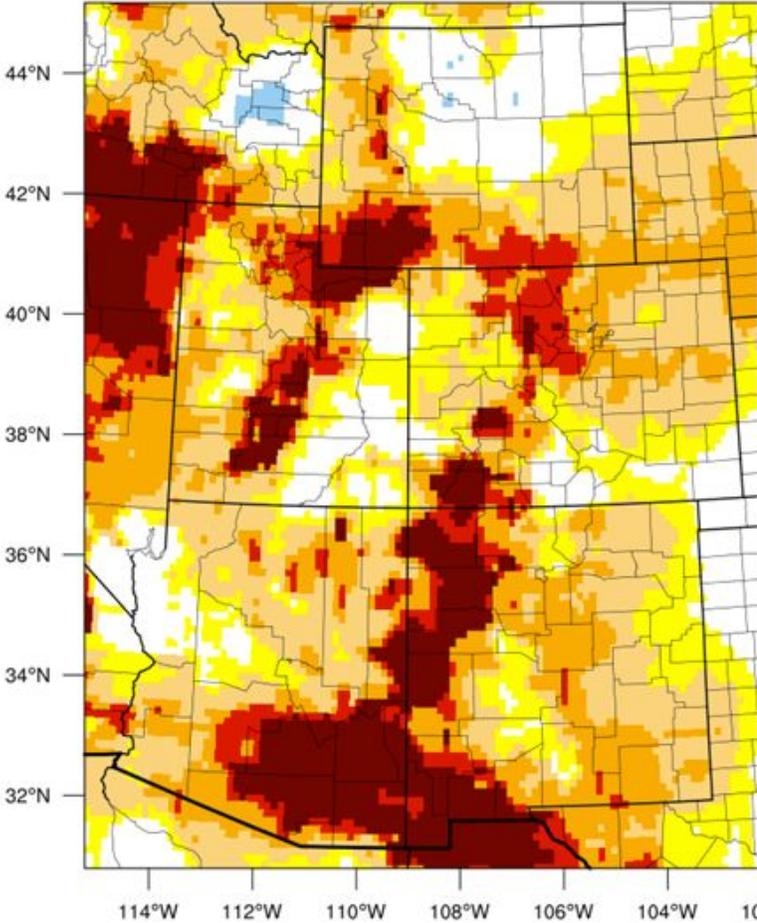
Percent of Average Precipitation (%)
9/15/2020 - 9/21/2020



Generated 9/22/2020 at WRCC using provisional data.
NOAA Regional Climate Centers

EDDI Drought Index

4-week EDDI categories for September 17, 2022



Drought categories Wetness categories

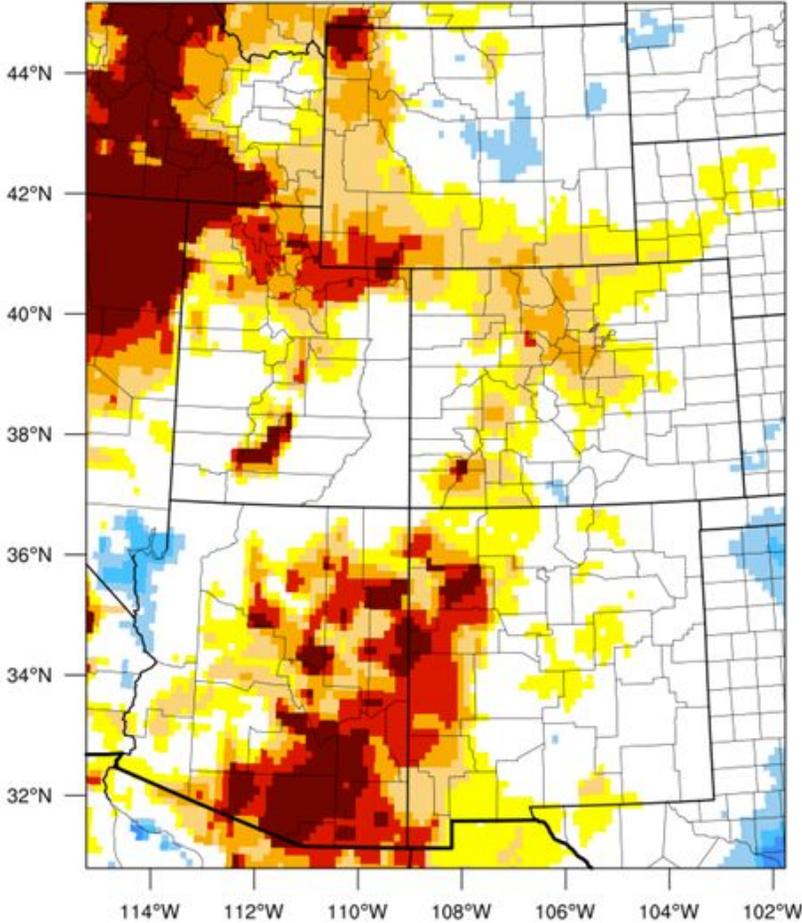
ED4 ED3 ED2 ED1 ED0 EW0 EW1 EW2 EW3 EW4

100% 98% 95% 90% 80% 70% 30% 20% 10% 5% 2%

(EDDI-percentile category breaks: 100% = driest; 0% = wettest)

Generated by NOAA/ESRL/Physical Sciences Labor

2-week EDDI categories for September 17, 2020



Drought categories Wetness categories

ED4 ED3 ED2 ED1 ED0 EW0 EW1 EW2 EW3 EW4

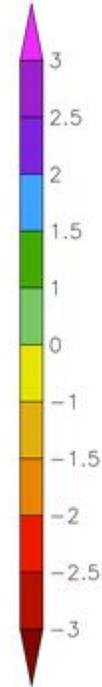
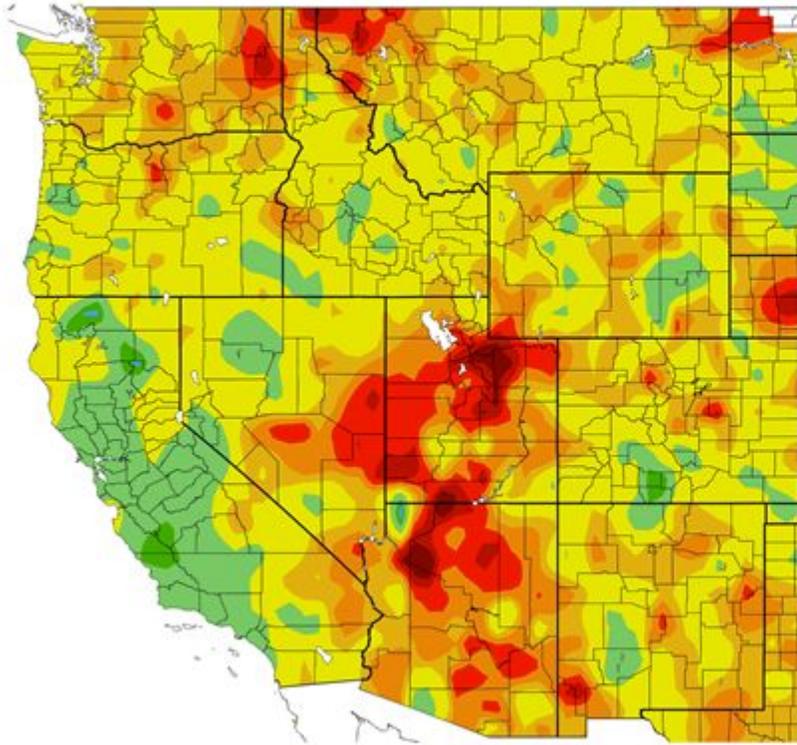
100% 98% 95% 90% 80% 70% 30% 20% 10% 5% 2% 0%

(EDDI-percentile category breaks: 100% = driest; 0% = wettest)

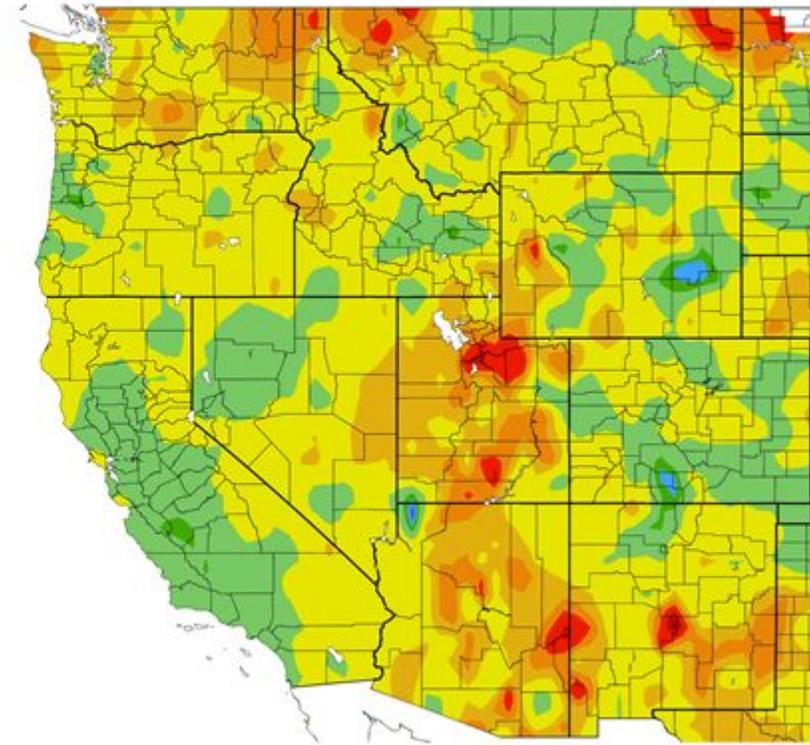
Generated by NOAA/ESRL/Physical Sciences Laboratory

SPI Drought Index

60 Day SPI
7/23/2020 - 9/20/2020



30 Day SPI
8/22/2020 - 9/20/2020



Generated 9/21/2020 at HPRCC using provisional data.

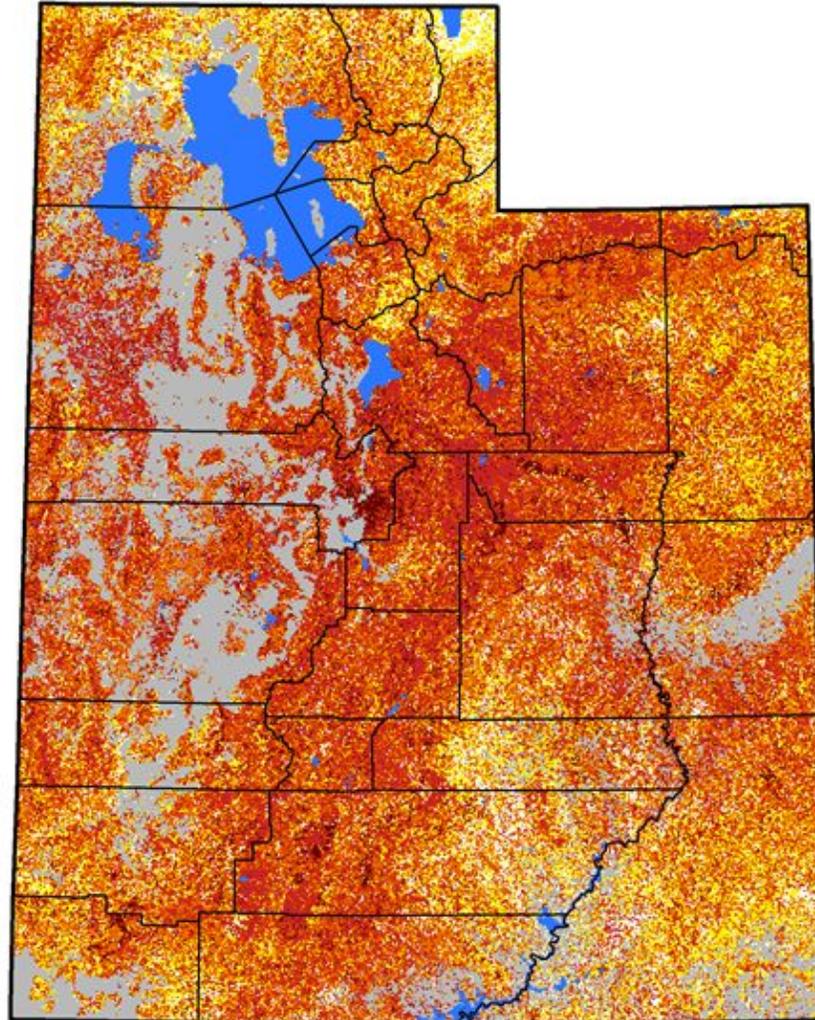
NOAA Regional Climate Center Generated 9/22/2020 at HPRCC using provisional data.

NOAA Regional Climate Centers

Vegetation Drought Response Index

Complete: Utah

September 20, 2020



Vegetation Condition

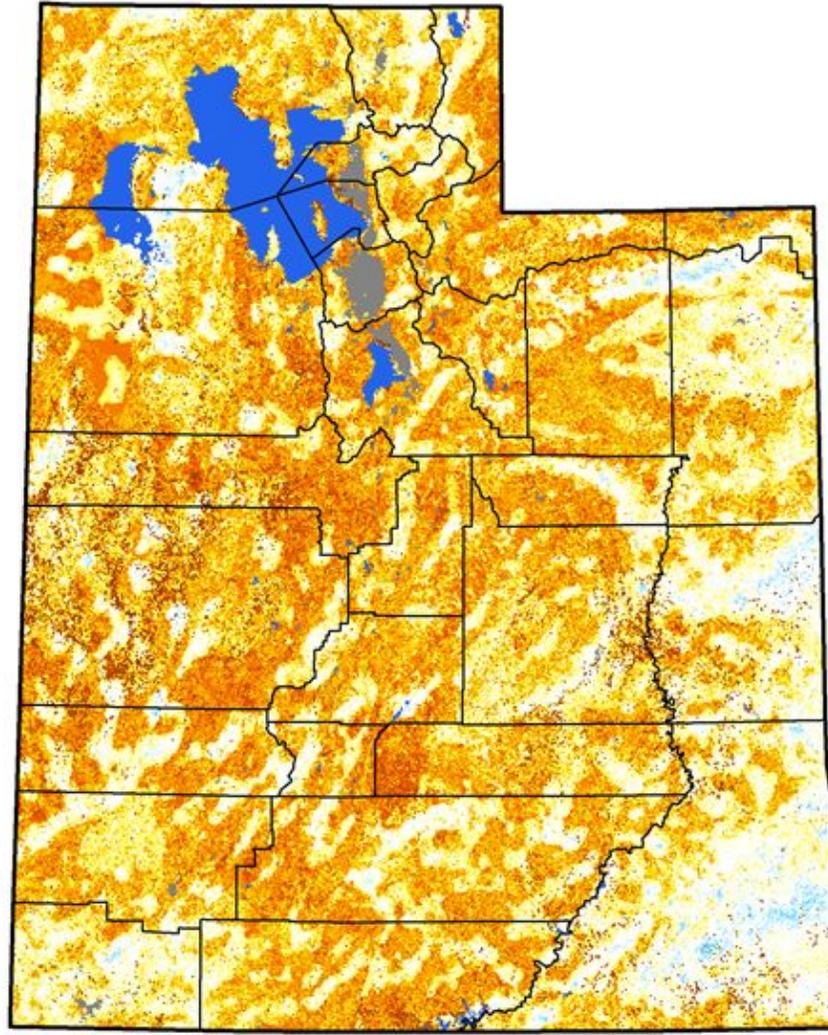
- Extreme Drought
- Severe Drought
- Moderate Drought
- Pre-drought stress
- Near Normal
- Unusually Moist
- Very Moist
- Extreme Moist
- Out of Season
- Water



Quick Drought Response Index

Utah

September 20, 2020
(Week 38)



Conditions Relative to
4-Week Historical Average

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



CALMIT
University of Nebraska - Lincoln
Center for Advanced Land Management Education Technology

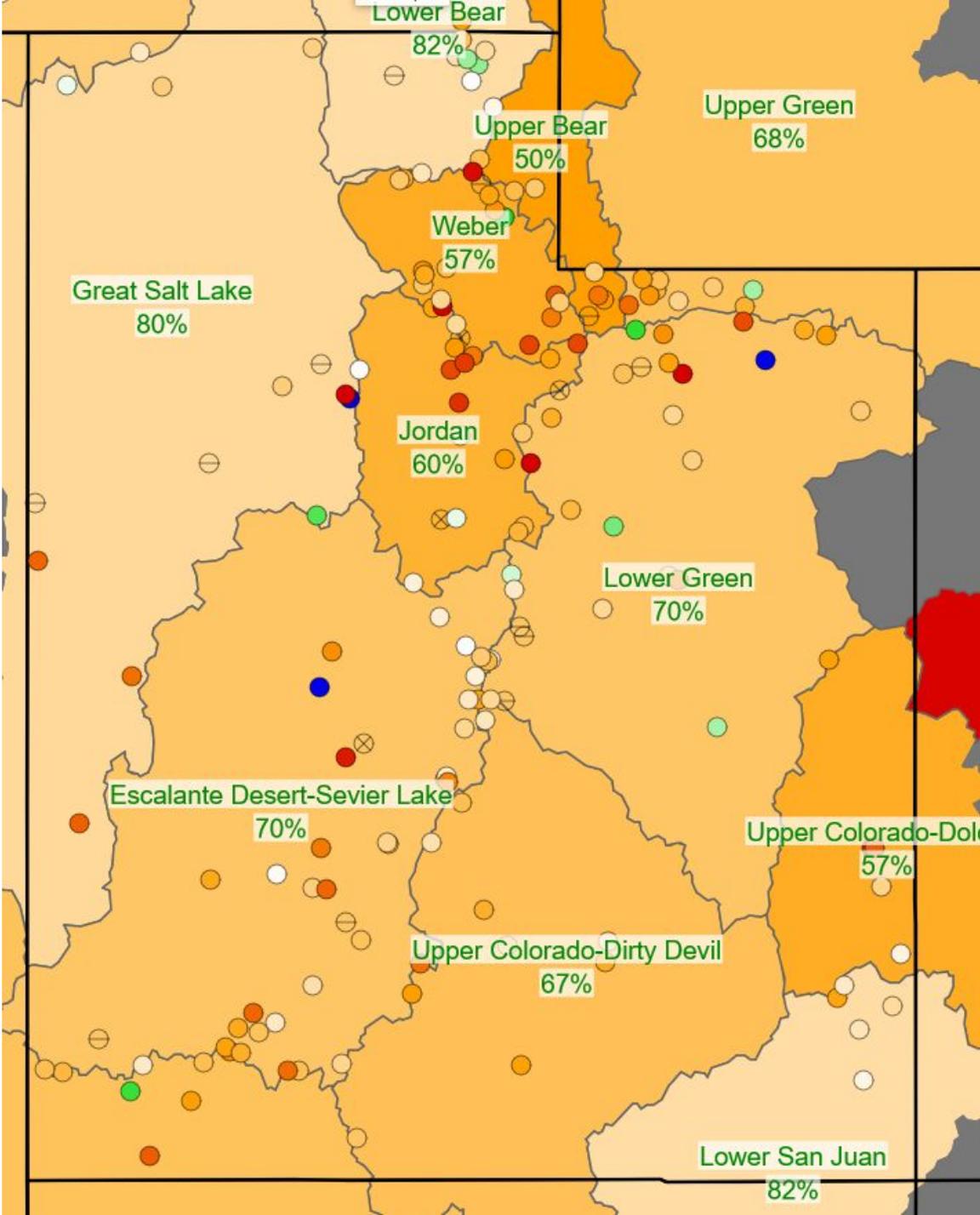


Agency - Utah Climate Center
Presenter - Jon Meyer

Climate Summary:

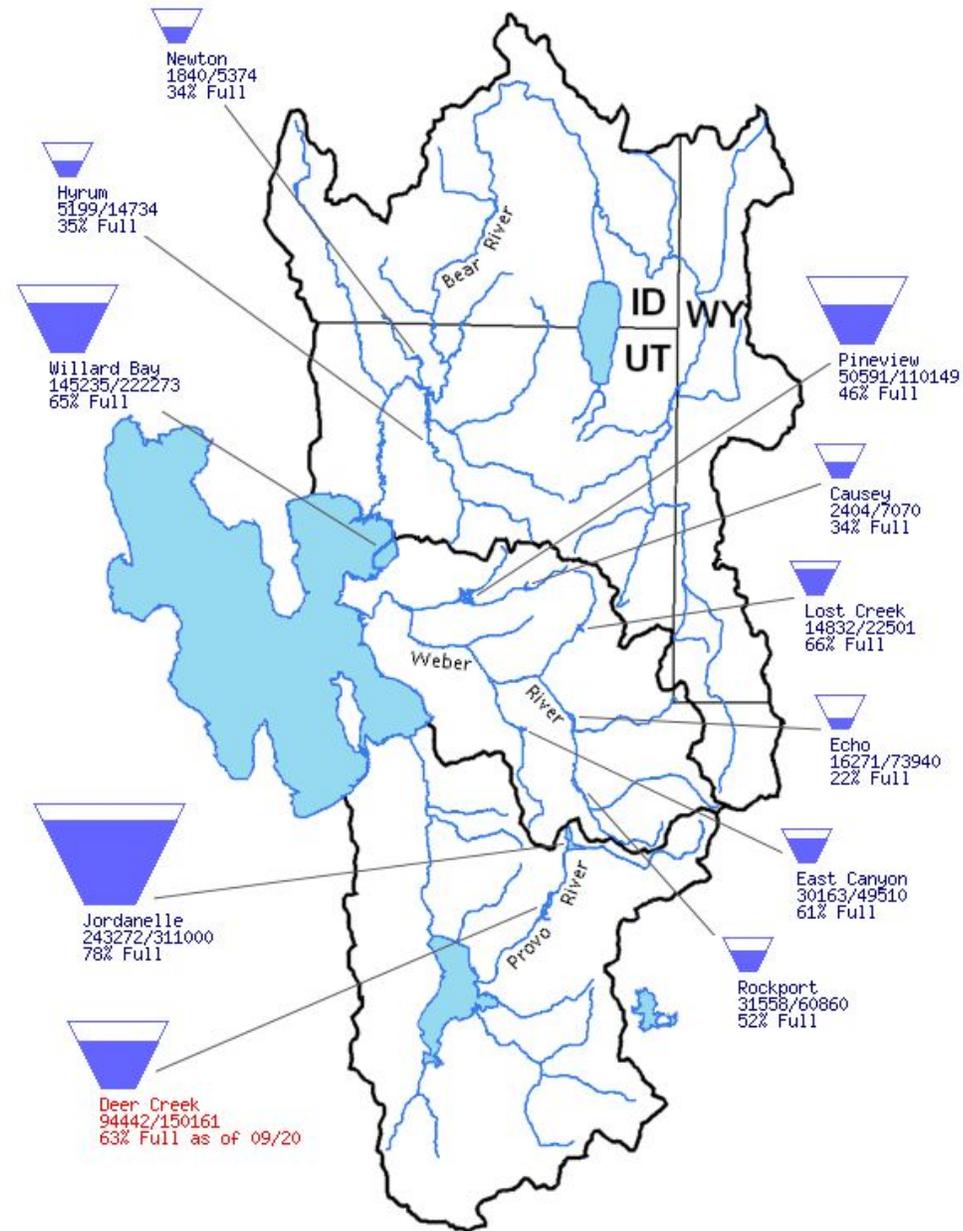
- With the exception of recent modest northern Utah precipitation activity, the **entire state remains well below expected rainfall across long-term and short-term timescales**. While ongoing dryness is indicated by the SPI index, general short-term improvements to the degree of dryness are found. However, **areas experiencing the greatest drought (central and southeastern Utah) remain the worst off**.
- Total rainfall over the last 60 days remains under 1” for the majority of the state, with much of that area seeing less than 0.5” and some seeing less than 0.1”. The degree of recent dryness shown in the QuickDri index confirms the ongoing drought conditions.
- Temperatures continue to run above normal across all timescales with recent weeks seeing an increase in the magnitude of anomaly in both average and max daytime temps.
- Despite ongoing above-seasonal temperatures and dry skies, improvements to the recent EDDI index is assumed to be related to the gradual climatological cooling trend that will naturally drive down the atmosphere’s evaporative demand.
- Given the low soil moisture, lack of precipitation and above-seasonal temperatures, vegetation response indices continue to indicate a high degree of stress on plant life.

Soil Moisture (Current) SCAN & SNOTEL data 8" depth sensor

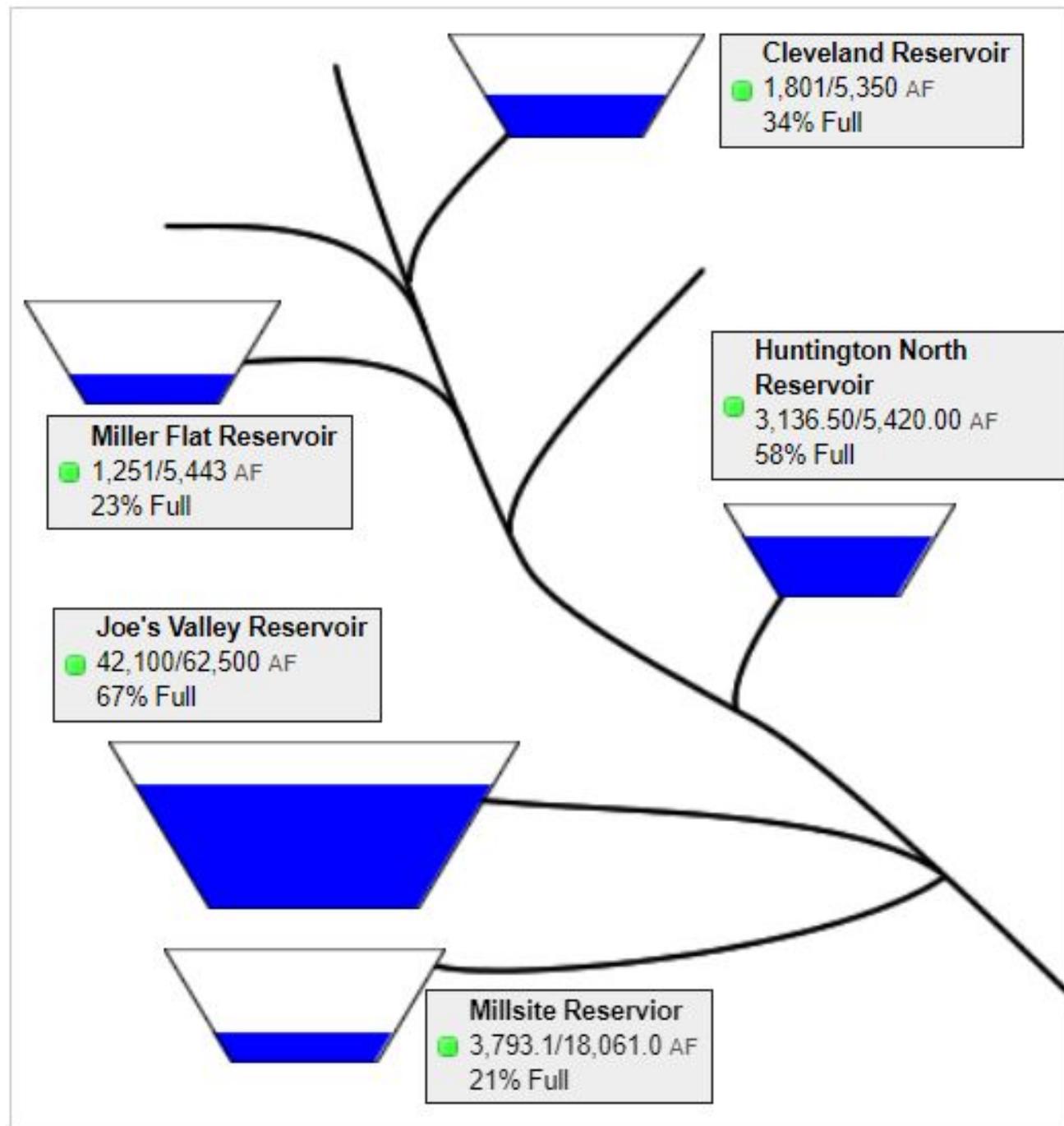


Data Current as of:
09/21/2020

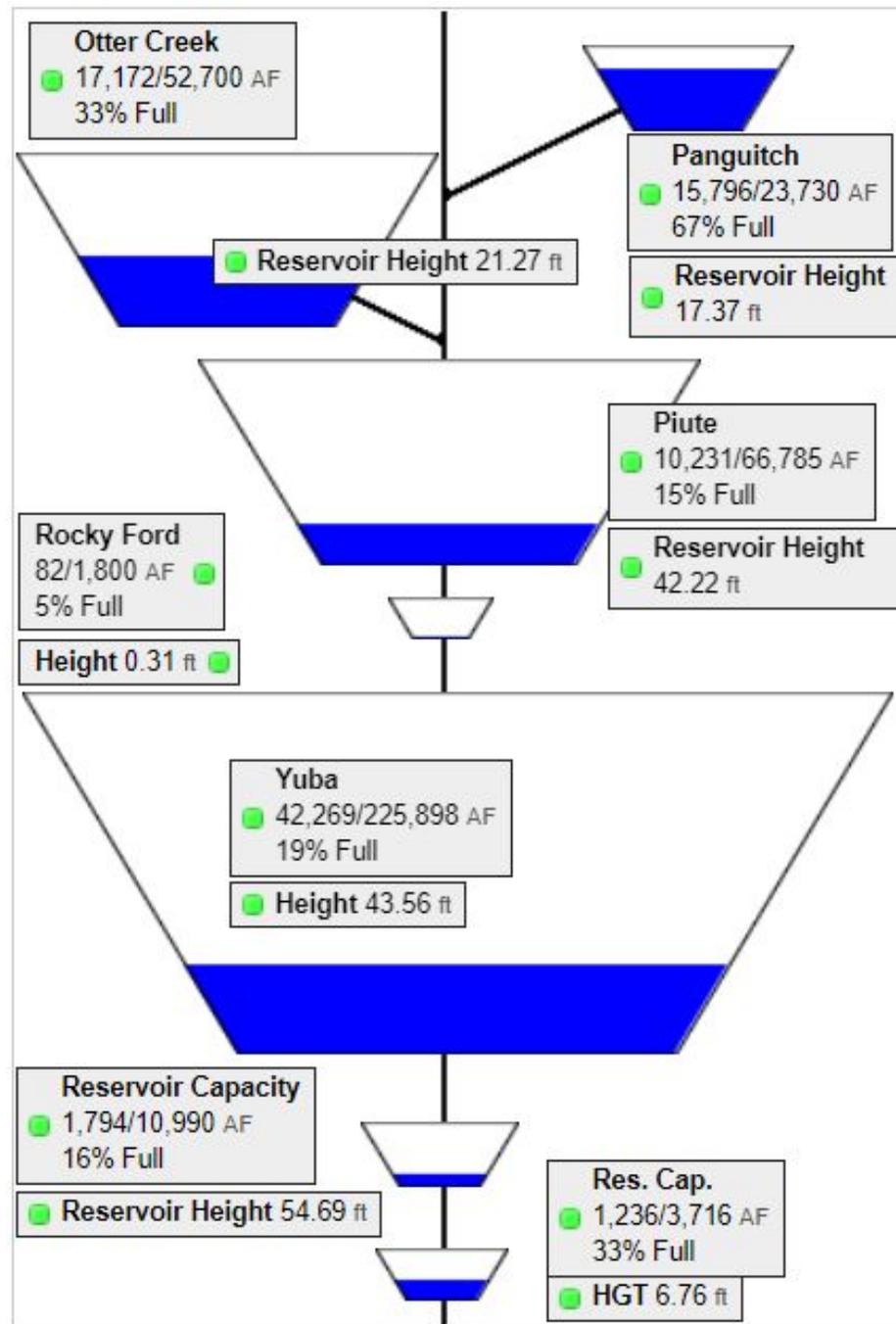
Bear, Weber, and Provo River Basins



Agency - Bureau of Reclamation
Presenter - Laura Haskell

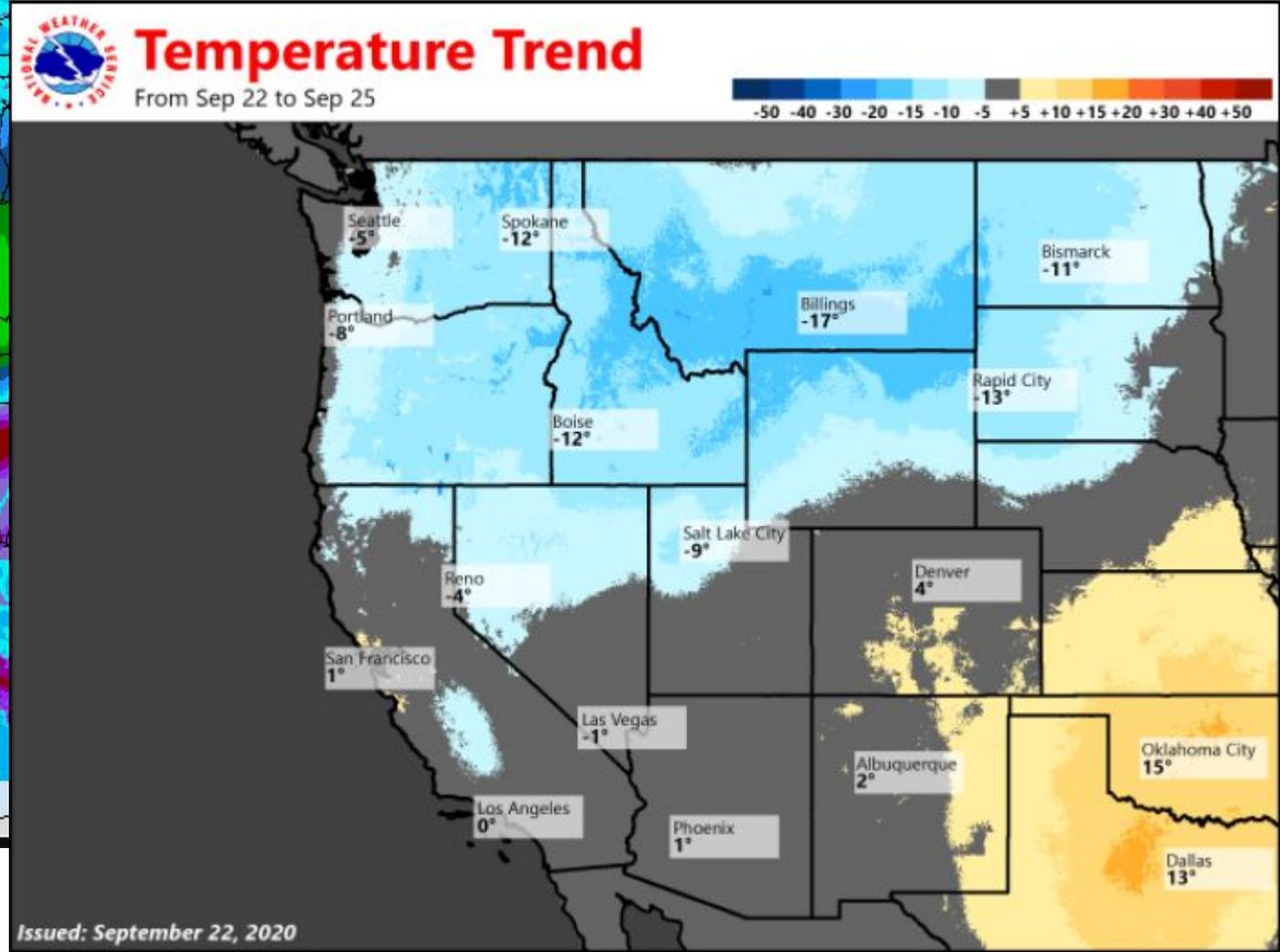
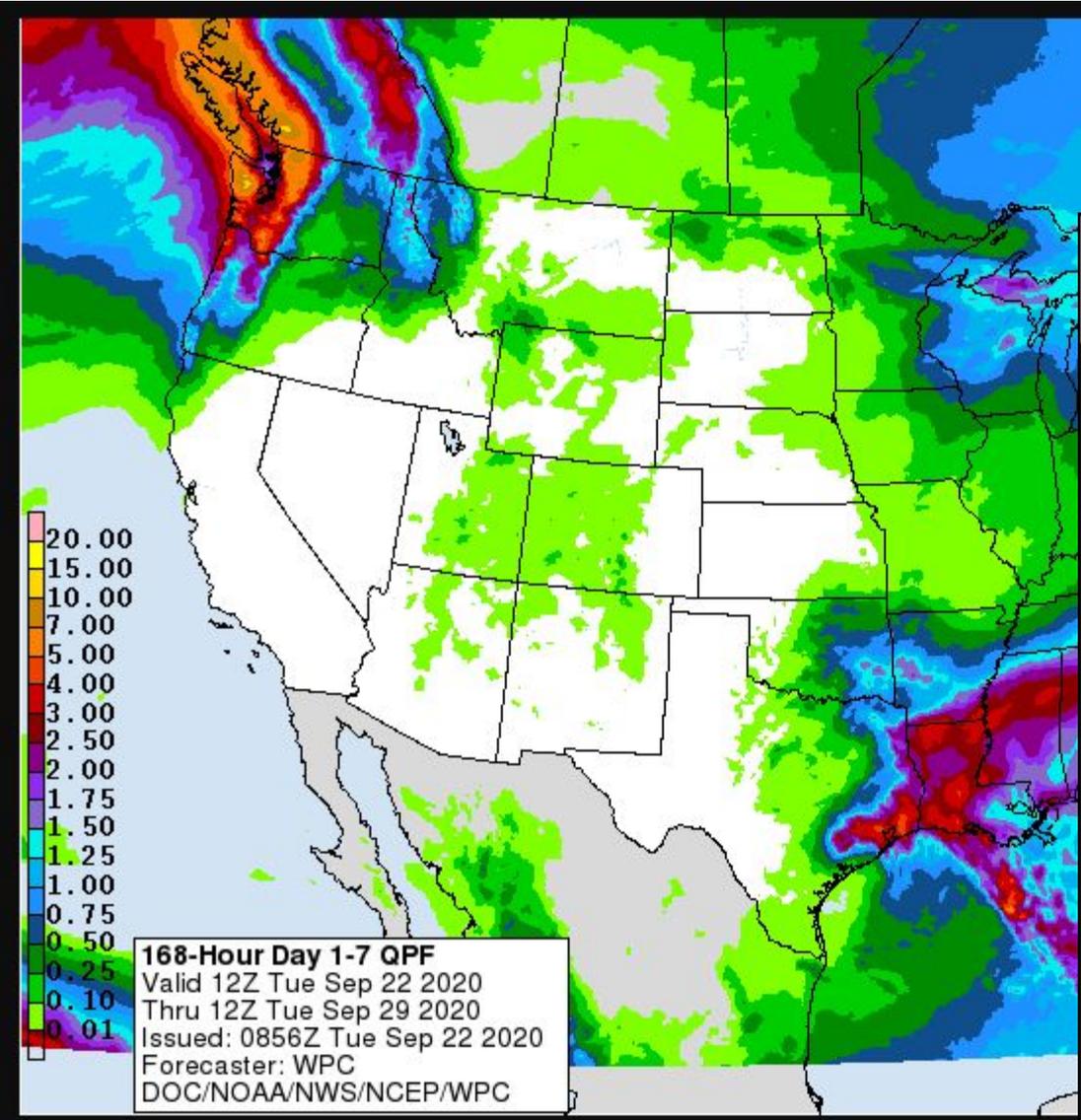
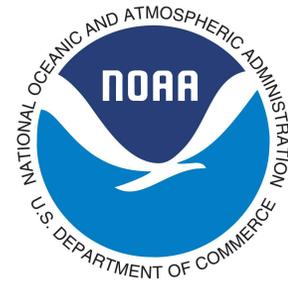


Agency - Emery Water Conservancy
District data
Presenter - Laura Haskell



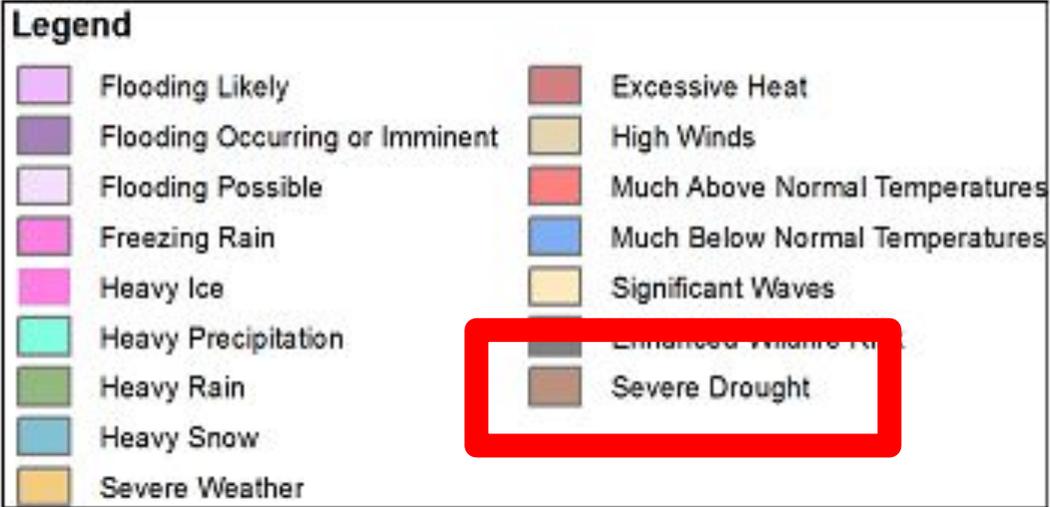
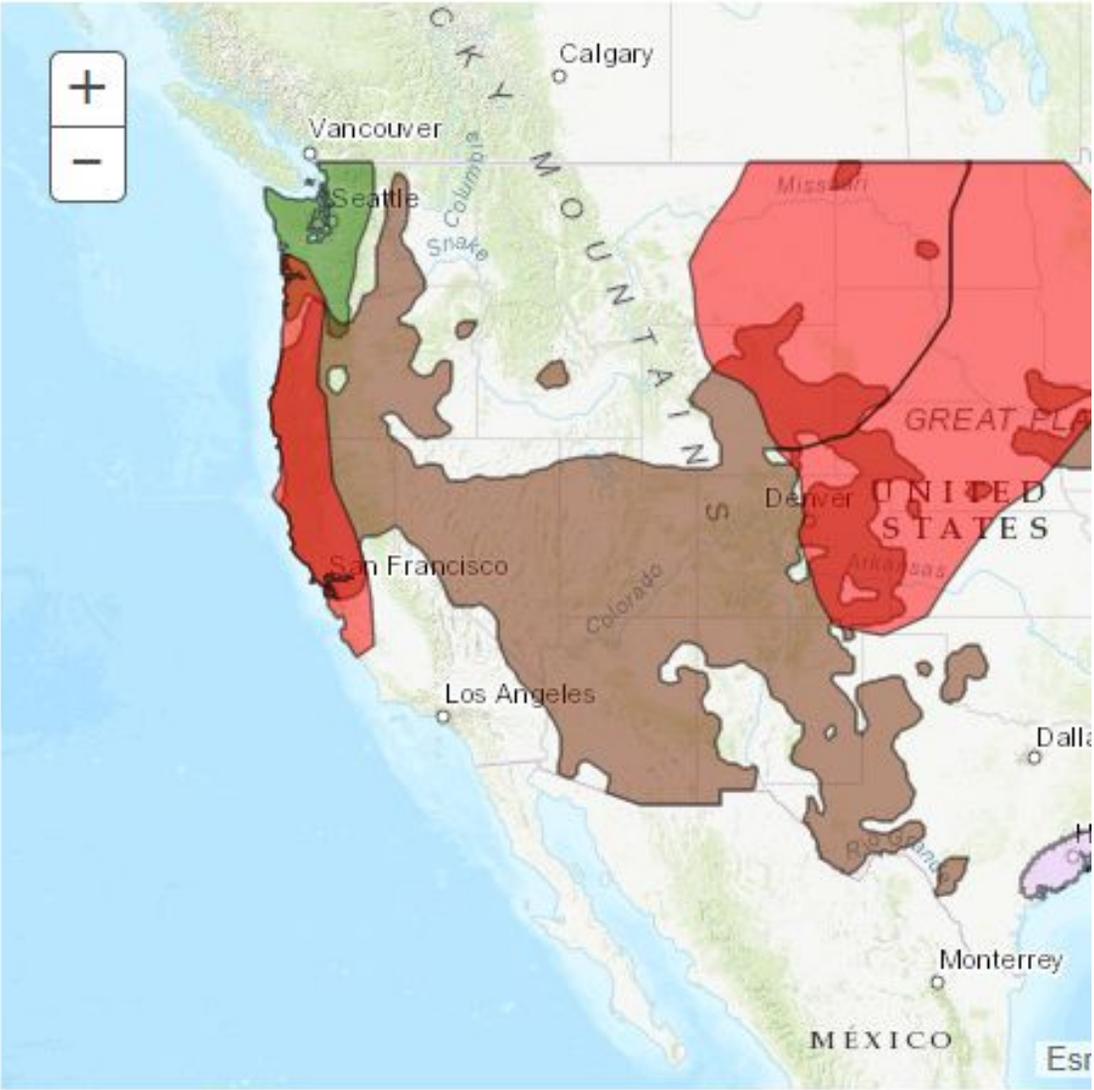
Agency - Sevier River Water
 Users Association data
 Presenter - Laura Haskell

Weather Forecast Office Utah Day 1-7 Outlook



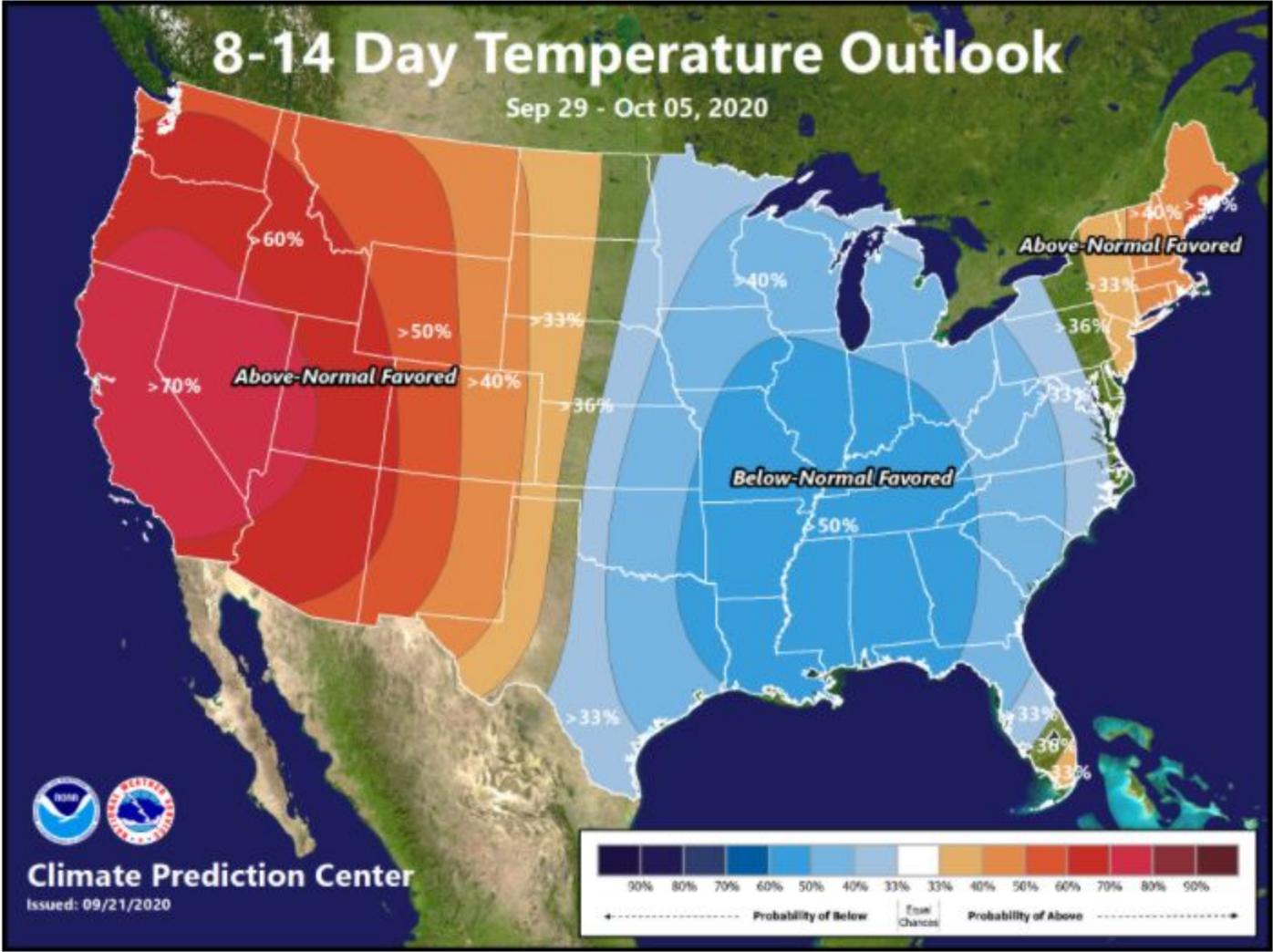
Agency - National Weather Service Weather Forecast Office
Presenter - Christine Kruse

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



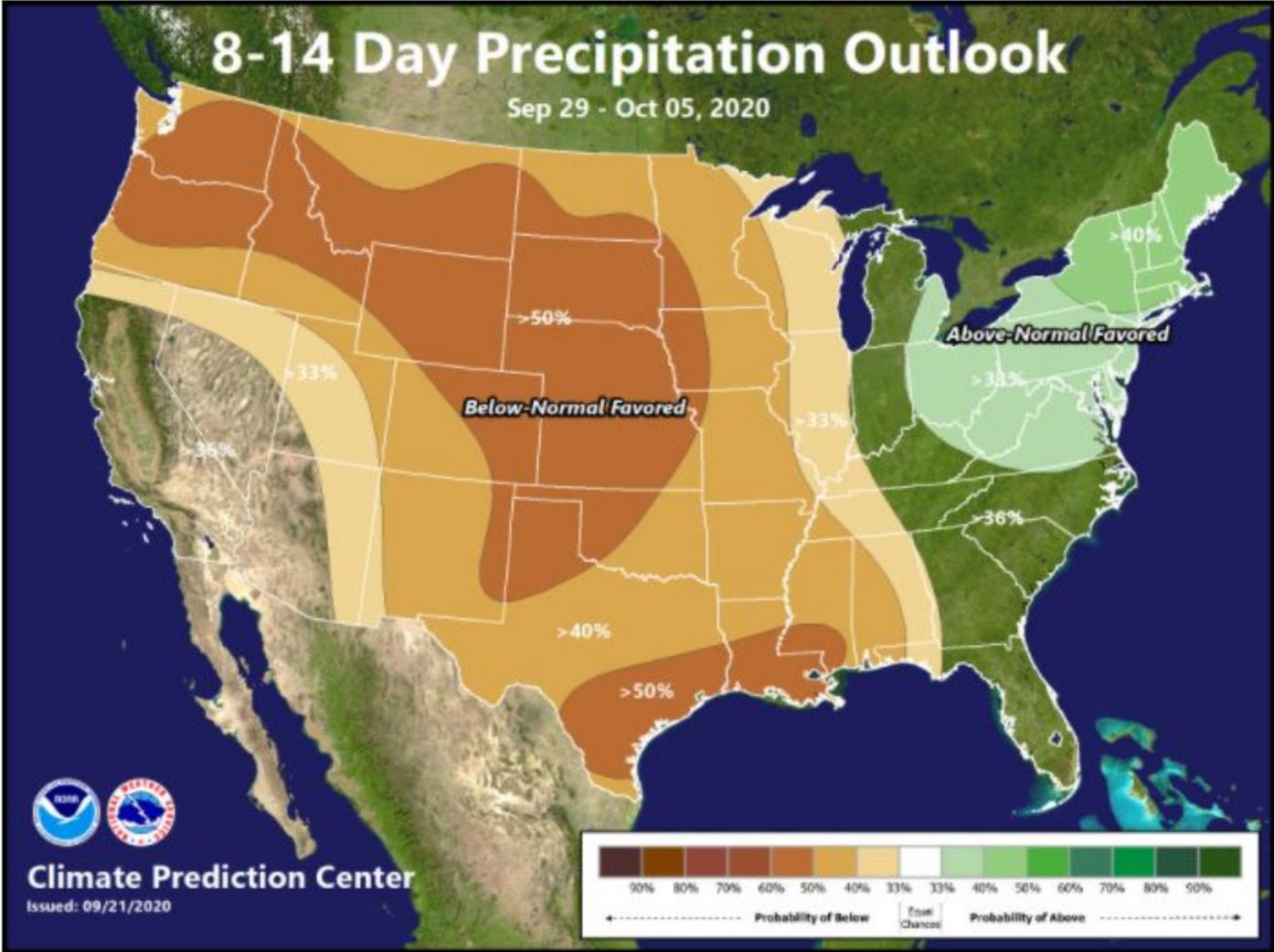
Agency - National Weather Service Weather Forecast Office
Presenter - Christine Kruse

Climate Prediction Center 8 to 14 Day Outlooks - Temperature



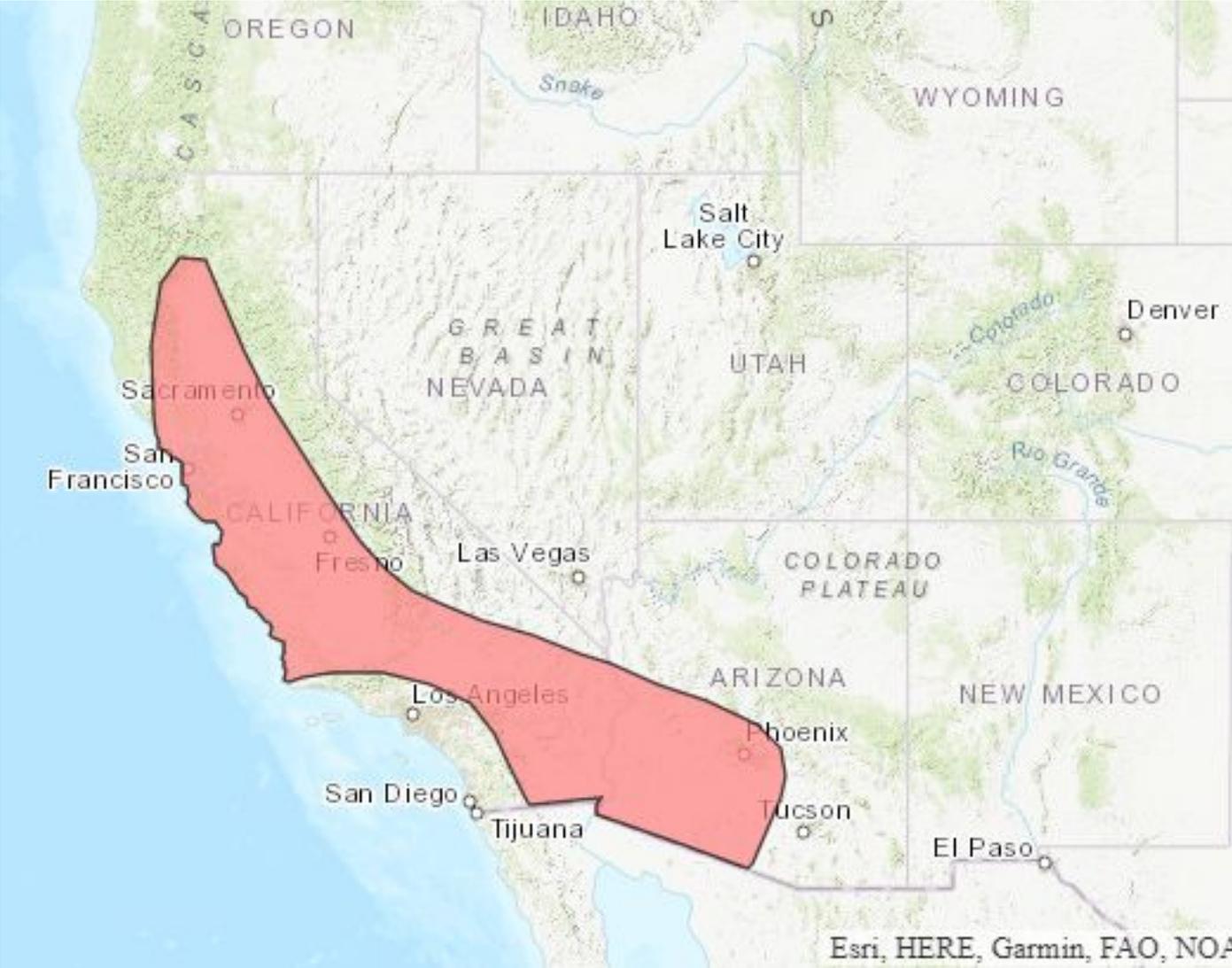
Agency - National Weather Service Weather Forecast Office
Presenter - Christine Kruse

Climate Prediction Center 8 to 14 Day Outlooks - Precipitation



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

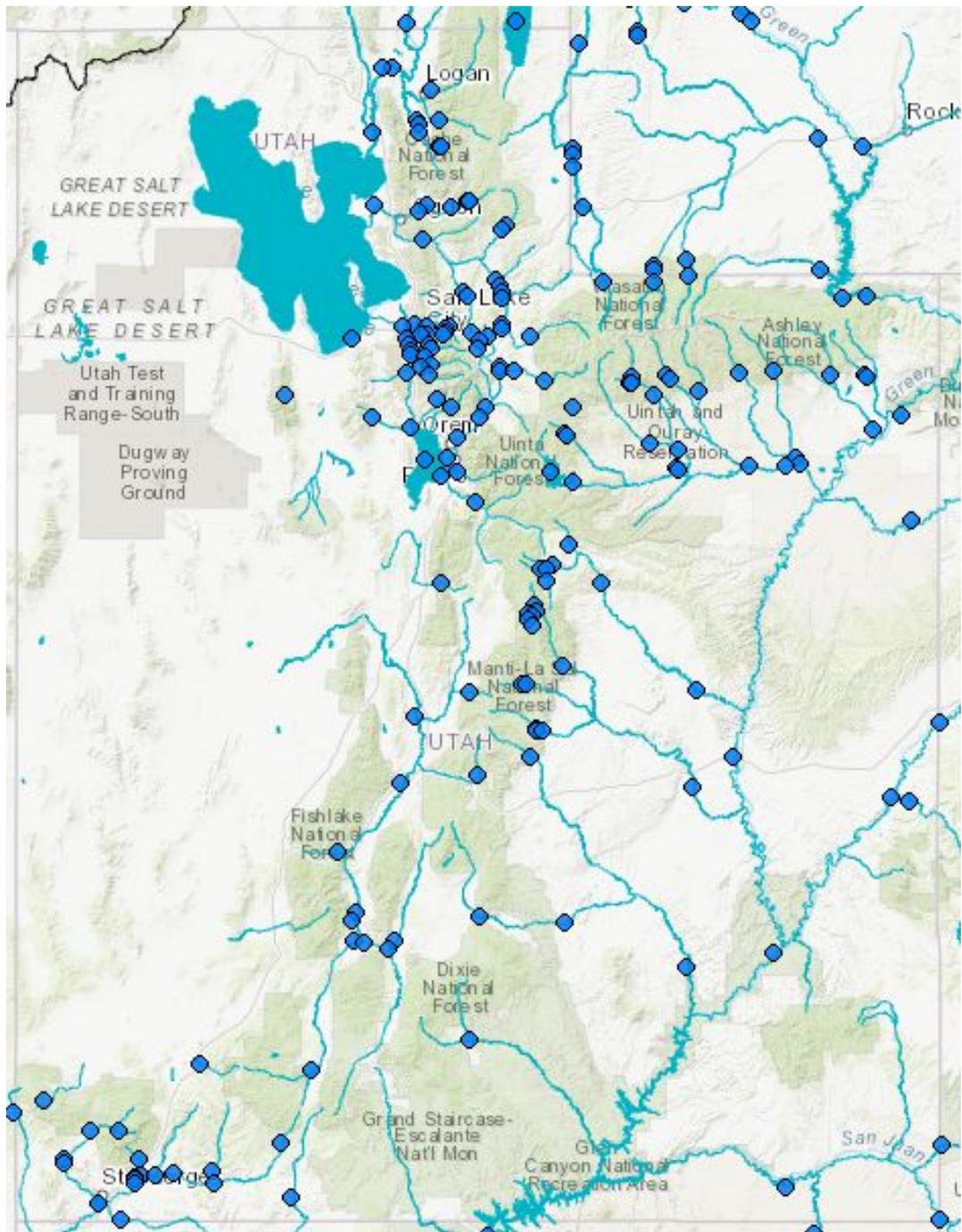
Climate Prediction Center U.S. Week-2 Hazards Outlook



Above Normal Temperatures

- High Risk
- Moderate Risk
- Slight Risk

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



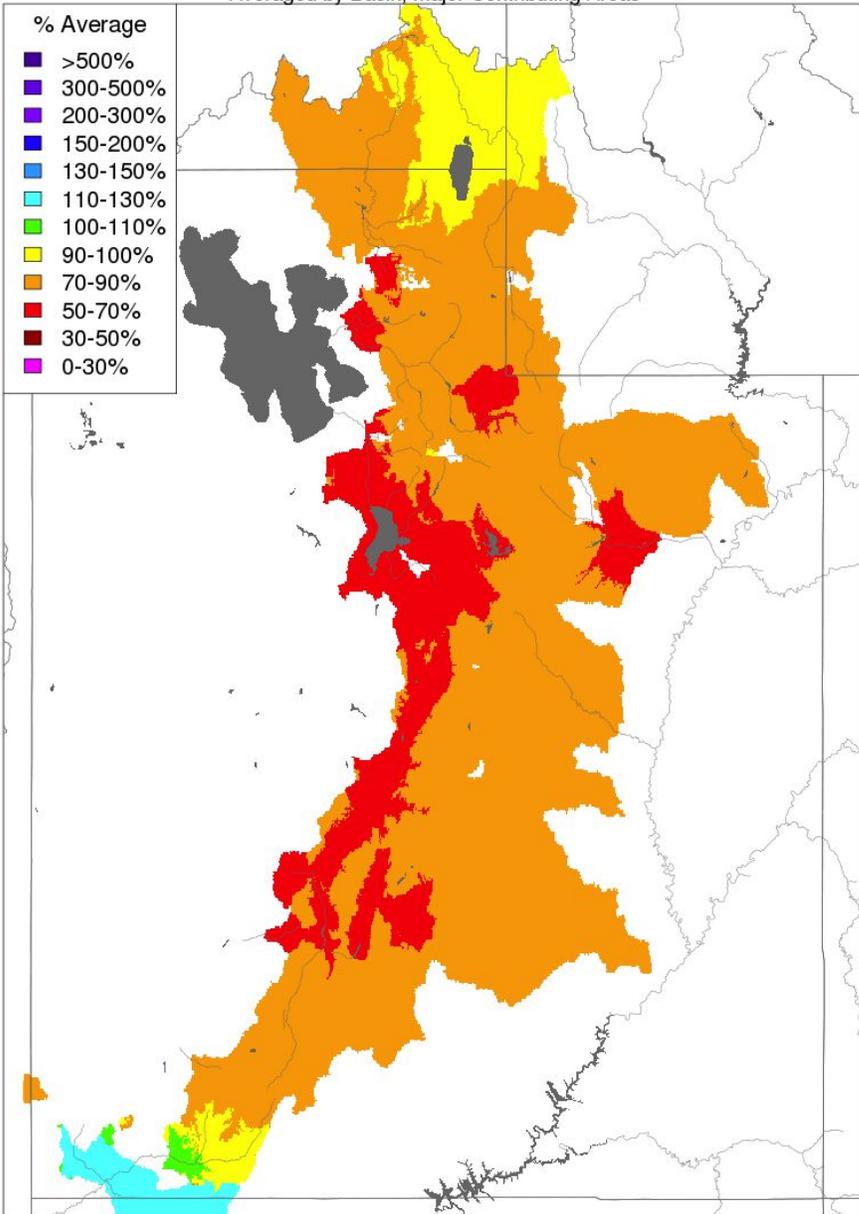
Continued dry conditions have yielded flows that are well below average for this time of year.

Little precipitation is forecasted over the next ten days, and there is no significant hydrologic activity forecasted in the near term.

La Nina conditions are forecasted for next winter season. Depending on the strength of the event, we may incorporate this information into forecasts along the Virgin River. Regardless, we are working to improve how we incorporate information from teleconnections, like ENSO, into our forecasts.

Water Year Precipitation, October 2019 - August 2020

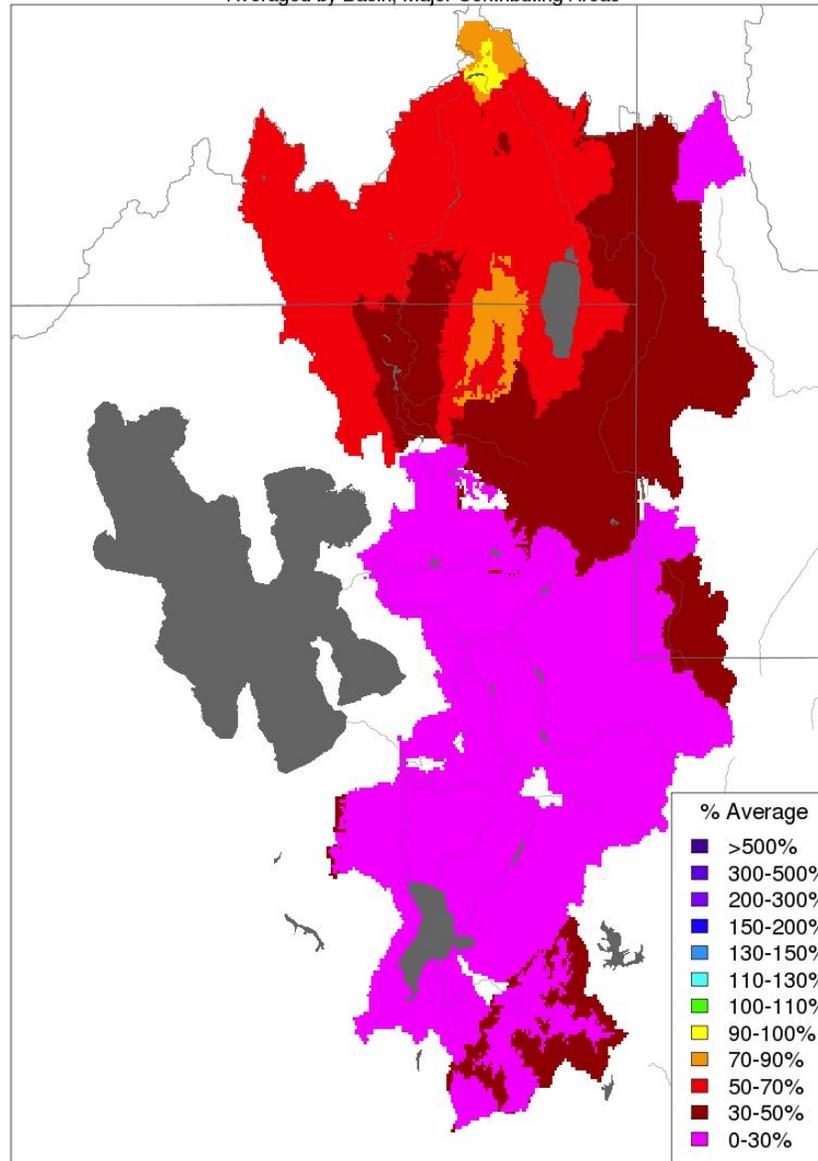
Averaged by Basin, Major Contributing Areas



Prepared by NOAA, Colorado Basin River Forecast Center
Salt Lake City, Utah, www.cbrfc.noaa.gov

Month to Date Precipitation - September 22 2020

Averaged by Basin, Major Contributing Areas



Prepared by NOAA, Colorado Basin River Forecast Center
Salt Lake City, Utah, www.cbrfc.noaa.gov

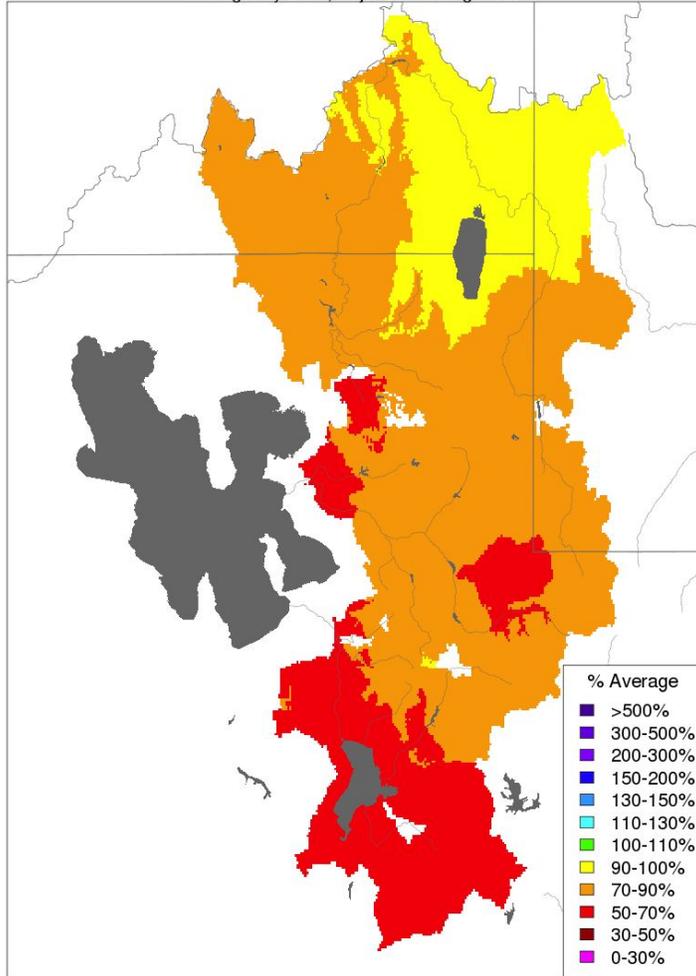


Dry conditions have been prevalent over Utah for the entire “Water Year 2020”. September has been extremely dry to date.



Water Year 2020

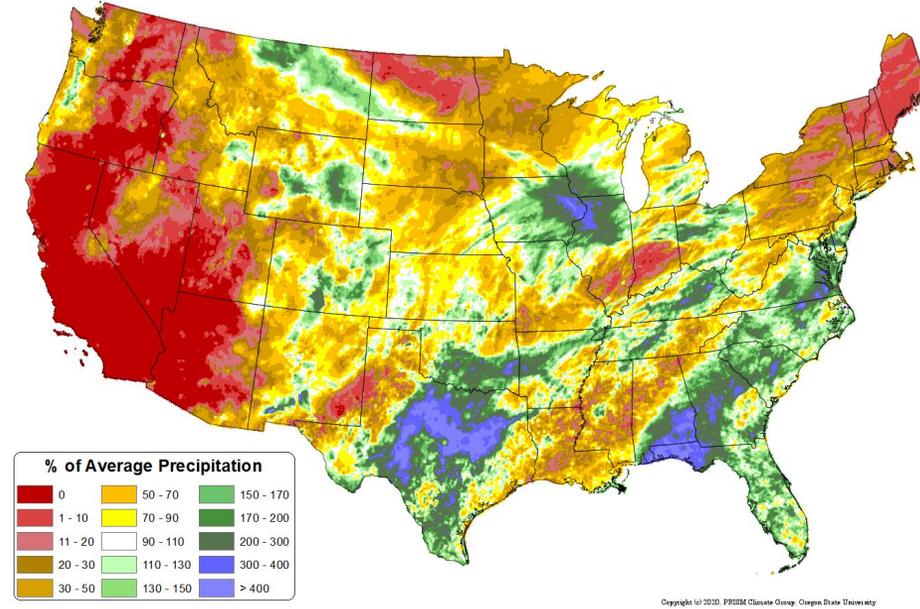
Water Year Precipitation, October 2019 - August 2020
Averaged by Basin, Major Contributing Areas



Prepared by NOAA, Colorado Basin River Forecast Center
Salt Lake City, Utah, www.cbrfc.noaa.gov

September Month to Date percent of average precipitation.

Total Precipitation Anomaly: 01 Sep 2020 - 21 Sep 2020
Period ending 7 AM EST 21 Sep 2020
Base period: 1981-2010
(Map created 22 Sep 2020)

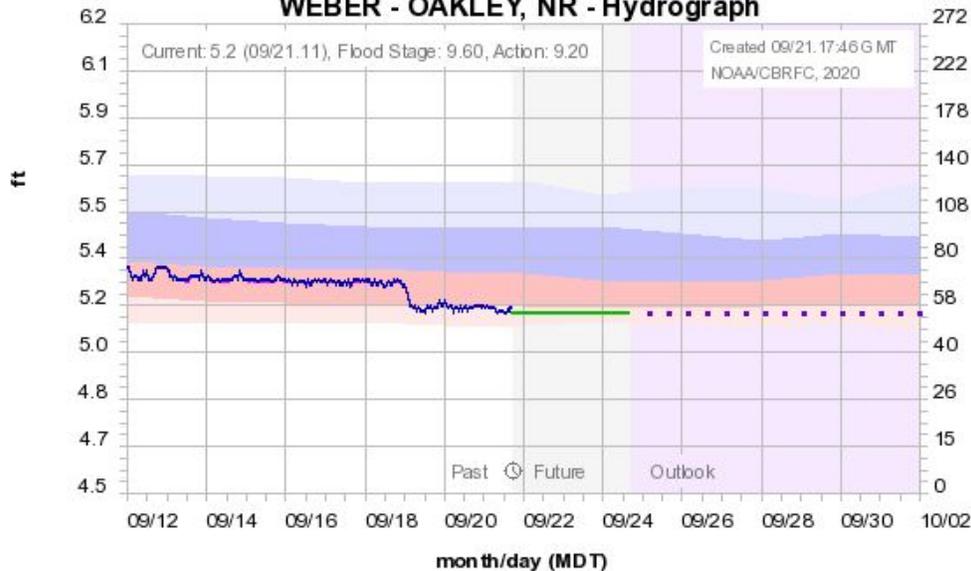


Copyright (c) 2020, PRISM Climate Group, Oregon State University

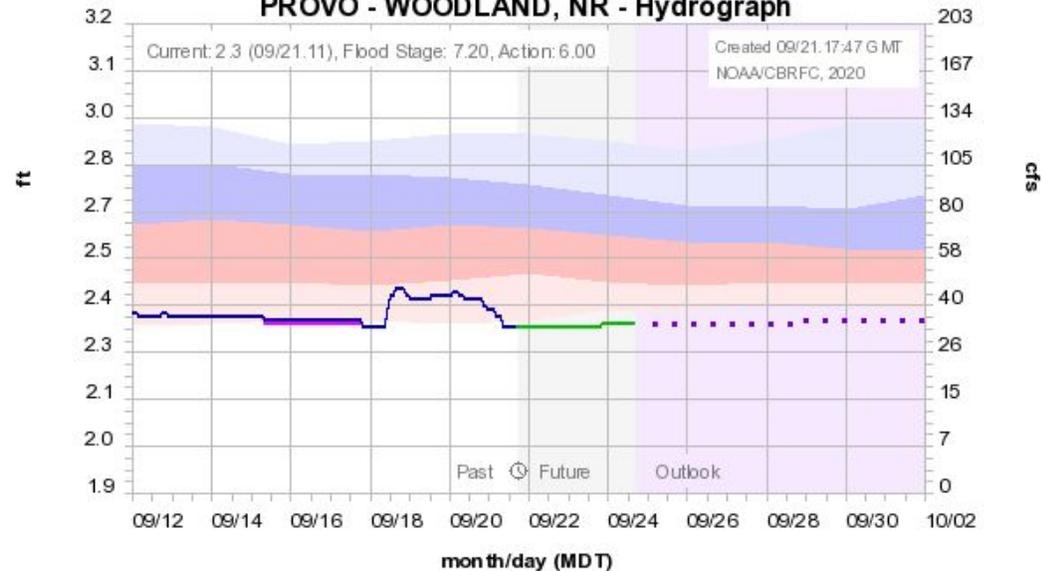
Dry conditions have been prevalent over Utah over the entire water year. September has been extremely dry to date.



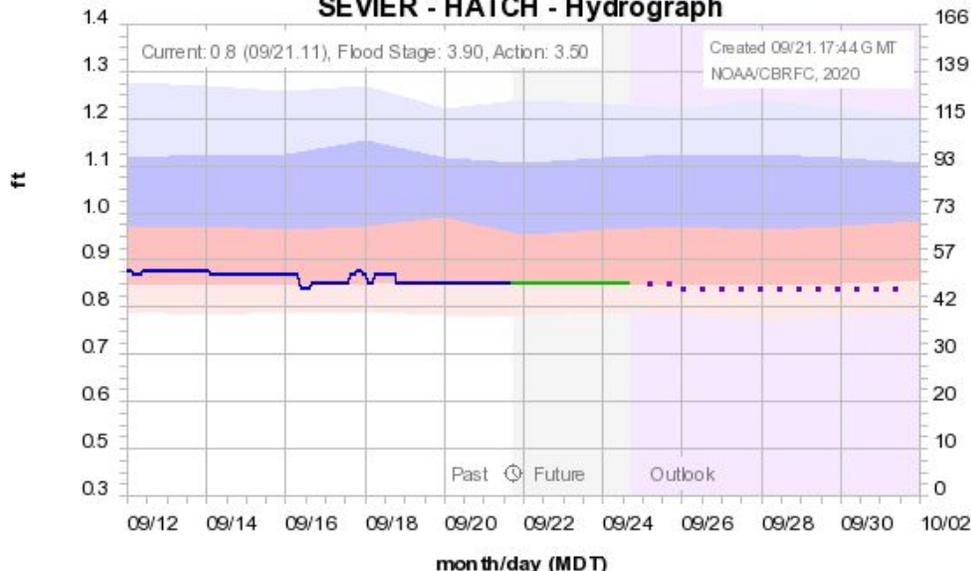
Colorado Basin River Forecast Center WEBER - OAKLEY, NR - Hydrograph



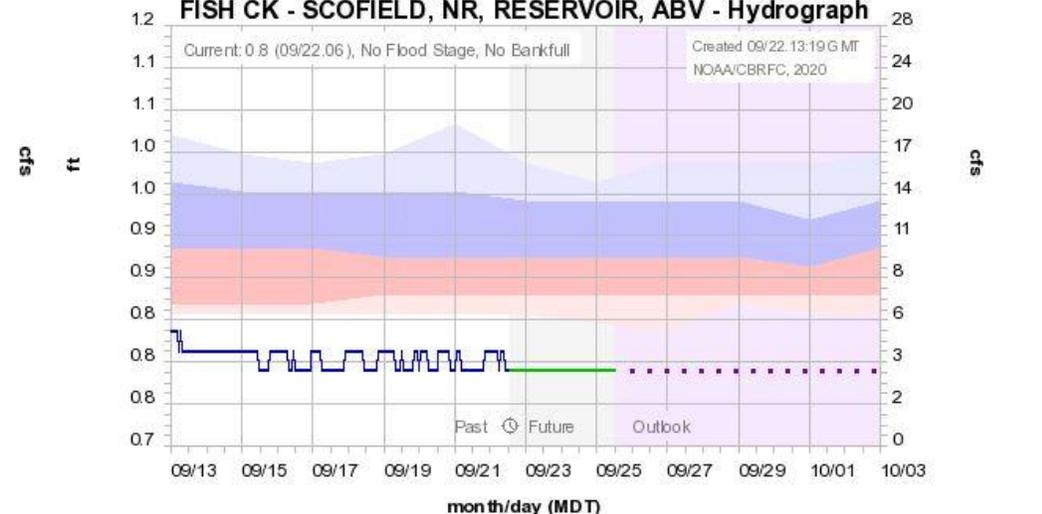
Colorado Basin River Forecast Center PROVO - WOODLAND, NR - Hydrograph



Colorado Basin River Forecast Center SEVIER - HATCH - Hydrograph



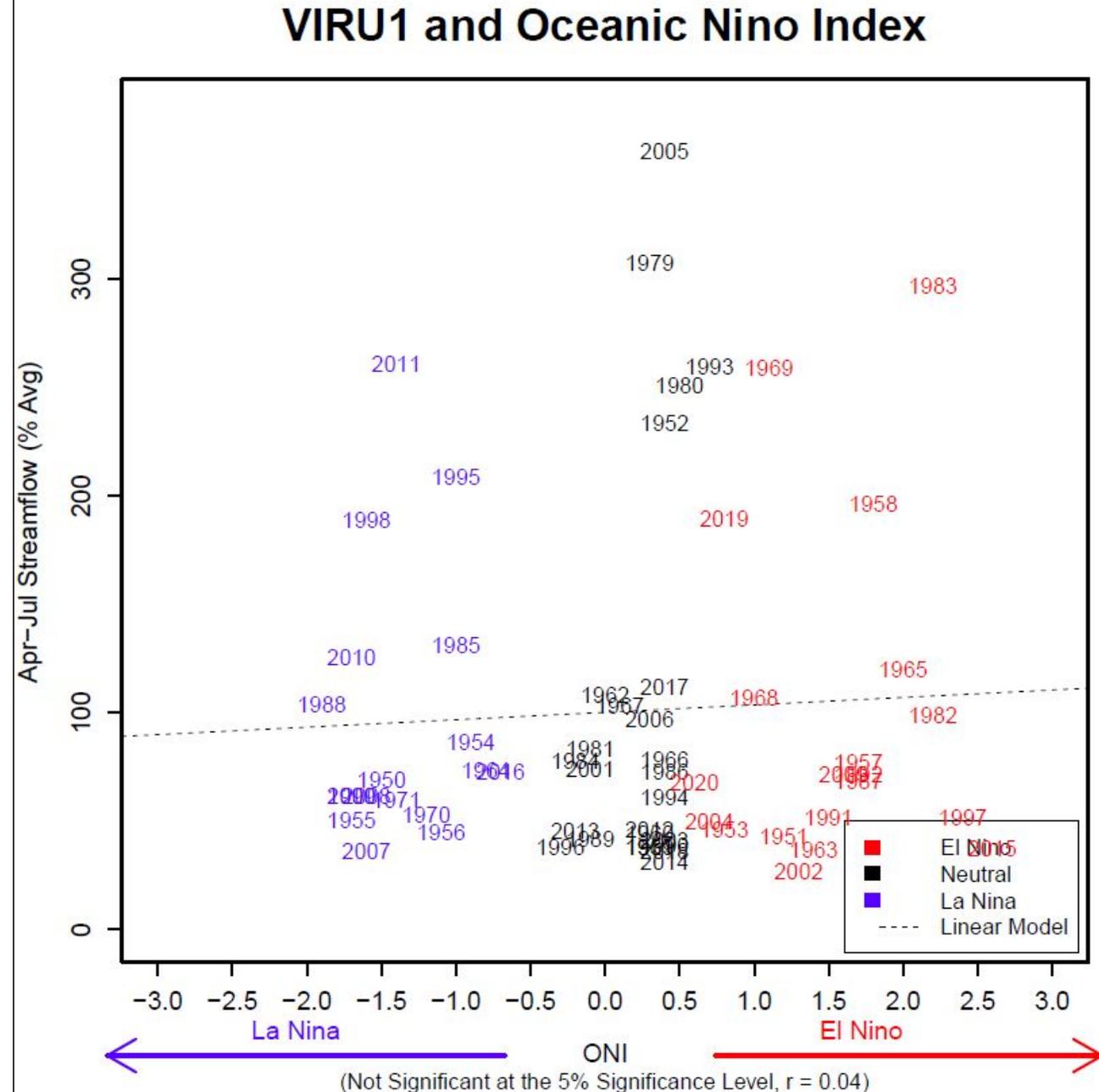
Colorado Basin River Forecast Center FISH CK - SCOFIELD, NR, RESERVOIR, ABV - Hydrograph

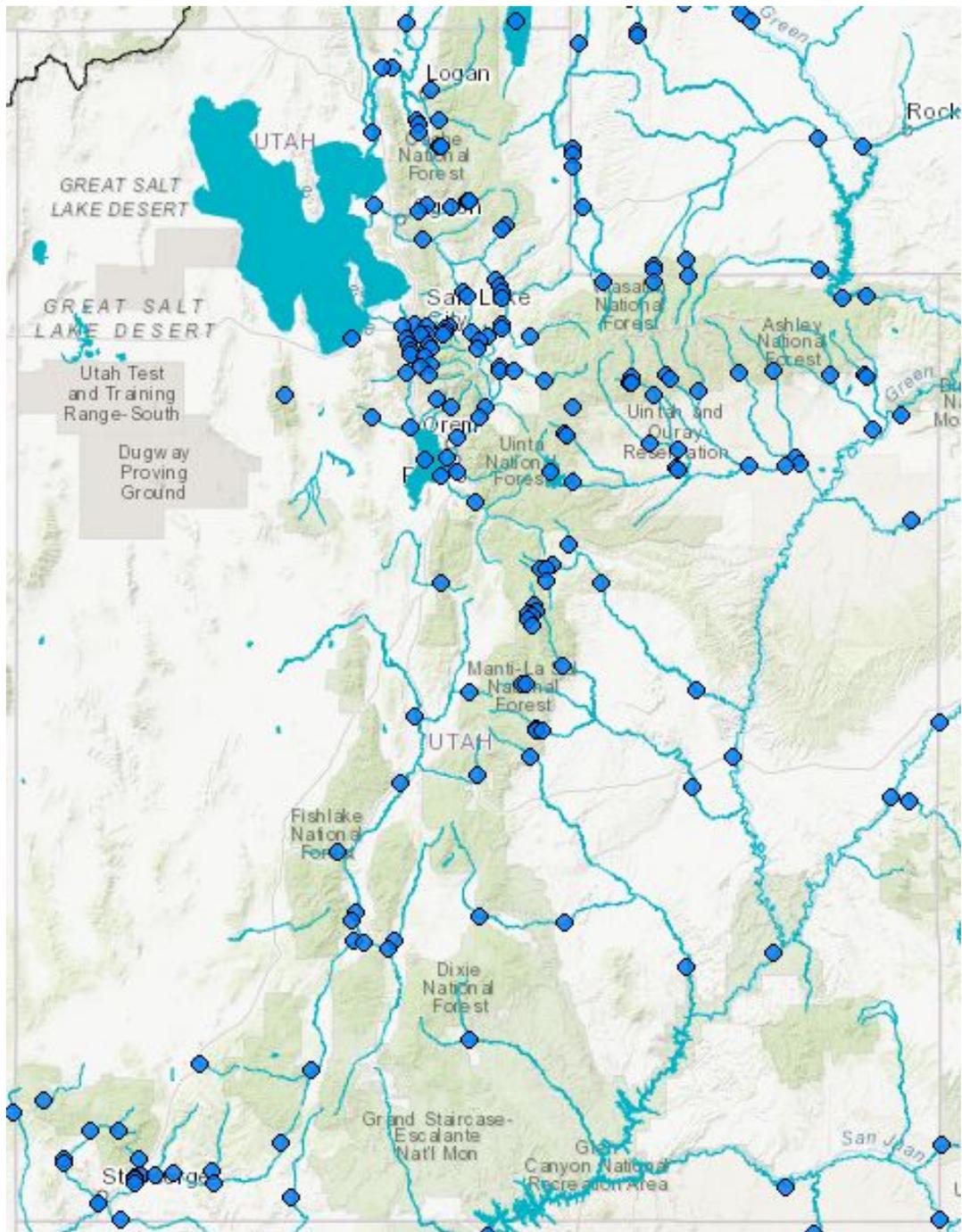


Much below average precipitation conditions have contributed significantly to much below average flows throughout the state.

ENSO Conditions

- ENSO Status
 - La Nina Advisory
 - SSTs and atmospheric circulation is consistent with La Nina
 - La Nina conditions are present and likely to continue through Winter (75% chance)
- Water Supply
 - For Utah, there is no correlation between ENSO and streamflow, so we do not use this information (In the Lower Basin, we do)
 - Working to develop this further





Continued dry conditions have yielded flows that are well below average for this time of year.

Little precipitation is forecasted over the next ten days, and there is no significant hydrologic activity forecasted in the near term.

La Nina conditions are forecasted for next year; depending on the strength of the event, we may incorporate this information into forecasts along the Virgin River. Regardless, we are working to improve how we incorporate information from teleconnections, like ENSO, into our forecasts.

