

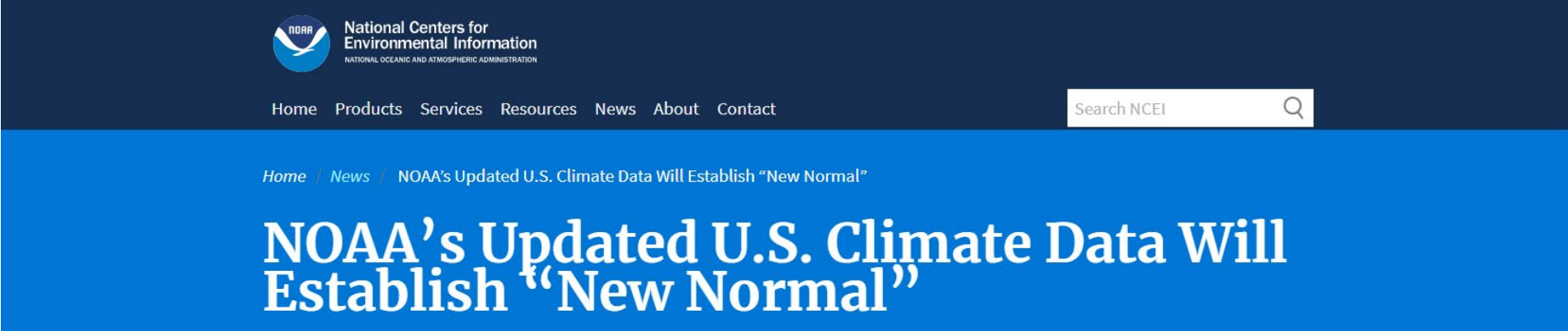


# Water Supply Update

Jeff Marti

March 4, 2021

# ~~1981-2010~~ 1991-2020



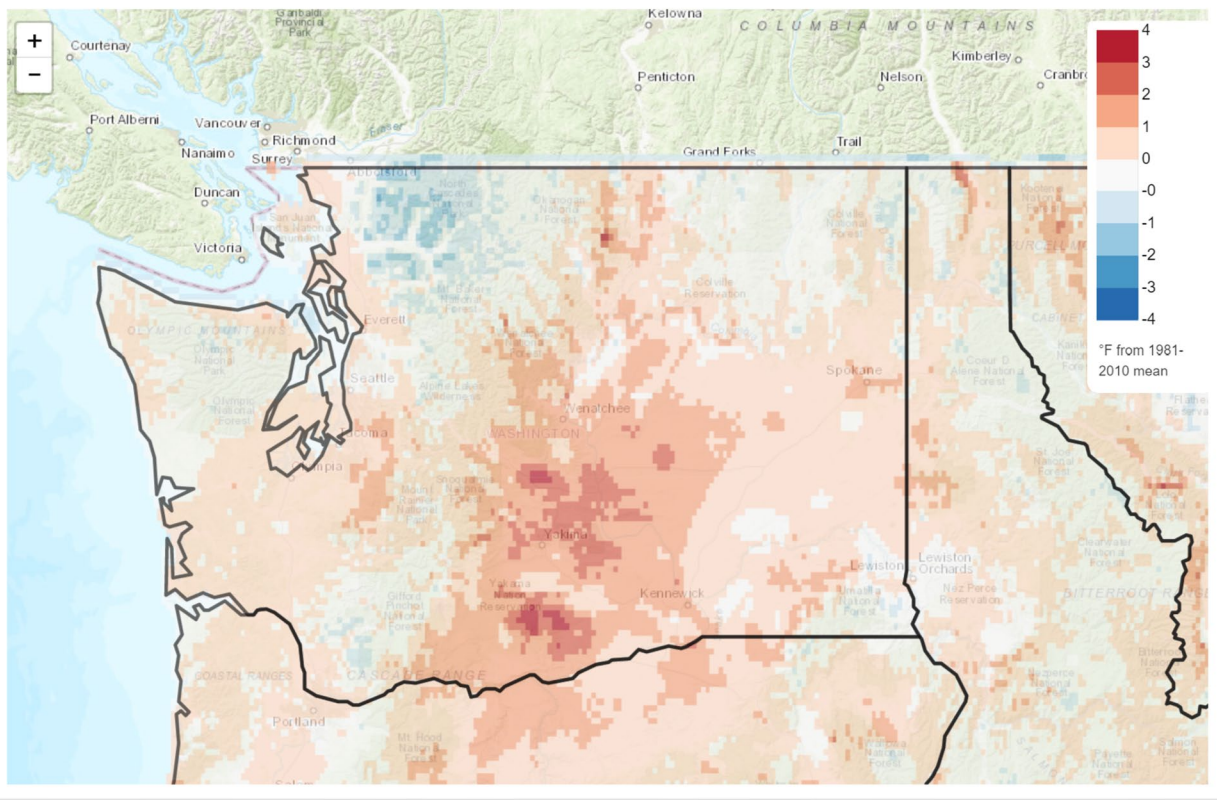
The screenshot shows the NOAA National Centers for Environmental Information (NCEI) website header. It features the NOAA logo and the text "National Centers for Environmental Information" and "NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION". A navigation menu includes "Home", "Products", "Services", "Resources", "News", "About", and "Contact". A search bar labeled "Search NCEI" is present. Below the navigation, a breadcrumb trail reads "Home / News / NOAA's Updated U.S. Climate Data Will Establish 'New Normal'". The main headline is "NOAA's Updated U.S. Climate Data Will Establish 'New Normal'" in large white text on a blue background.



Courtesy of Pixabay.com

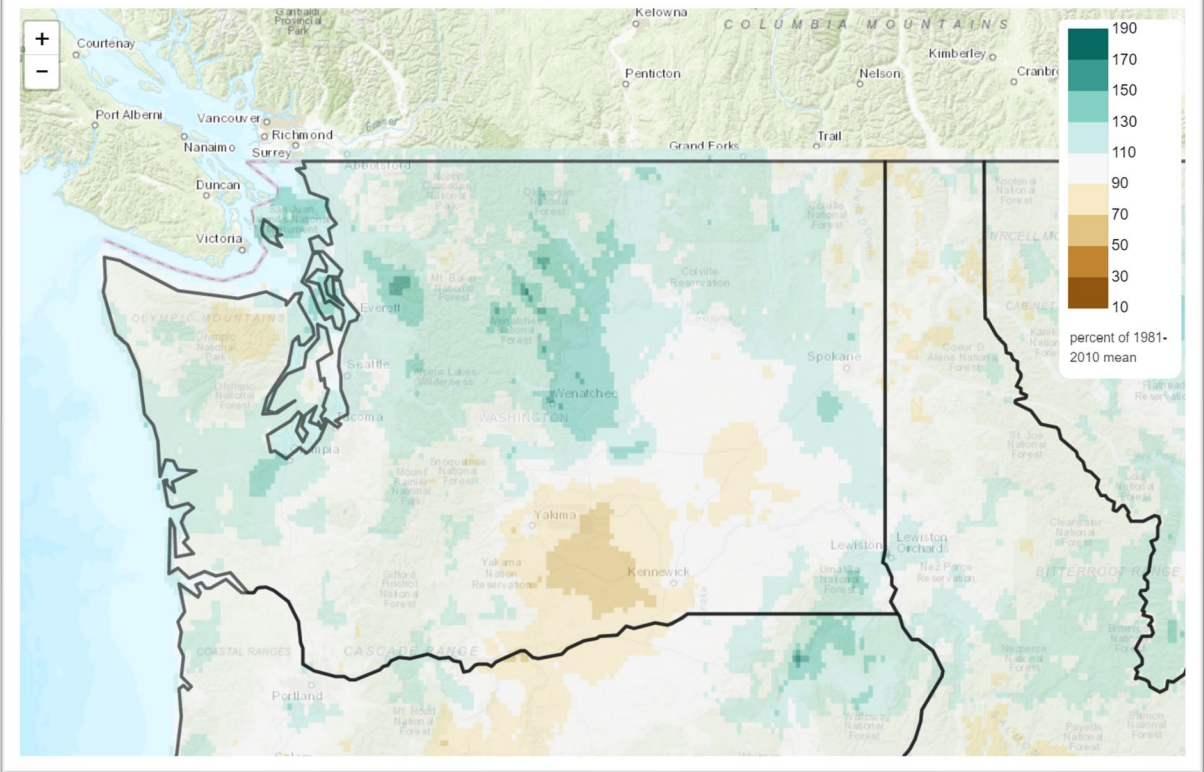


Mean Daily Temperature Anomaly, Since Oct 1st  
2020/10/01 - 2021/02/28



Oct – Jan was 9<sup>th</sup> warmest such period since 1895 for WA

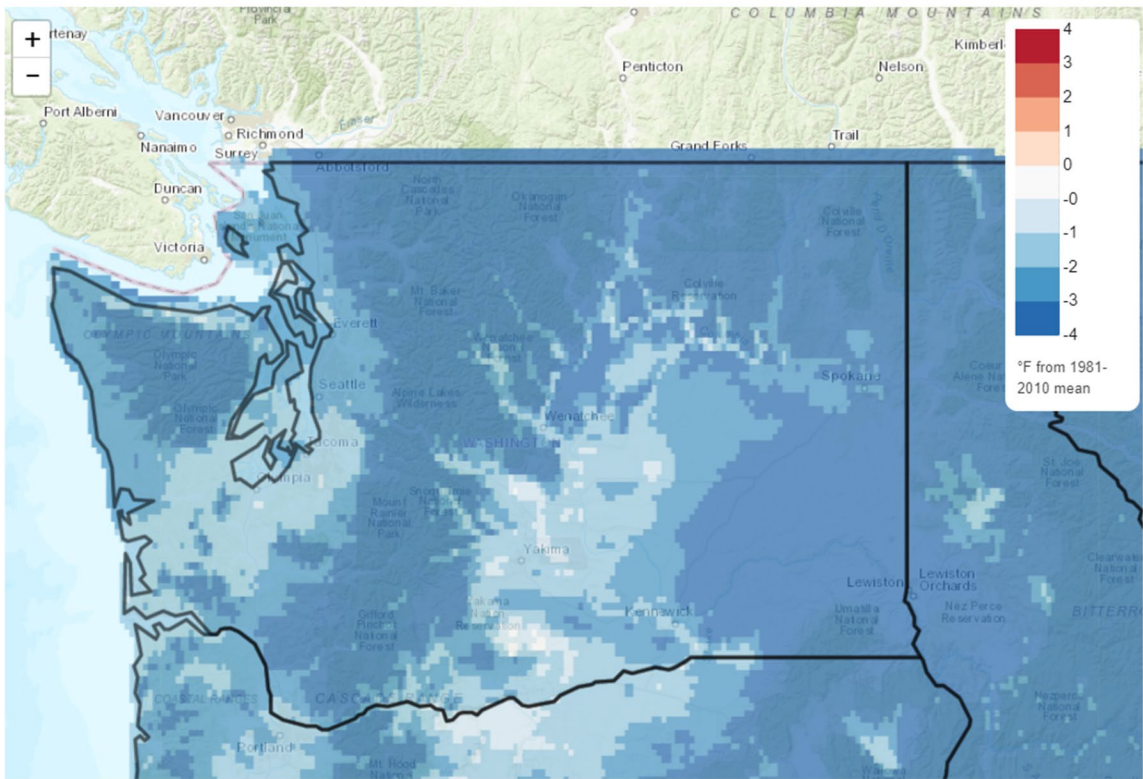
Total Precipitation Anomaly, Since Oct 1st  
2020/10/01 - 2021/02/28





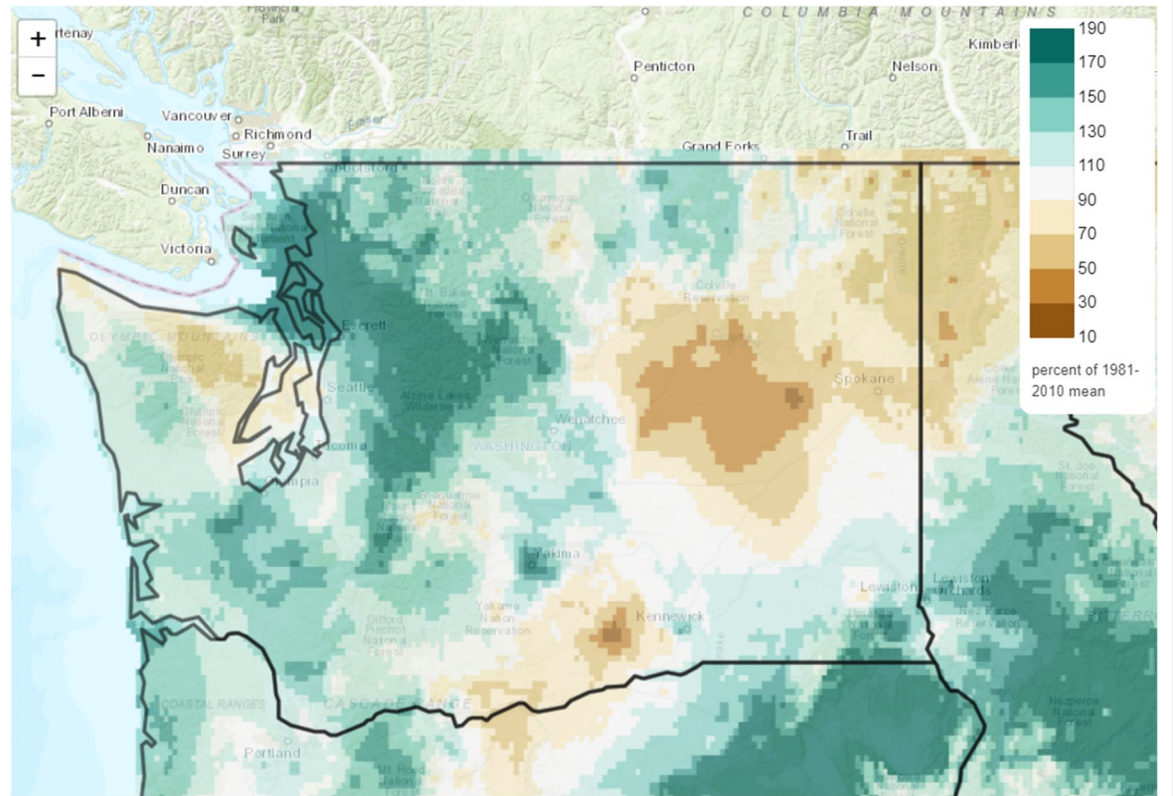
### Mean Daily Temperature Anomaly, Last 30 Days

2021/01/30 - 2021/02/28



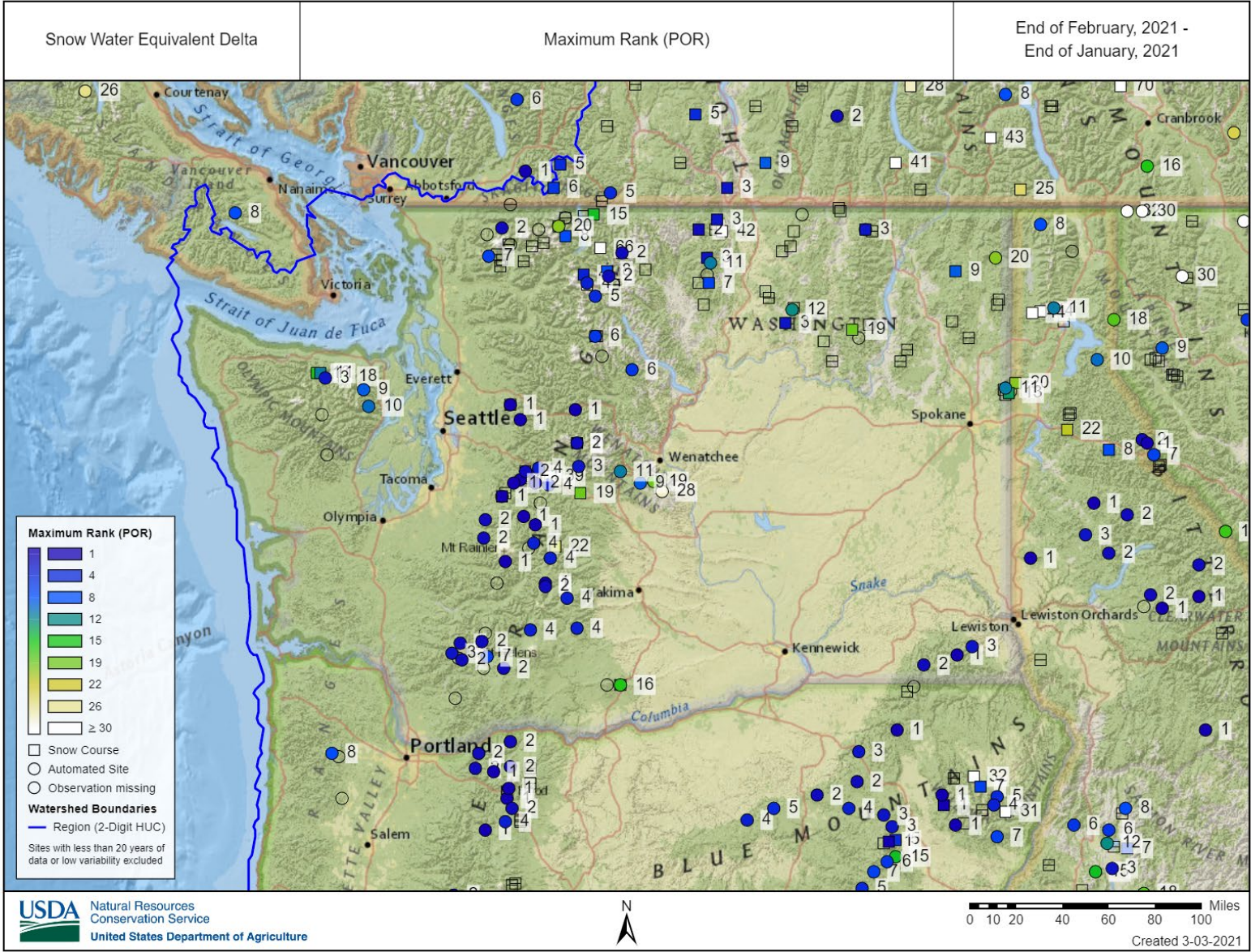
### Total Precipitation Anomaly, Last 30 Days

2021/01/30 - 2021/02/28



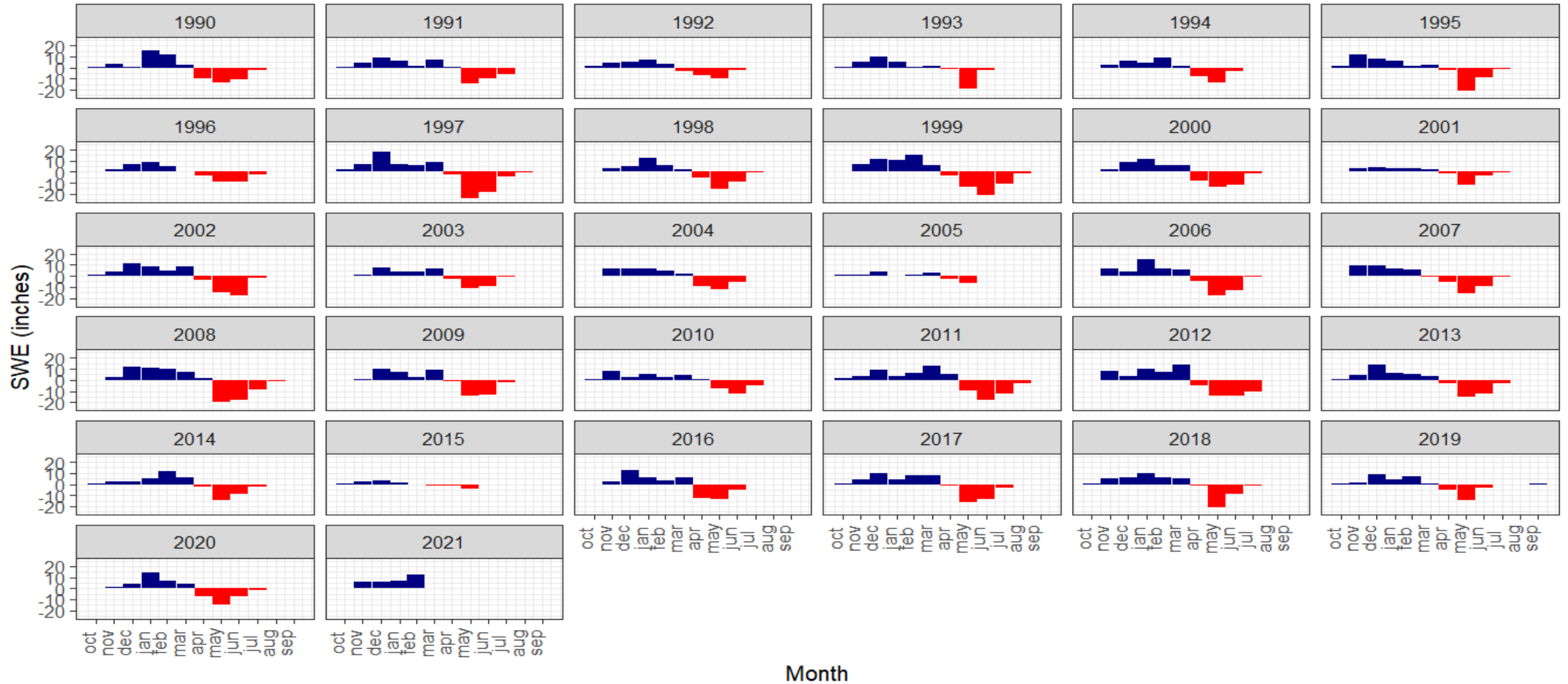
Rankings to be released March 8th





# Month to month changes in Washington State SWE

grouped by water year



Data: NRCS SNOTEL

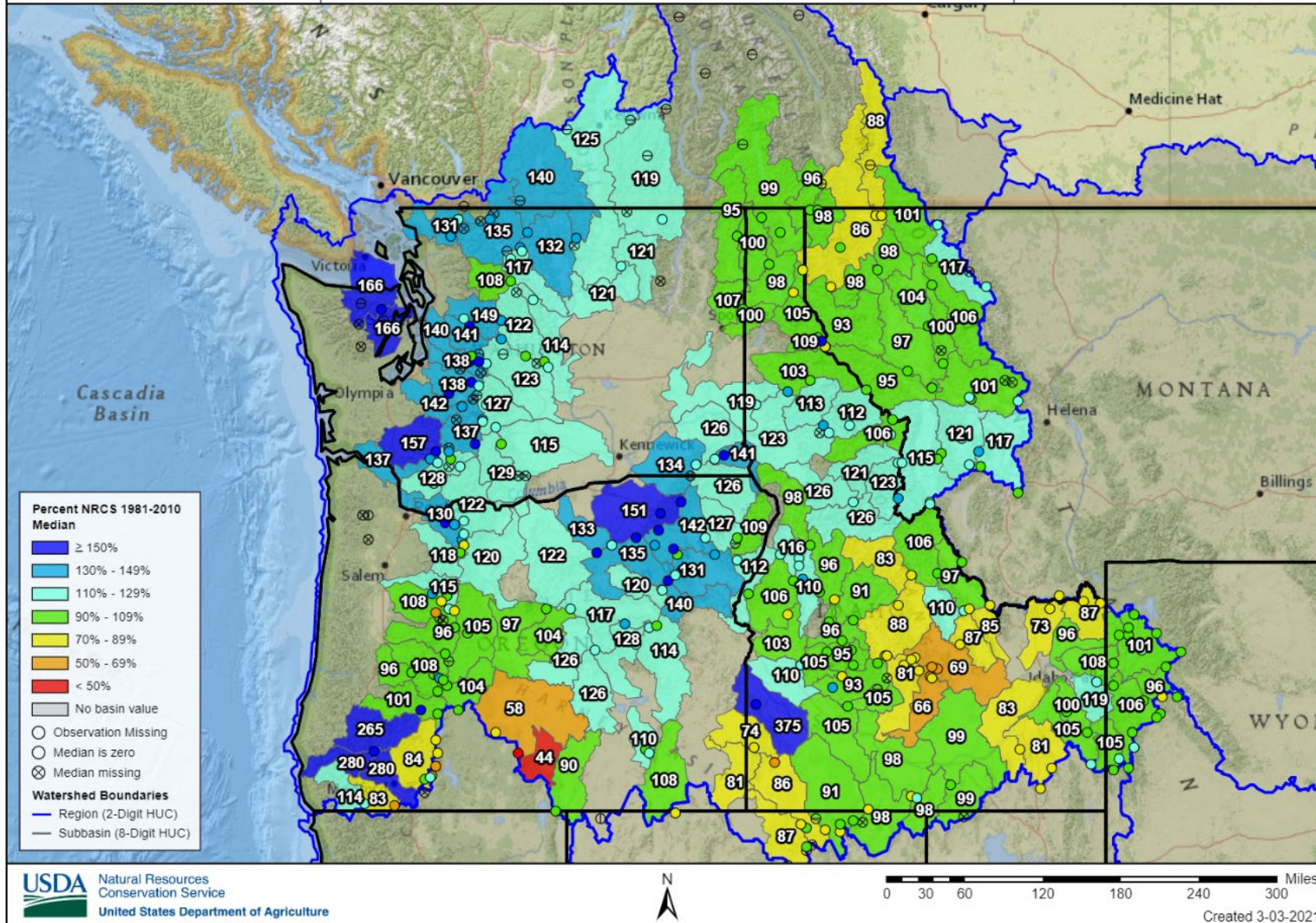
Feb 2021 was the 13<sup>th</sup> greatest SWE gainer since 1990



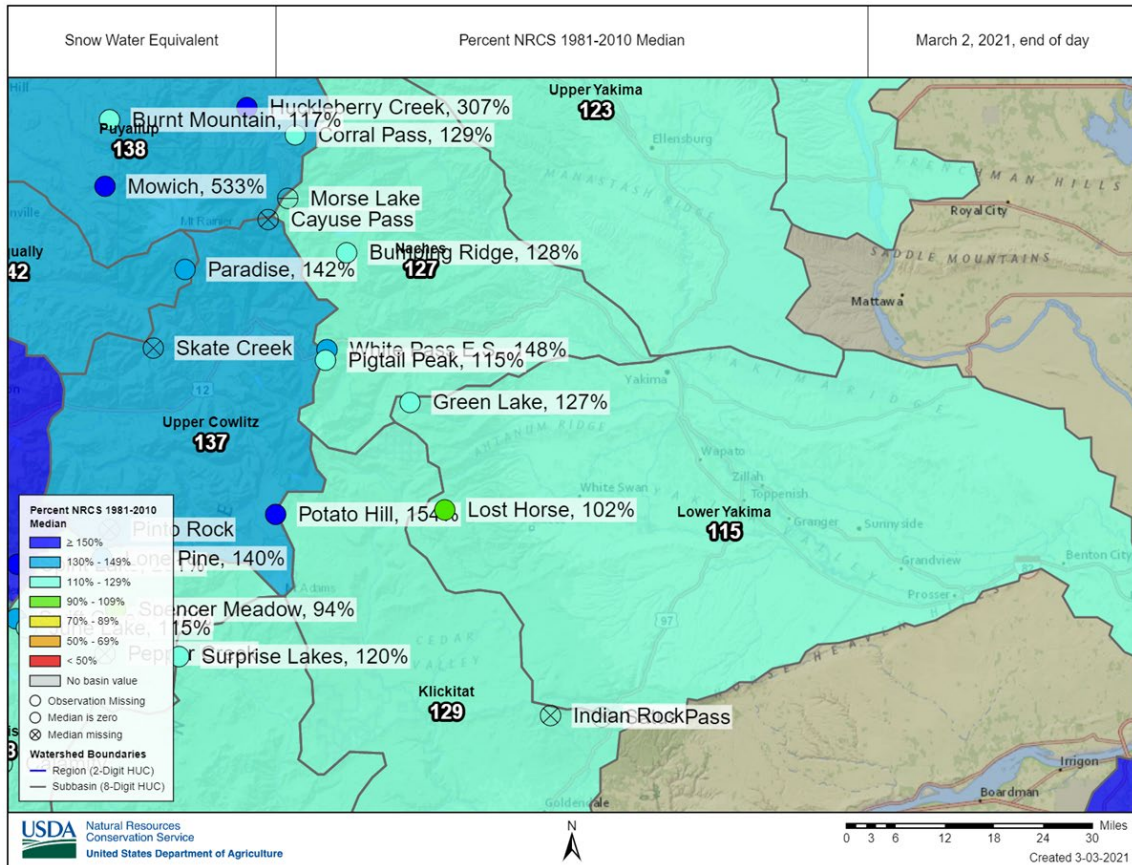
Snow Water Equivalent

Percent NRCS 1981-2010 Median

March 3, 2021, first of day



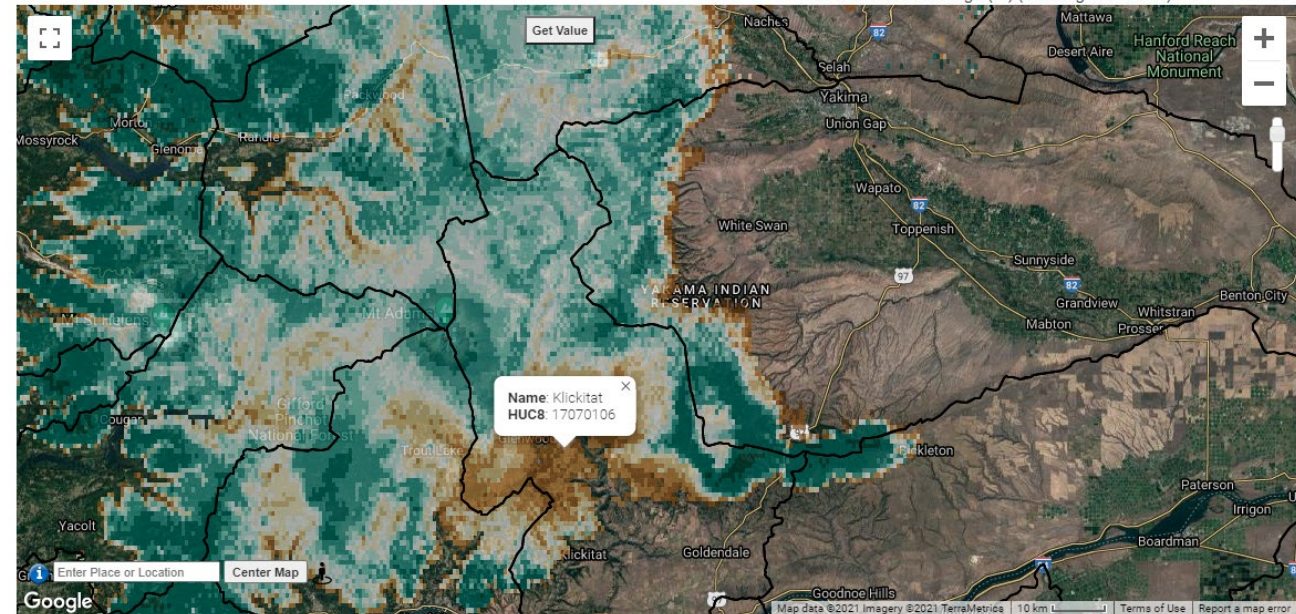
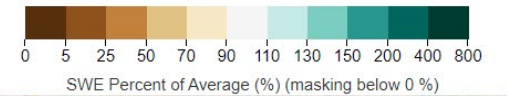




## Two Views of SWE: SNOTEL vs SNODAS

SWE Percent Of Average (SNODAS)

2021-03-01 to 2021-03-01, Mean, vs. 2003 - 2020



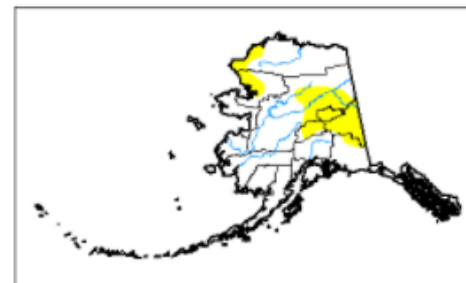
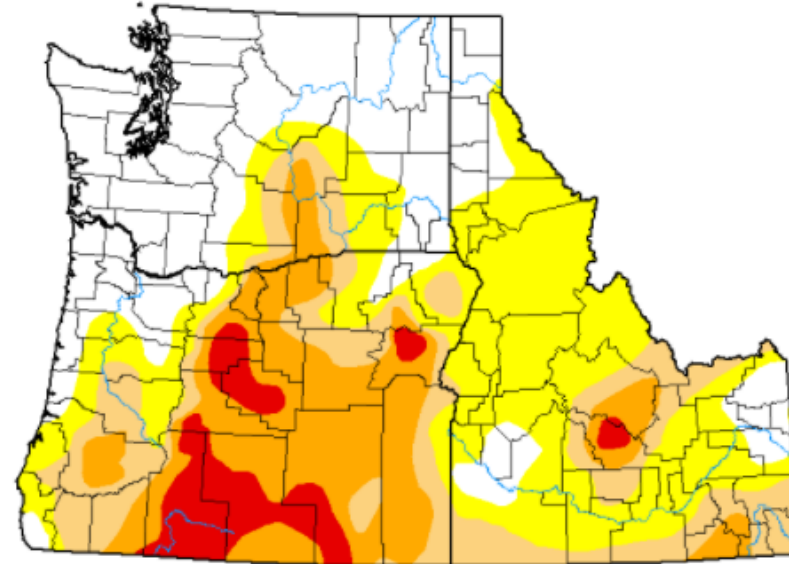
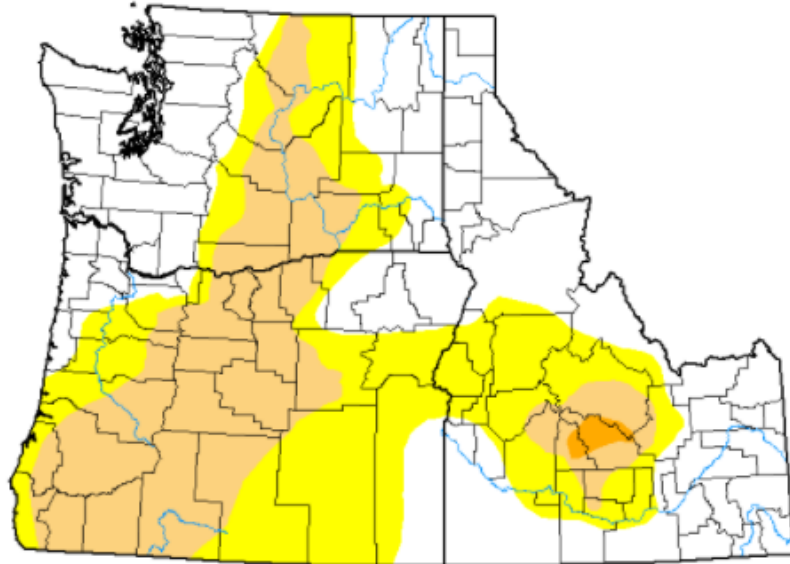
Generated by ClimateEngine.org



### Drought Classification

- None
- D0 (Abnormally Dry)
- D1 (Moderate Drought)
- D2 (Severe Drought)

- D3 (Extreme Drought)
- D4 (Exceptional Drought)
- No Data



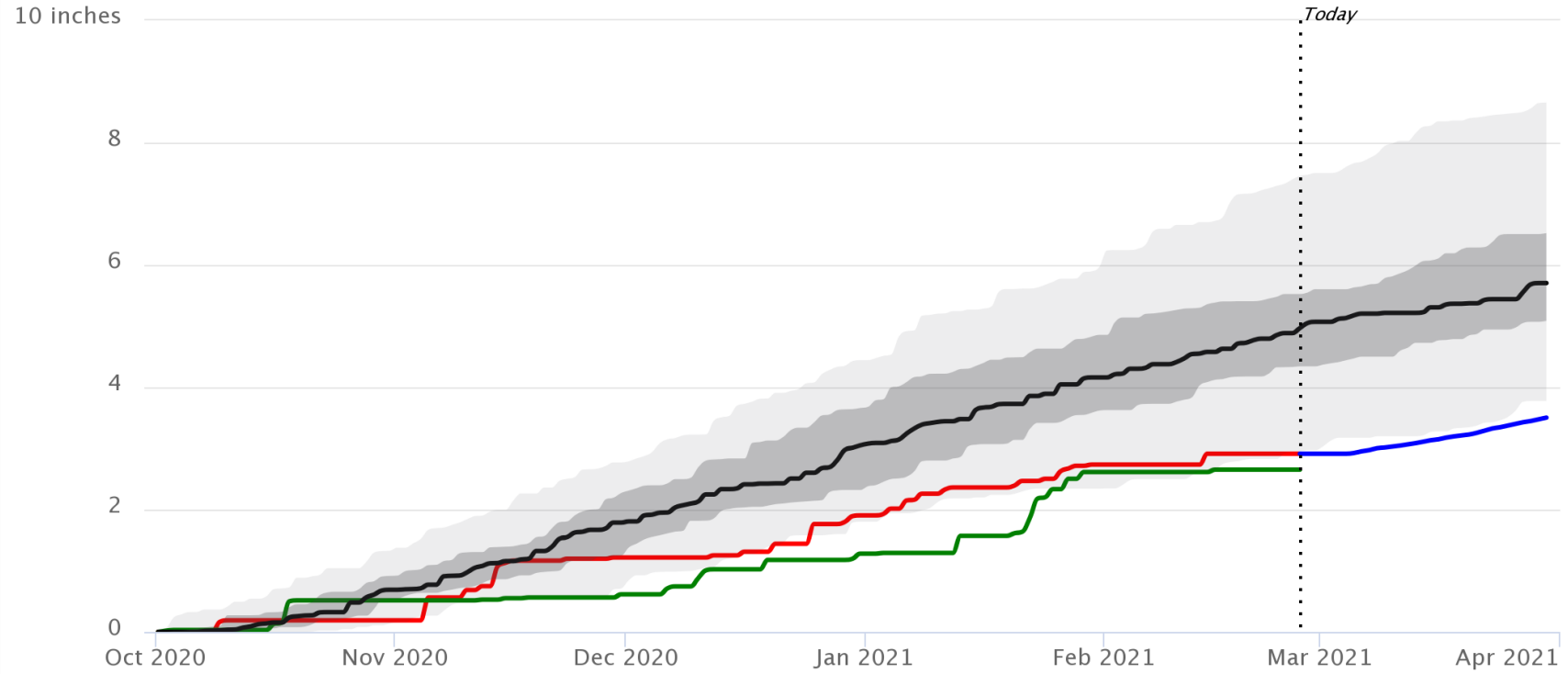
March 3, 2020

February 23, 2021



# Cumulative Precipitation

Prosser, WA



— Observed (2020-2021) — Observed(2019-2020) — Median Weather Forecast  
— Median Average (1980-2018) ■ 10-90% Range (1980-2018) ■ 30-70% Range (1980-2018)

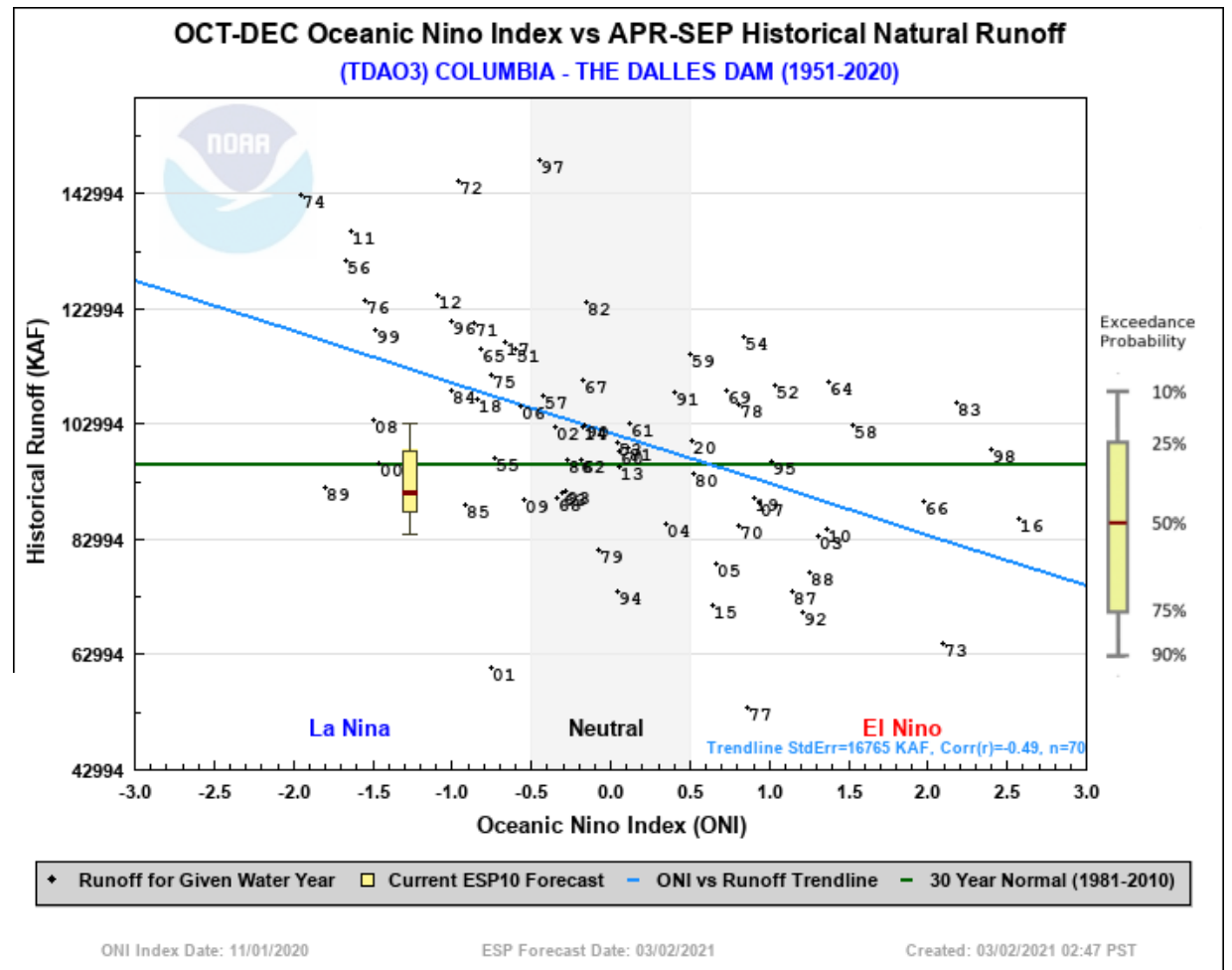
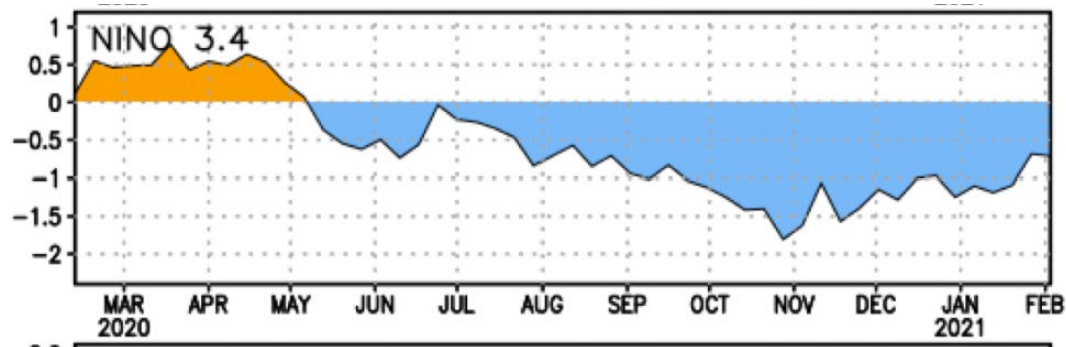
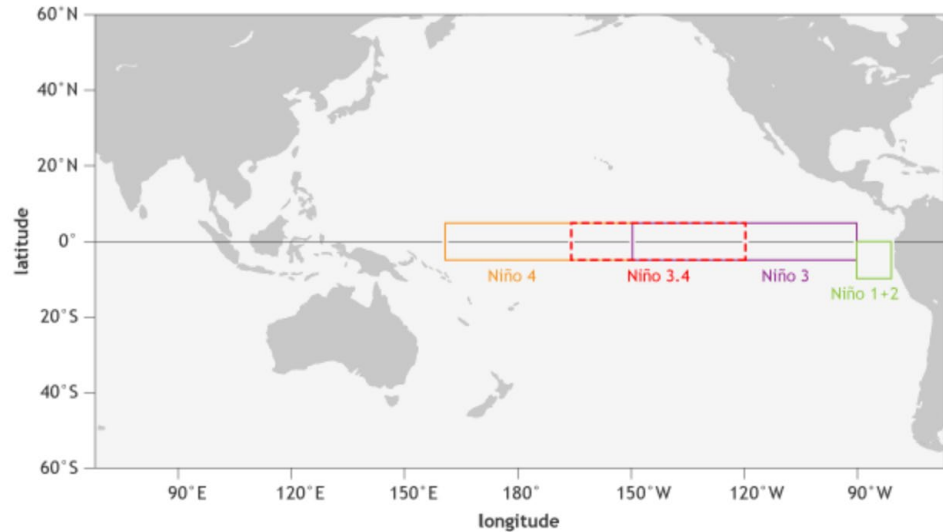
Climate Toolbox, Data Source: gridMET, BCSD CFS-gridMET, BCSD NMME-gridMET (UC Merced)



# La Nina and Runoff

## Columbia River at The Dalles

Sea surface temperature





# Northwest River Forecast Center ESP Natural Forecast



River and Hydrology

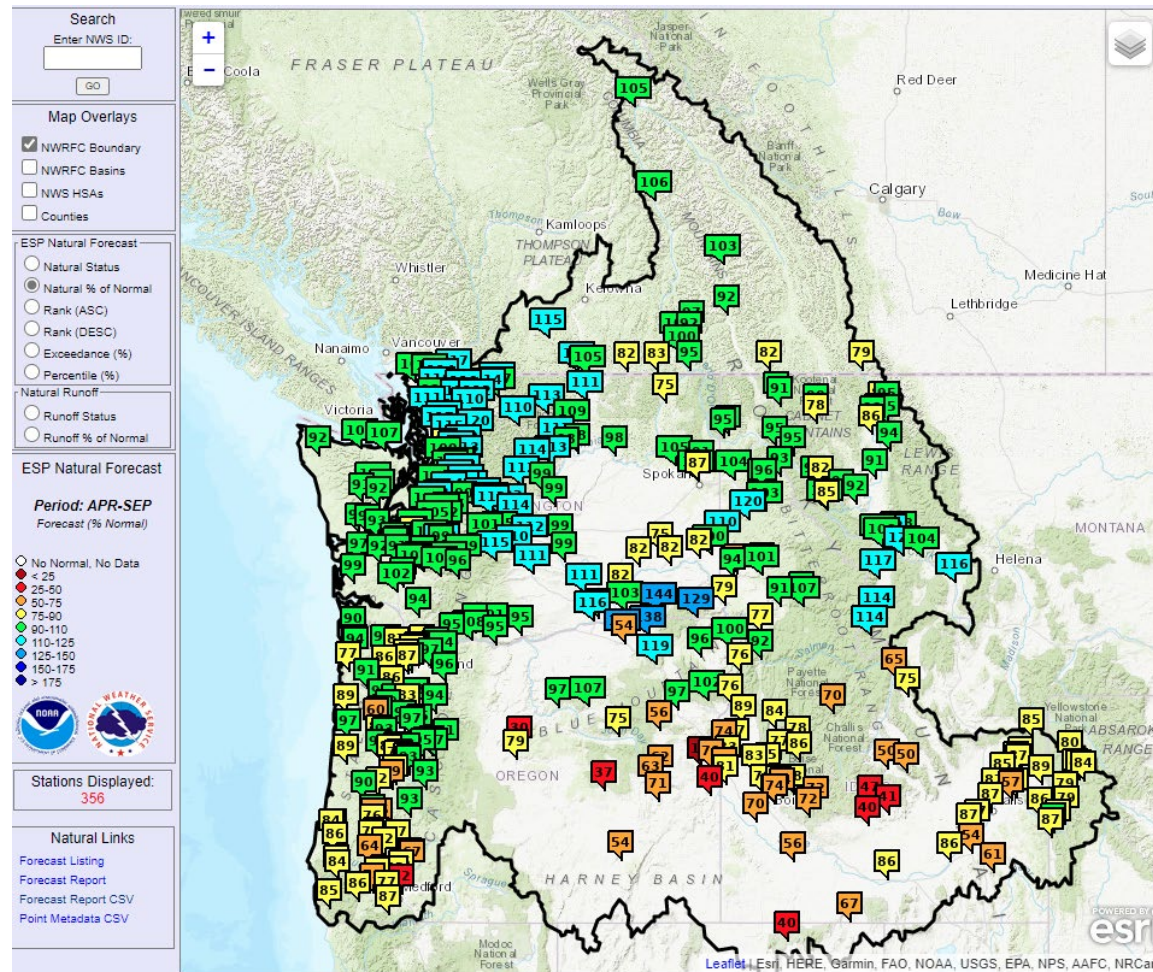
Water Supply

Observations

Weather Forecasts

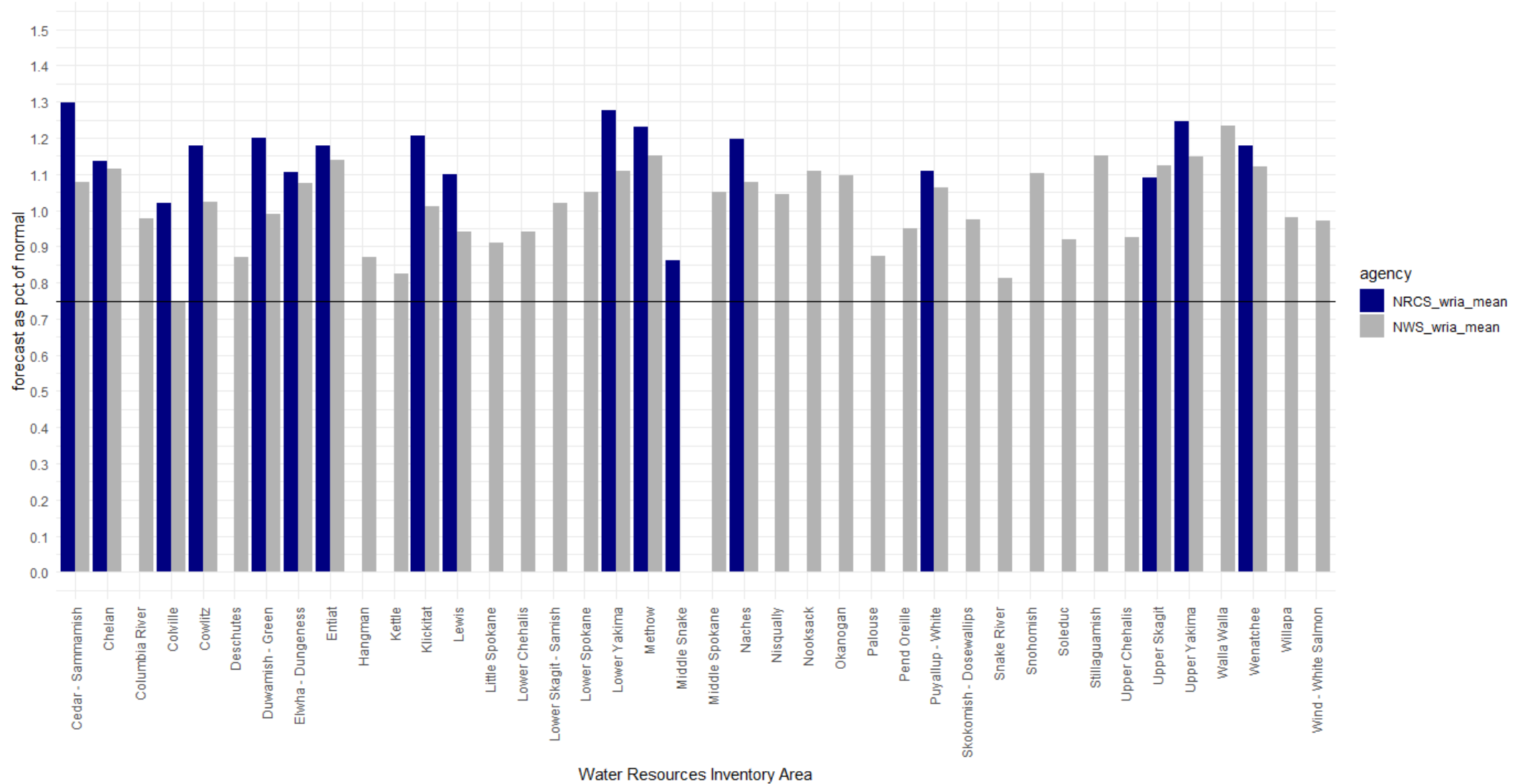
Climate

NWRFC

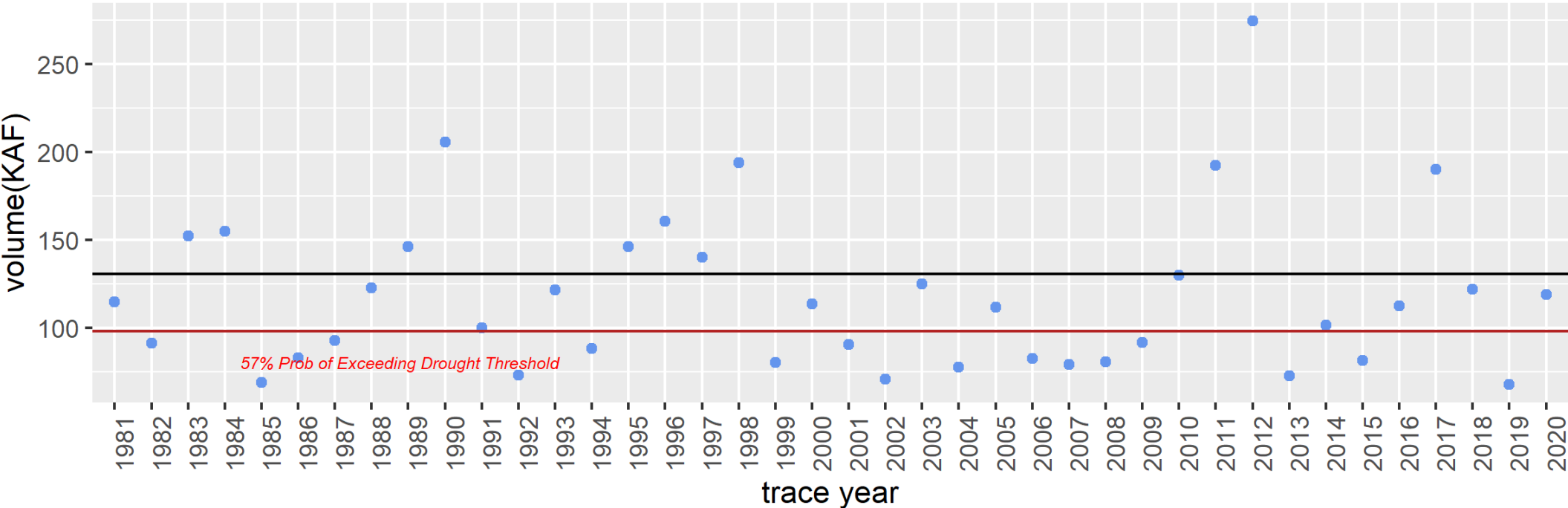




Comparison of NRCS (APR-JUL, unofficial daily forecasts) and NWS (APR-SEP) Water Supply Forecasts averaged by WRIA



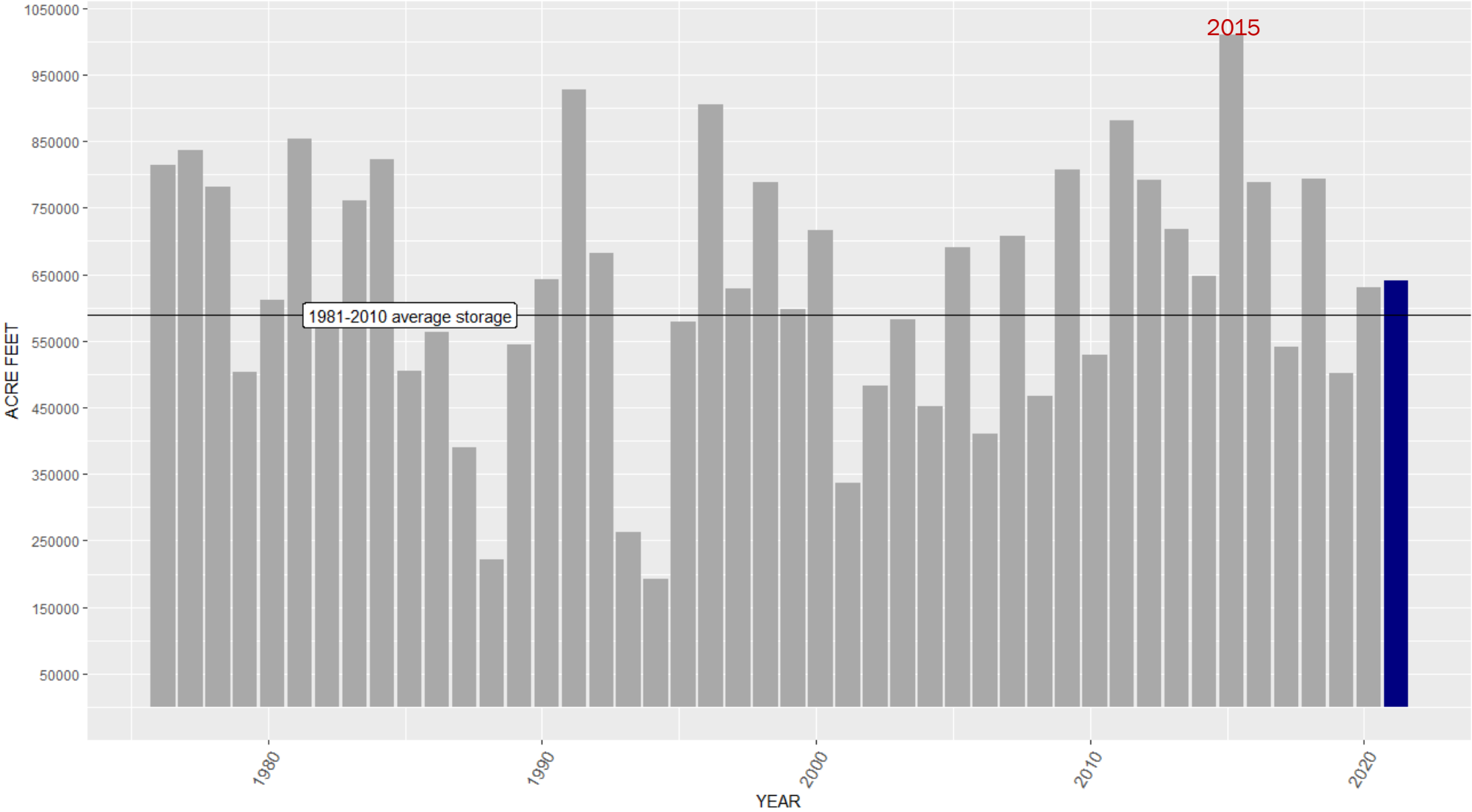
# COLVILLE AT KETTLE FALLS ENSEMBLE TRACES vs DROUGHT THRESHOLD, APR-SEPT



based on NWRFC data  
KTFW1 ESPFM ISSUED:2021-03-02\_21:47\_GMT



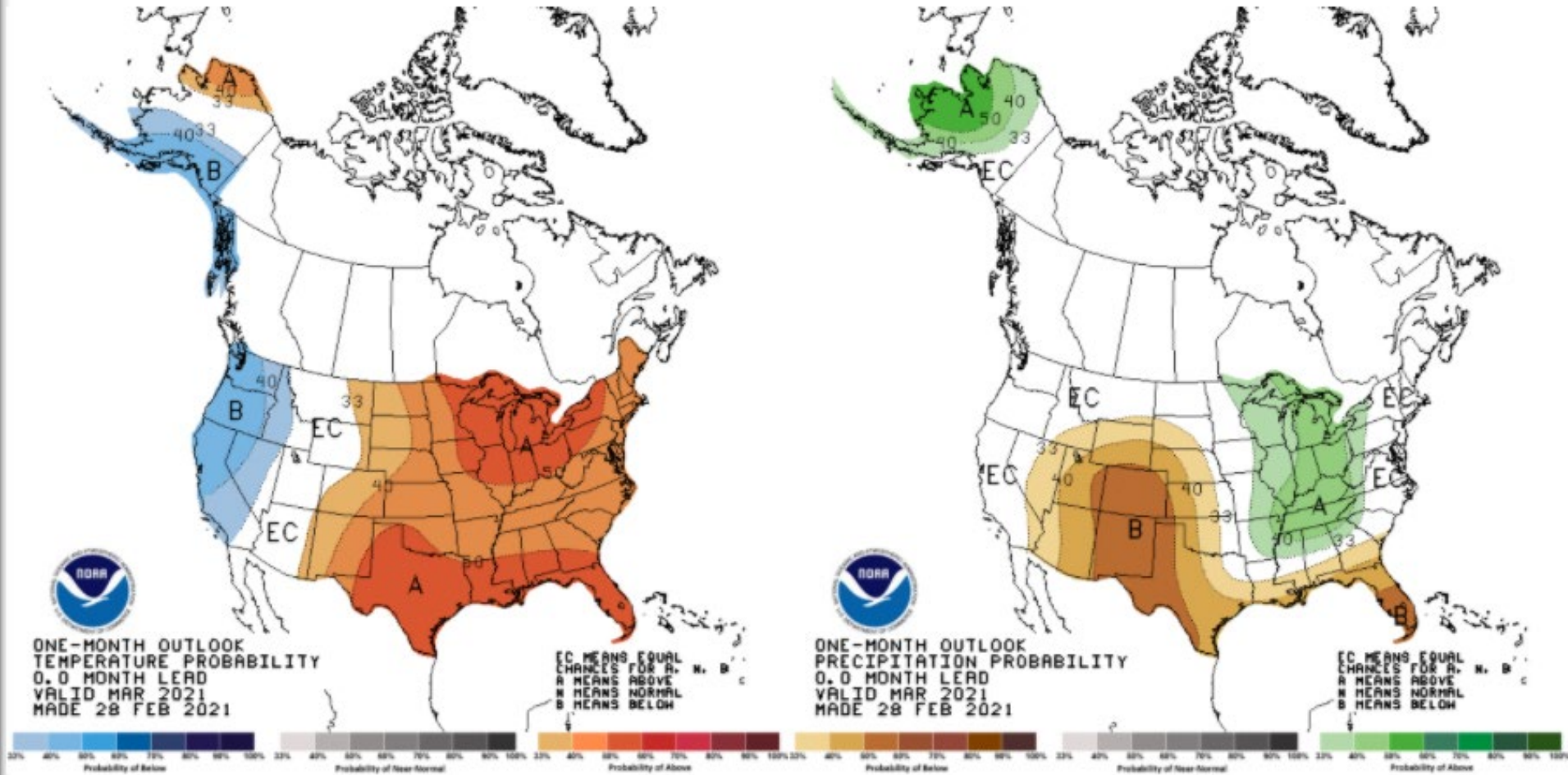
2021-03-02 YAKIMA TOTAL SYSTEM STORAGE



BOR data

# Revised OFFICIAL 30-Day Forecasts

Issued: February 28, 2021







DEPARTMENT OF  
**ECOLOGY**  
State of Washington

**Thank you**

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