



Water Resources Update - Mar 24, 2023

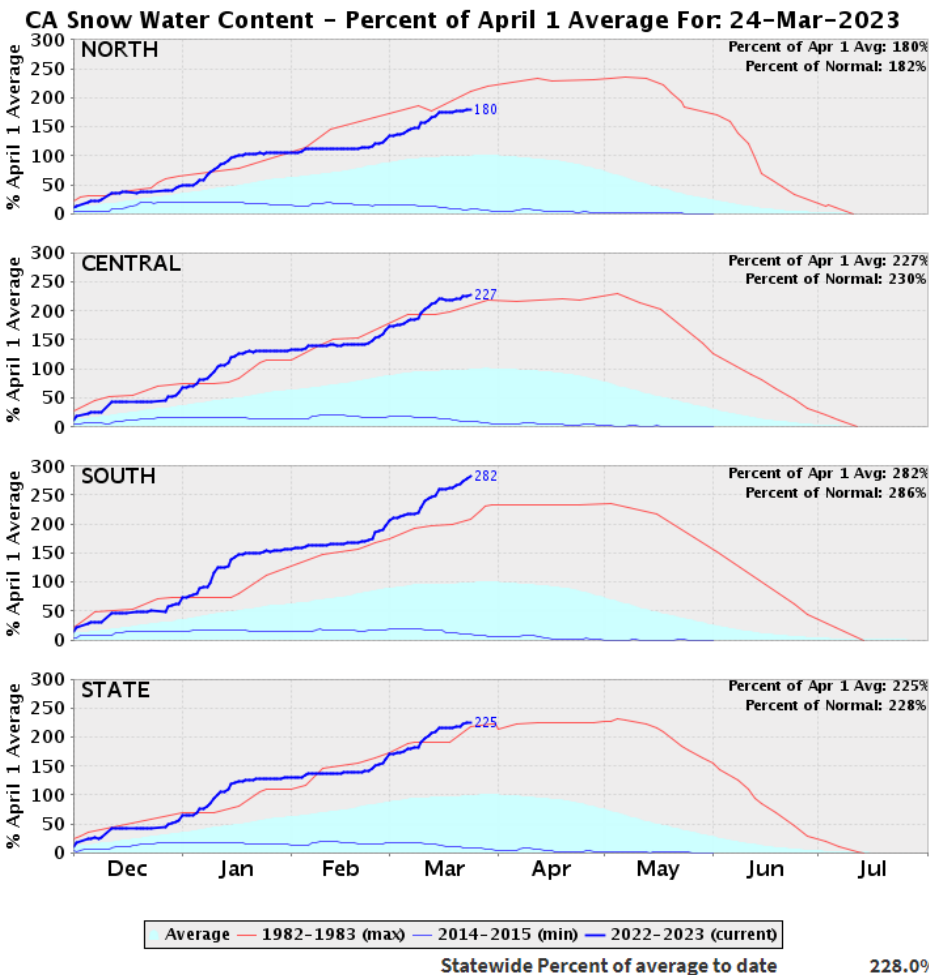
Summary:

- The mountain snowpacks in the Sierra Nevada are close to or above historical record values.
- Well above normal water supply April-July runoff volumes are forecast for the majority of reservoirs.
- Drought conditions have been improving, with some portion of CA already out of the drought category.

Details:

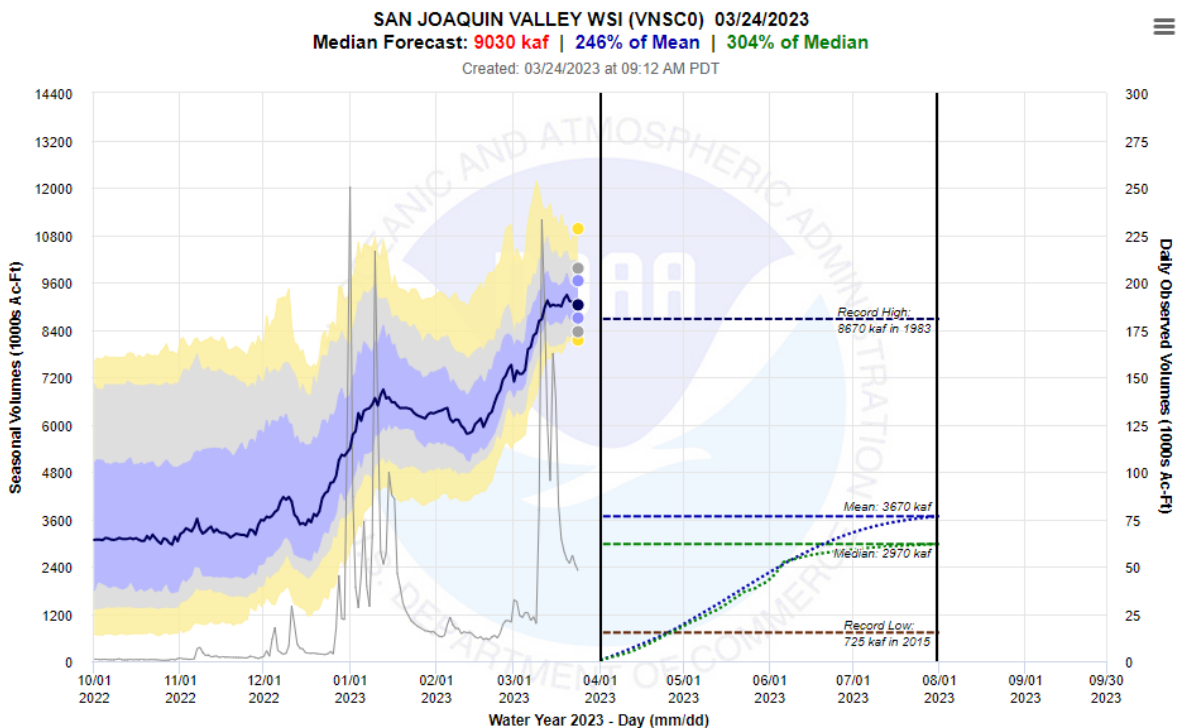
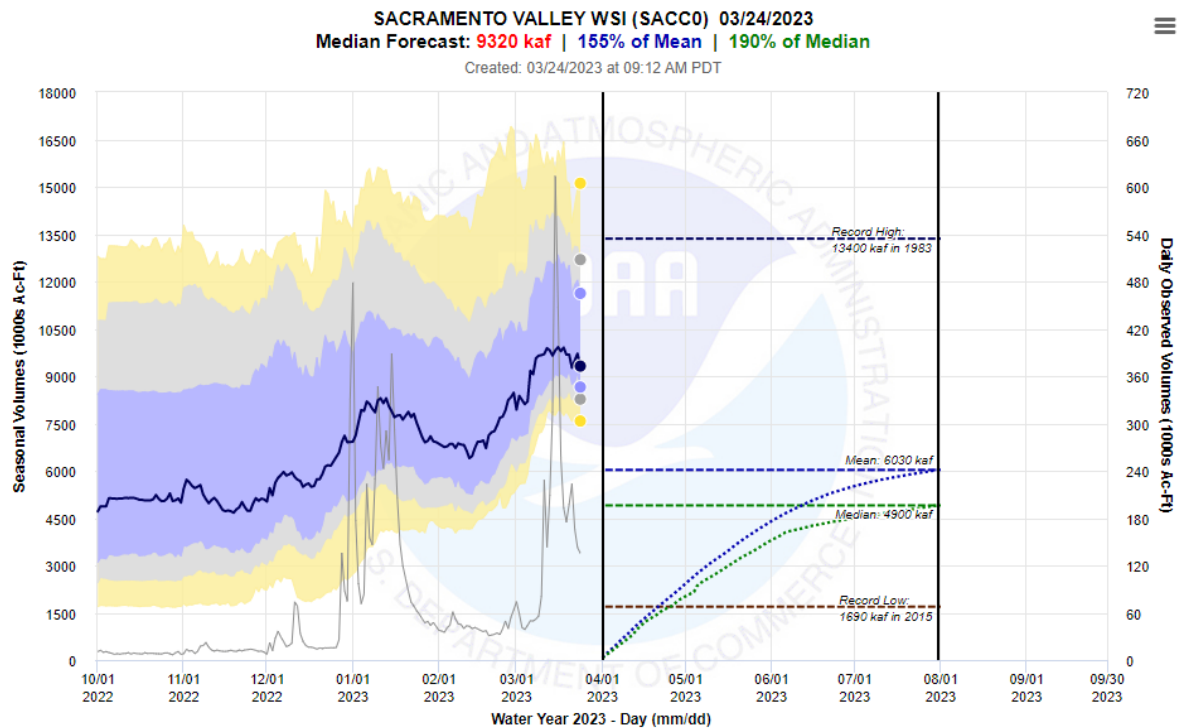
- **Snowpack Trends:**

California has been experiencing historical high snowpacks for Water Year 2023 (WY23). Current snowpacks (source: [DWR CDEC](#)) in the Central and Southern Sierra already reached historical record in WY83. As of Mar 24, snowpacks are at 228% of normal for the entire California, and at 182%, 230% and 286% of normal for the northern area, central Sierra, and southern Sierra, respectively.



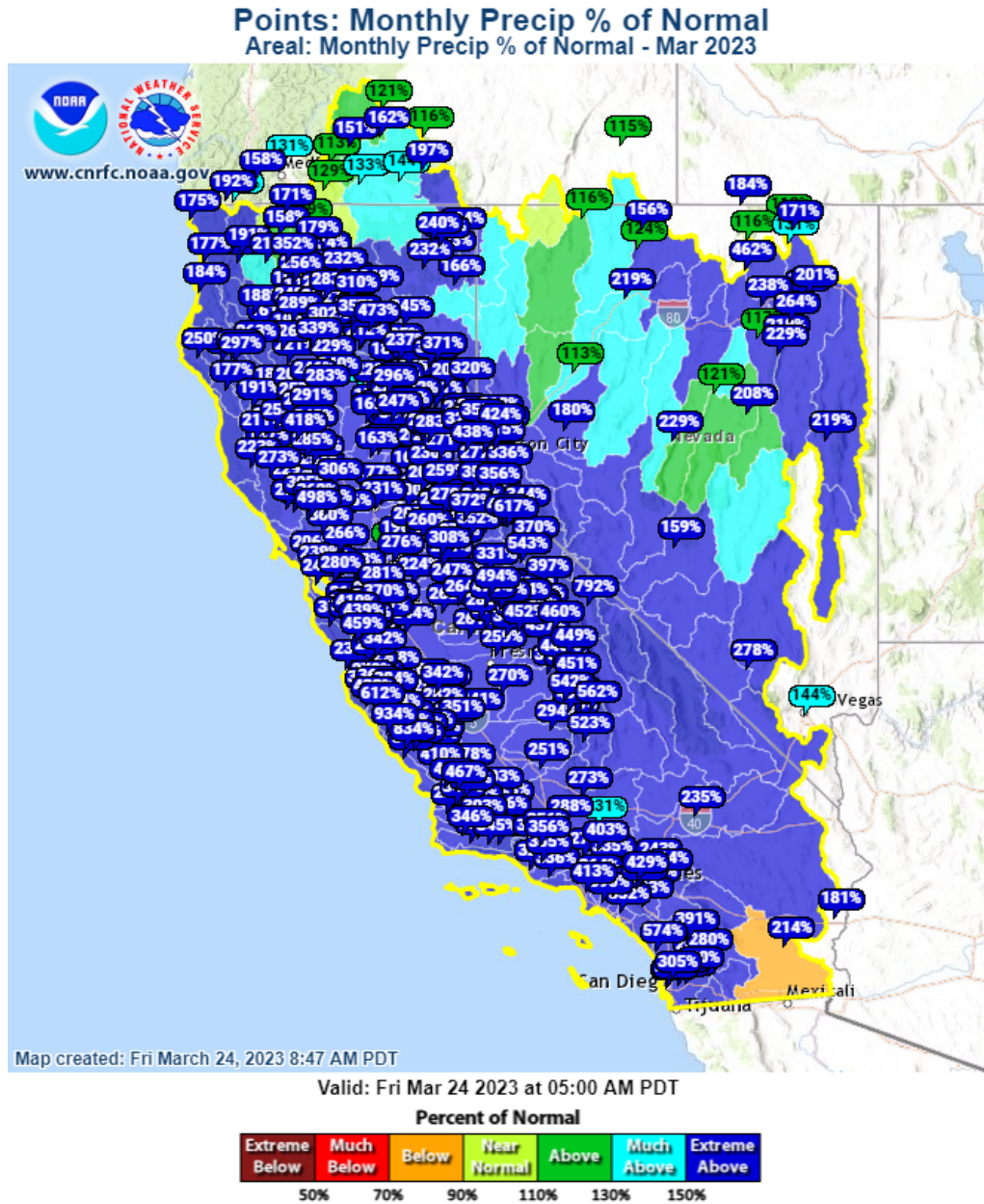
- **Seasonal (April-July) volume forecast:**

Within the CNRFC domain, forecast seasonal April-July (AJ) volumes for WY23 are mostly well above average (>150%), with some reservoirs having higher probability of reaching record AJ volume. For our [Sacramento Valley index](#) (Bend Bridge at Sacramento River, Lake Oroville at Feather River, Englebright reservoir at Yuba River and Folsom Lake at American River), the HEFS forecast is showing less than 10% chance of reaching record AJ volume. However, for our [San Joaquin Valley index](#) (Millerton, Exchequer, New Don Pedro, New Melones reservoirs), the HEFS forecast is showing a 75-80% chance of exceeding record AJ volume (8670 kaf in WY83).



- **March precipitation:**

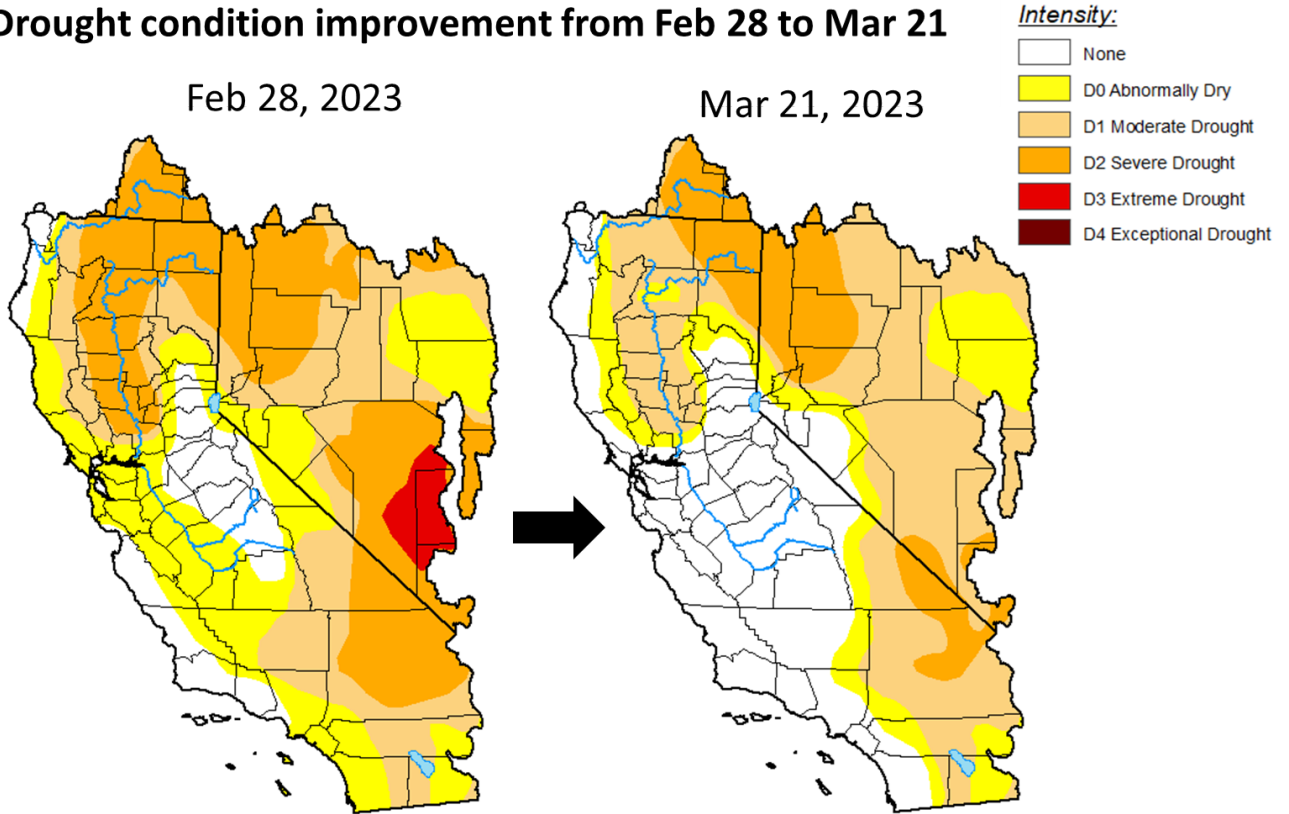
With the help of recent storm events, March of WY23 has been wet compared to historical normals. [The graph](#) below shows monthly precipitation percent of normal of the precipitation gages and HUC-8 basins within the CNRFC domain. The majority of the basins in California received well above normal precipitation, while some basins in Nevada received 110-130% of normal precipitation.



- **Drought:**

With the series of storm events throughout the WY23, the drought conditions in the CNRFC domain have improved significantly. The recent storms in March continue to improve the drought conditions. As shown in the drought condition map below, much of the California state has moved out of the drought category (source: [U.S. Drought Monitor](https://www.drought.gov/))

Drought condition improvement from Feb 28 to Mar 21



- **Weather Outlook**

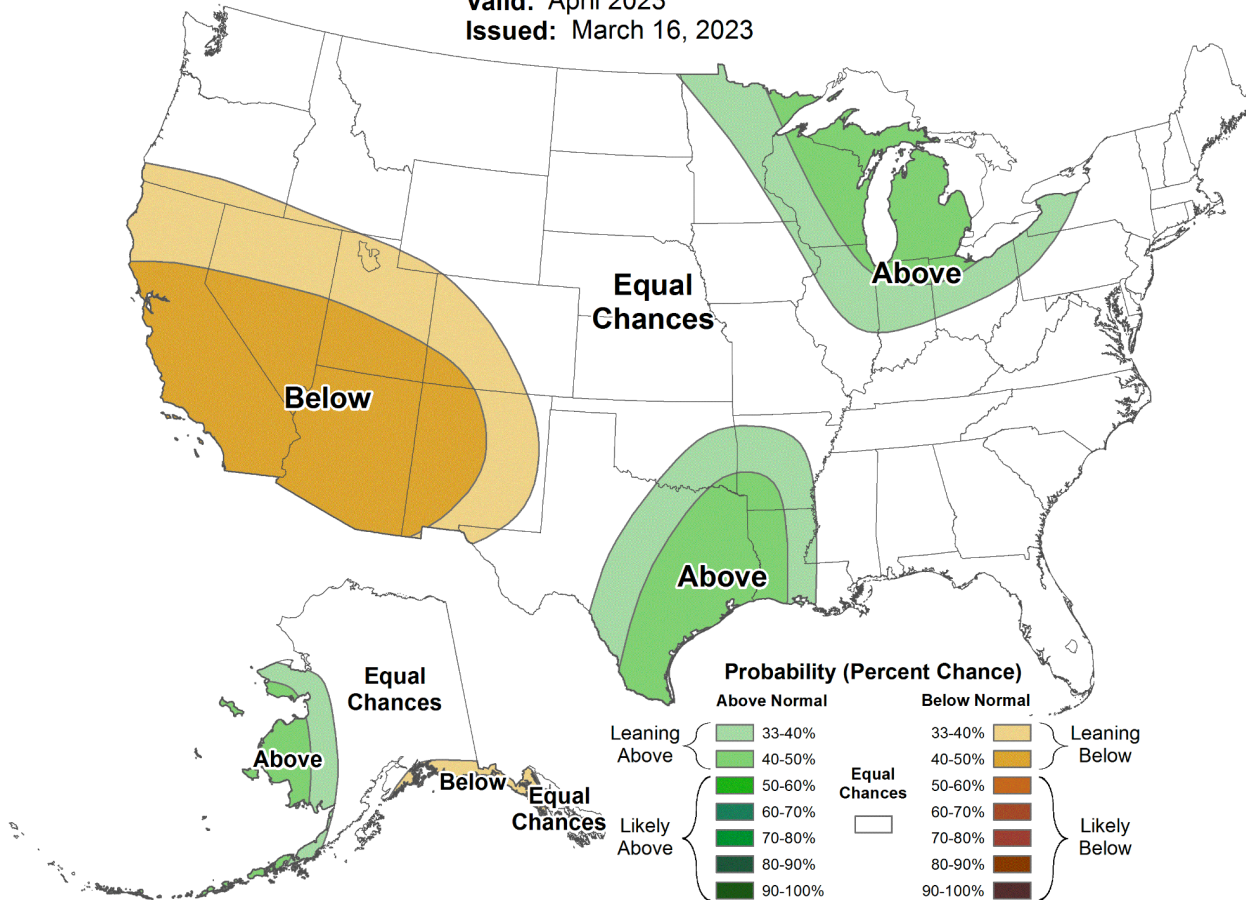
A weather system is currently developing and is forecast to move into northern California early next week, bringing additional precipitation for March. However, below normal precipitation conditions are projected for April by the Climate Prediction Center (source: [NOAA Climate Prediction Center](https://www.noaa.gov/climate-prediction-center)).



Monthly Precipitation Outlook



Valid: April 2023
 Issued: March 16, 2023



Conclusion:

Water Year 2023 has been making lots of records so far. With mountain snowpacks in the Sierra Nevada closer or above historical record values, well above normal water supply April-July runoff volumes are forecast for the majority of reservoirs. In terms of future outlook, March has been wet compared to historical normals which continuously improves drought conditions. Although below normal precipitation conditions are projected for April, at least well above normal water year is certain. CNRFC and DWR forecasters will keep analyzing data from many sources to better assess this record-breaking water conditions for our water resource forecast.