

Floodplain Management Association
April 15, 2024 Board Meeting
NOAA Advisor update
Submitted by: Jayme Laber

Summary of items of interest from NOAA National Weather Service

1. **National Water Prediction Service (NWPS)** – [National Water Prediction Service \(NWPS\)](#)

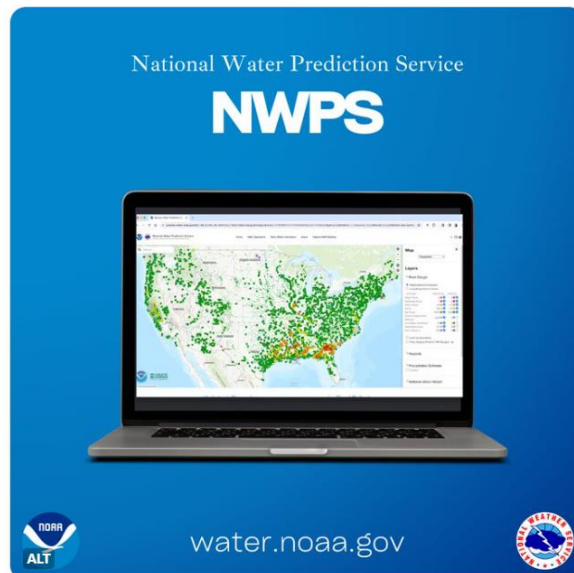
NWPS is a major upgrade and replacement of the NWS legacy portal for Water Prediction Information and was made publicly available on March 27, 2024.

NWPS consolidates and expands features of the two current web pages:

- Advanced Hydrologic Prediction Service ([AHPS](#): water.weather.gov)
 - AHPS will be retired on or around May 27, 2024
- [Office of Water Prediction](#) (water.noaa.gov)
- Adds public geospatial & API driven data service
- Improved features and navigation
 - National Map – current/forecast status
 - Gauge pages – enhanced hydrographs, flood stage and impact information, probabilistic graphics and flood inundation maps (where available)
 - Hydrographs for all National Water Model locations (~2.7 million)



Come check out the NWS' new and modern web platform, NWPS, at water.noaa.gov. NWPS is the gateway to NWS water information and will replace water.weather.gov, which will be retired on or around May 27th. For more information, visit weather.gov/notification



2. ...WETTEST BACK-TO-BACK WATER YEARS IN DOWNTOWN LOS ANGELES SINCE THE LATE 1800S!!!!...

Public Information Statement

National Weather Service Los Angeles/Oxnard CA

710 AM PDT Mon Apr 1 2024

...WETTEST BACK-TO-BACK WATER YEARS IN DOWNTOWN LOS ANGELES SINCE THE LATE 1800S!!!!...

...SECOND-WETTEST BACK-TO-BACK WATER YEARS EVER RECORDED IN DOWNTOWN LOS ANGELES SINCE OFFICIAL RECORDS BEGAN IN 1877...

In Downtown Los Angeles, the 2022-2023 water year was the 7th-wettest on record, including a number of major winter storms, the 8th-wettest January, the 7th-wettest March, and the wettest August on record fueled by the remnants of a rare tropical storm (Hilary). The 2023-2024 water year continued to bring extreme weather to southwestern California.

There were four major storm systems in the month of February 2024, including one that produced the 4th-wettest calendar day in any February with 4.10 inches of rain. March also brought above-normal rainfall to the region.

In Downtown Los Angeles, rainfall from this latest storm system totaled 2.10 inches. Of that total, 0.12 inches fell on the 29th before midnight, with 1.73 inches on the 30th, and 0.25 inches on the 31st. The rainfall of 1.73 inches on the 30th set a calendar day record, breaking the old record of 1.27 inches set in 1946.

Rainfall for this water year so far in Downtown Los Angeles stands at 21.39 inches, more than 8 inches above the normal rainfall to date, which is 13.00 inches. A water year begins on October 1st and ends on September 30th of the following year.

The rainfall total for the 2022-2023 water year, which began October 1st 2022 and ended September 30th 2023 was 31.07 inches, which was the 7th wettest. The rainfall total for the 2023-2024 water year is already at 21.39 inches so far, with 6 months remaining. The combined total for the last two water years is now 52.46 inches and counting.

That is the second greatest rainfall total for two consecutive water years since records in Downtown Los Angeles began in 1877. It is also the most rain in consecutive water years since the water years of 1888-1889 and 1889-1890, over 130 years ago. During those two water years, which were the wettest back-to-back ones ever, Downtown Los Angeles received 54.10 inches.

The following are the top five wettest back to back rain seasons in Downtown Los Angeles:

1. 54.10" from Oct 1888 through Sep 1890.
2. 52.46" from Oct 2022 through Mar 2024 (with 6 months left).
3. 50.86" from Oct 1977 through Sep 1979
4. 50.44" from Oct 2004 through Sep 2006
5. 50.29" from Oct 1882 through Sep 1884

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BRUNO/SIRARD/COHEN

3. Water Resource Updates for the California-Nevada River Forecast Center

Summary:

- Above normal precipitation over the past 2 weeks (Mar 28 - April10)
- Good Feb - March snowfall. Snowpack is slightly above normal (111%)
- April-July runoff looks to be “anomalously normal” - right at 100%
- Forecast for seasonally average precipitation over the coming weekend.

Details:

Recent Conditions

The first 10 days of April saw both below normal regions of precipitation, and some above normal regions in the Central Sierra and along coastal basins south of the Bay Area

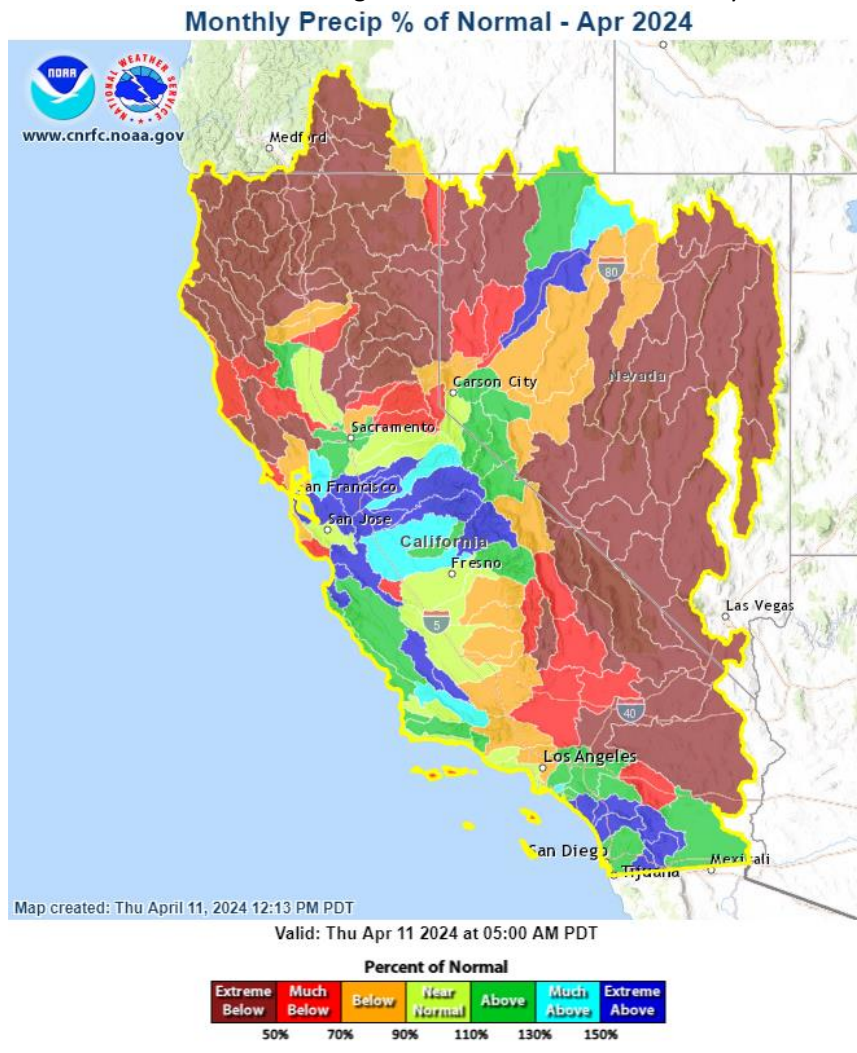


Figure 1a April-to-date precipitation through April 11, 2024 at 4 AM PST. Source: [CNRFC](https://www.cnrfc.noaa.gov)

This comes on the heels of an above average March precipitation. An especially cold storm March 29-31 produced snow down to low elevations.

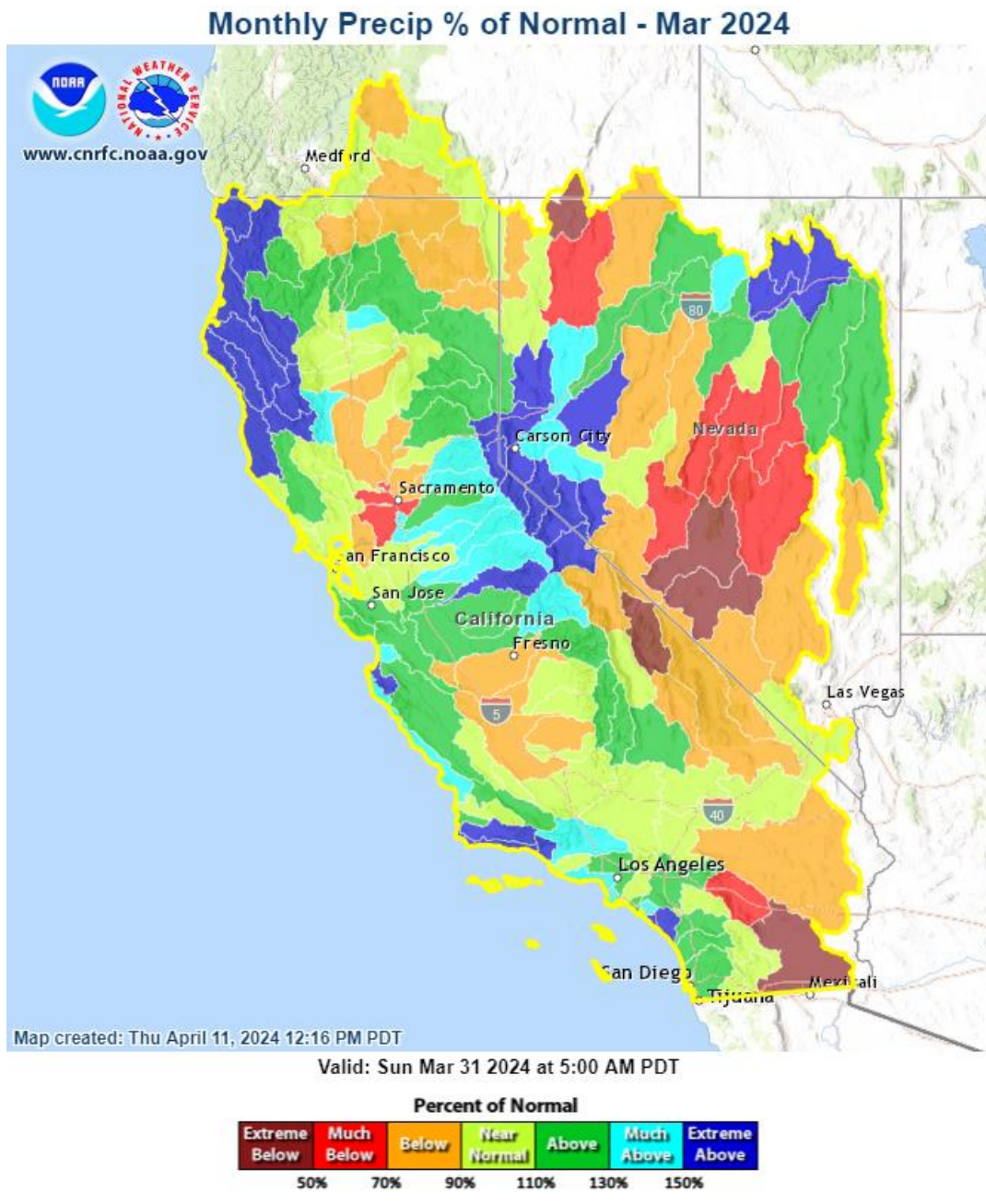


Figure 1b March 2024 precipitation. Source: [CNRFC](http://www.cnrfc.noaa.gov)

Snow Water Content Trends

On February 9, Statewide water content stood at 13.5 inches, or 52% of average. After a productive two months of snow production, the April 9 value was 28.8 inches or 116% of average. Snowpack water content has decreased from its peak on April 8th with warm CA temperatures yesterday.

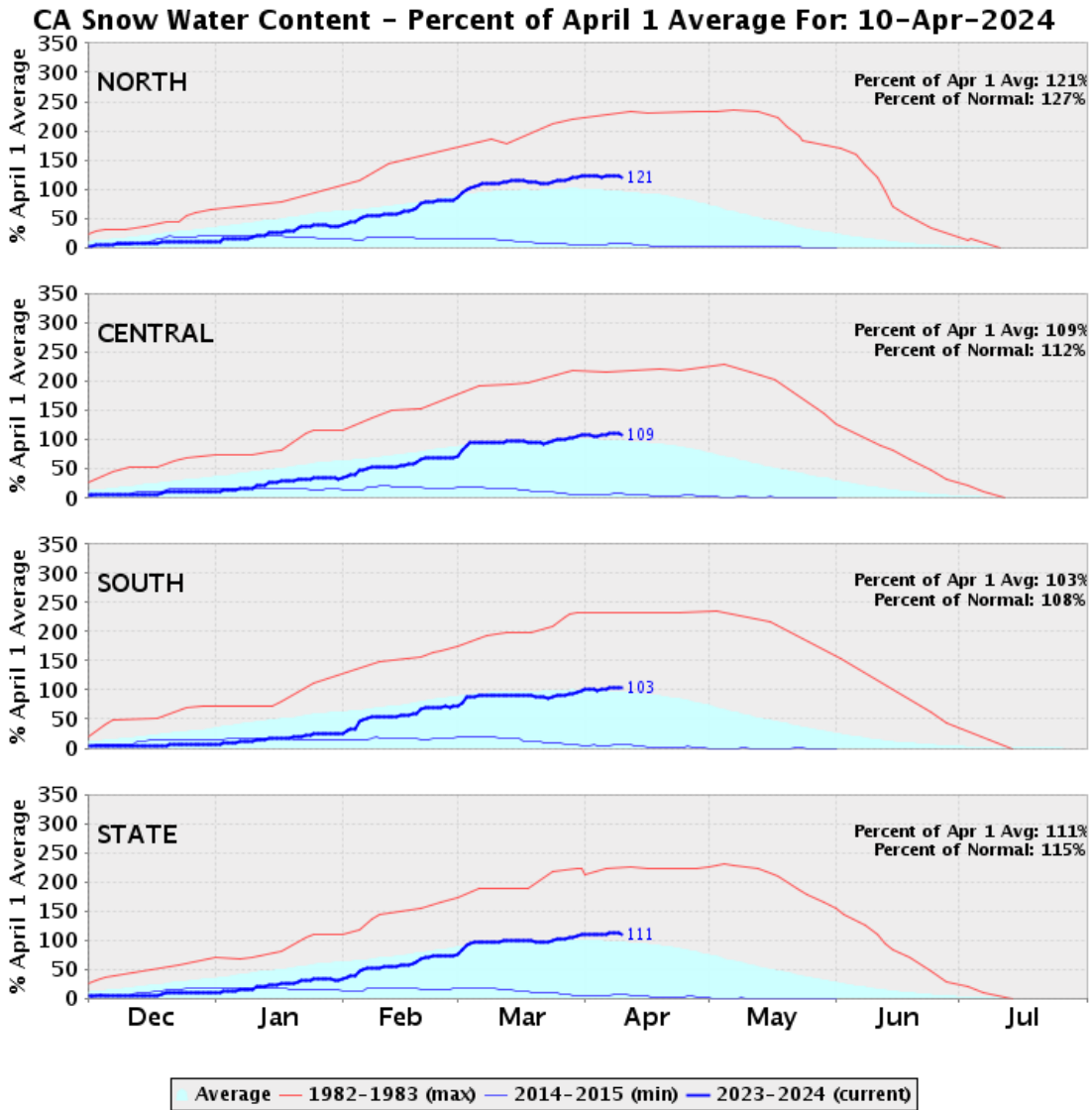


Figure 2 CA snow water content by region. Source: [CA Department of Water Resources](#)

Water Year/Seasonal Forecast Trends

Trends in the water year forecasts for the Sacramento and San Joaquin Valley Water Resources Index locations have been flat, hovering around 100% of normal. Yesterday's forecast had both regions at exactly 100% of the 1980-2022 mean.

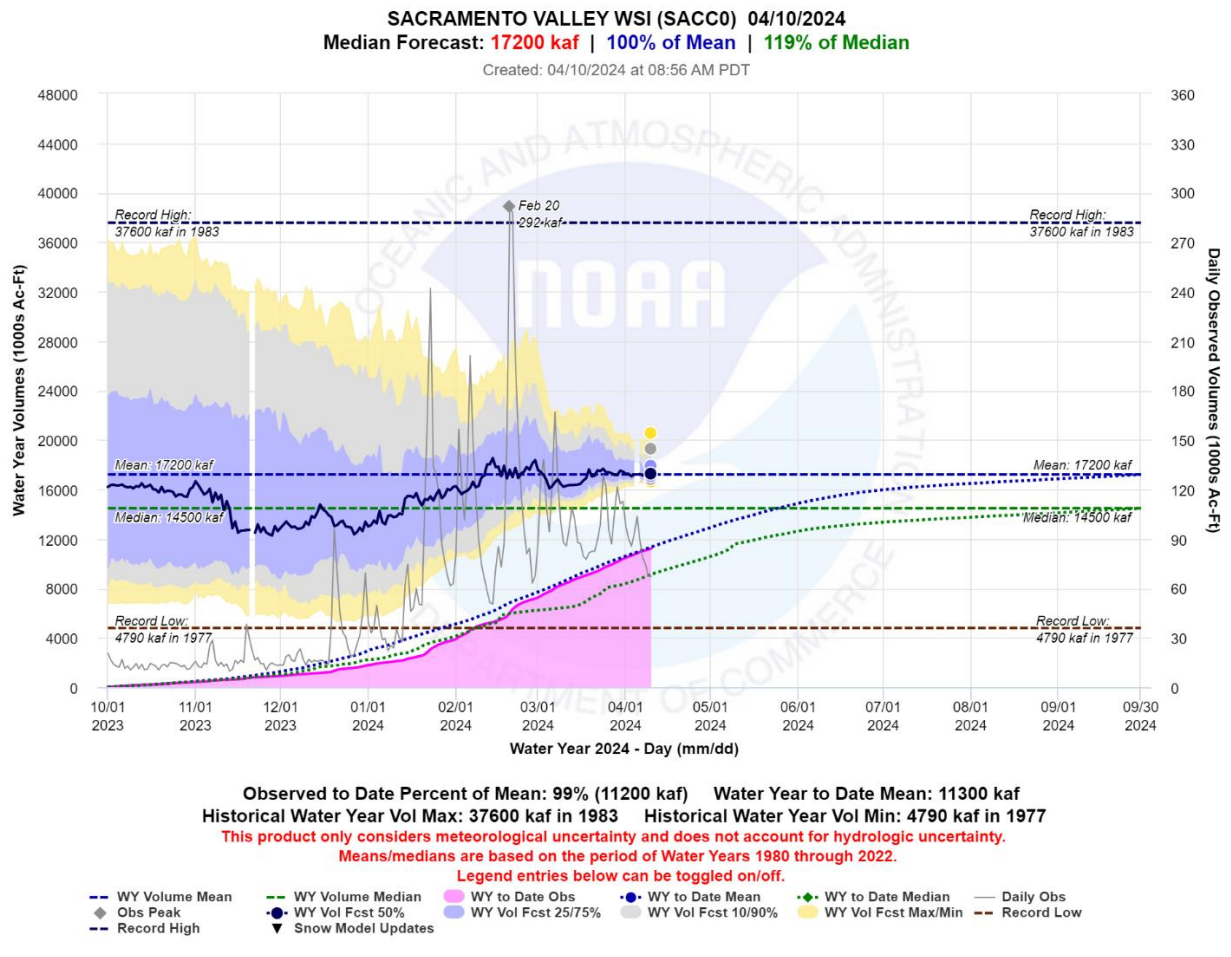
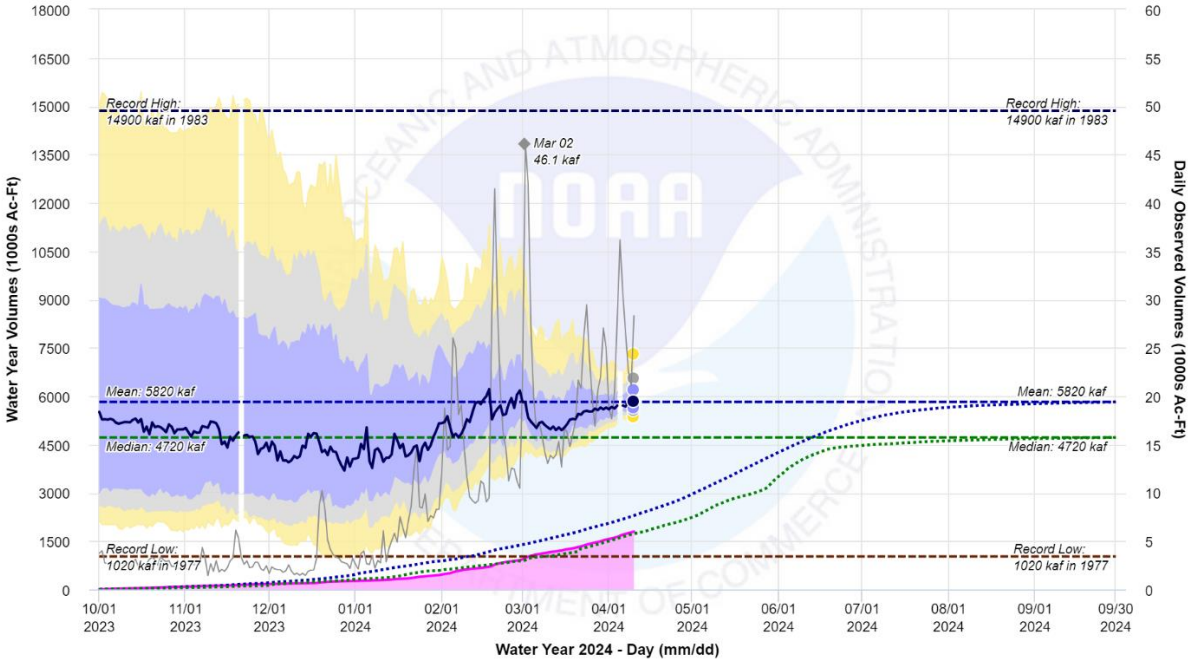


Figure 3 Water year forecast trends for the Sacramento Valley Water Supply Index. Source: [CNRFC](#)

SAN JOAQUIN VALLEY WSI (VNSCO) 04/10/2024
Median Forecast: 5840 kaf | 100% of Mean | 124% of Median

Created: 04/10/2024 at 08:56 AM PDT



Observed to Date Percent of Mean: 78% (1800 kaf) Water Year to Date Mean: 2290 kaf
Historical Water Year Vol Max: 14900 kaf in 1983 Historical Water Year Vol Min: 1020 kaf in 1977
 This product only considers meteorological uncertainty and does not account for hydrologic uncertainty.
 Means/medians are based on the period of Water Years 1980 through 2022.

- Legend entries below can be toggled on/off.
- WY Volume Mean
 - - WY Volume Median
 - WY to Date Obs
 - WY to Date Mean
 - ◆ WY to Date Median
 - Daily Obs
 - ◆ Obs Peak
 - WY Vol Fcst 50%
 - WY Vol Fcst 25/75%
 - WY Vol Fcst 10/90%
 - WY Vol Fcst Max/Min
 - - Record High
 - ▼ Snow Model Updates

Figure 4 Water year forecast trends for the San Joaquin Valley Water Supply Index. Source: [CNRFC](#)

Forecast Seasonal Volume (WY2024)

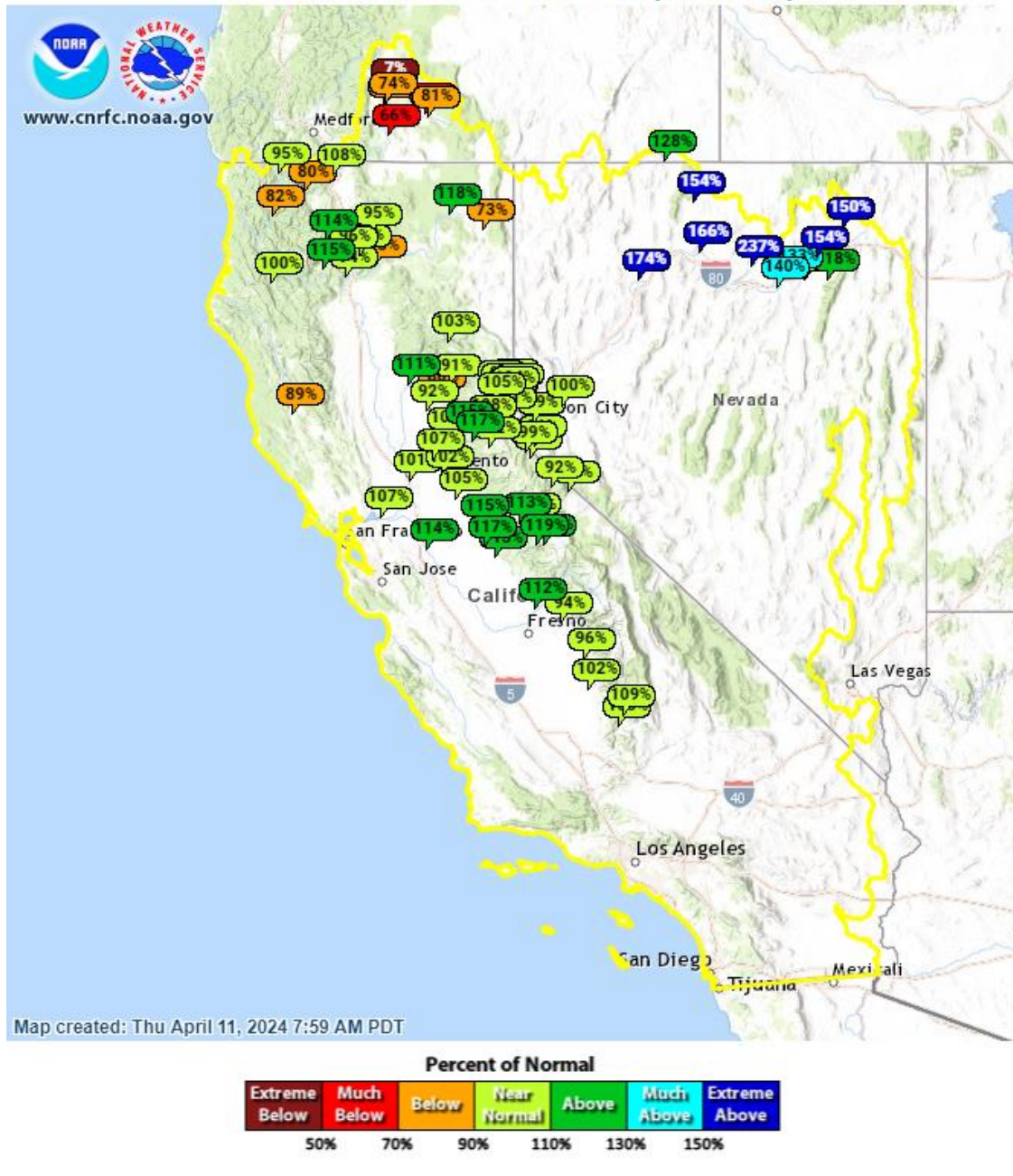


Figure 5 Seasonal (generally April through July) runoff forecasts. Source: [CNRFC](https://www.cnrfc.noaa.gov)

Weather Outlook

Forecasts show additional precipitation this week (next 6 days), with highest amounts in northern and central CA (figure 6a). Longer-range outlooks favor below average precipitation for the April 19-25 period (figure 6b).

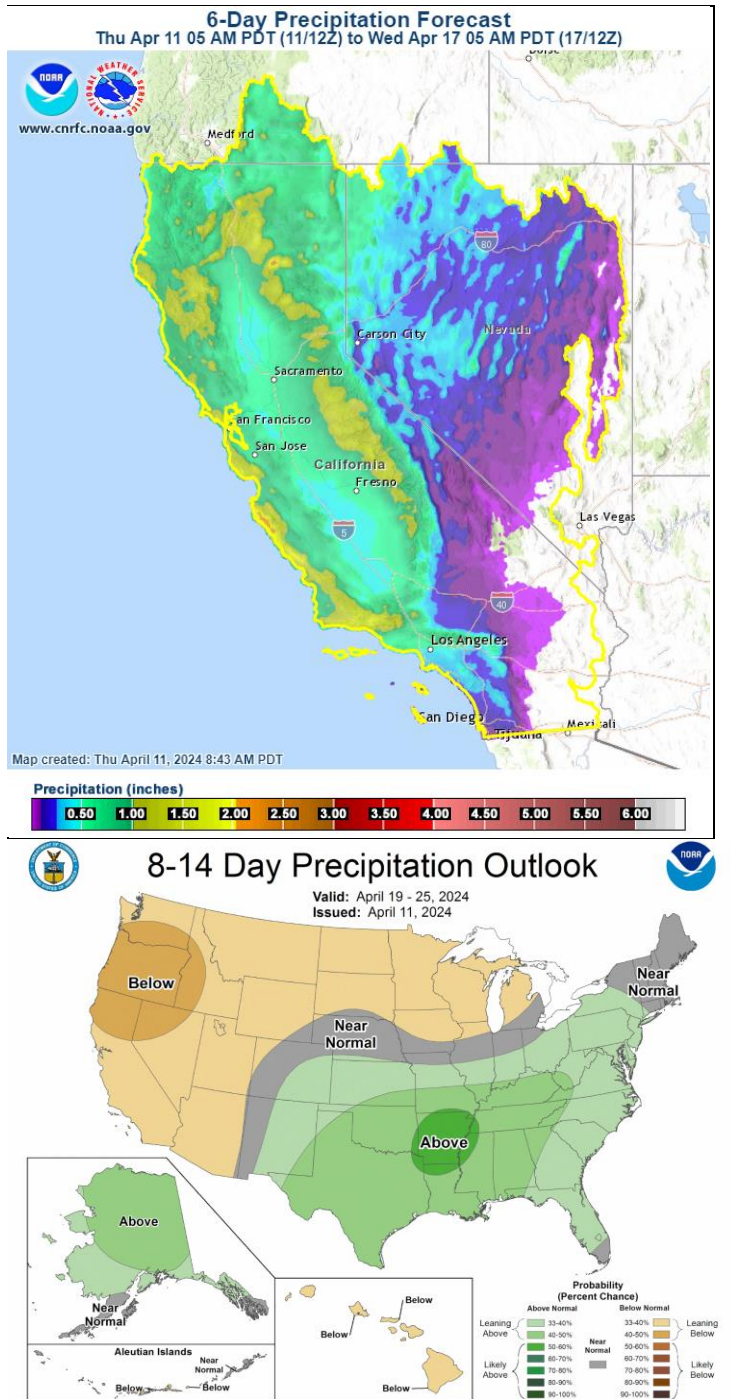
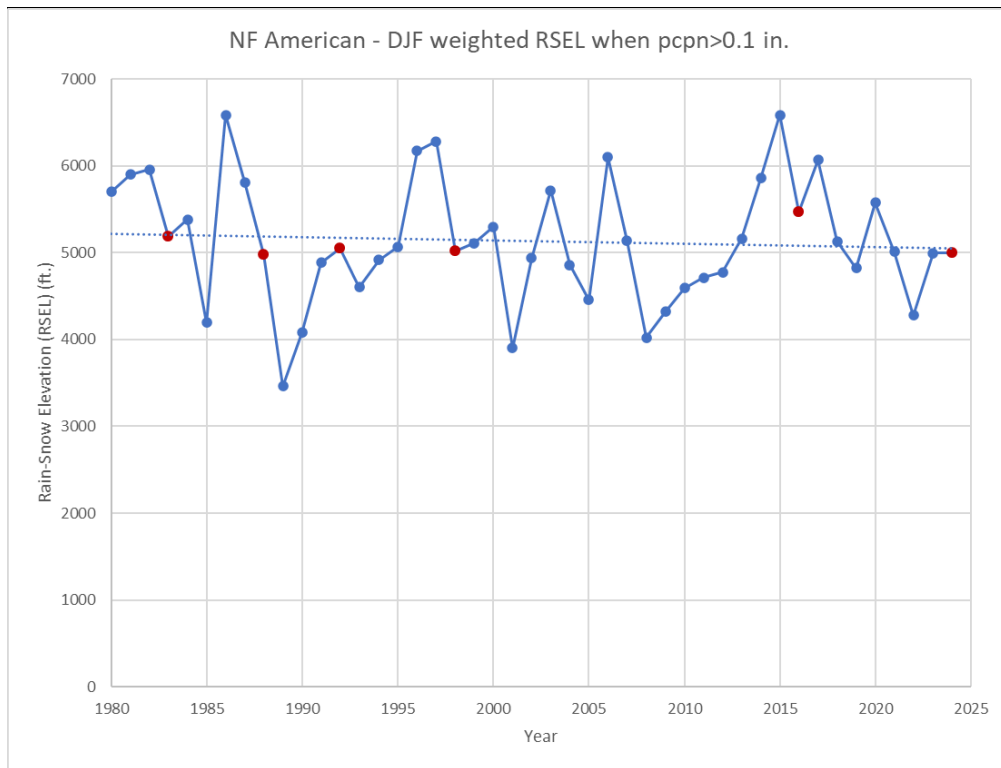


Figure 6a : 6-day precipitation forecast Source: [CNRFC](https://www.cnrfc.noaa.gov)

Figure 6b : 8- to 14-day precipitation outlook. Source: [Climate Prediction Center](https://climatepredictioncenter.com) (graphic also available on [CNRFC web site](https://www.cnrfc.noaa.gov))

Rain-Snow Elevation Trend

Despite the slow trend toward warmer temperatures, California continues to see its share of colder storms, particularly since the 2015 snow drought (see graph below showing rain-snow elevations during winter precipitation events in the American River basin. 'DJF'⇒ 'Dec/Jan/Feb'). The RSEL is weighted by the amount of precipitation, so RSEL during heavier precipitation periods are weighted more. Red dots indicate strong El Nino years, which have been remarkably consistent in producing fairly average rain-snow elevation lines during the winter months.



Summary

After a slow start to the water year, February and March produced abundant precipitation and brought the major water supply regions to around 100% of average (some higher, some lower). However, exceptions are the rule outside of California with the southern Oregon region well below normal, and the Humboldt River watershed in Nevada well above normal.

If the current trend for “normal” is any indication, California may even have near normal precipitation during April-July, which would be a welcome change after 3 dry Springs (2021-2023).