National Weather Service
National Oceanic and Atmospheric Administration

River Forecast Center
California Nevada
Wednesday, Dec 14, 2022

Water Resources Update - December 14, 2022

Hope you all are enjoying the nice weather this week and are looking forward to the upcoming holiday season.

KEY POINTS

- **The 2023 WY is off to a great start with a heavy snowpack throughout the Sierra and Humboldt basins**
- **CNRFC modeled snowpack is showing many basins in the north and central Sierra near or above the largest snowpack to-date in the last 40+ years**
- **Forecast trending dry for the remainder of the month**

WEATHER RISK OUTLOOK

Risk levels incorporate potential impacts from weather hazards and likelihood of occurrence.

Mon 10/4	Tue 10/5	Wed 10/6	Thu 10/7	Fri 10/8	Sat 10/9	Sun 10/10

Risk Levels	Little to None	Minor	Moderate	Major	Extreme

DETAILS

- **Precipitation and snowpack**
  - The water year is off to a great start after a snowy first half of December. Figure 1 shows a widespread increase in SWE of 3-8in throughout the Sierra as a result of the storm system this past weekend. Many of the watersheds we model in the Sierra and Humboldt are showing the snowpack at or near the largest to-date since 1980. Snow pillow data (Figure 2) shows that many sites are over 200% of average for this date. Looking below the snowpack, the data reveal that soil moisture is lacking as a result of little rainfall thus far this water year (Figure 3). Many rivers are running well below historical averages for this time of year (Figure 4) as a result.

- **Seasonal water supply forecasts**
  - After a sharp increase in the AJ runoff volume forecast the last 2 weeks, we have been heading in the opposite direction the past few days. This is a direct result of the dry weather outlook for the next 1-2 weeks. Figure 5 shows that the 50% AJ volume forecast for New Don Pedro has dropped by over 10% in the last 3 days. Similar drops in the forecast have occurred at other locations throughout the region.

- **Weather outlook**
  - The odds are increasing that we will receive below normal precipitation for the 2nd half of the month. The current 6 day precipitation forecast from the CNRFC shows only scattered, light precipitation across the northernmost areas near the Oregon and Idaho borders. The latest CPC 8-14 day forecast (Figure 6) shows most of the region with an elevated chance of receiving less than average precipitation. Looking ahead to January, the majority of long-range models are tending towards a drier than normal start to the new year as shown in Figure 7.

- **Sources**
  - Figure1, 2, & 4:cnrfc.noaa.gov
    Figure3:https://www.nrcs.usda.gov/wps/portal/wcc/home/quicklinks/states/nevada/data/charts/
    Figure5:https://www.cnrfc.noaa.gov/ensembleProduct.php?id=NDPC1&prodID=7
    Figure6:https://www.cpc.ncep.noaa.gov/products/predictions/814day/814prcp.new.gif
    Figure7:www.cpc.ncep.noaa.gov/products/NMME/current/usprate_Lead1.html

FOR MORE INFORMATION

For the latest forecast updates, visit **cnrfc.noaa.gov**.

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