

FORECAST DISCUSSION FOR MAY 14, 2103

We've finished the May 14, 2013 Bulletin 120 (B120) forecast update. The forecast includes observed conditions through the morning of May 14, 2013 and is posted at <http://cdec.water.ca.gov/cgi-progs/iodir?s=b120up>.

Forecast Summary:

Considering the rivers forecasted in the B120 update, the projected median April-July (AJ) runoff in the major Sierra river basins ranges from 13 percent on the Tule River to 58 percent for the Total Inflow to Shasta Lake. All forecasts for rivers north of the Merced River have dropped except for the Mokelumne River which remained the same compared to the May 1 forecast. The largest drop (4 percent) occurred for the Feather River. South of the Tuolumne river, the forecast remained the same or increased one (Merced and San Joaquin rivers) or two percent (Kern River). The average percent drop for all forecasted rivers was about 2 percent. Regionally, the Sacramento, San Joaquin, and Tulare Lake basins are expected to produce 46, 45, and 30 percent of the normal April-July runoff. Due to revisions to the AJ forecast and the observed flows in May, some 90 percent exceedance level forecasts rose significantly.

Runoff:

In the Sierra, the daily full natural flows for the first half of May range from 11 percent of average on the Tule River to 67 percent of average on the Tuolumne River. No river is flowing at a rate greater than 55 percent of average for May except the Tuolumne River. Rivers south of the Cosumnes and north of the Kings are flowing at rates of 50 percent of average or greater. Elsewhere, the Trinity River in the Trinity Range is flowing at 45 percent of its monthly average.

Precipitation:

Nearly half way through May, the Northern Sierra 8-Station index has recorded 0.7 inches of precipitation which is only 33 percent of the monthly total of 2.1 inches. The seasonal total-to-date (May 14) is now 41.8 inches which represents 90 percent of average-to-date and 84 percent of the expected Water Year total of 50 inches.

As of the morning of May 14, 2013, the San Joaquin 5-Station Index showed a gain of 0.5 inches of precipitation in May. The average May index is 1.8 inches. The seasonal total-to-date is 25.6 inches, representing 68 percent of average-to-date and 63 percent of the expected Water Year total of 40.8 inches. Typically, for this index, less than 5 percent of the Water Year total occurs during the June-September period.

For both indexes, the Jan-Apr precipitation was a record low.

Snowpack:

Regionally, the automated snow sensor data for May 16 is indicating that the Northern Sierra, Central Sierra, and Southern Sierra snow water equivalents (SWE) are 1 inch, 2 inches, and less than 1 inch, respectively. These SWE values represent 6, 9, and 2 percent of each region's respective May 16 average. Statewide, the snowpack averages just an inch of water content, which is 7 percent of the average-to-date. Two years ago, the statewide SWE was about **205** percent of average on May 16. Last year it stood at 13 percent of average for the date.

Weather and Climate Outlook:

The CNRFC 6 Day QPF predicts no precipitation for the period, after today, anywhere in California. Freezing elevations currently exist at about 8,000 to 9,000 feet over the Sacramento River Region and about 9,500 to 11,500 over the San Joaquin Region. By Monday, these levels are expected to rise to about 12,500 feet over the far northern Sierra and from near 13,000 to near 14,500 over the rest of the range.

The 6-10 day forecast (May 22- May 26) indicates higher than normal chances of below normal temperatures over the northern half of the state and above normal temperatures over the southern third of the state.

The NWS Climate Prediction Center's (CPC) 30-day outlook for June, updated May 16, calls for an increased chance of warmer than normal temperatures and below normal precipitation for all of the Sierra.

The NWS Climate Prediction Center's (CPC) 90-day outlook for June-Aug, also updated May 16, indicates an increased chance of above normal temperatures for all of the Sierra. The same forecast indicates equal chances of above and below normal precipitation for all of the Sierra. There is an increased chance of below normal precipitation over the far northern part of the state.

Next Update:

The next Bulletin 120 update for conditions on May 21, 2013 will be available on Thursday, May 23, 2013.

If you have any questions regarding this forecast or need assistance prior to that update, please contact a member of the Snow Surveys staff.

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