



## Water Resources Update – June 6, 2023

### Summary:

- June 5<sup>th</sup> Change - Fixed HEFS error that double counted the current day's volume.
- Continued cool weather forecast in June is shifting melt volume to August (10-15% higher)

### Details:

At the beginning of June it was brought to our attention that the May 31<sup>st</sup> residual forecast volumes were unrealistic in our monthly products. It became apparent that the current day's forecast was being double counted in many HEFS products:

- Monthly forecasts (current month)
- AJ Volume forecasts
- Water Year forecasts

On June 5<sup>th</sup> we implemented a fix later in the day (around 11 a.m.) which removed the error. Below are a few basins that demonstrate the change that occurred by removing the double counting of the current day.

|               | Initial June 5        | Fixed June 5          |            |        |
|---------------|-----------------------|-----------------------|------------|--------|
| Basin         | Median Forecast (KAF) | Median Forecast (KAF) | Diff (KAF) | Change |
| New Don Pedro | 2747                  | 2716                  | -31        | -1.1%  |
| Friant        | 3004                  | 2970                  | -34        | -1.1%  |
| Pine Flat     | 3165                  | 3124                  | -41        | -1.3%  |
| Terminus      | 822                   | 813                   | -9         | -1.1%  |

### HEFS Documentation

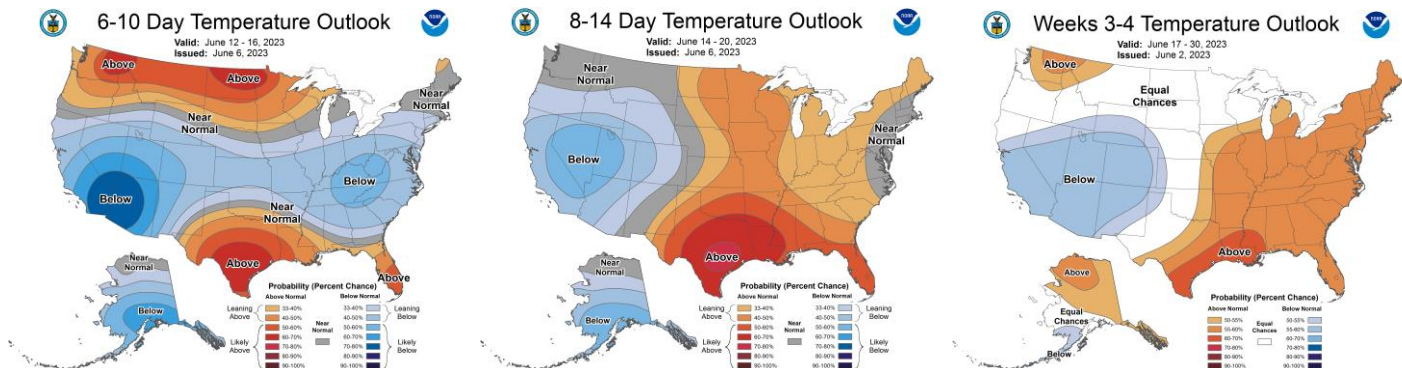
CNRFC has also updated its documentation of the HEFS Build Your Own Interface. This interface is a valuable tool for making customized date selections. Also, the selections made are preserved in the URL, so they can easily be referenced later on for future use.

You can find this documentation here:

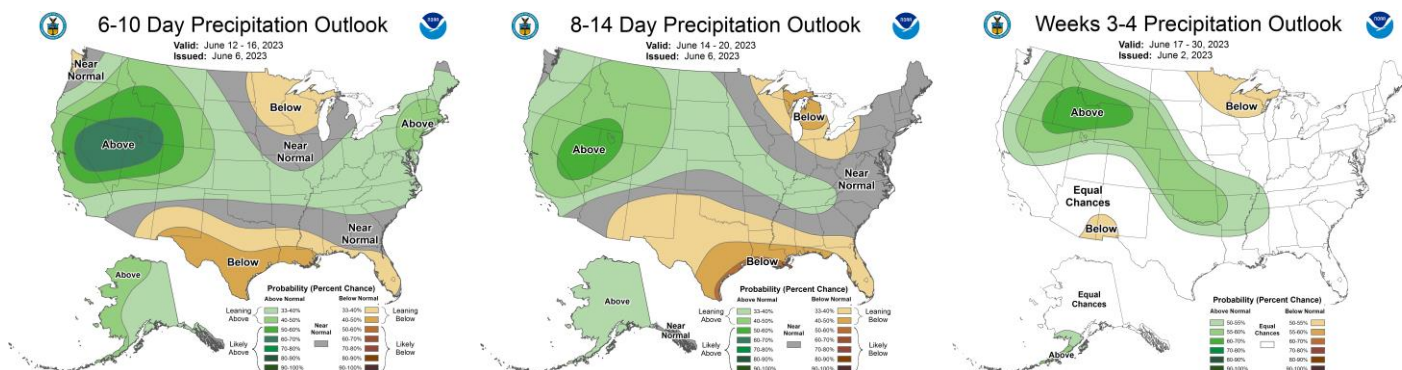
<https://www.cnrfc.noaa.gov/documentation/hefsLongRangeBuildYourOwn.php>

## June Forecast looks Cooler than Normal

The trough currently over California is expected to be re-energized again over the weekend and into next week. All the long term-forecasts are pointing to below average temperatures for June.



## June Forecast looks Wetter than Normal



## August Volumes are trending upward

The cooler weather has been another factor in the lower HEFS forecasts over the past week.

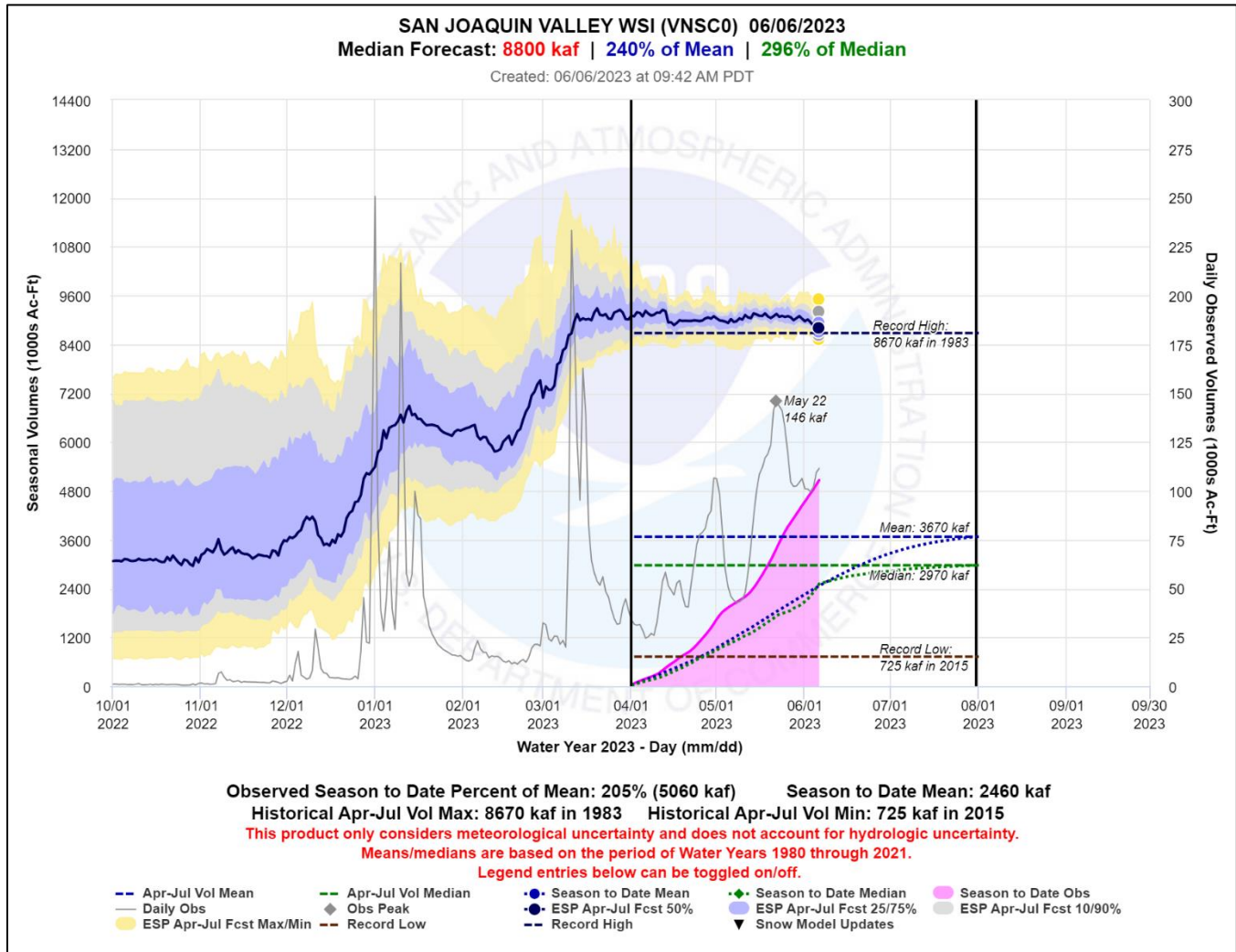
With a cooler June, HEFS forecasts are shifting more into August now. Over the past week August volumes have shifted up 10-15% in the central and southern Sierra.

|               | 5/30/2023 Forecast         | 6/6/2023 Forecast          |            |        |
|---------------|----------------------------|----------------------------|------------|--------|
| Basin         | August Median Volume (KAF) | August Median Volume (KAF) | Diff (KAF) | Change |
| New Don Pedro | 96                         | 109                        | 13         | 13.5%  |
| Friant        | 161                        | 179                        | 18         | 11.2%  |
| Pine Flat     | 175                        | 195                        | 20         | 11.4%  |
| Terminus      | 37                         | 42                         | 5          | 13.5%  |

Note - You can use the HEFS Build Your Own Interface - Custom date option (see section 5 of the [documentation](#)) to do your own analysis of forecast changes such as was done above.

## HEFS Forecasts are trending lower

Due to both the removal of the double counting and the cooler weather forecast, HEFS April-July Forecasts have decreased during the past week. Forecast precipitation is also probably keeping the forecasts from dropping further. If the convective precipitation forecast for the next 10 days does not verify, then expect forecasts to drop further.



## Conclusion:

A short thank you to those who helped us identify the computational error in our products. We apologize for the oversight and hope this update has helped to clarify recent forecast changes. While some of the drops are due to the double counting, weather forecast trends are playing a role as well.

CNRFC

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