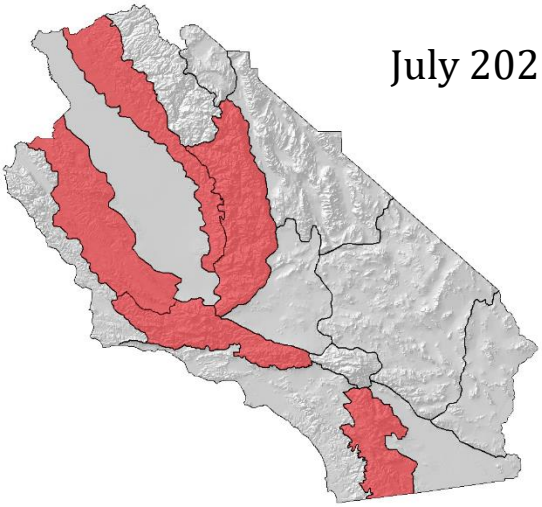
Southern California Operations

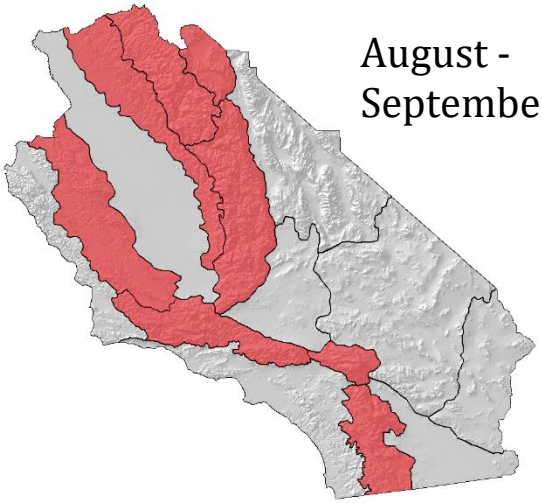
MONTHLY/SEASONAL OUTLOOKS

ISSUED JUNE 30, 2025 VALID JULY – OCTOBER 2025

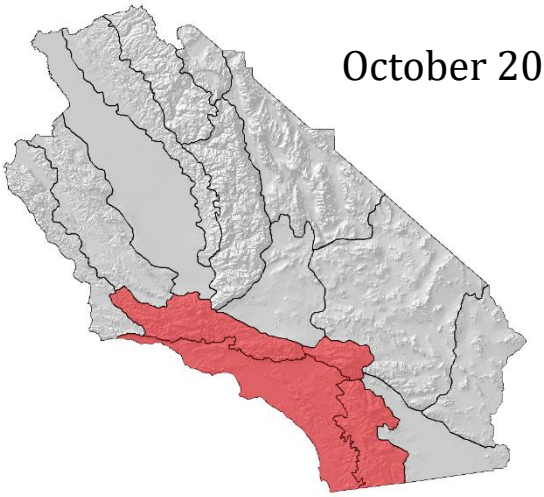
July 2025



August - September 2025



October 2025



July – October 2025 South Ops Highlights

- Temperatures will be above normal through October, but likely near to below normal in lower elevation coastal areas due to a greater than normal marine influence
- Monsoonal moisture will be less than normal overall, with inconsistent monsoonal pushes likely to begin by mid July, bringing a mix of beneficial moisture and problematic lightning
- Live and dead fuel moistures will mostly run near to below normal for the next few months
- Above normal fire potential remains highlighted in many areas due the expected hot temperatures, lack of meaningful moisture, and potential for continued high severity conditions into the fall

Weather Discussion

Over the past 3-months, temperatures have mostly run above normal across the region, although lower elevation coastal regions have persistently remained near to cooler than average. **(Figure 1)**. The warm anomalies have been driven more by persistence than by extremes. There have been no major heat events over the region so far this season, but temperatures have persistently run slightly to moderately above normal. Precipitation over the same period has been mostly below normal and in many cases less than 75% of normal **(Figure 2)**. While the extreme dryness of early winter over portions of the region was mitigated somewhat into the late winter and spring, it was a much drier than normal rainy season overall. Some anomalous subtropical moisture in late May and early June did produce large positive rainfall anomalies over many desert areas. There is very little snowpack remaining in the mountains. What little snow does exist is mainly confined above 9000 feet across the Sierra. Seasonal snowpack across the Sierra peaked near to only slightly below normal, but melt-out was considerably faster than normal.

ENSO neutral conditions are present across the equatorial Pacific **(Figures 3+4)**. There are no indications for the development of any El Nino or La Nina conditions in the coming months. Cooler than normal SSTs off the West Coast of North America have likely been a strong contributor to the coldest anomalies in the region being found in coastal areas.

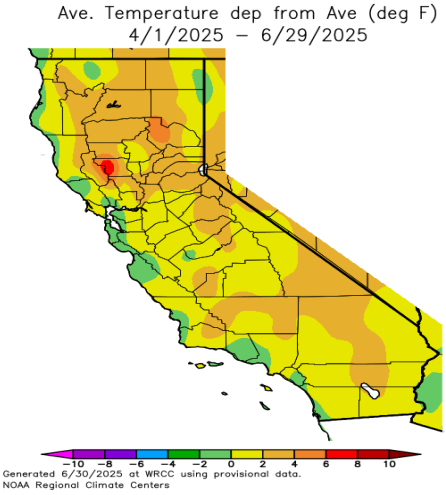


***Fig 1**: April 1st – June 29th Temperature Departure from Average*

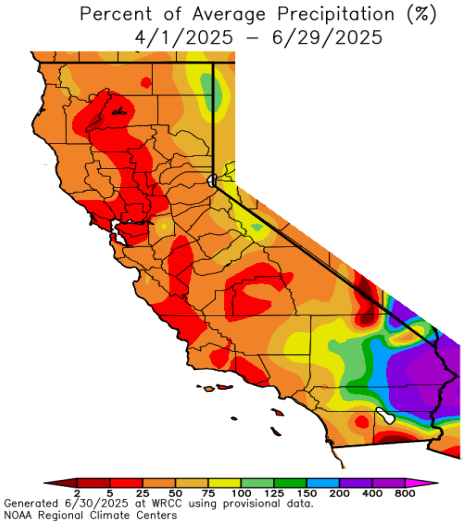


***Fig 2**: April 1st – June 29th Precipitation (% of Ave.)*

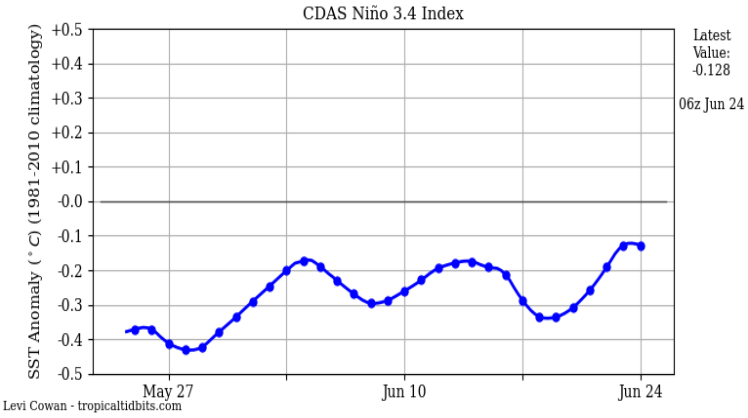


***Fig 3**: Niño 3.4 Region SST Anomaly*

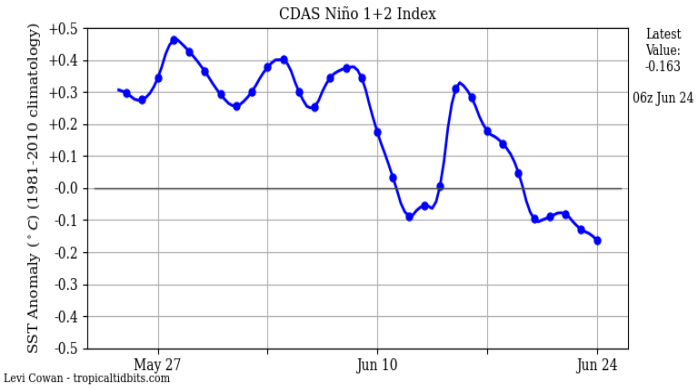


***Fig 4**: Niño 1+2 Region SST Anomaly*

Fuels Discussion

Moderate to severe (locally extreme) drought conditions are present across Southern California, with abnormal dryness to moderate drought in much of Central California **(Figure 5)**. This remains primarily a short term drought driven by the dryness over this past winter, as larger scale indices such as reservoir levels remain in excellent standing. The generally warmer and drier than normal weather has caused heavy dead fuel moistures (1000 hr time lag) to trend below normal for this time of year in most areas away from the marine influence (**Figure 7**). Despite the dry overall winter, the respectable amount of rain received during the peak growing season in late winter and spring caused live fuel moistures to peak above normal in most areas (**Figure 6**). However, the warm and drier weather of recent weeks has generally driven live fuel moistures near to a little below normal as the shorter term contributions from the new growth are washed out by the drier old growth vegetation. Older growth did not respond as favorably to the late season rain, due to how dry the overall season was. Taking everything into consideration, fuel conditions overall are near to a little drier than average for this time of year.

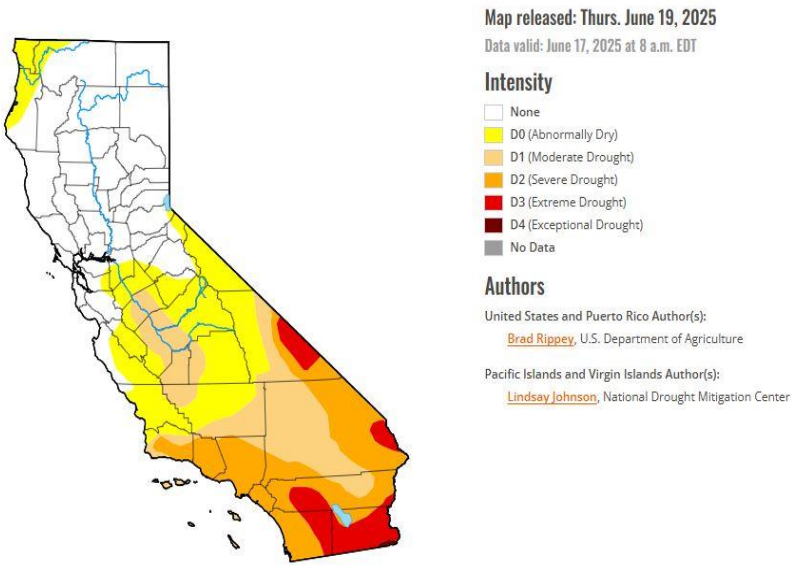


Fig 5: USDA Drought Monitor June 19th

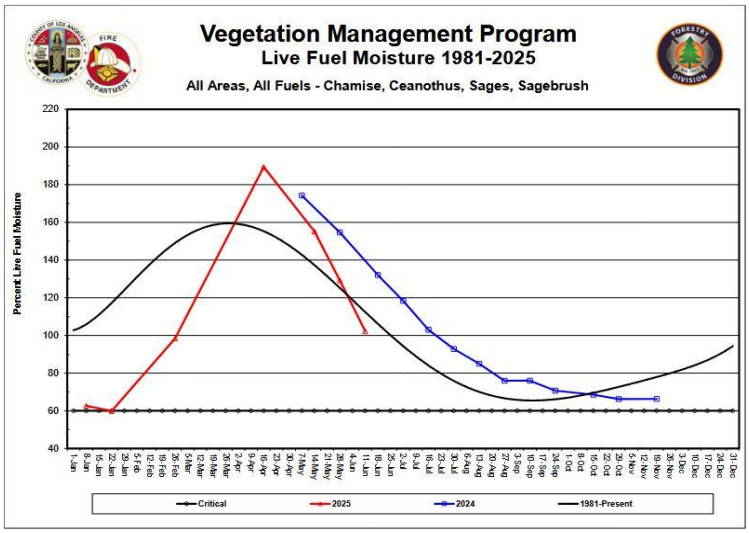


Fig 6: Los Angeles County live fuel moisture data, 2025 in red

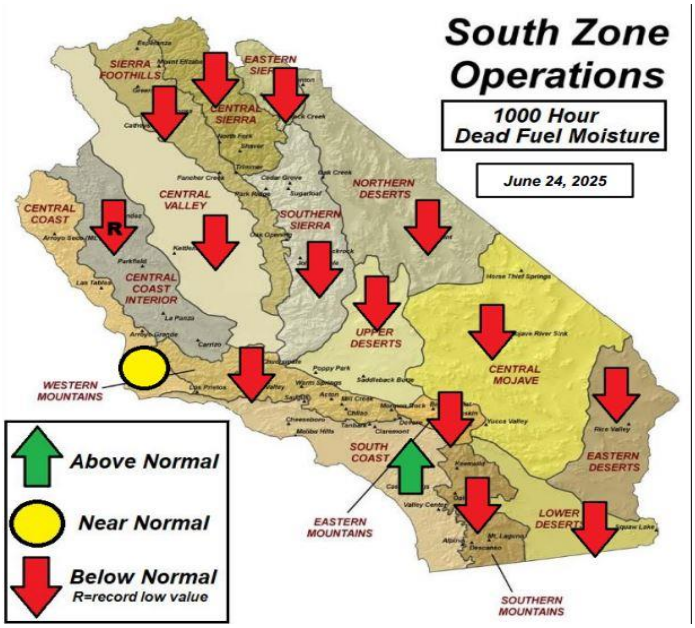


***Fig 7**: 1000hr Dead Fuel Moisture relative to normal by PSA, as of June 24*

SOUTH OPS OUTLOOK

Climate models remain insistent on hotter than normal conditions dominating across much of the West this summer. Analog years and general background climatic warming also support this conclusion, and the forecast leans strongly in that direction. It is highly likely that temperatures will be mostly above normal for the region through October, although any major heatwaves may not present themselves until mid-July. While the region as a whole will likely be warmer than average, coastal areas may remain near to cooler than normal through most if not all of the summer. For precipitation, an early theme this season has been the failure of the Four Corners high to become established and corresponding lack of development of a true Desert Southwest monsoon. Due to the cool waters off the West Coast (**Figure 8**) promoting anomalous late season troughing, this may continue deep into July. Because of this and the associated propensity for more southwesterly flow aloft, monsoonal moisture is expected to be near to below normal across our region this summer (**Figure 9**). However, occasional monsoonal moisture intrusions are likely by at least later July and August. In addition, the active pattern over the Pacific could promote intrusions of Pacific moisture as well, but this tends to produce more in the way of problematic lightning as opposed to beneficial moisture.

In terms of fuels, expect 100 hr and larger dead fuels to run mainly drier than normal this summer, with occasional but short lived spikes due to moisture intrusions. However a more persistent than normal marine layer will likely promote near to more moist than average dead fuel conditions below 2000 feet in coastal areas. Live fuel moistures away from the marine influence will mostly trend near to below normal and on average will be similar or drier to the summer of 2024. We will likely see more in the way of critical or near critical LFM values by August this year. It is early to begin speculating too much on fall offshore wind season. However, the similarities in the global pattern to 2024 are of concern. Above normal fire danger persisted throughout the fall and early winter under a notably similar global SST regime last year. Due to this and the high likelihood of critical live fuel moistures this fall, above normal fire potential highlights have been carried forward for the offshore wind-prone regions of Southern California in October.

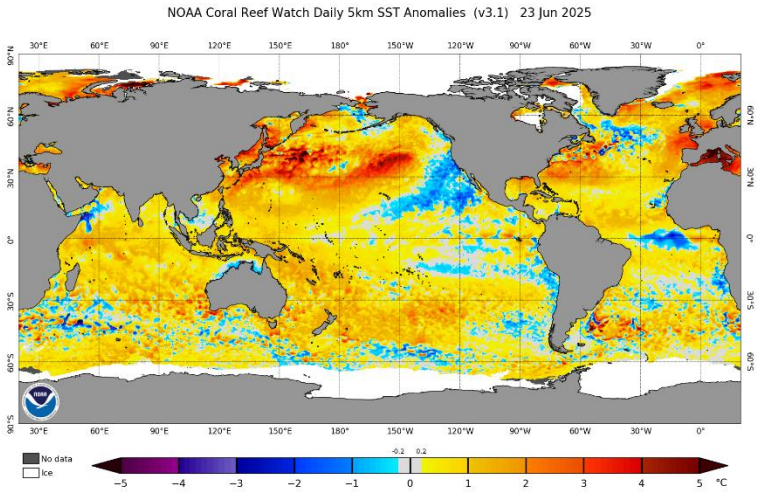


Fig 8: Sea Surface Temperature Anomaly, June 23rd, 2025

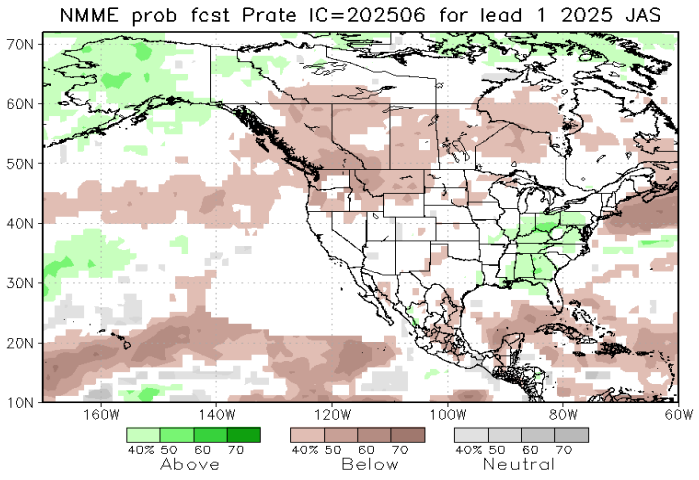
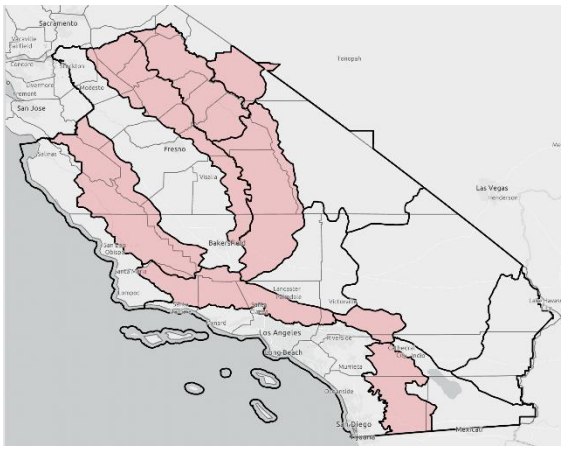
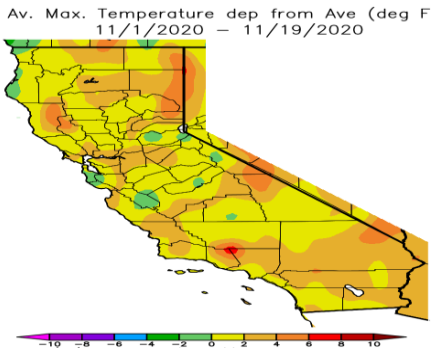


Fig 9: NMME July – September 2025 3-month Precipitation Anomaly Forecast

Maps with Counties and Select Intel Links used in the forecast

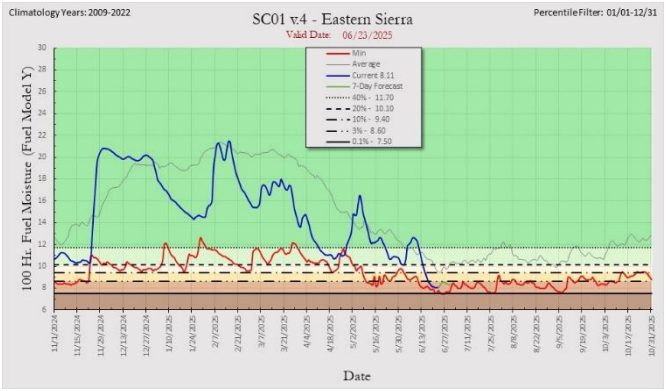


Aug-Sep 2025



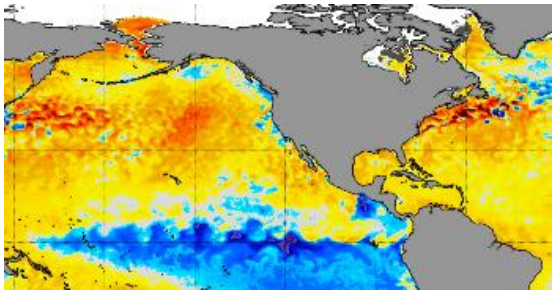
Climate

- https://calclim.dri.edu/pages/anommaps.html
- https://droughtmonitor.unl.edu/
- https://www.cpc.ncep.noaa.gov/products/NMME/



Dead fuel moisture

- https://gacc.nifc.gov/oscc/fuelsFireDanger.php



Current sea surface temperatures

- https://www.ospo.noaa.gov/Products/ocean/sst/anomaly/
- https://www.tropicaltidbits.com