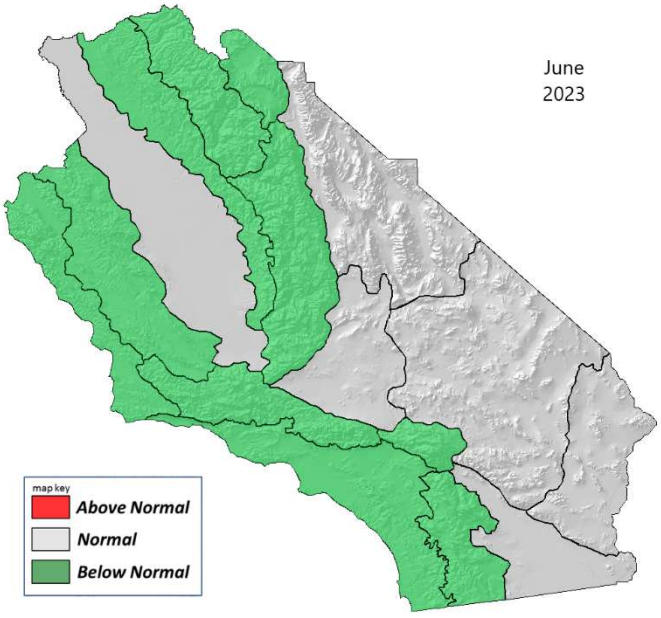
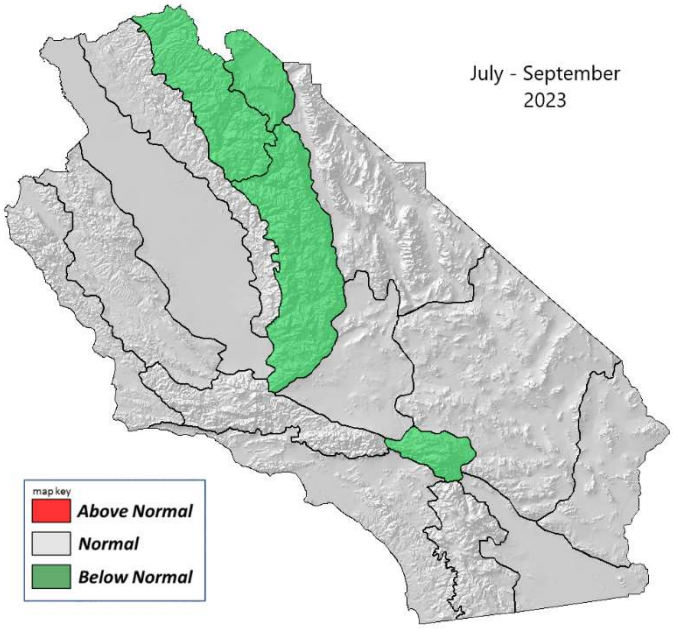
MONTHLY/SEASONAL OUTLOOKS

ISSUED JUNE 1, 2023 VALID JUNE – SEPTEMBER 2023





***Monthly Images will only be shown when there are changes**

June – September 2023 South Ops Highlights

- Shower and thunderstorm activity will be near to above normal through September.
- Temperatures will be well below normal into July then become near to a little below normal late July through September.
- The marine layer over the coastal areas will be deeper than normal into July.

Weather Discussion

A series of deep low-pressure areas dropped down the West Coast through May 11th bringing scattered showers to the area at times and well below normal temperatures. The snow level was around 6,000 feet with several inches of new snow over both the Sierra and the Southern California Mountains. The marine layer was deep during this period, with low clouds and fog making it over the lower coastal mountain slopes and there was only limited afternoon clearing . High pressure set up over the Great Basin causing temperatures to warm to a little above normal from May 12-22. Southeast to east flow around this area of high pressure brought isolated to scattered afternoon and evening monsoonal showers and thunderstorms to the Sierra and to the mountains and deserts of Southern California May 16-22. It is extremely rare to see monsoonal moisture reach the region in May even for a brief period of time. The marine layer shrunk, but morning low clouds and fog made it over most coastal valley locations most days. Another series of low-pressure areas moved into the West Coast May 23rd through the end of the month causing temperatures to return to below normal and the marine layer to deepen once again. Isolated afternoon and evening showers and thunderstorms continued over the Sierra and Northern Deserts through the end of the month. Overall, for the month, temperatures were well below normal across the coastal areas and a little below normal inland **(Fig 1)**. Precipitation was above normal over most of the region, but it was below normal over most interior portions of Central California **(Fig 2)**. The snowpack in the Sierra is currently between 300% and 400% of normal and is just above normal as of April 1st which is when the snowpack is normally at its deepest **(Fig 3)**. There were strong southwest to west winds over the mountains and deserts with the low-pressure areas both at the beginning and at the end of the month. There were no significant offshore wind events during the month.

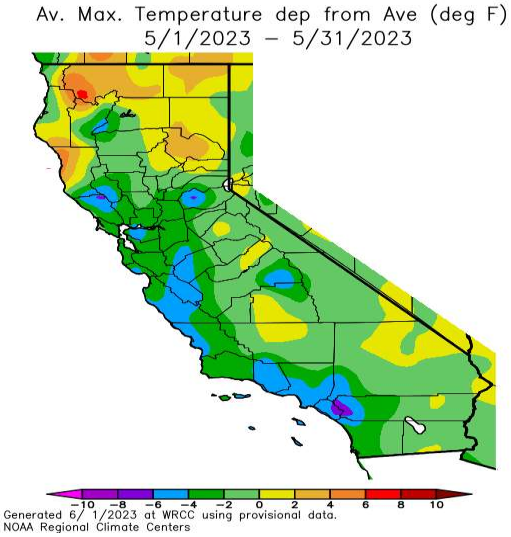


Fig 1*: *May 1st - May 31st Temperature (% of Ave.)

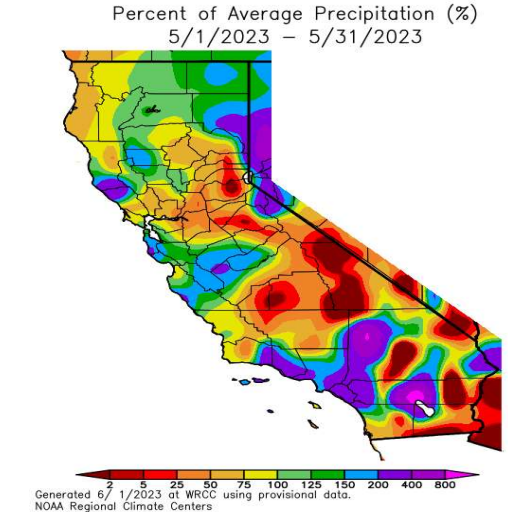


Fig 2*: *May 1st - May 31st Precipitation (% of Ave.)

Fig 3*: *Snow pack as of May 31st, 2023

Fuels Discussion

There continues to be no drought over most of the region, except for abnormally dry to moderate drought conditions over the deserts **(Fig 4)**. Moderate amounts of rainfall caused both the 1000-hr and 100-hr dead fuel moisture to start the month well above normal **(Fig 5 and 6)**. This dead fuel moisture dropped to near or below normal during the middle of the month as above normal temperatures commenced **(Fig 5 and 6)**. The dead fuel moisture finished out the month above normal due to cool and humid conditions **(Fig 5 and 6)**. The lighter fuels at the lower elevations continue to cure but there is still quite a bit of green brush. Live fuel moistures have mostly peaked but they remain high, mainly between 80% and 150% **(Fig 7)**.

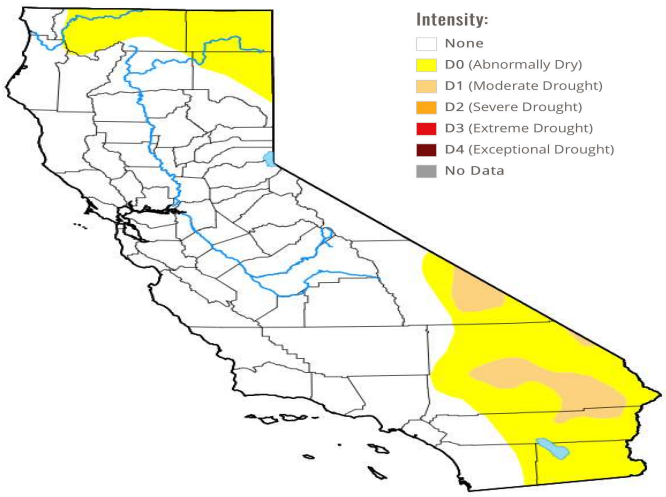


Fig 4: Drought Monitor June 1st, 2023

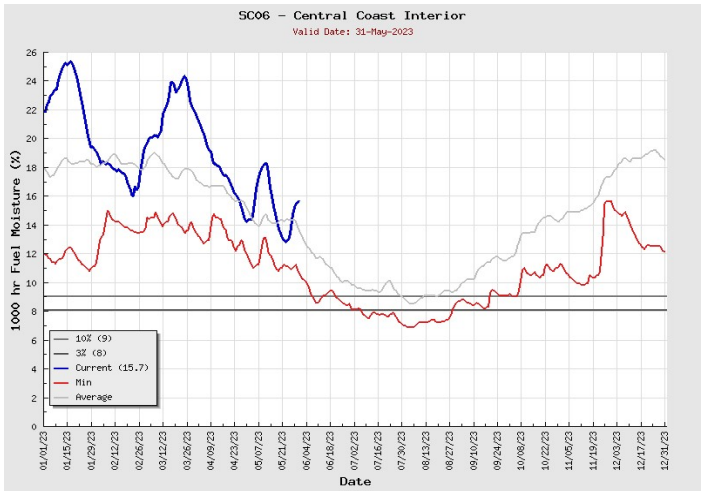


Fig 5*: Central Coast Interior 1000 hr *Dead fuel moisture May 31st

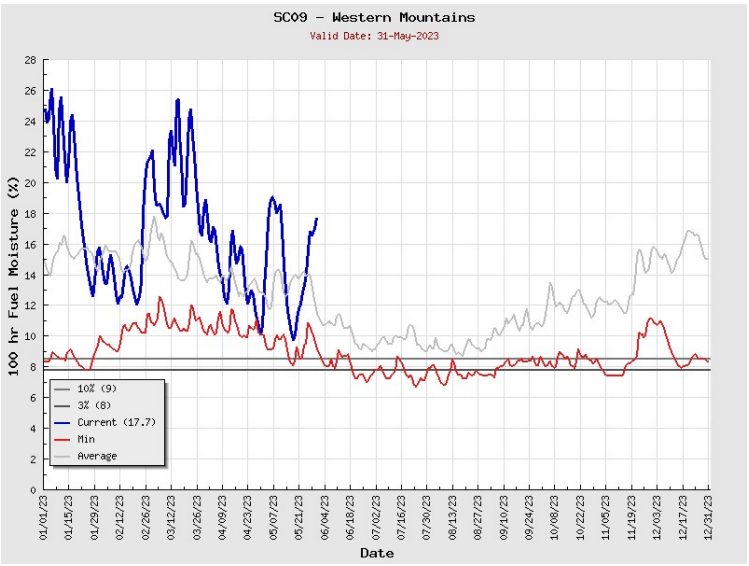


***Fig 6*: Western Mountains 100 hr Dead fuel moisture May 31st**

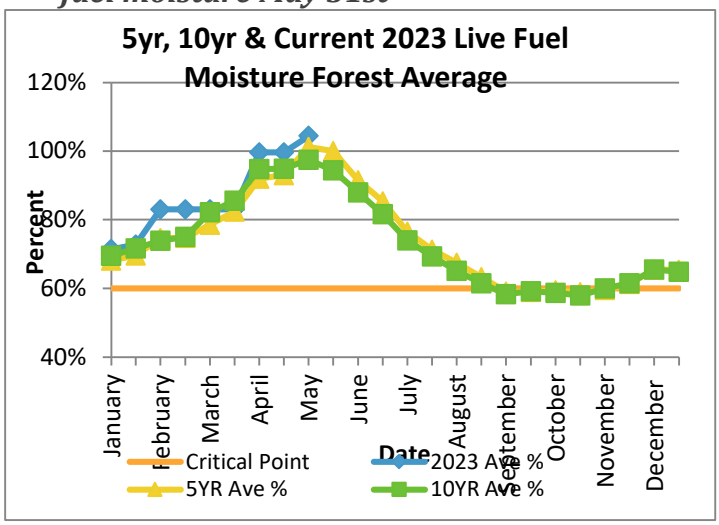


Fig 7: LPF Live Fuel Moisture May 1st

SOUTH OPS OUTLOOK

Sea surface temperatures over the Gulf of Alaska have warmed to a little above normal, while sea surface temperatures off the West Coast remain well below normal **(Fig 8)**. The below normal sea surface temperatures off the West Coast will likely cause Pacific troughs to be the dominant weather feature affecting the region into early July. Thus, temperatures will remain below normal and the marine layer over the coastal areas will be deeper than normal into early July. Models show that the sea surface temperatures off the West Coast will warm later in July and be near to a little below normal through September **(Fig 9)**. High pressure will likely become the dominant weather feature by the end of July. Due to current and projected well above normal sea surface temperatures over the Subtropical Pacific and Gulf of Mexico, there will be more moisture than normal for above normal shower and thunderstorm activity through September **(Figs 8 and 9)**. Large fire activity will be below normal over the higher elevations through September as the well above normal snowpack melts and keeps soil moisture high. Large fire activity will be below normal across the lower elevations in June as the marine layer remains deep. The lower elevations are expected to have near to a little below normal large fire activity July through September as the marine layer becomes shallow and the lighter fuels become fully cured.

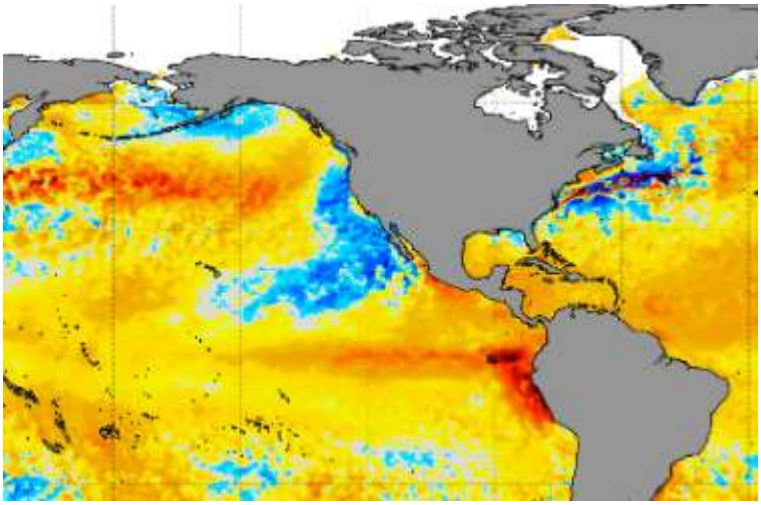


Fig 8: Sea Surface Temperature Anomaly, May 31st, 2023

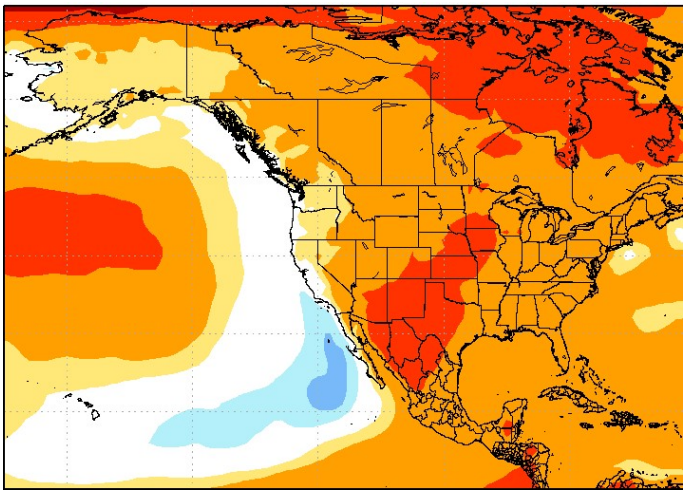
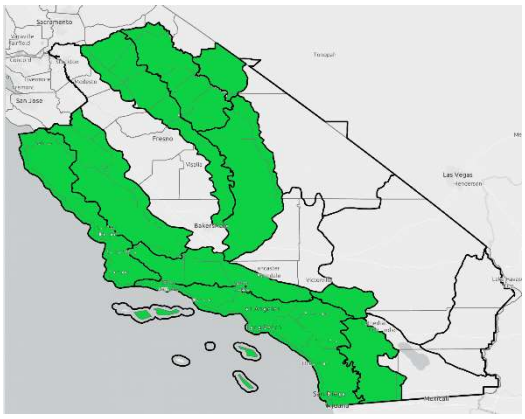
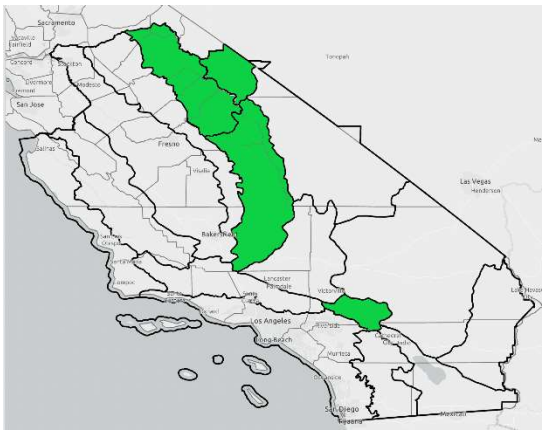


Fig 9: Forecast Temperature Anomalies for June through September, May 31st, 2023

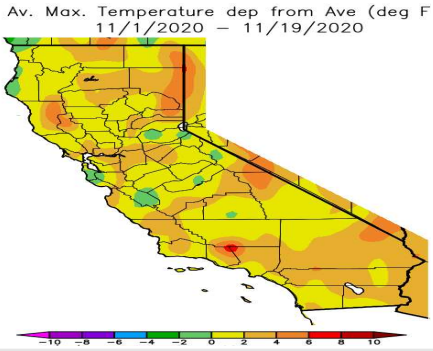
Maps with Counties and Select Intel Links used in the forecast



June 2023

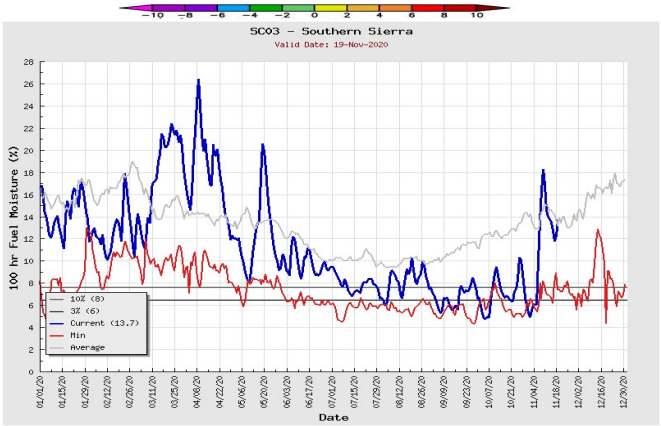


July - September 2023



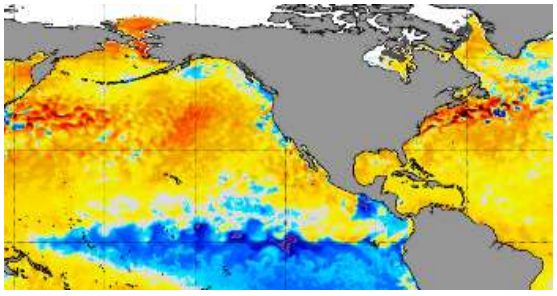
Climate

- https://calclim.dri.edu/pages/anommaps.html



100 hr dead fuel moisture

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



Current sea surface temperatures

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