

California Seasonal Outlook

September – December 2024



Incident Update

The Department of Forestry and Fire Protection

CAL FIRE Serves and Safeguards the People and Protects the Property and Resources of California.

407,345

Total Emergency
Responses

5,755

Wildfires

838,576

Acres Burned

1

Fatalities:

1 Civilian / 0 Firefighter

1,247

Structures:

145 Damaged / 1,102
Destroyed



Filter by Unit

Select unit to filter all content at right. Scroll down list as needed.

Select a category

- AEU
- BDU
- BEU
- BTU
- CZU
- FKU

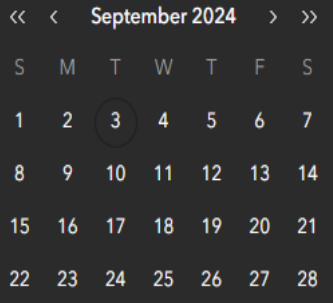
Reset

Select all

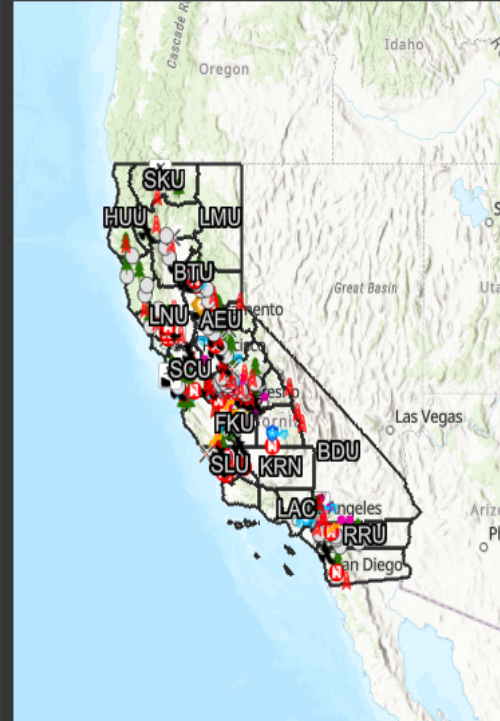
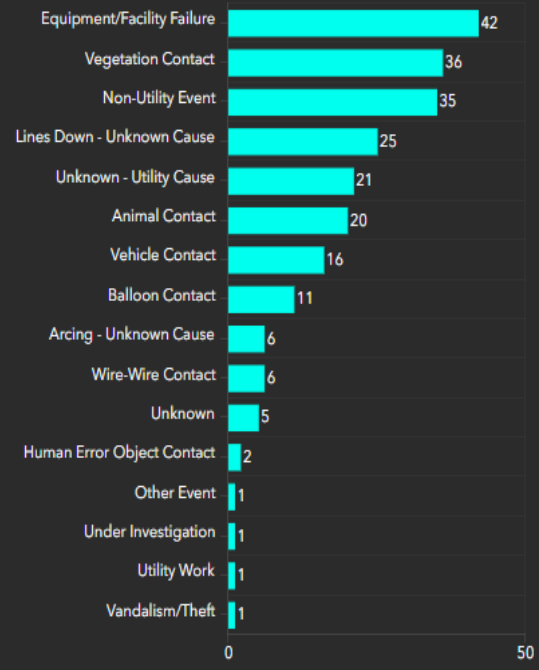
Filter by Date

From

Until



Total Initiating Causes



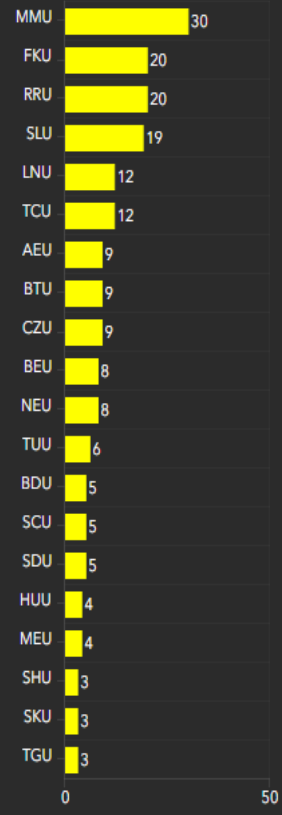
Esri, USGS | Esri, TomTom, Garmin, FAO, NO... Powered by Esri

Data are in draft form, subject to change, and ignitions under investigation may be excluded. Acres burned are for map ignitions. Categorizations are estimates. Utility responsibility was estimated based on ignition overlap with service territories for the 2019-2022 data. For the 2024 data, utility responsibility was assigned by data collectors.. If the collectors never clarified what utility was responsible, a question mark was assigned during

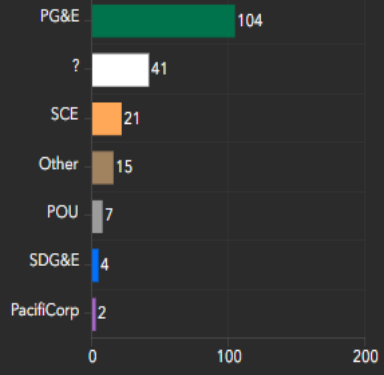
CALFIRS 2024 Utility Ignitions

- Animal Contact
- Arcing - Unknown Cause
- Arcing - Utility Cause
- Balloon Contact
- Equipment/Facility Failure
- High Wind
- Human Error Object Contact
- Lightning
- Lines Down - Unknown Cause
- Non-Utility Event
- Other Event
- Other Object Contact
- Unknown
- Unknown Object Contact
- Unknown - Utility Cause
- Vandalism/Theft
- Vegetation Contact
- Vehicle Contact
- Wire-Wire Contact
- Utility Work

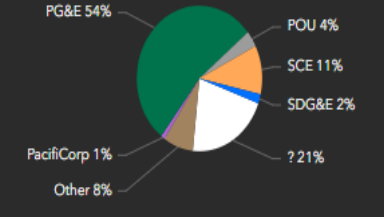
2024 Utility Ignitions Per CAL FIRE Unit



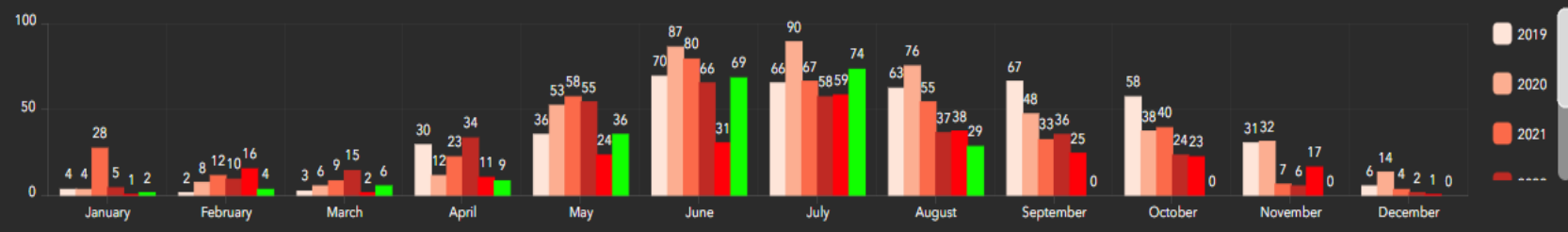
2024 Utility Ignitions Per Utility



2024 Utility Ignitions (%)



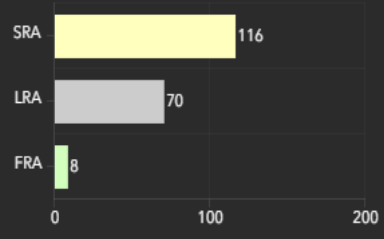
Total 2019-2024 Electric Power Ignitions Per Month by Year



By month each year

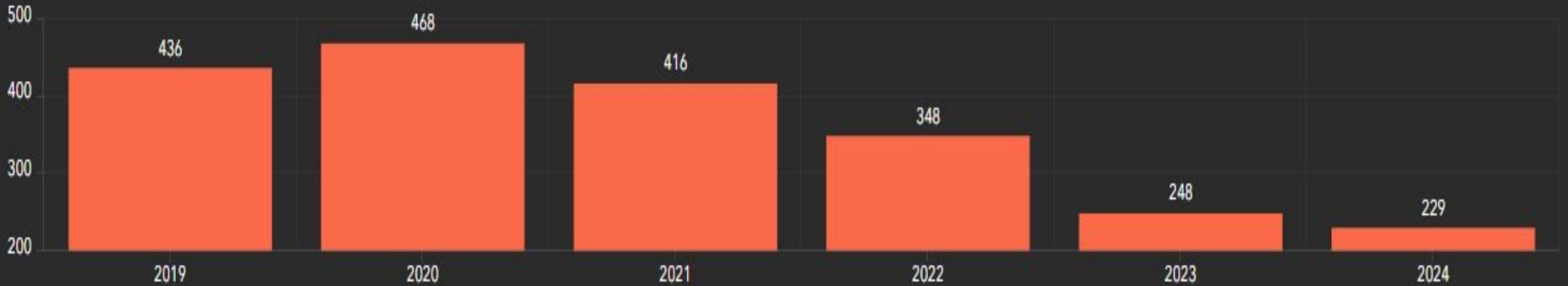
By year

Total 2024 Utility Ignitions Per Responsibility Area



Total

Incident Update

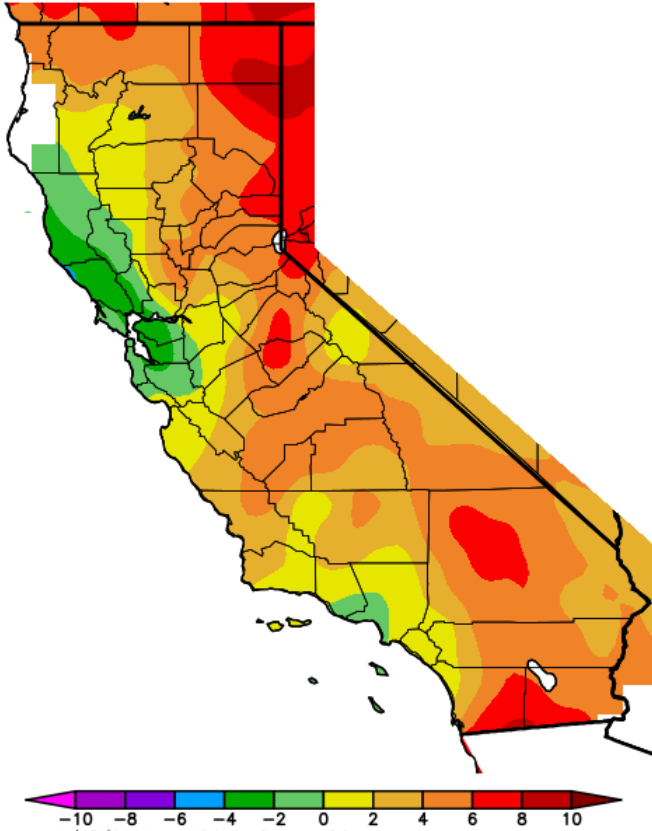


Source: [National Significant Wildland Fire Potential Outlook \(nifc.gov\)](https://www.nifc.gov)



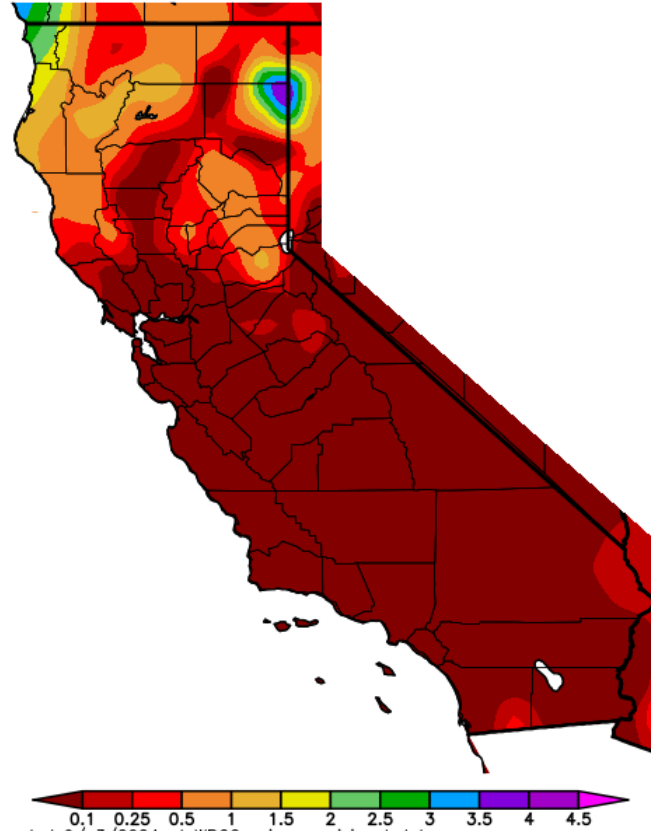
Weather Discussion: July Temperature & Precipitation

Ave. Temperature dep from Ave (deg F)
9/1/2024 – 9/2/2024



Generated 9/ 3/2024 at WRCC using provisional data.
NOAA Regional Climate Centers

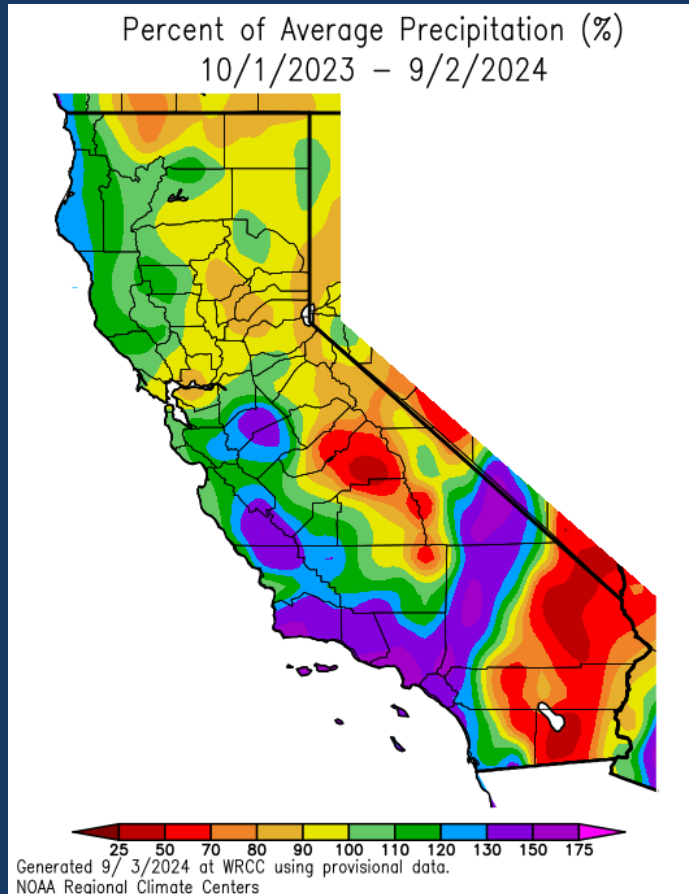
Total Precipitation (in.)
8/4/2024 – 9/2/2024



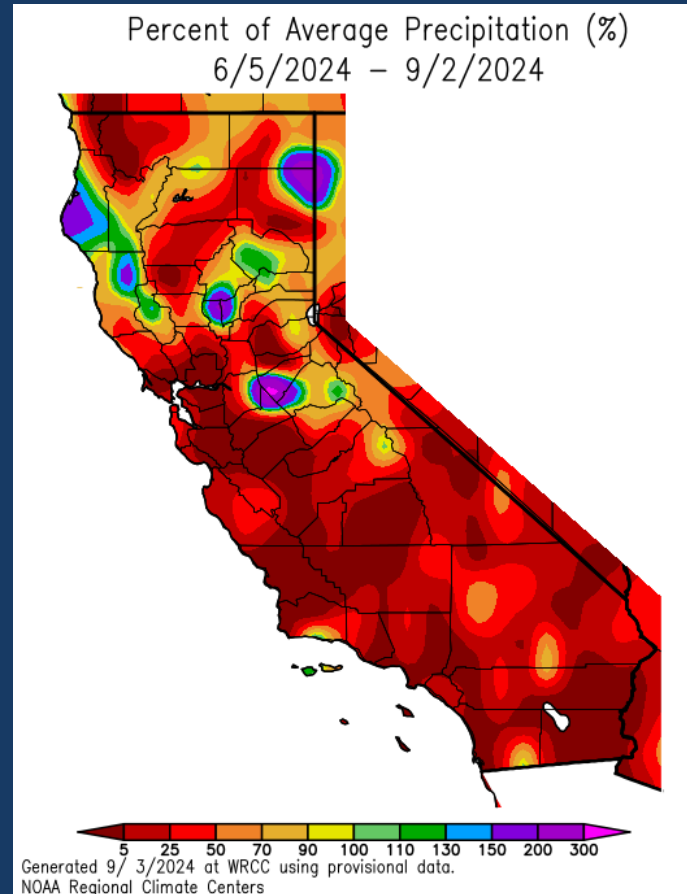
Generated 9/ 3/2024 at WRCC using provisional data.
NOAA Regional Climate Centers

- Temperatures throughout the state averaged above to well above seasonal norms for the second consecutive month.
- Although there were several monsoonal disturbances that affected the state in July and August, these storms yielded little widespread rainfall.
- A rare August frontal passage yielded over an inch of rain on the Park fire, as well as a scattering of snow in the peaks above 8,100'.
- Weak marine layer influences will continue to produce warmer temperatures along the coast.

Weather Discussion: Water Year



Water Year



90-Days

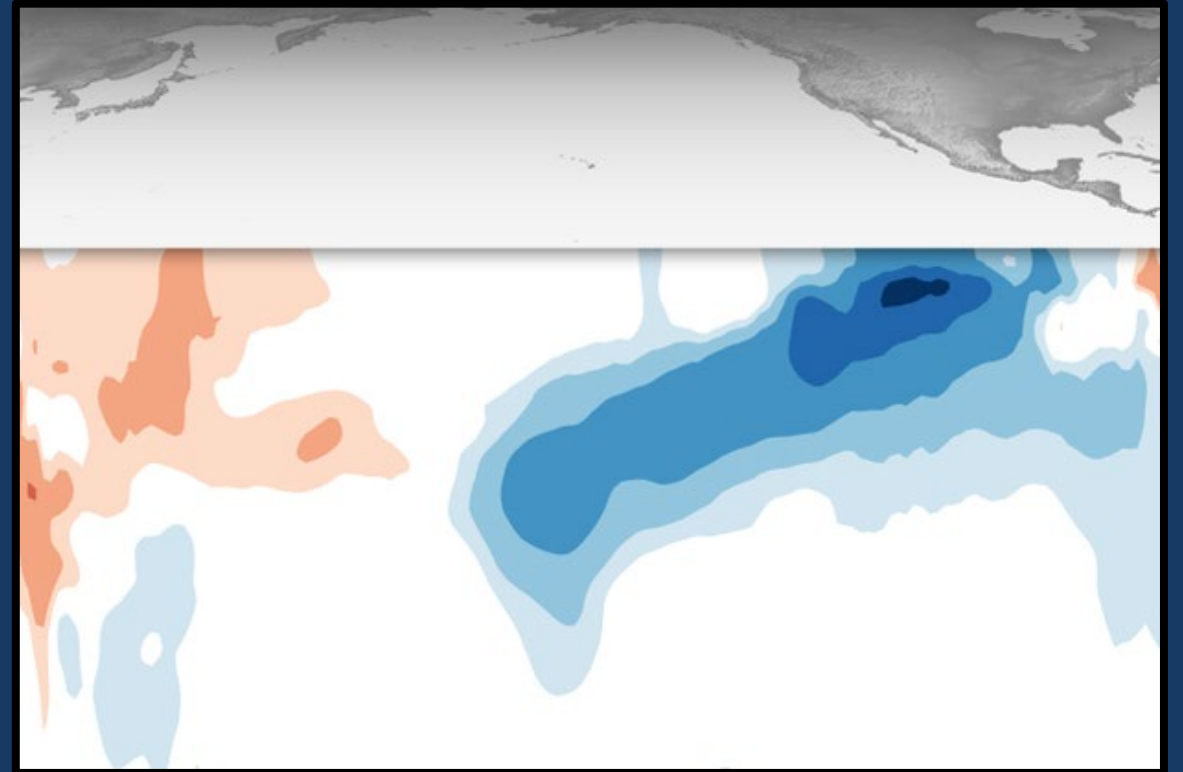
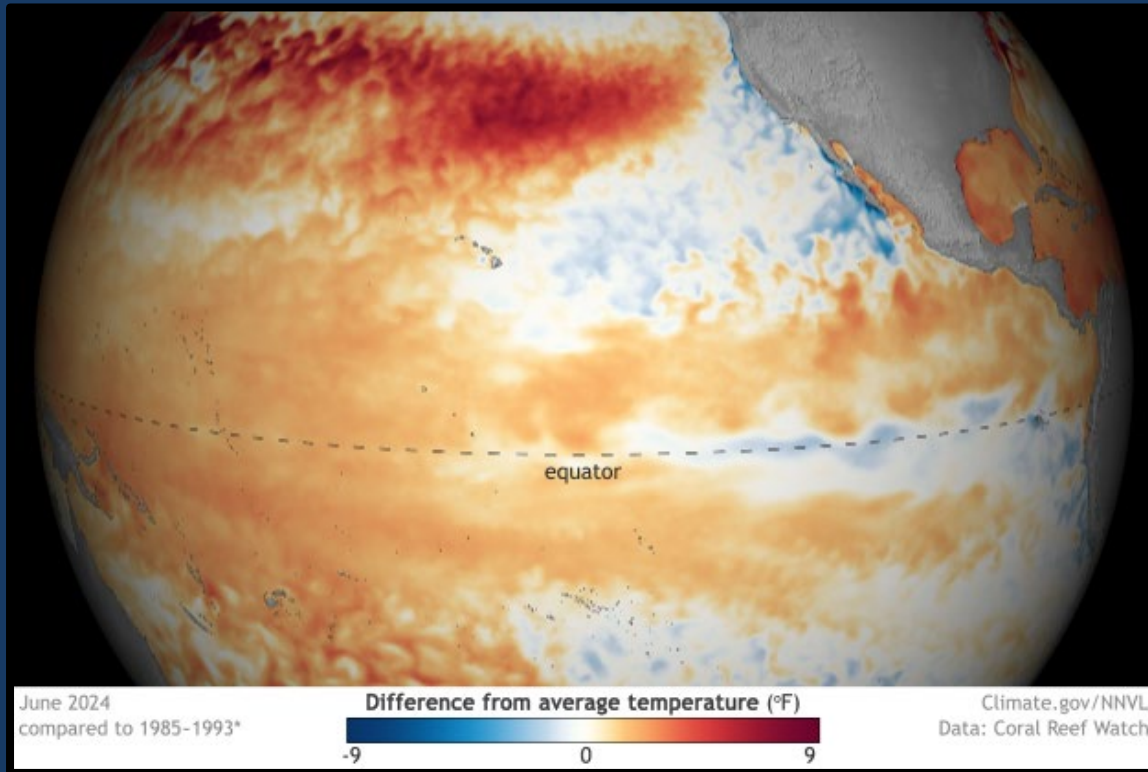
- Generally, since the start of the water year (Oct. 1) coastal regions saw average to above average precipitation, with a notable above average rainfall observed in the high desert area.
- The Siskiyou, Modoc, Shasta, and Lassen Counties, and large portions of the Sierra Mountains and foothills saw below to near normal rainfall.
- Notable precipitation shortfalls were observed in Fresno, Tulare, and Madera areas, as well as portions of San Bernadino, Riverside and Imperial counties all in the 25-70% of average range.
- Multiple counties across the central valley, northeastern areas, and northwest coast of the state recorded the rare august rain event.

Precipitation

Source: [CalClim: California Climate Data Archive \(dri.edu\)](https://dri.edu)



Weather Discussion: La Niña watch

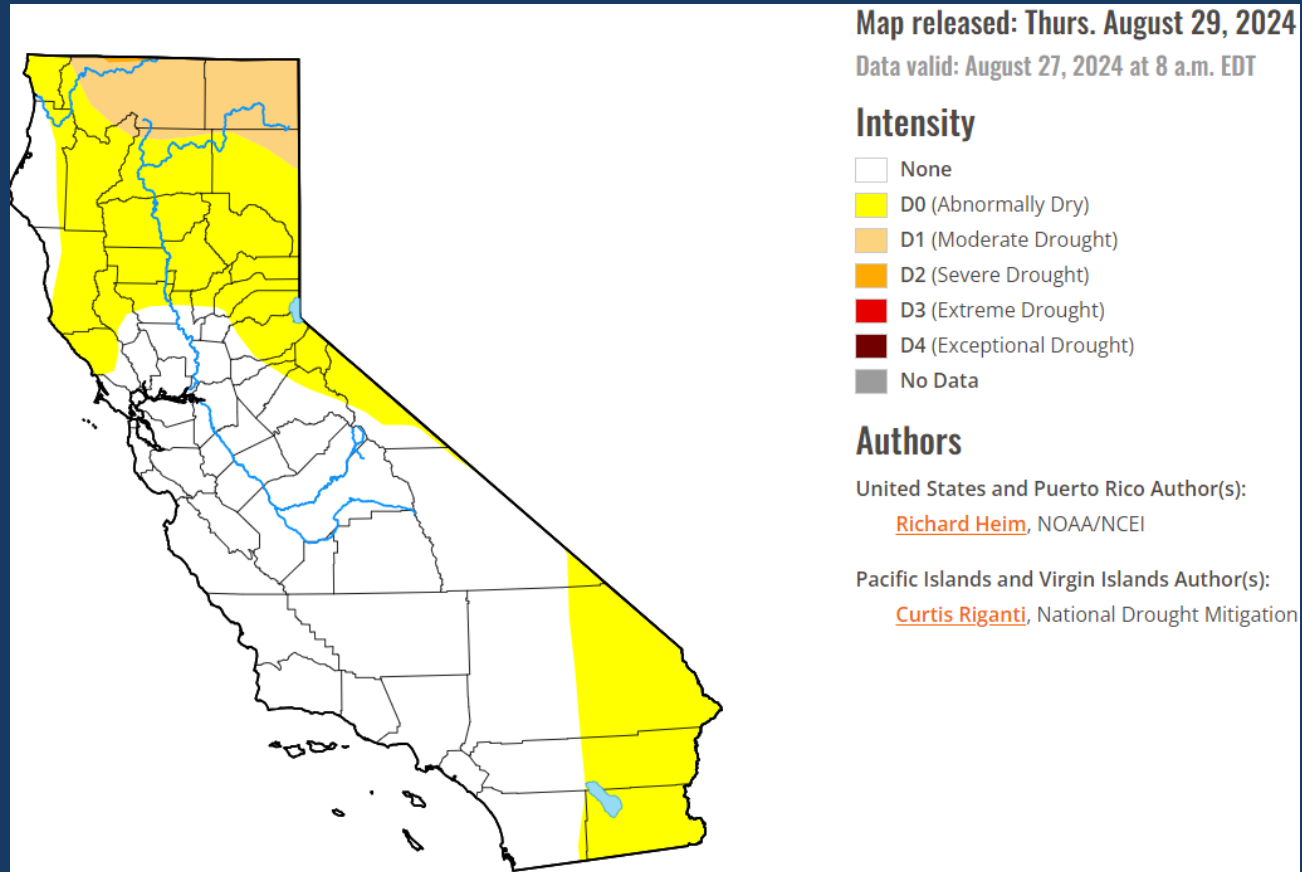


- Forecasters have issued a La Niña watch, indicating that the cool phase of the ENSO climate pattern is likely to develop in coming months.
- Forecasts indicate a 79% chance La Niña will be in place by winter, and a 70% chance it will be in place by October.

El Niño

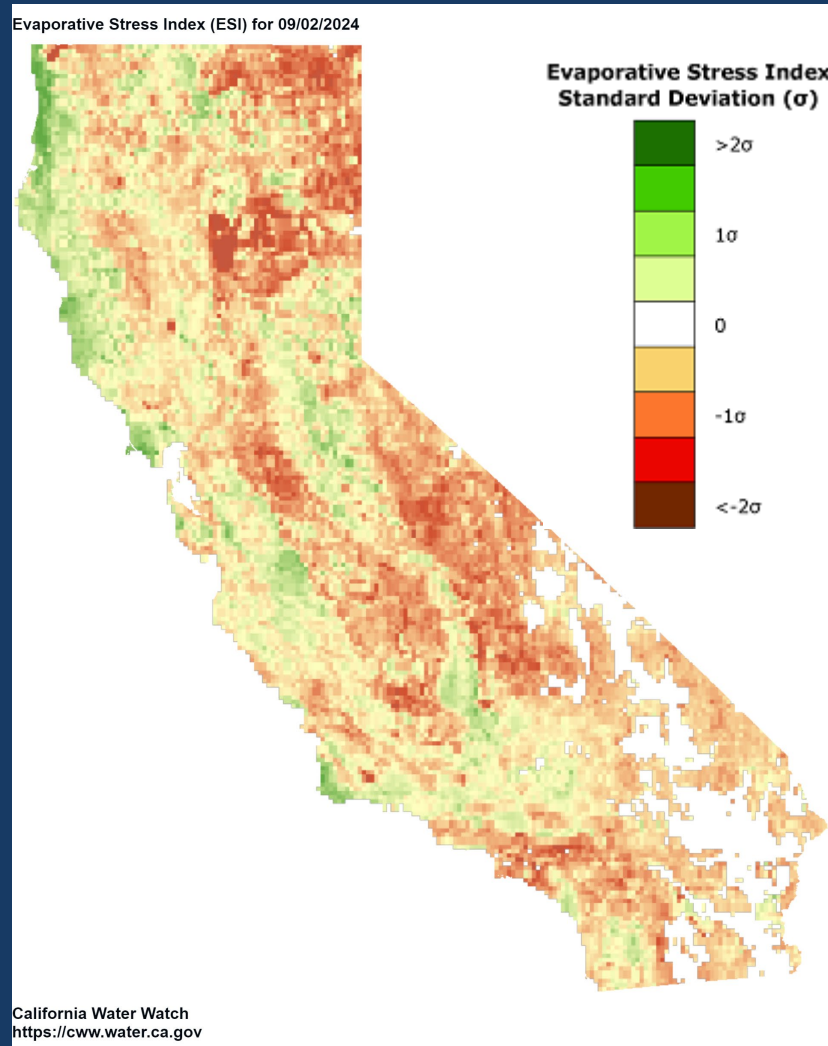
Source: : [El Niño & La Niña \(El Niño-Southern Oscillation\) | NOAA Climate.gov](#)

Weather Discussion: Drought Monitor



- Back-to-back heat wave conditions in July and August have adversely affected drought conditions in California.
- Drought conditions have returned to the far northeastern portions of the state, in Siskiyou, Modoc, and Lassen Counties.
- Abnormally dry observations from Del Norte County to the Lake Tahoe area and then south into Mono County. As well as along the eastern portions of San Bernadino, Riverside, and Imperial Counties.

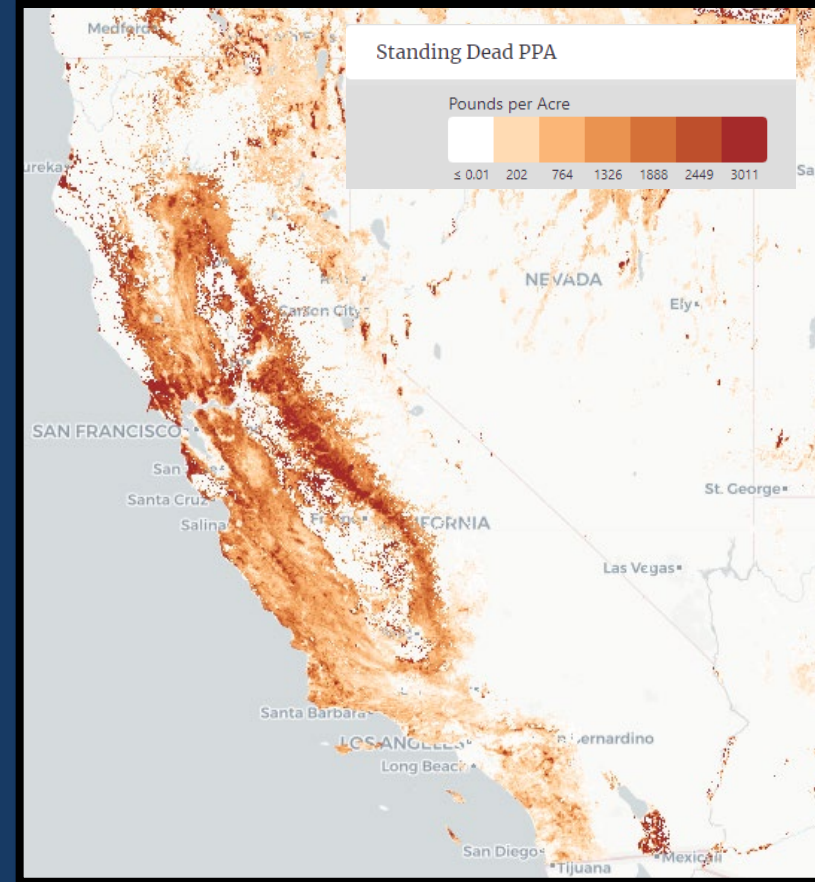
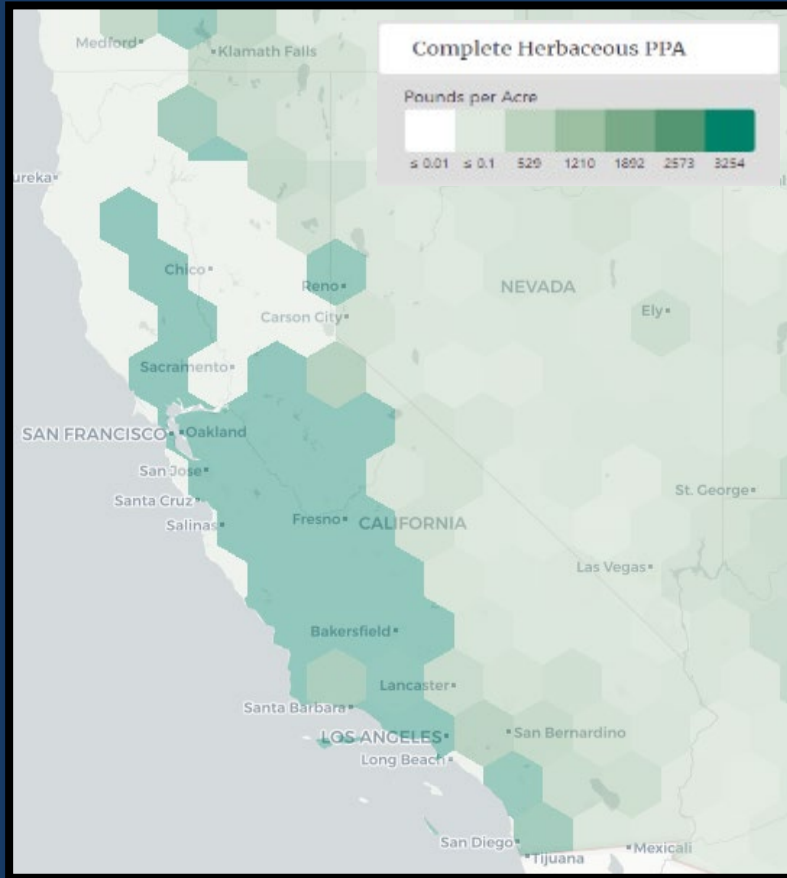
Vegetation Conditions: Live Fuels



- Evaporative Stress Index provides insight on how stressed vegetation is due to lack of water
- Heat wave conditions in August, coupled with low spring and summer precipitation, have led to generally dry vegetation across the state, with few exceptions mostly along the coast.

*Vegetation conditions are represented by the data provided daily by the National Aeronautics and Space Administration from satellite-based measurements

Fuels Discussion: 2024 Grass Fuel Loading



- Grass fuel loading remains high in large portions of the state.
- All grasses have cured in areas below 7,000 feet elevation
- Rates of spread are expected to be more inline with seasonal expectations.

Fuels Discussion: Fuels and Fire Behavior Advisory

Fuels and Fire Behavior Advisory
California Grass and Herbaceous-Dominated Ecosystems
June 11, 2024

Subject: The biomass and fuel loading associated with grass and herbaceous-dominated ecosystems has increased significantly over the past several years, contributing to increased fire risk and potential for rapid fire spread.

Discussion: Predictive models indicate a high probability of increased fire activity in California's grass and herbaceous-dominated ecosystems, particularly in the Central Valley, Sacramento Valley, and the Sierra Nevada. This is due to a combination of factors, including increased precipitation, reduced grazing, and the presence of heavy herbaceous fuel loading. The heavy herbaceous fuel loading is a result of increased precipitation and reduced grazing, which has led to a significant increase in the amount of biomass available for fire.

Difference from normal conditions: The heavy herbaceous fuel loading is a result of increased precipitation and reduced grazing, which has led to a significant increase in the amount of biomass available for fire. This is a departure from normal conditions, where biomass is typically lower and more evenly distributed.

Concerns to Firefighters and the Public:

- Increased fire activity, particularly in the Central Valley, Sacramento Valley, and the Sierra Nevada.
- Increased fire intensity and rapid fire spread, particularly in areas with heavy herbaceous fuel loading.
- Increased fire risk to infrastructure, particularly in areas with heavy herbaceous fuel loading.
- Increased fire risk to human health, particularly in areas with heavy herbaceous fuel loading.

Mitigation Measures:

- Increased fire activity, particularly in the Central Valley, Sacramento Valley, and the Sierra Nevada.
- Increased fire intensity and rapid fire spread, particularly in areas with heavy herbaceous fuel loading.
- Increased fire risk to infrastructure, particularly in areas with heavy herbaceous fuel loading.
- Increased fire risk to human health, particularly in areas with heavy herbaceous fuel loading.

Area of Concern: The heavy herbaceous fuel loading is a result of increased precipitation and reduced grazing, which has led to a significant increase in the amount of biomass available for fire. This is a departure from normal conditions, where biomass is typically lower and more evenly distributed.

Issued By: Predictive Services, Inc. (PSI) and the California Department of Forestry and Fire Protection (CAL FIRE).

Fuels and Fire Behavior Advisory
California Wide
August 20, 2024 – September 2, 2024

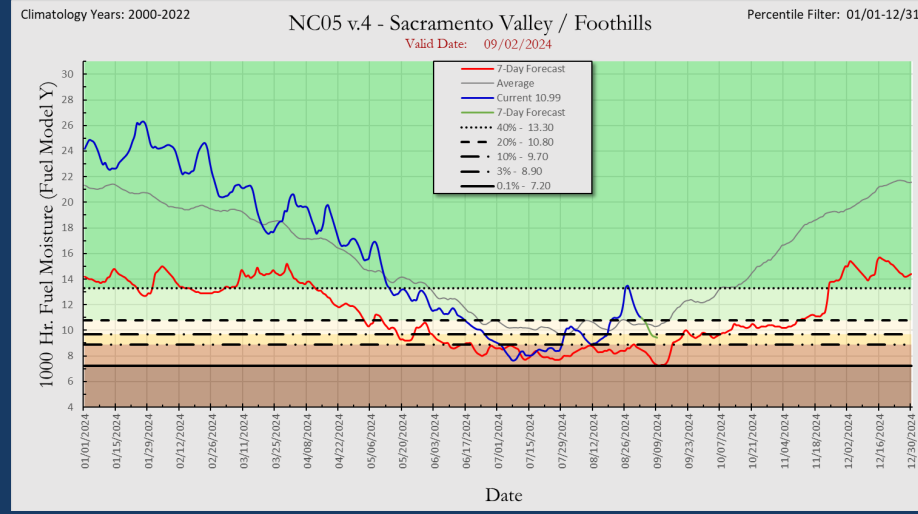
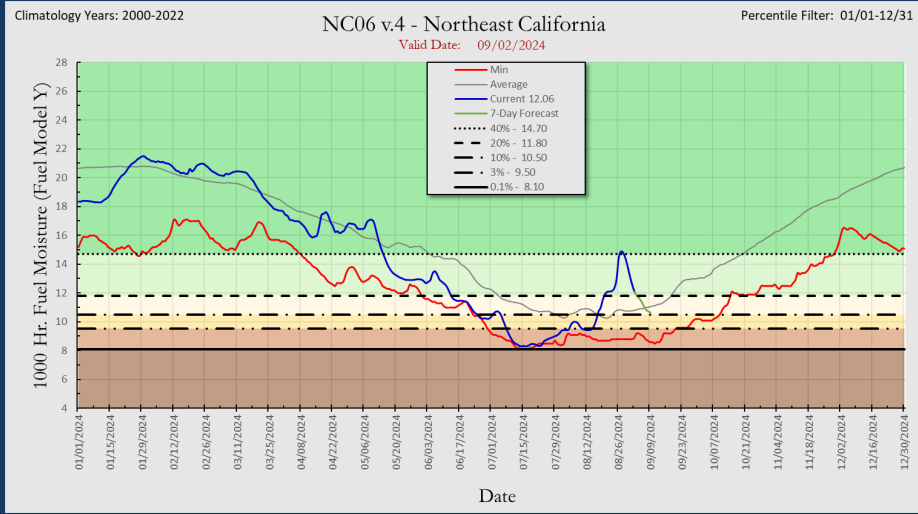
- The heavy herbaceous fuel loading enhanced by leftover herbaceous from 2023 has contributed to rapid fire spread throughout the state.
- Dead and downed large fuels (100 and 1,000-hour fuels) from back-to-back higher than average snowfall and leftover from prior fire seasons, are particularly susceptible to flashy fuels, such as grass and understory that has dried due to broken canopy.
- The comprehensive fuel situation (1-hour through 1,000-hour) could align contributing to unfavorable fire conditions resulting in resilient fires, as seen in July and August on multiple large fires. (Park, Shelly, Borel, Coffee Pot)

Fuels Discussion: Live Fuels



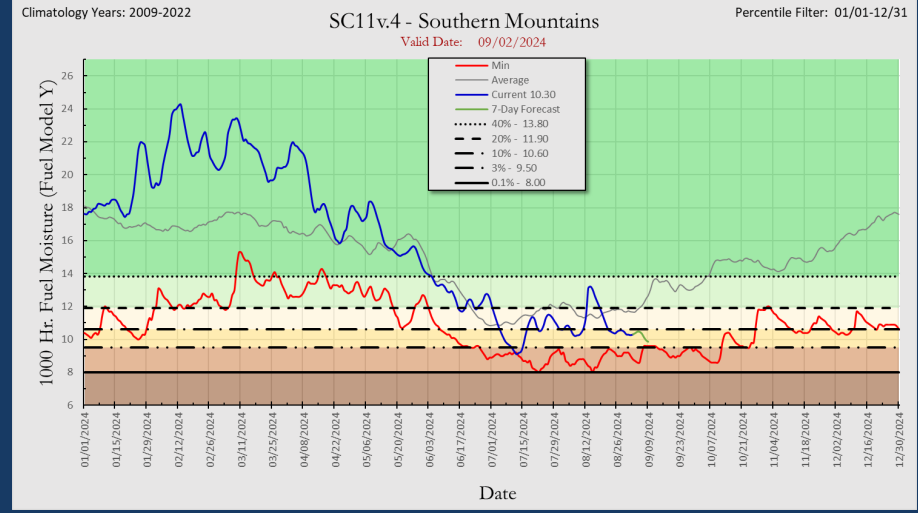
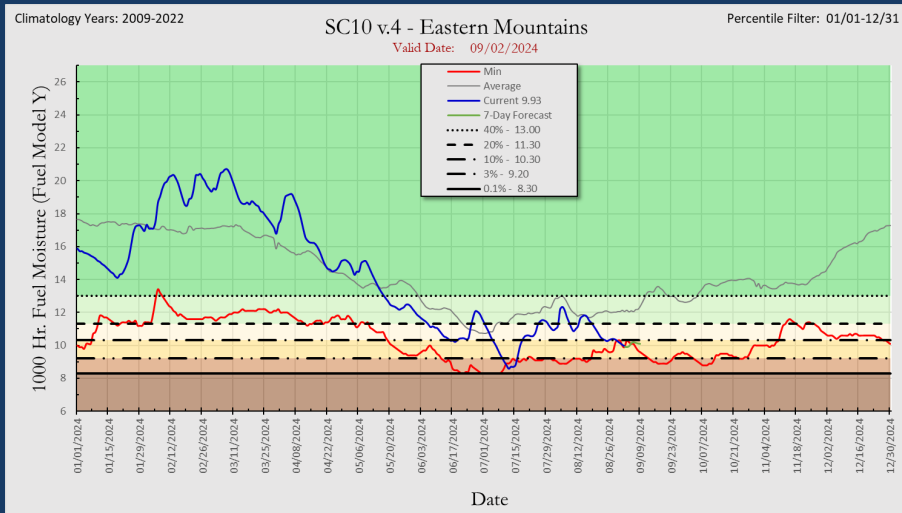
- Live woody fuels have been in the critically very dry to critically dry range and are expected to continue drying over the coming months.
- Herbaceous vegetation is in its cured state below 7,000 feet elevation. Fuel loading is well above normal with lots of continuous and dense annual grasses in areas that do not normally have grass fuels.
- Fires may start in herbaceous fuels, but can quickly spread to heavier woody fuels and can be dangerous based on current fuel moistures

Fuels Discussion: 1000-hour Dead Fuels



Northern California

- 1000-hr fuels moistures reached critically low levels in several PSAs during July but have returned to seasonal norms.



Southern California

- 1000-hr fuel moistures have been inching closer to the historic average.
- Across the state, the fuels continue to follow the seasonal trends.

1000-hour Dead Fuels

Source: [Predictive Services, Fuels and Fire Danger \(nifc.gov\)](https://nifc.gov)



Four-month Significant Fire Potential

August – November 2024 California Highlights

- Significant Fire Potential is above normal during August & September across most of the area excluding some Coastal areas due to Marine influences, then returns back to Normal for October & November when large fire activity is historically less.
- Significant fire potential in Southern California is projected to be normal for August through November with the following exceptions:
 - August: Sierra Foothills, Central Valley, Central Coast Interior, Southern Sierra, Western Mountains, and Southern Mountains PSAs will be above normal.
 - September: Sierra Foothills, Central Coas, Central Coast Interior, South Coast, Southern Sierra, Western Mountains, Eastern Mountains and Southern Mountains will be above normal.
 - October though November: South Coast, Western Mountains, Eastern Mountains, and Southern Mountains will be above normal significant fire potential.

Four-month Significant Fire Potential

August – November 2024 California Highlights

Northern Region

- An alignment of critically dry dead and live fuels is likely to occur for extended periods during August & September with some moisture intrusions across the north during October & November.
- A mix of Heat-Wind & Lightning concerns is expected during August then more Wind driven fire concerns during September.
- Herbaceous fuel loading is above to well above normal thus increasing the potential for large fire development, even under less than gusty scenarios.

Southern Region

- There is a moderate tilt in the odds towards above normal large fire potential over the next 4-months.
- Large fires are likely to be primarily grass and fine fuels dominated. There is an abnormally large load of grass crop and fine fuels cured at elevations below 3,000 feet elevation.
- Larger live fuels have become more susceptible to ignition due to an anomalously hot and dry July.

Four-month Significant Fire Potential



August and September 2024

Four-month Significant Fire Potential

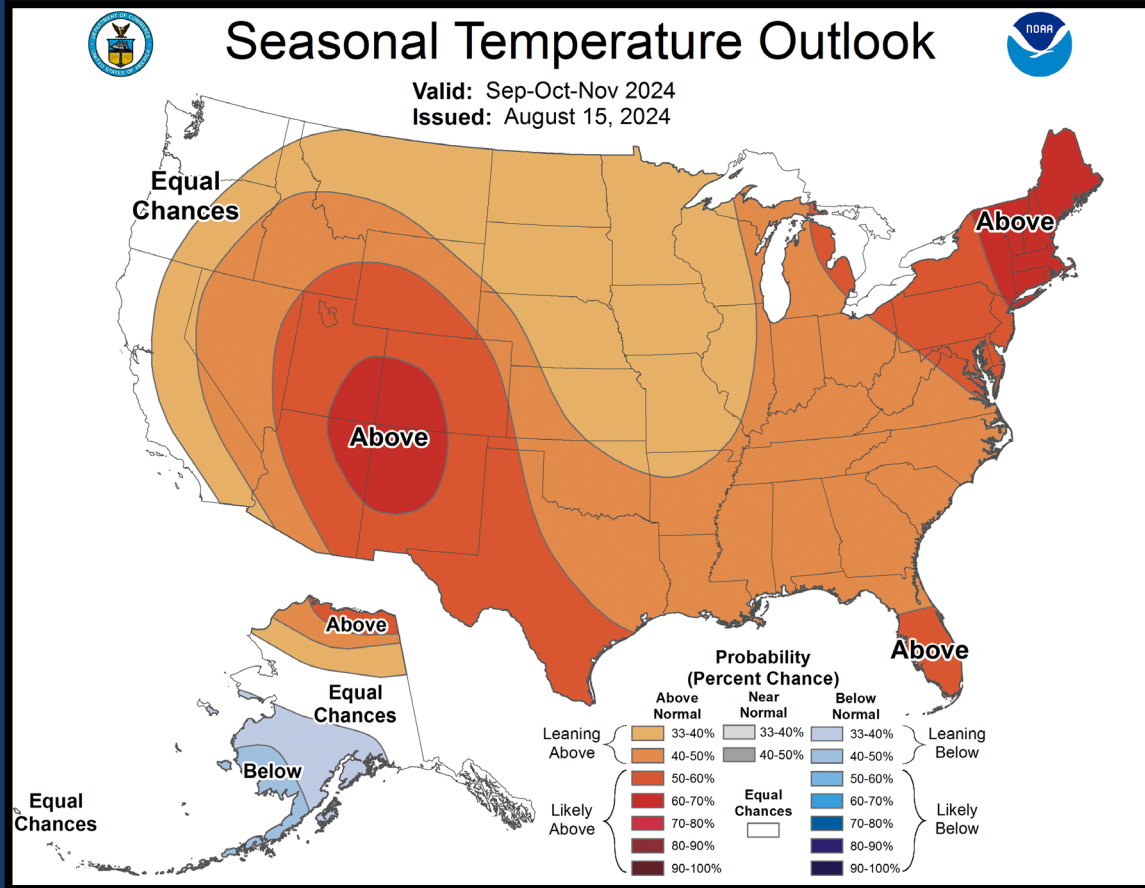


October and November 2024

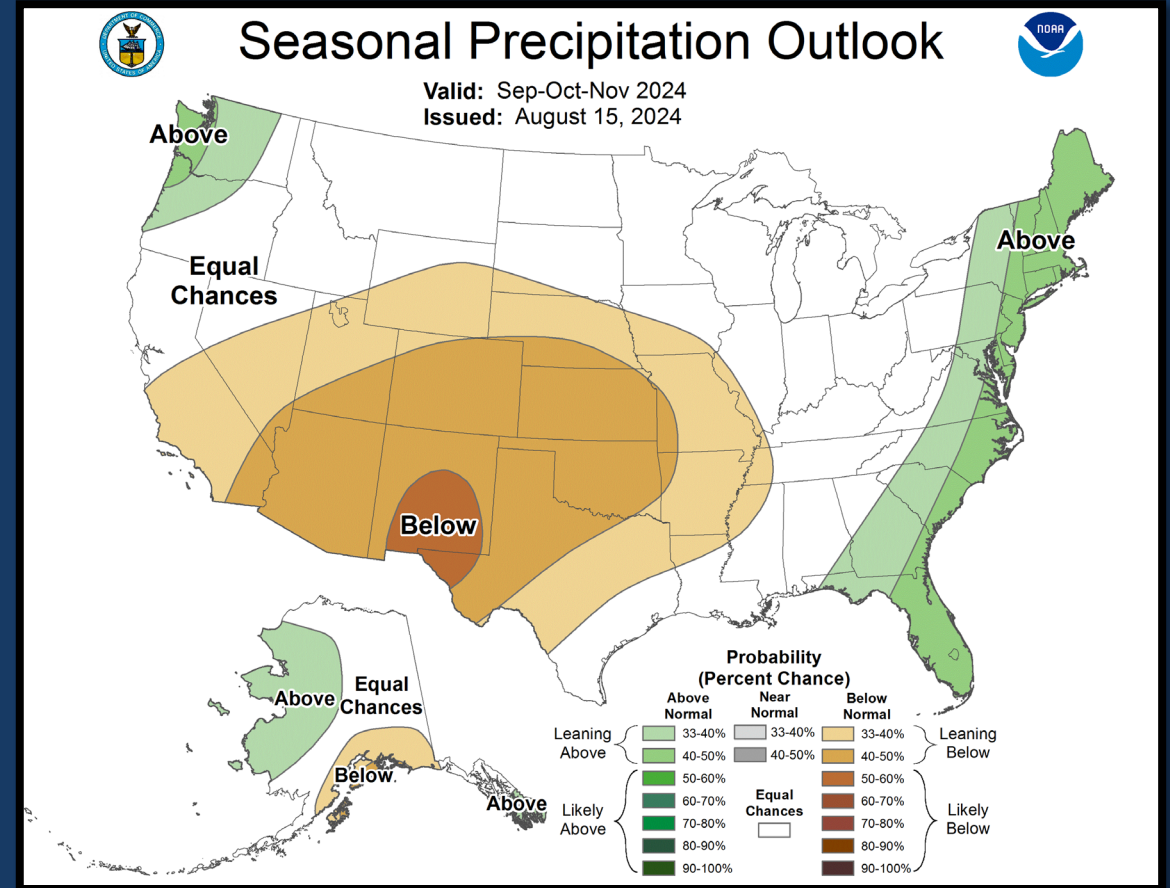


California Outlook

Temperature Seasonal Outlook



Precipitation Seasonal Outlook





Wildfire Forecast & Threat Intelligence Integration Center (WFTIIC)

<https://hub.wftiic.ca.gov/>

