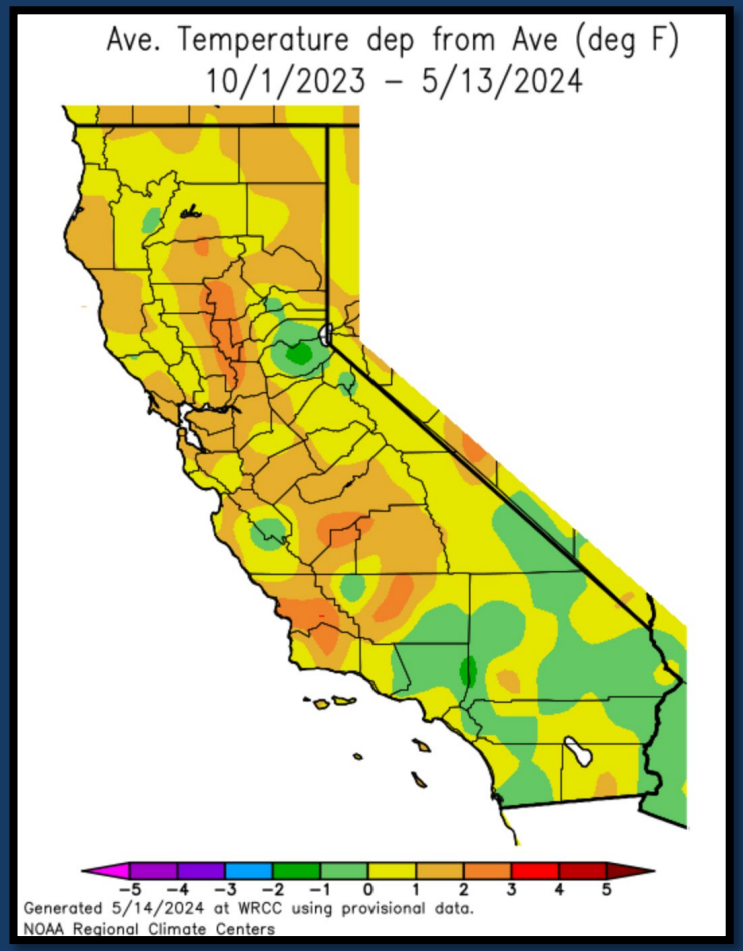
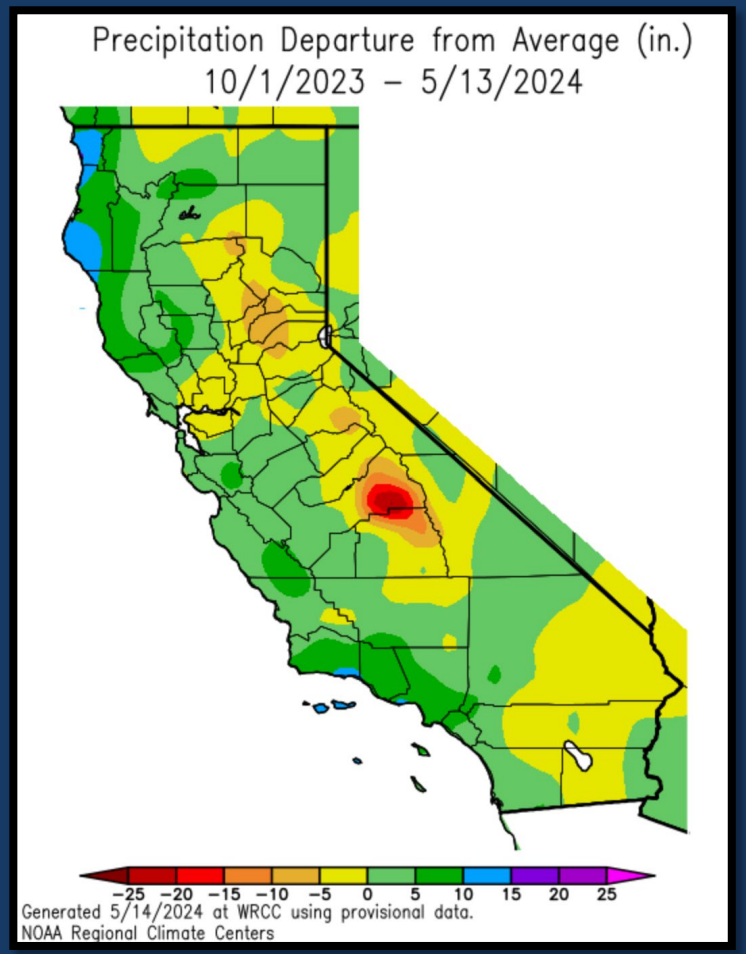
California Seasonal Outlook

May – August 2024

RC West Summer Readiness

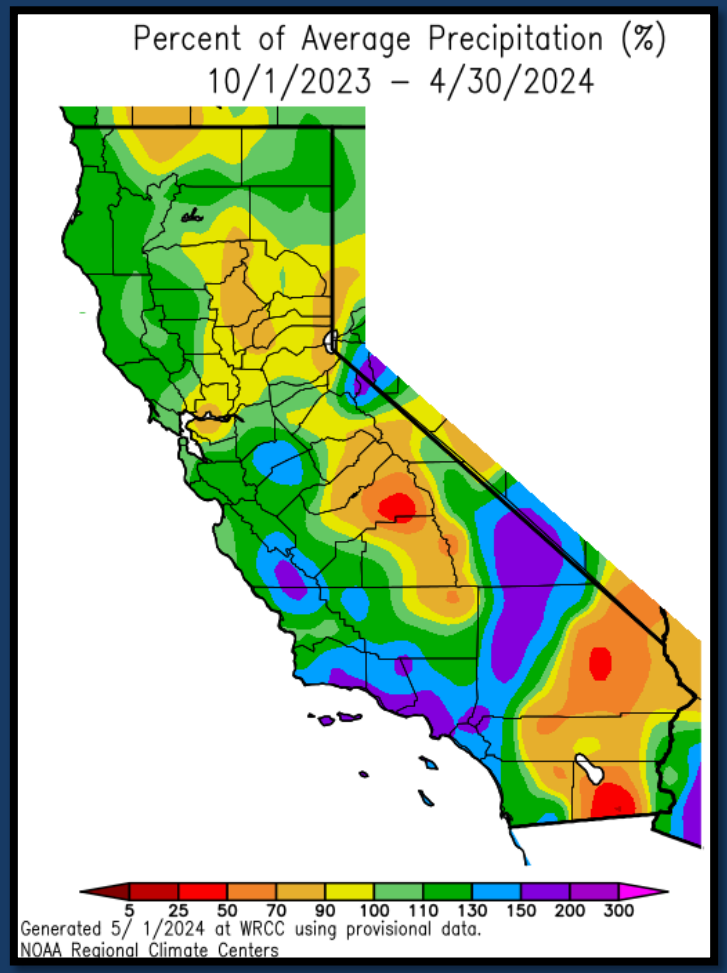
Weather Discussion: Temperature & Precipitation

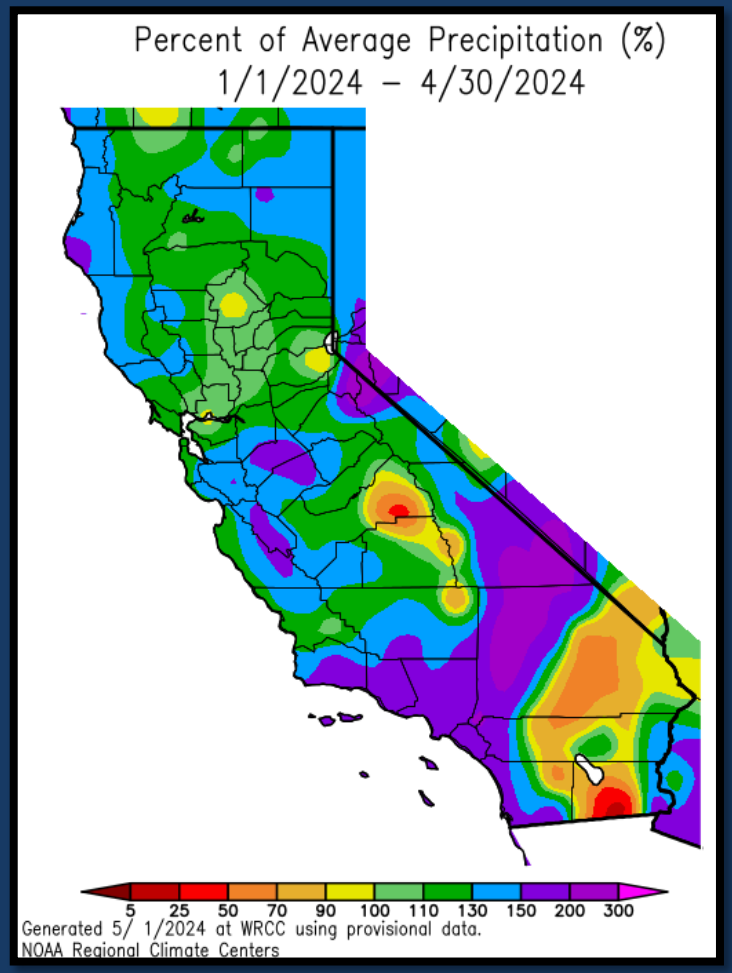




- April weather patterns were variable with both some warm stretches and short periods of cooler, wet days.
- The Central Coast region received above average precipitation for the month of April, while much of the state was drier than normal.
- Temperatures remained slightly below normal for most of Southern California and mostly near to above normal in Northern California.

Weather Discussion: Water Year





- A slower start to the wet season has portions of the Sierra Nevada, Central Valley and Southern desert regions below average for the Water Year.
- South Lake Tahoe area is 76% of average for April 30
- Since January 1, most regions of the state have received normal to above normal percent of average precipitation

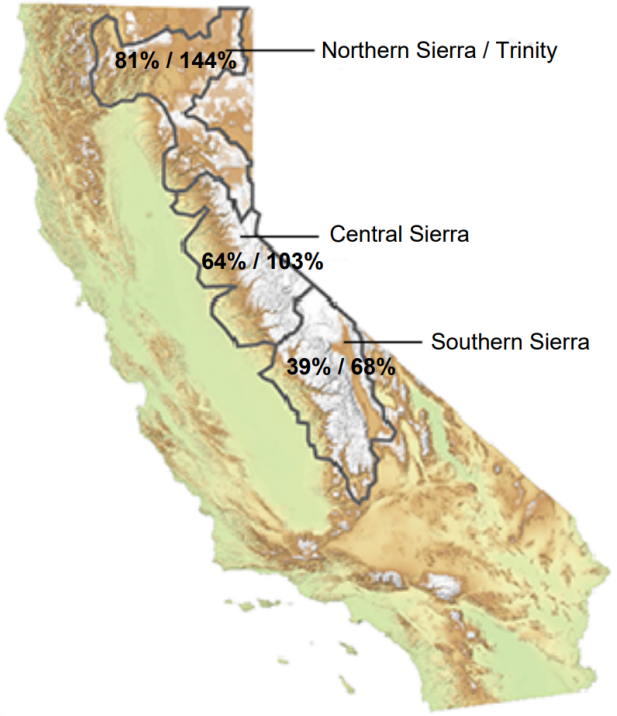
Precipitation

Source: CalClim: California Climate Data Archive (dri.edu)

Weather Discussion: Snowpack

CURRENT REGIONAL SNOWPACK FROM AUTOMATED SNOW SENSORS

% of April 1 Average / % of Normal for This Date



NORTH	
Data as of May 10, 2024	
Number of Stations Reporting	18
Average snow water equivalent (Inches)	25.0
Percent of April 1 Average (%)	81
Percent of normal for this date (%)	144

CENTRAL	
Data as of May 10, 2024	
Number of Stations Reporting	24
Average snow water equivalent (Inches)	18.3
Percent of April 1 Average (%)	64
Percent of normal for this date (%)	103

SOUTH	
Data as of May 10, 2024	
Number of Stations Reporting	27
Average snow water equivalent (Inches)	8.5
Percent of April 1 Average (%)	39
Percent of normal for this date (%)	68

STATE	
Data as of May 10, 2024	
Number of Stations Reporting	69
Average snow water equivalent (Inches)	16.2
Percent of April 1 Average (%)	61
Percent of normal for this date (%)	102

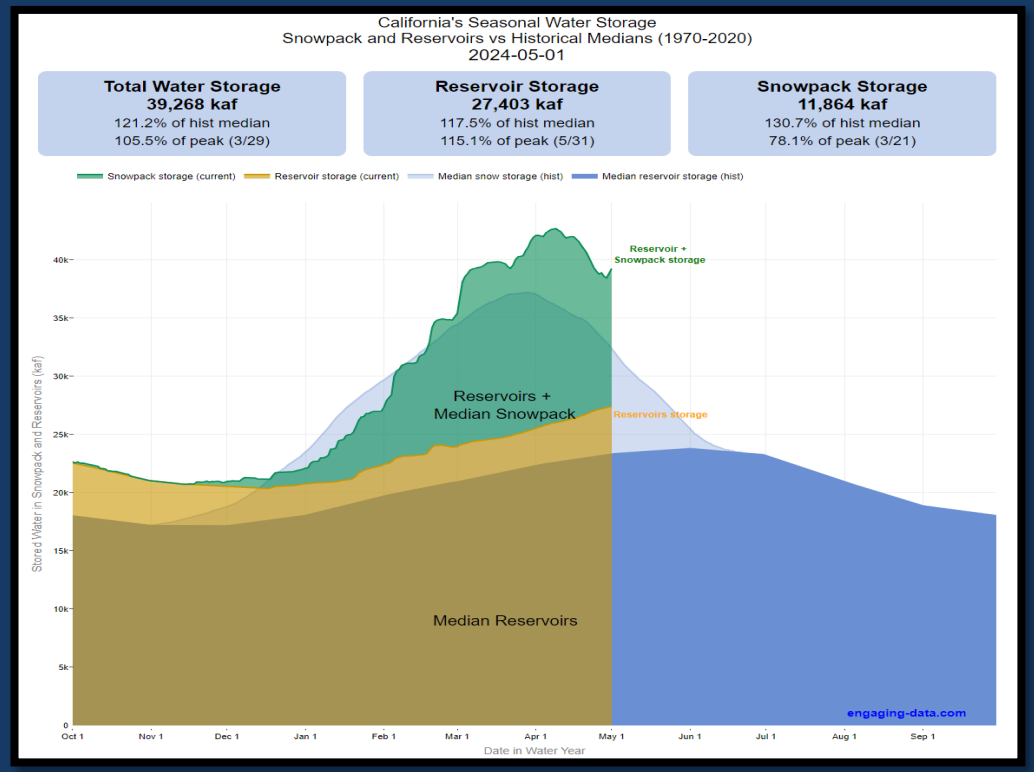
Statewide Average: 61% / 102%

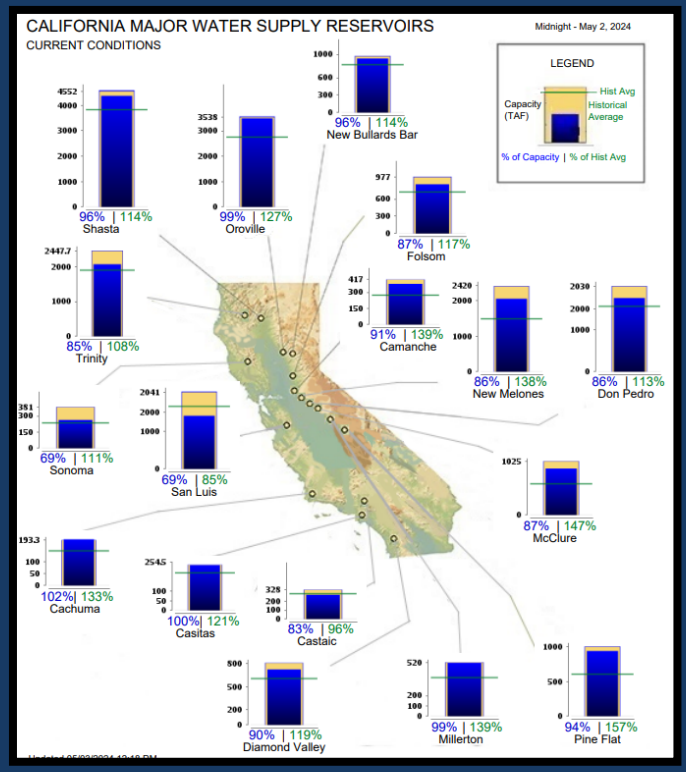
- El Niño influenced warmer storms leading to elevated snow lines early-on in winter.
- The snowpack was at 35% of normal in January before colder storms arrived allowing it to reach ‘normal’ levels.
- California ended up at 102% of its snowpack average for May 10.

Snowpack

Source: Snow Pack Conditions - Snow Water Content Chart (ca.gov)

Weather Discussion: Reservoir Storage



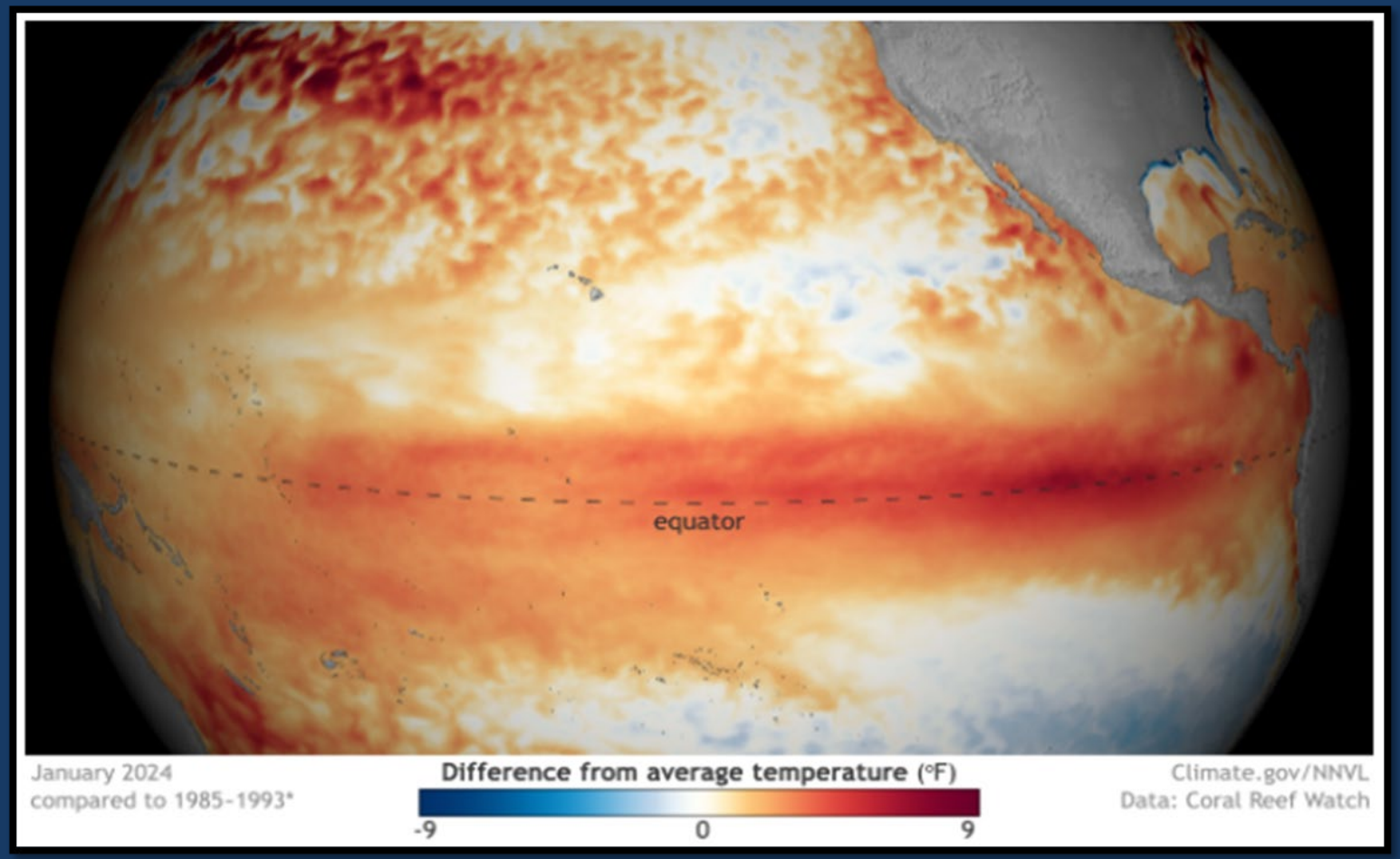


- Reservoirs were in good shape at the start of the rainy season
- Plenty of runoff through the winter and seasonable snowpack assure good water storage

Reservoir Status

Source: [Visualizing California's Water Storage - Reservoirs and Snowpack - Engaging Data (engaging-data.com)]

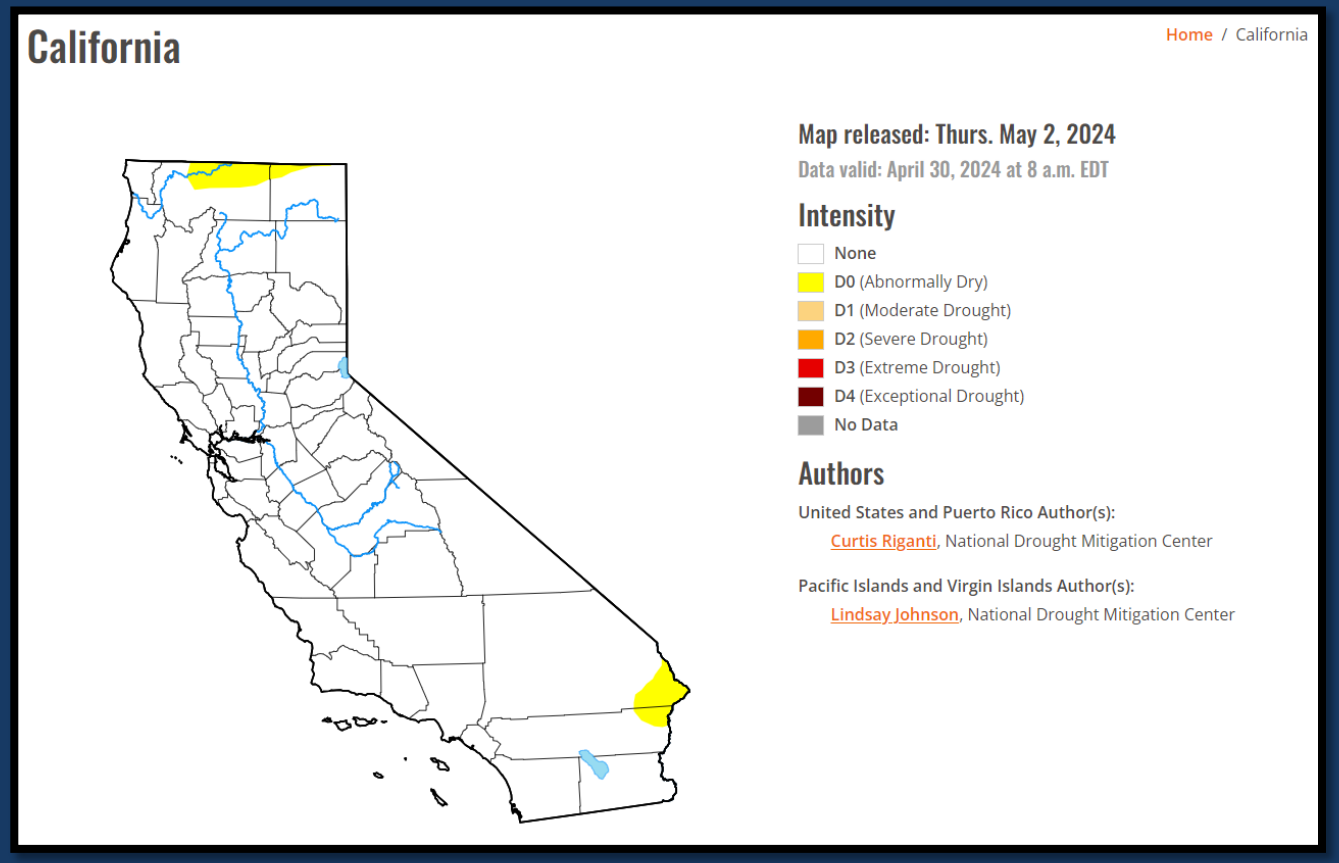
Weather Discussion: Exit El Niño, Enter La Niña



- The El Niño-Southern Oscillation (ENSO) El Niño pattern is shifting to an ENSO-neutral status
- The odds of a La Niña pattern developing in June - August is 55%
- La Niña implies a drier California

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

Weather Discussion: Drought Monitor



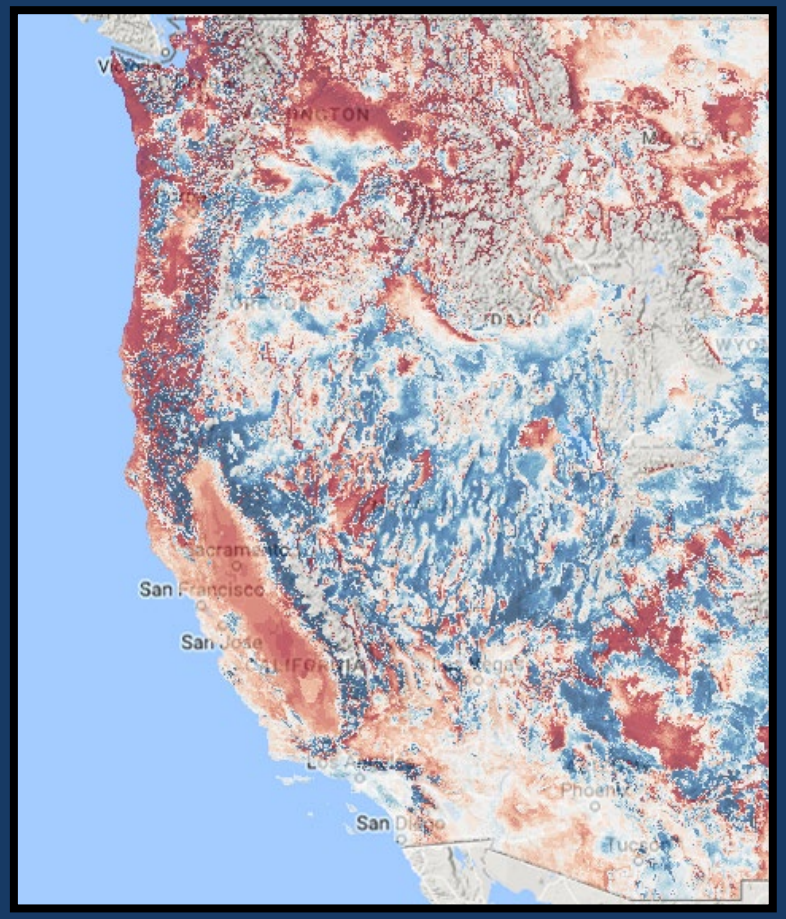
- Tropical moisture in the summer of 2023 along with the 'normal' winter has left only 2.7% of the State "Abnormally Dry"

- Potential areas for drought spread are the Northern Mountains, Modoc Plateau, and Sierra Nevada.

Current Map | U.S. Drought Monitor (unl.edu)

Status of Spring 2024

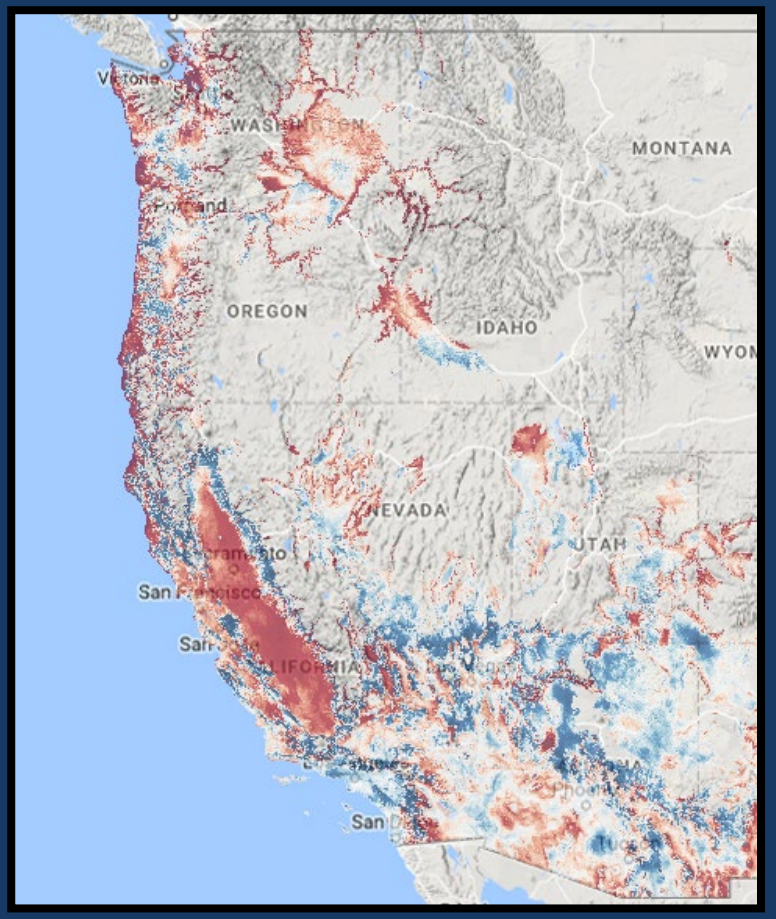
Spring Leaf Index

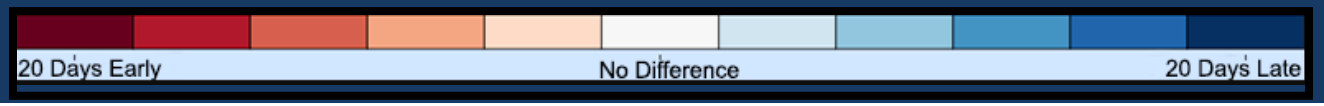


How does this spring compare to “normal”?

- The Sacramento Valley and coastal areas of Northern California are seeing the earliest spring leaf out on record.

Spring Bloom Index

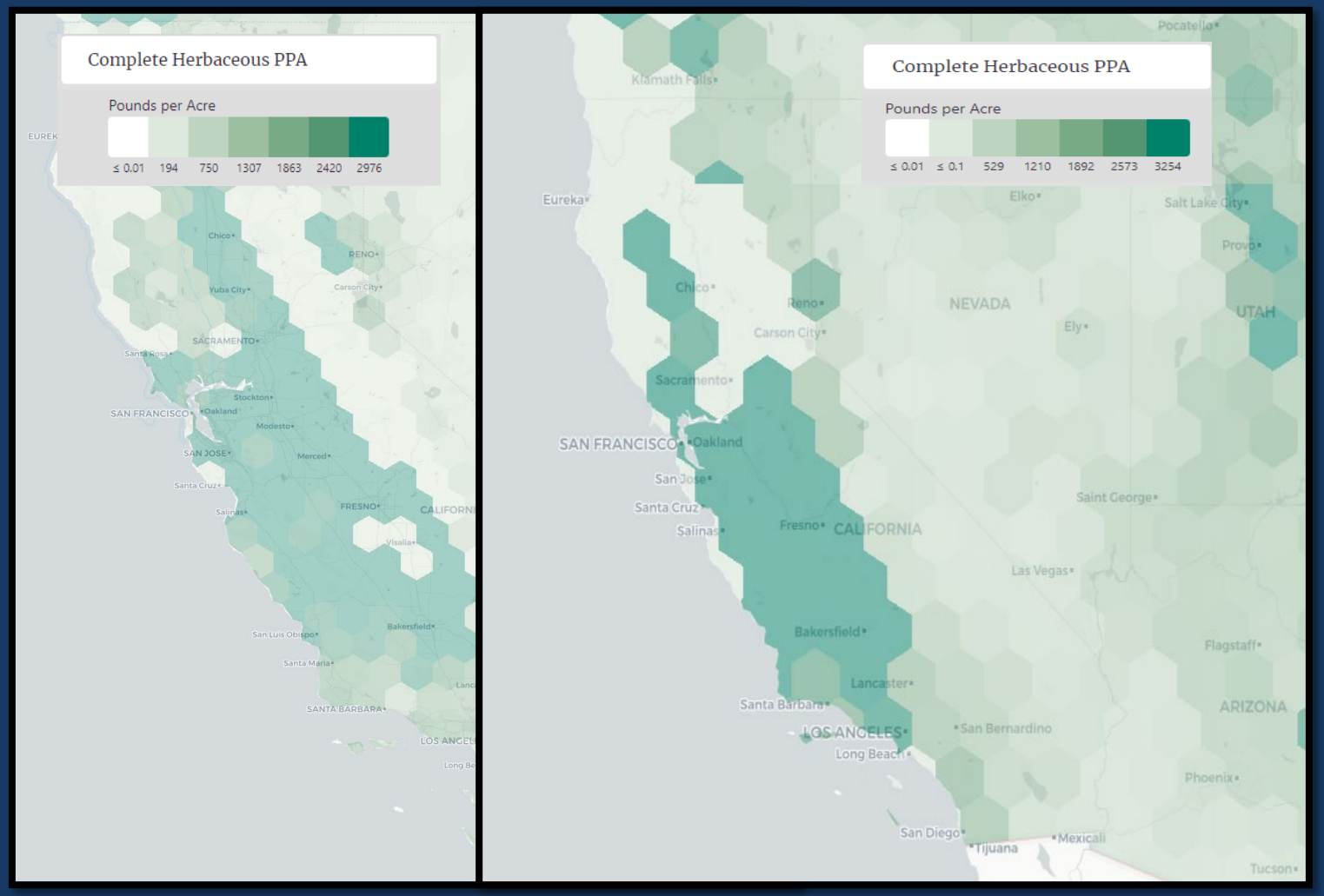




USA National Phenology Network

Source: Status of Spring | USA National Phenology Network (usanpn.org)

Fuels Discussion: 2024 Grass Fuel Loading



- Nearly average herbaceous growth in Central California
- Grass fires will remain prevalent with rate of spread more consistent with historic rates once cured

Source: Fuelcast App

Fuels Discussion: Herbaceous Growing, Drying Soon

- Annual grasses are in full flush of growth below 6,000’ elevation
- San Joaquin Valley grasses cured quickly on southerly slopes and beginning on northern exposures
- Sacramento Valley grasses curing where soils are thinner and with southern exposure

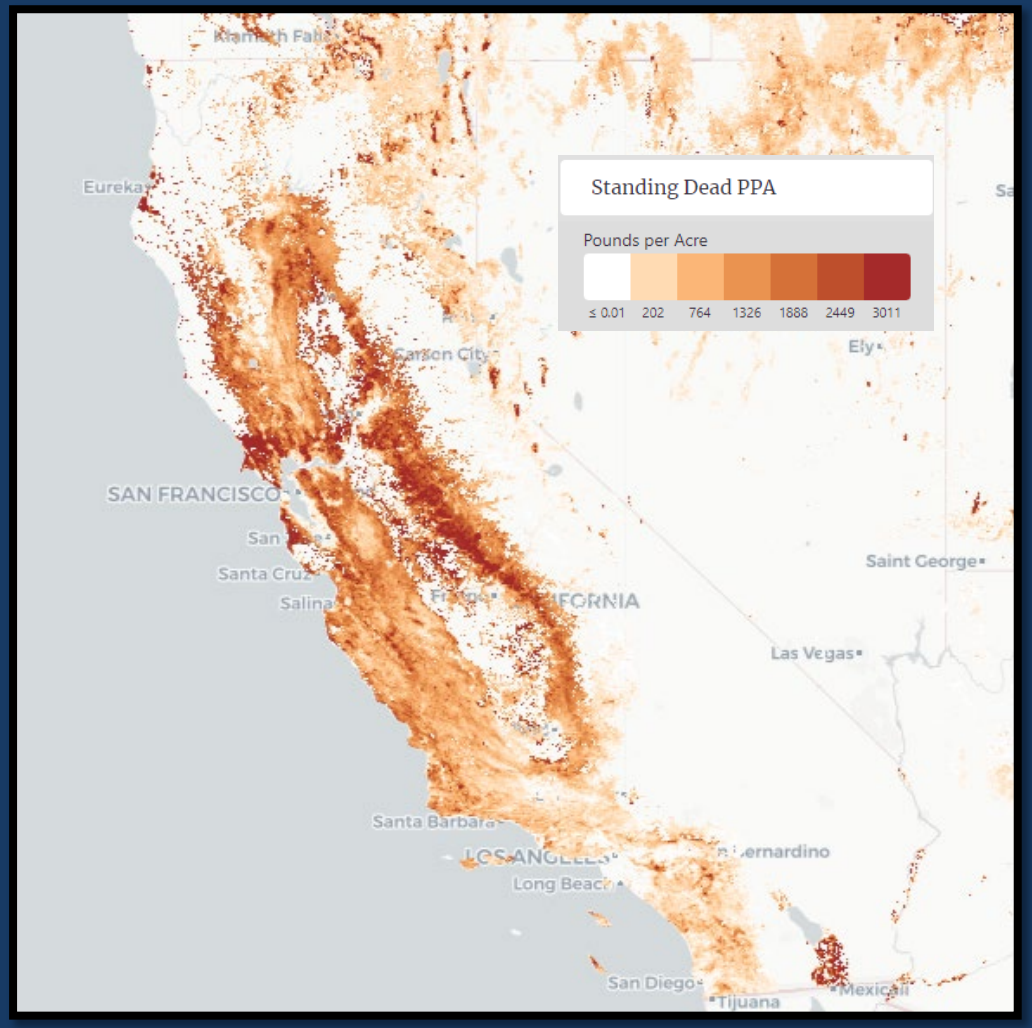
Green-up & Curing

Source: ALERTCalifornia - Sites 1

Fuels Discussion: Shrub and Tree Live Fuels

- Green-up of woody vegetation well under way below 4,000-ft; live fuel moistures trending above normal with high soil moisture levels
- Heavier live fuels should retain enough moisture to resist fire spread through June
- Favorable prescribed fire condition predicted

Fuels Discussion: 2023 Grass Fuel Load Remain



- Last year's herbaceous loading exacerbates this year's fuels as the compacted material creates a receptive fuel bed to carry and maintain fire
- User defined modifications to the grass fuel categories may be necessary for fire spread modeling in early summer

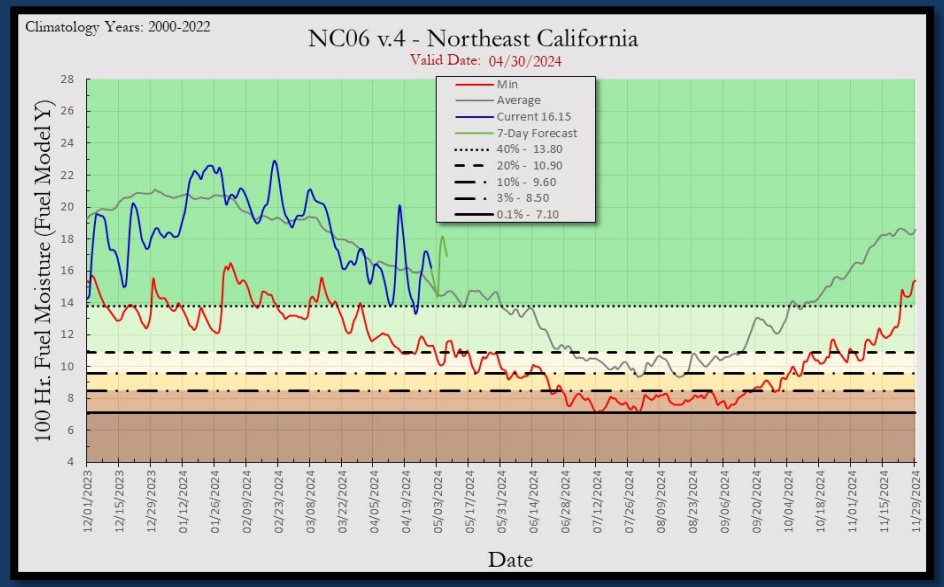
Source: Fuelcast App

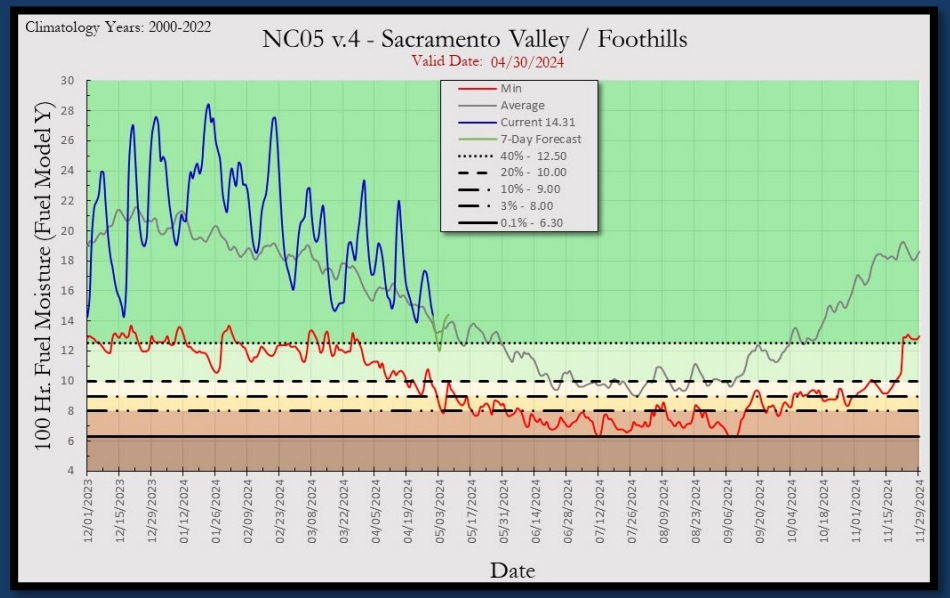
Fuels Discussion: Accumulated Fuel Loading

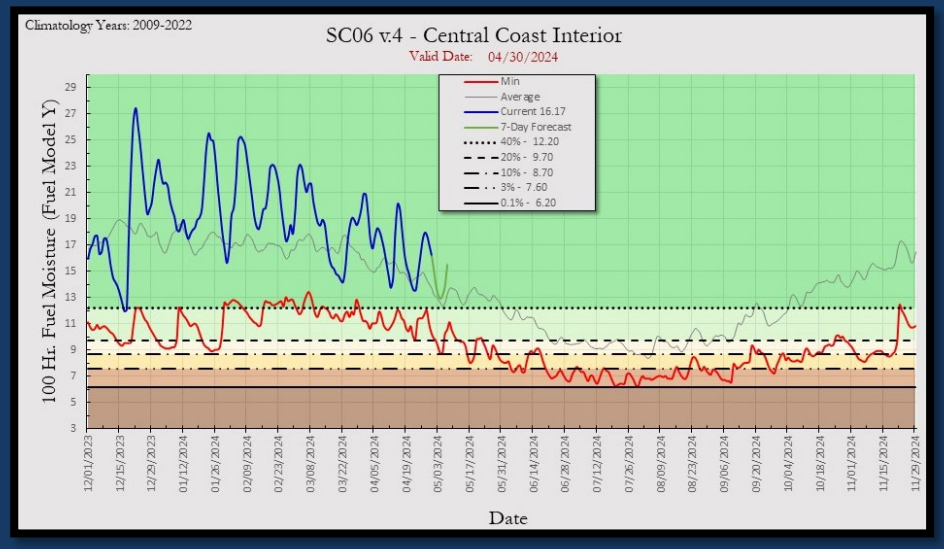
- Storm damage from last year has had a year to cure and compact
- Dead and Down vegetation still available fuel for 2024

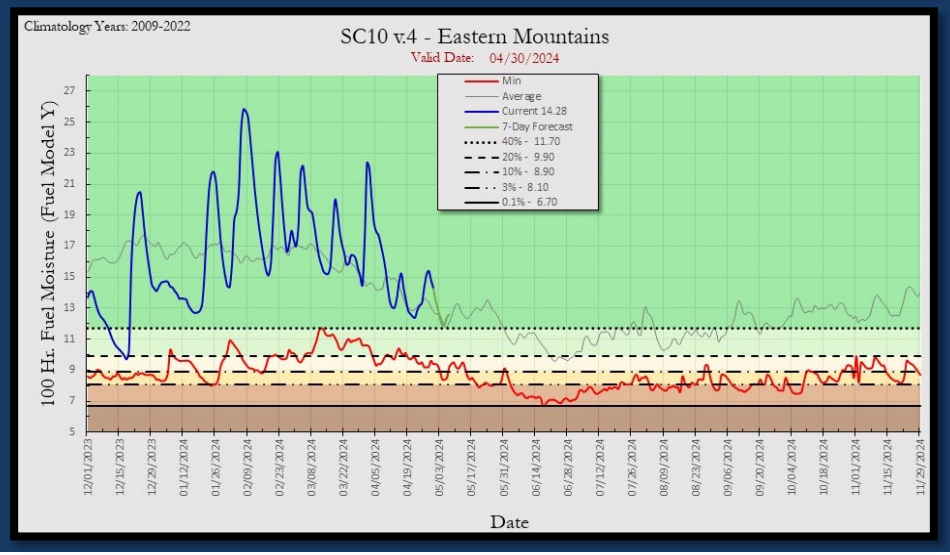
Winter Storm Damage

Fuels Discussion: 100-hour Dead Fuels









- 100-hr fuels moistures are near or above seasonal averages
- Fuels conditions should provide time for prescribed burning

100-hour Dead Fuels

Source: Predictive Services, Fuels and Fire Danger (nifc.gov)

Four-month Significant Fire Potential

May – August 2024 California Highlights

- Timely cool/moist intrusions in the form of showers or higher humidity due to dominant onshore flow are expected for the next four months as El Niño is weakening (+1° C) and trending to a neutral state

- Problematic lightning is expected to be less this summer due to a more subdued North American Monsoon and less East Pacific tropical influences with a developing La Niña

- North Pacific originating lightning activity less problematic without heat

Source: National Significant Wildland Fire Potential Outlook (nifc.gov)

Four-month Significant Fire Potential

May – August 2024 California Highlights

- With a developing La Niña in the summer, it favors a warmer and drier period especially with sea surface temperatures cooling in the Gulf of California that lessen the chance of convection forming and moving into the Four Corners region

- The prescribed fire burn window for larger projects should be favorable the rest of the spring into July as dead and live fuel moistures will remain well above normal

Webpage Source: monthly_seasonal_outlook.pdf (nifc.gov)

Four-month Significant Fire Potential

Predictive Services Areas May & June 2024

Source: National Significant Wildland Fire Potential Outlook (nifc.gov)

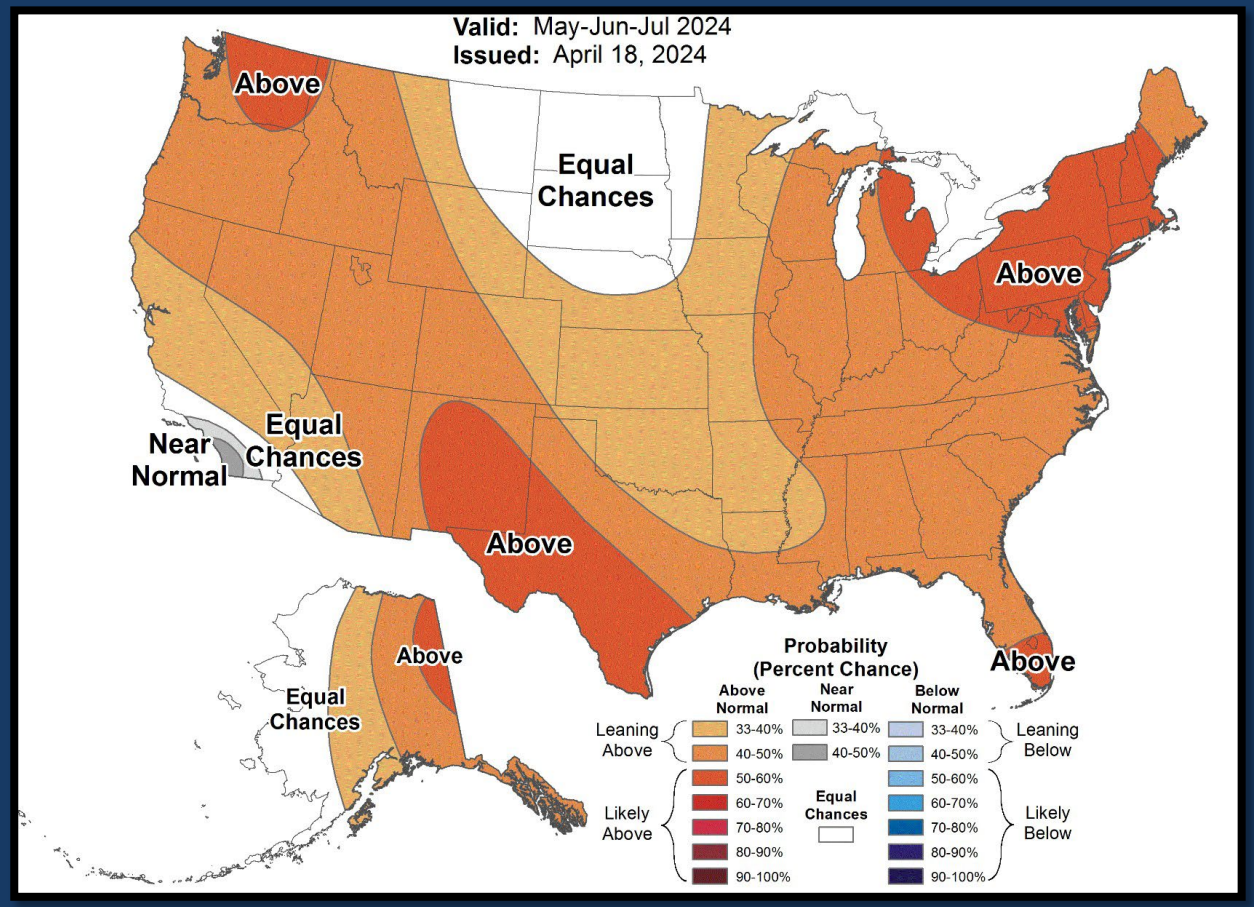
Four-month Significant Fire Potential

Predictive Services Areas July & August 2024

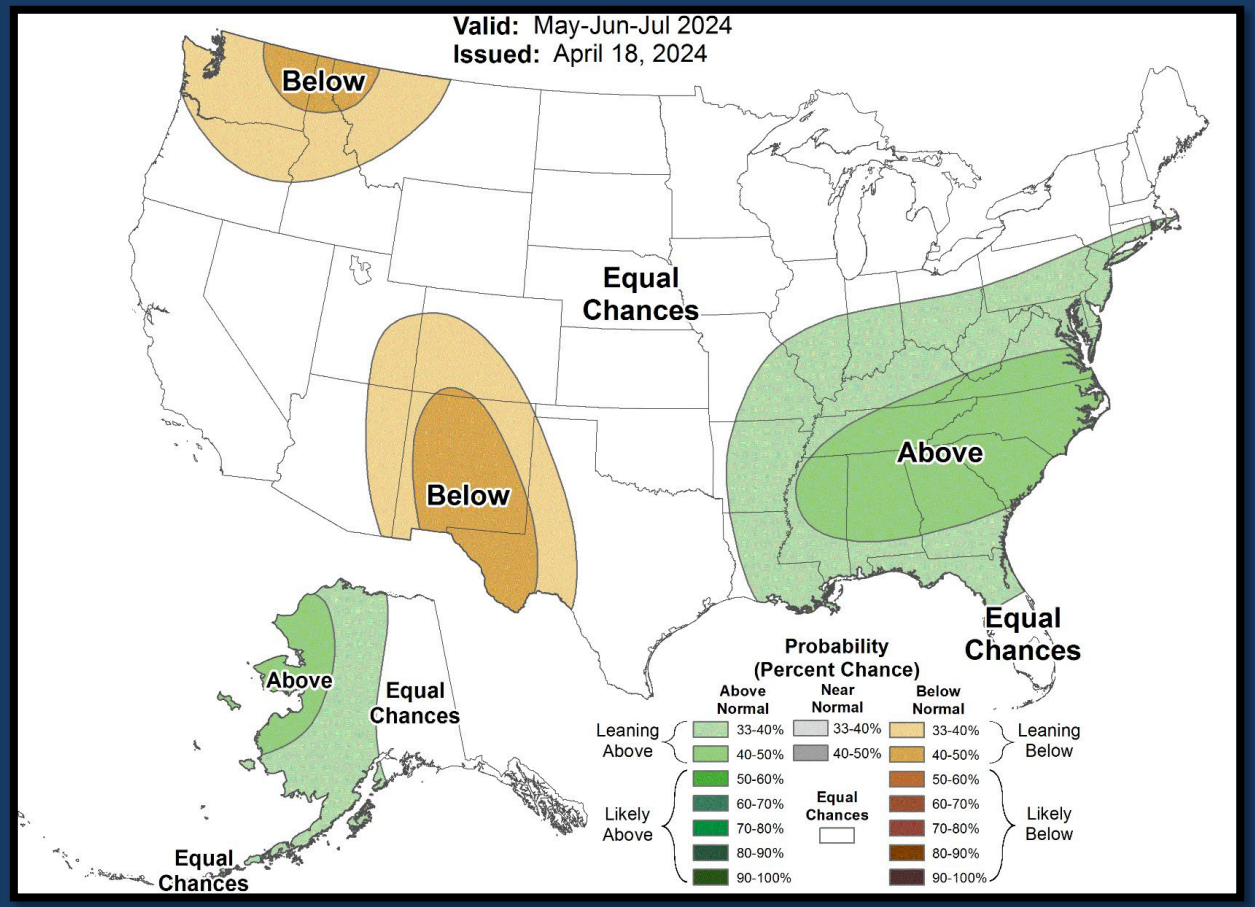
Source: [National Significant Wildland Fire Potential Outlook (nifc.gov)]

California Outlook

Temperature Seasonal Outlook



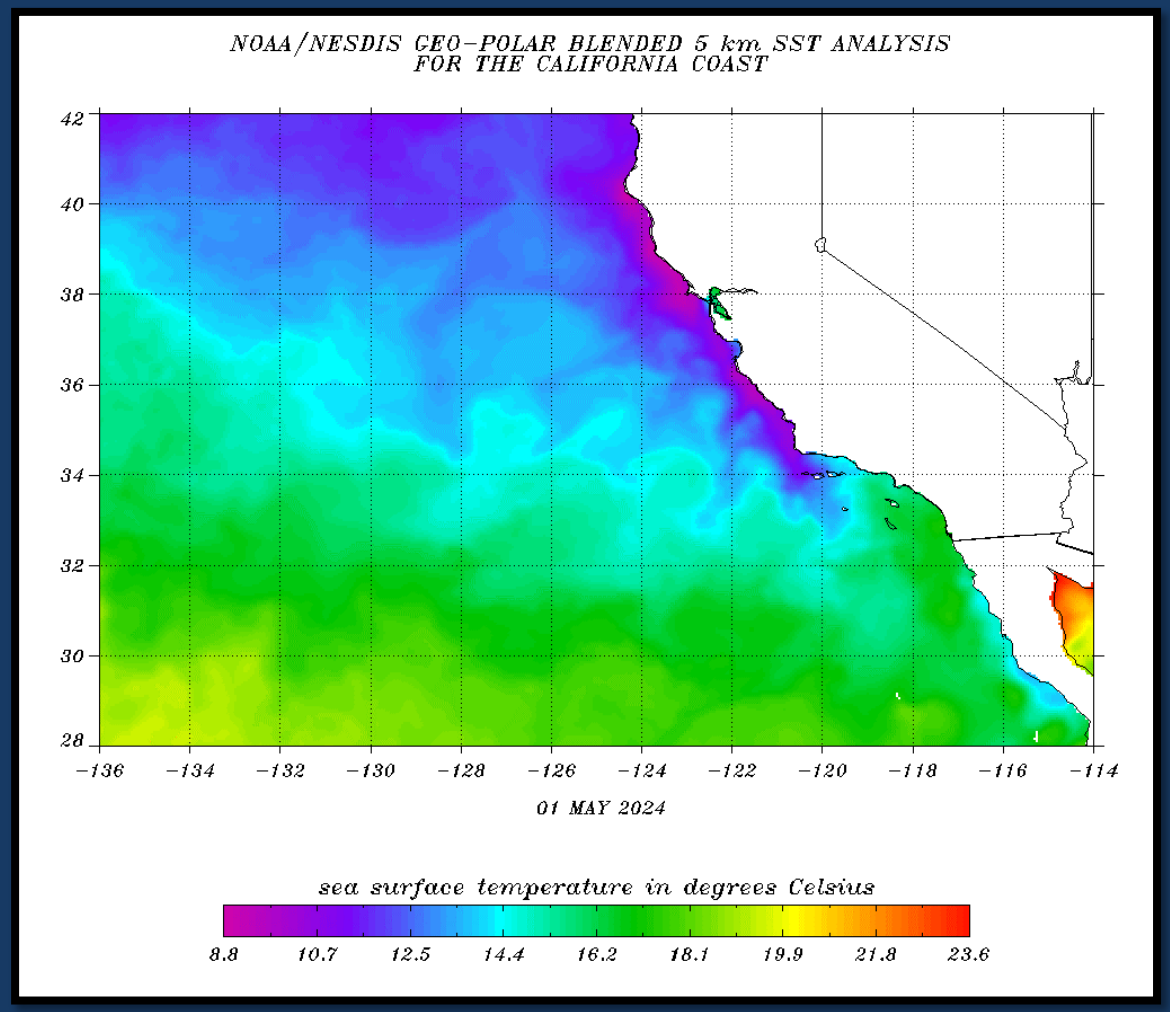
Precipitation Seasonal Outlook



Four-month Temperature & Precipitation Outlook

Source: Climate Prediction Center (noaa.gov)

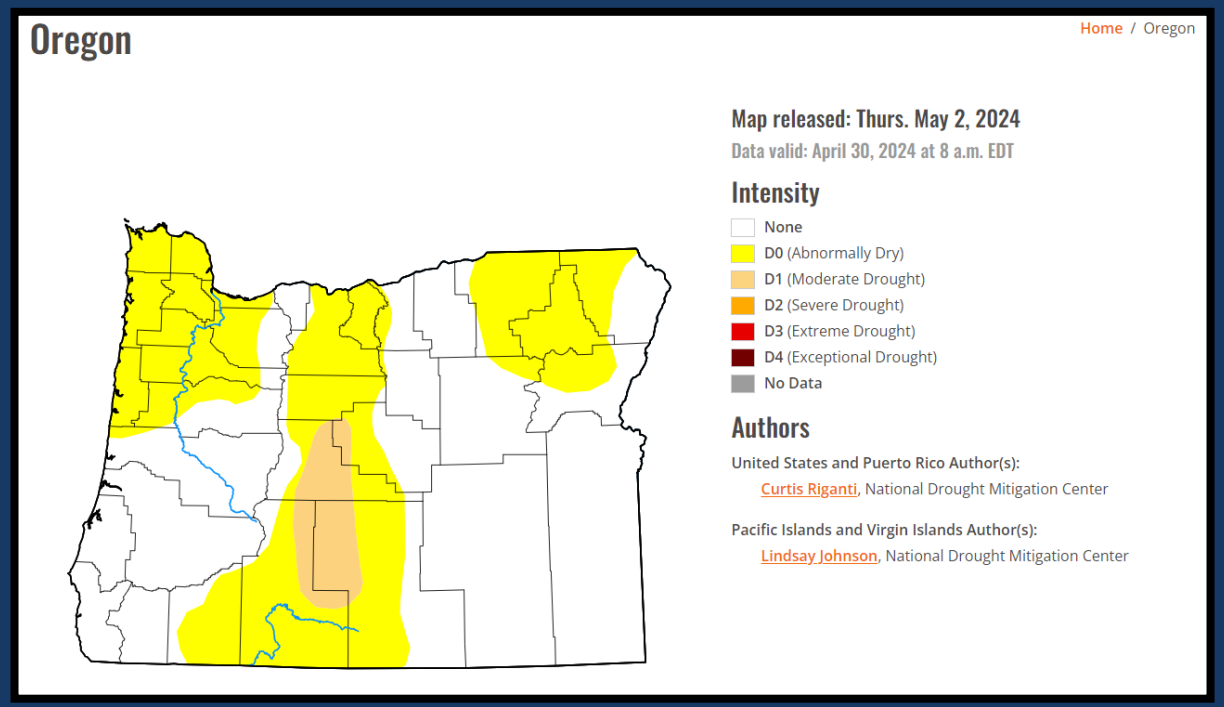
California Outlook

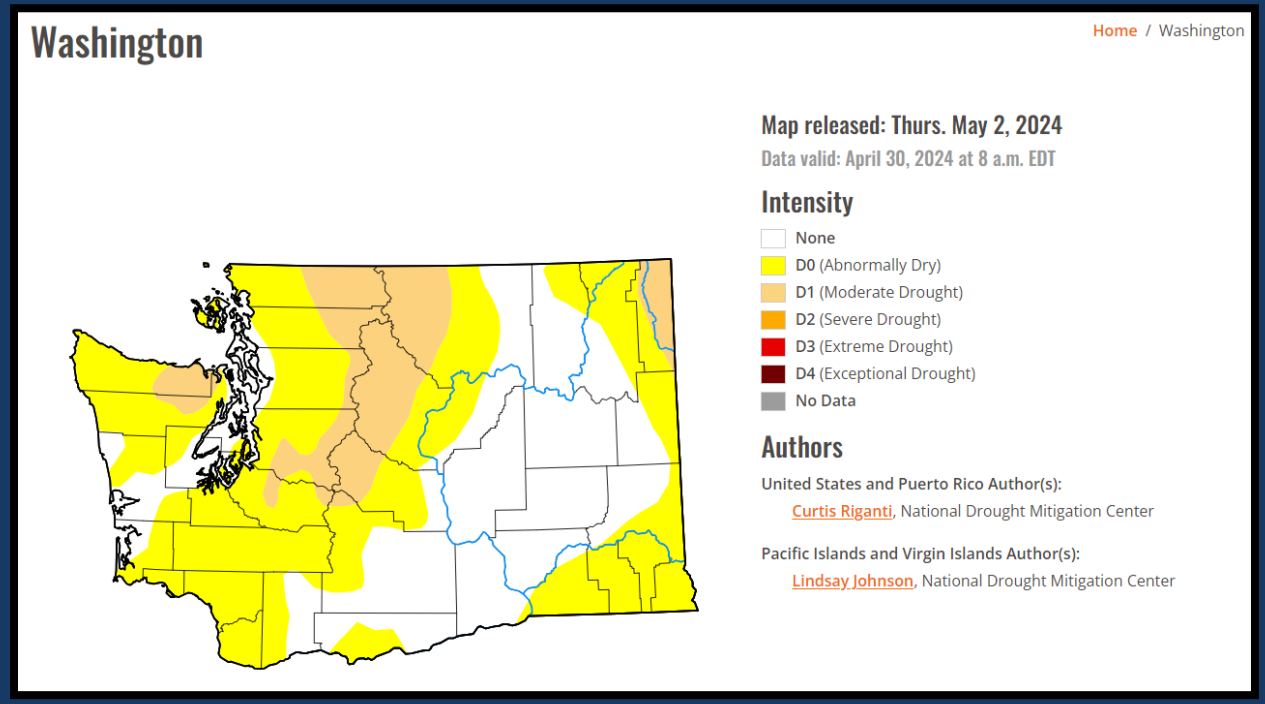


- Cooler sea surface temperatures are progressing down the California coast setting up seasonal fog formation
- Periods of cooler air with moisture continue through Spring before drier air associated with La Niña arrives with summer

California Coast Water Temperatures
Source: californ.cf.gif (1102×936) (noaa.gov)

Weather Discussion: Drought Monitor





- Drought conditions remained mostly unchanged in comparison to 2023.
- Abnormally dry to moderate drought in many portions of Oregon and Washington.

Northwest Region Four-month Significant Fire Potential

May – August 2024 Oregon/Washington Highlights

- Outlooks through May and beyond continue to suggest a transition to warmer than usual conditions during Fire Season 2023.

- Normal (i.e. very low) risk of significant fires is expected over the Northwest Area until July and August when areas of central and southeast Oregon are expected to be above average potential for significant fires.

Webpage Source: monthly_seasonal_outlook.pdf (nifc.gov)

Pacific Northwest Region Four-month Significant Fire Potential

May & June outlook source: [Outlooks | National Interagency Coordination Center (nifc.gov)]

Pacific Northwest Region Four-month Significant Fire Potential

July & August outlook source: [Outlooks | National Interagency Coordination Center (nifc.gov)]

Cal OES
GOVERNOR'S OFFICE
OF EMERGENCY SERVICES

CALIFORNIA DEPARTMENT OF FORESTRY & FIRE PROTECTION
CAL FIRE
SINCE 1885

CAL GUARD
CALIFORNIA MILITARY DEPARTMENT
EST. 1850

PUBLIC UTILITIES COMMISSION
EUREKA
STATE OF CALIFORNIA

NATIONAL WEATHER SERVICE

FOREST SERVICE
US
DEPARTMENT OF AGRICULTURE

THE UNIVERSITY OF CALIFORNIA
LET THERE BE LIGHT
1868

CALIFORNIA
UTILITIES
EMERGENCY
ASSOCIATION

THE CALIFORNIA STATE UNIVERSITY
VOX VERITAS VITA
1857

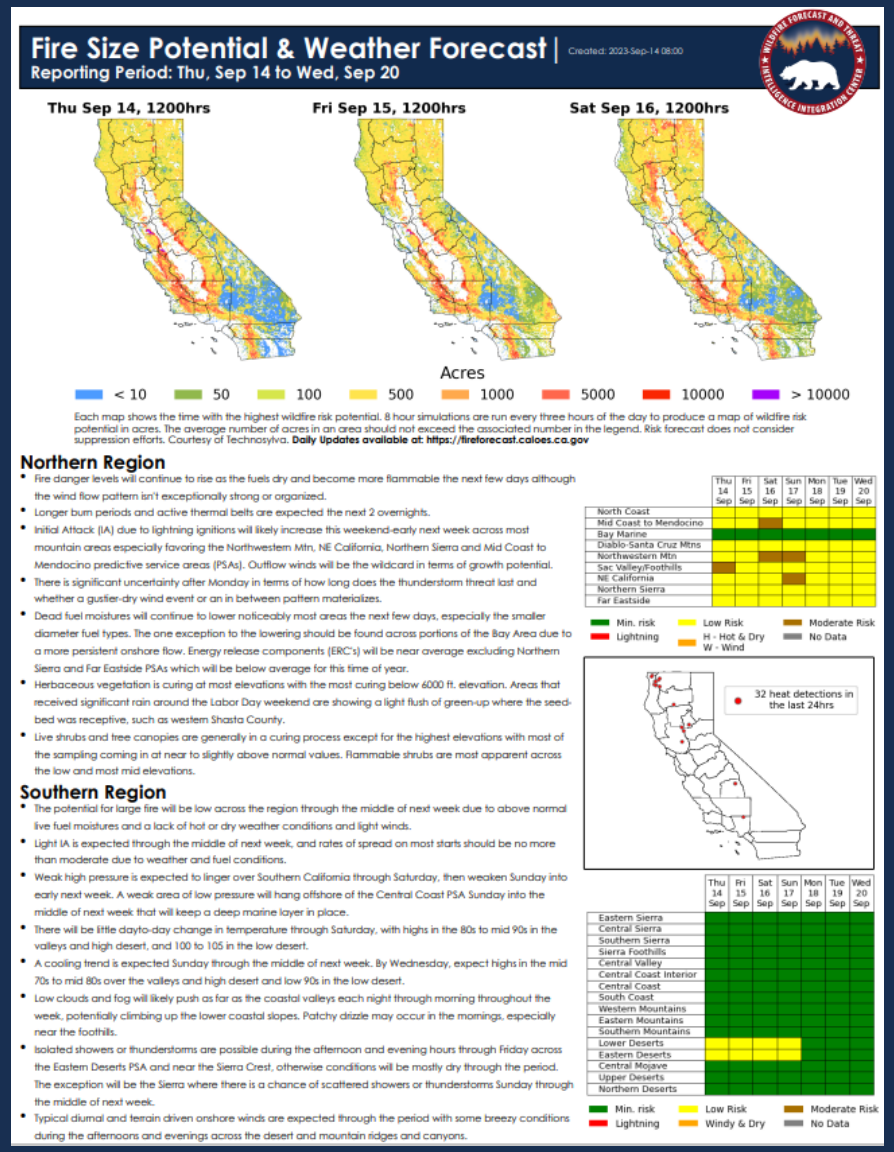
Wildfire Forecast & Threat Intelligence Website

Central Organized Hub displaying

- Active Wildfire Incident Information
- Wildfire Forecasting products
  - Near-term
  - Mid-term
  - Long-term
- Weather Information
- Decision Support tools
  - Indices
  - External Resources

Fire Potential & Weather Forecast Products

Daily Product



Fire Size Potential & Weather Forecast | Created: 2023-Sep-14 08:00
Reporting Period: Thu, Sep 14 to Wed, Sep 20

Thu Sep 14, 1200hrs | Fri Sep 15, 1200hrs | Sat Sep 16, 1200hrs

Acres
< 10 | 50 | 100 | 500 | 1000 | 5000 | 10000 | > 10000

Each map shows the time with the highest wildfire risk potential. 8 hour simulations are run every three hours of the day to produce a map of wildfire risk potential in acres. The average number of acres in an area should not exceed the associated number in the legend. Risk forecast does not consider suppression efforts. Courtesy of Technosylva. **Daily Updates available at: https://fireforecast.caloes.ca.gov**

Northern Region

- Fire danger levels will continue to rise as the fuels dry and become more flammable the next few days although the wind flow pattern isn't exceptionally strong or organized.
- Longer burn periods and active thermal belts are expected the next 2 overnights.
- Initial Attack (IA) due to lightning ignitions will likely increase this weekend-early next week across most mountain areas especially favoring the Northwestern Mtn, NE California, Northern Sierra and Mid Coast to Mendocino predictive service areas (PSAs). Outflow winds will be the wildcard in terms of growth potential.
- There is significant uncertainty after Monday in terms of how long does the thunderstorm threat last and whether a gustier-dry wind event or an in between pattern materializes.
- Dead fuel moistures will continue to lower noticeably most areas the next few days, especially the smaller diameter fuel types. The one exception to the lowering should be found across portions of the Bay Area due to a more persistent onshore flow. Energy release components (ERC's) will be near average excluding Northern Sierra and Far Eastside PSAs which will be below average for this time of year.
- Herbaceous vegetation is curing at most elevations with the most curing below 6000 ft. elevation. Areas that received significant rain around the Labor Day weekend are showing a light flush of green-up where the seed-bed was receptive, such as western Shasta County.
- Live shrubs and tree canopies are generally in a curing process except for the highest elevations with most of the sampling coming in at near to slightly above normal values. Flammable shrubs are most apparent across the low and most mid elevations.

	Thu 14 Sep	Fri 15 Sep	Sat 16 Sep	Sun 17 Sep	Mon 18 Sep	Tue 19 Sep	Wed 20 Sep
North Coast							
Mid Coast to Mendocino							
Bay Marine							
Diablo-Santa Cruz Mtns							
Northwestern Mtn							
Sac Valley/Foothills							
NE California							
Northern Sierra							
Far Eastside							

Min. risk | Low Risk | Moderate Risk
Lightning | H - Hot & Dry W - Wind | No Data

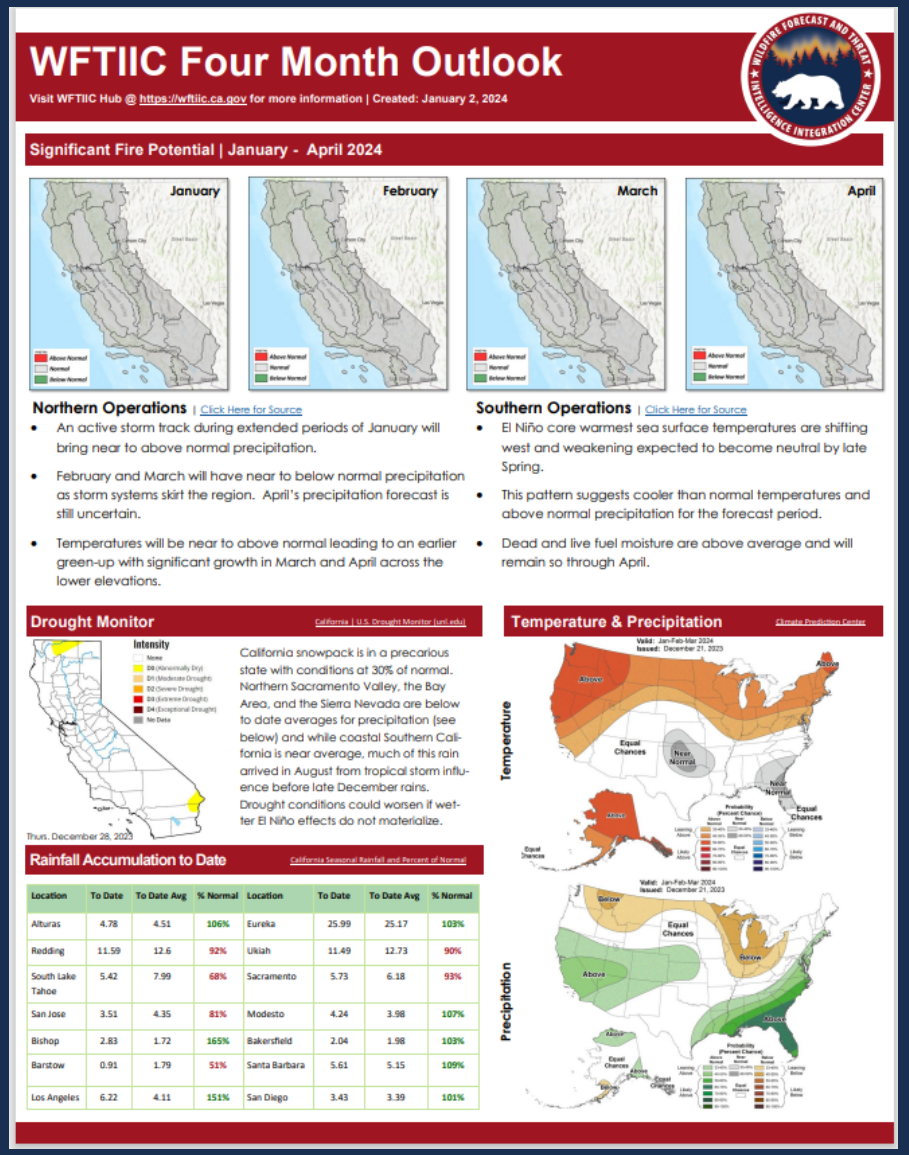
Southern Region

- The potential for large fire will be low across the region through the middle of next week due to above normal live fuel moistures and a lack of hot or dry weather conditions and light winds.
- Light IA is expected through the middle of next week, and rates of spread on most starts should be no more than moderate due to weather and fuel conditions.
- Weak high pressure is expected to linger over Southern California through Saturday, then weaken Sunday into early next week. A weak area of low pressure will hang offshore of the Central Coast PSA Sunday into the middle of next week that will keep a deep marine layer in place.
- There will be little dayto-day change in temperature through Saturday, with highs in the 80s to mid 90s in the valleys and high desert, and 100 to 105 in the low desert.
- A cooling trend is expected Sunday through the middle of next week. By Wednesday, expect highs in the mid 70s to mid 80s over the valleys and high desert and low 90s in the low desert.
- Low clouds and fog will likely push as far as the coastal valleys each night through morning throughout the week, potentially climbing up the lower coastal slopes. Patchy drizzle may occur in the mornings, especially near the foothills.
- Isolated showers or thunderstorms are possible during the afternoon and evening hours through Friday across the Eastern Deserts PSA and near the Sierra Crest, otherwise conditions will be mostly dry through the period. The exception will be the Sierra where there is a chance of scattered showers or thunderstorms Sunday through the middle of next week.
- Typical diurnal and terrain driven onshore winds are expected through the period with some breezy conditions during the afternoons and evenings across the desert and mountain ridges and canyons.

	Thu 14 Sep	Fri 15 Sep	Sat 16 Sep	Sun 17 Sep	Mon 18 Sep	Tue 19 Sep	Wed 20 Sep
Eastern Sierra							
Central Sierra							
Southern Sierra							
Sierra Foothills							
Central Valley							
Central Coast Interior							
Central Coast							
South Coast							
Western Mountains							
Eastern Mountains							
Southern Mountains							
Lower Deserts							
Eastern Deserts							
Central Mojave							
Upper Deserts							
Northern Deserts							

Min. risk | Low Risk | Moderate Risk
Lightning | Windy & Dry | No Data

Monthly Product



WFTIIC Four Month Outlook
Visit WFTIIC Hub @ https://wftiic.ca.gov for more information | Created: January 2, 2024

Significant Fire Potential | January - April 2024

Northern Operations | Click Here for Source

- An active storm track during extended periods of January will bring near to above normal precipitation.
- February and March will have near to below normal precipitation as storm systems skirt the region. April's precipitation forecast is still uncertain.
- Temperatures will be near to above normal leading to an earlier green-up with significant growth in March and April across the lower elevations.

Southern Operations | Click Here for Source

- El Niño core warmest sea surface temperatures are shifting west and weakening expected to become neutral by late Spring.
- This pattern suggests cooler than normal temperatures and above normal precipitation for the forecast period.
- Dead and live fuel moisture are above average and will remain so through April.

Drought Monitor — California | U.S. Drought Monitor (unl.edu)

Thurs. December 28, 2023

California snowpack is in a precarious state with conditions at 30% of normal. Northern Sacramento Valley, the Bay Area, and the Sierra Nevada are below to date averages for precipitation (see below) and while coastal Southern California is near average, much of this rain arrived in August from tropical storm influence before late December rains. Drought conditions could worsen if wetter El Niño effects do not materialize.

Rainfall Accumulation to Date — California Seasonal Rainfall and Percent of Normal

Location	To Date	To Date Avg	% Normal	Location	To Date	To Date Avg	% Normal
Alturas	4.78	4.51	106%	Eureka	25.99	25.17	103%
Redding	11.59	12.6	92%	Ukiah	11.49	12.73	90%
South Lake Tahoe	5.42	7.99	68%	Sacramento	5.73	6.18	93%
San Jose	3.51	4.35	81%	Modesto	4.24	3.98	107%
Bishop	2.83	1.72	165%	Bakersfield	2.04	1.98	103%
Barstow	0.91	1.79	51%	Santa Barbara	5.61	5.15	109%
Los Angeles	6.22	4.11	151%	San Diego	3.43	3.39	101%

Temperature & Precipitation — Climate Prediction Center

WFTIIC Situation Reports

Public Safety Power Shutoff (PSPS) events

- Fire Weather and Fuels Seasonal Outlooks
- Significant Event Reports
- Year End Report

Wildfire Forecast & Threat Intelligence Integration Center (WFTIIC)

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