Weather and Climate Summary and Forecast
November 2025 Report

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November 6, 2025

Summary:

- The government shutdown is starting to affect the availability of some non-critical forms of geophysical data, including weather and climate, sea surface temperatures, etc. For this report, attempts have been made to bridge missing data, but gaps will likely continue until the shutdown is resolved.
- Generally cooler than average[1] temperatures were seen over the majority of the western US in October. Warmer than average temperatures were experienced from the Rockies eastward.
- October brought welcomed precipitation to much of the west, with moderate amounts across nearly every state.
- Overall, November is forecast to end up near average to warmer than normal for most regions of the West. The month is forecast to bring above average precipitation likely across the PNW into northern California, while most other areas have equal chances or likely below normal precipitation for the month.
- The seasonal outlook for the first half of winter has much of the southern and central portions of the country likely seeing above average temperatures. For the PNW across the northern tier of states, the forecast is much less certain and is likely hinging on the strength and longevity of the currently developing La Niña. The situation is similar for the first half of winter precipitation, where the typical La Niña pattern of a wetter PNW and near average to drier than average California and Southwest is forecasted. Northern California is usually the spatial tipping point for ENSO effects, and it appears that forecasters are hedging bets on its effect this year as well.

Past Month and Year to Date:

October brought cooler than average temperatures to most regions across the West Coast states, while inland regions in the Basin, Rockies, and Four Corners were warmer than average (Figure 1). Temperatures ranged from 0.5-2.5°F below average in areas of California, Oregon, and Washington, while the Basin, Rockies, and Southwest were 1-4°F above average. A warmer than average month was also experienced from the Rockies to the Great Lakes and south to the Gulf Coast (+3-5°F), while the Southeast and mid-Atlantic were cooler than average, largely due to cloud cover and tropical moisture (not shown).

October brought relatively wet conditions for most of the western US, with greater than normal precipitation amounts

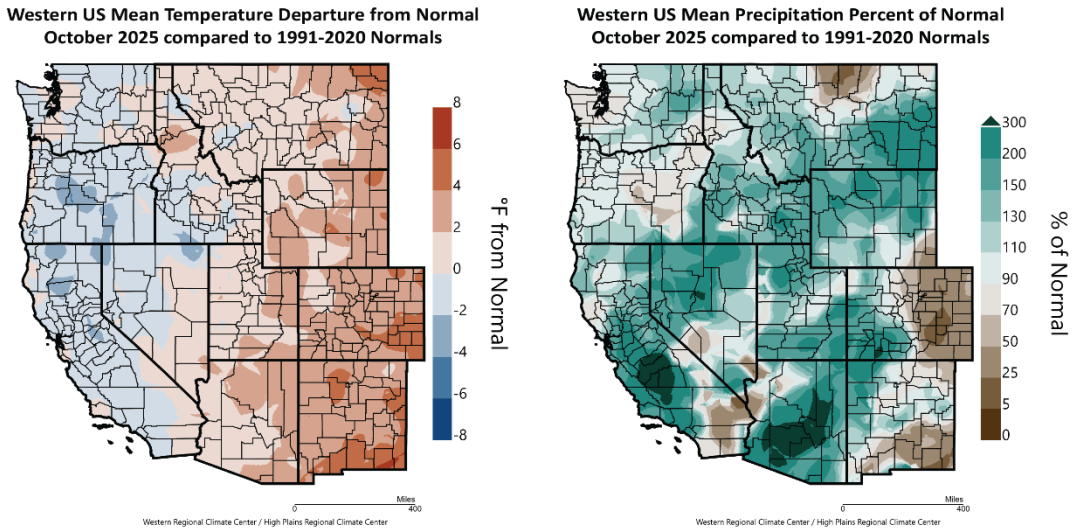

Figure 1 – Western US October 2025 temperature departure from normal (left) and percent of normal precipitation (right; images from Western Regional Climate Center and High Plains Regional Climate Center, 2025)

[1] Note that all references to normal or averages in this report are to the 1991-2020 climate normal for each weather/climate parameter unless stated otherwise. See this website (https://www.climateofwine.com/climate-normals) for more information on climate normal.

occurring over most of California, much of the Southwest, Nevada, and Rockies, where 150-300% of average was seen (Figure 1). Near average precipitation amounts were seen in Oregon and Washington, while above average amounts were seen in Idaho and Montana, helping to ease drought concerns slightly in these areas. The rest of the country was largely drier than average in October, with the Front Range, Great Lakes, central Plains, and Texas across through Gulf Coast states receiving 5-70% of normal, while other regions were average to slightly wetter than average (not shown).

Year to date temperatures remain mostly above average for the western US (Figure 2). The warmest areas for the first ten months of the year are the Rockies, Washington, Idaho, Utah, and scattered regions of northern California and the Southwest, which remain 1.5-3.5 degrees warmer than the average for the 1991-2020 period. Some isolated areas that have been relatively cool year to date are primarily located in the Plains of Montana, extending southward along the Front Range of the Rockies, and in the coastal areas of California. The Plains, from the Canadian border to northern Texas, has seen temperatures for the year to date closer to average or as much as 1.5 degrees below average, while the rest of the eastern US has seen temperatures year to date that are running 0.5-1.5 degrees above average (not shown).

The wet October over the west (Figure 1) has brought the year to date amounts to between 50 and 150% of average for most regions (Figure 2). Drier than average conditions are found in the Four Corners and Southwest, central to southern California, the Great Basin, Washington, northern Oregon, and portions of Idaho, with 25-90% of normal year to date. Wetter than average year to date amounts are found from northern California into southern and central Oregon, continuing eastward to the northern Rockies and along the Front Range, which have seen a wetter than average first ten months of the year. The rest of the country has maintained a similar pattern of year to date precipitation since the beginning of the year, with near average to moderately above average precipitation in the Plains and into the Ohio River valley and Southeast, although drier conditions remain in Florida and New England (not shown).

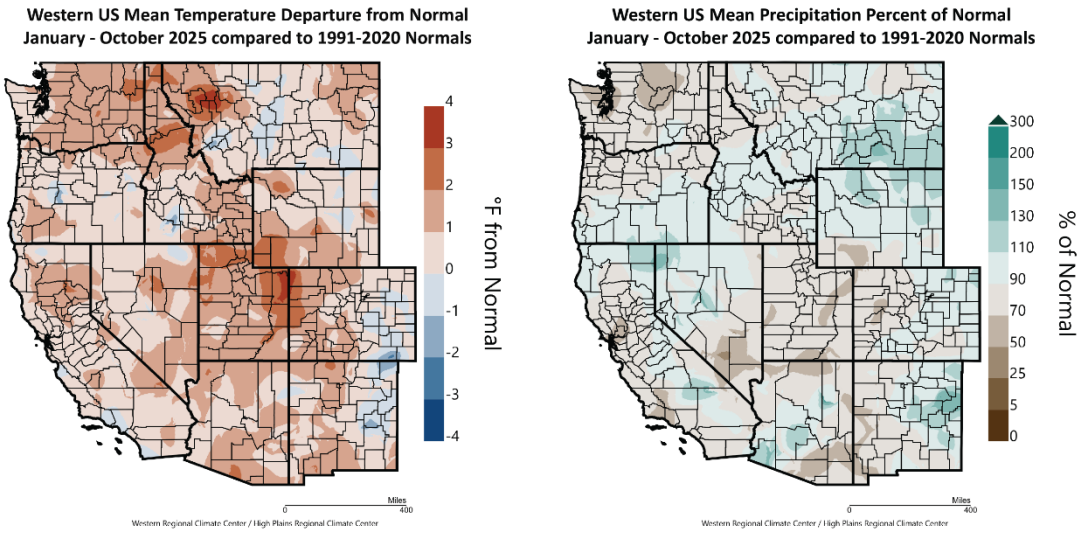

Figure 2 – Western US Year-to-Date (January 1 through October 31, 2025) temperature departure from normal (left) and percent of normal precipitation (right; images from Western Regional Climate Center and High Plains Regional Climate Center, 2025).

Heat Accumulation: With the end of the growing season, we can now look at the final growing degree-day (GDD) departures and totals over the western US. March through October heat accumulation departures show that the vast majority of the western US ended the vintage above the 1991-2020 climate normals (Figure 3; left image). Averaged over the entire western US, growing degree-days ended roughly 5-20% above average. As has been seen over most of the year, interesting patterns for below average locations include coastal zones in California, Oregon, southeastern Washington, and scattered valleys and mountainous areas. Much of the lower heat accumulation can be attributed to cooler coastal water, which resulted in prolonged marine layers and fog along the coastal zones. Inland regions saw lower GDD mostly due to increased cloud cover from precipitation events. Total growing degree-day amounts for the western US show the expected pattern of higher accumulation in the warmer regions of the Central Valley and southern portions of California and regions in the southwest. GDDs range from 4500 to 6000 or more from March through October (Figure 3; right image). Intermediate GDD accumulations between 2500 to 4000 occurred in the western valleys of Oregon, eastern Washington and Oregon regions, and the Snake River Valley and Lewiston regions of Idaho. Portions of the Willamette Valley and Puget Sound and valley extensions in many regions saw GDD values between 2200 to 2500.

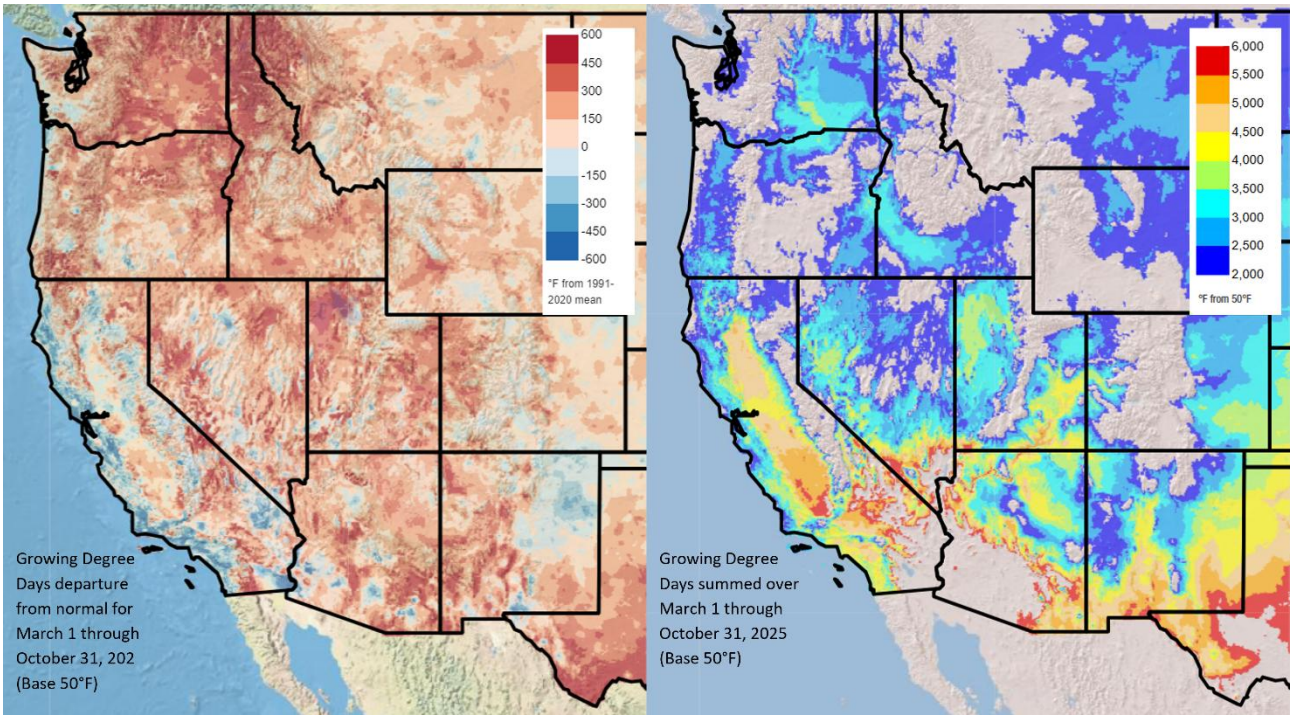

Figure 3 – Western US March through October 2024 growing degree-day departures from the 1991-2020 climate normal (left panel) and total growing degree-days summed during the same time period (right panel) (images from Climate Impacts Research Consortium, University of Idaho). Note that in the right panel, areas with GDD less than 2000 or greater than 6000 are not shown.

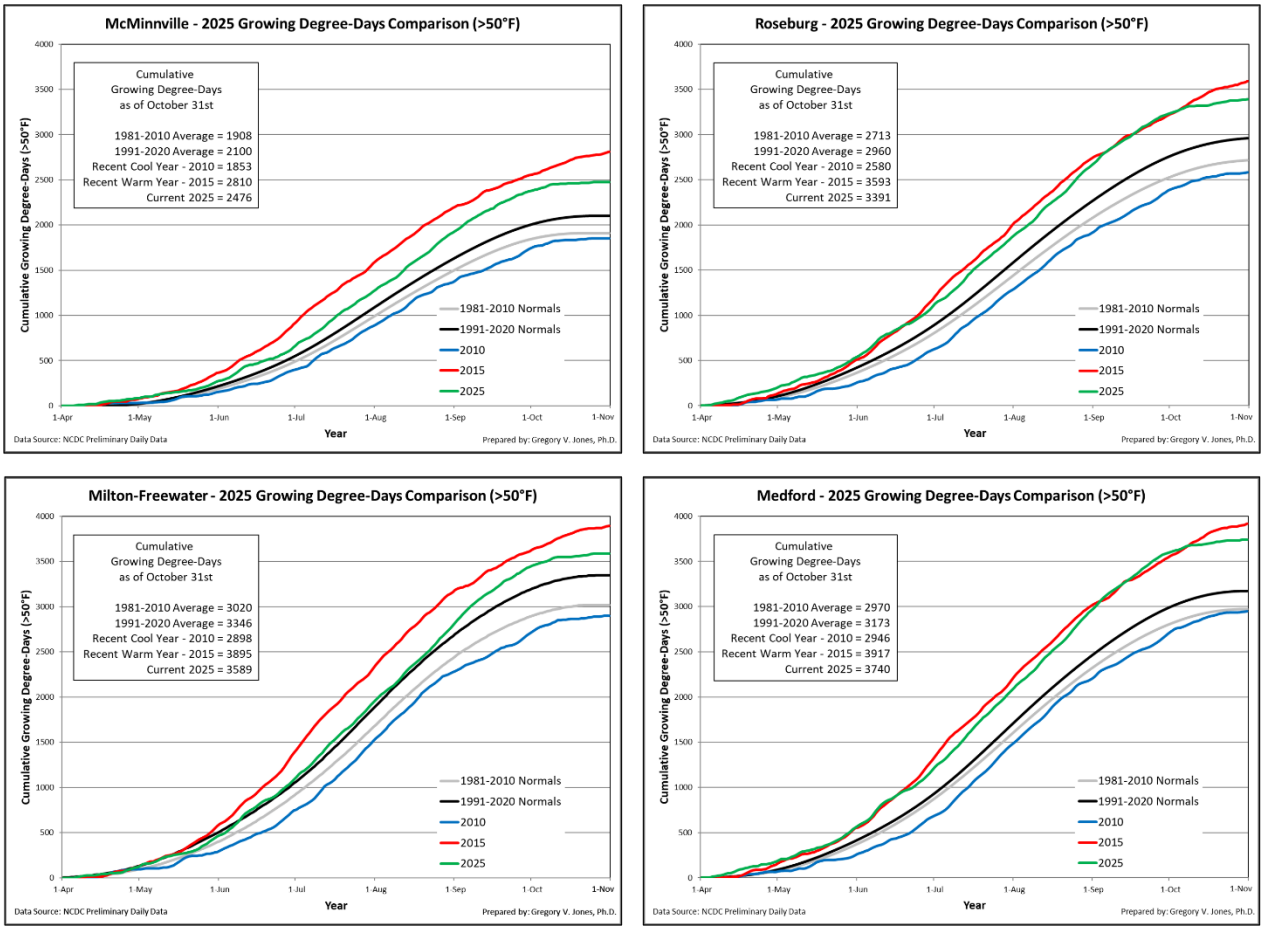

Figure 4 – Cumulative growing degree-days (base 50°F, no upper cut-off) for McMinnville, Roseburg, Milton-Freewater, and Medford, Oregon. Comparisons between the current year (2025) and a recent cool year (2010), a recent warm year (2015), and both the 1981-2010 and 1991-2020 climate normals are shown (NCDC preliminary daily data).

Examining the end of season growing degree days for stations in the four main wine regions in Oregon in Figure 4 reveals the relatively warm growing season with the Willamette, Walla Walla, Umpqua, and Rogue valleys seeing GDD 19-30% above the 1981-2010 climate normals and 7-18% above the 1991-2020 climate normals (Figure 4). These locations ended up 4-11% higher than the average over the last 15 years. Compared to the 2024 vintage, 2025 GDDs at these four locations ended up 2-9% above (in order of % above, Medford, Roseburg, McMinnville, and Milton-Freewater). The 2025 vintage ended up the 3rd warmest vintage in Milton-Freewater and Roseburg and a top 10 warmest vintage for McMinnville and Medford.

Drought Watch – Very little change over the last 30 days in US drought conditions, most of the change came from shifting intensity and less from changes in the spatial pattern of drought (Figure 5). Dry conditions continue across the Southwest into the Rockies, across to Texas into the Midwest, Great Lakes, Southeast, and New England. The overall drought footprint over the continental US remained close to 70% with the most extreme categories of drought dropping slightly to just over 20%. A wet October in most of the west (Figure 1) helped drought conditions in some areas but not much in others with the core area of drought continuing in the Southwest, Rockies, and inland PNW (Figure 5). The overall drought footprint in the west dropped by nearly 10% during October, ending at nearly 74%, with the most extreme categories also dropping to just over 33% of the western states. California's overall area in drought dropped in October to nearly 51% of the state, with the more extreme drought categories also dropping to close to 10% of the state now enduring more severe drought. Washington remained very close to 100% of the state in some level of drought, with the most extreme categories of drought dropping nearly 15% to just under 64% now. Oregon also experienced a drop in its overall drought footprint, with nearly 54% of the state in some level of drought now, and under 12% of the state now in the extreme drought categories. During October, Montana's overall drought footprint dropped slightly to nearly 69% of the state, with the extreme categories remaining at nearly 32% of the state. Idaho saw its drought footprint drop from 100% to 90% in October, with the most extreme drought categories at just over 46% of the state. (Figure 5).

The seasonal drought outlook continues to lean heavily on the forecasted La Niña conditions developing in winter, with a decline or improvement in drought in the PNW (Figure 5; right panel). Central to northern California, southeastern Oregon, and northern Nevada are forecast to remain out of drought heading into winter, while the rest of the Great Basin, central and southern Rockies, and the Southwest are forecast to remain dry. In addition, the area from Texas, across the Gulf Coast states into the Ohio River valley and southern Great Lakes, and along the east coast are forecast to see drought conditions persist or develop further during the first half of winter (Figure 5; right panel).

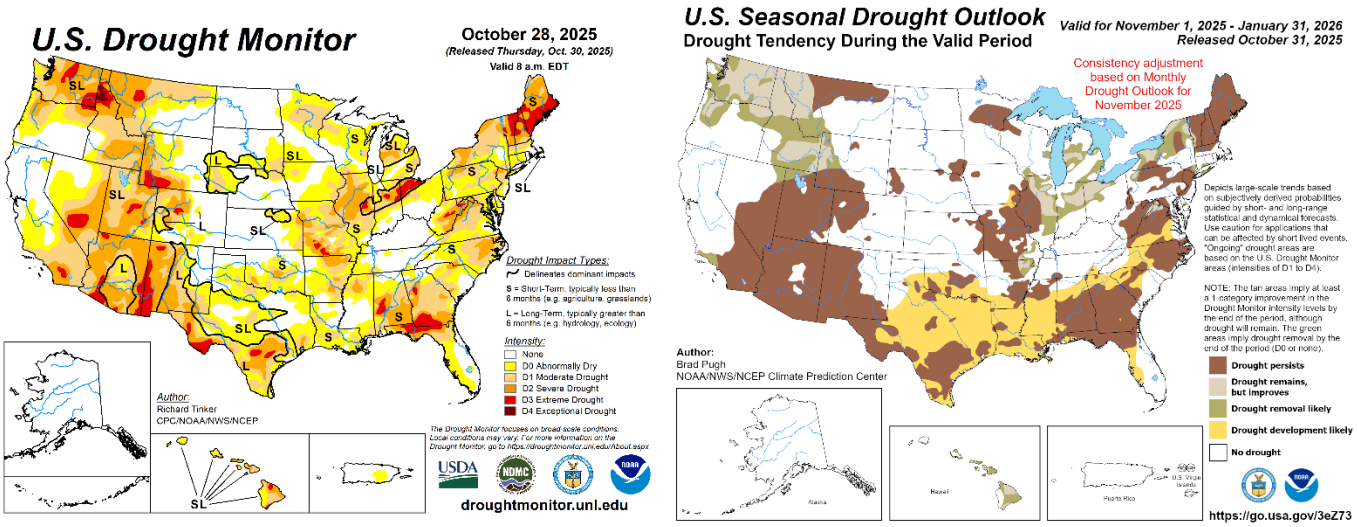

Figure 5 – Current US Drought Monitor and seasonal drought outlook.

ENSO Watch – Late October updates from numerous forecasting agencies, including the Climate Prediction Center, have indicated ENSO-neutral conditions are still present in the Tropical Pacific with cool but near average SSTs across the equator (Figure 6). However, the region is still exhibiting a gradual cooling trend, with the CPC noting the chances of La Niña developing during November-December at 65%, slightly down from a month ago. The CPC continues to have the ENSO Alert System in a La Niña Watch. Observations and modeling across numerous agencies also show changes in SSTs and tropical winds and other factors that favor La Niña developing during the first half of winter, after which it drops

closer to 50% with either neutral (57%) or La Niña (53%) nearly equally likely in the second half of winter and spring of 2026. Typically, La Niña conditions that last into winter have their biggest influence on U.S. weather, most often by shifting the jet stream northward. This shift in the storm track over North America typically brings wetter-than-normal conditions in the PNW. By contrast, it means drier-than-average conditions along the southern tier of the U.S., including central to southern California. Northern California is typically the tipping point where the effects can be similar to the PNW in some La Niña winters or similar to central to southern California in other years. These effects often are stronger when a La Niña is strong, but the CPC continues to think this winter's event is likely to be relatively weak.

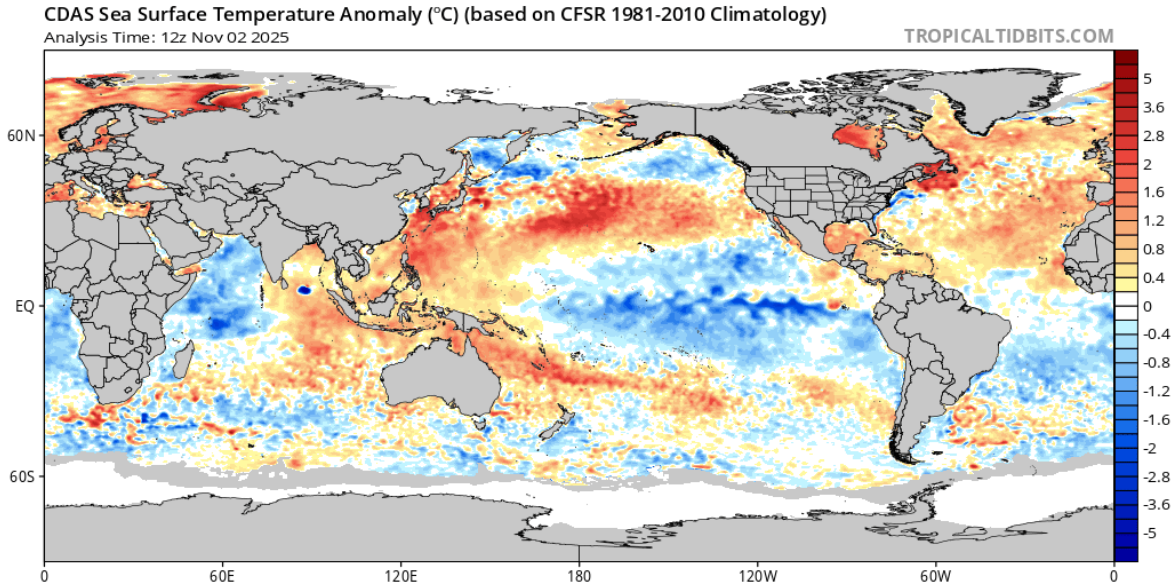

Figure 6 – Global sea surface temperatures (°C) for the period ending November 2, 2025 (image from Tropicaltibits.com).

North Pacific Watch – While there has been some cooling in the Gulf of Alaska, very warm SSTs continue to dominate most of the North Pacific (Figure 6). A vast region of anomalously warm offshore and nearshore ocean surface temperatures continues to cover much of the North Pacific with SSTs 2-6°F warmer than average over much of the basin, including along the west coast from Canada to Central America. The Pacific Decadal Oscillation (PDO) index remains in its negative phase, which it has been in for over six years now. Cooler SSTs in the North Pacific are now found in a portion of the Gulf of Alaska and from south of Hawaii to just off of Baja California. As we move into winter, the PDO's effects on North American weather become more evident. However, the shift from colder to warmer SSTs off the west coast has already warmed coastal temperatures and lowered the marine layer depth and extension along the coast of California. As such, I still expect warmer coastal temperatures as we head into winter, which could lead to more moisture available to storms coming in off the Pacific.

Forecast Periods:

Next 5 Days: Mild to warm start to the month in California with cooler conditions and rainfall across the PNW. The short-term forecast calls for much the same, although the frontal activity will shift a little further south, bringing cooler conditions and rain to the Bay Area. Rainfall amounts will be highest along the coast from Northern California into British Columbia. Temperatures likely near seasonal for most of the west coast but above normal in the Basin and Rockies.

6-10 Day (valid November 12-16): The forecast into mid-November is pointing to slightly above normal temperatures along the west coast to significantly warmer over the rest of the west and into the Mississippi River valley, where the forecast shifts to below average in the east. During this time, precipitation chances are elevated over most of the west, with the storm track dipping south into California. The south and east are forecast to see a drier than normal period, while New England should be closer to normal for this time of year.

8-14 Day (valid November 14-20): The ridging producing the warm conditions over the west in the previous forecast period shifts slightly eastward. The result is that the bulk of the middle of the country is forecast for above average temperatures during this forecast period. Temperatures along the west coast will likely shift to near normal or below normal; similar conditions are expected in New England. The western US is likely to see continued above average

precipitation with the storm track remaining further south than typical for this time of year. Portions of the mid-south are likely to see near normal precipitation, while the Gulf Coast and Southeast are forecast to remain dry.

30 Day (valid November 1-30): The fall forecast issued many months ago pointed to a cool and wet October, then a mild and wet November. The first part held for the PNW, and now the November forecast appears headed down the same path. Overall, the month is forecast to end up near average to warmer than normal with above average precipitation likely across the PNW, while most other areas have equal chances or below normal precipitation for the month (Figure 7). October temperatures are forecast to be warmer than normal for most of the country, except in the Southeast and along the east coast, where equal chances are given. A dry month is forecast for a large area from the Southwest across the Gulf Coast and extending into the mid-Atlantic. Equal chances of above to below precipitation are forecast for the heartland, while above average amounts are more likely in New England (Figure 7).

90 Day (valid November-December-January): The seasonal outlook for the first half of winter has much of the southern and central portions of the country likely seeing above average temperatures, with the greatest likelihood in the Four Corners region (Figure 7). For the PNW across the northern tier of states, the forecast is much less certain and is likely hinging on the strength and longevity of the currently developing La Niña. The situation is similar for the first half of winter precipitation, where the typical La Niña pattern of a wetter PNW and near average to drier than average California and Southwest is forecasted (Figure 7). Northern California is usually the spatial tipping point for ENSO effects, and it appears that forecasters are hedging bets on its effect this year as well.

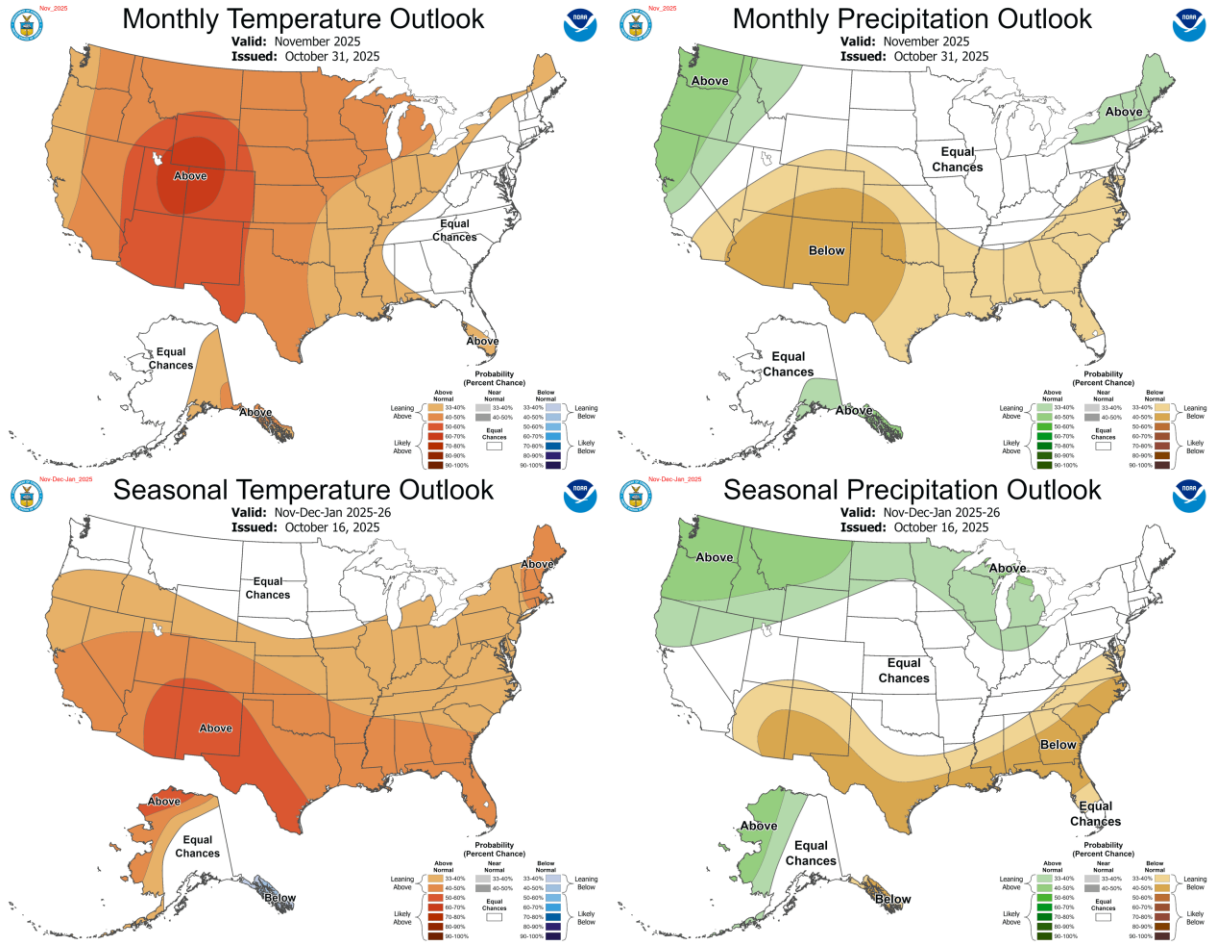

Figure 7 – Temperature (left panel) and precipitation (right panel) outlooks for the month of October (top panel) and October, November, and December (bottom panel) (Climate Prediction Center, climate.gov).

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