



National Significant Wildland Fire Potential Outlook

Predictive Services National Interagency Fire Center

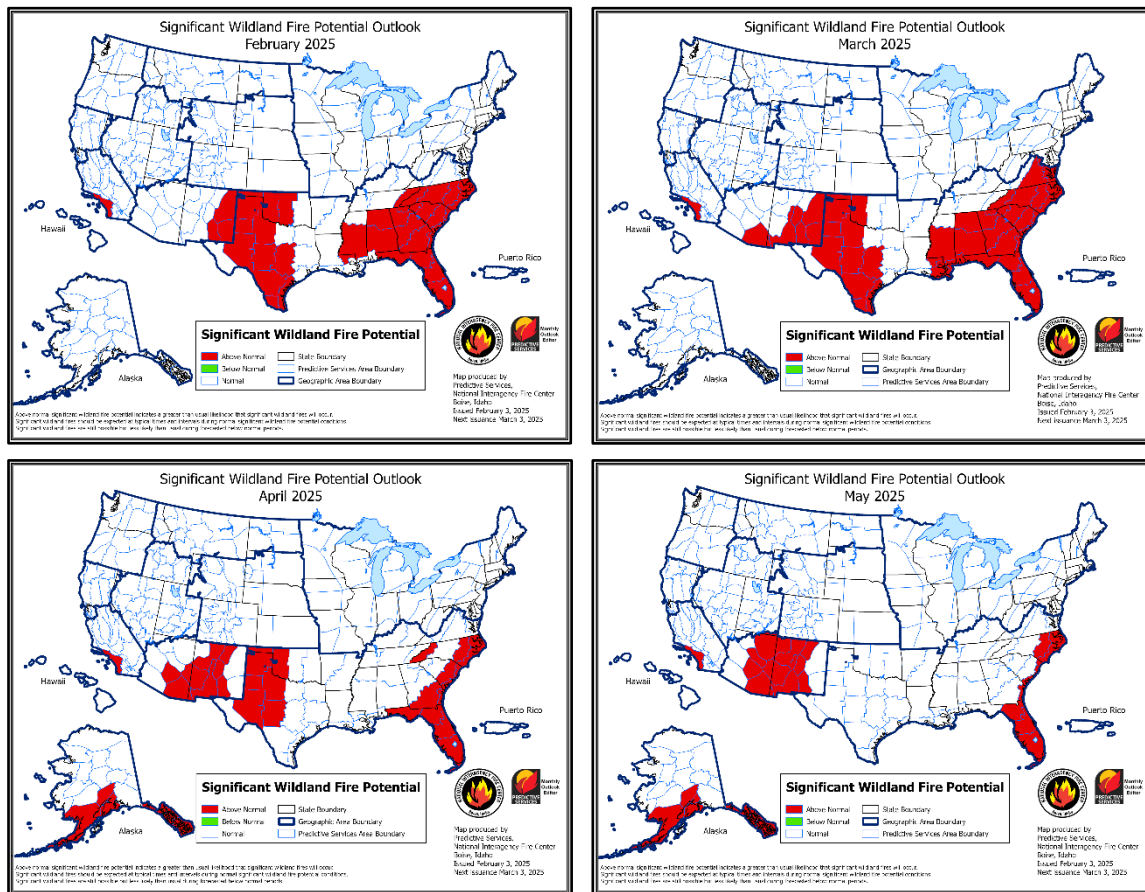


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Outlook Period – February through May 2025

Executive Summary

The significant wildland fire potential forecasts included in this outlook represent the cumulative forecasts of the ten Geographic Area Predictive Services units and the National Predictive Services unit.



Fire activity was at low levels overall across the US in January, but a series of strong Santa Ana wind events in southern California resulted in a significant escalation in activity there. The National Preparedness Level increased to two (on a scale of 1-5) January 9 before returning to one January 28. The strongest of the Santa Ana wind events occurred January 7-10, resulting in the destructive Palisades and Eaton Fires, with additional smaller fires. Total acres burned through January of this year is well above the 10-year average at 293% of normal, with an above average tally of wildfires of 155%.

January was generally a dry month across much of the US, with the areas of above normal precipitation from the Continental Divide into the adjacent northern and central High Plains, central and eastern Kansas, and central and South Texas. Well below normal precipitation was noted in much of California into the Great Basin and Southwest, where most areas received less than 20% of normal monthly precipitation with several locations receiving no precipitation. Very

dry conditions were also noted in portions of the Midwest, with little to no precipitation recorded from eastern South Dakota into southwest Wisconsin. Temperatures in January were below normal across much of the US, from the Intermountain West to the East Coast, with the only areas of above normal temperatures found in northern California and northern Maine. Drought marginally increased across the US in January, with notable worsening of drought in southern California, Arizona, and portions of central Texas. Drought development was noted in the Carolinas and Virginia, while slight improvement of drought occurred in the Northwest, New England, and the northern High Plains.

Climate Prediction Center and Predictive Services outlooks issued in late January depict above normal temperatures are likely during February from the Southwest to the Gulf Coast and Southeast, with below normal temperatures from the Northwest to the northern Plains. Precipitation in February is likely to be above normal for the northwestern US and from the Great Lakes to the Ohio Valley then southwestward into Arkansas. Below normal precipitation is likely for portions of the Southwest, West Texas, and Southeast. For March through May, above normal temperatures are likely from the Southwest into much of Texas, the Southeast, and East Coast, but below normal temperatures are likely from the Northwest to the northern Plains. Temperatures are likely to be cooler at the beginning of the period, with May more likely to be above normal for much of the country. Precipitation is likely to be above normal in much of the northwestern US and in the Great Lakes to start the period, before drying in much of the West and Plains by May. Below normal precipitation is likely in the southwestern US through the period, with wetter trends in precipitation for the Southeast this spring.

For February, above normal significant fire potential is forecast along the southern California coast, much of the southern Plains, and much of the Southeast from Mississippi and eastern Louisiana into the Carolinas, Georgia, and Florida. Similar areas of above normal potential are expected in March, with expansion into southern New Mexico, southeast Arizona, and much of Virginia. In April, many areas will return to normal in the Southeast except for the Atlantic Coast, North Carolina mountains, and Florida. Above normal potential will continue in much of central and West Texas, then across much of central and western New Mexico into southeast Arizona. Above normal potential will continue in southern California for April into May, with above normal potential forecast for Alaska's southwest, south-central, and panhandle regions in April and May, as well. Above normal significant fire potential will also continue in May along the southeast Atlantic coast, much of Florida, and from central Arizona to the New Mexico central mountains.

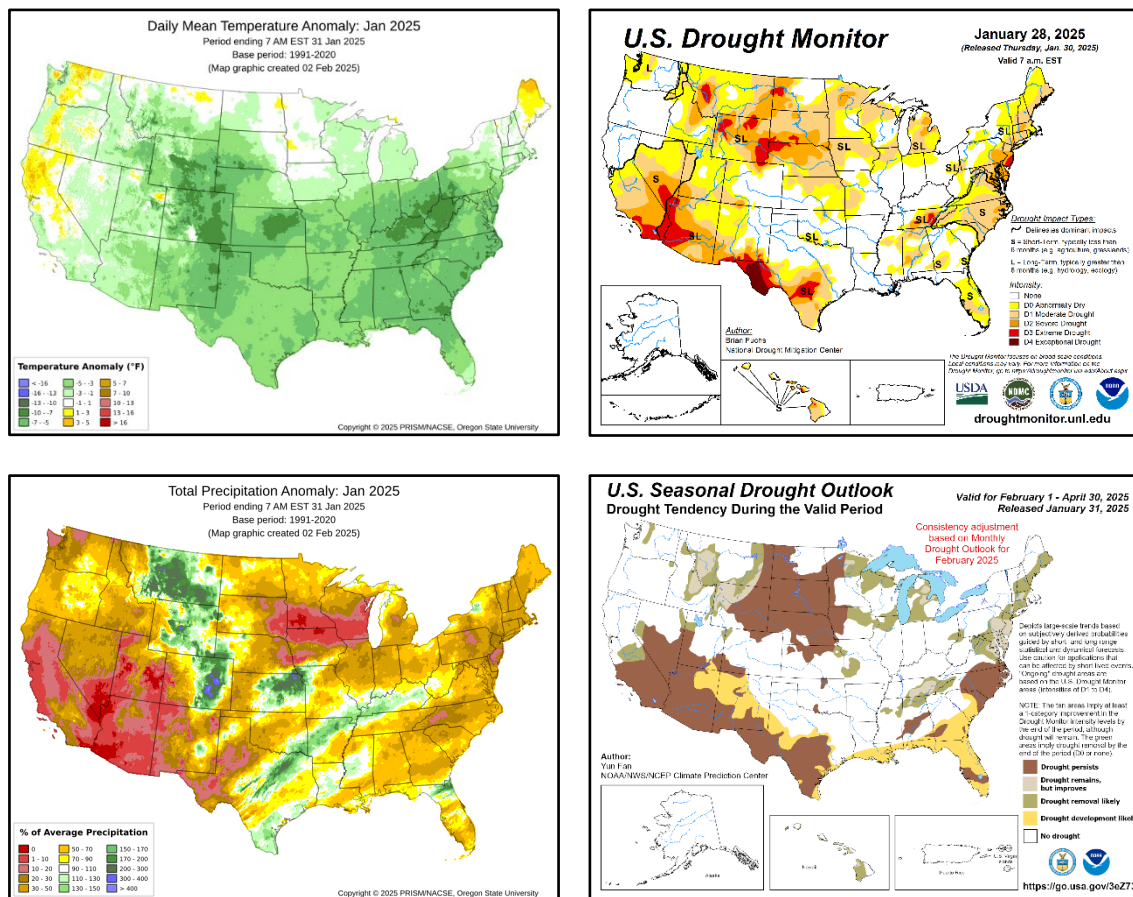
Past Weather and Drought

Below normal temperatures were observed across much of the US in January except for small areas of above normal temperatures in northern California, northern Maine, and the mountains of the Northwest. Temperatures were generally below normal in the valleys of the Intermountain West, with near to above normal temperatures in the mountains due to strong inversions. Temperatures closer to normal were observed in portions of the Northwest, northern Plains, and Northeast. Temperatures were near to above normal in Hawai'i, with well above normal temperatures in Alaska.

Much of the US received below normal precipitation in January, with above normal precipitation mainly limited to areas along the Continental Divide to the northern and central High Plains, central and South Texas, central and eastern Kansas, plus a small area of above normal precipitation in northern Florida. Precipitation was well below normal in much of California, the Great Basin, Southwest, and West Texas, as well as much of the Midwest. Precipitation less than 25% of normal was widespread across California, southern Nevada, Utah, Arizona, southwest Colorado, and portions of New Mexico to West Texas. Less than 25% of normal precipitation was also observed from eastern South Dakota and Nebraska to Lake Michigan. Precipitation in Hawai'i was below normal until a strong Kona low brought heavy precipitation from Oahu to the Big Island

at the end of January. Alaska precipitation was below normal across the Interior, but above normal in western Alaska to south-central Alaska.

Significant weather events in January included the strong Santa Ana winds in southern California January 7-10 when wind gusts to 100 mph were observed as relative humidity dropped to 5%. Numerous wildfires emerged, including the very destructive Palisades and Eaton Fires that collectively destroyed over 10,000 structures and resulted in 24 civilian fatalities. Two other notable Santa Ana events occurred January 12-15 and January 20-24 with wind gusts to 75 mph and relative humidity as low as 2%. Very cold, Arctic air spread across much of the US during January, resulting in well below normal temperatures from the southern Plains to the Southeast. The strongest winter storm in decades affected the Gulf Coast January 20-22, with 8 inches of snow falling in New Orleans, Louisiana, and up to 10 inches of snow falling in the Florida Panhandle.



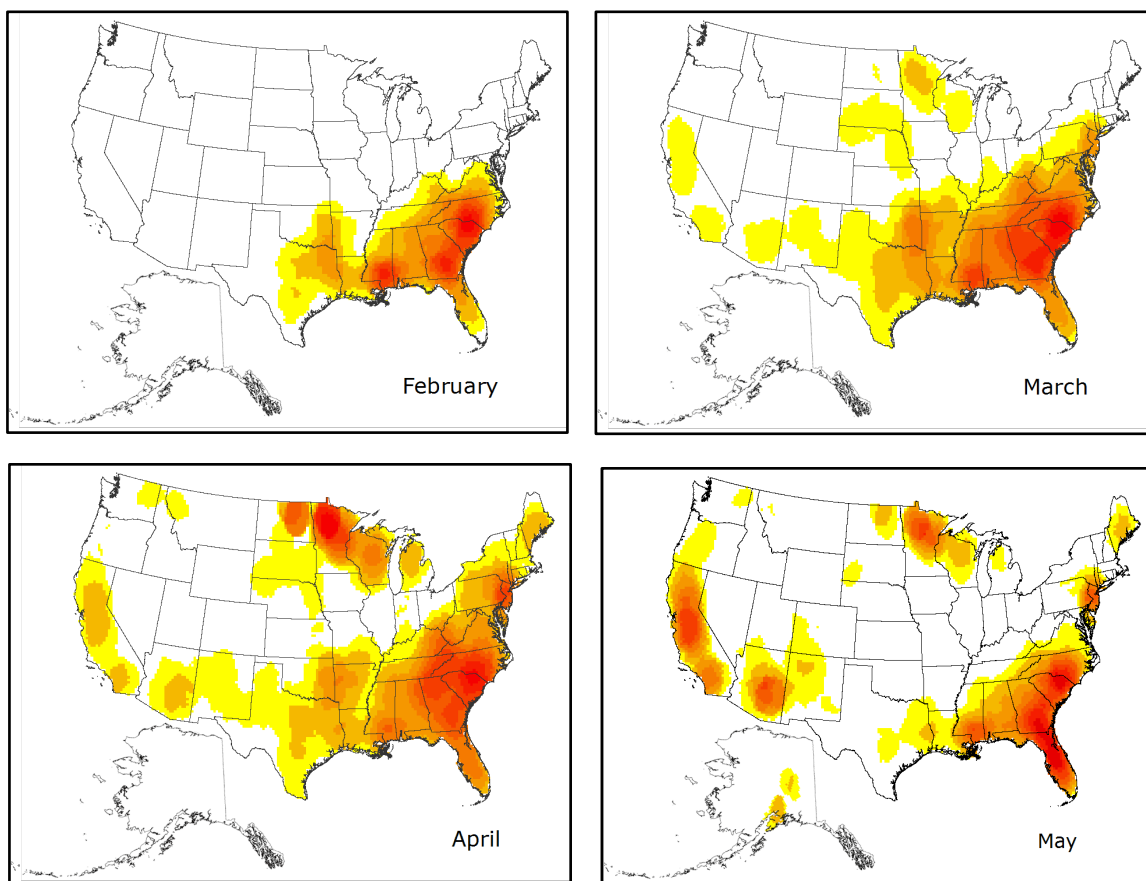
Left: Departure from Normal Temperature (top) and Percent of Normal Precipitation (bottom) (from PRISM Climate Group, Oregon State University). Right: U.S. Drought Monitor (top) and Seasonal Drought Outlook (bottom) (from National Drought Mitigation Center and the Climate Prediction Center).

Overall drought increased slightly since late December with nearly 40% of the US in drought. Drought development was noted in much of the Carolinas into Virginia, while the area of drought in Florida shifted southward from northern Florida in late December to portions of central Florida in late January. Drought intensified in much of the southern half of California into Arizona, with drought development in portions of the Four Corners. Small areas of drought improvement were noted in portions of Oregon, Washington, northern Idaho, the northern High Plains, and central New England. Extreme drought is noted in portions of southern California, the Lower Colorado River Valley, northern High Plains, western Wyoming, southern New Jersey, and eastern Tennessee, with exceptional drought noted in far West Texas.

Weather and Climate Outlooks

La Niña has developed in the equatorial Pacific Ocean, with rapid cooling observed in the central equatorial Pacific since mid-December. This La Niña episode is expected to remain as a La Niña Modoki and weak, with the coolest temperatures in the central equatorial Pacific. Sea surface temperature (SST) anomalies in the central equatorial Pacific are 0.5-1 C below average. La Niña is forecast to continue into March, with a transition to El Niño-Southern Oscillation (ENSO) neutral conditions forecast by the Climate Prediction Center this spring. A strongly negative phase of the Pacific Decadal Oscillation (PDO) is also expected to persist into the spring. The Madden-Julian Oscillation (MJO) continues to be active, with the active phase moving from into Indonesia and the Philippines the past two weeks. The MJO is expected to remain active into early February, with other active phases possible later this winter into spring. For this outlook, La Niña and the negative PDO are expected to be the main drivers, although shorter term fluctuations are possible due to any active MJO periods, but their location and intensity are difficult to forecast more than two to three weeks in advance.

Geographic Area Forecasts



Normal fire season progression across the contiguous U.S. and Alaska shown by monthly fire density (number of fires per unit area). Fire size and fire severity cannot be inferred from this analysis. (Based on 1999-2010 FPA Data)

Alaska

Alaska remains out of fire season through early March, with a chance of limited fire activity in late March and early April. Fire potential will be normal for the winter but will increase to above normal in April and May in parts of southern Alaska due to a low snowpack.

The US Drought Monitor identifies an area on the Yukon-Kuskokwim (Y-K) Delta as abnormally dry, with all other areas shown as normal. There is an established snowpack on the Y-K Delta, across the Interior, and the northern portions of the state. However, throughout much of Bristol Bay, south-central Alaska, and the panhandle, little to no snow is present. If this trend continues through the next two months, there is the potential for a busy start to the spring fire season across much of southern Alaska.

Climate Prediction Center graphics for the next few months show the likelihood of colder than normal temperatures in the panhandle and southeast Interior, and warmer than normal temperatures for the north and western part of the state. Precipitation forecasts indicate a greater chance of drier than normal conditions in the south along the coast, with wetter than normal in the northwest. This indicates a low snowpack is likely to remain for south-central Alaska, which includes the most heavily populated areas of the state. However, it is understood that one snowstorm in late March can reset the snowpack and suddenly reduce early season fire potential.

There have been no new fires for the month of January and that trend is expected to continue through February and most of March.

Fuels are frozen and covered with snow for most areas. Bristol Bay, south-central Alaska, and the panhandle have many areas with little to no snow. However, cool temperatures and a maritime environment will keep fuels too damp for significant burning from now through most of March. Of note, a significant wind event in late March to early April could lead to dry, flashy fuels subject to rapidly increasing fire behavior.

Alaska is out of fire season for the winter months. Small local fires are possible in areas with minimal snowpack around Bristol Bay, in south-central Alaska, and the panhandle, but any such fires will be confined to surface fuels as all duff layers are wet. As spring approaches, a lack of snowpack in those same areas may lend to an active early season, with higher fire potential for April and May. A dry period followed by strong wind events could lead to unusual early season large fires. The area of biggest concern will be south-central Alaska, where a large portion of the population lives.

Northwest

Winter seasonality indicates a normal or very low risk of new significant fires and costly activation of incident management teams across the Northwest Geographic Area.

Low pressure kicked off the year and brought moderate to heavy rain in early January, with snow at higher elevations. Upper-level ridging dominated the pattern the following weeks. Occasional upper-level low-pressure systems displaced the ridge but brought relatively meager precipitation. The last couple days of January saw low pressure return to the geographic area and bring moderate to heavy rain, with snow levels below 3,000 feet, after three weeks of dry weather. Though some windy periods occurred in January, overall conditions were relatively benign.

Mountain temperatures have been rather mild and ended a few degrees above average for January. Southwest Oregon coastal mountains were the warmest overall. Western valleys and the eastern basins generally finished the month a couple degrees below average due to strong inversions. The dominant high pressure aloft and dry air mass produced numerous nights of clear skies which allowed for strong radiational cooling and cooler air pooling in the lower elevations.

Precipitation was below average across the geographic area in January, and very little snowfall occurred. Total precipitation amounts were closest to average across the Columbia Basin at 80-90 percent of average. Most remaining areas were 40-80 percent of average. Western Washington received less than 40 percent of average with less than 20 percent of average precipitation falling across the Olympic Peninsula. The abundant snowpack, which began in December with most river basins exceeding 200 percent of median snow water equivalent at the start of the new year, ranged from 70 to 150 percent of the median at the end of January.

Despite the abnormally dry conditions, drought designations were further reduced through the month. The only areas remaining designated as under moderate drought are the spine of the central and north Washington Cascades and a portion of northeast Oregon in Wallowa County.

Long stretches of dry weather allowed for both broadcast and pile burning to occur across the Northwest in January, but initial attack activity remained minimal for the entire geographic area as very few wildfires arose.

The extended period of dry weather elevated Energy Release Component (ERC) values for most Predictive Service Areas (PSA) in Washington, with the northwest Washington PSA (NW01) approaching the 90th percentile by the end of January. Western Oregon ERCs also tracked above normal to near record values for the latter half of January, as did parts of eastern Oregon. As always, the drier rangeland fuels east of the Cascades have increased potential for single day burn events when aligned with wind and slope.

La Niña conditions are now present across the central Pacific Ocean with anomalies having remained at or below -0.5 C since early December. The latest weekly departure measured was -0.9 C. NOAA's Climate Prediction Center (CPC) forecasts maintain these conditions through April before warming back toward ENSO neutral conditions. La Niña conditions frequently favor cooler and wetter than average conditions for the Northwest Geographic Area, although these wetter conditions were absent in January.

Current weather models favor a return to a more typical active winter season weather pattern heading through the first part of February. The CPC's outlooks also continue to favor cooler and wetter conditions through May; however, the focus has shifted farther north to favor Washington versus Oregon. Confidence in those conditions remains in the 34-50% range. Oregon's outlook probabilities do not indicate any significant signals toward either warmer and drier or cooler and wetter conditions for the three-month period covering March through May.

The NWCC will maintain normal (very low to low) significant fire potential designations for all PSAs through the remaining winter and spring months. However, areas remaining in drought bear monitoring. Should drier than average conditions continue for these areas, future outlooks may need to be adjusted toward above average fire potential heading into the summer months. However, the return to a wetter weather pattern is tempering those concerns.

Northern California and Hawai'i

Significant fire potential is projected to be normal from February through May for northern California. Historically, an average of less than one large fire occurs per Predictive Service Area (PSA) February through May. Hawaii's significant fire potential is also forecast to be normal from February through May.

Precipitation was largely confined to the beginning and very end of January due to atmospheric river events; otherwise, persistent dry weather occurred most of the month due to a blocking high-pressure ridge. Precipitation anomalies were well below normal. Average temperature anomalies were mixed, but above to well above normal readings were found across most of the area. Several frost and freeze events occurred due to extended periods of very dry air and high stability. A little over 100 lightning strikes were recorded January 3 and fell below the 2012-2022 January average of a little over 200 strikes. Numerous northerly and easterly dry wind events affected the region January 7-26. The strongest dry wind days occurred January 7, 20, and 25. The strong south-southwesterly wind days occurred January 3 and 31, accompanied with high relative humidity and precipitation.

Dead fuels started out moist but became unseasonably dry and more flammable as January progressed. The regional Energy Release Component (ERC) value never exceeded the 60th percentile, but the North Coast and Bay Marine PSAs exceeded the 60th percental and broke record highs for the time of year. Dormancy remained the dominant state for the woody fuels

although some species were in the green-up phase across the lowest elevations. Herbaceous green-up remained most pronounced below 3,000 feet while grasses were generally cured and dormant above that level. Drought conditions remained absent across northern California during January. Snow cover fluctuated early but gradually eroded as the month progressed, especially across the most exposed locations. Snow cover during most of the month was generally found above 4,500 to 6,000 feet in elevation depending on sheltering and aspect. Snow water equivalent values lowered from 95-165% of normal on December 31 to 60-95% January 29. The one-month evaporative demand drought index (EDDI) value on January 25 showed discernible short-term drought impacts across portions of northern California including the North Coast and northern Sierra Foothills.

Wildfire business noticeably increased after January 6 due to the extended dryness and multiple dry wind events. The daily average for reported wildfires rose to three compared to one during December and was above the January 2008-2024 daily average of two. Fire growth was limited with some individual fire reports of one acre. Some pile and broadcast burns were conducted during the month as conditions dried out, but several projects were put on hold due to many of the resources mobilizing to southern California to aid in fire suppression efforts there.

Northern California should experience various types of jet stream configurations during the next four months thus leading to mixed precipitation and temperature anomalies. Timely moisture intrusions, more precipitation, and cooler temperatures are expected during February compared to what occurred in January. The jet stream could become active over a broader area during March and provide cooler and moist conditions. The jet stream is then expected to take on a split configuration during April and May and produce above normal temperatures with mixed precipitation anomalies, but generally drier in nature. The wind patterns are likely to continue to fluctuate between stronger onshore and drier offshore patterns but more of the moist onshore influences are anticipated during the four-month period.

Based on the current fuel state and future weather predictions, normal significant fire potential is projected for the entire area from February through May. Historically this is a period with minimal large fire occurrence. The main part of the growing season is expected to develop earlier than normal, with herbaceous and woody green-up transitioning from the low to the mid elevations between March to May. Snow cover will help to mitigate fire danger across the upper elevations while timely moisture intrusions should keep dead fuel moistures from becoming critically flammable for an extended period. Noticeable herbaceous curing across the lowest elevations should occur during May and allow additional spread potential when gusty and dry winds are present.

Sea surface temperature (SST) anomalies surrounding the Hawai'ian Islands were a little above average during January. Average temperature anomalies were generally near to above normal. Precipitation anomalies were mixed thanks to precipitation activity picking up during the latter portion of the month. Drought severity fluctuated but all the islands reported some sort of drought category by the end of the month, favoring the leeward areas. A strong southerly wind event occurred January 30 and 31; however, no National Weather Service Red Flag Warnings were issued. There were no discernible large wildfires or hot spot areas based on January satellite data except for intermittent Big Island volcanic activity.

A weak, central Pacific based La Niña is expected to transition to neutral conditions by the latter portion of Hawai'i's wet season. Average temperatures during the next four months should generally be above normal. Near to above normal precipitation is expected with the windward sides benefitting the most. The better precipitation returns should reduce the drought severity throughout the islands and provide a more noticeable herbaceous green-up across the leeward areas compared to the sporadic nature observed through January. Accordingly, normal significant fire potential is expected February through May for Hawai'i.

Southern California

Since the start of the water year (October 1), all southern California has received well below average precipitation, with most areas receiving less than 25% of normal precipitation. Temperature anomalies have a large variance across the region. The coldest anomalies are in the high desert, while the warmest anomalies are across the south coast and Central Valley. January had numerous days of Santa Ana winds, which is likely attributed to the frequent cold outbreaks across the high desert from cold fronts dropping south through the Intermountain West.

La Niña conditions have persisted the past month in the equatorial Pacific as sea surface temperature (SST) anomalies have remained below normal.

The US Drought Monitor shows widespread drought of various degrees across southern California. Most areas are either in severe or extreme drought due to the prolonged dryness for the past ten months.

Fuel moisture had increased as of January 26 due to recent rain across the South Coast, Central Coast Interior, and Central Valley Predictive Service Areas (PSAs) with snow in the mountains. This has allowed for fuels to become less susceptible to ignitions for the next two weeks extending into February. There is a chance of another storm system moving across Southern California in early February, though confidence remains low. If the forecast changes toward a drier pattern, the fuels are likely to dry out and become more susceptible to ignitions once again. If the precipitation comes to fruition, fuels will remain unfavorable to ignitions for a longer period.

Live fuel moisture continues to remain well below normal due to the lack of precipitation over the past several months. Live fuel moisture is expected to increase in the short-term from the recent rain. However, long-term trends are less certain as there is a high degree of uncertainty with respect to how long this wetter pattern will remain.

Climate models suggest a weakening of the La Niña pattern and a transition towards an ENSO neutral pattern this spring and summer. The SST anomalies continue to remain warmer than normal off the California coast, which favors a weaker than normal marine layer influence during the second half of winter and in the spring. With the overall pattern still favoring La Niña, climate models also lean toward a drier than normal pattern for the rest of winter through the spring.

Drier than normal fuels are likely during this forecast period. One important thing to note is the fuel load is likely to be less during the late winter and early spring months since dry winters yield less of a grass crop. Therefore, above normal significant fire potential is likely for the South Coast PSA due to the drier than normal fuels forecast, with near normal potential for the remaining 15 PSAs.

Northern Rockies

Significant wildland fire potential in the Northern Rockies Geographic Area (NRGA) for February through May is expected to be normal. Temperatures were normal to below normal for January, and the beginning of February will maintain this trend. Localized regions exhibiting below normal snowpack and pre-existing soil moisture deficits raise concerns regarding potential dry conditions during the pre-green-up fire window from late March to April. However, forecasts for above-normal precipitation in February, coupled with below-normal temperatures, are expected to mitigate the dryness in these areas.

Drought improved in central Montana due to a heavy snow event January 10-12, which produced 10 to 20 inches of snow. Elsewhere throughout NRGA, changes in drought were very minimal. Extreme drought continues over parts of western Montana centered around Powell County, with moderate to severe drought extending into southwest Montana. Southeast Montana and southwest North Dakota continue to report extreme drought with most of the rest of eastern

Montana and western North Dakota reporting severe drought. Most of northern Idaho and northwest Montana and north-central Montana are reporting no drought or abnormally dry conditions.

Fuels are snow covered in a majority of the NRGAs. Moisture values in 1000-hour dead fuels are still below 20% in some locations, but trends indicate these values should climb in early February.

Little fire activity was reported throughout the NRGAs in January. Conditions in many areas were favorable for pile burning due to adequate snow cover.

A general northwest flow aloft supported by a weak La Niña is anticipated to be the favored weather pattern into the first couple weeks of February and beyond. This is a cool pattern for the NRGAs and can episodically provide snow for both lower elevations and the mountains. Snowfall amounts may not be adequate to reverse drought trends, but February snow can provide a buffer which limits fire potential into the start of spring. Extended forecasts do not indicate a flip to warmer and drier than normal conditions until the start of summer, so significant wildland fire potential is expected to be normal for this outlook period.

Great Basin

Fire activity is expected to be minimal heading into the spring as cool temperatures, long nights, and occasional precipitation continue across the area. A few lower elevation fires may pop up at times on windy days after prolonged dry periods in the spring in northern Nevada and southern Idaho where dormant fine fuel carryover from 2024 is above normal and not compacted by snow in many areas.

Temperatures in January were two to six degrees cooler than average in most areas of the Great Basin. Precipitation was well below normal in all areas. However, after a very dry December, far southern areas were particularly dry again throughout January with very little precipitation occurring. The snowpack gradually decreased due to the drier weather, but due to colder temperatures remained near normal in some areas of central and southwest Idaho and northern Nevada. Snowpack dropped to 55-70% in the Sierra, 70-80% across much of eastern Idaho, Wyoming, and northern Utah, and remains below 40% in the south. Drought has been developing over the last few months due to the very warm summer and drier than normal weather that has continued since summer in most areas of the Great Basin. Abnormally dry conditions cover much of the region, with areas of moderate to severe drought over portions of central and eastern Idaho, Wyoming, southern Nevada, and southern Utah. A few small pockets of extreme drought have developed in western Wyoming, southern Nevada, and northwest Arizona. Drought may intensify in portions of southern Nevada, Utah, and Arizona, but may improve over central Idaho and Wyoming as precipitation continues across the north through the winter months.

Fuels remain in dormancy as overnight temperatures have regularly dropped below freezing and often into the teens and twenties across most valley locations in the northern half of the Great Basin. Fuel moisture is well below normal in southern areas due to the exceptionally dry conditions of late. Dried and dormant grasses are still abundant over southern Idaho, northern Nevada, and northwest Utah. Prolonged dry periods followed by strong winds could still pose a wildfire risk along the Sierra Front and across northern Nevada into southern Idaho through the spring.

Fire activity remains minimal across the Great Basin, with prescribed burning ongoing.

The weather pattern will become more active in February across the northern half of the Great Basin with multiple storms bringing abundant precipitation. The heaviest precipitation is likely to target the Sierra into far western Nevada, with most areas over the northern half of the Great Basin receiving enough precipitation to keep fire danger low. Normal fire potential is expected across the Great Basin through May, which generally indicates few wildland fires. However, fire potential may occasionally increase for a burning period in March through May across northern

Nevada and southern Idaho if there are ignitions after prolonged warm and dry weather that coincide with gusty winds where dormant fine fuel loading is above normal. Heading into March and April, green-up will begin and generally keep significant fire potential low. March is expected to be cooler and wetter across much of the Great Basin, but drier and warmer weather could return for prolonged periods in April and May. We will monitor the weather pattern and fuel dryness closely in southern areas heading into May, as well as fine fuel compaction and new growth across the northern half of the Great Basin as this season could be another active season in some areas.

Southwest

Significant fire potential will be normal to above normal across the Southwest Area for the remainder of the winter through into the spring months. Areas of above normal significant fire potential will arise across much of the southern tier of the region and the eastern plains by late winter through the early spring. April into May, more regular dryness and above normal temperatures will lead to areas of above normal significant fire potential emerging for much of the remainder of the region.

The period from August through October was warmer than normal for the Southwest Area, with above normal precipitation limited to a small area from the Four Corners eastward across far northern New Mexico. The remainder of the Southwest Area experienced below normal precipitation August through October. November's weather patterns were more active overall, bringing widespread above normal precipitation across all areas along and east of the New Mexico central mountains, with near to below normal precipitation farther west. Most areas of the region were cooler than normal during November, with above normal temperatures confined to southeastern New Mexico. December was very mild regionally with below to well below normal precipitation area wide.

A continued shift in the equatorial Pacific sea surface temperature regime coupled with a frequently weakened polar vortex will likely play a large role in shaping the weather pattern for the rest of the winter into the spring. A La Niña Modoki has emerged the past few weeks and is likely to continue through at least February. This setup features cooler water in the central tropical Pacific and warmer than normal water across both the far western and eastern sections of the tropical Pacific Ocean. In addition, the Pacific Decadal Oscillation remains strongly negative despite weakening recently. These two factors in conjunction with recent developments of the polar vortex will greatly shape the rest of the winter and the spring season. Given the mentioned atmospheric features, it is likely strong negative height anomalies will develop centered from the Pacific Northwest eastward along the Canadian border with positive height anomalies over the Deep South overall through March. This pattern will more than likely translate to normal to above normal temperatures regionally with a drier than average focus for much of the region, especially for the eastern third of the region.

Using other historical setups as a guide, the month of December was expected to be mild and dry, and this turned out to be correct across the Southwest Area as an active storm track remained to the north and west across California and the Great Basin. January shifted to generally cooler than average with below normal precipitation for most areas. The month of February is expected to be drier than normal with high temperatures likely to be slightly above normal to well above normal. March will likely be more active with a wetter pattern to potentially impact much of California, the Great Basin, and the central and northern Rockies, with the northern half of Arizona also expected to experience normal to above normal precipitation. However, southern and eastern sections of the region are expected to remain drier than average. Snowpack is expected to be below normal regionally but could approach normal by late winter through March across northern Arizona.

As spring approaches, the La Niña Modoki is expected to quickly weaken and to turn back to ENSO neutral. High temperatures are expected to return to above normal by April and into May. Precipitation overall will continue to be drier than average regionally although the eastern half of

the region will more than likely end up drier compared to the western half in March due to the aforementioned storm track. Both April and May are expected to turn drier west of the Divide with some indications of an active dryline season across the eastern plains.

Periods of critical winds combined with low relative humidity are expected by late winter into the early spring focused along and east of the New Mexico central mountains. Areas of above normal significant fire potential are expected for the months of February into March across the eastern plains of New Mexico and will begin spreading farther south and west as well. By the month of May, above normal significant fire potential is forecast across most of the region.

Rocky Mountain

Significant fire potential remains normal through May across the Rocky Mountain Area. January was colder and drier than normal. Drought conditions largely remained unchanged. A weak La Niña has developed; however, the impacts will likely be not as significant because it is weak.

The weather pattern in January was cold, with temperatures 5 to 10 degrees below normal for much of the Rocky Mountain Area. The warmest areas over the last month where the Bighorn Basin in northern Wyoming and across south-central Colorado in the San Luis Valley, where mean temperatures were only a degree or two below normal. An Arctic outbreak in the middle of the month resulted in temperatures across the Rocky Mountain Area dropping into the teens and 20s below zero for several days, with some locations dropping below -40°F. Precipitation for January was a little more variable across the Rocky Mountain Area. Areas along the Front Range in Colorado, north into the mountains of Wyoming, and into the Black Hills saw above average precipitation. The precipitation for the rest of the geographic area remained below normal in January, only between 10 and 30 percent of normal. Due to the lack of precipitation in January across southwestern Colorado, moderate drought conditions have developed.

Fuels remain dormant across the Rocky Mountain Area, with most fuel beds in Wyoming and Colorado being snow covered through January. The southern Black Hills and San Luis Valley saw fire danger indices that are well above normal, while the rest of the area was below long-term averages.

Wildfire activity was light the past month with most fires burning less than five acres, and much of the activity limited to the plains of South Dakota. A couple of these fires in South Dakota grew to 10 to 20 acres in relative light winds.

La Niña conditions have now developed. However, this La Niña event is likely to be weaker, resulting in limited impacts from the typical La Niña winter and spring patterns. Through the outlook period, expect the portion of the Rocky Mountain Area with above normal temperatures to increase, extending each month from southwest Colorado in February to all of Wyoming and Colorado by May. The area of below normal precipitation will also be increasing from south to north across Colorado and Wyoming through May. Additionally, a La Niña pattern may favor more wind events through the spring months, but these types of events are hard to predict and will be most impactful following periods of warm and dry weather.

Normal fire potential will continue through May throughout the Rocky Mountain Area. However, during short duration wind events there will be increased fire potential for a burning period or two, especially following warm, dry periods. There is some uncertainty with the strength of the dryness in the outlook for May, with the possibility for fire potential to increase as this becomes clearer.

Eastern Area

Normal fire potential is forecast across the majority of the Eastern Area through May. Longer term drought and 60-day negative precipitation anomalies persisted over portions of the Upper

Mississippi Valley, Great Lakes, and the eastern tier of the Eastern Area toward the end of January. Shorter term negative precipitation anomalies developed over much of the Mississippi Valley, the central Great Lakes, eastern Mid-Atlantic, and much of New England toward the end of January. Below normal snow depths were also observed across much of the northern tier of the Eastern Area toward the end of January.

The El Niño-Southern Oscillation (ENSO) shifted toward La Niña over the central Pacific through January, and it is expected to trend back towards a more neutral regime in the spring. Other sea surface temperature regimes also contribute to global weather patterns adding to some uncertainty in long term weather forecasts.

The Predictive Services precipitation outlook for February forecasts drier than normal precipitation over the central Plains into western Iowa and southwestern Minnesota as well as the far southeastern tier of the Mid-Atlantic. Near normal or wetter than normal precipitation is forecast over the rest of the Eastern Area in February. For March, drier than normal conditions are forecast over the Ohio Valley into much of the eastern tier of the Eastern Area, with wetter than normal conditions across parts of the Upper Mississippi Valley. Drier than normal conditions are forecast over western Iowa in April with wetter than normal conditions across portions of the Mid-Mississippi and Lower Ohio Valleys. For May, drier than normal conditions were indicated across the Mid-Mississippi and Lower Ohio Valleys, while wetter than normal conditions are forecast across the central and eastern Great Lakes down into the central and eastern Mid-Atlantic.

Below normal temperatures are forecast over the western tier of the Eastern Area in February and across the northern and eastern tiers of the Eastern Area heading in March. Below normal temperatures are expected over much of the Eastern Area in April with a transition towards above normal temperatures across the Eastern Area in May.

According to the latest NOAA Climate Prediction Center's (CPC) February temperature and precipitation trend outlooks, above normal temperatures are likely over the eastern tier of the Eastern Area with below than normal temperatures likely over the Upper Mississippi Valley. The CPC's seasonal outlook for February through April projects warmer than normal temperatures over the eastern tier of the Eastern Area with colder than normal temperatures over western Minnesota and far northwestern Iowa.

Below normal snowpack was observed across much of the northern tier of the Eastern Area toward the end of January. An earlier than normal start to the spring fire season with periods of above normal fire potential may occur over the northern tier of the Eastern Area unless snowfall frequency and amounts increase through the rest of the winter season. Below normal snowpack leads to the increased availability of surface fuels such as leaf litter and grasses heading into the spring fire season. With below normal temperatures predicted into April and above normal temperatures with above normal precipitation predicted in May, the transition into spring and potential for early green up will have important consequences for fire potential. Below normal temperatures have the potential to keep even the smaller snow amounts covering surface fuels and reducing potential. Fire potential is predicted to be normal for the outlook period. However, with areas of available surface fuels, any dry, warm, and windy periods may create periods of higher fire activity.

Moderate to significant precipitation deficits developed during the fall of 2024 across the eastern tier of the Eastern Area. Precipitation events increased over much of the Northeast and portions of the Mid-Atlantic through the end of November into the first part of December, curtailing fire potential. However, precipitation frequency, coverage, and amounts diminished once again over the eastern Mid-Atlantic and New England through the second half of December into January. Drier than normal conditions also prevailed over much of the Great Lakes during this time frame. Above normal precipitation is forecast over much of the Eastern Area in February. If this does not occur, periods of above normal fire potential may develop heading into the spring fire season. In addition, below normal snow depths were in place over much of the northern tier of the Eastern

Area towards the end of January. If snowpack does not increase over these areas through the rest of the winter season, an earlier than normal start to the spring fire season is likely. While acknowledging these uncertainties, the current expectation is for fire potential to remain near normal for these areas for the outlook period. The rest of the Eastern Area should experience near normal fire potential through the rest of the winter into the spring season outside of any warm, dry, and windy periods which may occur.

Southern Area

With only a few exceptions, namely in the eastern Plains and parts of the Mississippi Valley, meteorological winter so far has been unusually dry across the Southern Area. Although intermittent rain, ice, or snow, combined with a very cold January, limited evaporation from the surface layer, longer-term precipitation deficits are extremely concerning. Broad areas from the East Coast to the southern Appalachians and portions of the Gulf states are at least 6-12 inches below average for the latest 120-day period, with local estimates over east Tennessee, north Georgia and western North Carolina at least 12-16 inches below average. This is in stark contrast to the historic rainfall observed with Helene during late September. If soil moisture does not recharge as green-up takes hold, worsening drought and abnormally low live fuel moisture will likely contribute to increased fire occurrence and severity over the Southeast.

Precipitation more recently was also hard to come by over northern and western Oklahoma into West Texas, where 30-day precipitation is below 25% of normal, and these deficits look to continue to worsen in the coming weeks. Freeze-cured herbaceous fuels are widespread, while the areas of above normal grass loading in northwestern Oklahoma, central Texas and a smaller part of Deep South Texas are the areas of highest concern. Widespread areas of normal grass loading will also have the potential to contribute to significant wildland fire events during periods of high-end critical to extreme fire weather.

Drought has been gradually expanding over the Florida Peninsula, though heavy rain in northern parts of the state and far southern Georgia may have temporarily eased concerns there. Water levels in most areas are not yet a major concern; however, this may become more of an issue by late February into spring as increased sunlight and warmer temperatures take hold.

The combination of drought-, beetle- and hurricane-impacted fuels will continue to be concerns from portions of the Lower Mississippi Valley through the Southeast. Earlier in January, parts of southeastern Georgia already reported increased wildfires associated with Helene's impacts, and this will likely carry through the spring from the Florida Big Bend to the southern Appalachians. Extremely cold temperatures affected the entire Gulf Coast in January, except for southern Florida, but it is too early to say whether record cold in parts of the middle Gulf Coast will increase fuel availability there. Damage from ice storms is scattered across the region and could locally contribute to fuel loading and increased ignitions where debris burning occurs. Otherwise, freeze-cured grasses and forbs are likely to be the most widespread across the Southern Area in several years due to persistent frigid weather during portions of December and most of January.

Weather whiplash will lead to a dramatic reversal of temperatures from what was experienced during the start of the year. Widespread and persistent above normal temperatures will follow decadal trends in the Southeast, with a boost from La Niña and forcing from the Madden-Julian Oscillation likely to result in an extremely warm February. It is within the realm of possibility that portions of the Southeast and southern Great Plains may experience a top ten warmest February. Soil temperatures are chilly but should warm quickly with the expected pattern, and a large part of the geographic area has the potential to see an early green-up.

Seasonal model guidance is supportive of a typical La Niña pattern through April and possibly May, even with the expectation that ENSO-neutral conditions will eventually develop. High pressure aloft should dominate the southern and eastern US much of the spring, while troughing extends from southern Canada into the northern Intermountain West. There will certainly be the

potential for Arctic air to return at some point this spring. If late-spring freezes occur after an early green-up, some areas could go in and out of higher fire potential during March or April. Notable cold air outbreaks have occurred in several of the analog years in March, but overall, above normal temperatures are likely across the southern and eastern tier, at least in the seasonal averages. This is where drought is most likely to continue intensifying. Farther north, boundaries separating the warmer and colder air masses will likely result in a wet spring for the Mid-Mississippi and Ohio Valleys. It is not clear how expansive above normal rainfall will be, which leads to somewhat lower confidence in the eastern Plains, central Gulf Coast, and from the southern tip of the Appalachians to the Mid-Atlantic.

The expected pattern may also increase the frequency of high wind events across Texas and Oklahoma, and there continues to be strong support in model guidance for an unusually windy end to the dormant season.

Large parts of the geographic area are forecast to see above normal significant fire potential through the spring season, due to some combination of a dry late fall and winter, La Nina's warm and dry conditions, combined with impacts to fuels the last few years from historic drought, multiple hurricanes, and beetle kill.

The warmest periods in February may be accompanied by high relative humidity, limiting drying potential of fine dead fuels near the Gulf Coast and in the Southeast, but most other factors support occasional periods of above normal fire risks where rainfall deficits are the greatest. Overall, activity may skew earlier than normal if an early green-up does occur, particularly in hardwood-dominant areas. The most prolonged concern is likely to be over the coastal Southeast from North Carolina to Florida, though portions of the Plains with above normal grass loading could also carry later into the spring if insufficient rain occurs to prompt green-up. Rainfall deficits are especially concerning over North Carolina's organic coastal fuels, where lightning in the spring often leads to an increase in ignitions. Florida could also see similar trends if the next few months are as hot and dry as expected. Additionally, in the southern Appalachians where Helene's impacts were most severe, fuel loads, access issues, and wholesale changes to the landscape will likely make for a more challenging spring fire season than many have experienced.

Outlook Objectives

The National Significant Wildland Fire Potential Outlook is intended as a decision support tool for wildland fire managers, providing an assessment of current weather and fuels conditions and how these will evolve in the next four months. The objective is to assist fire managers in making proactive decisions that will improve protection of life, property, and natural resources, increase fire fighter safety and effectiveness, and reduce firefighting costs.

For questions about this outlook, please contact the National Interagency Fire Center at (208) 387-5050 or contact your local Geographic Area Predictive Services unit.

Note: Additional Geographic Area assessments may be available at the specific GACC websites. The GACC websites can also be accessed through the NICC webpage at:

<http://www.nifc.gov/nicc/predictive/outlooks/outlooks.htm>