National Significant Wildland Fire Potential Outlook

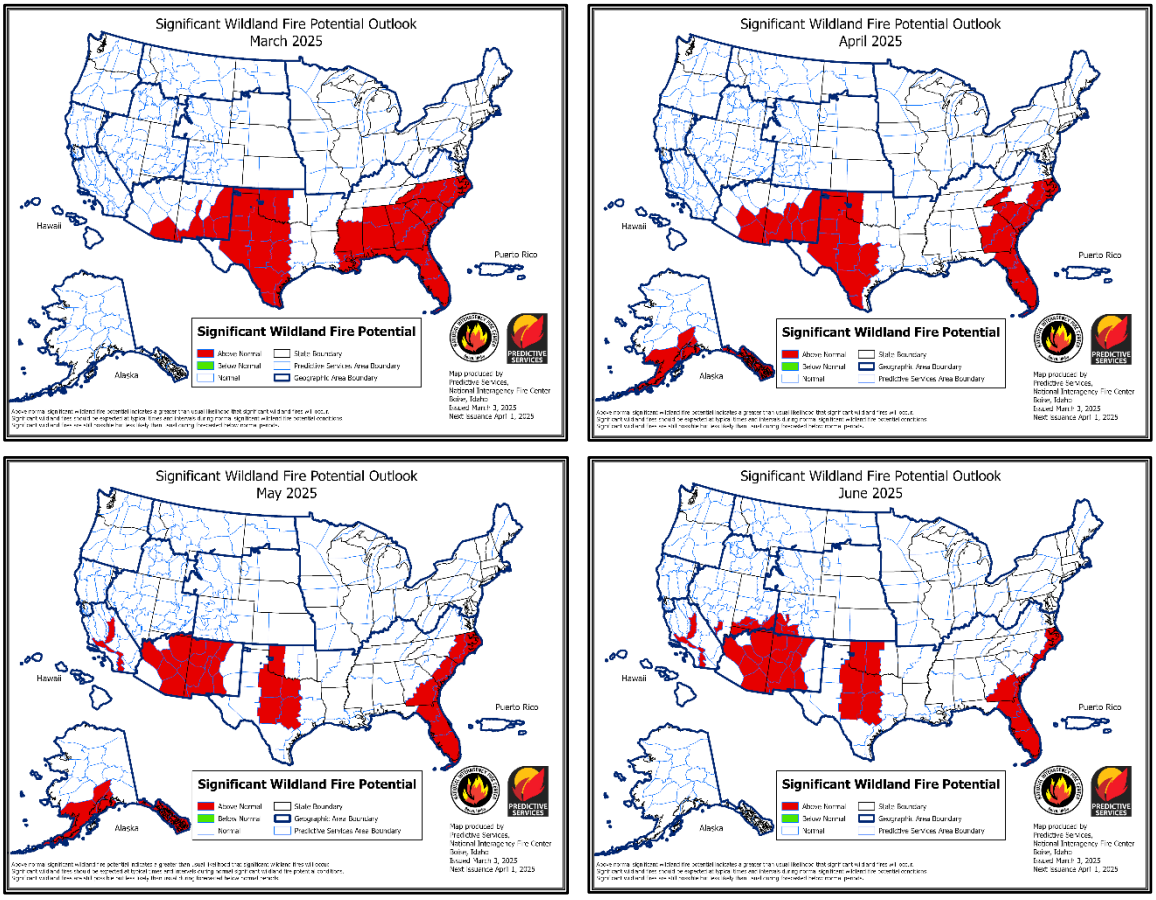
Predictive Services
National Interagency Fire Center

Issued: March 3, 2025
Next Issuance: April 1, 2025

Outlook Period – March through June 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 remained at low levels overall across the US in February as the National Preparedness Level remained at one (on a scale of 1-5), but fire activity increased significantly in the Southern Area at the end of the month, where the geographic area Preparedness Level increased to three the morning of March 1. The Southwest Area and Rocky Mountain Area also saw a modest increase in activity at the end of the month. Total acres burned through February of this year is very close to the 10-year average at 100% of normal, with an above average tally of wildfires of 116%.

February precipitation was generally above normal in the northwestern US, and from much of Kentucky into Virginia, and portions of the Northeast. Below normal precipitation was observed in much of the Southwest, southern Great Basin, and much of the Plains. Below normal precipitation was also observed in along the Southeast coast into much of Florida, except for near normal precipitation in portions of central Florida. Drought improved across portions of central and

southern California into the northern Rockies, with drought improvement also noted across the Tennessee Valley, central Appalachians, and portions of the Mid-Atlantic. Drought developed and/or intensified across much of the Southwest, southern Great Basin, and southern Plains. Drought also developed in portions of the Midwest, South Carolina, Georgia, and Florida.

Climate Prediction Center and Predictive Services outlooks issued in late February forecast above normal temperatures from the Southwest to the southern Plains and Southeast for March, with below normal temperatures for the northwestern US. Precipitation in March is likely to be above normal for the Northwest and northern Rockies, then from the Great Lakes south to the Ohio and Tennessee Valleys. Below normal precipitation is likely for much of the Southwest, southern Utah, southern Colorado, western Oklahoma, and much of Texas. For April through June, above normal temperatures are likely for much of the Southwest and Great Basin into the southern Plains, Southeast, and East Coast. Across the northern half of the West, temperatures early in the period are likely to be cooler, with above normal temperatures likely to spread across almost the entire West and Plains by June. Precipitation is likely to be above normal in the Great Lakes, Ohio Valley, and central Appalachians, but below normal precipitation is likely for much of the West to the High Plains, especially during May and June.

For March, above normal significant fire potential is forecast from southeast Arizona into southern and eastern New Mexico into much of Texas and Oklahoma. Above normal potential is also forecast from the Lower Mississippi Valley east into the Carolinas, Georgia, and Florida. Above normal potential will continue in much of Texas and western Oklahoma in April westward into southeast Arizona and much of New Mexico. Above normal potential is expected to contract in the Southeast to the Florida Peninsula, and from the southern Appalachians to the Atlantic Coast. Above normal potential is also forecast for April in much of southern Alaska continuing into May before returning to normal by June. Above normal potential is expected to persist through May and June across central Texas and Oklahoma, as well as along the southeast Atlantic coast into Florida. Above normal potential is forecast across most of the Southwest in May and June, as well as the Transverse and Peninsular Ranges of southern California and the southern Sierra. Above normal potential will also expand into the higher elevations of the southern Great Basin and southwest Colorado in June.

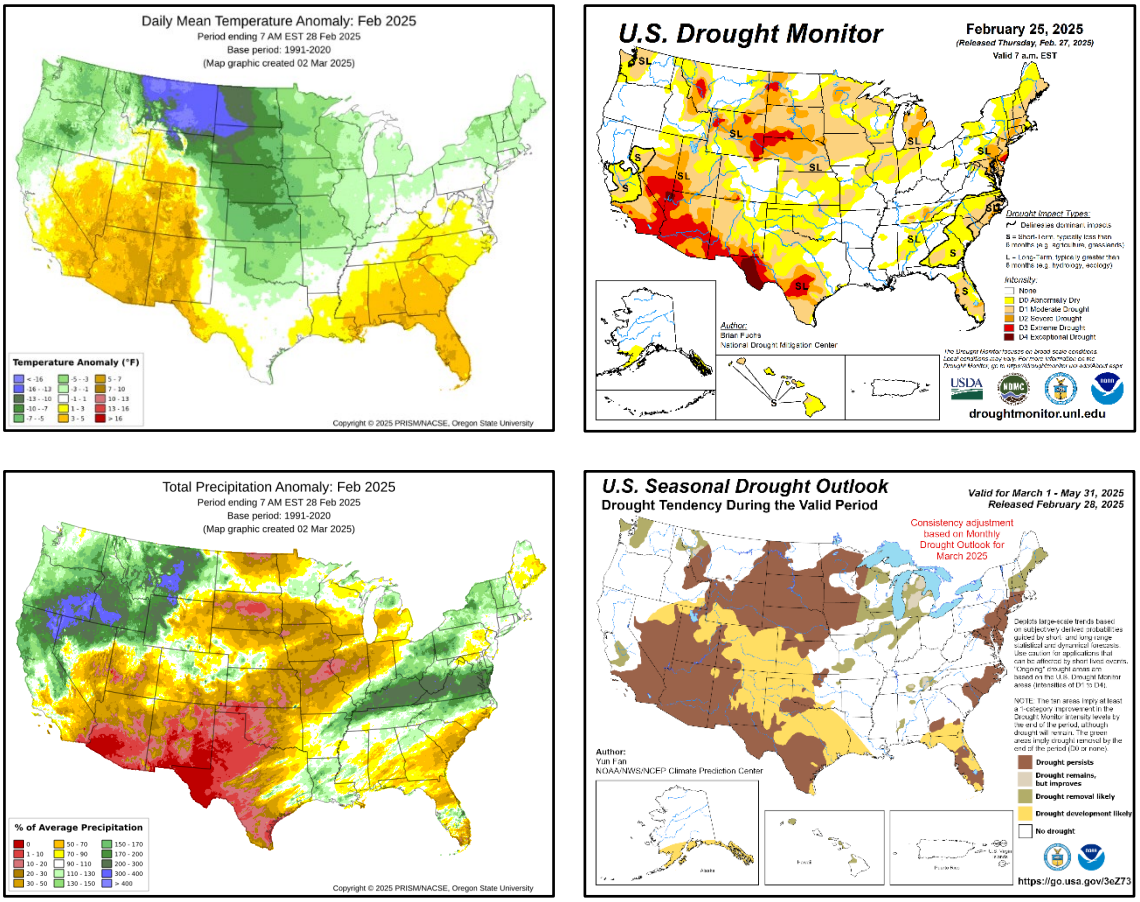
Past Weather and Drought

Temperatures in February were below normal across much of the northern tier of the US and much of the Plains as far south as North Texas. Temperatures in Montana into western North Dakota were as much as 15 degrees below normal for the month. Above normal temperatures were observed in southern California through Arizona, southern Nevada, and Utah into Colorado and New Mexico, west of the Divide. Temperatures were also above normal in the Southeast. Temperatures were near normal in most of Hawai'i, except for the Big Island, which was above normal, while temperatures in Alaska were within a few degrees of normal.

Precipitation across the US in February was above normal in the Northwest, northern California, and northern Rockies, but below normal for the southern Great Basin, Southwest, and southern Plains. Precipitation was also below normal for much of the northern Plains, Mid-Mississippi Valley, Lower Great Lakes, southern Atlantic Coast, and Florida. Above normal precipitation was also observed in much of Kentucky east into Virginia, with areas of above normal precipitation stretching north into Ohio, western Pennsylvania, northern/western New York, and Vermont. Smaller areas of above normal precipitation were also noted in portions of East Texas, Louisiana, and northern Colorado. Precipitation in Hawai'i was near to above normal from Oahu to the western half of the Big Island, but below normal for the eastern half of the Big Island and Kauai. Alaska precipitation was below normal, except for a small area of above normal precipitation across portions of the eastern Interior. Snowpack across the West is generally near to above normal for the northern half of the West, except in Washington to northwest Montana which is

slightly below normal. Snowpack is well below normal for the southern Great Basin, Southwest, and southwest Colorado.

Above normal precipitation in the northwestern US for February was the result of numerous landfalling atmospheric rivers at the beginning of the month. Combined with below average temperatures the first half of the month, snowpack significantly increased in the northern half of the West. However, a warm atmospheric river February 21-24 greatly eroded the snowpack below 5,000 feet, with areas of flooding in the lower elevations. An atmospheric river also moved through southern California February 12-13 with abundant precipitation, bringing an abrupt end to elevated fire danger. Temperatures the latter half of the month were above normal in the Southeast, which coincided with much drier conditions. Very low relative humidity for the area occurred at times February 23-28, with readings as low as 10% February 26 and February 28 resulting in a significant increase in fire activity. A breezy and dry northwest wind event February 24 across the central Plains also resulted in numerous large fires across Nebraska.



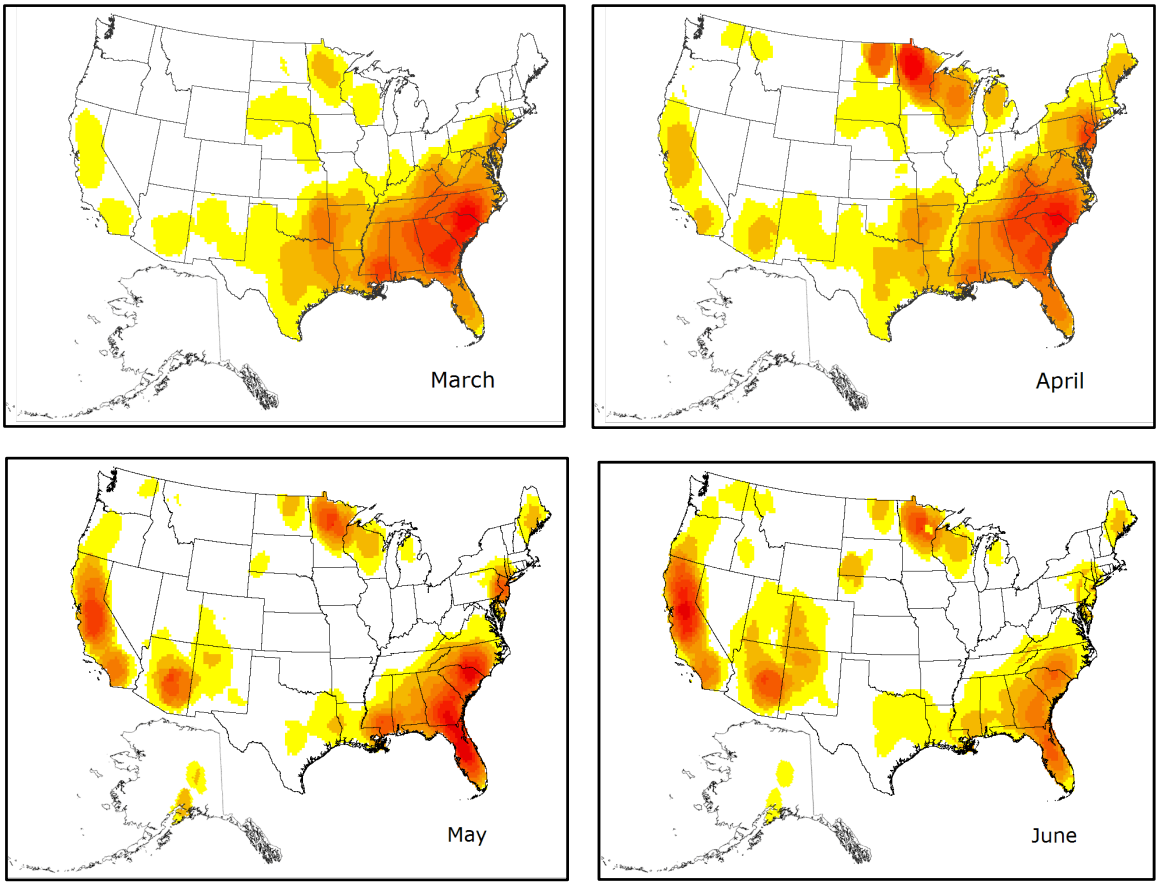
Left: Departure from Normal Temperature (top) and Percent of Normal Precipitation (bottom) *(from PRISM Climate Group, Oregon State University).* **Right: U.S. Drought Monitor (top) and Seasonal Drought Outlook (bottom)** *(from National Drought Mitigation Center and the Climate Prediction Center).*

Overall drought increased slightly since late January with nearly 42% of the US in drought. Drought development was noted for portions of the southern Plains, with expansion across much of the Southwest into the southern Great Basin and portions of the West Slope. Drought also expanded across portions of the Midwest, South Carolina, Georgia, and Florida. However, drought improved over the southern Appalachians into North Carolina and Virginia, with drought improvement also found from central and northern California north into portions of western Nevada, Idaho, and Montana. Extreme drought is noted in portions of southern California, much of the Mohave and Sonoran Deserts, southern New Mexico, far West Texas, and portions of central Texas. Smaller areas of extreme drought are noted in portions of southern New Jersey, Wyoming, the western South Dakota-Nebraska border, and western Montana. Exceptional drought persists in far West Texas and has emerged in far southeast Nevada.

Weather and Climate Outlooks

A weak La Niña continues in the equatorial Pacific Ocean as a La Niña Modoki, with the coolest temperatures in the central equatorial Pacific. Sea surface temperature (SST) anomalies in the central equatorial Pacific have been 0.5-1 C below average but have warmed the past couple weeks. 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, but this feature has also been weakening the past month. The Madden-Julian Oscillation (MJO) has been active this winter but is expected to be weaker for the next month and not impact this outlook. The La Niña transition to ENSO neutral conditions and the negative PDO are expected to be the main drivers of this outlook.

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 mostly out of fire season through March, with a chance of some fire activity in late March and early April. Fire potential will increase to above normal in April and May in parts of southern Alaska due to a low snowpack. By June, normal conditions are expected, which is traditionally the start of peak fire season in Alaska.

The US Drought Monitor identifies an area around Bristol Bay and Kodiak Island as abnormally dry, with all other areas shown as normal. There is an established snowpack across the Interior

and the northern portions of the state. However, throughout much of Bristol Bay, Southcentral, and the Panhandle, little to no snow is present, and below normal snow water equivalent is observed. If this trend continues into spring, there is the potential for a busy start to the fire season across much of southern Alaska.

Climate Prediction Center (CPC) forecasts for the next few months show the likelihood of colder than normal temperatures in the Panhandle and southeast Interior through March, and warmer than normal temperatures for the north and western part of the state. Precipitation forecasts indicate wetter than normal conditions are likely in the northwest. There is no model forecast to increase the snowpack across southern Alaska, leaving the most populated parts of the state vulnerable to early season fires. However, it is possible that one snowstorm in late March can reset the snowpack and rapidly reduce early season fire potential.

No new wildfires arose in the month of February and that trend is expected to continue through most of March.

Fuels are frozen and covered with snow for most areas. Bristol Bay, Southcentral, and the Panhandle have many areas with little to no snow, but cool temperatures and a maritime environment will keep fuels too damp for significant burning through most of March. However, a significant wind event in late March to early April could lead to increasing activity in dry, flashy fuels.

Alaska is out of fire season for the start of this four-month outlook period. Small local fires are possible in areas with minimal snowpack around Bristol Bay, Southcentral, 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 there, with above normal significant 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 Southcentral, where a large portion of the population lives.

Northwest

Early spring seasonality indicates a normal (low) risk of new significant fires and costly activation of incident management teams across the Northwest Geographic Area.

February brought a pair of cold then mild weather regimes across the Northwest Geographic Area. Colder low-pressure systems the first two weeks of February allowed for accumulating snow above 1,000-to-1,500-feet in elevation. This cold regime culminated mid-month and brought a brief period of snow accumulation to sea-level. In all, Oregon received more snow than Washington. The third week of February saw a milder sequence of Pacific storms, gradually eroding snow below 2,000 feet. An atmospheric river event and multiple storms from February 21-24 largely melted any snowpack increase from the prior weeks, especially in the lower elevations, and produced local flooding. The remainder of February finished with temperatures several degrees above average.

The cold conditions for the first two-thirds of the month resulted in significantly below average temperatures by month’s end. Many areas east of the Cascade Crest ended 6 to 10 degrees below average, with remaining areas at least a couple degrees below average. Only the more mild and above average days at the end of the month kept February from a much colder mean temperature. Total precipitation was split with the northwestern half of the geographic area receiving near normal precipitation, mainly due to the late month storms. The southeastern half received well above average rain and snow with large areas of southeastern Oregon exceeding 200 percent of average.

Snowpack conditions improved areawide and peaked on February 20, just prior to the warm atmospheric river period. Then the warm and windy conditions took a significant toll on prior gains. Washington basins mostly saw improvement over end of January values. Eastern Oregon basins

generally maintained well above average snowpack. The Cascades and westward had much greater fluctuations but improved since the end of January. However, most lower elevation basins across western Oregon are struggling to develop any significant snowpack heading into spring.

Drought designations worsened for northwest Oregon and all of western Washington as the below normal rainfall and associated lower snowpack bring a concerning trend into the spring months. All other areas continue with no drought designation, aside from a small area of moderate drought continuing across Wallowa County in Oregon.

Initial attack activity remained minimal for the entire geographic area for February and prescribed fire implementation continued.

Periods of precipitation increased fuel moistures across the Northwest with many Predictive Service Areas (PSAs) returning to average values for the time of year. Energy Release Component (ERC) values for most PSAs have dropped to non-burnable levels. Drier rangeland fuels east of the Cascades always have increased potential for single day burn events during wind events when aligned with wind and slope.

Central Pacific sea surface temperatures currently remain below average but are now within 0.5 C of long-term average values. The Climate Prediction Center (CPC) forecasts a 66 percent probability the three-month average warms back toward ENSO neutral conditions during the March through May period. Such transitions have historically produced cooler and wetter spring months for the geographic area. Current medium and long-range deterministic weather models support that notion. Those models indicate a cooler and more active pattern with an overall increasing mountain snowpack through the month of March.

For the following three-month period of April, May, and June, CPC's forecasts do not indicate any significant signals toward either warmer/drier or cooler/wetter conditions. It will remain interesting to see if this winter's trend of a weak mid and lower slope snowpack continues through spring. That would remain historically consistent with past weak La Niña to ENSO neutral transitions.

The Northwest Geographic Area is expected to have normal (low) significant fire potential through June, with confidence running at 70 to 80 percent that significant fire activity will remain suppressed given current and expected wildfire conditions. However, confidence is much lower for June due to the lower elevation snowpack and potential for earlier green-up, which often leads to earlier fine fuel receptiveness.

Northern California and Hawai'i

Significant fire potential for northern California is projected to be normal from March through June. Historically, large fires are uncommon from February through May, averaging less than one large fire per Predictive Service Area (PSA). During June, generally one to three large fires occur per PSA except for the North Coast and Far Eastside, where the monthly average remains less than one. Hawaii's significant fire potential is normal from March through June.

Several atmospheric river events during February lead to widespread and abundant precipitation. Precipitation anomalies were generally above to well above normal, although a few small pockets of near normal occurred. Average temperatures were generally near to below normal, with the strongest cool signal found across the northern tier. Around 100 lightning strikes were recorded in February, which fell below the 2012-2022 average of a little under 250 strikes for the month. Three northerly to easterly dry wind event periods affected the region in February and were generally weak to locally moderate in strength. Several gusty to strong south-southwest wind days occurred due to the heightened atmospheric river events, but these were generally accompanied with high humidity.

Fuels were generally moist and less flammable during February. The regional Energy Release Component (ERC) value was either near or below average most of the month. Woody fuels remained in a dormant state across most areas, although initial green-up became more expansive across the lowest elevations. Herbaceous green-up remained most pronounced below around 3,000 feet, while grasses were generally cured and dormant above that level. Drought conditions remained absent across northern California during February. Snow cover fluctuated with the lower elevations observing snow earlier in the month, then erosion occurred the latter half. Snow cover was generally found above 4,300 to 5,500 feet in elevation, depending on sheltering and aspect by late month. Snow water equivalent values rose from 60-85% of normal January 31 to 80-110% of normal February 26. The one-month Evaporative Demand Drought Index (EDDI) value February 22 showed no discernible short-term drought impacts across northern California.

Wildfire business decreased during February due to the moist conditions. The daily average for reported wildfires dropped to less than one (compared to three fires per day on average during January), which was below the February 2008-2024 daily average of two. Fire growth was limited to less than an acre for most of the reported fires. Pile burning was sporadic and likely limited overall due to the weather conditions.

Northern California is expected to be unusually cool and moist during March and then trend warmer and drier the rest of spring into early summer as the jet stream becomes less influential. April is expected to be the key transition period when timely moisture intrusions and near to above normal precipitation can still be expected. The months of May and more so June are expected to trend unusually warm and dry for extended periods. Wind patterns are likely to continue to fluctuate between stronger onshore and drier offshore influences, but more of the moist onshore influences are anticipated during March and to a lesser extent April.

Based on the current fuel state and future weather predictions, significant fire potential is projected to remain normal for the entire area from March through June. Historically, March through May is a period with minimal large fire occurrence, with June being more active. Generally, one to three large fires occur per PSA during June, excluding the North Coast and Far Eastside where the monthly average remains less than one. The main part of the lowland growing season is expected to develop during March and April with curing likely to become more noticeable during May and continue into June. Transitional green-up will occur further up the slopes during May and June and provide a barrier to fire spread. Snow cover and moisture found within the snowpack is expected to be near to perhaps slightly above normal by April 1 or when it is typically at its peak level. Snow cover will serve as a barrier to fire spread across the upper elevations through the entire four-month outlook period as the snowpack erodes late spring into early summer. Conditions that support larger broadcast burn activity should be present during April and less so during May and especially limited during June. Extended periods of problematic, critically dry fuel moisture levels are unlikely prior to June. Future forecast trends for June will be monitored and may prompt adding above normal significant fire potential for northern California's lowlands if critically dry dead and cured herbaceous fuels line up.

Sea surface temperature (SSTs) anomalies surrounding the Hawai’ian Islands were above average during February. Average temperature anomalies were mixed, with near to below normal across most of the islands but above normal across the Big Island. Precipitation anomalies were below to well below normal. Drought severity lessened due to the late January significant precipitation event but remains across portions of most of the islands. Herbaceous green-up remains sporadic across the leeward sides. No National Weather Service red flag warnings were issued in February, and satellite data for the month showed no discernible large wildfires or hot spot areas other than volcanic activity.

A weak, central Pacific based La Niña is expected to transition back to a neutral state during the next few months. Average temperatures during the next four months should generally be above normal, while precipitation should be near to above normal as the wet season in Hawai'i transitions to the dry season. Forecast confidence has decreased due to less accurate precipitation predictions the past few months, but there should be enough timely moisture intrusions to keep the drought footprint on the minimal side during the next couple months. Herbaceous curing is likely as the dry season takes hold, especially impacting the leeward sides. Based on the weather projections and current state of the fuels, normal significant fire potential is expected for Hawai'i from March through June, contingent upon receiving more precipitation over the next couple of months.

Southern California

Since the start of the water year (October 1, 2024), all of southern California has remained well below average for precipitation. Most areas experienced less than 50% of their average precipitation since October 1 through the end of February. Temperature anomalies generally remained near to slightly above normal for most of southern California during February.

La Niña conditions have continued to persist for February, but slight weakening has occurred the past two weeks as warmer sea surface temperature (SST) anomalies are beginning to emerge in the far eastern equatorial Pacific off the coast of South America. Most of the central Pacific continues to remain anomalously cold, representative of a La Niña Modoki.

The US Drought Monitor depicts widespread drought of various degrees across central and southern California. Central California has areas experiencing moderate drought, mainly across portions of the Central Valley. Severe and extreme drought are more widespread across southern California with the drought worsening in the far southern portions of the state.

Recent rains, especially those received February 12-13, resulted in an increase in dead and live fuel moisture. However, the live fuel moisture remains well below average.

Climate models suggest a weakening of the La Niña pattern and a transition towards an ENSO neutral pattern this spring and summer. Sea surface temperature anomalies continue to remain warmer than normal off the California coast, which tilts the odds towards a weaker than normal marine layer influence during the second half of winter into spring. With the overall weak La Niña pattern forecast to transition to ENSO neutral, a drier than normal spring is slightly favored.

Drier than normal fuels are a bit more 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. Another important note is that drier winters support larger fuels, such as timber, to become more susceptible to ignitions during the late spring months and throughout the summer. Hence, there is a moderate likelihood of above normal significant fire potential for the Southern Sierra, Western Mountains, Eastern Mountains, and Southern Mountains Predictive Services Areas in May and June.

Northern Rockies

Significant wildland fire potential in the Northern Rockies Geographic Area (NRGA) for March through June is expected to be normal. Temperatures were well below normal for the first three weeks of February with a large amount of snow cover established over the region. February weather reduced drought coverage for portions of the NRGA, and March is expected to feature windows of unsettled weather that will slow drying as the region exits winter. This pattern supports a normal to below normal level of fire activity in the pre-green-up window that commonly occurs mid-March into early May. Long range weather outlooks indicate warm trends in late spring, but current alignment supports maintaining a normal outlook for June.

February was a cold month with above normal snowfall for southwest and central Montana. Normal snowfall fell in eastern Montana and western North Dakota. Northwestern Montana, northern Idaho, and northern North Dakota reported below normal moisture, but cold temperatures prevented drying. Northwest Montana is the one portion of the NRGA that experienced a one category increase in drought, but a significant portion of the remainder of the region experienced one category improvement. North Idaho and northwest Montana are reporting abnormally dry conditions to moderate drought. The rest of western Montana is reporting moderate to severe drought, with a pocket of extreme drought mostly in Powell County. Central Montana is reporting no drought with abnormally dry conditions to moderate drought along the Montana-Wyoming border. Eastern Montana and western North Dakota are reporting moderate to severe drought, with small pockets of extreme drought. Central and eastern North Dakota are reporting no drought in the north half and abnormally dry conditions to moderate drought in the south half.

Fuels are or were recently snow covered in a majority of the NRGA. Fuels are tracking near normal for 1000-hour fuel moistures. No wildfire activity was reported throughout the NRGA in February, but conditions were favorable for pile burning due to adequate snow cover.

Solid winter conditions in February and an unsettled start to March should keep fuels on the wetter side and unsupportive of fire for multiple weeks. Current model guidance for April does not show strong anomalies but above normal temperatures are being projected for May and June. May and June are historically low fire activity months for the NRGA due to fuel green-up. There is little evidence to indicate this trend will be disrupted, so normal significant wildland fire potential is projected through the outlook period.

Great Basin

Fire activity is expected to be normal heading into the spring as cool temperatures, periods of precipitation, and long nights continue across the area. Normal fire activity in the spring is typically low in the Great Basin. Some lower elevation fires may pop up at times on windy days after prolonged dry periods in April or May in northern Nevada and southern Idaho where dormant fine fuel carryover from 2024 is above normal and was not compacted by snow in many areas. Fire potential is expected to increase to above normal over parts of southern Utah, the Arizona Strip, and southern Nevada, mainly in the higher elevations where drought has increased and precipitation has been well below normal since last fire season.

Temperatures overall in February were 2-9 degrees above normal across the southern half of the Great Basin, the Arizona Strip, and eastern and southern Nevada. Above normal temperatures spread across all areas of the Great Basin for a few days in late February. Precipitation was well below normal over the past 30 days across the southern half of the Great Basin, although these areas observed light precipitation in mid-February. Precipitation was well above normal over the past 30 days across Idaho, Wyoming, northern Utah, and northern and western Nevada. The snowpack remained near normal over the northern half of the Great Basin throughout February, while a few areas of northern Nevada into western Idaho and Wyoming are above normal. Despite a couple significant storms in the Sierra, snowpack is slightly below normal. Southern areas of the Great Basin continue to see well below normal snowpack due to the very dry conditions the last few months. Drought continues to increase across the southern half of the Great Basin with severe to extreme drought across much of southern and eastern Nevada, western Utah, and the Arizona Strip. Moderate drought covers the rest of the southern half of the Great Basin. Moderate to severe drought persists over portions of central Idaho and Wyoming, with small pockets of extreme drought. Drought will likely persist in these areas of the northern Great Basin, although wetter conditions in March and possibly April may allow improvements in some areas.

Fuels remain dormant across most of the Great Basin. Dried, dormant, carryover grasses will still be abundant over southern Idaho, northern Nevada, and northwest Utah. Prolonged dry periods

followed by strong winds could still pose a wildfire risk in these areas later in the spring. Fire danger indices indicate drier than normal conditions in southern areas due to well below normal precipitation the past few months, but these levels are not critical at this time. Moisture forecast for the Great Basin throughout March will allow fire danger to moderate.

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

The weather pattern is expected to become more active in March across the Great Basin, with cooler temperatures and periods of wet weather. Normal fire potential is expected across the Great Basin through March and April, which generally indicates a low potential for wildland fires. However, fire potential may occasionally increase for a burning period later in April and May across northern Nevada and southern Idaho after prolonged warm and dry weather coinciding with or followed by gusty winds where fine dead fuel loading is above normal. In April, green-up will begin and generally keep significant fire potential low, aside from areas with above normal carryover dead fine fuel. The main concerns heading into May and June will be southern areas of Nevada, Utah, and the Arizona Strip in the mid to higher elevations. These areas have seen well below normal snowpack and precipitation over the winter, with increasing drought. Moisture will increase in March, possibly continuing into April, but unless precipitation is well above normal in the south during this period, fuels will dry out quickly in May and June. Moisture may increase in June in Arizona but may remain just to the south of the Great Basin with the potential for drier lightning into Utah and southern Nevada. Therefore, above normal fire potential is possible in southern areas by June. The weather pattern and fuel dryness will be monitored closely in southern areas into May to possibly add some areas of above normal fire potential by mid-May. Fine fuel compaction and new growth will also be monitored across the northern half of the Great Basin as this year could be another active fire season in some areas beyond June.

Southwest

Significant fire potential will be normal to above normal across the Southwest Area for spring through early summer. Areas of above normal significant fire potential will focus across the southeastern tier of the region in March, then spread farther northwest as spring slides into early summer. 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 of 2024 was warmer than normal for the Southwest Area, with above normal precipitation limited to a small area from the Four Corners eastward to the northeastern plains. The remainder of the Southwest Area experienced below normal precipitation August through October. November weather was more active overall with 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. December was very mild regionally with below to well below normal precipitation. January turned colder than normal for much of the area but was drier than average. Above normal temperatures were the theme for much of the region for February, with precipitation remaining below normal.

A continued shift in the equatorial Pacific Ocean sea surface temperature anomalies will likely continue to play a large role in shaping the weather pattern for the bulk of the spring months. A La Niña Modoki has emerged since late 2024 and is likely to continue to impact the weather pattern through March. This type of 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 will greatly shape the spring season. Given the mentioned atmospheric and oceanic features, strong upper-level troughing is likely to be centered near the West Coast during March, with upper-level ridging over the Deep South and northern old Mexico. This will more than likely translate to an active weather pattern for the early spring period in the Southwest, with periods of rain and higher elevation snow focused over the northwestern half of

the region. Milder, drier, and often breezy to windy weather will be favored across the southeastern half of the area, especially across southern and eastern New Mexico.

Snowpack is expected to remain below normal regionally but could improve modestly at higher elevations during early the early spring across the northern Arizona into northwest New Mexico.

As spring continues, the La Niña Modoki is expected to weaken quickly and return to ENSO neutral conditions. High temperatures are expected to return to above normal April through June. Precipitation is likely to shift back to drier than average conditions by mid to late spring. However, indications are of an active dryline season across the eastern plains, which likely portends to increasing periods of moisture and lightning outbreaks westward toward the Continental Divide by late spring. This would likely diminish significant fire potential east of the New Mexico central mountains later in spring.

Periods of critical winds combined with low relative humidity are expected in early spring focused along and east of the New Mexico central mountains. Areas of above normal significant fire potential are expected for the month of March across the southeastern third of the region and will begin spreading farther north and west as the spring goes on. Significant fire potential will continue to increase and expand nearly areawide as spring continues due to increasing high temperatures and expected drier than normal conditions. An early to on-time monsoon onset is expected in June to early July, with a possible focus along and west of the Divide for potentially above normal precipitation. Drier than normal precipitation is more likely along and east of the New Mexico central mountains as summer unfolds.

Rocky Mountain

Significant fire potential is expected to remain normal through May across the Rocky Mountain Area (RMA) with increasing fire potential for southwest Colorado for June. February was generally colder and drier than normal. Drought conditions have increased in western Colorado. Weak La Niña conditions continue but are forecast to end by May.

February saw a few periods with temperatures over 20 degrees above normal, contrasting with a week-long period when temperatures were 20 to 30 degrees below normal. Overall, February's temperatures across the RMA east of the Continental Divide were 5-10 degrees below average, while the West Slope of Colorado and southern Wyoming were generally 3-6 degrees above average. Precipitation in February was generally below normal across the region, with many locations 40-60 percent of normal. Portions of northern Colorado into southern Nebraska and northwest Kansas, then across Wyoming west of the Big Horn Mountains and Wind River Range were the one exception, receiving normal to above normal precipitation. The above normal temperatures and below normal precipitation across the West Slope of Colorado have resulted in increasing drought. Other parts of the RMA saw drought conditions remain the same as a month ago, with some improvement reported across western Wyoming and northwest South Dakota.

Fuels remained dormant across the RMA in February, with most high elevation fuels in Wyoming and Colorado being snow covered, supporting pile burning activity. The periods of warm weather quickly reduced snow cover across the lower elevations. This resulted in fuels east of the Continental Divide becoming more receptive, with fire danger indices increasing through February. At the end of February, the southern Black Hills and San Luis Valley have fire danger indices well above normal, while most other areas have fire danger indices that remain mostly below long-term averages for this time of year.

The RMA had minimal initial attack in February, with most reported fires remaining less than five acres in the plains of South Dakota and the lower elevations of Colorado. The largest fire was a 50,000-acre fire in central Nebraska February 24 that arose on a windy day across much of the RMA.

Weak La Niña conditions continue but are forecasted to end by May. Through the outlook period, the portion of the RMA with above normal temperatures is forecast to increase, extending each month from southwest Colorado in March to all but far eastern South Dakota by June. The area of below normal precipitation will also be increasing from south to north across the western two-thirds of the RMA through June. Early spring is typically when most of the wind events across the RMA arise, and these produce increased fire potential for one to two burning periods.

Significant fire potential for the RMA will remain normal through May. However, short duration wind events will increase fire potential for a burning period or two, especially following warm, dry periods. With the lower snowpack and drought conditions anticipated to continue in southwestern Colorado, fire potential there will increase to above normal in June as fine fuels become receptive earlier than normal.

Eastern Area

Normal significant fire potential is forecast across the majority of the Eastern Area through June. Longer term drought and 30 to 60-day negative precipitation anomalies persisted over portions of the Upper Mississippi Valley, eastern Mid-Atlantic states, and the Northeast toward the end of February. Shorter term negative precipitation anomalies developed over parts of the Mid-Mississippi Valley and the western Great Lakes. Below normal snow depths were observed across much of the northern tier of the Eastern Area toward the end of February.

The El Niño-Southern Oscillation (ENSO) remained in a La Niña regime over the central Pacific through February and will likely trend back towards a more neutral regime this 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 March forecasts drier than normal conditions over the north central Great Lakes as well as much of the southern and eastern tiers of the Eastern Area. Drier than normal conditions are forecast over the western Mid-Mississippi Valley in April with above normal precipitation over the southern Mid-Atlantic states and northwestern Minnesota. Drier than normal conditions are forecast over the Mid-Mississippi and Lower Ohio Valleys in May with above normal precipitation across the central and eastern Great Lakes into the northern and eastern Mid-Atlantic states and southern New York. Wetter than normal precipitation is forecast across southwestern Minnesota, Iowa, far southeastern Missouri, far southern Illinois, as well as the central and eastern Mid-Atlantic states and southern New England in June. Drier than normal conditions are expected over the north central and northeastern Great Lakes in June.

Near to below normal temperatures are likely over the Eastern Area in March into May. A transition toward above normal temperatures is expected across the Eastern Area in May, persisting over the southwestern tier of the Eastern Area in June. Below normal temperatures are forecast over the northeastern Great Lakes, the Northeast, and the eastern Mid-Atlantic states in June.

According to the NOAA Climate Prediction Center's March temperature and precipitation outlooks, near normal temperatures are projected over the Eastern Area with near to above normal precipitation. The seasonal outlook for March into May projects warmer than normal temperatures over the eastern tier of the Eastern Area with near to above normal precipitation.

Well below normal snowpack remains across much of the northern tier of the Eastern Area this winter which will affect available surface fuels as we enter the outlook period that covers the pre-green-up fire season. Three fuels drivers are of concern: lack of snowpack means that grass and leaf litter may not be compacted and more available to ignition sources and drying; lack of snowpack and precipitation in general in 2024 and now the beginning of 2025 has not recharged lakes and ponds making lowland grasses and shore vegetation available to burn; and lastly these conditions could be combined with the "spring dip" in pine needle live fuel moistures that will occur

during the outlook period. An earlier than normal start to the spring fire season is possible with warmer temperatures quickly eroding what snowpack did exist this winter. The southern tier may experience an earlier than normal green-up, reducing fire potential even with above normal temperatures forecasted later in the outlook period. Periods of above normal fire potential are expected during any warm, dry, windy events in the Eastern Area, with the duration determined by the frequency of surface wetting precipitation events. Otherwise, fire potential is predicted to be normal for the outlook period.

Moderate to significant precipitation deficits as well as longer term drought were in place over portions of the Upper Mississippi Valley, Great Lakes, eastern Mid-Atlantic states, and the Northeast toward the end of February. If these areas do not experience an increase in precipitation events and amounts, these longer-term drought conditions will likely remain in place, creating periods of above normal fire potential. In addition, below normal snow depths were in place over much of the northern tier of the Eastern Area towards the end of February. 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 these concerns could prompt a shift to above normal significant fire potential for some areas, near normal potential is still forecast at this time, given overall uncertainty and time remaining for moderating weather events. More assuredly, the rest of the Eastern Area should experience near normal fire potential through the rest of the winter through the spring season outside of any warm, dry, and windy periods which may occur.

Southern Area

February saw considerable variability across the Southern Area, with widespread record warmth and high relative humidity early in the month giving way to another Arctic blast mid-month. Warm conditions returned in earnest to close out the month, but with continental air dominating the last couple of weeks, dormant, freeze-cured fuels have dried out rapidly in most of the region. A perusal of the Growing Season Index for various Predictive Service Areas (PSAs) revealed an abnormally early start to green-up across the southern tier, but sub-freezing temperatures set this process back in most areas by a week to ten days.

Flooding rainfall and snow melt over Kentucky and portions of Virginia have resulted in a slower start to their spring fire season so far, with above normal soil moisture lingering in the one to two-meter layer. While portions of the Gulf Coast have been wetter than average the past 30 days, longer term dryness remains evident from the Lower Mississippi Valley to the majority of Florida and the coastal Southeast. Rainfall deficits the past 120 days of at least 6-10 inches will maintain some level of risk until recharge occurs, with the coastal Carolinas into parts of southern Georgia and Florida of most concern.

Drought is quickly emerging or intensifying in Oklahoma and Texas, particularly where wetting precipitation has not occurred in at least 50-100 days. This underlying dryness may set the stage for a rapid onset of problematic wildfires, particularly in northwestern Oklahoma, the Texas Hill Country, and Deep South Texas, where grass loading is above normal.

Otherwise, impacts from hurricanes, ice storms, and severe weather the last five years, in addition to 2023's drought and pine mortality, all remain relevant for this outlook. The most notable concerns will be from Hurricane Helene's impacts across northeast Florida into southern and eastern Georgia, western South Carolina, the North Carolina mountains, and adjacent southwest Virginia into northeast Tennessee. Areas from the Florida Big Bend into southern Georgia also saw hurricane damage from Hurricanes Idalia in 2023 and Debby last year. Debris burning, access issues in the mountains, excess dead and increasingly fire-receptive fuels, along with newly opened canopies, will all contribute to enhanced wildland fire potential as long as the fire environment allows. Farther west in Alabama, Mississippi, and Louisiana, notable pine mortality occurred from historic drought in 2023 and subsequent beetle infestations. Hurricane Ida's damage in 2021 affected some of the same portions of eastern Louisiana and southwest Mississippi. Hurricane Laura farther to the west in 2020 could also bring some impacts to

Louisiana, but this area may be in line for more frequent storminess through spring and early summer.

Sea surface temperatures in the central tropical Pacific have been gradually warming but remain colder than average, while warmer water continues in the western and eastern Pacific. This is indicative of a central-Pacific-based, La Niña Modoki that may fail to meet NOAA's official criteria. Nonetheless, a La Niña Advisory continues, and February's weather has closely mirrored what we typically see in the Southern Area. Even as ENSO-neutral conditions set in this spring, this La Niña-like pattern should carry forward into March and April.

While cold weather will return to the Southeast and Mississippi Valley at times during the first half of March, abnormal warmth should tend to dominate our weather through the rest of the month, extending into much of April, May, and June. Confidence is highest in the potential for an historically warm spring over Texas and parts of Oklahoma, where previous analogs also suggest it is likely to remain dry. The combination of recent precipitation deficits and high vapor pressure deficits associated with the expected weather will lead to rapid drought onset and likely major impacts across portions of both states the next few months. The extent and duration of these conditions will be dependent on hard to predict heavy rainfall events that result in green-up. Without that, it could be a long summer across the Plains.

There is more variability year to year across the Southeast, which leads to some increasing uncertainty by May and June. Leaf out may still come early in hardwood forests if occasional bouts of rain and above average temperatures are the rule. Green-up may accelerate during the second half of March as consistent southerly flow prompts higher humidity and warmer nights. Meanwhile, last year's record oceanic heat has carried into late winter throughout the Caribbean and Gulf. This may contribute to rainfall occurring in short, intense bursts, while dense coastal fog, high humidity in periods of southerly flow, and substantial severe thunderstorm outbreaks all appear likely at times from March through May. Several of the analogs for this spring also featured early tropical cyclone development, which seems plausible with the amount of warmth in the Atlantic, but there is little skill in predicting whether this will occur and where any rain would alleviate drought or contribute to flooding.

Confidence is increasing in a high impact spring fire season across the southern Great Plains. The expected weather pattern and its impacts to the fire environment are of major concern, and at least weekly high-end wind events are plausible through March and April. Areas with normal and especially above normal grass loading will be most susceptible to unusually large fires. By May and June, wind-driven fire potential should decrease, but all signs point to early risks of triple-digit heat, which could be especially problematic near and west of the populous I-35 corridor if green-up is thwarted by persistent drought. Above normal significant fire potential could continue beyond March for South Texas, but confidence is lower, and returning Gulf moisture or monsoonal activity may bring beneficial rain later in spring or early summer. The Texas mountains are forecast to see normal conditions, with mostly below normal grass loading tending to negate impacts from exceptional long-term drought, even as lightning ramps up with the summer monsoon.

Areas from eastern Texas and Oklahoma into the Mississippi Valley are most likely to be wetter than average through May, while an early green-up could bring a quick end to the spring fire season in some of these areas. Below normal significant fire potential was forecast for Kentucky and far southwestern Virginia initially, where recent flooding and snow melt have limited activity during February. More frequent rainfall should return to these areas, limiting fire weather episodes for the most part. Periods of accelerated drying seem likely to occur, however, which may still result in normal activity for what is typically one of the busier parts of the geographic area. Normal significant fire potential is maintained from most of the Mississippi Valley into eastern Kentucky and Virginia through the period.

Farther south, pine mortality in eastern Louisiana, Mississippi, Alabama, and adjacent areas, along with fuel loads associated with hurricane debris and other storm damage are expected to tilt the odds in favor of above normal significant fire potential during March, with an early green-up currently expected to bring conditions back to normal heading into April.

Most of the rest of the Southeast will start March off with unusually dry fuels for this time of year. The highest significant fire potential is expected to occur from the Florida Big Bend into western North Carolina due to impacts from Helene or other recent hurricanes, in addition to the longer-term dryness that has been the rule since hurricane season. The timing for when conditions will improve is somewhat uncertain, but above normal significant fire potential is carried into April within the northern areas of Helene's footprint. Debris burning, increasingly receptive heavy fuels, and quick drying under newly opened canopies all could contribute to significant fire potential during hot and dry weather in late spring and summer, however.

Confidence is a bit higher for an extended period of above normal significant fire potential from the Florida peninsula into southern Georgia and the coastal Carolinas. Periodic rainfall will be counteracted by above normal temperatures and quickly receding water levels until the rainy season or tropical activity begins in earnest. Lightning ignitions will be especially likely if drought carries into May and June for the swamps and coastal areas of the Southeast.

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 Coordination Center at (208) 387-5400 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