



## National Significant Wildland Fire Potential Outlook

### Predictive Services National Interagency Fire Center

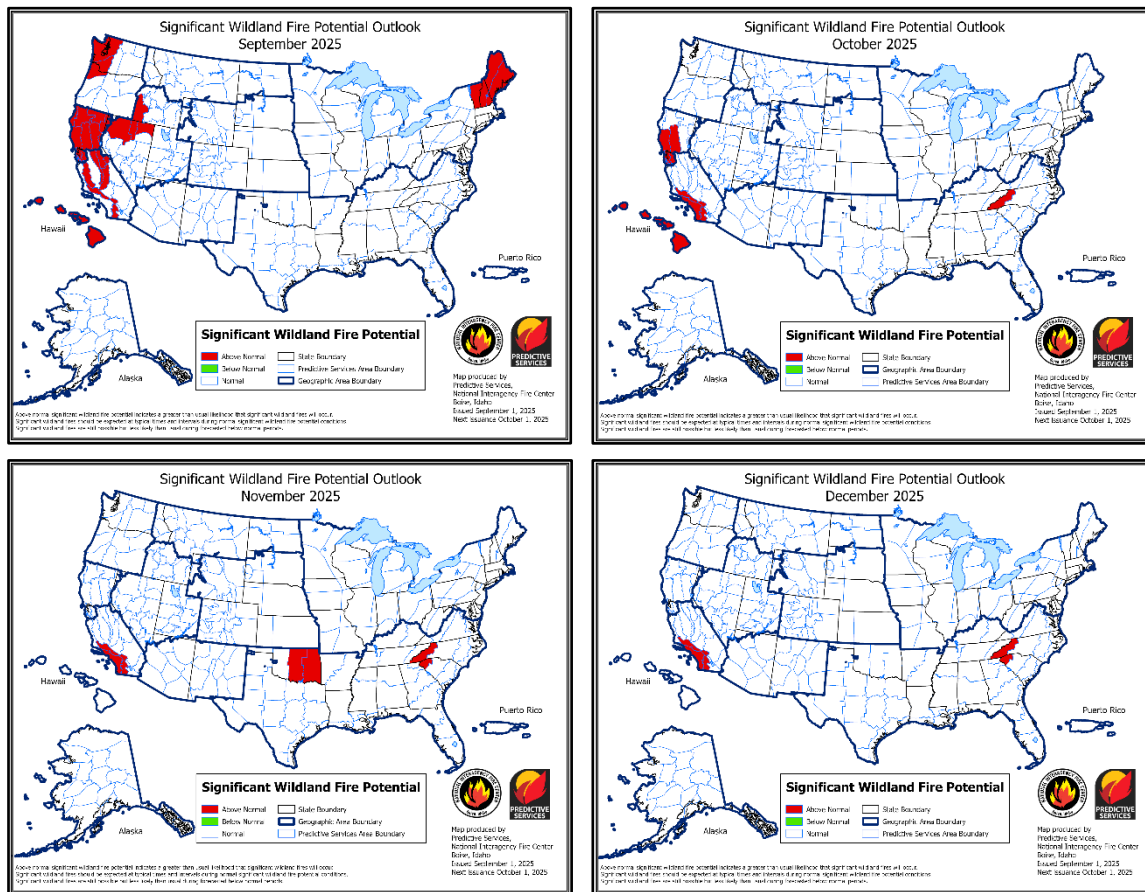


Issued: September 1, 2025  
Next Issuance: October 1, 2025

Outlook Period – September through December 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 increased across the US during the first three weeks of August, with the Rocky Mountain, Southwest, and Great Basin Geographic Areas having the most activity. The Northern Rockies also increased mid-month. Activity decreased in most areas at the end of the month, although California observed a modest increase in activity during this time. The National Preparedness Level increased to four (on a scale of 1-5) August 5 due to large fires in several geographic areas but was decreased to three August 30 due to the moderation in activity. Total acres burned through August is below the 10-year average at 76%, but with an above average tally of wildfires of 114%.

August precipitation was below normal across most of the Southeast and Four Corners, South Texas, and from the Mid-Mississippi Valley to the Northeast and Mid-Atlantic. Below normal precipitation was also observed in northern Minnesota and central Michigan. However, precipitation was above normal in the Sierra, southeast Oregon, northern and western Great

Basin, and portions of western and northern Washington. Smaller areas of above normal precipitation were observed in the Southeast and Plains. Overall, drought increased slightly across the US in August, with a third of the country now in drought. Drought developed in portions of the Lower Mississippi Valley and northern New England. Drought also expanded in portions of the Rockies and eastern Washington. Drought improvement occurred in eastern Oregon, New Mexico, Montana, North Dakota, and the Southeast.

Climate Prediction Center and Predictive Services outlooks issued in late August indicate above normal temperatures are likely across much of the US through December focused on the latter half of the period, except portions of the Northwest into the northern Plains are likely to trend closer to normal heading into winter. Wetter than normal conditions are likely portions of the Northwest, northern and central Plains, and Southeast in September, with above normal precipitation likely to persist into the winter in the Northwest. Below normal precipitation is forecast for the fall and early winter in the Southwest to the southern Plains and Tennessee Valley. Above normal precipitation in the Southeast will trend closer to normal for late fall with all other areas of the contiguous US expected to have no favored areas for above or below normal precipitation. For Alaska, temperatures are likely to be above normal through the end of the year, with above normal precipitation also favored for the western half of the state.

Forecast above normal significant fire potential has decreased from the August forecast. Above normal potential is forecast for September for western Washington and northwest Oregon, northern California, the mountains of central and southern California, northern Nevada, southwest Idaho, and northern New England. Most of these areas will return to normal potential in October, but the Sacramento Valley west to the coast in northern California and the southern California mountains will remain above normal, with the southern California coast also above normal. Above normal potential is forecast for the North Carolina mountains in October, as well, which will expand into the South Carolina mountains in November and December. The southern California mountains and coast will remain above normal for November and into December while northern California returns to normal. Eastern Oklahoma is also forecast to have above normal potential for November before returning to normal for December. For Hawai'i, above normal significant fire potential is forecast for the lee sides for September and October, returning to normal for November and December.

### ***Past Weather and Drought***

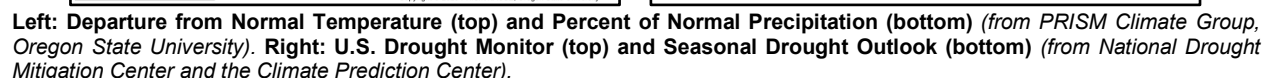
Temperatures in August were above normal across western US, except along the California coast, which was near normal. Near to below normal temperatures were observed from the Plains to the East Coast, with the below normal temperatures most prominent along the East Coast from New Jersey south to the Carolinas. While Florida and Maine were slightly above normal, Maine saw a heat wave August 10-13 with numerous daily and monthly records set. Temperatures were above normal for most of Alaska and Hawai'i in August, but closer to normal for Molokai and Maui.

Precipitation across the US in August was above normal from the Sierra into the northern Great Basin and southeast Oregon, with western and northern Washington above normal, as well. Other smaller areas of above normal precipitation fell in Montana, the Plains, and Southeast. Precipitation was below normal in much of the Southwest and Four Corners due to the weak monsoon, extending into central and South Texas. A large area of below normal precipitation was observed from the Mid-Mississippi Valley to the Northeast and Mid-Atlantic, with many areas receiving less than 25% of normal precipitation. Northern Minnesota and Lower Michigan also received below normal rainfall. Precipitation in Alaska was above normal in the northern half of the state, but below normal along the southern coast into the panhandle. Precipitation was well below normal in Hawai'i, with most areas receiving less than 25% of normal rainfall in August.

Fire activity gradually increased across most geographic areas the first three weeks of August, focused on the Greater Four Corners early in the month before expanding into the northern Great

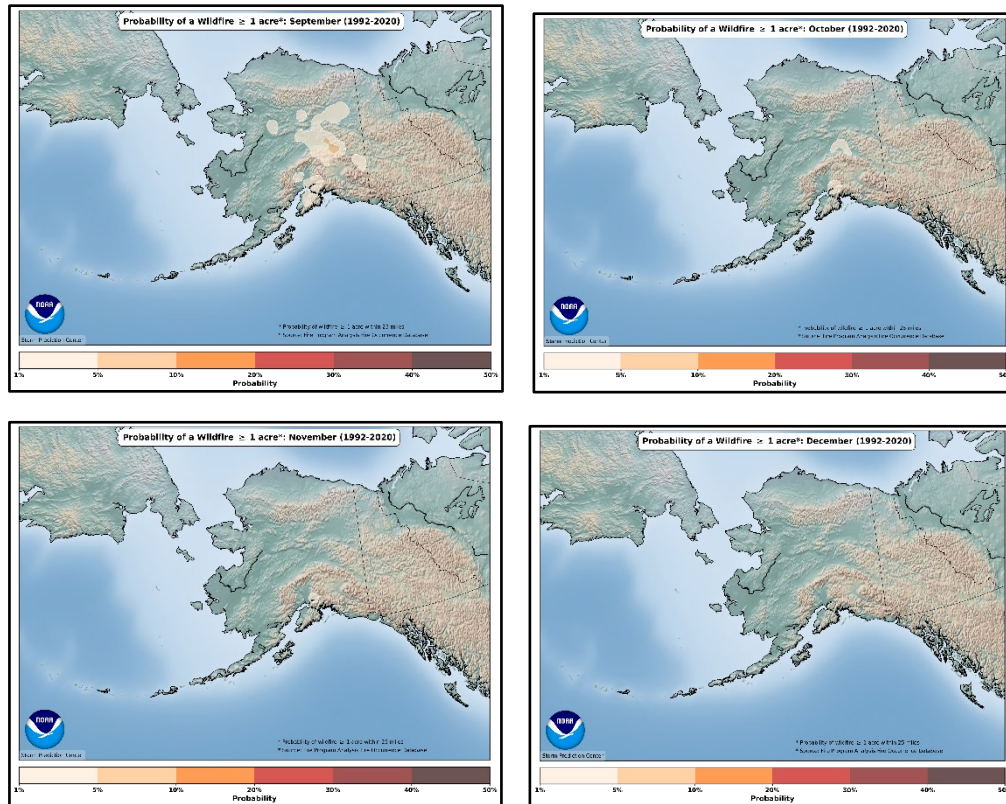
Overall drought slightly increased across the US since late July with just over 33% of the US in drought as of August 26. Drought persisted in the southwestern US, with slight improvement in portions of New Mexico. Drought also improved in much of Florida, the northern Plains, and southeast Oregon. However, drought has intensified in the central Rockies due to the weak monsoon, with drought also intensifying in portions of the Northwest. Drought developed in the Lower Mississippi Valley and in northern New England, with drought persisting in central Michigan. Extreme drought persists in portions of the southwestern US and continues to expand northward into the Rockies. Extreme drought now covers portions of every western US state. Extreme drought is also occurring in small portions of southwest Texas. Small areas of exceptional drought persist in southwest New Mexico, South Texas, the Idaho Panhandle, and northwest Colorado. Drought is expected to persist in most areas, but improve in New England and the Northwest, while expanding into the central and southern High Plains.

El Niño-Southern Oscillation (ENSO) neutral conditions persist in the equatorial Pacific Ocean with sea surface temperatures near to slightly below average. The Climate Prediction Center is



forecasting ENSO neutral conditions to continue into the early fall, with a likely transition to La Niña later in the fall, with a nearly 60% chance of occurrence. However, there is still a 40% chance that ENSO neutral conditions will continue into the winter. The negative phase of the Pacific Decadal Oscillation (PDO) persists but has begun to weaken recently. It also remains a factor for this outlook. The Madden-Julian Oscillation (MJO) has weakened since early August and is forecast to remain weak, not factoring into this outlook. The ENSO neutral conditions with the potential shift to La Niña will continue to be the main driver of this outlook, coupled with the negative PDO.

## Geographic Area Forecasts



**Normal fire season progression across Alaska shown by the probability of a fire greater than 1 acre within 25 miles. Fire severity cannot be inferred from this analysis.** (Based on 1992-2020 FPA Data. Analysis courtesy of the Storm Prediction Center.)

## Alaska

Season-ending rains have minimized burning potential for most of Alaska. The exception is the southeastern Interior, where rain has not penetrated the Upper Tanana Valley and fuel conditions remain dry. However, with waning daylight hours, lowering sun angle, and minimal lightning chances, the likelihood for any new large fires is low. The outlook for the next four months is normal.

Late August brought several inches of precipitation to western Alaska and the central Interior, while south-central Alaska and the northeast Interior picked up between one-quarter and one-half inch of rain. The southeastern corner of the mainland and the panhandle have remained warm and dry. Recent winds in the southeast Interior have exacerbated this dry spell with additional fuel drying, mainly in the Upper Tanana Valley and along the Copper River.

Medium-range models forecast damp weather through the first half of September for all areas except the panhandle. Though the southeast Interior is expected to avoid significant rainfall, the

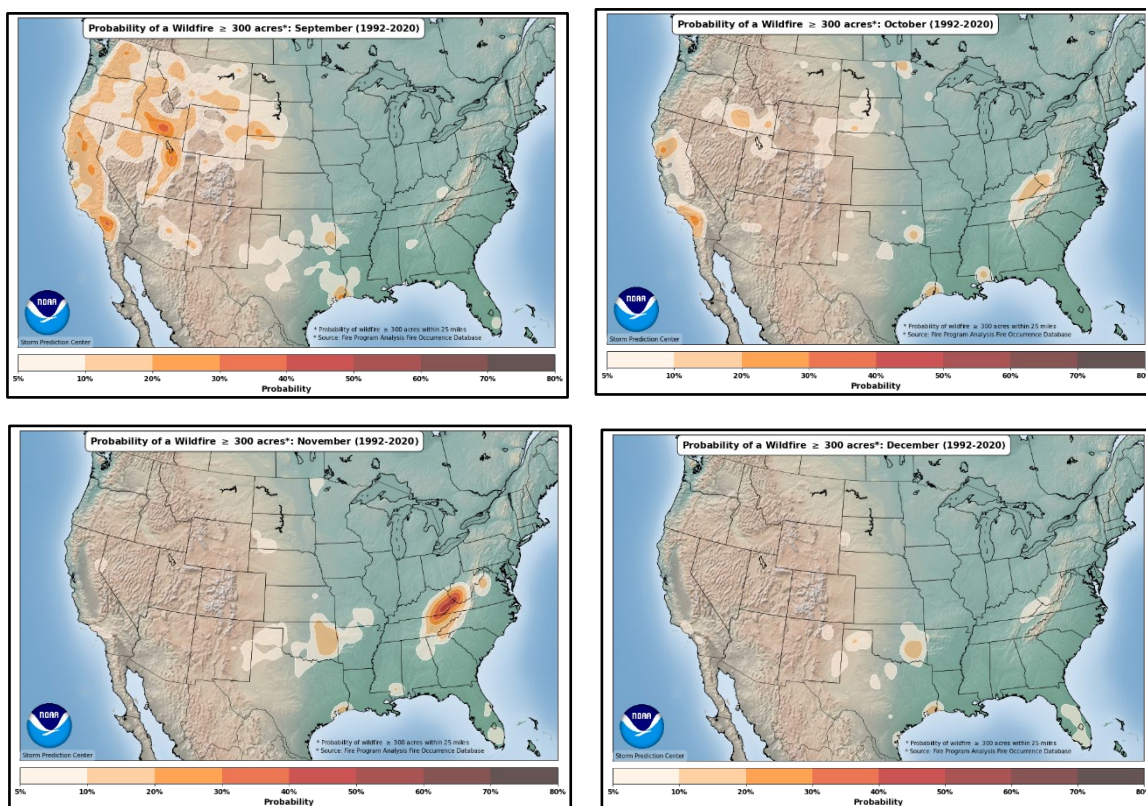


cooler temperatures, higher relative humidity, and decreasing solar insolation will prevent significant fire activity. Longer range models and Climate Prediction Center forecasts for the next few months show warmer and wetter than normal conditions are likely for most of Alaska. Though warmer than normal is common due to our ever-warming climate, the skill for long-term precipitation prediction in Alaska is low and is difficult to anticipate more than a couple of weeks in advance.

Twelve new fires have been reported statewide since mid-August. All have been human-caused and easily caught at less than a half-acre each. Existing large fires are all controlled and not expected to do more than smolder periodically as daylight and heating rapidly wane in the next month.

The heavy rainfall has wetted not only surface fuels, but all duff layers in the west and central Interior. Parts of south-central Alaska and the east still have dry deep duff fuels, which is normal for this time of year. The only area with dry fuels throughout the entire column is the Upper Tanana Valley and Copper River Basin in the central Interior. Though some wetting rain events will move through this area in September, it is likely that existing fires in these areas will continue to smolder until the snow flies in mid-October.

Fire activity is expected to be normal from September through December as Alaska moves from fall to winter in the next two months. September will likely see a few human ignitions, which will be easily managed. Any fire activity will be most concentrated in the eastern Interior, where fuels are drier and sunshine is expected to dominate. By mid-October, snow will move into most Interior locations and will push south of the Alaska Range into south-central Alaska and Copper River Basin by early November, effectively ending fire season for the year.



**Normal fire season progression across the contiguous US shown by the probability of a fire greater than 300 acres within 25 miles. Fire severity cannot be inferred from this analysis. (Based on 1992-2020 FPA Data. Analysis courtesy of the Storm Prediction Center.)**

## Northwest

The Northwest Geographic Area (NWCC) will have many Predictive Service Areas (PSAs) return to average significant wildfire potential for the month of September and remain there for the remainder of the calendar year. This September is not shaping up to be one where new significant fire activity is prevalent. Those PSAs that are held in above normal status during September will need a heavier and more persistent rain pattern that is likely to develop this fall to offset months of persistent drought conditions.

August brought a mix of active weather patterns across Washington and Oregon. The month began with frequent rounds of wet thunderstorms, especially over central and eastern Oregon and parts of Washington. These storms often produced gusty outflow winds and localized heavy rainfall. Washington temperatures remained above average for the month. Oregon's temperatures remained generally above average except for the rangelands in the southeast portion of the state.

Mid-month marked a shift to hot and dry conditions. A strong ridge built over the region, pushing temperatures well above normal and reducing overnight relative humidity recovery, particularly on mid-slopes and ridges. A brief, weak atmospheric river followed, bringing one to three inches of rain to western Washington, with lighter amounts elsewhere. A final strong upper ridge brought several days of record high temperatures on both sides of the Cascades, followed by widespread thunderstorms fueled by a long-overdue surge of monsoon moisture. Rainfall was uneven, light in western Washington and northwest Oregon, but heavier under thunderstorm cores in eastern Oregon and northeast Washington. Temperatures returned toward daily averages while increasing dew point temperatures raised overall humidity.

Drought conditions slightly improved since July across southern Oregon, with most of southeast Oregon now drought-free due to rainfall. In contrast, drought expanded across the Washington Cascades, western Washington, and northwest Oregon despite the mid-month rain event. Other areas largely remained unchanged.

Initial attack activity across the Pacific Northwest remained relatively light throughout August. The month began with a significant lightning event that elevated ignition numbers during the final days of July and the first few days of August, resulting in above average ignitions. This event led to a few large fires, but initial attack was highly successful.

Despite the early surge, ignition levels trended below average for most of the month. A second lightning event near the end of August triggered a brief increase in fire starts and once again initial attack was highly successful.

One notable fire from the second round of lightning is the Emigrant Fire, which ignited on the west side of the Cascades in the Willamette National Forest. It quickly expanded to 6,000 acres within its first two burn periods, underscoring the volatility of conditions in areas that received little or no precipitation. Additional large fires are anticipated from this late-month lightning event. However, where rainfall accompanied the strikes, initial attack efforts have proven notably successful. These pockets of moisture have helped slow fire spread and improve containment, offering a temporary reprieve amid otherwise elevated fire potential.

August continued the summer-long trend of fluctuating Energy Release Component (ERC) values across the Pacific Northwest, driven by transient weather systems. Periods of high pressure elevated ERCs for about a week at a time, often peaking at or above the 97<sup>th</sup> percentile, followed by precipitation events that dropped ERCs to well below average only for values to rebound shortly thereafter. These brief dips in ERC have provided windows of opportunity for fire suppression efforts and prevented live fuels at mid to upper elevations from fully curing, reducing the likelihood of sustained fire spread in those areas. The Bear Gulch Fire on the Olympic Peninsula received approximately two inches of rain in mid-August. However, this precipitation

only moistened the surface of large fuels and moss, offering limited relief. Deep fuel layers remain dry, and fire activity has gradually increased with the return of warm, dry conditions.

Due to persisting drought impacts, the two PSAs (NW01, NW02) encompassing western Washington and northwest Oregon are expected to see above normal significant fire potential in September, while all other NWCC PSAs revert to normal. For October through December, normal significant fire potential is forecast for all areas.

## **Northern California and Hawai'i**

Significant fire potential is projected to be above normal for September in northern California, with a more limited footprint of above normal from the Sacramento Valley-Foothills Predictive Services Area (PSA) westward to the coast during October. Normal significant fire potential is projected areawide for November and December. Hawaii's significant fire potential is forecast to remain above normal for September and October but revert to normal for November and December.

Historically during September, one to two large fires occur per PSA on average except for the Far Eastside and Bay Area PSAs, which average less than one. During October averages are one or less large fires within each PSA, and during November and December the average is less than one for all areas.

Like July, atmospheric patterns were quite variable during August. There were two multi-day heat wave events plus two significant lightning periods at the beginning and near the end of the month. A traditional monsoon induced thunderstorm event brought a little over 42,000 lightning strikes to the region August 23-27. The breakdown stage of the two heat wave events led to Predictive Services high-risk and National Weather Service Red Flag Warning issuances. Precipitation anomalies varied widely due to the convective nature of the rainfall, with above normal areas found across the north and east while western and central areas tended to be below normal. Average temperature anomalies were generally near to above normal areawide. Another monthly record was broken for pulse lightning amounts based on the 2012-2024 Earth Networks Total Lightning Network (ENTLN). A little over 46,000 strikes were recorded through August 27, eclipsing the previous August record of a little over 19,000 in 2017 but falling shy of the new overall monthly record of nearly 55,000 observed last month.

Dead fuel moisture levels experienced wide swings thanks to the pronounced thunderstorm and heat wave events. Regional Energy Release Component values exceeded the 90<sup>th</sup> percentile from August 9-15 and August 23. Live shrub and tree canopy fuels continued to dry across the low and mid elevations, and more species became either critically flammable or flammable as the month progressed. The upper elevations, generally found above 7,000 feet, experienced more noticeable curing later in the month. Live fuel samples revealed a mosaic of above, near, and below normal moisture content readings, with more of a consensus of near to a little below normal. Herbaceous fuels were either cured or curing across most elevations, especially by the latter half of the month. The US Drought Monitor between late July to late August revealed no changes to the small area in the far northwest corner that is experiencing moderate drought. Similarly, the broader area classified as abnormally dry saw neither improvement nor worsening during August. The one- and two-month Evaporative Demand Drought Index (EDDI) values on August 23 showed a developing short-term drought or stress signal across the Greater Bay Area.

Wildfire business was steady throughout August, increasing in comparison to the prior month and slightly above the month's average. This month's daily wildfire ignition average was 28 through August 27, compared to 25 observed during July. Based on data from 2008-2024, the daily ignition average for August is 21. Large fires occurred throughout the month and were driven by heat, wind, and lightning. A total of 12 fires met the individual PSA significant fire definition based on reports through August 27. They were found in all fuel types from grass to heavy timber areas. The average number of large fires in August based on a 1992-2023 database is 16. Complex Incident Management and established type 3 teams were deployed on four of the large fires. The

largest was the 6,800-acre Pickett Fire located east of Calistoga. The regional Preparedness Level (PL) was elevated from PL3 to PL4 (on a scale of 1-5) on August 27. Prescribed burning was limited and mainly found across the grass and oak woodland areas when suitable weather conditions and enough resources were present.

Various weather forecast sources suggest a warmer than normal September and October with mixed precipitation anomalies most likely. Lightning impacts are likely to continue into September although the number of strikes should be much less compared to the record levels observed during July and August. Offshore wind events are likely to become more problematic during September and October, as is typical for this time of year; however, the number or intensity of the offshore events should be near to a little above normal. Onshore wind events should increase during September and October as the polar jet stream shifts south, such as when pronounced atmospheric ridging breaks down. Wetting storm systems steered by the jet stream should start to increase as fall progresses, but early indications suggest very changeable weather patterns leading to a wide pendulum of outcomes late fall into early winter.

Based on the current fuel state and future weather predictions, above normal significant fire potential is projected areawide for September. Unusually flammable live and dead fuel alignments are likely across a larger area during September, with a few wind and lightning events expected. A lesser above normal footprint is projected for October and mainly focused across the strongest offshore wind impact areas from the Sacramento Valley-Foothills PSA westward to the coast. The near to above normal herbaceous fuel loading combined with offshore wind events will challenge suppression efforts across the lowland areas during October. Normal significant fire potential is expected for all PSAs during November and December due to increased wetting events favoring the north and east plus lessening sun angles and shorter day lengths.

Sea surface temperature (SST) anomalies surrounding the Hawai'ian Islands were near to above average during August. Average temperature anomalies were generally near to above normal across the islands. Precipitation anomalies were below normal. Drought conditions expanded slightly between late July to late August with some form of drought touching all the islands. The most severe drought conditions remain across Molokai, Maui, and the Big Island. Herbaceous fuels continued to cure as the dry season progressed across the area, especially impacting the leeward areas. The National Weather Service issued Red Flag Warnings August 2-3. Wildfire business was steady during the month. The Kunia Road fire located on Oahu grew to a little over 200 acres in grass and brush.

The El Nino Southern Oscillation (ENSO) is currently in a neutral state and is expected to trend towards a weak La Nina in the coming months. Average temperatures in Hawai'i during the next four months should generally be above normal. Precipitation is likely to have mixed anomalies, with generally drier than normal conditions during the next couple months then trending slightly wetter, favoring the northern islands later in the forecast period. Drought stress should continue within the live fuel bed, and it will take some time for a more notable herbaceous green-up later in the outlook. Based on the weather projections and current state of the fuels in Hawai'i, confidence is high for above normal significant fire potential during September and October, especially favoring the leeward sides. A return to normal is projected for November and December although confidence in the transition is less certain.

## **Southern California**

Weak high pressure was centered over the Desert Southwest most of August bringing near normal temperatures to most of the region. However, there were a couple brief periods of hot temperatures as the high became strong and a brief period of below normal temperatures as the high moved east to the central part of the country. Overall, most locations observed near to a little above normal temperatures. A weak push of monsoon moisture brought isolated afternoon showers and thunderstorms to the mountains and deserts of southern California August 8-10. A



weak area of low pressure that moved across central California August 12-16 brought isolated afternoon showers and thunderstorms to the Sierra. Rich monsoon moisture brought scattered showers and thunderstorms mainly to the mountains and deserts August 22-27, with the shower and thunderstorm activity making it into the valley areas on a couple days. The monsoon moisture lessened August 28 through the end of the month, but there was enough moisture to cause isolated afternoon showers and thunderstorms over the mountains and deserts. Overall, precipitation was well below normal across the coastal and valley areas and well above normal across the deserts and Sierra in August. It was breezy most days in August, with southwest to northwest winds of 15 to 25 mph with gusts to 40 mph across the mountain ridges and desert passes and a sea breeze of 8 to 15 mph with gusts to 25 mph elsewhere in the afternoons.

There was no change in drought for August compared to July. Southern California remains mostly under severe drought, with small areas of extreme drought over the deserts. Meanwhile, central California is mostly under abnormally dry conditions, with the San Joaquin Valley under moderate drought. The 1000-hour and 100-hour dead fuel moisture started off below normal and ended the month near to above normal. The live fuel moisture continues to gradually decrease and is now mostly between 55% and 70%, which is a little below normal for this time of year.

Sea surface temperatures off the West Coast are warming, and most of the Pacific Basin continues to have well above normal sea surface temperatures. Computer models show that these well above normal sea surface temperatures will continue through December. With this, strong high pressure is expected to set up off the California coast, bringing above normal temperatures and well below normal precipitation to the region September through December. Troughs will move up and over the area of high pressure into the Pacific Northwest, causing most of the precipitation to fall north of central California. Some of these troughs will drop down into the Great Basin and Desert Southwest, bringing a near to above normal amount of Santa Ana wind events to southern California.

Warm and dry conditions will cause an above normal chance of large fire activity across the mountains as well as the Sierra Foothills and Central Coast Interior Predictive Services Areas in September. As temperatures cool and nighttime relative humidity increases, the potential for large fires will become near normal across central California from October through December. However, there will remain an above normal chance of large fire activity across southern California from the mountains westward due to offshore wind events keeping warm and dry conditions in place.

## **Northern Rockies**

The outlook for September through December for significant wildland fire potential in the Northern Rockies Geographic Area (NRGA) will be normal through the period. Dryness over southwest Montana and most of north Idaho will be offset by widespread late August wetting rain, which will bring a lingering benefit to the landscape because of shortening day lengths. Glacier National Park and the northern Front Range had been projected to be below normal in September but these areas were mostly missed and have experienced enough drying to support normal September fire activity. The rest of the NRGAs has maintained a trend through the summer with above normal relative humidity preventing significant fuel stress from developing.

Temperature anomalies for August showed below normal temperatures for areas along the Continental Divide and limited above normal anomalies to the west and east. Precipitation was below normal in north Idaho and northwest Montana, as well as southwest and south-central Montana. Precipitation was close to normal in the rest of the NRGAs. Drought indices show moderate to extreme drought for western and southwest Montana and north Idaho. Areas east of the Continental Divide have very limited pockets of abnormally dry conditions.

A robust period of lightning August 10 and 11 was followed by hot, dry, and windy conditions August 12 through August 14, which generated a surge in large fire activity. Significant burning on the large fires occurred with periods of hot and unstable conditions the third week of the month. Monsoon moisture and rainfall increased over the region the last week of August, strongly curtailing most fire activity. Seven large fires (greater than 100 acres) were reported in Idaho and 21 in Montana. Multiple Type 3 and Complex Incident Management Teams were required for fire management. Yellowstone National Park had several fires require extended attack but no large fires were reported.

Lack of an extended heat wave this summer caused most fuels to retain near to above normal moisture through the month of August. Parts of western Montana and southwest Montana, Yellowstone National Park, and north Idaho observed values above normal for periods of time. Soil moisture deficits will continue to drive fire potential in western Montana and north Idaho, but the late month precipitation event will improve soil moisture and decrease fire potential in southwest Montana and Yellowstone National Park. Areas that received less rainfall will begin to see a stronger curing of the fuels, and this will include areas east of the Continental Divide. Wind events are not expected during the first week of September so seasonally shortening burn windows lead to a decreased likelihood of new significant wildland fires. Existing fires will begin to encounter drier days, which will increase fire activity, especially where the lowest soil moisture levels exist. There are no significant signals in the later fall months that indicate anything but normal significant fire potential. Accordingly, all four months of this outlook period have normal significant fire potential forecast for the entire NRG.

## **Great Basin**

Fire activity is expected to be normal across most of the Great Basin throughout the period, which typically features decreasing fire potential through September and low potential October through December. However, despite late August rain, some areas of above normal potential are still forecast, in portions of northern Nevada and southwest Idaho in the lower elevations where fine fuel loading is well above normal. Precipitation that occurred in late August could even spark some areas of green-up for additional fine fuel growth before dormancy begins. Fine fuels that emerge will dry out quickly and will remain a concern after drier periods, especially on windy days ahead of fall cold fronts. Once fuels go dormant, some of these areas may have localized concerns through winter (until snow begins) during periods of strong winds after prolonged dry periods.

Temperatures overall in August were above normal across the eastern half of the Great Basin and near to above normal in western areas. Precipitation was below normal over many areas of the Great Basin due to erratic monsoon moisture, except for northwest Nevada and central and southwest Idaho. Drought conditions have slowly expanded in both southern and northern areas, with most areas in moderate to severe drought, except for western and northwest Nevada and southwest Idaho that are abnormally dry. There are still large pockets of extreme drought across the eastern half of the Great Basin.

Fuel moisture increased across all areas of the Great Basin in late August due to multiple days of significant cloud cover, increased relative humidity, and showers and thunderstorms associated with a monsoon moisture surge from the south. Energy Release Component values regionwide dropped below the 50<sup>th</sup> percentile and 10-hour and 100-hour fuel moisture rose significantly. In some areas, 1000-hour fuel moisture was also favorably affected but increased by smaller margins.

Elevated risk persists due to the heavy fine fuel loading in parts of northern Nevada and southwest Idaho, especially as conditions dry heading into September when cold fronts become more frequent. The area of greatest concern is northern Nevada and southwest Idaho, when a few days of drying will make those fine fuels widely available, especially if accompanied by winds that drive

rapid and large fire growth. The late but effective monsoon moisture in August also could initiate another limited green-up in herbaceous fuels before winter dormancy, which could add to the already well above normal fuel loading. Although fuel conditions are expected to dry in September during periods of lower relative humidity and warmer temperatures in other areas, it will be difficult to return to levels observed prior to the moisture surge, unless prolonged above normal temperatures and very low relative humidity occur, which appears unlikely.

Fire activity increased significantly in August across nearly all areas of the Great Basin, with numerous large fires and several Complex Incident Management Teams active near the end of the month. Near record fuel dryness for this time of year contributed to the extreme fire behavior that was observed on many incidents. Fuels and Fire Behavior Advisories remained in effect in August for northern and eastern Nevada, Utah, and the Arizona Strip. Fuel conditions moderated after the late August moisture surge for a significant decrease in fire behavior and fire danger regionwide.

Warm and dry conditions are expected in early September and may continue throughout the month over the southern half of the region. However, occasional atmospheric moisture will still move across the region, providing some increase in relative humidity as well as showers and thunderstorms. Precipitation may occasionally move across northern areas at times to lower fire potential as September progresses. Given the moisture that moved across the region in late August, a period of prolonged adverse conditions will be required for heavier fuels to revert to critically dry levels. Accordingly, most areas have normal significant fire potential forecast for September. However, above normal significant fire potential will persist in September for portions of northern Nevada into southwest Idaho due to the well above normal fine fuel loading that is expected to dry quickly early in the month. The highest risk will be on windy days after prolonged dry periods. The brush will also likely return to critical levels in some areas. Fire potential conditions are expected to return to normal for October through December areawide, which would indicate low fire potential for the region. The only exception might be localized events in late fall and early winter in the areas of above normal fine fuel loading. If conditions remain drier and absent from snow, strong winds associated with cold fronts could increase fire potential for a burning period if there are ignitions.

## **Southwest**

The Southwest Geographic Area will have normal significant fire potential for the four-month period spanning October through December.

Most of the region along and west of the Continental Divide is in moderate to severe drought, with pockets of extreme drought mostly in the southern half of the region. However, the weeklong monsoon moisture surge in late August is reflected on the shorter-term Evaporative Demand Drought Index (EDDI), with the most recent week's levels reaching neutral drought levels.

Increased relative humidity and precipitation in the last two weeks of August pushed Energy Release Component values in most Predictive Services Areas down to near the 50<sup>th</sup> percentile. Due to the longer-term drought, fine fuel loading is mostly below average.

There was considerable fire activity in the first half of August region wide. However, the monsoon moisture surge in the latter half of August sharply decreased fire activity, for both existing large fires and initial attack.

Monsoon moisture will continue across New Mexico early in September, while much of Arizona briefly dries. However, models indicate another monsoon surge, albeit weaker than the previous one, could move into Arizona during the second week of the month. Afterward, monsoon moisture typically diminishes by mid-September with drier conditions returning.

The period of late September through the end of the year is typically the end of the active fire season in the Southwest due to the combination of longer nights along with accumulated monsoon moisture. However, dry wind events arise occasionally in the fall, and they can produce short periods of elevated fire potential or problematic fire behavior when strong wind events follow prolonged dry periods.

## **Rocky Mountain**

August ended with some much-needed rain across the Rocky Mountain Area (RMA), moderating the weather and fire conditions from historic values. Hot, dry weather continued to worsen the fire environment on the West Slope of Colorado and in western Wyoming until the rain arrived. Dry lightning events led to several large fires emerging in western and northern areas of RMA. As conditions continue to moderate, significant fire potential will return to normal across the RMA through December.

The pattern of hot and dry weather across western Wyoming and the Colorado West Slope that started in June and July continued through much of August. To start the month, the monsoon continued to be very weak as it moved into the RMA, resulting in more lightning with little in the way of rain. On top of the dry lightning, the very dry air that was in place prevented relative humidity recoveries from getting above 30 percent. The pattern shifted going into the third week of August, with an extended, wet pattern setting up. This brought much-needed rain to the West Slope that extended into western Wyoming, with some areas receiving over an inch of rain. This also brought higher relative humidity and cooler temperatures resulting in much more moderated conditions to end the month. Drought conditions continue to worsen slightly across the West Slope and into western Wyoming, despite the rain.

The fuel conditions and fire danger indices largely continued where July left off, with many historically high values. The West Slope and western Wyoming saw the worst fuel conditions, with many areas seeing fire danger indices passing the 97th percentile. The long-term drought conditions that began during the winter have seen the larger timber fuels drying out significantly, some stations reporting critically low values, around 3 percent, supportive of fire. In the east, where fire danger has been lower through the summer, fire danger indices increased quickly as dry air moved in and the rain decreased. However, conditions changed significantly as the late month rain started quickly dropping the indices across the RMA, with all areas now well below the historically high values.

Early August saw more large fires start across the West Slope of Colorado, and by mid-August, fire activity started to increase in western Wyoming as rain became less common. Many fires started as the RMA continued to experience rounds of drier thunderstorms. Several of these fires including the Lee, Stoner Mesa, and Red Canyon fires required Complex Incident Management Team (CIMT) mobilization, plus the Turner Gulch Fire that ignited in July continuing to require CIMTs. Other parts of the RMA continued to see initial attack activity that could be contained in one or two operational periods.

September is expected to be warmer and drier than normal overall across the RMA. In the very short-term, the moisture from late August's rain will moderate fire weather for a few weeks. There will be some chances for scattered precipitation that should prevent a return of the elevated conditions observed most of August. Moving from October through December will see progressively more of the RMA returning to normal conditions each month. The one area of uncertainty regarding precipitation is in southern Colorado due to La Niña becoming slightly more likely for November and December. Typical La Niña patterns during the winter months tend to see southern Colorado remaining drier than normal.

Due to recent moderating rain and the decreasing likelihood of thunderstorms with lightning, fire potential will return to normal across the RMA in September and remain normal through



December. October through December climatologically begins to see increasing frequency of strong wind events, generally with frontal passages. Typically, these increased winds are only for short windows that can lead to increased activity following extended warm, dry patterns. However, these increases usually last for a few operational periods.

## **Eastern Area**

Normal significant fire potential is forecast for much of the Eastern Area through December except for portions of northern New England where above normal potential is forecast for September. Much of northern New England is abnormally dry or in drought status from a drier than normal summer.

Much of the Eastern Area was drier than normal in August, especially from Missouri north and east into New England where less than 50% of normal rainfall was observed, elevating Keetch-Byram Drought Index (KBDI) values to well above average. For portions of northern New England, Missouri, and Illinois, rainfall was less than 20% of normal. For New England, the dry period extends back to June. Northern Minnesota and much of Lower Michigan were drier than normal, as well. Portions of the Upper Peninsula of Michigan and southern Minnesota and Wisconsin had slightly above normal rainfall. Temperatures were generally near to above normal across the region for August, with temperatures slightly above normal from the Great Lakes to northern New England and slightly below normal for the Mid-Atlantic coast. However, a stretch of very hot and dry weather was observed in northern New England August 10-13, with widespread temperatures of 90-100°F.

Drought has developed across portions of the Northeast, primarily from the east slopes of the Adirondacks east into southern Maine, with severe drought reported in Downeast Maine. Small areas of drought have also developed in portions of southern Missouri, while drought has improved near the southern half of Lake Michigan but persists for portions of central Michigan.

Recent fire activity has been predominantly focused within New England with Maine, Vermont and New Hampshire having significant initial attack uncommon in summer and to the month of August. Live fuel moisture conditions similar to mid to late September are being noticed in areas on the New England coast. The high KBDI values are indicative of the drought that is occurring in these areas and allowing for an unusual amount of lightning fire starts to occur. Most fires have had little surface spread but are burning deep into the ground and at times going underground and rekindling outside of control lines, requiring extensive mop-up and multiple days of resource use. The Mid-Atlantic states also have well above average KBDI values and are having increased initial attack fires when surface fuels dry out enough to carry fire.

Overall, temperatures forecast by the Climate Prediction Center are likely to be above normal for the Eastern Area through December, with the greatest chance for above normal temperatures in the Northeast. Equal chances of above or below normal temperatures are forecast for the Upper Midwest. For precipitation, the Climate Prediction Center has no favored outcome for September and October except southern Missouri leans drier than normal. By the latter half of fall, above normal precipitation is favored for the Great Lakes, but all other areas have equal chances forecast.

Recently, climate model forecasts have trended toward a drier signal for most of the Midwest, and for portions of the Northeast. The El Niño Southern Oscillation (ENSO) is expected to be neutral at the beginning of the period and trend toward La Niña in the fall, with the Climate Prediction Center forecasting a better than 50% chance of La Niña developing. The Arctic Oscillation (AO) also factors into the forecast, but it is difficult to forecast more than two weeks in advance. Currently, the AO is forecast to be neutral until mid-September, which leads to drier trends in the Midwest but offers no clear signal for the Northeast.

Given the uncertainty in the climate models and forecasts, most of the Eastern Area is forecast to have normal significant fire potential through December. However, due to the developing drought in northern New England, and no clear signal of above normal precipitation through at least mid-September, above normal potential is forecast for this area in September. As mentioned above, fire activity has been above normal in this area for August, although fires have remained small thus far, and this trend is likely to continue into September. The dry trends could be exacerbated by an earlier than normal leaf fall due to drought or frost initiation. Another concern with current fuel conditions is the alignment of dry northwest winds with higher temperatures and low relative humidities, which could lend itself to higher potential for spread of existing fires or new ones.

For October there are concerns for some areas for a more robust fall fire season. These areas are across the Northeast and Mid-Atlantic, as well as portions of the Great Lakes. For New England, if the drier than normal trends persist, a significant fall fire season is possible as the underlying dry conditions combine with leaf fall. Previous analog years having busy fall fire seasons such as 1947 and 1995, which match the current dry trends in the Northeast, indicate that while the trends are likely to continue into September, they may reverse in October and become wet as in 1995. Therefore, normal potential is forecast until there is more confidence in the forecast.

For the Great Lakes, while recent trends have been drier, it was quite wet for some areas in the spring to early summer. Currently, the underlying conditions are most concerning in northern Minnesota and portions of Lower Michigan where the Drought Codes from the Canadian Forest Fire Danger Rating System are above 300 in northern Minnesota and above 500 in central Michigan, while Duff Moisture Codes are increasing to levels that fire occurrence is more probable. Periods of light rainfall have kept surface fuels moist enough to keep fire activity seasonally low thus far. However, if the forecasted drier conditions emerge in these areas the next month, above normal potential may need to be considered in the next outlook, especially in the storm damaged areas having hazardous fuels concentrations.

## **Southern Area**

Significant fire potential through the remainder of the year in the Southern Area will be tied to climatology, a forecasted La Niña, extreme grass loading in the Plains, and persisting impacts in the southern Appalachians from 2024's Hurricane Helene. Uncertainty in some of the finer details abounds.

Cool El Niño Southern Oscillation (ENSO)-neutral conditions at present are forecast to develop into a short-lived La Niña by this winter. Based on a composite of second-year La Niñas, using the Multivariate ENSO Index and the Relative Oceanic Niño Index (RONI) to define them, fall is often cooler than normal in the Southeast and trends warmer than normal in the Plains. Rainfall is highly variable due to tropical activity, but the Florida peninsula typically sees a wet fall, with near to below average precipitation the rule in the rest of the region. Of note, late August ocean heat content in the Gulf is second only to 2024's historic highs, and this may factor into both extreme rainfall and high relative humidity the next few months. Analog forecasting has not been skillful this year, but the general pattern described above aligns with long-range model guidance, adding some confidence. Should this pan out, early season frosts and freezes may impact the Appalachians, tilting the higher elevations toward an early leaf drop and onset of the fall fire season. By winter, a flip towards warm and dry conditions is anticipated from the southern Plains to the Southeast, with wet weather focused in the Mississippi Valley, which could affect the eastern Plains states and Mid-Atlantic by December.

September typically features decreasing fire activity as summertime heat wanes and the tropics reach a climatological peak. La Niñas over the past 10-15 years have tended to be busier in the tropics later in September and into October, with most signs pointing to a quite active end to the

hurricane season this year, as well. Areas experiencing drought or drought-cured fuels from the Mississippi Valley to the Plains will still see the potential for wildland fires during drier stretches, but confidence is very low in forecast details later in the month. These dry conditions largely exist in a mosaic pattern that is hard to define by individual Predictive Services Areas. South Florida's unusual summer fire risk may carry into September as an impactful drought is ongoing, but expected rainfall early in the month and an uptick in tropical activity should ease concerns there with time.

Substantial changes are possible to the outlook for October through December once impacts from the tropics are factored in and confidence increases in the patterns we see later this year. While some drought curing of herbaceous fuels has already occurred in the Plains, recent and expected rainfall will bring cool season grasses back out of dormancy, acting as a buffer to fire until everything becomes freeze-cured. There will likely be an underlying but conditional risk for significant fires in Texas and Oklahoma given how much grass there is on the landscape, but significant fire potential is more likely to increase there in early 2026 as the days grow longer and wind potential increases. That said, there is a climatological increase in fire activity centered on November in central and eastern Oklahoma that warrants a continuation of above normal significant fire potential, especially when considering grass loads may be upwards of 200% of normal.

October is forecast to see above normal significant fire potential begin in the mountains of North Carolina, due to the potential for early leaf drop combined with Helene's impacts to the fire environment. The areas missing a long-standing canopy may also dry especially quickly, given that October ranks lowest in observed rainfall there and the month is often sunny. Access issues observed this spring due to debris accumulations and other storm-related damage to road networks will continue to be part of the problem, but the abundance of fine fuels and increased receptiveness of downed and dead trees will likely enhance significant fire potential throughout the dormant season. These conditions are forecast to include the mountains of South Carolina by November and will likely affect adjacent portions of both states, in addition to nearby Georgia, Tennessee, and Virginia until green-up occurs next spring. The severity of potential impacts in the region cannot be stressed enough if tropical remnants avoid the area, perpetuating dry conditions over the next two months, and dry cold fronts impact the region thereafter.

### **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>