National Significant Wildland Fire Potential Outlook

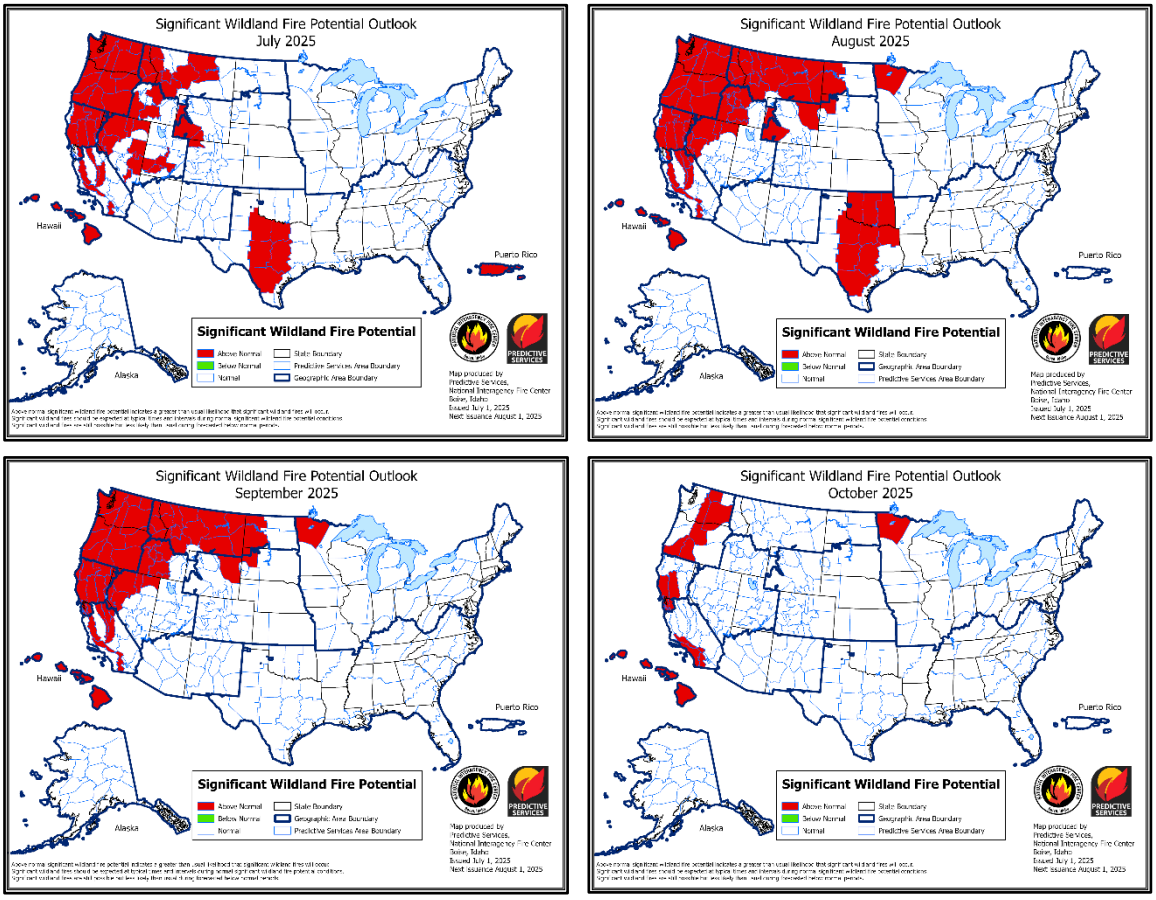
Predictive Services
National Interagency Fire Center

Issued: July 1, 2025
Next Issuance: August 1, 2025

Outlook Period – July through October 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 June, with the most notable increases in activity occurring in Alaska, the Great Basin, and Southwest Geographic Areas. Most other geographic areas observed a more modest increase in activity over the month, while the Southern and Eastern Areas observed a decrease in activity. Activity increased more rapidly the latter half of the month in the West, with the National Preparedness Level increasing to three (on a scale of 1-5) June 21 due to large fires in several geographic areas. Total acres burned through June is below the 10-year average at nearly 90%, with an above average tally of wildfires of 129%.

June precipitation was below normal across much of California and the northern two-thirds of the West, with portions of California, the Great Basin, and Columbia Basin receiving no rainfall. However, precipitation was above normal in the Mojave Desert and Arizona, mainly due to a storm that moved through at the beginning of the month. Above normal precipitation was also found in much of New Mexico into southwest Colorado. Precipitation was generally below normal for the

Mid-Atlantic Coast and Florida, while much of the rest of the US from the Plains to the Appalachians had mixed anomalies. Overall, drought decreased slightly across the US in June, with the greatest improvement in Florida, central Texas, and central Plains. However, drought persists in much of the southwestern US, with drought expansion into much of the Great Basin, and northwestern US.

Climate Prediction Center and Predictive Services outlooks issued in late June indicate above normal temperatures are likely across much of the US through October, with the West, Northeast, and southern Plains most likely to be above normal. Drier than normal conditions are expected across the northern half of the West through the summer, with the focus on drier than normal conditions moving into the northern and central Plains for early fall. Above normal precipitation is most likely along the Gulf and East Coasts through October, with the expanse of the anticipated above normal precipitation likely to shrink in the early fall. Warmer and wetter than normal conditions are likely in Alaska through October.

Above normal significant fire potential is forecast much of the northwestern US through September, with above normal potential decreasing to portions of the Inland Northwest and southwest Oregon in October. Above normal significant fire potential is also expected for much of the central and southern California mountains as well as all northern California through September. Potential will return to normal in October for most of California except for portions of the Sacramento Valley, Bay Area, and southern California mountains. Above normal potential is forecast for portions of the southern Great Basin, northwest Colorado, and southwest Wyoming, as well as the US Caribbean Islands in July before returning to normal in August. In July, above normal potential is forecast for much of central and North Texas, expanding to northeast Texas and much of Oklahoma in August, before returning to normal for September and October. Above normal significant fire potential is forecast for northwest Minnesota August through October, while the lee sides of Hawai'i will have above normal significant fire potential all four months.

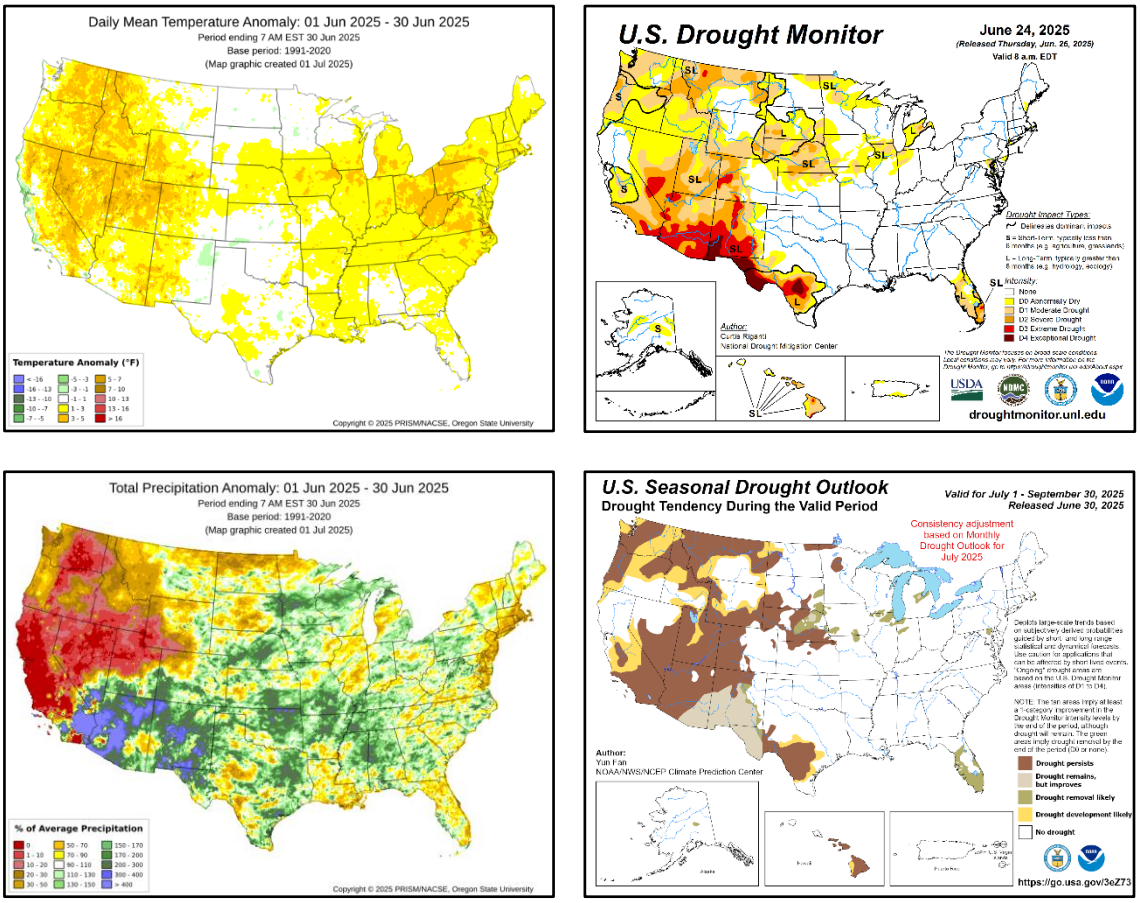
Past Weather and Drought

Temperatures in June were above normal across much of the West, except for near to below normal temperatures near the coast. Temperatures were also above normal across much of the eastern US from the Mississippi River to the East Coast, but near normal for much of the Plains and Florida. Temperatures were above normal for much of Alaska in June, with a long stretch of above normal temperatures across the Interior mid-month, but near to below normal in southwestern Alaska and the panhandle. Temperatures across Hawai'i were above normal, with the greatest anomalies found on the Big Island.

Precipitation across the US in June was above normal in much of the Southwest into southwest Colorado. Most of the precipitation in the Mojave Desert and Arizona fell at the start of the month, while the rain in New Mexico and southwest Colorado was toward the end of the month. Precipitation was also above normal across portions of east Texas and Oklahoma eastward into the Lower Tennessee and Ohio Valleys. Above normal rainfall was also observed from Nebraska into southern Minnesota then east into Upper Michigan. Meanwhile, much of the northern two-thirds of the West was very dry in June, with portions of California, the Great Basin, and Columbia Basin receiving no rain. Other areas of below normal rainfall were observed in portions of the northern Plains, the Mid-Atlantic coast, and the east coast of Florida. Precipitation in Alaska was mostly below normal, especially across the central Interior, but above normal precipitation was found along the southern coast and in the panhandle. Precipitation in Hawai'i below normal, although portions of Kauai observed above normal precipitation.

Fire activity gradually increased across most geographic areas over the course of June. However, the Southern and Eastern Areas saw a slow decrease in activity throughout the month. The most significant increase in activity occurred the latter half of the month across the Alaska, Great Basin, and Southwest Geographic Areas. A prolonged heat wave across Interior Alaska ended with a

prolific lightning event with a significant increase in activity and the geographic area preparedness level rising to four (on a scale of 1-5) June 21. Scattered thunderstorms across the southern Great Basin and Southwest occurred June 8-10 and resulted in numerous large fires in the following days as temperatures rose to well above normal amid very low relative humidity. Other areas observed a more gradual increase in activity across the West during the month.



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).*

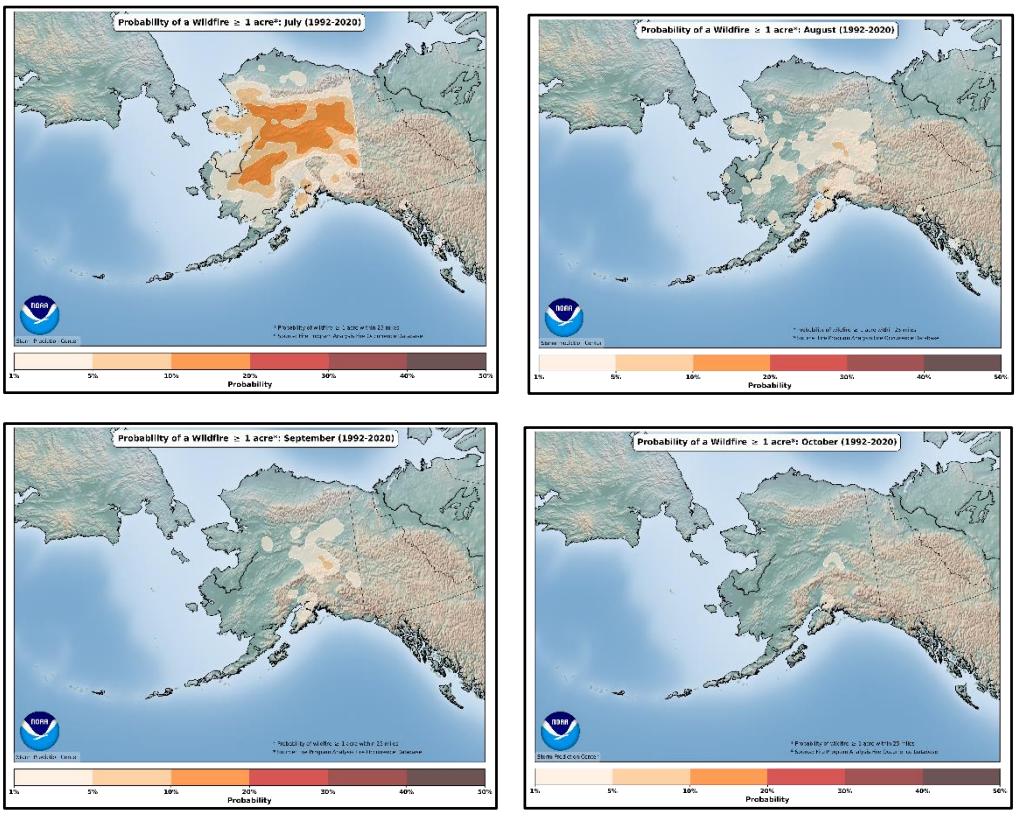
Overall drought decreased slightly across the US since late May with nearly 31% of the US in drought as of June 24. Drought persisted in the southwestern US, but with improvement in the Lower Colorado River Valley and southern Nevada, with improvement also noted farther east in the Texas Hill Country, Florida, and much of the central and northern Plains. Drought also improved in the much of Maryland and the Lower Great Lakes. However, drought intensified in northern Utah and southwest Wyoming, with a more significant increase in drought across Washington, Oregon, and northern Idaho into western Montana. Extreme drought persists in the southwestern US and covers portions of southeast California, southern Nevada, southern Arizona, southern and central New Mexico, western Colorado, and southwest Texas. Very small areas of extreme drought are also noted in portions of southeast Florida and northwest Montana. Exceptional drought persists in southwest New Mexico, West Texas, and portions of the Texas Hill Country.

Weather and Climate Outlooks

El Niño-Southern Oscillation (ENSO) neutral conditions persist in the equatorial Pacific Ocean with sea surface temperatures near average. The Climate Prediction Center is forecasting ENSO neutral conditions to continue through the summer, which may continue through the fall into early winter, but is of lower confidence. The negative phase of the Pacific Decadal Oscillation (PDO) persists and is likely to be a factor for this outlook, as well. The Madden-Julian Oscillation (MJO)

has been weaker during the spring and is forecast to remain weak through July with minimal impact on this outlook. The ENSO neutral conditions will continue to be the main driver of this outlook, with modest effects from the 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

Alaska now has a lot of fire on the ground. Some season-slowing rains have allowed teams and crews to get a handle on many fires, but anticipated warming and drying will lead to increased activity. Since this is typical for mid-summer, a normal fire season is expected for July and August, with little activity expected in September and October, which is also normal.

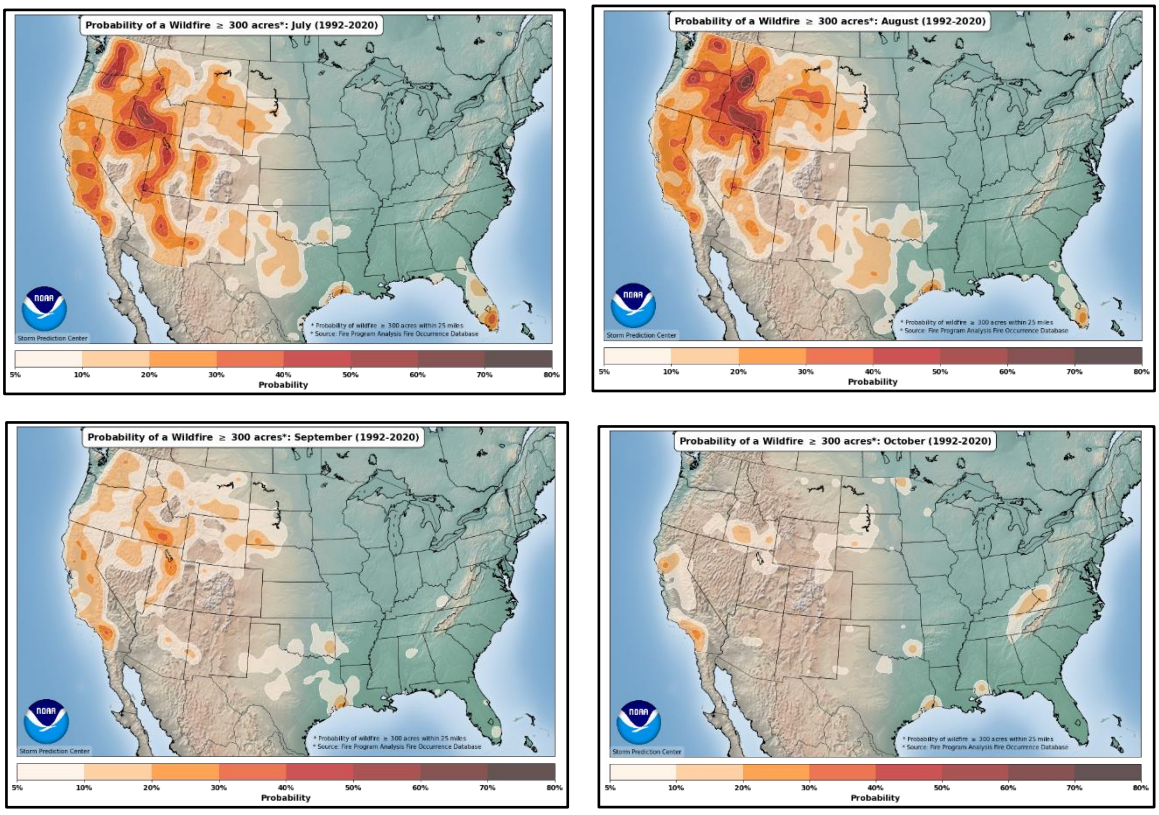
Several weeks of hot (85+°F) and dry weather led to rapid drying of duff and forest fuels. The US Drought Monitor identifies two areas as abnormally dry, but the area of the Middle Tanana Valley from Manley to Fairbanks to Tok is of biggest concern. Data from the Canadian Forest Fire Danger Rating System also shows this area as exceptionally dry. These dry fuels combined with nearly 70,000 lightning strikes the latter half of June to bring numerous ignitions across a wide footprint of the state.

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 patterns are likely 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 week in advance. Thus, normal precipitation is expected for July, with the chance for afternoon showers and thunderstorms on many days.

After a slow start to the season, hot weather and multiple lightning events led to the ignition of more than 200 fires in the latter half of June, mainly across Interior Alaska. With little precipitation in the weeks leading up to this outbreak, fires were easily able to gain a foothold and grow large. At the end of month, nearly 200 fires remained active across the state, including about 30 staffed fires receiving active control measures. In contrast to June's cooler start, the overall warm and dry trend will extend into July, and existing fires will continue burning, possibly with rapid growth.

Though surface fuels are somewhat damp after a short period of cooler, wetter weather following the summer solstice, conditions are highly variable and will return to very burnable with a couple days of drying. The Duff Moisture Code indicates that upper and mid duff layers remain very dry, and the Buildup Index, which indicates how much fuel is available for burning, shows High to Very High conditions. Even with substantial rain, these duff fuels can hold onto fire and will begin burning actively again after several days of hot and dry weather.

After a slow start to the season, Alaska's fire season roared to life just prior to the solstice with hot and dry weather leading up to multiple days of intense lightning activity. After a short reprieve of wetter weather, a return to warm and dry weather is underway, leading to an increase in existing fire activity and the chance for new ignitions. With sufficient resources for initial attack and to staff high priority fires as July begins, expectations are for a normal July and August, with activity expected to wane when end-of-season rains arrive in late July or early August. With the shorter daylight hours of September and October, Alaska's fire season should also end in a normal fashion.



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

All areas of the Northwest Geographic Area (NWCC) are expected to experience above average significant wildfire potential for July. Significant fire potential is expected to remain above average areawide through September before starting to decline in October.

June featured few beneficial weather systems, with two upper-level lows mid-month that brought mixed results. The first system sparked over 10,000 lightning strikes across southeast and east-central Oregon. The second brought soaking rain to west-central Oregon, with lighter amounts to the north and south. Additional lightning occurred east of the Cascades. Temperatures averaged several degrees above normal across the region, except west of the Cascades, including all of Washington and the Willamette and Umpqua basins, where readings were closer to average. Most areas saw less than 20% of average precipitation, with the Columbia Basin and central Oregon receiving virtually none. Snowpack, already declining rapidly, melted out quickly, mainly leaving small remnants near Crater Lake and other very high elevations.

According to the US Drought Monitor, drought conditions intensified across Oregon and Washington. Nearly all areas in the region are abnormally dry or in drought status. Moderate drought now extends from north-central to southwest Washington into southwest Oregon and covers the Blue and Wallowa Mountains in northeast Oregon. Severe drought was reported in northwest coastal Oregon and central Wallowa County, while the rest of the region is considered abnormally dry.

Initial attack activity across the geographic area remained light in June. A lightning event in early June triggered a brief uptick in southern Oregon, but green live fuels limited fire spread and prevented large fire growth. The first long-duration fire of the season, the Pomas Fire, ignited on June 13 in the 2015 Wolverine Fire scar on the Okanogan-Wenatchee National Forest. It has since grown to over 1,600 acres, burning primarily in dead and down fuels plus brush regrowth. Wind driven fires east of the Cascades continue to show increased resistance to control when aligned with wind and slope.

Energy Release Component (ERC) values west of the Cascades began June near record highs, dropped to near record lows mid-month in some Predictive Service Areas (PSA), then rebounded to above-average levels by month's end. East of the Cascades, ERCs saw a more modest decline and by the end of June remained average to above average. Live fuels in Oregon are green at mid to upper elevations but are drying rapidly across Washington. Recent fire activity illustrates that rangeland fires can persist across multiple burn periods as fuels continue to cure.

Sea surface temperatures across the central Pacific are near average with ENSO-neutral conditions expected to persist through October. July and August are expected to remain drier than normal, particularly west of the Cascades, with moderate confidence (35–50%). September shows no strong signal, though western Washington may see slightly increased onshore flow. October trends wetter, especially in western Oregon and the Cascades, as frontal systems become more frequent with the seasonal transition.

There is a 40–60% probability of above-average temperatures through September across both states. Eastern Oregon and central Washington are likely to experience the most persistent heat, with multiple stretches of 90-100°F days July through early September. October temperatures are expected to remain slightly above normal, though seasonal cooling trends begin emerging.

Weather model forecasts indicate the moisture from the North American Monsoon is to remain largely east of the Northwest, thus potentially limiting thunderstorm activity over Oregon and Washington. ENSO-neutral analog years, however, suggest a wide range of potential lightning activity. As such, confidence in the number of natural ignitions remains low. Assuming model forecasts hold true, periodic windy episodes will again dominate the fire environment this summer and early fall, much like 2024 and especially east of the Cascades.

Low confidence continues regarding the number of lightning ignitions this period. Confidence remains moderately high regarding temperature and precipitation outlooks. This leads to a belief that the ratio of human to natural ignitions will remain high and at or above 2024 levels. All PSAs

are now expected to have above normal significant fire potential through September. For October, an increasing frequency of weather systems and precipitation should signal an end of fire season for several PSAs, with NW01, 02, 03, 09, and 11 the typical beneficiaries of upslope flow. For NW12, burn periods are typically too short for multi-day grass fire spread. All other PSAs will continue with above normal potential.

Northern California and Hawai'i

Significant fire potential is projected to be near to above normal for July and August, above normal areawide during September, followed by a more limited footprint of above normal from the Sacramento Valley westward during October. Historically during July and August, one to four large fires occur on average per Predictive Services Area (PSA) except for the North Coast PSA, which averages less than one. During September the PSAs generally average one or two large fires apart from the Far Eastside and Bay Area PSAs, which average less than one. During October all PSAs average one or fewer large fires. Hawaii's significant fire potential is projected to be above normal for July through October.

The atmospheric flow during June was highly variable with a mix of lightning, wind, and heat events as well as a little bit of snow across the high terrain. Precipitation was generally below to well below normal despite some significant lightning days. Average temperature anomalies were mixed with near to below normal temperatures observed near the coast while near to above normal temperatures occurred farther inland. The more significant heat wave events were short in duration and impacted only portions of the area. Nearly 12,500 lightning strikes were recorded through June 26, with additional lightning expected before the close of the month. June's lightning totals will more than double the 2012-2024 June average of a little over 6,300 strikes. In fact, the June average was exceeded June 9 when a little over 6,700 strikes were recorded. There were a couple periods of dry northerly winds and four periods of dry gusty onshore wind events producing elevated National Fire Danger Rating System (NFDRS) Burning Index (BI) values during the month. Each one of the events prompted Red Flag Warnings from the National Weather Service for some portion of the area.

Dead fuels were unseasonably flammable across most areas during most of June, although the frequency of marine layer influences kept the North Coast and Bay Marine PSAs at near seasonal levels for most of the month. Critically dry NFDRS Energy Release Component values or readings greater than the 85th percentile were briefly observed across several PSAs. The region was in a mixed state of green-up in the herbaceous fuels with notable curing across the lowlands and in some mid elevation areas as the month progressed. Cheatgrass was cured up to at least 7,000 feet across the unsheltered aspects by the end of the month, and mostly cured grasses were found below 3,500-4,500 feet west of the Sierra Crest. Green-up was pronounced across most mid and upper elevation locations. Shrub curing was noticeable as the month progressed with several species including chamise and sage in the curing process, although critically flammable levels had not been reached across most of the area. Fire behavior observed on webcams showed that shrub fuels became more available to torch and spot during the latter half of the month, especially across the lowland areas. The remaining snowpack was limited to generally sheltered areas above 7,500 feet by the end of the month, with most of the meaningful snow gone from the landscape. Drought conditions remained absent across northern California during June although the abnormally dry classification grew across the north. The 1-month Evaporative Demand Drought Index (EDDI) value on June 22 showed a developing short-term drought or stress signal across northern California, especially across the northern Sierra and East Bay.

A warm and seasonably dry signal remains in the forecast for July through September with less confidence for October. The monsoon thunderstorm season started across portions of the Southwest during the last week of June and is likely to be a factor for potentially impactful lightning in northern California during July and August. More thunderstorms are expected across the region this summer compared to last summer, although the greatest impacts are likely to be shunted to the east and south of the area. The number of impactful wind and heat events are likely to outnumber impactful lightning events. There are mixed signals in the modeling and analog years for the early fall period with some suggesting cooler-moist periods while other outputs suggest a warm and dry regime. Confidence is a lot less for the early fall period.

Based on the current state of fuels and seasonal weather predictions, near to above normal significant fire potential is projected for July through October. Flash drought conditions remain likely across a broad portion of the area this summer and could extend into early fall. This means an alignment of critically dry dead and live fuels for a longer than normal period. Live fuels will initially be a fire spread inhibitor across some mid and most upper elevations, but the warmth and summer dryness will stress fuels as the summer progresses. The most flammable months are likely to be August and September. The one caveat will be marine layer influences during July and August, which are likely to take the edge off the heat impacts near the coast, especially along and west of Highway 101, including portions of the Bay Area and most of the North Coast PSA. Fire growth is likely to be initiated the most during heat wave events and their subsequent breakdowns, with lightning periods likely to be more impactful compared to last year. Near to above normal herbaceous fuel loading will also challenge suppression, like the past several years. Prescribed burning is likely to remain focused on areas with flashier fuels where prescriptions are easier to meet.

Sea surface temperature (SST) anomalies surrounding the Hawai'ian Islands were above average during June. Average temperature anomalies were generally near to above normal for June, with precipitation anomalies generally near to below normal except for a small area of above normal precipitation for western portions of the Big Island. Moderate to extreme drought exists across most of the island chain, especially favoring the southern tier. Herbaceous fuels remain in a mixed phase of both curing and green-up across the leeward sides, with curing becoming more pronounced across the leeward areas. No National Weather Service Red Flag Warnings were issued and there were very few notable wind events in Hawai'i in June. Fire activity increased with a couple of large fires igniting and growing during an enhanced trade wind period June 15-16 on Oahu and Maui.

The El Nino Southern Oscillation (ENSO) is currently in a neutral state and is expected to remain that way during the outlook period. Average temperatures in Hawai'i during the next four months should generally be above normal. Precipitation during the dry season should take on a mixed anomaly flavor although impacts by tropical systems are expected to be below normal, therefore providing more of a drier tilt versus a wetter one. Some climate models suggest a slightly wetter signal across the northern tier of the island chain. Drought stresses will continue within the live fuel bed with more herbaceous curing expected. Based on the weather projections and current state of the fuels, above normal significant fire potential is projected for July through October across the leeward sides from Oahu south to the Big Island.

Southern California

Over the past three months, temperatures have mostly run above normal across southern California, although lower elevation coastal regions have persistently remained near to cooler than average. The warm anomalies have been driven more by persistence than by extremes. There have been no major heat events over the region so far this season, but temperatures have persistently run slightly to moderately above normal. Precipitation over the same period has been mostly below normal and in many cases less than 75% of normal. While the extreme dryness of early winter over portions of the region was mitigated somewhat into the late winter and spring, it was a much drier than normal rainy season overall. Some anomalous subtropical moisture in late

May and early June produced large positive rainfall anomalies over many desert areas. There is very little snowpack remaining in the mountains, and what little snow remains is mainly confined above 9,000 feet across the Sierra. Seasonal snowpack across the Sierra peaked near to only slightly below normal, but melt-out was considerably faster than normal.

ENSO neutral conditions are present across the equatorial Pacific, and these conditions are expected to persist into the early fall. Cooler than normal sea surface temperatures off the West Coast have likely been a strong contributor to the coldest anomalies in the region being found in coastal areas.

Moderate to severe, and locally extreme, drought conditions are present across southern California, with abnormal dryness to moderate drought in much of central California. This remains primarily a short-term drought driven by the dryness over this past winter, as larger scale indices such as reservoir levels remain in excellent standing. The generally warmer and drier than normal weather has caused heavy dead fuel moistures (1000-hour time lag) to trend below normal for this time of year in most areas away from the marine influence. Despite the dry overall winter, the respectable amount of rain received during the peak growing season in late winter and spring caused live fuel moistures to peak above normal in most areas. However, the warm and drier weather of recent weeks has generally driven live fuel moistures near to a little below normal as the shorter-term contributions from the new growth are canceled by the drier old growth vegetation. Older growth did not respond as favorably to the late season rain due to how dry the overall season was. Taking everything into consideration, fuel conditions overall are near to a little drier than average for this time of year.

Climate models remain insistent on hotter than normal conditions dominating across much of the West this summer. Analog years and general background climatic warming also support this conclusion, and the forecast leans strongly in that direction. It is highly likely that temperatures will be mostly above normal for the region through October, although any major heatwaves may not present themselves until mid-July. While the region as a whole will likely be warmer than average, coastal areas may remain near to cooler than normal through most if not all of the summer. For precipitation, an early theme this season has been the failure of the Four Corners high to become established and corresponding impediment for the North American Monsoon to become regularly established as yet. Due to the cool waters off the West Coast promoting anomalous late season troughing, this may continue deep into July. Because of this and the associated propensity for more southwesterly flow aloft, monsoon moisture is expected to be near to below normal across our region this summer. However, occasional monsoonal moisture intrusions are likely by at least late July into August. In addition, the active pattern over the Pacific could promote intrusions of Pacific moisture as well, but this tends to produce more in the way of problematic lightning as opposed to beneficial moisture.

In terms of fuels, the 100-hour and larger dead fuels are expected to run mainly drier than normal this summer, with occasional but short-lived improvements due to moisture intrusions. However, a more persistent than normal marine layer will likely promote near to moister than average dead fuel conditions below 2,000 feet in coastal areas. Live fuel moistures away from the marine influence will mostly trend near to below normal and on average will be similar or drier to the summer of 2024. We will likely see more in the way of critical or near critical live fuel moisture values by August this year. It is too early to begin speculating on the fall offshore wind season. However, the similarities in the global pattern to 2024 are of concern. Above normal fire danger persisted throughout the fall and early winter under a notably similar global sea surface temperature regime last year. Due to this and the high likelihood of critical live fuel moistures this fall, above normal fire potential has been carried forward for the offshore wind-prone regions of southern California in October.

Northern Rockies

A warmer and drier than normal July forecast drives an escalation in significant wildland fire potential during this forecast period for the Northern Rockies Geographic Area (NRGA). Above normal significant wildland fire potential is expected for north Idaho and much of western and central and northeast Montana July through September. There is a slower increase in significant wildland fire potential expected for Glacier National Park and the northern Front Range due to the significant rain and snow event June 20–22, but this area will still ascend to above normal for August. South central and southeast Montana are expected to be normal for July but above normal for August and September as better spring moisture is depleted by the expected drier than normal summer. Western North Dakota is expected to follow the eastern Montana trends while eastern North Dakota is expected to see normal significant wildland fire potential through early fall. There is little confidence in this forecast for October but if fire remains on the landscape in September the wind season may maintain elevated significant wildland fire potential.

During the past month drought has expanded and intensified over portions of north Idaho and western Montana. Despite the June 20-22 precipitation event, drought levels did not improve in any areas of western or central Montana. Eastern Montana and western North Dakota had areas with drought improvement with only small pockets of drought intensification. Severe drought is most prevalent over the southern portion of north Idaho extending into southwest Montana.

June moisture was below normal west of the Continental Divide and from northeast Montana through northern North Dakota. Central Montana was slightly above normal with southeast Montana and southern North Dakota experiencing a mosaic of above and below normal moisture based on thunderstorm tracks. Temperatures were uniformly above normal west of the Continental Divide and near normal east of the Continental Divide. A large portion of northern Idaho reported less than 50% of normal June precipitation and temperatures 3-5°F above normal.

Large fire activity in June was limited to two fires in Montana, with additional fire activity in Idaho and Montana requiring within region mobilization. Growing Season Index values and field reports reflect an abnormally high amount of cured grasses in areas west of the Continental Divide due to a lack of spring precipitation. This impact appears to be strongest in southern parts of central Idaho. Fuels appeared to experience a bit of recovery over portions of western Montana, but only areas around Glacier National Park appeared to receive enough moisture to reverse the preexisting dryness abnormalities.

Long term forecasts for July are for above normal temperatures and below normal precipitation with most of the global models maintaining this trend into August and September. Moisture deficits in June support a strong escalation in significant wildland fire potential in early July for northern Idaho with a slower response in western Montana. Despite better moisture having fallen over central and eastern Montana during the spring, the extended forecasts leaning hot and dry persistently during July and August will support significant wildland fire potential spreading eastward as summer progresses. North Dakota has the best chance for precipitation in the month of July so there is less certainty that the eastern end of the NRGA will experience above normal potential, but summer outlooks do favor a persistent dry and warm trend.

Great Basin

Fire activity is expected to increase to above normal over southern areas of the Great Basin in the mid to higher elevations, which are stricken by long term drought and have seen hot and dry conditions throughout much of June. These drought conditions have also led to a below normal fine fuel crop in the lower elevations in these same southern areas, where fire conditions should remain normal. Pulses of monsoon moisture will start pushing north into the Great Basin in early July, but the moisture looks sporadic and inconsistent through the middle of the month, including southern areas. Therefore, after hot and dry conditions, and in areas where live and dead fuel moisture is critical, any return of lightning through the first half of July is expected to increase fire

potential. Moisture may be more consistent later in July in the south, allowing those areas to return to normal fire potential for August.

Farther north, above normal significant fire potential is expected across western and northern Nevada, southern and central Idaho, and western Wyoming from July through September before returning to normal by October. Fine fuel loading is well above normal in some of these areas in the lower elevations, especially northern Nevada and southwest Idaho where significant carryover remains and multiple crops of new cheatgrass grew this spring. Live and dead fuel moisture across Nevada and Utah is also near record lows for the time of year. Meanwhile, despite the healthy winter snowfall in parts of Idaho, prolonged warm and dry conditions will bring above normal fire potential to the higher elevations of Idaho in July and August, and likely into September.

Average temperatures overall in June were at least 2-6°F warmer than normal in all areas, and precipitation was well below average in most of the Great Basin. Above normal precipitation occurred in southern areas over the first few days in June, but it has been mostly dry since then. The maximum spring snowpack was near normal over the northern half of the Great Basin, and just above normal over parts of northwest Nevada and southwest Idaho in early April. However, the snowpack melted quickly with extended periods of warm, dry, and breezy weather this spring. The southern half of Utah, southern Nevada, and the Arizona Strip had much below normal snowpack. Drought continues to be focused on the southern half of the Great Basin with severe to extreme drought across much of southern and eastern Nevada, Utah, and the Arizona Strip. Moderate drought is also ongoing in western Wyoming and the Salmon-Challis National Forest in Idaho. Drought will likely persist and worsen in these areas. The only areas of the Great Basin with no drought are northern Nevada and southern and western Idaho, although these areas are abnormally dry.

Fine fuels are mostly cured in all lower elevations. Fine fuel loading is above normal or well above normal across northern Nevada, and portions of western Nevada and southern Idaho. Live and dead fuel moisture is mostly below normal, and in some areas of Nevada and Utah, near record lows for the time of year.

Fire activity increased throughout June in the Great Basin. Larger significant fires occurred in southern Utah, western and eastern Nevada, and western Wyoming in the latter half of June. Lower elevation grass fires started to increase in frequency and size throughout June across the Great Basin as well, With the increasing activity, Great Basin elevated to preparedness level (PL) 2 (on a scale of 1-5) on June 17 and then again to PL3 on June 21.

The progressive weather pattern from May continued through much of June bringing periods of strong winds and hot and dry conditions that rapidly dried out fuels across the region. Consistent monsoon moisture is expected to be a bit delayed, but pulses of moisture are expected throughout July to bring increased lightning and scattered moisture. Therefore, above normal fire potential in the mid to higher elevation areas in the south is expected into at least mid-July. Farther north in the higher elevations of eastern Nevada and central Utah, above normal fire potential is expected through July until more abundant moisture from the monsoon arrives. Another concern for July through September will be the lower to mid elevations of western and northern Nevada into southern Idaho. These areas have extensive carryover fine fuels from last year and have seen multiple crops of new fine fuel growth from precipitation earlier this winter and spring. Therefore, above normal significant fire potential is expected for much of western and northern Nevada into southern Idaho for July and August. The Salmon-Challis National Forest will have above normal fire potential for July due to warm and dry weather that rapidly melted off the snowpack in an area that had less snowpack than other areas of central Idaho. Areas in central Idaho farther west toward the Payette and Boise National Forests are likely to have above normal fire potential delayed until August and September, with climate outlooks strongly suggesting prolonged warmth and dryness for most of the summer. Any lightning that moves across the north later this summer will likely increase fire potential, regardless of precipitation.

Southwest

Significant fire potential is expected to be normal for July for all parts of the Southwest geographic area. Normal for July involves sharply decreased fire activity across New Mexico and a gradual decrease in fire activity across most of Arizona. August onwards tends to have minimal significant fire activity in most years due to the North American Monsoon, and the shorter days/burn periods of September and October usually do not allow fuels to reach critical levels for any prolonged period of time.

A surge of moisture produced several consecutive days of widespread wetting rain for much of New Mexico in the last week of June with some rainfall reaching into far southeast Arizona. Other areas to the west have remained hot and dry through the latter half of June. However, as the North American Monsoon starts to fully develop in early to mid-July, surface dewpoints and relative humidity will be steadily rising above critically dry levels. In addition, showers and thunderstorms will become more widespread and push further west and northward into Arizona. Long term drought remains extreme to locally exceptional in southern areas, tapering to moderate to locally severe in northern areas, but drought effects will likely be minimized during the monsoon season.

The recent widespread rain across New Mexico lowered Energy Release Component (ERC) values in most Predictive Services Areas (PSAs) to near or below the 50th percentile; however, ERC values in northwest New Mexico and much of Arizona remain elevated, between the 85th-97th percentiles. The expanding monsoon influence should begin lowering ERC levels and raising fuel moisture in all fuel classes through July and into August.

Fire activity was fairly high through most of June with several ongoing large incidents, primarily in southern New Mexico. However, activity on these fires moderated by late June with the onset of higher relative humidity and precipitation. With that beneficial moisture initially focused over New Mexico, the latter half of June saw large fires emerge on Navajo Nation lands in Arizona and southern Utah.

The developing monsoon will likely dominate the weather pattern for July and August with higher overall relative humidity. In addition, as the monsoon high dominates the region, it will become increasingly rare for strong cold fronts from the northwest to push into the Southwest to bring any critical winds. Long range computer models already indicate the high will be developing in early July. With increased relative humidity, increased chances of precipitation, and lower chances of any high wind events, significant fire potential is forecast to be normal through October for all parts of the Southwest geographic area.

Rocky Mountain

Above normal significant fire potential is expected in northwest Colorado and southwest Wyoming for July and northeast Wyoming for August and September. Otherwise, normal significant fire potential for the Rocky Mountain Area (RMA) is expected through October. June saw increasing heat west of the Continental Divide, with limited precipitation. Meanwhile east of the Divide, temperatures were cooler, with more precipitation and some improvements in drought conditions.

June brought increasing showers and thunderstorms to the central Plains and back towards the Continental Divide. This increased thunderstorm activity kept the Front Range, along with the San Juan Mountains, above typical rainfall for the month, with scattered above normal rainfall extending to eastern Wyoming, Nebraska, and Kansas. These showers and thunderstorms also kept temperatures near to below average. On the Colorado West Slope and western Wyoming, the month was much warmer, averaging around 5°F above normal. Precipitation was scarce for much of the western portion of the RMA with some areas receiving less than 10 percent of the

June average. Drought conditions overall remained unchanged or improved in eastern Wyoming and eastern Colorado into Nebraska and Kansas. Northwest Colorado and southwest Wyoming, due to the hot temperatures and lack of rain, continued to see worsening drought through the month.

With the increased showers and thunderstorms, much of the eastern plains of Colorado and Wyoming into the central Plains continue in green-up, but this is also increasing the fine fuel loading due to abundant growth. West of the Continental Divide in both Colorado and Wyoming the fine fuels in the lower elevations have cured. Mid and higher elevation fine fuels are generally greener and have been impeding fire spread. The larger dead woody fuel classes are carrying fire, due to the longer-term lack of moisture.

With the increased hot and dry weather, initial attack activity has been increasing through the month of June. Lightning starts are starting to become more common, especially west of the Continental Divide where the fuels are more receptive. Despite the increasing activity and increased dry fuels, most fires have been contained within one to two operational periods and been less than 10 acres.

Temperatures are expected to remain above normal through the outlook, with the highest chance centered on the Great Basin. July will see southwest Colorado trend closer to normal for precipitation while the rest of the RMA will continue to be below normal. There will still be a gradual increase in showers and thunderstorms as the monsoon starts to develop in the southwestern US. The monsoon is not looking as active as it once did, with activity being more sporadic. The initial push from each round of monsoonal may result in increased dry lightning potential on the West Slope. The remainder of the RMA through October will remain below normal for precipitation.

With the hot, dry conditions expected on the West Slope, northwest Colorado, and southwest Wyoming, increased significant fire potential is forecast in July while the rest of the area will continue to see normal fire potential. The area of concern going into August and September will shift towards northeast Wyoming, with continued drought conditions and the expectation of below normal precipitation. October will return to normal for the entire area.

Eastern Area

Eastern Area continued to see near normal rainfall through the month of June. This brought nearly the entire area out of any type of drought. There are still a few locations that remain in drought, mainly in the Great Lakes and the Upper Midwest, with the driest areas in northwest Minnesota. There are also pockets of dry conditions in Michigan, the Chicago area, and along the New England Coast. Green-up has occurred regionwide, offsetting these dry conditions and significantly lowering the risk of significant fires for the entire area for July.

Climate outlooks for the summer into the fall show the northwestern portion of the Eastern Area is favored for above normal temperatures and drier than normal conditions. With green-up and current near normal to somewhat above normal rainfall in the short term, normal significant fire potential is forecast for northwest Minnesota in July. However, given the longer-term dry outlooks, northwest Minnesota is expected to revert to above normal potential for August through October.

As for the central and eastern portions of Eastern Area, the outlook leans toward above normal temperatures and near to above normal precipitation. This will keep much of the area at normal significant fire potential through the entire outlook period.

Snowpack was well below normal across much of the northern tier of the Eastern Area this winter, which will affect available surface fuels despite the outlook period covering the green growing summer season. Fuels drivers that are still of concern from lack of snowpack are standing dead grass intermixed within green grasses that may make the fuel bed more receptive to ignition if

drying and curing occur. Similarly, low water-levels in lakes, ponds and marshes may make lowland grasses and shore vegetation available to burn if drying and curing occur. Periods of above normal fire potential are expected during any hot, dry, windy events in the northern tier. It will be a concern in any areas of persistent drought that greened fuels may remain deceptively flammable. Moreover, it may not be long before curing begins and live fuel moistures drop to levels that cause increased fire behavior after fires start. Convective rainfall creating spotty precipitation and potential ignitions from lightning or recreation activities in northern forest fuels will increase and be a concern in any areas experiencing drier than normal conditions. Periods of precipitation and then drying will be a concern for fine fuel growth followed by curing, with extended periods of lack of precipitation potentially leading to above normal fire potential.

Normal fire potential is predicted for the Eastern Area in July with most outlooks showing normal to above normal precipitation probabilities. However, starting in August and into the fall, northwest to north central Minnesota (EA01) is predicted to have above normal fire potential due to persistent drought conditions, likely above normal temperatures, and below normal precipitation. Severe large scale storm damage from a wind event that occurred in June is a developing concern in this area that is already showing a return to elevated fire potential despite recent rains. Hazardous fuels concentrations in the blowdown area may potentially dry to the red slash stage in August, potentially exacerbating the significant fire risk.

Southern Area

Coverage of drought across the Southern Area continued to decrease in June. However, dryness has begun to re-emerge over Texas in recent weeks, while rainfall has been hit and miss in the rest of the region. Long-term drought remains extreme to exceptional from parts of the Hill Country into the Trans Pecos, which in some cases is expected to have implications on significant fire potential heading into the hottest days of summer. Drought has also carried into early July over the Florida peninsula, with areas of severe drought scattered around and extreme drought over the southeast. Drier conditions in mid to late June can be attributed to surges of dusty and stable Saharan air that have limited thunderstorm activity. This pattern has also brought unusually dry conditions to the Caribbean islands, where signs of drought are quickly increasing.

In terms of fuels, the beginning of the growing season has been exceptionally wet throughout most of the region. Well above average herbaceous fuel loads will eventually impact the fire environment, likely beginning in the Plains sooner than later as high evaporative demand and potential flash drought accelerates the curing process. Grass loading is more of a factor in fire risk during the windier times of year after freeze-curing results in dead fine fuels, but as occurred last summer, exceptional grass loads can also act as a conduit for spreading fire to the fuels that are more volatile in summer. Some of the long-term drought combined with oak wilt and freeze or ice storm damage in Texas has left abundant dead fuels. Wet soils and a continued wet pattern in the Mississippi Valley, Appalachian states, and Southeast will ease any concerns associated with drought- or beetle-killed pine trees and hurricane debris for the next few months, but confidence is lower once we move into the fall fire season.

Hot and dry conditions took longer to materialize than expected over the Plains, but there is growing confidence in accelerated drying as the sub-tropical ridge builds over the region in early to mid-July and persists at times into August. In the absence of prolonged triple-digit heat, areas with more substantial deep layer soil moisture, like most of Oklahoma into eastern Texas, will take longer to dry out. Above normal significant fire potential is maintained for July in a good part of Texas, where confidence is highest in long duration heat and the potential for flash drought. By August, timber litter fires in eastern Oklahoma and Texas are expected to become more problematic, while confidence is lower for southeast Texas due to ongoing wet weather and the potential for tropical activity. Most of the southern Plains should expect to see periods of extreme heat and enhanced significant fire potential during August, and if drought expands, intensifies, and remains in place into September, hurricanes and tropical storms tracking east of the area could enhance wind-driven fire potential. However, confidence is too low given the inherent

uncertainties in where tropical cyclones track. Monsoon activity is forecast to result in a decrease in significant fire potential across the High Plains and Trans Pecos through the period, in line with climatology.

Above normal significant fire potential has been introduced across the Caribbean islands for July based on the recent uptick in dryness, likely development of drought, and reports of increased wildfires during June. Long-range models have consistently forecasted enhanced dry air intrusions from the Sahara and well below normal rainfall through the hurricane season for Puerto Rico and the Virgin Islands. Improvement in the fire environment could easily occur with one or two tropical waves, so normal significant fire potential is forecasted for the remainder of the outlook. Conditions will be assessed one month at a time since fire activity typically reaches an annual low point there during the peak of the hurricane season.

This pattern affecting the Caribbean will likely continue to impact parts of the coastal Southeast at least in July, but rainfall is expected to trend above average with time in most areas due to near-record warm sea surface temperatures in both the Gulf and subtropical western Atlantic. Water levels are still below normal for this time of year in parts of Florida, which will likely result in continued but near normal risks for lightning-ignited significant fires. Though confidence is not especially high, most signs point towards tropical activity targeting areas from Florida up the Eastern Seaboard during the peak of the season in August through early October.

It is too early to say what the start of the fall fire season will look like during the latter half of October. Most of the hardwood-dominant areas that start to see fires during this period have been wet and are expected to see above average rainfall the next few months. Abundant fuels left behind by Helene, other tropical systems the last few years, recent ice storms and this year's higher than average severe thunderstorm occurrence could all begin to factor in during October, but confidence is low for now. Once drier conditions develop this fall and leaves begin to drop, a rapid increase in significant fire potential could occur over western North Carolina and adjacent areas, with still abundant fine dead fuels and increased availability of heavy dead fuels from Helene, in addition to lingering access issues in the mountains. ENSO-neutral conditions are currently favored through the end of the year, but forecasts should be monitored for any trends towards La Niña, as this could enhance the risk for an active fall fire season.

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