

National Significant Wildland Fire Potential Outlook

Predictive Services National Interagency Fire Center



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Outlook Period – April through July 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 southern tier of the US from New Mexico to the southeast Atlantic coast as well as the central Plains into the Mid-Atlantic, and the national preparedness level increased to two (on a scale of 1-5) March 4. The greatest increase in activity was observed in the Southern Area, now at geographic area preparedness level four, with a significant fire outbreak on the Plains March 14, and numerous fires in the southern Appalachians the latter half of the month. The Eastern Area also observed a steady increase in activity with the geographic area preparedness level increasing to two March 15. Total acres burned through March of this year is 121% of the 10-year average, with an above average tally of wildfires of 170%.

March precipitation was above normal in the central and western Great Lakes, with generally above normal precipitation in southern California, the Great Basin, Oregon, and northern Rockies. Well above normal rainfall fell across Deep South Texas, but below normal precipitation was observed in New Mexico and the Four Corners into the central and southern Plains. Below normal

precipitation fell in eastern Montana to the Dakotas, with below normal precipitation in Arkansas, much of the Appalachians, and the Florida peninsula, as well. Drought expanded slightly across the US the past month, with drought development noted in portions of the Appalachians, Four Corners, and Plains. Drought intensified in the Southwest, Texas, and portions of Florida. Drought improvement was limited to the Olympic Peninsula of Washington and portions of the northern Rockies.

Climate Prediction Center and Predictive Services outlooks issued in late March indicate a trend of warmer and drier conditions developing across the northern half of the West and West Coast starting in May and continuing through July. Warm and dry conditions in the Southwest to the southern Plains are likely in the spring, with the North American Monsoon likely to bring relief to the Southwest by July. Conditions are likely to turn wetter for portions the eastern US this spring, particularly in the Great Lakes to Ohio Valley. However, temperatures are likely to remain above normal for much of the eastern US into the early summer. A period of drier conditions is also likely to develop across the southern Plains in early summer.

For April, above normal significant fire potential is forecast from southeast Arizona into southern and eastern New Mexico into much of western Texas and Oklahoma. Above normal potential is also forecast from the east slopes of the southern Appalachians to the southeast Atlantic coast and Florida, then in southeast Colorado and western Kansas and from the eastern Dakotas to western Minnesota and northern Iowa. Above normal potential is also forecast for much of southern Alaska, and that is forecast to persist into May. Elsewhere in May, potential will return to normal in the Plains and southern Appalachians but remain above normal along the southeast Atlantic coast and Florida, while expanding across most of the Southwest. In June, above normal potential will continue along the southeast Atlantic coast, the Florida peninsula, and much of the Southwest. Above normal potential will expand into portions of the southern Great Basin, southwest Colorado, and portions of central and southern California. Above normal potential will return to central Texas and Oklahoma in June and continue into July when it expands into eastern Oklahoma and Texas. Significant fire potential will return to normal in the Southwest and Four Corners in July due to the monsoon, but above normal potential will expand into more of California and much of the Northwest, northern Great Basin, and northern Rockies.

Past Weather and Drought

Temperatures in March were above normal across the Northwest, and across the Plains to much of the East Coast except Florida, which was near to below normal. Temperatures in California into the Great Basin and Southwest, west of the Divide, were near to below normal for March. Temperatures were above normal for much of Alaska and Hawai'i for March, as well, with the greatest anomalies across south-central Alaska and Kauai.

Precipitation across the US in March was above normal in the Northwest, except in portions of the Columbia Basin and southeast Oregon where it was near to below normal. Above normal precipitation was also observed in southern California and the central Great Basin to western Wyoming, as well as in portions of the western Great Lakes states. Well above normal precipitation fell in Deep South Texas, mainly due to a historic rain event March 26-27, when over 20 inches of rain fell in Harlingen, Texas. Below normal precipitation was observed in the Four Corners into much of New Mexico and the central and southern Plains into Arkansas and southern Missouri. Below normal precipitation fell in the Dakotas to eastern Montana, and across much of the Appalachians and the Florida peninsula. Precipitation in Hawai'i was well below normal, with Kauai receiving less than 25% of normal March precipitation, while precipitation was generally below normal in Alaska, especially across the Interior. Snowpack across the western US is near to above normal for most of the Cascades and Sierra to the northern and central Rockies but is below normal near the Canadian border. Snowpack remains well below normal for the southern Great Basin, Southwest, and southwest Colorado.

Fire activity increased significantly across the Southeast March 2-3 due to strong and dry northwesterly winds, with the Covington Drive Fire near Myrtle Beach, South Carolina the most notable fire. Several strong wind events also swept across the central and southern Plains during March, the strongest and most widespread occurring March 14. A fire outbreak occurred across the southern Plains centered on Oklahoma, with dozens of new large fires and several hundred structures burned. Very dry conditions occurred across the Appalachians, as well, with anomalously long stretches of relative humidity in the teens and poor overnight recovery. Several days of southwesterly and northwesterly winds at the end of the month resulted in several large fires and incident management team mobilizations in North Carolina, South Carolina, and Georgia.



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 slowly increased across the US since late February with nearly 45% of the US in drought. Drought development occurred across portions of the central and southern Plains, southern Appalachians, southeast Atlantic Coast, and Florida. Drought intensified across much of the Southwest into southwest Texas, and across the Florida peninsula. Drought also intensified across portions of Wyoming, the northern Plains, and Lower Peninsula of Michigan. However, drought improved over the Olympic Peninsula of Washington and in portions of western Montana and east-central Idaho. Extreme drought is observed in southern California and southern Nevada into southern Arizona, southern New Mexico, and southwest Texas. Smaller areas of extreme drought are noted in portions of southern New Jersey, Wyoming, the western South Dakota-Nebraska border, western Montana, and western North Dakota. Exceptional drought persists in far West Texas, and has expanded into portions of the Texas Hill Country, southwest New Mexico, western Arizona, and far southeast Nevada.

Weather and Climate Outlooks

La Niña continues to weaken in the equatorial Pacific Ocean, with the coolest sea surface temperature (SST) anomalies in the central equatorial Pacific. However, sea surface temperature anomalies in the central Pacific have warmed to near average the past couple weeks, with slightly above normal SST anomalies off the west coast of South America. A transition to El Niño-Southern Oscillation (ENSO) neutral conditions is expected the next month, with the Climate Prediction Center forecasting a 62% chance ENSO-neutral conditions will persist through August. Beyond August, significant uncertainty remains for the ENSO forecast due to the spring predictability barrier.

A strongly negative phase of the Pacific Decadal Oscillation (PDO) is also expected to persist this spring and will impact the weather patterns into early summer. The Madden-Julian Oscillation (MJO) has been active this winter but is expected to be weaker for the next month with minimal impacts on this outlook. The La Niña transition to ENSO neutral conditions and the negative PDO are expected to be the main drivers of this outlook.



Geographic Area Forecasts

Normal fire season progression across the contiguous U.S. and 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.)

Alaska

Alaska is moving into fire season, with above normal potential in April and May in parts of southern Alaska due to a low snowpack. Other parts of the state can expect a normal start to the season as the snow melts. By June, normal conditions are expected statewide. The US Drought Monitor identifies an area around Bristol Bay, Kodiak Island, the Matanuska Valley, Anchorage Bowl, Kenai Peninsula, and most of the panhandle as abnormally dry. All other areas are shown as normal. There is an established snowpack across the Interior and the northern portions of the state. However, throughout much of Bristol Bay, south-central Alaska, and the panhandle, little to no snow is present and below normal snow water equivalent is observed. This is the impetus for the above normal potential to start the fire season across southern Alaska.

Climate Prediction Center graphics for the next few months show the likelihood of colder than normal temperatures in western Alaska for April, then warmer than normal temperatures for the summer months statewide. There is also a signal for a wetter than normal summer for most of Alaska, though the skill for long term precipitation prediction in Alaska is low.

There have been five fires since mid-March on the Kenai Peninsula and in the Matanuska Valley. All were due to escaped burn piles or barrels. With people focusing more on spring cleanup as temperatures warm, it is likely that escaped burns will become a bigger problem in south-central Alaska, then spread along a larger portion of the road corridor. If the timing of a wind event coincides with any fires, they will become a bigger concern.

Fuels are frozen and covered with snow for most of the northern two-thirds of the state. Bristol Bay, south-central Alaska, and the panhandle have many areas with little to no snow. As the spring months encompass our driest time of year, the lack of winter snowpack means there won't be an ample recharge of moisture into the duff fuels, and fires will become more difficult to manage earlier than normal in those areas. Even without the drier duff, a significant wind event alone could lead to larger fires due to dry, flashy fuels.

Alaska is moving into fire season. Human-caused fires are becoming more likely in areas with minimal snowpack around Bristol Bay, south-central Alaska, and the panhandle. The lack of winter snowpack means surface fuels are ready to burn, and deeper layers will dry out sooner than normal, increasing resistance to control earlier in the season. Therefore, a busier than normal early fire season is expected in parts of southern Alaska. Other parts of the state have a more typical snowpack and can expect a normal start to fire season, with activity increasing throughout May and peak activity by late June. With no other factors on the horizon, it is expected that by June, significant fire potential will be normal and remain that way for the summer.

Northwest

Fuel and weather conditions across the Northwest Geographic Area continue to inhibit significant fire activity, reducing the need for costly incident management team activations.

March brought typical spring weather to the Northwest, characterized by predominant westerly flow. Several low-pressure systems delivered rain to lower elevations, while the higher Cascades accumulated snowpack. Short-lived high-pressure episodes provided brief dry periods. An atmospheric river March 16 resulted in significant rainfall and flooding in southwest Oregon.

Temperatures experienced two above-normal periods around March 9, with records broken in the second period around March 25. Overall, March was slightly cooler than average for highs and slightly warmer for lows, with mean temperatures remaining near or slightly above average. In the Columbia Basin, some areas reached temperatures 4-5°F above average. Monthly precipitation totals were near or above average, particularly in southwest and central Oregon, while the drier desert regions of the Columbia, Klamath, and Harney Basins recorded below-average amounts due to rain shadow effects.

After February's fluctuations, March saw a return to normal, with frequent low-pressure systems increasing snowpack across Oregon and southern Washington. Central and northern Washington halted the snowpack losses from earlier months, maintaining a 10-20% deficit compared to end-of-March median values. However, concerns persist regarding the decrease in snow water equivalent values at elevations below 4,000 feet.

The US Drought Monitor indicates moderate drought conditions from the Washington Cascades westward to the Puget Sound. However, the Olympic Peninsula's moderate drought designation was removed at the end of March, with most remaining areas free of drought designations.

Initial attack activity was minimal across the geographic area in March. A few pre-green-up fires occurred in late March on the Washington side of the Columbia Basin, each under 100 acres and contained within a single burn period. Prescribed fire implementation continued as conditions allowed.

At the end of March, Energy Release Component (ERC) values remain at or below seasonal averages across Oregon and Washington, with 1,000-hour fuel moistures above significant fire threshold values. Green-up is beginning in lower elevations west of the Cascades and in the Columbia Basin. Drier rangeland fuels east of the Cascades present an increased potential for single day burn events when aligned with wind and slope.

Central Pacific Ocean sea surface temperatures are currently around average, with warmer water replacing the cooler water typical of La Niña episodes. The Climate Prediction Center (CPC) forecasts a shift to neutral conditions in the next month, likely persisting through the Northern Hemisphere summer. The CPC also indicates that March's active weather pattern will likely continue into April. However, long-range models suggest that high-pressure areas may amplify, leading to extended dry periods of 3–4-day duration in April.

The CPC forecasts for April through July indicate that April and most of May will likely maintain near-average temperature and precipitation conditions throughout the region. However, a rapid transition to warmer and drier patterns is expected in late May or early June. Long-term weather models support these concerns, though analog year observations introduce some uncertainty regarding this transition.

The Northwest Geographic Area will maintain normal (low) significant fire potential through June. However, confidence for June is notably lower than in March due to concerns about snowpack and a strong tendency toward warming and drying in the forecast. The geographic area will monitor conditions closely over the next couple of months to assess the impact of these factors on the spring green-up period. For July, most Predictive Service Areas (PSAs) are designated as above average for significant fire potential. Current trends suggest that typical summertime shortterm drought conditions could accelerate, leading to rapid fuel drying and coinciding with increased human fire activity. Only the three PSAs (NW02, NW03, and NW04) encompassing southwest Washington and western Oregon will remain normal in July, pending the evolution of the pattern into June.

Northern California and Hawai'i

Significant fire potential for northern California is projected to be normal for April and May and near to above normal for June and July. Hawaii's significant fire potential is projected to be normal for April and May and above normal for the leeward sides during June and July.

Historically, an average of less than one large fire occurs per Predictive Service Area (PSA) in northern California during April and May. During June, generally one to three large fires occur per PSA on average, except for the North Coast and Far Eastside, where the average is less than one. During July, one to three large fires occur on average per PSA, except for the North Coast, where the average remains less than one.

Several low pressure systems, driven by an active Pacific jet stream, brought extended periods of unsettled weather to northern California during March. Despite the unsettled pattern, there were only two atmospheric river events during the month. Monthly precipitation totals reveal a mix of anomalies across the PSAs, with mainly near to below normal readings, but there were moderately sized pockets of above normal precipitation, as well. Average temperatures in March were generally near to below normal. Nearly 2,200 lightning strikes were recorded, which almost

tripled the 2012-2022 March average of almost 800 strikes. Several gusty to very strong southsouthwest wind days occurred throughout the month but were generally accompanied with high relative humidity. The one exception occurred on March 26 when humidity fell to between 10-20 percent across Modoc County and the Far Eastside PSA. There was just one potentially problematic dry north-northeast wind period in March, and it was weak.

Fuels were generally moist and less flammable during March. The regional Energy Release Component (ERC) value fluctuated on either side of average most of the month. The Bay-Marine and Far Eastside PSA's reported record time-of-year maximum ERC values during two stretches of the month, but those values were well below the 60th percentile. Live fuels were mainly dormant across the mid and upper elevations, while woody fuel green-up and moistening was found below 3,000-3,500 feet. Herbaceous green-up was noticeable below 3,500 feet. Drought conditions remained absent from northern California during March. Like February, snow cover fluctuated throughout March with impacts to elevations starting between 1,500 to 3,000 feet during the middle of the month. Snow cover was generally found above the 4,500 to 5,500 ft elevation level, depending on sheltering and aspect, by late month. Snow water equivalent (SWE) values showed very little change between late February to late March, with the SWE for most river basins 90-110% of normal March 28. The one-month evaporative demand drought index (EDDI) value on March 23 showed no discernible short-term drought impacts across northern California.

Wildfire occurrence increased slightly during March compared to February. The average for reported wildfires rose to nearly two fires per day, compared to less than one daily during February. This activity aligns with the March 2008-2024 daily average of a little over two fires per day. Most of the individual fires in March grew to less than two acres except for three 3-acre fires that occurred in the Coast Ranges. Pile burns were sporadic and generally frontloaded to the first half of the month.

The weather patterns during April are expected to provide a whiplash feel between unusually cool and moist periods to warm and dry periods, with wild fluctuations in the wind patterns too. Confidence is above average for a warmer and drier than normal tilt between May to July across interior areas, away from coastal influences. Some low-pressure activity should favor the eastern portions of the region during May and usher in a higher-than-normal frequency of dry northerly wind periods across central and western areas. Significant dry northerly wind events will also be possible during June and to a lesser extent into July but not be nearly as frequent compared to the spring months. The North American Monsoon thunderstorm season is expected to start on time, if not a little earlier than normal, across the Desert Southwest. Analog years suggest more monsoon influence along the Continental Divide, which is typical. During July, some episodic lightning events driven by monsoon moisture are likely, favoring areas in the east of the geographic area.

Based on the current fuel state and future weather predictions, normal significant fire potential is projected for April and May and near to above normal for June and July. Historically, April and May represent a period with minimal large fire occurrence, which then increases noticeably during June and July. For the first half of the outlook period, potential for large fire growth will be inhibited by effective barriers, including upper elevation snowpack and transitional green-up. Based on the forecast, dead fuel moistures are likely to become critically dry for extended periods during June and July, and perhaps for shorter periods during May. An expected near to slightly above normal herbaceous fuel loading will also begin to noticeably cure during May across the lowlands and lead to heightened initial attack periods and potential for large fires to emerge, especially if northerly wind events are more frequent. Herbaceous curing will progress up the slopes during June and July, and cheatgrass should be cured across all elevations sometime during July. Adequate moisture from winter and early spring will help delay stress on live woody fuels as the seasonal warming and drying trend progresses, although these fuels are anticipated to become more flammable during July. Snowpack is expected to come off early this year, most of it melting

by late June. The anticipated fire environment conditions suggest an active start to the significant portion of the fire season, starting with the lowlands during June and impacting larger portions of northern California, especially the lower and mid elevations, during July. As is almost always the case, timing, intensity, and interplay between heat waves, wind, lightning, and critical human ignition periods will be crucial in determining the significance of the fire season. This interplay is better captured along a multiple week forecast time horizon versus a multiple month one. The fire environment should be suitable for extended prescribed burn periods during April and, to a lesser extent, May. A quick transition towards an unusually flammable fuel bed is likely to limit prescribed burning during June and July.

Sea surface temperature (SST) anomalies surrounding the Hawai'ian Islands were above average during March. Monthly average air temperature anomalies throughout the islands were generally near to above normal. Precipitation anomalies were below to well below normal with the strongest precipitation events favoring the windward side of the Big Island on March 10 as well as favoring northern portions of the island chain, especially Oahu, during March 17-18. Drought severity and coverage has increased and now impacts all the islands. Herbaceous fuels across the leeward sides experienced some curing in March, and they are now in a mixed phase and becoming increasingly flammable. No National Weather Service Red Flag Warnings were issued for Hawai'i in March, but there were a few days of enhanced trade winds during the earlier half of the month. A couple of hot spots were detected by satellite across central Oahu and were corroborated with webcam imagery suggesting some wildfire ignitions and growth.

A weak, central Pacific based La Niña is expected to transition back to a neutral state during April. Average temperatures in Hawai'i during this April-July outlook period are expected to generally be above normal, while precipitation should be near to above normal as the wet season transitions to the dry season. Forecast confidence is diminished due to the less than accurate wet season predictions thus far, therefore how much precipitation occurs will be a wildcard. The drought signal is likely to continue across the islands although some fluctuations are expected. The transition to the dry season will place more stress on the live fuel bed with additional curing expected. Herbaceous fuel loading is likely to be less than the last two years going into the dry season unless a few stalled fronts or Kona Lows materialize in the next two months. Based on the weather projections and current state of the fuels, normal significant fire potential is expected for Hawai'i in April and May, while above normal potential is expected on the leeward sides during June and July.

Southern California

Since the start of the water year (October 1), all southern California has remained well below average for precipitation. Most areas have received between 25% to 70% of their average precipitation. However, March was exceptionally wet compared to the rest of the period, and a large portion of the geographic area received over 130% of average March precipitation. Temperatures remained at least 2°F cooler than average across much of the geographic area during March.

La Niña conditions have shown considerable weakening during the past couple of months as sea surface temperature (SST) anomalies have warmed around 1 C in the equatorial Pacific Ocean. Furthermore, warm SST anomalies are starting to appear in the far-eastern equatorial Pacific off the coast of South America.

The US Drought Monitor shows widespread drought of various degrees across central and southern California. The drought severity increases to the south and east. There is a large area of moderate drought observed across most of the Central Valley and severe drought across the south coast. Parts of the desert region of southeast California are experiencing extreme drought, with a pocket of exceptional drought along the Colorado River.

However, recent rains have significantly increased the dead fuel moisture in the larger fuel classes in addition to live fuel moisture. Green-up is underway throughout much of the geographic area, so live fuels are becoming less susceptible to ignition. However, in stark contrast to one month ago, recent rains in this wetter than average March fostered significant growth to increase the yield in grasses and other fine fuels.

Climate models suggest La Niña will continue to weaken, transitioning to neutral El Niño Southern Oscillation (ENSO) conditions through the spring into the summer. As SST anomalies off the California coast have cooled significantly during the past month, this area of cooler than normal SSTs increases the likelihood of a stronger marine layer this spring, which will help curtail drying in areas adjacent to the coast. As the marine layer is likely to become less significant in July, the probability of grass and fine fuels dominated fires increases across the South Coast and Central Coast as well as the Central Coast Interior and Sierra Foothills Predictive Service Areas (PSAs.) The snowpack in the central and southern Sierra currently remains slightly below average. This combined with a large swath of the region in drought, larger fuel types are likely to become more susceptible to ignition during the summer months.

Due to these more recent trends, there are some differences in the significant fire potential forecast since the previous month's seasonal outlook. Normal significant fire potential is likely for all 16 PSAs for April and May. By June, above normal large fire potential is likely for the Sierra Foothills, Central Coast Interior, Western Mountains, and Southern Mountains PSAs. This is primarily due to the significant increase in grass crop yields from the anomalously wet March. Potential large fires in June are most likely to arise in areas where the fuel bed is primarily comprised of grass and other fine fuels. For July, the area of above normal significant fire potential expands to encompass half of the geographic area, comprised of the Central Coast, Central Coast Interior, Western Mountains, Southern Mountains, South Coast, Southern Sierra Foothills, and Southern Sierra PSAs.

Northern Rockies

Significant wildland fire potential in the Northern Rockies Geographic Area (NRGA) is expected to be normal for April except above normal for southeast North Dakota. Southeast North Dakota received less than 20 percent of normal precipitation in March while temperatures averaged 4-6 degrees above normal. Significant wildland fire potential for May and June for the NRGA is expected to be normal. July's significant wildland fire potential is expected to be above normal for north Idaho, western and southwest Montana, and the western portion of central Montana, but remain normal for all other areas. Soil moisture anomaly data reflects deficits in portions of the NRGA west of the Continental Divide. Long range weather predictions for May and June lean towards warmer and drier than normal, and dryness in June is a strong predictor of above normal fire activity in the NRGA in the summer. The above normal temperature and below normal precipitation signal continues into the core of the summer months.

March temperatures were above normal for the NRGA, with well above normal temperatures over north central and eastern Montana and North Dakota. Precipitation has been close to normal for north Idaho and most of western Montana with below normal precipitation from north-central Montana through northeast Montana and all of North Dakota. South-central Montana had above normal precipitation from storms on March 17 –18, but southwest and southeast Montana were closer to normal. The US Drought Monitor reflects areas of severe to extreme drought over portions of western Montana and western North Dakota.

Snow cover retreated in March, and lower elevation dead grasses began to dry. Sheltered areas and north aspects in the foothills retained snow cover. Snow continued to cover fuels at most locations at elevations greater than 6,000 feet above sea level. This pattern is normal for the early part of spring.

Fire activity slowly picked up after March 20, with most fires arising in dried out river bottoms or adjacent agricultural lands. Pile burning continued through the month as atmospheric conditions were unstable enough to foster effective dispersion of smoke. Strong high pressure brought dry and warm conditions that facilitated prescribed burning March 25-27, which included broadcast burns.

Normal significant wildland fire potential is expected through June except for above normal potential in southeast North Dakota in April due to a warm and dry March and exposed, flammable (pre-green-up) fuels. The western portion of the NRGA is expected to experience above normal significant potential in July while the remainder of the NRGA continues with normal potential. The weak winter La Niña has transitioned to a neutral El Niño Southern Oscillation state. This pattern has produced warm and dry early summers in other years, resulting in significant fire activity. This aligns with Climate Prediction Center outlooks and long-range models, which lean towards below normal precipitation and above normal temperatures during the early summer months. Running 36-month precipitation anomalies for parts of the western NRGA indicate that deficits are matching values previously seen in years that experienced sustained large fire activity.

Great Basin

Fire activity is expected to be normal heading into spring as periods of cooler temperatures and precipitation continue across the Great Basin for early April. Large fire activity in the spring is typically low in the Great Basin. Some lower elevation fires may pop up at times on windy days after prolonged dry periods in April or May in northern Nevada and southern Idaho where dormant fine fuel loading from 2024 is above normal. This threat will lessen as green-up progresses, but fires could still occur in the carryover fuels and spread with wind. Fire potential is expected to increase to above normal over portions of southern Utah, the Arizona Strip, and southern Nevada in June, mainly in the higher elevations where drought has intensified, and precipitation has been well below normal since last summer. The monsoon is expected to start on time this year and push into southern areas of the Great Basin in July, allowing southern areas to return to normal fire potential in July. However, concern will shift northward into northern Nevada and southwest Idaho. Fine fuel carryover is expected to be above normal and minimally compacted by winter snow, with near to just above normal winter and spring precipitation expected to produce a new grass crop adding to fine fuel loading this spring. Another area of concern in July may be portions of central Idaho, where the near-normal snowpack may melt off guickly with the likelihood of warmer and drier than normal weather through June and July.

Temperatures overall in March were near to below normal in Nevada and above normal in central and eastern Idaho, Wyoming, and eastern Utah. Precipitation over the last thirty days was above normal over portions of north-central and northeast Nevada, northern Utah, southeast Idaho, and Wyoming but below normal in all other areas. However, seasonal precipitation since October 1, 2024, was below normal across much of the Great Basin, except for far northwest Nevada and southwest Idaho. The snowpack remained near normal over the northern half of the Great Basin throughout March, and above normal over parts of northwest Nevada and southwest Idaho. The southern Nevada, and the Arizona Strip continued with below normal snowpack. However, the snowpack improved with March storms to 40-70% of normal. Drought continues to increase across the southern half of the Great Basin, with severe to extreme drought across much of southern and eastern Nevada, western Utah, and the Arizona Strip. Moderate drought covers the rest of the southern half of the Great Basin, with pockets of moderate to severe drought in northern Utah, western Wyoming, and the Salmon-Challis National Forest in Idaho. The only areas of the Great Basin with no drought are northern Nevada and southern and western Idaho.

Green-up is beginning in the southern half of the Great Basin. Fuels remain in dormancy across most of the northern half of the Great Basin, where green-up typically begins later in April and May. Dried, dormant, carryover grasses will still be abundant over southern Idaho, northern Nevada, and parts of northwest Utah. Prolonged dry periods followed by strong winds could still

pose a brief localized wildfire risk in these areas during the spring. Fire danger indices indicate higher fire danger than normal for the time of year in southern areas due to the very dry weather over prior months, but these levels are still not critical. Wet storms moving through in early April will allow fire danger to moderate regionwide.

Fire activity remains low across the Great Basin with ongoing prescribed burning. As is typical for this time of year, low elevation fires in Nevada, Utah, and southern Idaho are emerging at times, and a couple have grown to near or over 100 acres on windy days.

The weather pattern across the Great Basin is becoming more active again heading into the first half of April, with cooler temperatures and periods of wet weather. Precipitation is also expected across southern areas of the Great Basin at times. Normal fire potential is expected across the Great Basin through May, which generally indicates a low potential for large wildland fires. However, fire potential may occasionally increase for a burning period where fine fuel loading from last year is above normal, mainly across northern Nevada and southern Idaho, particularly when ignitions arise on windy days following periods of warm and dry weather. Otherwise, green-up will be widespread through April and May as snow melts due to expected warmer and drier weather later in spring. The main areas of concern heading into June will be southern areas of Nevada, Utah, and the Arizona Strip in the mid to higher elevations. These areas have well below normal snowpack, and precipitation has been below normal with increasing drought. Storms will occasionally move across southern areas in April with periods of precipitation, but unless precipitation is well above normal, fuels will dry out quickly in May and June.

The North American Monsoon is expected to arrive on time by July in southern portions of the Great Basin. However, before the monsoon moisture arrives, there are likely to be periods of dry lightning in mid to late June. Therefore, above normal significant fire potential is expected in southern areas for June. By July, fire potential is expected to return to normal over southern areas with the arrival of the monsoon. Central and northern Utah will be monitored for possible areas of above normal fire potential in July, but confidence is too low to highlight those areas yet. Another concern for July will be the lower elevations of northern Nevada into southwest Idaho. These areas have abundant carryover fine fuels from last year and should see abundant new fine fuel growth from precipitation in winter and spring. Therefore, above normal fire potential was added for these areas for July. Western Nevada was left out of the area of above normal fine fuel growth. The Salmon-Challis National Forest was also added the area of above normal fire potential for July due to the likelihood of warm and dry weather in spring and early summer. These conditions would rapidly melt the snowpack and dry fuels more quickly than normal. Areas farther west, including the Payette National Forest, may need to be added to above normal for August.

Southwest

Significant fire potential will be normal to above normal across the Southwest Area for the spring through early summer. Areas of above normal significant fire potential will focus across the southeastern half of the region in April. Even as conditions ease across eastern New Mexico, the latter half of April into May and June will see more regular dryness and abnormally warm temperatures that lead to above normal significant fire potential for the remainder of the geographic area.

The month of November was more active overall, with widespread above normal precipitation across all areas along and east of New Mexico's central mountains, and near to below normal precipitation farther west. Most areas were cooler than normal during November. December was very mild with below to well below normal precipitation areawide. January turned colder than normal while being drier than average overall. While drier and above normal temperatures were the rule for much of February, a much more active pattern arrived for March with below normal temperatures along and west of the Continental Divide coupled with generally above normal precipitation, while it was drier than normal over the southeastern half of New Mexico.

A continued shift in the equatorial Pacific Ocean sea surface temperature anomalies will likely continue to play a large role in shaping the weather pattern for the rest of the spring into early summer. A La Niña Modoki has developed since late 2024 and likely remain impactful through April. This type of La Niña features cooler water in the central tropical Pacific and warmer than normal water across both the far western and eastern sections of the tropical Pacific Ocean. In addition, the Pacific Decadal Oscillation remains strongly negative. These two factors, along with less discernable sub-seasonal fluctuations, will greatly shape the spring and early summer weather pattern. Given the mentioned atmospheric and oceanic features, upper-level high pressure is favored from the western Arizona deserts north-northwestward toward the coast of California and Oregon. Although this results in an overall drier and milder pattern for the Southwest, there will be at least a few periods where the weather pattern will be much more active with rain and high elevation snow focused over the northern tier of the geographic area. Milder, drier, and often breezy to windy weather is more likely across the southern and southeastern portions of the area.

Snowpack, despite recently improving across much of Arizona, is expected to remain below normal as spring continues.

The La Niña Modoki is forecast to weaken and to turn back to ENSO neutral conditions early this spring. High temperatures are expected to be generally above normal April through June. Precipitation, on average, will be below average for mid to late spring after a more active early spring weather pattern focused over the northwestern half of the region. An active dryline season across the eastern plains is becoming more likely, typically resulting in increasing periods of moisture and lightning outbreaks westward towards the Continental Divide by late April into June. This would likely diminish significant fire potential east of New Mexico's central mountains but coincide with an increase in potential farther north and west.

Periods of critical winds combined with low relative humidity are expected off and on for April into early May, focused both over the southern tier and near and east of New Mexico's central mountains. Areas of above normal significant fire potential are expected for the month of April across the southeastern half of the region and will begin spreading farther north and west as spring progresses. Significant fire potential will continue to increase and expand nearly areawide by May into June due to increasing temperatures and overall drier than normal conditions. Fine fuel loading and continuity, though low for most areas, are elevated across sections of south-central and southern Arizona, likely resulting in increased significant fire potential for these areas. The monsoon is likely to arrive early to on-time, in late June and early July, mostly ending the large fire threat for the region.

Rocky Mountain

Significant fire potential in southeast Colorado into southwest Kansas and central South Dakota will be above normal for April with limited green-up due to a hot, dry, windy March that is expected to extend into April. May will return to normal across the Rocky Mountain Area (RMA), with southwest Colorado expected to be above normal in June. A normal monsoon is looking more likely going into July, which will return the RMA to normal fire potential.

March has been a hot and dry month for much of the RMA, continuing an alternating pattern of temperatures over the last several months. While the longer-term temperature trend continues to be slightly below normal for most of the area, March had periods of abnormally warm temperatures, ending with mean temperatures 5-10°F above normal for most areas east of the Continental Divide. Precipitation continued to be well below normal, 10-50 percent of average for March. The one area that was wetter than normal was across western Wyoming, though some of the leeward sides of the Bighorn and Wind River Mountains remained drier. This moisture provided some reductions in the dryness across portions of western Wyoming, though a deficit remains. The warm, dry conditions have led to increasing drought across the West Slope of

Colorado and rapidly developing drought across Baca and Powers counties in southeast Colorado, extending into southwestern Kansas. Some of the increased drying has been due the pattern shifting toward more lengthy periods of strong winds on the southern Plains that extended north into the Front Range and central Plains. With the warmer temperatures, some watersheds in southern Colorado are already showing indications of snowmelt, which is about two weeks ahead of average. Snowpack is still well below normal in southern Colorado and northeast Wyoming, while the remainder of the area is around normal.

Green-up has started across the RMA, especially in the foothills where snow has started to melt as temperatures have risen, as well as Kansas. However, the hot, dry, windy conditions have slowed green-up in southwestern and south-central Kansas extending west into southeast Colorado where there is above normal fuel loading in the finer fuels. The slowing green-up has led to increasing fire danger, further increasing on days with strong winds. Much of the area outside of the higher elevations that are dominated by larger fuels, has seen fire danger indices increasing to above normal for this time of year. In the Black Hills, persistent dryness has already pushed fire danger indices above the 90th percentile for the year.

The RMA saw an uptick in initial attack during March, but most reported fires remained less than five acres. The largest fires were in the finer fuels in South Dakota and Kansas and driven by strong winds.

The current, weak La Niña is expected to end during April, returning to neutral conditions through the end of summer. A more active weather pattern is expected going into April, with wind events continuing to be more prevalent. Above normal temperatures will be common through July while precipitation will be below normal for most of the RMA. July is showing signs the monsoon will arrive as normally expected, with its typical impacts of reduced fire danger due to the monsoon's moisture, albeit with increased risk for lightning ignitions.

With expected wind events continuing during April, above normal fire potential is forecast for southeast Colorado and southwest Kansas. Central South Dakota will also see above normal potential in April due to continued drought conditions. May will see green-up keeping fire potential normal across the RMA. Going into June, drought conditions and expected adverse weather portend increased significant fire potential for southwest Colorado, but with a typical monsoon expected to develop in July, the fire potential should revert to normal across the RMA.

Eastern Area

Normal significant fire potential is forecast across the majority of the Eastern Area through July. However, western Minnesota and northwest Iowa will have above normal potential in April.

Longer term drought and 30-to-60-day negative precipitation anomalies persisted over portions of western Minnesota, southern Missouri, far southern Illinois, the south-central Mid-Atlantic states, and the northwestern tier of the Northeast at the end of March. Shorter term negative precipitation anomalies developed over parts of the western Mid-Mississippi Valley, west-central Wisconsin, parts of central New York, and the south-central Mid-Atlantic states. Below normal snow depths occurred across much of the northern tier of the Eastern Area through the winter season.

The El Niño-Southern Oscillation (ENSO) remained in a weak La Niña regime over the central Pacific through March and will likely trend towards a more neutral regime through the spring. Other sea surface temperature regimes also contribute to global weather patterns, adding to some uncertainty in long term weather forecasts.

The Predictive Services precipitation outlook for April forecasts drier than normal conditions over northwestern Minnesota and the Mid-Mississippi Valley. Wetter than normal conditions are expected across the northeastern tier of the Northeast and the central and southeastern MidAtlantic states. For May, drier than normal precipitation is forecast over the western Mid-Mississippi Valley, the western and north-central Great Lakes, and the northeastern tier of the Northeast, with above normal precipitation expected over the eastern Mid-Atlantic states and southern Wisconsin. In June, drier than normal conditions are forecast over central and southeastern New York, with above normal precipitation across the southern Great Lakes, Iowa, Illinois, Indiana, and much of the Mid-Atlantic Compact. Drier than normal conditions are expected over northern Minnesota, the south-central Great Lakes, and much of the Ohio Valley for July.

Near to below normal temperatures are forecast over the Great Lakes, the eastern Mid-Mississippi and Ohio Valleys, and the western, central, and southeastern Mid-Atlantic States in April. A transition toward above normal temperatures is expected across the Great Lakes, Mississippi and Ohio Valleys, and the southern and eastern tiers of the Mid-Atlantic Compact May into June. Near normal temperatures are forecast over the Eastern Area in July.

According to the latest Climate Prediction Center April temperature and precipitation outlooks, above normal temperatures are likely over the eastern tier of the Eastern Area with above normal precipitation across the central and eastern Great Lakes southward into the Mid-Mississippi and Ohio Valleys. The seasonal outlook for April through June projects warmer than normal temperatures over the southern and eastern tiers of the Eastern Area with above normal precipitation likely over the southeastern Great Lakes and the Ohio Valley.

Well below normal snowpack was observed across much of the northern tier of the Eastern Area this winter. This will affect available surface fuels this outlook period, which covers the pre-green up fire season. Three fuels drivers are of concern. The lack of snowpack means that grass and leaf litter may not be compacted and will be more available to ignite, while drying out rapidly during dry and windy conditions. The lack of snowpack and below normal precipitation last year through early 2025 has not recharged lakes, ponds, and marshes, making lowland grasses and shore vegetation available to burn. Finally, these conditions could be combined with the "spring dip" in pine needle live fuel moisture that will occur during the outlook period. An earlier than normal start to the spring fire season is possible in the northern tier with warmer temperatures and most of the area snow free. The southern tier is experiencing green-up, which will soon reduce fire potential. Vegetation in drought areas may rapidly progress from green-up to curing, with live fuel moisture then dropping to levels that exacerbate fire behavior. Above normal fire potential is expected during any warm, dry, and windy periods in the Eastern Area. The duration of these periods will be determined by the frequency of surface wetting precipitation events until green-up is fully in place during the outlook period.

Moderate precipitation deficits and longer-term drought were observed over portions of the Upper and Mid-Mississippi Valley, Great Lakes, eastern Mid-Atlantic states, and the Northeast at the end of March. If these areas do not experience an increase in precipitation frequency and amounts, longer-term drought conditions will likely remain in place and create periods of above normal fire potential. Above normal significant fire potential is expected in April for western Minnesota and northwestern Iowa, where below normal precipitation is forecast. In addition, an earlier than normal start to the spring fire season is expected for the northern tier of the Eastern Area due to below normal snow depths through much of the winter season. The rest of the Eastern Area should experience near normal fire potential through the rest of the spring season, outside of any warm, dry, and windy periods which may occur.

Southern Area

March was an exceptional month across the Southern Area, which left some lingering areas of risk heading into April. Dry air that was unusually persistent led to impacts that many fire managers in the region had never experienced, particularly across the southern Great Plains and parts of the Southeast. These extended periods of poor overnight moisture recovery and extremely dry afternoons not only led to rapid decreases in fine dead fuel moisture between precipitation events, but the areas that also experienced below average rainfall observed record

low fuel moisture in heavy dead fuels that will at least locally continue into April. A pattern change that began in late March is finally resulting in a more humid fire environment in most of the region, but the next few weeks will not be without risk as green-up and leaf out expand northward.

Beneficial if not locally excessive rainfall has decreased the area of concern across Texas for April, with green-up occurring in most areas east of the I-35 corridor and likely to set in quickly across Deep South Texas. Farther west, limited precipitation has resulted in worsening drought. A pattern conducive to high wind events returning in early April may continue off and on through the month, with the greatest uncertainty tied to precipitation. Near to above normal grass loads, worsening drought, and occasional high wind events are forecast to maintain above normal significant fire potential in central and western Oklahoma and Texas through April. Overall risks for above normal significant fire potential will probably decrease as the month progresses, either due to green-up or the climatological decrease in wind events. A pause in activity during May assumes sufficient precipitation results in green-up, which is of lower confidence, but heat waves this summer are expected to bring additional rounds of above normal significant fire potential to the region. There are few indications of sufficient drought relief along and west of the I-35 corridor, where significant fire potential should increase by June. An expansion of above normal significant fire potential should increase by June. An expansion of above normal significant fire potential should increase by June. An expansion of above normal significant fire potential should increase by June. An expansion of above normal significant fire potential should increase by June. An expansion of above normal significant fire potential should increase by June. An expansion of above normal significant fire potential should increase by June. An expansion of above normal significant fire potential should increase by June. An expansion of above normal significant fire potential should increase by June. An expansion of above normal significant fire potential should increase by June.

All areas impacted by Helene from northern Florida through the Appalachians may have enhanced risks for wildfires through the forecast period, particularly during longer stretches of below average rainfall and above average temperatures. Access issues caused by downed trees and landslides have been a hinderance in the complex terrain of the Carolinas already, while previously forested areas will see unusual rates of drying after leaf-out due to the removal of the canopy. Debris burning will also increase the risk for initial attack fires in these areas. While the fire environment is expected to improve in early April and green-up is quickly progressing northward and into the higher elevations, rainfall may not be sufficient to keep up with the draw down of moisture by new vegetation. Changeable conditions could take hold by the middle of the April as a trough digs into the eastern United States. This may once again introduce decreased humidity and a risk for dry frontal passages and their associated winds. Significant dryness has recently emerged either side of the Blue Ridge Mountains in Virginia after a wet winter, with longterm drought in northern Virginia and Helene impacts in southwestern areas expected to contribute to above normal significant fire potential.

A shift in significant fire potential towards the Atlantic Coast and Florida peninsula is anticipated during April, which will likely carry right through May and June. The National Drought Mitigation Center's long-term objective drought blend is highly effective at capturing low water levels in Florida and dryness in organic soils farther north that could lead to campaign fires along the Eastern Seaboard. Rainfall deficits since the hurricane season are at least 6-12 inches in the coastal Carolinas and locally more than 16 inches. As hotter days set in and increasing thunderstorm activity contributes to new ignitions, significant fire potential will undoubtedly increase.

Drought may eventually settle back in elsewhere across the geographic area later this spring and summer, which may be of greatest concern in the portions of Louisiana, Mississippi, and Alabama impacted by hurricanes the last 5-10 years and 2023's drought followed by beetle kill. In the short term, however, flooding rainfall and high-end severe thunderstorm outbreaks are likely to be the main challenge through the Mississippi Valley and adjacent areas.

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