North American Seasonal Fire Assessment and Outlook

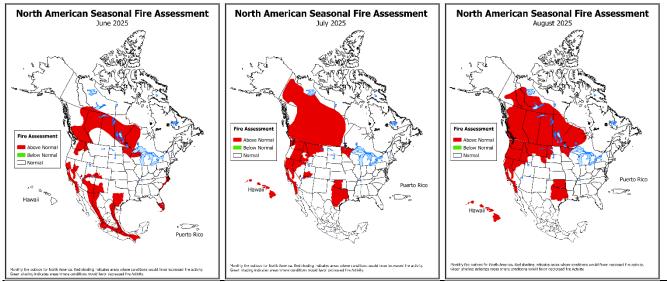
National Interagency Fire Center • Natural Resources Canada • Servicio Meteorológico Nacional
United StatesMexico

Outlook Period June 2025 through August 2025 Issued 13 June 2025

Executive Summary

May in western Canada started and ended with hot temperatures, wind, and dry conditions. Cool air lingered around the Great Lakes and Atlantic region through May 22. Western regions had a cool period past mid-month, but rainfall amounts remained close to or below normal outside of coastal British Columbia.

Early May was characterized by many of the western provinces breaking maximum temperature records, notably Calgary, and other Prairie cities reached 26 C on the first of the month and reached as high as 31 C a few days later. These extreme temperatures extended into the southern Territories and Saskatchewan before moving into Manitoba and northwest Ontario. May 11-13 in Manitoba featured many extreme record highs, with some locations reaching 37 C (~99°F) in the south. On May 14, Quebec felt the effects of the heat with Roberval and Bagotville both setting temperature records at 31 C.



Monthly fire outlook for North America for June 2025 (left), July 2025 (middle), and August 2025 (right). Red shading indicates areas where conditions would favor increased fire activity. Green shading indicates areas where conditions would favor decreased fire activity. *Click on each image to see larger versions.*

A notable rainfall event May 10-11 over New Brunswick, Prince Edward Island, and western Nova Scotia brought 20-35 mm of rain, with central New Brunswick receiving higher amounts, 35-51 mm. Additionally, May 16-19, central and eastern Quebec saw up 70 mm of rain in a two-day span. On May 22, significant precipitation fell over southern Ontario, with Cobourg setting a daily record with 36 mm. Beginning the next day Nova Scotia was impacted by widespread rainfall totals of 13-39 mm.

A cooling trend with increased rainfall spread east from the Prairies and lingered past May 20. Regions that had highs over 30 C around the midpoint of the month cooled to below normal readings. Winnipeg, for example, reached nearly 35 C on May 12 and 37 C on May 13, but fell to a high of 6.5 C by May 17.

A stagnant pattern featuring an upper-level ridge over Hudson Bay and an upper-level trough in the Gulf of Alaska directed moisture from the northwest US into southern and central Prairie regions during this cooling period. Weather systems coming from the Pacific gave British Columbia showery weather during mid-month, and this moist air merged with the Arctic airmass over central Canada, giving periods of rain and a few thunderstorms to parts of Alberta. Warm weather returned after May 22 over the Prairie Provinces. Ridging again brought heat but passing systems moving through every 3-4 days brought windy periods and lightning that occurred over narrow regions that often coincided with dry ground and increased fire activity.

Some snow remains in extreme northern Quebec and Labrador. Melting occurred at a similar rate to climatology over eastern Canada, though remained well ahead of normal in the Northwest Territories, where most regions are now free of snow.

In the US, fire activity slowly increased over May into early June, with the most notable increase in activity in mid-May for the Southwest and Eastern Geographic Areas. The National Preparedness Level increased to two (on scale of 1-5) May 14. May precipitation was below normal for much of the Midwest and West, except for the Lower Colorado River Valley and southern High Plains, where it was above normal. Above normal precipitation occurred in the western Dakotas and across much of the Gulf and East Coasts. Drought improved for portions of the US, including much of the East Coast and portions of the Southwest and Plains. Drought developed in portions of the Northwest, with drought persisting across much of the eastern Hawai'ian Islands.

Climate Prediction Center and Predictive Services outlooks predict above normal temperatures across much of the US for the summer. Drier than normal conditions are likely to continue across the northern half of the West into August, with drier than normal conditions likely to spreading into the Plains and portions of the Midwest over the summer, as well. The North American Monsoon is still forecast to be moderate to robust, with above normal precipitation likely in the Southwest. Above normal significant fire potential is forecast across portions of the West in June, with much of the northwestern US and California forecast to have above normal potential for July and August. Above normal potential is likely to spread into portions of the northern Plains for the summer, with above normal potential for northern Minnesota the next three months. Above normal potential in South Texas for June is expected to spread north and east into much of Oklahoma and central and East Texas for July and August. Above normal significant fire potential is also forecast for lee sides of Hawai'i in July and August.

From March to May, temperatures remained above normal aacross Mexico. Precipitation was below average in March and April but exceeded normal levels in May. These conditions contributed to a slight reduction in areas affected by moderate to extreme drought in northern Coahuila, Nuevo León, and Tamaulipas. However, the presence of strong upper-level high pressure resulted in above normal temperatures and the persistence of drought in northwestern Mexico, along with an increase in areas affected by exceptional drought in Sonora and Chihuahua.

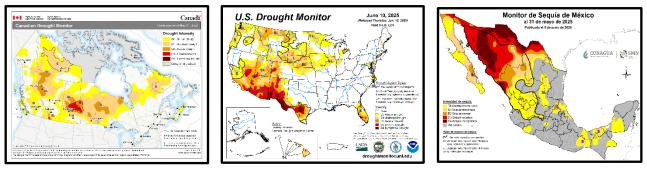
Mexico recorded its highest wildfire activity of the year during May, consistent with the statistical seasonal peak. Wildfire activity across Mexico is expected to decrease rapidly in June, marking the traditional end of the fire season. However, above average activity is forecast to persist in the Sierra Madre Occidental, Sierra Madre Oriental, Trans-Mexican Volcanic Belt, Sierra Madre del Sur, and the Chiapas Highlands for June. In July and August, wildfire activity will likely remain minimal, except in the northern Baja California Peninsula, where a gradual intensification is expected, peaking during these months.

Critical Factors

The critical factors influencing significant fire potential for this outlook period are global climate patterns related to sea surface temperatures, particularly in the Pacific Ocean, and large scale, longer-term soil moisture deficits:

El Niño-Southern Oscillation and Other Climatic Teleconnections:

El Niño-Southern Oscillation (ENSO) neutral conditions have persisted in the equatorial Pacific Ocean with sea surface temperatures near to slightly below average. The Climate Prediction Center is forecasting ENSO neutral conditions to continue through the summer, with a greater than 50% chance of neutral conditions continuing into early fall. However, significant uncertainty continues with the ENSO forecast for the fall due to the spring predictability barrier. The negative phase of the Pacific Decadal Oscillation (PDO) persists and is likely to be a small factor for this outlook. The Madden-Julian Oscillation (MJO) was active over the winter but has weakened this spring and is expected to remain weak for the next month. The ENSO neutral conditions will continue to be the main driver of this outlook, with modest effects from the PDO and limited impacts from the MJO.



Left: <u>Canadian Drought Monitor</u> from Agriculture and Agri-Food Canada. Middle: <u>United States Drought Monitor</u>. Right: <u>Mexican Drought Monitor</u> from CONAGUA-Servicio Meteorológico Nacional.

Drought:

Drought conditions in Canada have expanded to include much of the Prairies, southern Territories, and northern Quebec after a dry May. The southern portions of Ontario and Quebec as well as Atlantic Canada have received adequate precipitation to maintain or shrink most of the dry areas.

Severe drought is concentrated in two broad areas. The first over the eastern Prairies, mainly over the growing regions with the most significant drought being over east-central Saskatchewan. Second, the triple point between Alberta, British Columbia, and the Northwest Territories has continued to dry with the most significant drought conditions over extreme northeast British Columbia. The eastern slopes of the Rockies in southern Alberta continue to be dry with drought conditions in a small region along the foothills. Additionally, dry conditions are found throughout the British Columbia interior. Finally, drier than normal conditions are found in northwestern Ontario from Lake Superior north to Hudson Bay and along a band through northern Quebec into the northern half of Labrador.

In general, drought conditions deteriorated over much of western Canada. This was also the case over northern Quebec and Labrador. The most significant increases in drought occurred in south-central Saskatchewan where drought is now classified as extreme. Dry conditions also expanded into much of the Northwest Territories, although the severe drought area in the southwest corner has shrunk or returned to moderate drought or abnormally dry. Notably, drought conditions improved in coastal British Columbia, where a wet spring has returned conditions to normal.

In the US, temperatures in May were above normal from central California through the Great Basin into the northern Rockies, northern Plains, and Minnesota. Temperatures were also above normal along the Gulf and East Coasts. Temperatures were near average in the Northwest, and near to below average from New Mexico northeastward into the Lower Great Lakes. Temperatures were generally below normal for Alaska and near normal for Hawai'i. In early June, temperatures have been above normal in the West, especially across portions of northern California and western Nevada.

Precipitation across the US in May was above normal from much of central and eastern Texas into the Southeast. Above normal precipitation then extended northward along the East Coast into New England. Smaller areas of above normal precipitation were noted in the Lower Colorado River Valley, Colorado's Front Range into northern New Mexico, the southern High Plains, and western Dakotas.

Precipitation was below normal from southeast Arizona into West Texas, and throughout much of the West from central and northern California into the Great Basin, Northwest, and northern Rockies. Precipitation was also below normal for the Midwest, with portions of northern Minnesota, northern Wisconsin, and Upper Michigan receiving less than 50% of their normal May rainfall. Much of Alaska received above normal precipitation in May, but rainfall was generally below normal in Hawai'i. Snowpack across the western US continued to melt faster than normal in May, with many areas in the northwestern US below 6,000 feet becoming snow-free two to three weeks earlier than normal. In early June, very dry conditions have occurred in the northern two-thirds of the West, with many locations recording no precipitation thus far. However, June began very wet in the Southwest with an unusual early June rain event. The northern Plains have remained drier than normal, with mixed anomalies in the Great Lakes.

Overall drought continues to decrease across the US, continuing the trend since early April, with drought now covering about 30% of the US as of June 10. This represents a decrease of more than 5% since early May. Drought persisted in the southwestern US, with areas of modest improvement, while drought intensified slightly in portions of northeast Utah and western Colorado. Drought improved across much of the East Coast and Florida, with drought improvement also observed in portions of the central Plains. Drought has persisted in the northern Rockies, with areas of drought development in northern Oregon and western Washington. Drought is also present in Hawai'i, from the Big Island to Molokai. Extreme drought persists in the southwestern US and covers portions of southeast California, southern Nevada, southern and western Arizona, southern and central New Mexico, western Colorado, and southwest Texas. Smaller areas of extreme drought are noted in portions of South Florida and north-central Nebraska. Exceptional drought persists in far southeast Nevada, southwest New Mexico, and southwest Texas.

During the first half of May, above-average rainfall was recorded in regions of northeastern, eastern, southern, and southeastern Mexico. This rainfall was caused by three frontal systems interacting with surface low-pressure systems and atmospheric moisture. As a result, a slight decrease in areas with moderate to extreme drought were observed in northern Coahuila, Nuevo León, and Tamaulipas.

In contrast, strong upper-level high pressure resulted in above normal temperatures across much of the country, which favored drought persistence in northwest Mexico and led to an increase in areas with exceptional drought in Sonora and Chihuahua. As of May 15, 49% of Mexico was experiencing moderate to exceptional drought, an increase of nearly 3% since the end of April.

Fire Season Status:

In Canada, many large fires on the landscape began in May and continue to burn. Notable fire activity is occurring from northeast British Columbia through northwest Ontario.

Major fire growth occurred in southeastern Manitoba May 13-14 due to wind, warmth, and dryness. The EA061 Fire grew to over 60,000 hectares in less than two days. At the time, it was the largest fire to date in Canada. It is now over 200,000 hectares and remains out of control. As a result, Whiteshell Provincial Park in eastern Manitoba was closed for a few days due to fires along the Manitoba/Ontario border, but selected areas were reopened by May 21. Two civilian fatalities occurred near Lac du Bonnet from the EA062 Fire, which is now approximately 4,000 hectares but under control.

Near Flin Flon, Manitoba, and Creighton, Saskatchewanm several fires have merged, resulting in a complex that is over 500,000 hectares. Nearly all directions from this urban area have experienced significant fire activity. In north-central Saskatchewan, the Shoe and Camp Fires merged to form a complex exceeding 650,000 hectares that is continued to be referenced as the Shoe Fire. The 25LA-Pisew Fire is now about 180,000 hectares, and the 25LA-Jaybird Fire is about 130,000 hectares.

In northern Alberta, several large fires continue to burn where fire conditions remain extreme. Notably, the SWF-100-2025 Fire and the SWF-09202025 Fire merged to form a 65,000 hectare complex. A

similar story is occurring in northeast British Columbia, where fires G90216 and G90323 merged to form a 145,000 hectare complex, and fire G80352 is nearly 100,000 hectares.

Stagnant weather systems a few days after period of peak growth brought rain to the southeastern Prairies and western Ontario, giving some of these fires relief shortly after they started in mid-May. There was a resurgence of activity in the last few days of May with renewed heat and wind.

In the US, fire activity gradually increased across most geographic areas over the course of May into early June. However, a more significant uptick in activity occurred May 10-14 in the Southwest and Eastern Areas that resulted in the National Preparedness Level increasing to two May 14. A record-setting heat wave occurred in the northern Plains and Upper Midwest May 10-13 with temperatures 10-20 C (18-36°F) above normal, including the earliest ever 100°F temperature recorded in Minnesota May 11. Strong southerly sustained winds of 20-30 mph with gusts to 45 mph also occurred during the heat wave and resulted in dozens of new fires, including several large fires such as the Camp House Fire in northeast Minnesota that destroyed 144 structures. Fire activity moderated some in Minnesota at the end of the month, but the latter half of May into early June also saw increases in activity in California, the Great Basin, Northwest, and Northern Rockies Geographic Areas. Through June 12, 501,501 hectares have burned across the US, slightly below the 10-year average at nearly 94% of average. However, the 29,947 fires recorded thus far is above average, at 131%.

As of May 29, a total of 5,764 wildfires have been recorded across 32 states in Mexico, affecting 697,002 hectares. Of this burned area, 95% occurred in grass and brush, while the remaining 5% affected timber. The states with the highest number of wildfires were Jalisco, State of Mexico, Michoacán, Mexico City, Chihuahua, Durango, Puebla, Guerrero, Oaxaca, and Chiapas accounting for 77% of the national total. The states with the largest burned area were Durango, Chihuahua, Jalisco, Guerrero, Sinaloa, Nayarit, Baja California, Zacatecas, Michoacán, and Oaxaca, representing 76% of the total area burned. Out of the total number of wildfires, 1,159 incidents (20%) occurred in fire-sensitive ecosystems, burning 126,293 hectares, which represents 18% of the total area affected.

Regionally, the north, west, and south of the country have been the most impacted by wildfires. The states most affected in terms of fire frequency were Jalisco (810 fires), State of Mexico (803), Michoacán (646), and Mexico City (535). In terms of area burned, the northern and Pacific states have been the most severely affected. Durango, Chihuahua, Jalisco, Guerrero, and Sinaloa have each recorded over 70,000 hectares burned.

Canada Discussion

June/July/August: Early June has been dry and warm over central Canada allowing the large fires on the landscape to continue growing. Eastern Canada has received near normal precipitation and temperatures, resulting in low to moderate fire risk from central Ontario to Atlantic Canada. Past June 8, near normal fire activity is anticipated. A recent influx of moisture to the eastern Prairies June 6-8 has lowered Fire Weather Indices substantially. However, drought over the central Prairies and drier than normal fuel conditions persist. Northern Alberta and much of British Columbia remained dry through June 12 and extreme Fire Weather Indices are forecast. Beyond June 12 a wetter pattern is forecast over western Canada with near seasonal precipitation and slightly warmer than average temperatures. Consistent precipitation will be required to keep the fire risk near normal for the remainder of June.

July is likely to have a significant pattern departure from the late June weather. Warm and dry conditions are forecast for most of the month over larger portions of Canada. Southern Ontario and southwest Quebec are predicted to have seasonal precipitation. The highest temperature anomalies are predicted over northwestern Ontario extending into northern Manitoba. Southern Manitoba is likely to have closer to normal July temperatures.

These factors combine to create above normal fire activity for nearly all western Canada. Already dry conditions and the high variation in late-June precipitation over southern British Columbia will give the

highest fire risk here. Eastern Canada is forecast to have normal wildfire risk even with a warm and dry July. This is due to their already wet spring and early summer which will compensate for a dry month.

The warm, dry trend in July continues for August. Southern Ontario is predicted to have a more seasonal to moist August. The southern Prairie Provinces may receive closer to seasonal precipitation, though the remainder of the country is predicted to receive below normal amounts. The temperature signal is not as strong for August, with the highest temperature anomalies forecast in British Columbia, central Ontario, and northern Quebec.

Continued dry and warm weather over western Canada continues to create a significant fire risk for British Columbia, northern Alberta, Saskatchewan, and Manitoba, as well as the southern Territories and western Ontario. Lastly, portions of Nova Scotia and eastern New Brunswick are also anticipated to have a higher-than-normal fire risk.

United States Discussion

June/July/August: ENSO neutral conditions are occurring in the equatorial Pacific Ocean and are expected to continue through the summer. Model, Climate Prediction Center, and Predictive Services forecasts for the next three months indicate above normal temperatures are likely across much of the US, especially in the western US. Below normal precipitation is expected across much of the northern half of the West, spreading into the Plains and Midwest over the summer. The North American Monsoon is expected to be robust for Arizona and New Mexico for July and August with above normal precipitation likely. In the eastern US, above normal precipitation is likely for the Appalachians to the East Coast. The warmer and drier than normal conditions in the West thus far resulted in a faster than normal snowmelt this spring, and many locations became snow-free two to three weeks earlier than normal. By early June, fuels conditions and fire danger indices across the greater northwestern US were already approaching levels normally seen in early July.

Due to these conditions, above normal significant fire potential is forecast in June across southeast Arizona, southwest New Mexico, the Upper Midwest, immediate southeast Atlantic coast, South Florida, and South Texas. Above normal potential is also forecast for portions of southwest Colorado, southern Utah, southern and western Nevada, central and southern California, north-central Oregon, eastern Washington, and the Idaho Panhandle. For July, potential will return to normal in the Southwest and southwest Colorado due to the monsoon. However, significant fire potential will expand in California and the northwestern US, including much of Oregon, Washington, Idaho, Montana, the western Dakotas, and northern Nevada. Above normal potential in South Texas will expand into much of the central and eastern portions of the state as well as much of Oklahoma, while above normal potential will continue in northern Minnesota. Above normal will continue to expand in the northwestern US in August, covering all of Oregon and Washington as well as much of California, Montana, Idaho, northern Nevada, northeast Wyoming and the western Dakotas. Above normal potential will continue in northern Minnesota and central and East Texas. Alaska will have normal potential through the period while above normal potential is forecast for the lee sides of Hawai'i in July and August.

Mexico Discussion

June/July/August: Overall, below average precipitation and above average temperatures are forecast for much of the country through August. For June, above average rainfall is forecast for the states of Campeche, Puebla, Quintana Roo, Tabasco, and Yucatán. In contrast, below average precipitation is expected in the rest of the country. Above average temperatures are projected for most of the country, except for some areas in the Baja California Peninsula, Sonora, Chihuahua, Tamaulipas, Sinaloa, Durango, Nayarit, Jalisco, Colima, Veracruz, Chiapas, Tabasco, Yucatán, and Quintana Roo, where near or below average values may occur.

For July, above average rainfall is forecast for the states of Baja California, Baja California Sur, Campeche, Michoacán, Oaxaca, Quintana Roo, Sinaloa, Tabasco, and Yucatán. However, below average precipitation is expected in the rest of the country. Above average temperatures are projected for most of the country, except for some areas in the Baja California Peninsula, Sonora, Chihuahua, Tamaulipas, Sinaloa, Nayarit, Jalisco, Colima, Veracruz, Tabasco, Chiapas, Yucatán, and Quintana Roo, where near or below average values are likely.

For August, most of the country is expected to have below normal precipitation, except above average rainfall is forecast for some areas in Chihuahua, Guanajuato, Jalisco, Sinaloa, Sonora, and Yucatán. Above average temperatures are projected for most of the country, with the exception of some areas in the Baja California Peninsula, Sonora, Chihuahua, Tamaulipas, Sinaloa, Nayarit, Jalisco, Colima, Veracruz, Tabasco, Chiapas, Yucatán, and Quintana Roo, where near or below average values are expected.

Given the recent trends of temperature, precipitation, the location of drought across the country, and climate forecast, wildfire activity is expected to remain above normal in June, particularly in the mountainous regions of Mexico. In contrast, minimal activity is anticipated during July and August, except for northern Baja California where activity is expected to be above normal.

Additional Information

Additional and supplemental information for this outlook can be obtained at:

United States: National Significant Wildland Fire Potential Outlook <u>https://www.nifc.gov/nicc-files/predictive/outlooks/monthly_seasonal_outlook.pdf</u>

Canada: Canadian Wildland Fire Information System http://cwfis.cfs.nrcan.gc.ca/home

Mexico: Servicio Meteorológico Nacional <u>https://smn.conagua.gob.mx/es/observando-el-tiempo/monitoreo-atmosferico-ambiental</u>

Outlook Objective

The North American Seasonal Fire Assessment and Outlook is a general discussion of conditions that will affect the occurrence of wildland fires across Canada, the United States, and Mexico. Wildland fire is a natural part of many ecosystems across North America. This document provides a broad assessment of those factors that will contribute to an increase or decrease of seasonal fire activity. The objective is to assist wildland fire managers prepare for the potential variations in a typical fire season. It is not intended as a prediction of where and when wildland fires will occur nor is it intended to suggest any area is safe from the hazards of wildfire.

Acknowledgements

Contributions to this document were made by:

- Canada: Richard Carr, Natural Resources Canada Ginny Marshall, Natural Resources Canada Liam Buchart, Natural Resources Canada
- United States: Jim Wallmann, Predictive Services Meteorologist, US Forest Service Julie Osterkamp, GIS, Bureau of Land Management Steve Larrabee, Predictive Services Fire Analyst, Bureau of Indian Affairs

Mexico: Roberto Pineda León, Servicio Meteorológico Nacional Martín Ibarra Ochoa, Servicio Meteorológico Nacional Darío Rodríguez Rangel, Servicio Meteorológico Nacional José L. Solís Aguirre, Servicio Meteorológico Nacional