

North American Seasonal Fire Assessment and Outlook

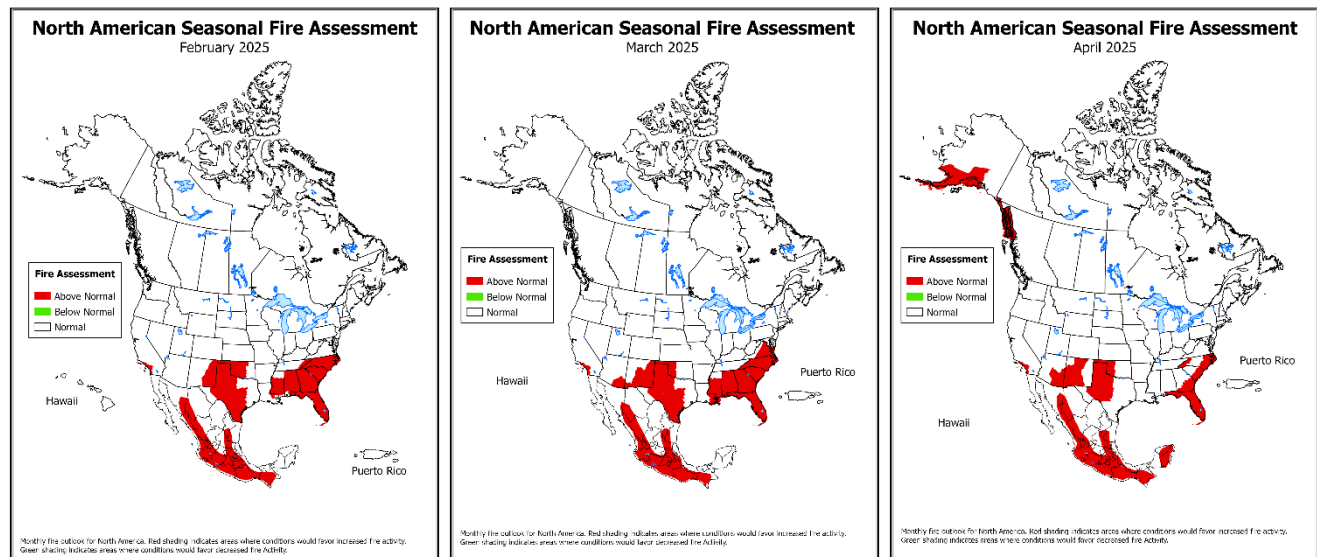
National Interagency Fire Center • Natural Resources Canada • Servicio Meteorológico Nacional
United States Canada Mexico

Outlook Period February 2025 through April 2025

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Executive Summary

January was warm across much of Canada. The highest temperature anomalies occurred in northwestern Alberta, northern British Columbia, Yukon, the western Northwest Territories, and northern Quebec and Labrador. In eastern regions, big temperature swings occurred, with most of the warm weather occurring early in January with cooler air arriving later in the month but only producing near-normal monthly values in southern regions. Kuujuaq, at the bottom of Ungava Bay in northern Quebec, recorded a monthly temperature anomaly of 11 C, and set a record of four consecutive days above freezing. In the southern Maritime Provinces, temperatures remained near normal, with northern parts slightly warmer than normal. Slightly cooler than normal temperatures were recorded in extreme southern Saskatchewan and Manitoba, and western and southern Ontario. In the west, snowy conditions returned at the end of the month with colder conditions arriving as February began.



Monthly fire outlook for North America for February 2025 (left), March 2025 (middle), and April 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.](#)

Strong Atlantic storms battered parts of the eastern region early in January with above normal precipitation generally in coastal regions, mainly from squalls off the ocean north of Nova Scotia, and including coastal James and Hudson Bays. Flooding occurred in some Newfoundland communities. Open water lingering later than usual and remaining over much of the Great Lakes, Gulf of St Lawrence, and Atlantic Ocean lead to these squalls, which resulted in locally heavy amounts of rain or snow. The Gulf of St Lawrence ice pack was at a record low of 1% of normal in the third week of January with some recovery as February began, but only rising to near 33% of normal. Wet areas included much of Ontario and central and northern Quebec.

Dry weather continued in most of British Columbia and western Alberta as a stubborn eastern Pacific ridge deflected most moisture away from western Canada. Southern Saskatchewan and Manitoba also were dry. Above normal precipitation occurred in spotty central British Columbia locations, and in central

and eastern Alberta, with Alberta's highest amounts in north central and southeastern parts of the province. Dry conditions also occurred in portions of Ontario, but primarily in a U-shaped belt along the Ontario/Quebec border, east along the St Lawrence River, and north along the Quebec/Labrador border and into central Labrador. Almost all the Atlantic region and southern Newfoundland were dry. Southern Nova Scotia, western Cape Breton Island, and a tiny chunk of eastern Prince Edward Island had small areas of near-normal precipitation.

Snow cover as of February 4 is above normal in most of the Prairies but less than normal in western Alberta and most of British Columbia outside the Rocky Mountains and other eastern ranges. Snow cover is also light eastern Manitoba, Ontario north of the Great Lakes, central Quebec, and all the Atlantic region.

Fire activity was at low levels overall across the US in January, but the National Preparedness Level increased to two (on a scale of 1-5) January 9 before returning to one January 28 due to a significant increase in activity in southern California. Climate Prediction Center and Predictive Services outlooks issued in late January depict above normal temperatures are likely during February from the Southwest to the Gulf Coast and Southeast, with below normal temperatures from the Northwest to the northern Plains. Precipitation in February is likely to be above normal for the northwestern US and from the Great Lakes to the Ohio Valley then southwestward into Arkansas. Below normal precipitation is likely for portions of the Southwest, West Texas, and Southeast. For March and April, the northwestern portion of the US is likely to remain cooler and wetter than normal, with wetter than normal conditions also likely from the Great Lakes to the Tennessee Valley. Above normal temperatures are likely from the Southwest to the Gulf and East Coasts, with below normal precipitation likely for the Southwest into the southern and central Plains, then along the Gulf Coast.

Above normal significant fire potential is forecast across much of the Southern Area in February and March, before decreasing in April to portions of Texas and much of the Southeast coast. Above normal potential in the Southwest will expand from eastern New Mexico in February to much of central and western New Mexico and southeast Arizona by April. Above normal potential is forecast in southern California through the period, with above normal potential also forecast in the Alaska Panhandle and much of southwest Alaska in April.

Wildfire activity remains at low levels across Mexico but has been gradually intensifying due to the beginning of the fire season in January. During November, December, and January, average precipitation was below average across the country overall, while average temperatures were above average in November and December but below average in January.

The climate outlook for February through April predicts warm and dry conditions. Wildfire activity during this period is expected to be above average in the Sierra Madre Occidental, Sierra Madre Oriental, the Neovolcanic Axis, Sierra Madre del Sur, and the highlands of Chiapas. Above normal activity is also expected in portions of the Yucatan Peninsula in April.

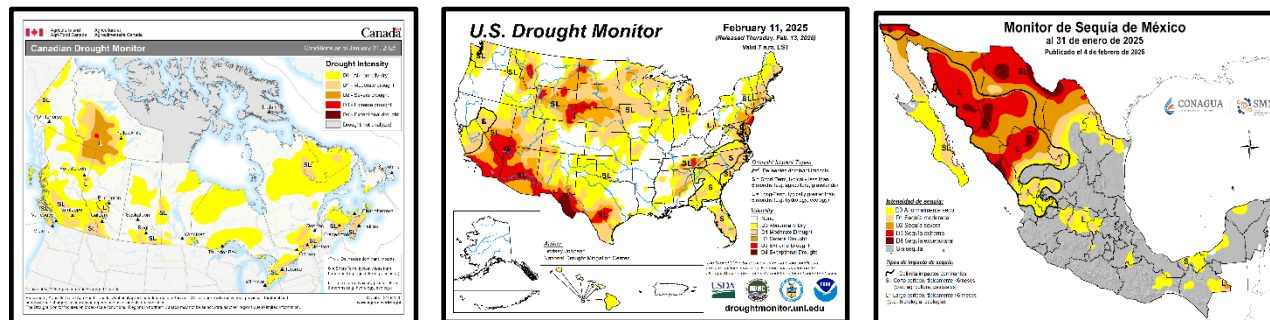
Critical Factors

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:

La Niña has developed in the equatorial Pacific Ocean, with rapid cooling observed in the central equatorial Pacific since mid-December. This La Niña episode is expected to remain as a La Niña Modoki and weak, with the coolest temperatures in the central equatorial Pacific. Sea surface temperature (SST) anomalies in the central equatorial Pacific are 0.5-1 C below average. La Niña is forecast to continue into March, with a transition to El Niño-Southern Oscillation (ENSO) neutral conditions forecast by the Climate Prediction Center this spring. A strongly negative phase of the Pacific Decadal Oscillation (PDO) is also expected to persist into the spring. The Madden-Julian Oscillation (MJO) remains active,

with the active phase moving into the western Pacific Ocean past two weeks. The MJO is expected to remain active into early March, with other active phases possible later this winter into spring. For this outlook, La Niña and the negative PDO are expected to be the main drivers, although shorter term fluctuations are possible due to any active MJO periods, but their location and intensity are difficult to forecast more than two to three weeks in advance.



Left: [Canadian Drought Monitor](#) from Agriculture and Agri-Food Canada. **Middle:** [United States Drought Monitor](#). **Right:** [Mexican Drought Monitor](#) from CONAGUA-Servicio Meteorológico Nacional.

Drought:

Abundant snowfall in some Canadian regions has helped improve drought slightly, but in other areas a dry January produced drought intensification. Areas of abnormally dry and moderate drought have expanded in southern British Columbia and southwestern Alberta, while moderate drought also expanded northwestward along the New Brunswick/Maine border. The largest drought areas remain from east central Quebec through most of non-coastal Labrador, northeast British Columbia, northwest Alberta, and central Northwest Territories; and from southern British Columbia through southwestern Alberta.

Many small areas featured slight improvement, but without substantially changing the overall drought picture. Areas of moderate drought reverted to abnormally dry conditions in northwest Yukon, but the abnormally dry region now stretches farther south along the Yukon/Alaska border. Similar reductions have occurred in central Saskatchewan and a tiny pocket in the southwest, but a large abnormally dry patch remains in central Saskatchewan. Small patches of moderate drought reverted to abnormally dry in northern Ontario, but a large patch of abnormally dry conditions remain. Small patches of severe drought between Montreal and Quebec City were reduced to moderate drought but a large patch of abnormally dry and moderate drought remains east of the Great Lakes towards Quebec City, albeit with a slight break south of Ottawa. A patch of moderate drought vanished from the north shore of the Gulf of St Lawrence but the area remains abnormally dry, while drought patches in western and central Labrador have slightly changed shape and/or location.

The remainder of the country has changed little since the end of December with patchy abnormally dry conditions and moderate drought in all provinces and territories. As of January 31, about 44% of Canada outside Nunavut is abnormally dry or in some drought stage.

Below normal temperatures were observed across much of the US in January except for small areas of above normal temperatures in northern California, northern Maine, and the mountains of the Northwest. Temperatures were generally below normal in the valleys of the Intermountain West, with near to above normal temperatures in the mountains due to strong inversions. Temperatures were near to above normal in Hawai'i, with well above normal temperatures in Alaska. Much of the US received below normal precipitation in January, with above normal precipitation mainly limited to areas along the Continental Divide to the northern and central High Plains, central and South Texas, central and eastern Kansas, plus a small area of above normal precipitation in northern Florida. Precipitation was well below normal in much of California, the Great Basin, Southwest, and West Texas, as well as much of the Midwest. Precipitation less than 25% of normal was widespread across California, southern Nevada, Utah, Arizona, southwest Colorado, and portions of New Mexico to West Texas. Less than 25% of normal precipitation was also observed from eastern South Dakota and Nebraska to Lake Michigan. Precipitation in Hawai'i was below normal until a strong Kona low brought heavy precipitation from Oahu

to the Big Island at the end of January. Alaska precipitation was below normal across the Interior, but above normal in western Alaska to south-central Alaska.

Overall drought increased since late December with nearly 44% of the US in drought as of February 11. Drought development was noted in much of the Carolinas and portions of the southern Appalachians, while the area of drought in Florida shifted southward from northern Florida in late December to much of central and southern Florida by late February. Drought intensified in much of the southern half of California into Arizona, with drought development in much of the Four Corners. Small areas of drought improvement were noted in portions of Oregon, Washington, northern Idaho, the northern High Plains, and central New England. Extreme drought is noted in portions of southern California, the Lower Colorado River Valley, northern High Plains, western Wyoming, southern New Jersey, and eastern Tennessee, with exceptional drought noted in far West Texas and east of Las Vegas, Nevada.

In Mexico, during the second half of January, three cold fronts and "Norte" events brought above-average rainfall in much of the south and southeast of the country. However, the rest of the country registered below-average rainfall in January. The dry conditions have led to an increase in moderate to extreme drought areas in Baja California, Sonora, Chihuahua, Coahuila, Durango, and Sinaloa. An expansion of abnormally dry conditions occurred in isolated areas of central, southern, and southeastern Mexico. As of January 31, nearly 41% of the country's surface area registered moderate to exceptional drought, reflecting a slight increase since January 15.

Fire Season Status:

Fire weather calculations shut down in early December for most of Canada and are not expected to begin again until April or May in most of the nation. Calculations will likely begin in the British Columbia's southern Interior, parts of the Maritime Provinces, and southern Ontario. However, little fire activity occurs in the latter region, which is heavily developed. Cold temperatures and areas with deep snow cover will prevent most fire activity for another few weeks.

Fire activity was at low levels overall across the US in January and early February, but a series of strong Santa Ana wind events in southern California resulted in a significant escalation in activity there. The National Preparedness Level increased to two (on a scale of 1-5) January 9 before returning to one January 28. The strongest of the Santa Ana wind events occurred January 7-10, resulting in the destructive Palisades and Eaton Fires, with additional smaller fires. Additional Santa Ana wind events occurred during the month, with the other notable event January 22-24 resulting in the Hughes and Border 2 Fires. Total acres burned through February 13 of this year is above the 10-year average at 161% of normal, with an above average tally of wildfires of 124%.

So far this year, 124 forest fires have occurred in 15 states, resulting in 1,860 hectares burned. The vegetation corresponding to grass and brush was 99% of the area burned, while timber was 1%. States with the highest number of wildfires were Jalisco, Michoacán, State of México, Chihuahua, Mexico City, Veracruz, Puebla, Durango, Morelos, and Baja California, representing nearly 95% of the total fires. States with the largest area burned were Chihuahua, Jalisco, State of Mexico, Durango, Baja California, Chiapas, Yucatan, San Luis Potosi, and Puebla, representing almost 97% of the area burned. Out of the total fires, 16 (13%) occurred in fire-sensitive ecosystems, with a burned area of 142 hectares, which represents 8% of the total area burned.

Canada Discussion

February/March/April: February should be a wintery month with minimal fire activity. Weak La Niña conditions are expected to continue, and models are reasonably consistent favoring cold temperatures dominating western and central Canada, and southern parts of eastern Canada. While above normal temperatures are forecast in the north, this does not translate to a loss of snow at this time of year.

Normal precipitation is expected for most of the country, although forecasts are indicating central regions may be dry, likely resulting from Arctic air dominating the region.

March should see normal fire weather conditions with minimal activity. With weak La Niña conditions expected to continue, cooler than normal temperatures will likely prevail in the west but warmer than normal values are expected in the east. This will result in slow snow melt in the west, especially in regions with deep snow cover. Normal precipitation is expected for most regions across Canada; however, the southern half of British Columbia, parts of the Prairies, and southern Ontario may see above average amounts. Dry conditions are indicated in much of Atlantic Canada, with a chance the dry area remains over the western Atlantic Ocean. If the dryness does develop, and with light or absent snow cover in some of the Atlantic region, minimal spring fire activity could begin to creep into parts of Nova Scotia.

La Niña springs often favor cool weather in western Canada. This year's event is quite weak, so may have less influence than a strong La Niña. While snow cover should be gone in some regions, such as the southern Interior of British Columbia, the southern Prairies, and much of Atlantic Canada, precipitation levels may be high enough to limit fire activity to small events. Delayed snow melt in much of northwestern Canada will likely limit fire activity there.

United States Discussion

February/March/April: A weak La Niña has developed and is forecast to persist through March continuing to affect the weather pattern. Climate Prediction Center and Predictive Services outlooks continue to indicate temperatures and precipitation consistent with La Niña, although some differences are noted for the remainder of February. Above normal temperatures and drier than normal conditions are likely in the southwestern US, consistent with La Niña, with above normal temperatures expanding through the rest of the West. However, temperatures are likely to be below normal for much of the US from the Plains to the East Coast the rest of February with, with above normal precipitation limited or portions of the Gulf Coast. be above normal for portions of the Northeast, with equal chances of above and below normal precipitation elsewhere. For March and April, drier and warmer conditions are expected across the southern tier of the US, consistent with La Niña, while cooler than normal conditions are likely from the Northwest to the northern Plains. Above normal precipitation is likely in the Northwest, Great Lakes, and Ohio Valley into the spring.

For February, above normal significant fire potential is forecast along the southern California coast, much of the southern Plains, and much of the Southeast from Mississippi and eastern Louisiana into the Carolinas, Georgia, and Florida. Similar areas of above normal potential are expected in March, with expansion into southern New Mexico, southeast Arizona, and much of Virginia. In April, many areas will return to normal in the Southeast except for the Atlantic Coast, North Carolina mountains, and Florida. Above normal potential will continue in much of central and West Texas, then across much of central and western New Mexico into southeast Arizona in April, as well. Above normal potential will continue in southern California into April, with above normal potential forecast for Alaska's southwest, south-central, and panhandle regions in April.

Mexico Discussion

February/March/April: Wildfire activity remains at low levels but has been gradually intensifying as fire season commences, with an expected peak in March and April in the central and western states of the country. In the northern, northeastern and southeastern states of the country, maximum peaks activity are expected in April and May. The effects of La Niña, in combination with a negative PDO and a positive Pacific North American weather pattern will contribute to a dry and warm climate outlook. The forecast indicates that La Niña will be weak and short-lived, which reduces the likelihood of typical winter and spring impacts.

November through January precipitation was below average nationally, while temperatures were above average in November and December but below average in January. Drought overall increased across Mexico the past month with almost 41% of the country in drought.

The climate outlook for February through April is for warm and dry conditions. According to seasonal climate model forecasts, precipitation is likely to be below average in most of the country, except for some areas of Chiapas and Tabasco, which will be above average. In the areas of Campeche, Yucatán, Quintana Roo, Veracruz, Tabasco, and Oaxaca, equal chances of above or below normal precipitation are forecast. As for temperatures, they are likely to be above average in most of the Mexican Republic through April.

Given the current drought conditions and climate forecast for the next three months, wildfire activity for the months of February and March is expected to be above average in the mountainous regions of the Mexican Republic. Above normal potential will continue in these areas into April, and expand into portions of the Yucatan Peninsula. The effects of La Niña, in combination with a negative, result in a dry and warm climate outlook, supporting the above normal activity forecast for the mountains.

Additional Information

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

United States:

National Significant Wildland Fire Potential Outlook

https://www.nifc.gov/nicc-files/predictive/outlooks/monthly_seasonal_outlook.pdf

Canada:

Canadian Wildland Fire Information System

<http://cwfis.cfs.nrcan.gc.ca/home>

Mexico:

Servicio Meteorológico Nacional

<https://smn.conagua.gob.mx/es/observando-el-tiempo/monitoreo-atmosferico-ambiental>

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.

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