North American Seasonal Fire Assessment and Outlook

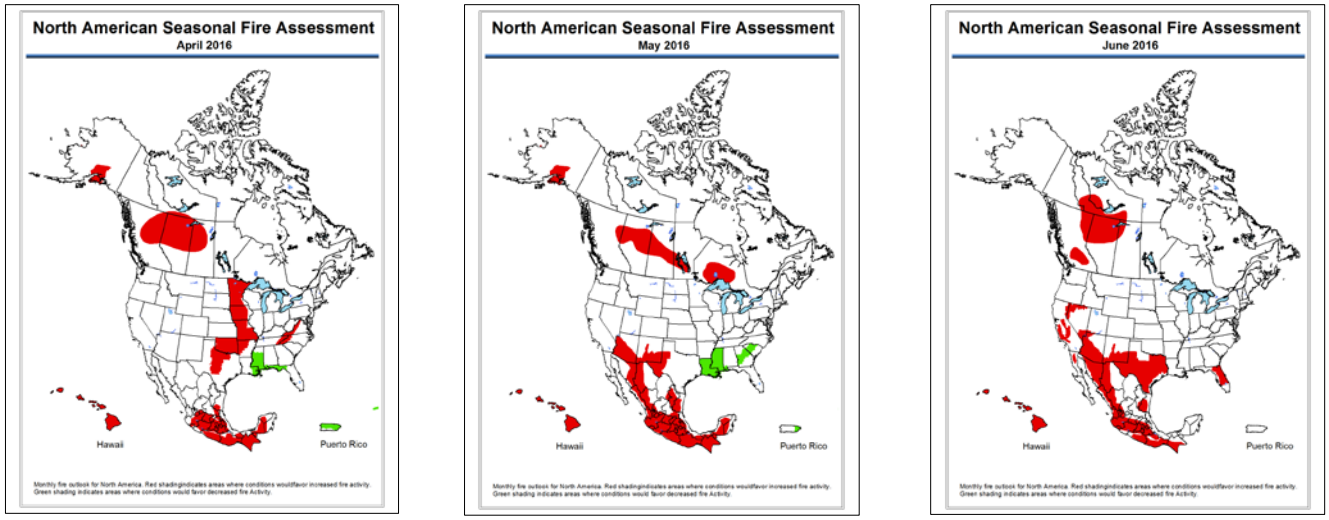
National Interagency Fire Center ● Natural Resources Canada ● Servicio Meteorológico Nacional
United States Canada Mexico

Outlook Period April, May and June 2016
Issued on 15 April 2016

Executive Summary

March continued a string of months in which temperatures were above normal across most of North America. Several storms moved through the western U.S. and parts of southern Canada but conditions remained warm despite significant precipitation events over the American Rockies and the southern Plains and Gulf Coast regions of the U.S. The greatest temperature anomalies were again over the northern and eastern parts of the U.S. and central and eastern Canada where temperatures were 7 to 15°F (4-8°C) above normal for the month. Precipitation was above normal for most of southwestern Canada, the northwestern U.S., the Mississippi River Basin and most of interior Mexico. However, precipitation was severely below normal for the eastern seaboard states of the U.S., the American Southwest, parts of northwestern Mexico including Baja California, and parts of southern Mexico.

Dry conditions in March across the central U.S. supported several large grass fires on windy days and this trend will continue until greenup is well underway. Northern parts of British Columbia, Alberta and Saskatchewan will also see an increase in fire activity where snow free conditions exist and where much above normal temperatures are expected to continue. As Mexico enters its dry season, fire activity will increase from the southern states in April into the northern and western states by May. El Niño conditions are expected to turn to neutral by early summer. The start of the rainy season in June will send Pacific and the Gulf of Mexico moisture inland, which will help to reduce fire potential in most of southern Mexico and the Yucatán Peninsula.



Monthly fire outlook for North America for April (left), May (middle) and June (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.*

Critical Factors

The critical factors influencing significant fire potential for this outlook period are:

El Niño-Southern Oscillation: El Niño conditions (warming of the equatorial Pacific Ocean) continue weakening at a rapid pace and this trend is expected to persist through summer. Warm conditions are expected to remain in place across most of Canada and the northern U.S. while wet patterns persist in the southern U.S. Latest trends suggest dry conditions will remain in western and southern Mexico and will begin to be a factor in northern Mexico through May.

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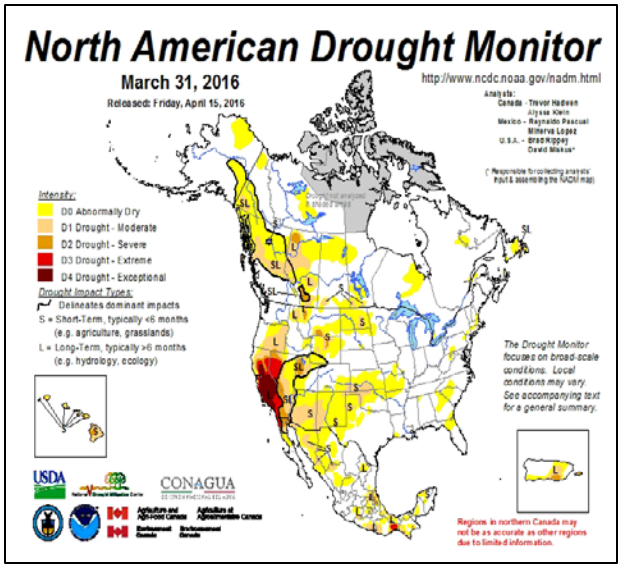
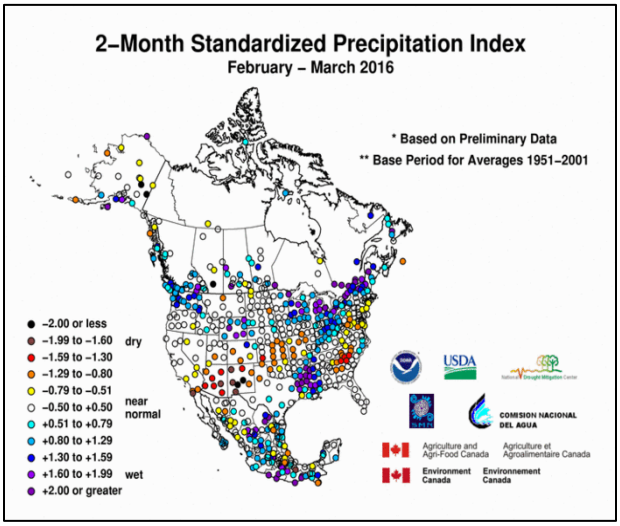
Drought: The North American Drought Monitor from 31 March 2016 (top right) showed severe to exceptional drought over the far western U.S. with the worst conditions in California, Oregon, Nevada, and northwestern Utah with some improvement over the northern Rockies. Drought conditions remained over northern Alberta and British Columbia with improvement over Saskatchewan. Increasingly dry conditions were developing over northwestern Mexico into the U.S. Southwest. Severe to extreme drought was also increasing in the southern states of Mexico as well as northern Baja California.

Fire Season Status: Large wind-driven fires have occurred across the southern Plains of the U.S. in the pre-greenup grasses. This is expected to continue and expand northward across North America as warmer weather takes hold and dry grasses remain abundant into late spring. Fire activity in northern and central Mexico remained low as late season storms dropped south into the country and brought cool and wet conditions to the region. Fire activity was increasing in the southern states and will migrate northward as the peak of the dry season approaches and weather patterns adjust with the weakening El Niño.





Top: North American Drought Monitor from 31 March 2016. **Bottom:** 2-month Standardized Precipitation Index for February-March 2016. (Both *from U.S National Centers for Environmental Information, NCEI/NOAA)*

Canada Discussion

April 2016: Above normal temperatures and dry conditions let to an early start to the fire season in British Columbia and Alberta. Over-winter snow pack was well-below average (60 to 85 percent) in most of the forests in Alberta, Saskatchewan and Manitoba. Potential for strong winds during the month could result in large fires for central and northern parts of these provinces and the Yukon. Cooler temperatures prevail from Manitoba east, keeping the fire danger to seasonal levels.

May 2016: Abnormally dry, warm weather and strong winds are expected to drive above normal fire weather conditions in western and northern Ontario. Above normal conditions are expected to persist along the southern edge of the boreal forests from Alberta through Manitoba.

June 2016: As El Niño conditions subside, fire danger levels are expected to return to seasonal levels throughout much of Canada. Dry conditions will remain throughout the boreal forests, maintaining the potential for fire activity.

United States Discussion

April 2016: Western snowpack was generally near to above normal for most areas with significant deficits noted in the far southwestern corner of the country. March precipitation was also poor in the southern and central Plains where a wet winter produced significant grass crops that are dry and ready to burn. A warm spring and poor winter snow across the Upper Midwest will increase the potential for fires in the area. South central Alaska and most of Hawaii have elevated fire potential after dry winters.

May 2016: Late spring rains and greenup will reduce the fire potential across the southern Plains and the Upper Midwest. However, continuing precipitation deficits in the Southwest and abundant dry fine fuels will maintain an elevated potential for wildfires in southern Arizona, southern New Mexico and West Texas through May. South central Alaska and most of Hawaii will continue dry and active. A wet pattern remains across the Southeast, keeping wildfire potential low across several southern States.

June 2016: Fire season typically begins across most of the Interior West in June and an increase in fire activity from the previous month is expected. However, above normal fire potential is likely to expand from the desert Southwest into much of Texas as summer conditions develop and precipitation deficits accumulate. Fine fuels in the hills of southern California and northwestern Nevada continue to dry and high fuel loads will contribute to increased fire potential. Additionally, years of drought in the southern California mountains have increased forest mortality which will contribute to higher fire potential in early summer.

Mexico Discussion

April 2016: Precipitation is expected to be close to climatology values for most of the country with below normal conditions in the Yucatan Peninsula, northern Chiapas, Guerrero, Oaxaca and other parts of south central Mexico. Elevated fire activity will continue across most of the southern and central states through April.

May 2016: The peak of the climatological dry season arrives in May and greater precipitation deficits can be expected for the Yucatan and southern states. Increasingly dry conditions will likely spread northward into the northwestern and eastern corners of the country. This will expand the elevated fire potential farther north into the northwestern states of Sonora, Chihuahua, Sinaloa, Durango, Zacatecas, and the eastern states of Coahuila, Nuevo Leon, Tamaulipas, and parts of Coahuila. Most of the central and southern states will also see above normal fire potential.

June 2016: A recovery in the southern states is expected to occur with the onset of the summer rains. Precipitation will trend toward normal for most of the country with some exceptions mainly in southern and central Mexico but less broad than the previous month. This will reduce fire potential to normal conditions in Veracruz, Tabasco, northern Chiapas and Yucatan Peninsula, as well as northern portions of the central states of Hidalgo, Queretaro, Guanajuato and San Luis Potosí. There are still some dry pockets that will keep fire potential elevated in most of central Mexico and southern states. Northern Mexico will still experience dry conditions with enhanced fire potential in Durango, Sinaloa, Sonora, Southern Nuevo Leon, Southern Tamaulipas, western Chihuahua and Baja California. The dry conditions are expected to break once the onset of the monsoon arrives in late June.

Additional Information

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

United States:
National Significant Wildland Fire Potential Outlook
http://www.predictiveservices.nifc.gov/outlooks/monthly_seasonal_outlook.pdf

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

Mexico:
Servicio Meteorológico Nacional
http://smn.cna.gob.mx/index.php?option=com_content&view=article&id=156&Itemid=113

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

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Canada: Kerry Anderson, Natural Resources Canada
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Juan Carlos Ramos, Servicio Meteorológico Nacional
Yesenia Alejandro, Servicio Meteorológico Nacional
Angel Teran, Servicio Meteorológico Nacional
Dario Rodriguez, Servicio Meteorológico Nacional