

North American Seasonal Fire Assessment and Outlook

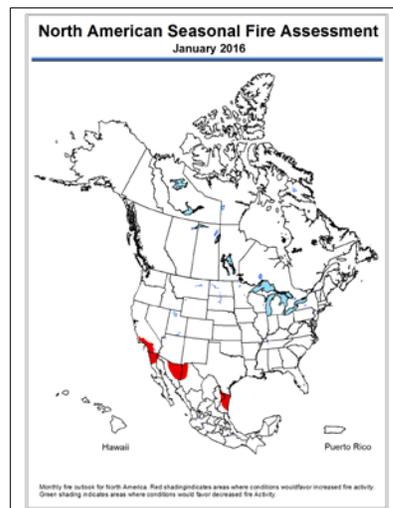
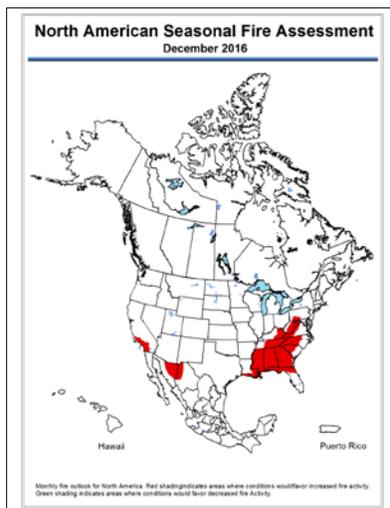
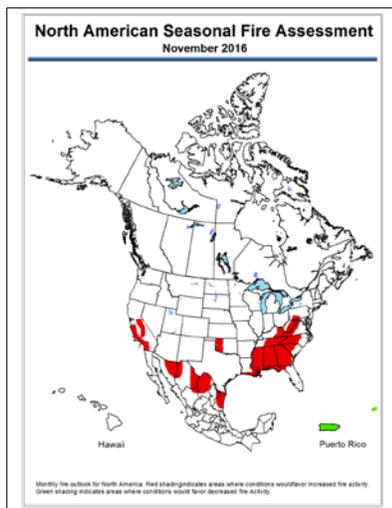
National Interagency Fire Center • Natural Resources Canada • Servicio Meteorológico Nacional
United States Canada Mexico

Outlook Period November and December 2016 and January 2017
Issued 10 November 2016

Executive Summary

A broad trough across western Canada and the western U.S. kept cool, fall conditions over the region for most of October but a late month resurgence of warm air across the interior between British Columbia and Ontario is maintaining snow-free conditions. High pressure in the eastern and southern continent produced warmer-than-normal conditions from the eastern half of Canada to Mexico. A series of frontal systems moved across Canada and the U.S. bringing rain and snow to the western continent with near normal precipitation in the Canadian Maritimes, the Northeast U.S. and the Great Lakes region. The Southeast and Mid-Atlantic Coasts of the U.S. received very heavy rainfall associated with Hurricane Matthew at the beginning of the month. However, across the southern half of the U.S. and across most of Mexico, precipitation for October was below normal.

Fire season is typically over for most of Canada and the U.S. However, fall season fires are increasing across the southern U.S. where dry, warm conditions and the seasonal leaf drop are adding to the fine fuels load. Conditions across northern Mexico also favor some continuation of increased fire activity through January 2017.



Monthly fire outlook for North America for November (left), December (middle) and January (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.*



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Critical Factors

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

El Niño-Southern Oscillation: ENSO conditions continue to indicate a weak La Niña pattern is in place. These conditions are expected to continue through the Northern Hemisphere winter, trending toward neutral by early spring.

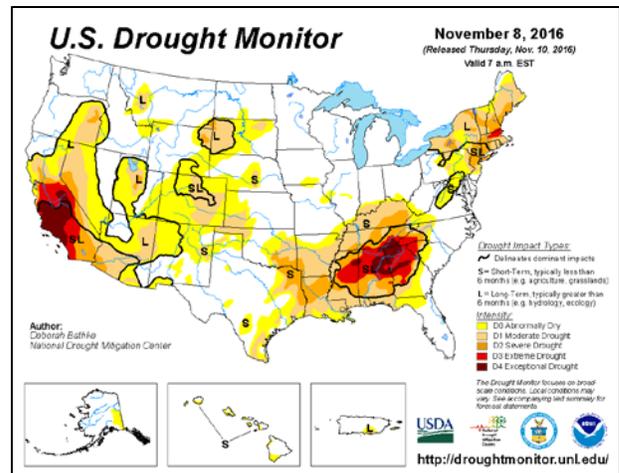
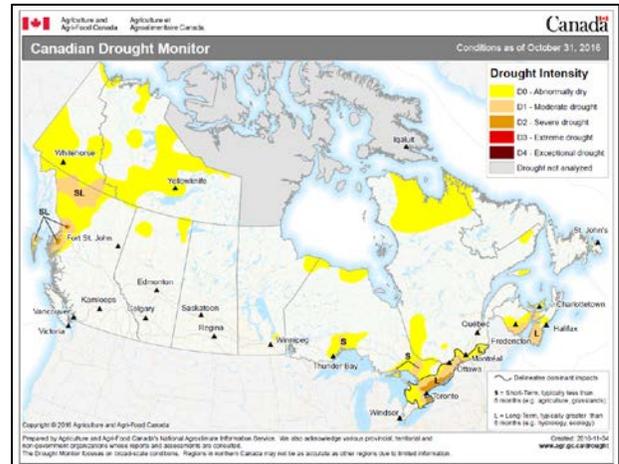
Drought: The latest drought monitor assessments indicated severe to exceptional drought continuing across much of central and southern California, western Nevada and northwestern Mexico. Severe to exceptional drought increased significantly over the southeastern U.S. from Mississippi to the southern Appalachians. Pockets of severe or worse drought exist over the eastern Great Lakes region to New England; parts of eastern Texas and Oklahoma; eastern Wyoming and western South Dakota; and parts of southern Mexico.

Fire Season Status: Fire activity increased rapidly in the southeastern U.S. where long-term precipitation deficits, warm weather and seasonal leaf drop provided ideal conditions for wildland fire. Fires also increased in October across the northern parts of Mexico. Fall typically continues to support wildfire in the southern U.S and northern Mexico under warm and dry conditions. Some lingering fire activity continues in Canada in the northwestern part of the country. Windy and dry episodes in increase fire activity in southern California.

Canada Discussion

November/December 2016 and January 2017: Although new fire activity is minimal in the late fall in Canada, Drought Code values generally remain high in northwestern regions. Such conditions are allowing some fires to continue smoldering (including MWF-009, the Fort McMurray fire) and this may persist over the winter as moisture is light

or falls as snow and does not easily reach the deeper layers of the forest floor at this time of year. Warm weather is drying Prairie Province grasslands, so occasional grass fires could occur, but with adequate October precipitation and lengthening nights helping retain soil moisture, widespread problems are not anticipated.



Top: Canadian Drought Monitor for 31 October 2016 (from Agriculture and Agri-Food Canada). **Middle:** United States Drought Monitor for 8 November 2016 (from U.S. National Center for Environmental Information). **Bottom:** Mexican Drought Monitor for 31 October 2016 (from CONAGUA-Servicio Meteorológico Nacional).

United States Discussion

November and December 2016: Short and long-term drought conditions across much of the southeastern U.S. has produced very dry conditions entering the peak of the fall leaf drop season. The increased fine fuels and recent warmer-than-normal and drier-than-normal weather increased fire potential and activity. Dozens of large fires were active during the first week of the month across Virginia, North Carolina, Kentucky, Tennessee, Georgia, Alabama, and Mississippi. Conditions are expected to remain favorable for increased fire activity through month before slowing and returning to more normal seasonal activity in December.

Coastal southern California typically experiences periods of strong, offshore winds known as Santa Ana winds. Long term drought conditions has increased the availability of fuels of all sizes in the region and increasing the potential for large fires, given the right conditions. This trend will decrease through November. Elsewhere around the country, fire activity was minimal and usually associated with brief periods of warm, dry and windy weather.

January 2017: By January, the country will be well into the winter season and generally out of fire season. The only exception is coastal southern California where, lacking seasonal rains, brief offshore wind events could support fire activity in still dry fuels.

Mexico Discussion

November/December 2016 and January 2017: Fire activity increased across the northern portions of Mexico during October. Climate trends for Mexico during the winter suggest above normal temperatures will continue across most of the country. Precipitation is expected to be near normal with slightly wetter conditions along the Bay of Campeche and Yucatan Coasts to near Mexico City. Dry conditions over the northern parts of the country would contribute to an increase in fire activity along the Mexico-U.S. border.

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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