

North American Seasonal Fire Assessment and Outlook

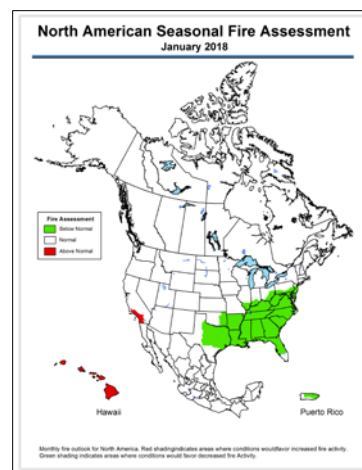
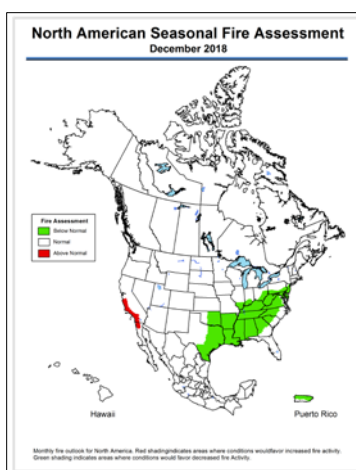
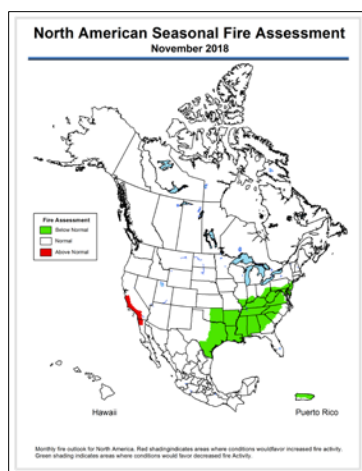
National Interagency Fire Center • Natural Resources Canada • Servicio Meteorológico Nacional
United States Canada Mexico

Outlook Period November, December 2018 and January 2019
Issued 14 November 2018

Executive Summary

A broad trough set up across western North America as fall conditions took over the continent. Several frontal systems moved into Canada and the western United States early in the month, bringing widespread precipitation to the regions and quickly mitigating fire conditions across much of Canada and the western U.S. A tropical cyclone moved into northwestern Mexico and the southwestern U.S., bringing heavy rain early in the month, wetting fuels and reducing the fire risk. Heavy rains also spread into Texas and Oklahoma. Hurricane Michael made landfall in the Florida panhandle, leaving severe destruction well inland into Georgia and extensive heavy rain and flooding to the Mid-Atlantic region. By mid-month, cold air in the interior West began forming a strong offshore pressure gradient that generate offshore winds through California. Gradually these conditions dried fuels and increased the risk of fire by the end of October.

Fire activity across North America is at a climatological minimum during the winter months. The southern coastal areas of California are reaching the peak of the offshore wind period that drives the area's fall fire season. As offshore wind events develop, continued drying of the fuels increases the risk. By the end of November, the risk gradually decreases as conditions return to the typical rainy season for southern California. A small area of elevated risk will continue in the northern Baja peninsula until winter rains develop. Several heavy rain events and tropical systems in the southeastern United States will suppress the fall and winter fire seasons through January.



Monthly fire outlook for North America for November (left), December (middle) 2018, and January 2019 (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.*



National Interagency Fire Center
Predictive Services



Natural Resources Canada
Resources naturelles Canada

CONAGUA
COMISION NACIONAL DEL AGUA

Servicio Meteorológico
Nacional

Critical Factors

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

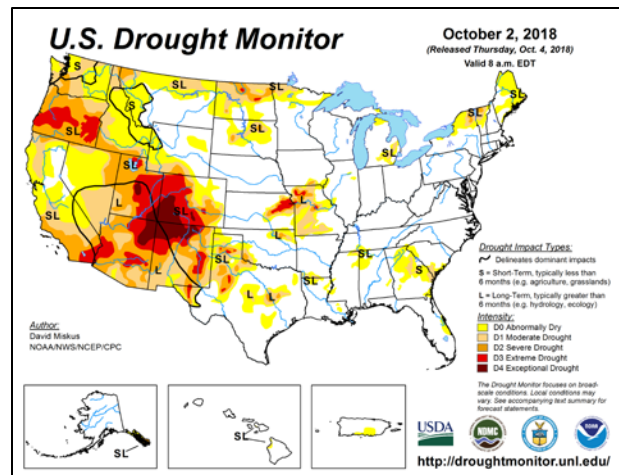
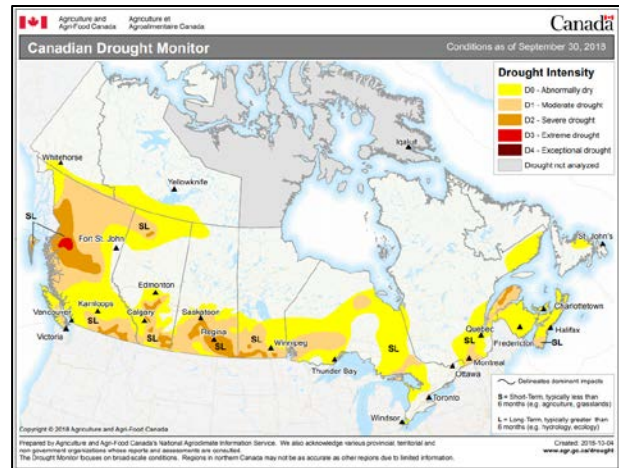
El Niño-Southern Oscillation: Sea-surface temperatures were warming across the equatorial Pacific with deep warm water in the eastern Pacific. Low level westerly winds were an indicator of El Niño conditions developing. This trend is expected to continue through the boreal winter

Drought: Drought conditions changed very little across North America in October. Moderate to severe drought continues across much of British Columbia and the southern thirds of Alberta, Saskatchewan, and Manitoba. A small area of extreme drought remains in west central British Columbia. Pockets of moderate drought also continue over western and southern Ontario, and eastern Quebec. In the U.S. severe to exceptional drought remains over the Four Corners states with the worst conditions over eastern Utah, western Colorado, northern New Mexico, and northeastern Arizona. Pockets of extreme drought also continue over Oregon and the California-Arizona border region. Moderate to extreme conditions extend across the U.S. border into far northern Baja California and Sonora. Severe to extreme drought remain along the Gulf Coast states of Veracruz and Tabasco, while abnormally dry to moderate drought conditions continue on the Pacific Coast from Jalisco to Chiapas.

Fire Season Status: In 2018 Canada reported over 7300 fires burning approximately 2,300,000 hectares (5,683,423 acres). This represents an increase of about 16% more fires than the 10-year average and a 16% decrease in area burned than the 10-year average. British Columbia burned about 1,350,000 hectares (3,335,922 acres), the highest on record for the province.

In the U.S. fire activity continued across parts of California, Oregon, and the Great Basin early, but quickly decreased with increasing precipitation at mid-month. Through October, there were 51,090 fires (56,928 average) and 3,337,689 hectares burned (8,247,610 acres).

Fire activity in Mexico remained very low. Since late September, only 62 new fires burned approximately 863 hectares (2132 acres). Nationwide for the year to date, 6901 fires burned 487,276 hectares (1,204,085 acres).



Top: Canadian Drought Monitor for 31 October 2018 (from Agriculture and Agri-Food Canada). **Middle:** United States Drought Monitor for 2 October 2018 (from U.S. National Center for Environmental Information). **Bottom:** Mexican Drought Monitor for 31 October 2018 (from CONAGUA-Servicio Meteorológico Nacional).

Canada Discussion

November/December/January: Late autumn and winter conditions will limit fire activity. No significant fire activity is expected until spring 2019.

United States Discussion

November/December: Winter conditions will take over most of the U.S. by November, limiting high fire potential conditions to the southern coastal ranges of southern California. Santa Ana offshore wind events are the driving factor. The southeastern U.S. will remain below normal.

January: Seasonal rains are expected to arrive on the West Coast and the threat of offshore wind events subsides in late December, returning the California wildfire threat to normal conditions. Warmer ocean temperatures and decreases in precipitation will increase the wildfire threat in Hawaii. Much of the southeast will remain below normal.

Mexico Discussion

November/December/January: Generally wet conditions are expected across much of Mexico through the autumn and early winter period. This will keep vegetation health high throughout the country and limit fire activity. Continued drought conditions over far northern Baja will keep an elevated risk of wildfires in place through the period through December.

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

Contributions to this document were made by:

Canada: Richard Carr, Natural Resources Canada
Ginny Marshall, Natural Resources Canada

United States: Ed Delgado, Predictive Services, Bureau of Land Management
Dianna Sampson, GIS, Bureau of Land Management

Mexico: Martín Ibarra, Servicio Meteorológico Nacional
Dario Rodríguez, Servicio Meteorológico Nacional