North American Seasonal Fire Assessment and Outlook

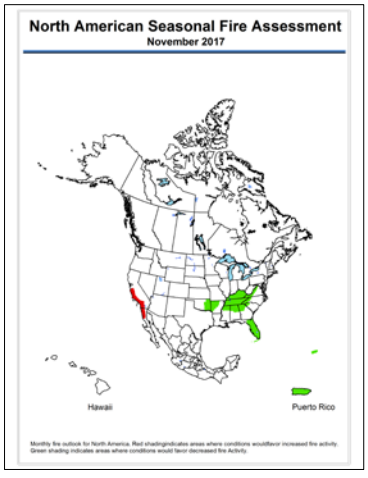
National Interagency Fire Center ● Natural Resources Canada ● Servicio Meteorológico Nacional
United States **Canada** **Mexico**

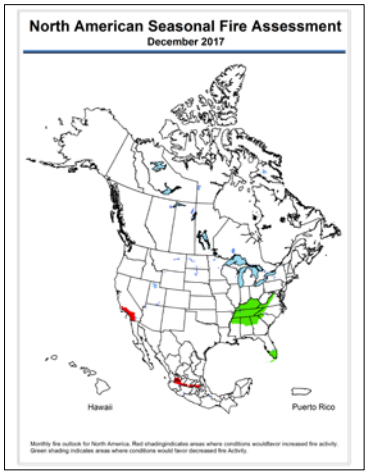
Outlook Period November, December 2017 and January 2018
Issued 13 November 2017

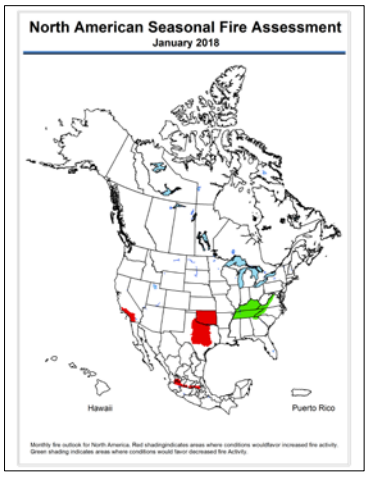
Executive Summary

A broad trough across western North America in early October sent colder air Canada and the Interior West of the United States while California and the Southwest experienced hot and dry conditions. This combination led to strong downslope and offshore winds in coastal California that led to extreme fire activity, especially in the San Francisco Bay area where several devastating fires occurred. A few grass fires developed in the Alberta grassland east of the Canadian Rockies, but wet weather mitigated conditions. Fire activity elsewhere across North American was virtually non-existent as cooler fall conditions spread across the continent.

Along the California coast, fall fire season continues with offshore wind events typically driving large fires. This is expected to continue through November for most of the central and southern coastal area, then decreasing in scale to just the southern California coast for December and January. A dry winter will increase potential across Oklahoma and central Texas in January where drought conditions are increasing. Mexico enters its dry season but fire potential remains normal for most of the country except for a small region of above normal potential in northern Baja California and an areas west and south of Mexico City in December and January.







Monthly fire outlook for North America for November (left) and December 2017 (middle), and January 2018 (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.*

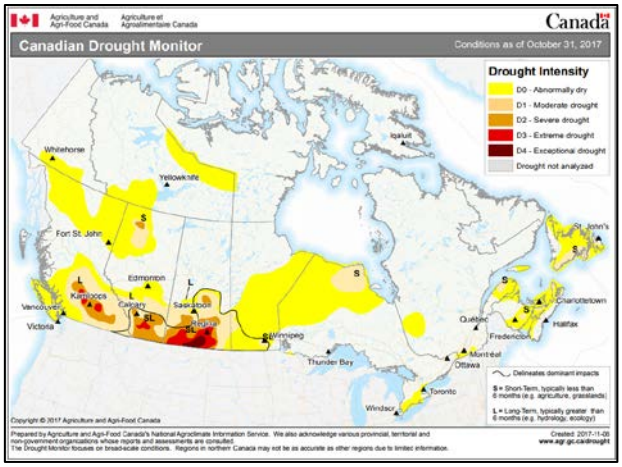
Critical Factors

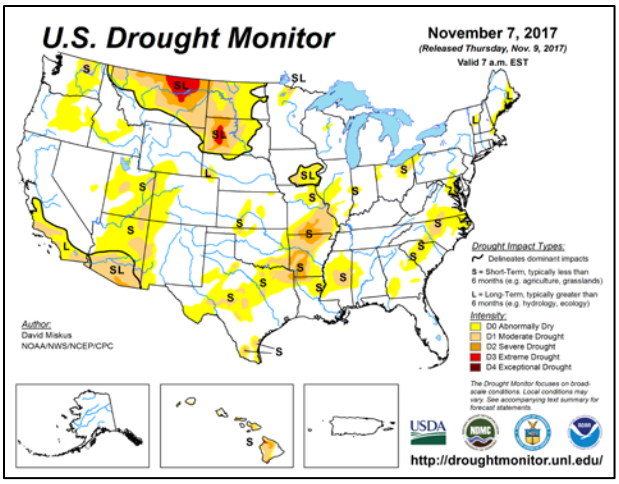
The critical factors influencing significant fire potential for this outlook period are:

El Niño-Southern Oscillation: Equatorial Pacific sea-surface temperatures continued to cool in October. The latest forecasts indicated a high probability of La Niña conditions through the Northern Hemisphere winter.

Drought: Severe to exceptional drought continued along the U.S.-Canada border from southern British Columbia to southern Saskatchewan and south to eastern Montana and the western Dakotas. Winter precipitation has reduced the coverage of the worst conditions only slightly in the past month. Dry conditions remained across the western boreal areas of Canada, much of Manitoba and Ontario, and parts of the east coast. In the U.S., warm and dry conditions in the Southwest and across the Mississippi Valley have allowed pockets of moderate to severe drought to expand across the west slope of the Rockies and southern Arizona, and from the Mid-Mississippi to central Texas. Moderate to severe drought conditions are also expanding in northwestern Mexico, along the U.S. border in Sonora and Baja California. Pockets of abnormally dry conditions are scattered through the rest of the country.

Fire Season Status: At the end of October, fire activity was very low with only a few fires scattered through the U.S. Winter conditions in Canada have mitigated most of the fire threat in the country.





Top: Canadian Drought Monitor for 31 October 2017 (from *Agriculture and Agri-Food Canada*). **Middle:** United States Drought Monitor for 7 November 2017 *(from U.S. National Center for Environmental Information).* **Bottom:** Mexican Drought Monitor for 31 October 2017 *(from CONAGUA-Servicio Meteorologico Nacional).*

Canada Discussion

November/December/January: While substantial fires occurred in October in Alberta's grasslands, with some activity bordering on bush and forest in the eastern slopes of the Rocky Mountains, recent rain and snow has likely ended the activity for 2017. Canada is expected to be in a normal winter pattern over the next few months with ENSO trending towards La Niña, which normally allows cooler conditions and snow cover to prevail in much of the country. While Pacific coastal areas remain snow-free most of the winter and Atlantic areas remain snow-free late in the fall, cooler autumn and winter temperatures with plentiful rain

United States Discussion

November/December: By November, only the southern coastal mountains of California will experience significant threat from offshore wind

events, known as Santa Anas. This risk will continue into December. Wet conditions across the Mid-Mississippi, the Tennessee, and the Ohio Valleys, and the southern and central Appalachians will keep the threat of wildfire during the seasonal leaf drop period below normal.
January: La Niña conditions could limit the winter rains in southern California, continuing the threat of fires along the southern coast. The dry conditions will La Niña also affect the southern third of the U.S. which would increase fire potential across the south central U.S. from Oklahoma to central Texas.

Mexico Discussion

November: Despite model forecasts of warmer-than-normal conditions across the country, normal to above normal precipitation in November for most of the country will mitigate the threat of significant wildfire activity, keeping fire potential normal for the period.

December/January: December and January mark the dry season for most of Mexico. Latest long-range forecasts indicated drier-than-normal conditions across most of the northern and central Mexico with normal to above normal precipitation in the south. Parts of the states of Jalisco and Michoacán, along the axis of the volcano region, could see increased potential of wildfire.

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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