

National fbp fuels grid (*version 2014b*)

Description

A national map of Canadian FBP fuel types developed from public data sources. The resolution of the raster is 250m. Data sources include the Land Cover Time Series (2011), Canadian Forest Inventory (CanFI2000), and British Columbia's Biogeoclimatic Ecosystems Classification.

The purpose of this dataset is to provide FBP fuel types for production of daily FBP grids, and for situational awareness of national fire potential.

Keywords

Fuels, FBP, wildland fire

Supplemental Information

Data Sources

The FBP fuel types map was developed for the CWFIS using multiple sources:

- Land Cover Map of Canada 2011, a satellite image-based land cover classification of Canada (Pouliot et al., 2011). The land cover map has 25 land cover types at 250m spatial resolution for all of Canada. Input data were derived from Moderate-resolution Imaging Spectroradiometer (MODIS) sensors.
- Ecozones and ecoregions of Canada (Ecological Stratification Working Group 1996) in conjunction with the National Fire Database and National Burn Area Composite (NFDB and NBAC, respectively) were used to identify burn scars and those areas where fire is not part of the landscape. For example, mountainous and tundra regions were not assigned to fuel types designed for boreal forests.
- Where publicly available, provincial forest inventories and ecological stratification maps were used to identify additional vegetation types.
- In areas where no other species or inventory data is available, Canada's Forest Inventory (Power and Gillis, 2006) is used to refine the conifer fuel types.

Daily Grid Production

The FBP System outputs include the Foliar Moisture Content and measures for potential Surface Fuel Consumption, Rate of Spread, Total Fuel Consumption, Head Fire Intensity, and Crown Fraction Burned. Each of these outputs is calculated on a cell-by-cell basis, using the weather, Fire Weather Index (FWI), and fuel type grids as inputs. Production of the weather and FWI grids is described under Data Sources and Methods for Daily Maps in the FWI System (<http://cwfis.cfs.nrcan.gc.ca/background/dsm/fwi>).

Fuel type codes:

101 - C1
102 - C2
103 - C3
104 - C4
105 - C5
106 - C6
107 - C7
108 - D1
109 - M1
110 - M2
111 - M3
112 - M4
113 - S1
114 - S2
115 - S3
116 - O1a
117 - O1b
118 - Water
119 - Non-fuel
120 - Wetland (FBP fuel type unknown)
121 - Urban or built-up area
122 - Vegetated non-fuel

References

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Ecological Stratification Working Group. 1996. A National Ecological Framework for Canada. Agriculture and Agri-Food Canada, Research Branch, Centre for Land and Biological Resources Research and Environment Canada, State of Environment Directorate, Ottawa/Hull.

Pouliot, D., R. Latifovic, I. Olthof, and R. Fraser. (2011). Chapter 12: Supervised classification approaches for the development of land cover time series. *Remote Sensing of Land Cover: Principles and Applications*, CRC Press.

Power, K.; Gillis, M.D. 2006. Canada's Forest Inventory. Natural Resources Canada, Canadian Forest Service, Pacific Forestry Centre, Victoria, British Columbia. Information Report BC-X-408E. 100 p.)

Canadian Forest Service. 2016. National Fire Database – Agency FireData. Natural Resources Canada, Canadian Forest Service, Northern Forestry Centre, Edmonton, Alberta. <http://cwfis.cfs.nrcan.gc.ca/ha/nfdb>

Supporting Documentation

Access to data

This version of the **National FBP Fuels** (*version 2014b*) is available as a downloadable grid (GeoTiff) or as a web service (WMS/WCS):

- [National FBP Fuels \(GeoTiff\)](#)
- [National FBP Fuels \(nat_fbpfuels wms/wcs\)](#)

Contact

Brian Simpson

Natural Resources Canada; Canadian Forest Service / Northern Forestry Centre

Phone: 825-510-1168