

Glossary

Aspect – The direction a **slope** is facing; its exposure in relation to the sun (e.g., north, east, south, west). *Topology*

Atmospheric Condition *Observed Wx*

Neutral – The temperature decrease with altitude is equal to the DALR (the atmosphere neither aids nor hinders large-scale vertical motion).

Stable – The temperature decrease with altitude is less than the DALR (the atmosphere tends to suppress large-scale vertical motion).

Unstable – The temperature decreases with altitude is greater than DALR (the atmosphere tends to support large-scale vertical motion).

Average Depth Burn – *Observed Behaviour - I*

Average Rate of Spread – The speed at which a fire extends its horizontal dimensions, expressed in terms of distance per unit of time. Generally thought of in terms of a fire's forward movement or head fire rate of spread, but also applicable to backfire and flank fire rate of spread. *Observed Behaviour - I*

BUI – Buildup Index. A numerical rating of the expected rate of fire spread. It combines the effects of wind and **FFMC** on rating of spread but excludes the influence of variable quantities of fuel. *Wx at Time of Fire, Observed Wx*

Case Study, wildfire – An unplanned or unwanted natural or man-caused fire, as contrasted with a **prescribed fire**. *Observation ID*

Condition – Drop down box –Dead, Stressed, Live, Blown Down, Insect Killed, *Overstory, Understory*

Coniferous – Cone bearing trees. *Understory*

Coverage – Percentage of area covered. *Shrub, Understory, Ground cover, Surface Fuel*

Crown Closure % - Percentage of crown closed. *Overstory*

Crown Fraction Burned – Percentage of crown burned. *Observed Behaviour -I*

Crown Fuel Consumption – Crown fuel burned recorded in kg/m². *Observed Behaviour -I*

Crown Fuel Load - *Overstory*

Curing – The proportion of cured and or dead plant material in a grassland fuel complex. *Surface Fuel*

Days Since Rain – Number of days since last rain. *Observed Wx*

DBH - Diameter at Breast Height. The tree diameter measured at breast height (approximately (1.37m), on the uphill side of the tree. *Overstory, Understory*

DC – Drought Code. A numerical rating of the average moisture content of deep compact, organic layers. This code indicates seasonal drought effects on forest fuels, and the amount of smouldering in deep duff layers and large logs. *Observed Wx*

Deciduous - Perennial plants which are normally leafless for some time during the year. *Understory*

Density – Recorded in Stem/ha. *Shrub, Overstory, Understory*

Depth – Measures of depth for F layer and Total organic layer recorded in cm. *Duff/Soil*

DMC – Duff Moisture Code. A numerical rating of the average moisture content of loosely compacted organic layers of moderate depth. This code indicates fuel consumption in moderate **duff** layers and medium-sized woody material. *Observed Wx*

Down & Dead – All down timber and dead timber either standing or down. *Moisture Content*

Duff – The layer of partially and fully decomposed organic materials lying below the litter and immediately above the mineral soil. It corresponds to the fermentation and humus layers of the forest floor. When moss is present, the top of the duff is just below the green portion of the moss. *Moisture Content*

Duration of the Spread – Length of time of observed spread, recorded in hours. *Observed behaviour - I*

Elevation – Metres above sea level. *Topology*

Experimental fire – *Observation ID*

FBP System Fuel Type – Fire Behaviour Prediction as per the Canadian Forest Fire Danger Rating System. *Observation ID*

FFMC – Fine Fuel Moisture Code. A numerical rating of the **moisture content** of **litter** and other crude fine fuels. This code indicates the relative ease of ignition and flammability of fine fuels. *Wx at Time of Fire, Observed Wx*

Fire Type – Can be selected from the dropdown box. Smouldering, Surface, Intermittent Crown, Active Crowning. *Observed behaviour - I*

Flame Height – The average maximum vertical extension of flames at the fire front; occasional flashes that rise above the general level of the flames are not considered. Recorded in metres (m). *Observed behaviour - I*

Flame Length – The length of flames measured along their axis at the fire front; the distance between the flame height tip and the midpoint of the flame depth at the ground surface. **Flame length** is an approximate indicator of frontal fire intensity. Recorded in metres (m). *Observed behaviour - I*

F-Layer – A layer of partially decomposed litter with portions of plant. *Duff/Soil*

Forest Floor (Organic Layer) Consumption – The organic surface component of the soil supporting forest vegetation; the combined **duff** (if present) and **litter** layers. *Duff/Soil*

Fuel Load – The dry weight of combustible materials per unit area. Recorded in kg/m². *Overstory, Understory, Shrubs, Down & Dead, Duff/Soil, Ground Cover*

Fuel Moisture Stick – A specially prepared device of known dry weight that when periodically weighed, after being continuously exposed to the weather elements, indicates changes in the moisture status and relative flammability of certain dead fuels. *Observed W_x*

FWI – Fire Weather Index. A numerical rating of fire intensity that combines **ISI** and **BUI**. It is suitable as a general index of fire danger throughout the forested areas of Canada. *W_x at Time of Fire, Observed W_x*

Head Fire Intensity – The rate of heat energy released per unit time per unit length of fire front, recorded in kW/m. *Observed behaviour - I*

Herb – A nonwoody, vascular plant such as a grass, a grasslike plants, a fern, or a forb. *Observed Behaviour - I*

HLCB - Height to Live Crown Base. The length of tree stem from average ground level to the junction with the bole of the first live branches composing the main crown. *Shrub, Overstory, Understory*

ISI – Initial Spread Index. A numerical rating of the expected rate of fire spread. It combines the effects of wind and **FFMC** on rate of spread but excludes the influences of variable quantities of fuel. *W_x at Time of Fire, Observed W_x*

Ladder Fuel - A term which describes material on or near the ground that will carry fire to the crown of the tree. *Understory*

Litter – The uppermost part of the forest floor consisting of freshly cast or slightly decomposed organic materials. *Moisture Content*

Load – Surface Fuels

Observation Date – Date observations was recorded. *Observation ID*

Organic Layer – Layer of soil composed of organic material, recorded in cm. *Duff/Soil*

Overstory Foliar - Moisture Content

Plot, Fire Identifier – Means of identifying observation entered by user. *Observation ID*

Precipitation – Rain. Recorded in millimetres (mm). *Observed Wx*

Prescribed fire – Any fire deliberately utilized for prescribed burning; usually set by qualified fire management personnel according to a predetermined burning prescription.

Rain Duration – Duration of rain recorded in hours. *Observed Wx*

Ranks – Calculated automatically by clicking Calc button. *Observed behaviour - I*

RH – Relative Humidity. The ratio, expressed as a percentage, of the amount of water vapour or moisture in the air to the maximum amount of moisture that the air would hold at the same dry-bulb temperature and atmospheric pressure. *Wx at Time of Fire, Observed Wx*

Scorch Height - The average height to which foliage has been browned by fire. *Observed behaviour - I*

Shrub – A woody, perennial plant differing from a perennial herb in its persistent and woody stem, and less definitely from a tree in its lower stature and the general absence of a well defined main stem. *Observed Behaviour - I*

Sky Conditions –Can be selected from drop down box. *Observed Wx*

Slope % - The upward or downward inclination of the earth's surface (i.e., the deviation in the terrain from level or flat ground). Recorded as a percentage. *Topology*

Slope Description – Can be selected from drop down box. *Topology*

Stand Composition – The proportion of each tree species in a stand expressed as a percentage of the total of all tree species in the stand.

Stem/ha – Measure of vegetation density. *Shrub, Overstory, Understory*

Surface Fuel – All combustible materials lying above the duff layer between the ground and ladder fuels that are responsible for propagating surface fires (e.g., **litter**, herbaceous vegetation, low and medium shrubs, tree seedlings, stumps, downed-dead roundwood).

Surface Live Fuels - Moisture Content

Temperature – Temperature recorded °C. *Wx at Time of Fire, Observed Wx*

Total Fuel Consumption – Calculated – This value is calculated by clicking the Calculate button. *Surface Fuel*

Type – (Fuel Type) An identifiable association of fuel elements of distinctive species, form, size, arrangement, and continuity that will exhibit characteristic fire behaviour under defined burning conditions. *Surface Fuels*

Understory Foliar – Moisture Content

Wind Direction – The direction from which the wind is blowing. Wind direction is most commonly referred to by cardinal direction (e.g., north, east, south, west) but may also be expressed in degrees (i.e., 1° to 360°). *Wx at Time of Fire, Observed Wx*

Wind Speed – The rate of horizontal motion of the air past a given point, expressed in terms of distance per unit of time. Recorded in km/h. *Wx at Time of Fire, Observed Wx*