

High Level, Peace River, Slave Lake, Fort McMurray and Lac La Biche Forest Areas

June 24, 2018

Field reports of observed head fire intensity are in seeming contrast to those provided by the Spatial Fire Management System (SFMS) Head Fire Intensity (HFI) maps for the Forest Areas noted above. This is likely explained by the convective nature of a portion of the precipitation received in the last couple of weeks. It is a common caveat issued in fire weather and fire behaviour forecasting that convective rainshowers often follow narrow bands of heavy precipitation amounts with little, if any precipitation received away from the storm path. Since our weather station network is made up of point location weather stations separated by large distances, a weather station that receives precipitation offers no guarantee that the same amount of precipitation has occurred in the inter-station areas. Our SFMS mapping software uses a technique called Inverse Distance Weighting (IDW) whereby the computer averages and feathers out precipitation recorded at weather stations across the inter-station landscape, giving the indication that precipitation recorded at a weather station has also occurred across broad areas.

The dry period the Province experience through the month of May allowed all Fire Weather Index (FWI) values to climb into the very high to extreme range, prompting an elevated and protracted level of Presuppression Preparedness, including fire bans across most of Northern Alberta. As precipitation began to fall through late May and into June, these levels were relaxed as weather stations were reporting continued precipitation. That the reported precipitation was largely convective in nature, the premise that it was not comprehensive over all areas is reasonable, and the SFMS decision support tool, in this case, was limited by the inter-station interpolation method.

The Fire Behaviour Advisory is thus issued that the very dry fuel conditions that developed through the month of May may have missed substantive precipitation through June and thus remain at elevated fire danger levels. Field reports of Intensity Class 5 and 6 fire behaviour are not un-reasonable considering the fire danger levels the Province was recently under.

It is appropriate due diligence that Duty Officers advise their first response staff that these fuel moisture and fire danger conditions are possible, and that the fire danger levels provided by the SFMS mapping tools may not be accurate in all locations.

Based on the fire danger levels in May and field fire intensity observations, this Fire Behaviour Advisory is issued to remind all staff that areas of high to very high fire danger still exist in the north, and possibly elsewhere across the Province. Recent rainfall is no excuse to allow complacency to enter our fire suppression response. Duty Officers are responsible to communicate fire danger conditions to our staff, and to encourage our staff to be aware and report field observations back. This is good work by our Department Staff, and a credit to those who have made these observations.