

2009 Athabasca River at Fort McMurray

Report No. 03

On Tuesday April 14, 2009 Alberta Environment conducted an observation flight of the Athabasca River from Crooked Rapids (approximately 40 km upstream of Fort McMurray) to Stony Island (approximately 17 km downstream of Fort McMurray). The Clearwater River was also observed from its confluence with the Athabasca River to approximately 15 km upstream of the Athabasca – Clearwater confluence.

The ice cover on the Athabasca River continues to thermally deteriorate. The ice cover is darkening and numerous small open leads are developing. Water is pooling on the ice cover and running along the banks in certain locations and out onto the cover downstream of some open leads. The ice cover is predominantly intact, though small shifts of the ice cover have occurred at open leads and sections that are opening. These shifts are very isolated and do not represent characteristics of the ice cover across the entire channel width at that location within the observed reach. The Clearwater River is also continuing to melt in place. Flow can be observed along the banks and the ice cover is darkening.

Observation Details

Athabasca River:

- Crooked Rapids to the Clearwater Confluence – The one km open lead at Crooked Rapids now extends a further 500 m upstream for a total length of 1.5 km. The ice cover at Rock Rapids is continuing to open up and small open leads now extend downstream of the rapids. A small portion of the ice cover in the vicinity of Rock Rapids has released and moved approximately 100 m downstream into an open lead. This movement has not caused any transverse cracks or pressure ridges to form in the ice cover downstream and is not creating any backwater upstream. Little Cascade and Cascade rapids continue to open up and the open leads downstream of each of the rapids now extend approximately 100 to 200 m further downstream than during yesterday's observation. In the sections of this reach that do not have rapids, water was observed flowing along the banks and spilling on to the ice cover from the numerous small open leads that have begun to develop. At the Clearwater River confluence the ice cover is continuing to melt away and the open leads are continuing to lengthen.
- Clearwater Confluence to Stony Island – The ice cover within this reach continues to darken and melt in place. The 5 km open lead along the left bank of the Athabasca is now 7 km long and extends from Grant Island to Poplar Island. Open water is visible around each of the islands and small open leads are continuing to develop within the ice cover. Water is pooling on the ice cover in a number of locations and can be observed running along the banks.

Clearwater River:

- The ice cover within the observed reach continues to thermally deteriorate. The ice cover is darkening and the existing open leads are slowly widening and lengthening. Water can be observed running along both banks of the Clearwater River.

The most current information with interactive maps and photos is posted on the Alberta Environment web site at <http://www.environment.alberta.ca/forecasting/RiverIce/index.html>