

2010 Athabasca River at Fort McMurray

Report No. 05

On Tuesday, April 13, 2010, an observation flight of the Athabasca River basin was conducted by Alberta Environment. The flight covered the Athabasca River from Crooked Rapids, approximately 40 km upstream of Fort McMurray, to Stony Island, approximately 17 km downstream of Fort McMurray. The observation flight also covered the Clearwater River from its confluence with the Athabasca River to the mouth of the Christina River.

The ice cover on the Athabasca River is continuing to thermally deteriorate. The snow cover on the ice surface ranges from 40% to 70% coverage over the reach observed. Water was observed pooling on the surface of the ice cover at the downstream end of many open leads as well as along the banks of the river. Small shifts in the ice cover were once again observed, but continue to be isolated in small areas of a predominantly intact ice cover. The ice cover on the Clearwater River is also continuing to melt in place. Water is pooling on the ice cover and along the banks. Open leads were observed at several locations from the confluence upstream to the mouth of the Christina River.

Observation Details

Athabasca River:

- Crooked Rapids to the Clearwater River Confluence – An open lead extends approximately 2 km upstream of Crooked Rapids ending in a small ice accumulation directly downstream of the rapids. Open leads are lengthening downstream of the accumulation. Small cracks and shifts in the ice cover have appeared between Rock and Little Cascade Rapids. The movement has not caused pressure ridges to form and is not creating backwater. Open leads directly downstream of Cascade Rapids are continuing to lengthen. Open leads are developing in an approximately 7 km reach downstream of Cascade Rapids and no movement of the ice cover was evident. Mountain Rapids are open and an open lead extends downstream approximately 5 km. An open lead has increased in width upstream of Moberly Rapids and the rapids section is now open across $\frac{3}{4}$ of the channel. The ice cover directly upstream of the Grant McEwan Bridge is melting in place and pooling on the ice cover in this reach was observed. The area of open water downstream of the bridge continues to increase in size. The ice cover at the Clearwater River confluence continues to melt away as an open lead observed yesterday lengthens.
- Clearwater Confluence to Stony Island – The ice cover within this reach continues to thermally deteriorate. Open leads are increasing in length on both sides of Grant Island. Water is pooling on the ice cover as new open leads are beginning to develop.

Clearwater River:

- The ice cover between the confluence and the mouth of the Christina River is continuing to melt in place. Water is pooling along the banks throughout this reach and open leads continue to develop.

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>