River Ice Observation Report

Alberta Environment – River Forecast Section

April 18, 2009

2009 Athabasca River at Fort McMurray

Report No. 07

Alberta Environment conducted an aerial observation of the Athabasca and Clearwater Rivers on Saturday, April 18, 2009. The Athabasca River was observed from Crooked Rapids (approximately 37 km upstream of Fort McMurray) to Stony Island (approximately 18 km downstream of Fort McMurray). The Clearwater River was also observed from its confluence with the Athabasca River to its confluence with the Christina River.

An ice run has caused breakup of the ice cover on the Athabasca River at Fort McMurray. The ice run did not pause as it moved downstream past the Athabasca – Clearwater confluence. The ice cover on the Clearwater River near the Athabasca – Clearwater confluence has shifted and moved downstream, though the ice cover on the remaining upstream portion of the reach is still intact and melting in place.

Observation Details

Athabasca River:

- Crooked Rapids to the Clearwater River confluence – This observed reach now consists of open water with debris ice from the ice run remaining on the banks, gravel bars and islands within the channel. The shear walls within this reach range in height from approximately 2.5 meters to less than 1 meter. The ice cover of the Athabasca River underneath the bridges at Fort McMurray was observed from the ground at 06:40 and was intact and stationary. This same portion of the Athabasca River ice cover was then observed again at 07:10 and the ice run was just beginning to push past the upstream end of the island just downstream of the Highway 63 bridges. The ice run was observed running along both sides of the island. The ice run did not stall or slow down as it moved past the Athabasca – Clearwater confluence. The ice run finished moving past the confluence at approximately 11:45.
- Clearwater River confluence to Stony Island – The remaining ice cover within this reach was broken up by the ice run as it moved through this reach. The only ice that remains is the debris ice that has been stranded along the banks, gravel bars and islands within the channel.

Clearwater River:

The ice cover around Rocke Island at the Athabasca – Clearwater confluence has released and moved out into the Athabasca River. The confluence is ice free. The ice cover within the 5 km reach upstream of the confluence has shifted in a number of locations and moved a short distance downstream. The ice cover that has shifted are large sheets of ice that have come to rest due to the geometric constraints of the channel not allowing them to move further downstream. No backwater was observed building behind the sheets and they are continuing to melt in place. The ice cover upstream of this 5 km reach and extending to the Clearwater – Christina confluence is still intact and thermally deteriorating in place.

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