

Phyllis Beaulieu

From: Jim Millard [Jim.Millard@Baffinland.com]
Sent: Wednesday, August 13, 2008 12:27 PM
To: Amy.Liu@dfo-mpo.gc.ca
Cc: cheryl.wray@Baffinland.com; derek.chubb@Baffinland.com; 'Al Gorman'; envirotech@qia.ca; 'Salamonie Shoo'; keima@inac.gc.ca; Phyllis Beaulieu; Curtis.Didham@EC.GC.CA
Subject: Rainfall Event - Road overtopping/erosion

Hi Amy, We had approximately a day and half of rain on August 11 and 12 this week. Although the rainfall did not appear to be that intense at Milne Inlet and Mary River and along the Tote Road, high flow hydrological conditions were observed along the road that appeared to be fed from upland areas to the east. This culminated in the following conditions:

Crossings CV-078 (km 51.2) and CV-207 (km 50.7). CV-078 is a HADD crossing. CV-207 is not fish habitat (neither a HADD nor Letter of Advice crossing).

- At CV-207, the water level rapidly rose over the course of the afternoon yesterday. By the late afternoon, a decision was made to breach the road at CV-207 and CV-078 with an excavator to alleviate water levels behind the road.
- The road was successfully breached at CV-207 by the excavator allowing water to drain from upstream of the crossing at around 5pm. During the course of the event, there was some minor erosion of a stream bank upstream from CV-207, resulting in some minor downstream sedimentation. By later that evening, all flows were reported to be clear. (Note that a 1.0 m culvert had previously installed at CV-207 on July 23 to handle flows at this location. The design basis called for 0,25 m diam culverts as required.)
- At CV-078, however, the road overtopped before the controlled breach could be completed, resulting in a narrow section of road wash-out. The crossing was designed to be overtopped at locations away from the culvert during high flows. The culvert remained intact.
- Flows were too great to permit installation of silt fences.

Crossing CV-212 (km 74.3 and unnamed crossing at km 74.6). These crossings are not fish habitat.

- A series of small culverts were installed at these locations to facilitate drainage. The culverts could not handle the flows and the road was overtopped (only minor erosion, the road was not breached). Also check dams that were previously constructed along roadside ditches to control sediment were washed out, causing erosion along the ditch and into the CV-212 drainage and downstream. By later in the evening waters were clearing and flows were subsiding.

Today's Actions: An aerial tour of the above areas of interest is scheduled for early this afternoon. Samples will be collected in receiving waters and analyzed on site for turbidity. Now that flows have subsided, silt fences will be erected where required to limit sediment transport.

A further report will be forthcoming including photos, results of turbidity samples, future monitoring, and recommended corrective actions.

Jim Millard, M.Sc., P.Geo.
 Environmental Superintendent
 Mary River Project
 Baffinland Iron Mines Corporation
 tel 403-450-8843