



Cambridge Bay, NU, Freshwater Creek. Riverbed Alteration Related to Bridge Crossing

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To: licensing@nwb-oen.ca

Cc: Jim MacEachern <jmaceachern@cambridgebay.ca>, Marla Limousin <mlimousin@cambridgebay.ca>

Dear NWB,

The Hamlet of Cambridge Bay, NU has retained Jivko Engineering Ltd to upgrade the existing Freshwater Creek Crossing located on the road to the Cambridge Bay Cemetery some 2.5 km to the NW of town.

The existing Crossing features 30 m long Bailey bridge. The east end of the bridge rests on 3.0 meter high river bank. The west end is supported on a gravel-rock fill Causeway projecting into the river and constricting nearly one third of the River Channel. This causeway is subject to progressive yearly erosion, with need for major repairs every several years. The last major washout was in 2010 when the bridge was closed for traffic for few weeks.

In the last 6 years the Hamlet has gradually replaced the existing bridge with a 45 m long structure installed alongside the existing one, and spanning the full width of the Original Riverbed. The abutments of the new bridge are metal Bin-wall structures located beyond the High Water Mark of the Original Riverbed. At no point heavy equipment, or bridge elements have been in contact with the river flow during the installation of the new bridge.

Presently, the Hamlet has secured funding for the last phase of the Bridge Upgrading: Restoration of the Riverbed to Its Original Condition. The proposed Work includes:

- Removal of the existing Bailey Bridge,
- Excavation of the Causeway, and the adjacent upstream Buffer Berm. Some 1,600 cubic meters mixture of gravel and rock will be removed from the Riverbed. Nearly half of this material is located above the water level, and the other half is below.

Drawing and photos are enclosed. The area subject to excavation is marked in green on drawing "e".

This Work is considered Alteration of the Riverbed with potential for temporary siltation of the watercourse downstream from the crossing. The Plan is to carry out the Work this fall, at low water, within a time window established by the NIRB, DFO, NWB and other appropriate Regulators.

Please, advise what documentation is to be submitted for your consideration to issue a Permit for the completion of this Work.

Respectfully,

Jivko Jivkov, P. Eng.,

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4 attachments

 **b. 10.12.09 Freshwater Cr Br Location Google500.pdf**
259K

 **c. Bailey at H & L Water Level PIC.pdf**
439K

 **d. Cambridge Bay Bridge google 100, 500.pdf**
369K

 **e. 14.11.25 CamB Gen 4of 4 DWG.pdf**
682K