



Fisheries and Oceans
Canada

Pêches et Océans
Canada

Eastern Arctic Area

P.O. Box 358
Iqaluit, NU X0A 0H0
Phone: (867) 979-8000
Fax : (867) 979-8039

Secteur de l'Arctique de l'est

Boîte postale 358
Iqaluit, NU X0A 0H0
Tél: (867) 979-8000
Télécopieur: (867) 979-8039

October 9, 2007

Our file Notre référence
NU-07-0051

Crystal Jones
Department of Engineering
City of Iqaluit
Box 460
Iqaluit, Nunavut X0A 0H0

Dear Ms. Jones:

Subject: Proposed works or undertakings will not likely result in negative effects to fish habitat if additional protection measures are implemented.

Fisheries and Oceans Canada (DFO) received the revised drawings on September 28, 2007, concerning the culvert replacement on Allanngua Road in the City of Iqaluit. To expedite future correspondence or inquiries, please refer to your referral title and file numbers when you contact us.

Habitat File No.:	NU-07-0051
Referral Title:	Culvert Replacement, Unnamed Creek to Kojesssee Inlet, City of Iqaluit

It is our understanding that your proposal consists of:

- *Replacing the existing 1800 mm corrugated steel pipe (CSP) culvert with twin 1800mm CSP culverts (18 metres in length);*
- *Installing the twin culverts one metre further southeast of the existing culvert (away from the steeper upstream riverbank and the utilidor gas pipelines that run parallel to the watercourse);*
- *Embedding the twin culverts a minimum of 10% of its diameter below the natural upstream and downstream channel inverts;*
- *Salvaging natural channel substrate from the proposed area to be covered by the rip-rap aprons and spreading the salvaged material on the surface of rip-rap aprons;*
- *Installing rip-rap aprons both upstream and downstream of the culvert crossing;*
- *Placing a geotextile fabric underneath the area of the rip-rap aprons;*
- *Placing large boulders within the area of the rip-rap apron downstream of the culvert crossing in the locations indicated in drawing SP1; and,*
- *Working "in the dry" using the existing culvert for flow diversion during a phased construction for a half-and-half installation of the twin culverts.*

as outlined in the following plans:

- *E-mail regarding the City of Iqaluit Allanngua Road culvert installation, prepared by Paul Savoie, dated September 24, 2007.*
- *Allanngua Road Culvert- Culvert Crossing Details, Drawing no. SP1, engineered stamp and signed by S.L. Burden, dated September 28, 2007.*

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- *Allanngua Road Culvert- Staging, Erosion and Sediment Control Plan, Drawing no. SP2, engineered stamp and signed by S.L. Burden, dated September 28, 2007.*
- *Site Instruction No. 1, Allanngua Road Culvert Replacement, prepared by Steven Burden, Approved by Crystal Jones, dated October 5, 2007.*

If the above plans have changed since the time of submission, the advice in this letter may no longer apply and you should consult with us to determine if further review is needed.

We have concluded that the proposed works and undertakings are adequate to protect fish and fish habitat provided that the work is carried out as described in your plans and the following additional measures are implemented:

- *All materials and equipment used for the purpose of site preparation and project completion should be operated and stored in a manner that prevents any deleterious substance from entering the water.*
 - *Any stockpiled materials should be stored and stabilized away from the water*
 - *Vehicle and equipment re-fuelling and maintenance should be conducted away from the water*
 - *Any part of equipment entering the water should be free of fluid leaks and externally cleaned/degreased to prevent any deleterious substance from entering the water;*
 - *Only clean material free of fine particulate matter should be placed in the water;*
- *Sediment and erosion control measures should be implemented prior to work, and maintained during the work phases,, to prevent entry of sediment into the water or the movement of re-suspended sediment.*
 - *All sediment and control measures should be inspected regularly to ensure that they are functioning properly and are maintained and/or upgraded as required to prevent entry of sediment into the water.*
 - *All disturbed areas should be stabilized upon completion of work and restored to a pre-disturbed state or better.*
 - *Sediment and erosion control measures should be left in place and maintained until all disturbed areas have been stabilized.*
- *All instream work should be completed in the dry by diverting flows around the work area using the existing culvert in a half-and-half installation process.*
 - *Existing stream flows should be maintained downstream of the de-watered work area without interruption, during all stages of the work.*
 - *Flow dissipaters and/or filter bags, or equivalent, should be placed at water discharge points to prevent erosion and sediment release.*
 - *Sediment laden dewatering discharge should be pumped to a settling basin well away from the watercourse and allowed to settle and/or filter through the riparian vegetation before re-entering the watercourse downstream of the construction area.*
 - *The work area should be stabilized against the impacts of high flow events at the end of each workday.*

By implementing these additional measures and those already outlined in your plans, it is our opinion that the proposed works and undertakings will not likely result in the harmful alteration, disruption or destruction (HADD) of fish habitat, which is prohibited unless authorized by DFO. These are recommendations to ensure that the proposed works will likely not result in a HADD of fish habitat. Therefore a subsection 35(2) Authorization is not necessary.

You could contravene subsection 35(1) of the *Fisheries Act* if a HADD of fish habitat results from any change in your proposed plan or from failure to properly implement these additional measures. Subsection 35(1) states, *"no person shall carry on any work or undertaking that results in the harmful alteration, disruption or destruction of fish habitat."*

This letter of advice does not permit the deposit of deleterious substance (section 36 of the *Fisheries Act*) into waters frequented by fish nor does it release you from the responsibility to obtain any other federal, territorial, or municipal approvals.

We request that you notify before starting the work and that a copy of this letter be kept on site while work is in progress. If you have any questions concerning the above, or if my understanding of the proposal is either incorrect, incomplete, or if there are changes to the proposed works or undertakings, please contact myself directly by telephone at 867-979-8007, by fax at 867-979-8039, or by e-mail at Liua@dfo-mpo.gc.ca.

Yours sincerely,

Original signed by:

Amy Liu
Habitat Management Biologist

c.c.: Keith Pelly, Fisheries and Oceans Canada
Ipeelee Itorcheak, Fisheries and Oceans Canada
Bradley Flynn, Fisheries and Oceans Canada
Jim Rogers, Indian and Northern Affairs
Phyllis Beaulieu, Nunavut Water Board
Steven Burden, Trow Associates Inc.