



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

June 1, 2009

DFO File: 07-HCAA-CA7-00004

Philippe Simon  
Qikiqtaaluk Logistics Inc.  
P.O. Box 1228  
Iqaluit, Nunavut  
X0A 0H0

via email: [psimon@qenv.ca](mailto:psimon@qenv.ca)

Dear Mr. Simon:

**SUBJECT: Authorization for the harmful alteration, disruption or destruction of fish habitat pursuant to subsection 35(2) of the *Fisheries Act***

The harmful alteration, disruption or destruction of fish habitat arising from the installation of six culvert crossings in unnamed watercourses along the 16 kilometer road from the Hamlet of Clyde River to the Cape Christian site in the Qikiqtani Region in Nunavut is hereby authorized pursuant to subsection 35(2) of the *Fisheries Act*. This Authorization shall be conditional upon implementation of measures specified in the attached document.

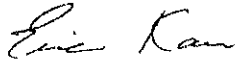
The environmental impacts of this undertaking was reviewed by Fisheries and Oceans Canada in accordance with the *Nunavut Land Claims Agreement* as well as the *Canadian Environmental Assessment Act*. This review concluded that the project is not likely to cause significant adverse environmental effects if the mitigation and compensation measures specified are implemented.

Failure to comply with any of the conditions specified on the attached Authorization may result in a contravention of section 35 of the *Fisheries Act*.

**NOTE:** None of the foregoing should be taken to imply Authorization of this undertaking in accordance with any section of the *Fisheries Act* **other** than section 35. Also note that Authorization under the *Fisheries Act* does not release the proponent from the requirements of any other federal, provincial or municipal legislation.

Please contact Amy Liu at (905) 639-8236 or by fax at (905) 639-3549 should you have any questions or require additional information.

Sincerely,

A handwritten signature in cursive script, appearing to read "Eric Kan".

Eric Kan  
Area Director  
Eastern Arctic Area  
Fisheries and Oceans Canada

Copy: Greg Johnson – Qikiqtaaluk Environmental  
Steve Therrien – Biome Environnement



## AUTHORIZATION FOR WORKS OR UNDERTAKINGS AFFECTING FISH HABITAT

### Authorization issued to:

Qikiqtaaluk Logistics Inc.  
P.O. Box 1228  
Iqaluit, Nunavut  
X0A 0H0

Telephone: (867) 979-8400

### Location of Project

The six watercrossings are located along the existing 16 kilometer road that connects the Hamlet of Clyde River to the Cape Christian site on Baffin Island in the Qikiqtani Region of Nunavut. The culvert crossings cross unnamed streams at the following coordinates:

Crossing Number	Latitude	Longitude
2	70° 29'42.94	68° 28'28.33
3	70° 30'32.04	68° 24'39.53
5	70° 30'32.29	68° 23'39.36
9	70° 30'00.4	68° 18'97
10	70° 31' 08.6	68° 18' 84
11	70° 31' 22.9	68° 18' 22

### Valid Authorization Period

The valid authorization period for the harmful alteration, disruption or destruction of fish habitat associated with the installation of the six watercourse culvert crossings is:

From  
June 1, 2009

To  
October 31, 2009

The valid authorization periods for the other conditions of the authorization are as set out below.

### Description of Works or Undertakings (Type of work, schedule, etc.)

The harmful alteration, disruption or destruction of fish habitat hereby authorized is the *infilling* of 438.5 square metres of fish habitat for the installation of corrugated steel pipe culverts over six (6) unnamed watercourses along the 16 km road from the Hamlet of Clyde River to the Cape Christian site.

### Conditions of Authorization

1. The conditions of this Authorization notwithstanding, should the above works or undertaking, due to weather conditions, different soil or other natural conditions, or for any other reason, appear, in the opinion of the Department of Fisheries and Oceans ("DFO") likely to cause greater impacts than the parties previously contemplated, then DFO may direct Qikiqtaaluk Logistics Inc. ("Proponent"), and its agents, and contractors, to suspend or alter works and activities associated with the project, to avoid or mitigate adverse impacts to fisheries resources. DFO may also direct the Proponent and its agents, and contractors, to carry out at the Proponent's expense any works or activities deemed

---

necessary by DFO to avoid or mitigate further adverse impacts to fisheries resources. In circumstances where DFO is of the view that greater impacts may occur than were contemplated by the parties DFO may also modify or rescind this authorization. If the authorization is to be changed the Proponent will be given an opportunity to discuss any proposed modifications or rescission.

2. Conditions that relate to the **proponent plan**:

2.1. The Proponent confirms that all plans and specifications relating to this Authorization have been duly prepared and reviewed by appropriate professionals working on behalf the Proponent. The Proponent acknowledges that (s)he is solely responsible for all design, safety and workmanship aspects of all the works associated with this Authorization.

2.2. The construction must comply with those criteria as identified within this Authorization. Harmful alteration, disruption or destruction of fish habitat other than that specifically identified within this Authorization is not permitted.

2.3. Works will be conducted following the practices outlined in the following reports:

2.3.1. Application for Authorization for Works or Undertakings Affecting Fish Habitat, signed by Philippe Simon (Qikiqtaaluk Logistics), dated July 10, 2008.

2.3.2. Application for Water License, prepared by Qikiqtaaluk Logistics, dated July 10, 2008.

2.3.3. Road Access to Cape Christian – Fish and Fish Habitat Assessment at Stream Crossings Report, prepared by Sylvain Fleury (Impact Faune inc.), dated August 2008.

2.3.4. Nunavut Impact Review Board Screening Decision Report, (NIRB File No. 08RN070), signed by Lucassie Arragutainaq (Nunavut Impact Review Board), dated July 24, 2008.

2.3.5. Revised Road Access to Cape Christian – Fish Habitat Compensation and Monitoring Plan Municipality of Clyde River, prepared and signed by Steve Therrien (Biome Environnement), dated April 2009, received by email on May 15, 2009.

2.3.6. Specifications – Cape Christian Road Repair & Culvert Installation, prepared by Qikiqtaaluk Environmental, signed by Greg Johnson and Philippe Simon (Qikiqtaaluk Environmental), dated April 2009.

2.3.7. Engineering Drawings entitled, "Cape Christian Remediation Project Culvert Installation in Fish Bearing Waters", prepared, signed and stamped by Greg Johnson (Qikiqtaaluk Environmental), dated April 16, 2009.

2.3.7.1. Site Layout, Drawing Number QESin 2007 P6-2009-01.

2.3.7.2. Crossings 2 & 9 Details, Drawing Number QESin 2007 P6-2009-02.

2.3.7.3. Crossings 3 & 5 Details, Drawing Number QESin 2007 P6-2009-03.

2.3.8. Email addressed to Amy Liu (DFO) regarding Cape Christian Road Repair and Culvert Installations with attachment of revised engineering drawing entitled "Crossings 10 & 11 Details", drawing number QESin2007 P6-2009-04, sent by Greg Johnson (Qikiqtaaluk Environmental), dated May 20, 2009.

3. Conditions that relate to the **mitigation** of potential harmful alteration, disruption or destruction of fish habitat. The following measures shall be implemented:

---

- 
- 3.1. No instream work shall occur inside the timing window of September 1 to June 30 in **Clyde River**, whereas for the watercourses in which the HADD of fish habitat resulting from the culvert installations is authorized, no instream work shall occur inside the timing window of September 1 to June 1, without the specific written permission from DFO.
  - 3.2. A qualified biologist or environmental inspector shall be on site during all in-water construction, compensation and restoration works to ensure implementation of the designs as intended in the proponent plan and conditions of this Authorization.
  - 3.3. Work shall be completed during low water conditions and not when flows are elevated due to local rain events, storms or seasonal floods.
  - 3.4. The gradient of the water crossing shall match the gradient of the natural channel at the crossing site.
  - 3.5. The culvert shall be positioned such that the inlet and outlet are aligned with the existing stream channel.
  - 3.6. The Proponent shall ensure that in installing the appropriately-sized approved culvert, efforts are made to minimize the extent and footprint of the culvert and infilling works as much as practical. The infilling shall not extend any further than outlined in the drawings submitted to the DFO-Eastern Arctic Area as per the **proponent plan**.
  - 3.7. All materials and equipment used for the purpose of site preparation and project completion shall be operated and stored in a manner that prevents any deleterious substance (e.g. petroleum products, debris, etc.) from entering the water.
    - 3.7.1. Any stockpiled materials shall be stored and stabilized above the ordinary high water mark of any water body.
    - 3.7.2. Vehicle and equipment re-fuelling and maintenance shall be conducted above the ordinary high water mark of any water body.
    - 3.7.3. Any part of equipment entering the water shall be free of fluid leaks and externally cleaned/degreased to prevent any deleterious substance from entering the water.
  - 3.8. Only clean material free of fine particulate matter shall be placed in the water.
  - 3.9. Sediment and erosion control measures shall be implemented prior to work, and maintained during the work phases, to mitigate impacts to fish habitat
    - 3.9.1. All disturbed areas shall be stabilized upon completion of work and restored to a pre-disturbed state or better.
    - 3.9.2. Sediment and erosion control measures shall be left in place and maintained until all disturbed areas have been stabilized
  4. Conditions that relate to the **compensation** for the loss of *438.5 square metres* of fish habitat.
    - 4.1. The sediment deposits from bank erosion, in the first 20 metres of the streambed, downstream of crossing site no. 5 shall be removed.
    - 4.2. An off-channel connected to an unnamed lake located downstream of crossing site no. 5 shall be created to provide additional fish habitat.
      - 4.2.1. Boulder material to be used for fish cover creation shall be taken from the removal of the rubble mound
-

---

abutements of an old makeshift bridge crossing in Clyde River. The riverbed and banks of Clyde River shall be reclaimed to its pre-disturbed state or better.

- 4.3. All fish habitat compensatory works shall be completed, as described more specifically in the proponent plan before October 31, 2009.
  - 4.4. If at any time the Proponent becomes aware that the compensatory habitat is not completed and/or functioning as described in the habitat compensation plan, it shall carry out any works which are necessary to ensure the compensatory habitat is completed and/or functioning as described in the approved Fish Habitat Compensation Plan referred to in condition 2.3.
  - 4.5. After the compensatory habitat has been created the Proponent shall not carry on any work or undertaking that will adversely disturb or impact the compensatory habitat.
  5. Conditions that relate to the **monitoring** of the proponent plan, the mitigation and the compensation, the "Monitoring Program".
    - 5.1. The Proponent shall undertake a Monitoring Program and will report to DFO, by **December 31, 2009**, whether works were conducted within the schedule of the proponent plan and whether the mitigation measures outlined in the proponent plan and this Authorization were followed, by:
      - 5.1.1. Providing dated photographs of the culvert installations.
      - 5.1.2. Providing dated photographs of the sediment control works and details of how they functioned to mitigate impacts to fish habitat.
      - 5.1.3. Providing details of any contingency measures that were followed in the event that mitigation measures did not function as described in the proponent plans.
      - 5.1.4. Providing an **as-built report including engineer drawings** of the six culvert installations, that demonstrates the application of the proponent plan referred to in condition 2.3.
    - 5.2. The Proponent shall report to DFO on an annual basis for two (2) years by **September 30, 2010 and 2011**, that the compensation works were conducted according to, and within the schedule of, the habitat compensation plan, by:
      - 5.2.1. Providing dated photographs of the completed habitat compensation project.
      - 5.2.2. Providing details of how the compensatory habitat was functioning after completion.
      - 5.2.3. Conducting a survey of fish presence and use of the fish habitat compensation measures once every year (2010 and 2011) for 2 years following construction, according to the methods described in the proponent plan and providing details of fish sampling.
      - 5.2.4. Providing a description of the contingency measures that were followed if, during the Monitoring Program, it was determined that the compensatory habitat was not functioning as described in the proponent plans.
    - 5.3. The Proponent shall provide an **as-built report including engineer drawings** of the fish habitat compensation works, that demonstrates the application of the approved Fish Habitat Compensation Plan referred to in condition 2.3, by **December 31, 2009**.
  6. Any deviation from the approved plans, the construction schedule, mitigation, and/or monitoring measures stated above must be discussed with, and approved in writing by the Iqaluit, NU office of the Department of Fisheries and Oceans, Fish Habitat Management, Eastern Arctic Area.
-

DFO File No.: NU-08-0031  
Referral File No.: 07-HCAA-CA7-00004  
Authorization No.: 1

- 
7. All mitigation and monitoring measures shall be implemented to the satisfaction of the Iqaluit, NU office of the Department of Fisheries and Oceans, Habitat Management, Eastern Arctic Area.
  8. Written notification of the commencement of works or undertakings shall be provided to DFO -- Eastern Arctic Area by email at [Amy.Liu@dfo-mpo.gc.ca](mailto:Amy.Liu@dfo-mpo.gc.ca) prior to the initiation of those works or undertakings.
- 

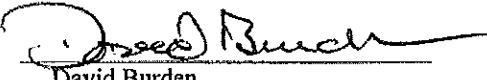
The holder of this authorization is hereby authorized under the authority of section 35(2) of the Fisheries Act, R.S.C., 1985, c.F. 14, to carry out the work or undertaking described herein. This authorization is valid only with respect to fish habitat and for no other purposes. It does not purport to release the applicant from any obligation to obtain permission from or to comply with the requirements of any other regulatory agencies.

Failure to comply with any condition of this authorization may result in charges being laid under the Fisheries Act.

This authorization form should be held on site and work crews should be made familiar with the conditions attached.

---

Date of Issuance: May 29 / 09

Approved by:   
David Burden  
Title: A/ Regional Director General

---

