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07 June 2018

Proj. No.: 307071-01148

Nunavut Research Institute
Box 1720, Building 959
Iqaluit, NU
XOA OHO

Mosha Cote, Manager, Research Liaison

Dear Mr. Cote:

Re: Permit Renewal – Iqaluit Marine Infrastructure Project (Government of Nunavut) Permit Number #01 034 16N-M

1. Introduction and Project Location

In the open water season of 2018, construction will begin on three facilities in Koojesse Inlet (Qikiqtaaluk Region). The Deep Sea Port Project (DSP Project) is a new construction, and the Small Craft Harbour Project (SCH Project) involves improvements to the municipal breakwater and the existing causeway in Iqaluit (see Figure 1 attached for locations). In October 2017, the Nunavut Impact and Review Board (NIRB) issued a screening report which determined that the DSP and SCH Projects do not require further review.

Further, Fisheries and Oceans Canada-Fisheries Protection Program (DFO-FPP) determined serious harm would result from the construction of both projects, and thus *Fisheries Act* Authorization (FAA) applications were submitted. A component of the FAA is to design an Offset Plan to compensate for serious harm. It should be noted that consultation specific to the requirements for the FAA were held in Iqaluit in September 2017 with the Amaruq Hunters and Trappers Association (HTA). The HTA do not feel that Arctic char will be affected by the construction of the facilities, but are interested in participating in the Iqaluit Offset Plan that is required as a component of the FAA. The FAAs have been issued (DFO-FPP, File #s: 17-HCAA-00961, 17-HCAA-00964) and the initial field surveys are planned for mid to late August 2018 to meet the commitments of this permit.

This letter provides the details for the 2018 field season to request an extension of the license issued by the Nunavut Research Institute (NRI) (under Permit #01-034-16N-M) for the field baseline program already conducted for the projects. Project construction monitoring (which includes the FAA) is included in NPC File # 148431 (DSP) And 148429 (SCH).

2. Researchers Name and Affiliation

The research team affiliated with the Iqaluit Offset Plan is as detailed in Table A. Any questions associated with this Project can be directed to Victoria Burdett-Coutts (email: Victoria.coutts@advisian.com; Phone: 778-945-5501) on behalf of the Government of Nunavut (contact Justin McDonell, email: jmcdonell@gov.nu.ca).

Table A Iqaluit Offset Plan Research Team

Name	Title
Victoria Burdett-Coutts	Lead Biologist
Diane Pinto	Community Engagement and Indigenous Knowledge Lead
Cameron Knight	Field Technician

3. Project Scope

The Iqaluit Offset Plan consists of two components, the Monitoring Program and the Research Program. The goal of the Monitoring Program is to assess the habitat characteristics within the footprint of proposed projects. In future years, after construction of the facilities, this will be compared to the habitat provided by the boulders/rocks that are a component of project design for shoreline protection. Rocks provide multi-dimensional habitat where marine organisms can find refuge in the spaces between them. The goal of the Research Program is to investigate the primary prey species of Arctic char in Koojesse Inlet in the waters surrounding the proposed facilities.

The field work components of these two programs are provided in Table B.

Table B Field Components for the Iqaluit Offset Plan

Component	Activity	Field Methodology
Monitoring Program	Intertidal surveys conducted at low tide in the footprint of each of the three facilities and at a nearby reference site	Intertidal surveys will be conducted at low tide, with transects and quadrats. Field personnel will document habitat characteristics.
	Subtidal surveys will be conducted at the proposed DSP and at a nearby reference site.	A local boat operator will be subcontracted. The field team will operate a remote operated vehicle (ROV) to provide video documentation of the habitat characteristics.
Research Program	15 Arctic char will be purchased from local harvesters. Field technicians will collect biological data from each fish (length, weight, sex, maturity status) and collect biological materials (otoliths, section of white muscle, stomach). The biological material will be preserved in an appropriate manner for the analysis required and shipped for processing.	There is no field work associated with this component.
	An IQ workshop will be conducted to integrate the extensive first-hand knowledge of local fishers—who have observed the environment and Arctic char on a continuing basis over decades—with scientific research. The goal of the IQ workshop will be determine habitat types (intertidal/subtidal) preferentially used by Arctic char in the marine environment.	The workshop will include the participation of at least five currently active fishers selected by the HTA for being especially knowledgeable about arctic char and their environments.

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4. Closing

We trust that this correspondence provides the necessary details required for a permit extension. If you require any further information, please do not hesitate to contact the undersigned.

Sincerely,

Victoria Burdett-Coutts, M.Sc., R.P.Bio
Marine Scientist, Environmental Consultant

Environment, Society & Geoscience
Advisian, Americas

enc. Attachment 1 - Figure 1: Deep Sea Port and Small Craft Harbour Project Locations
cc:
Harald Kullmann, Advisian
Diane Pinto, Advisian
Paul Mulak, Government of Nunavut

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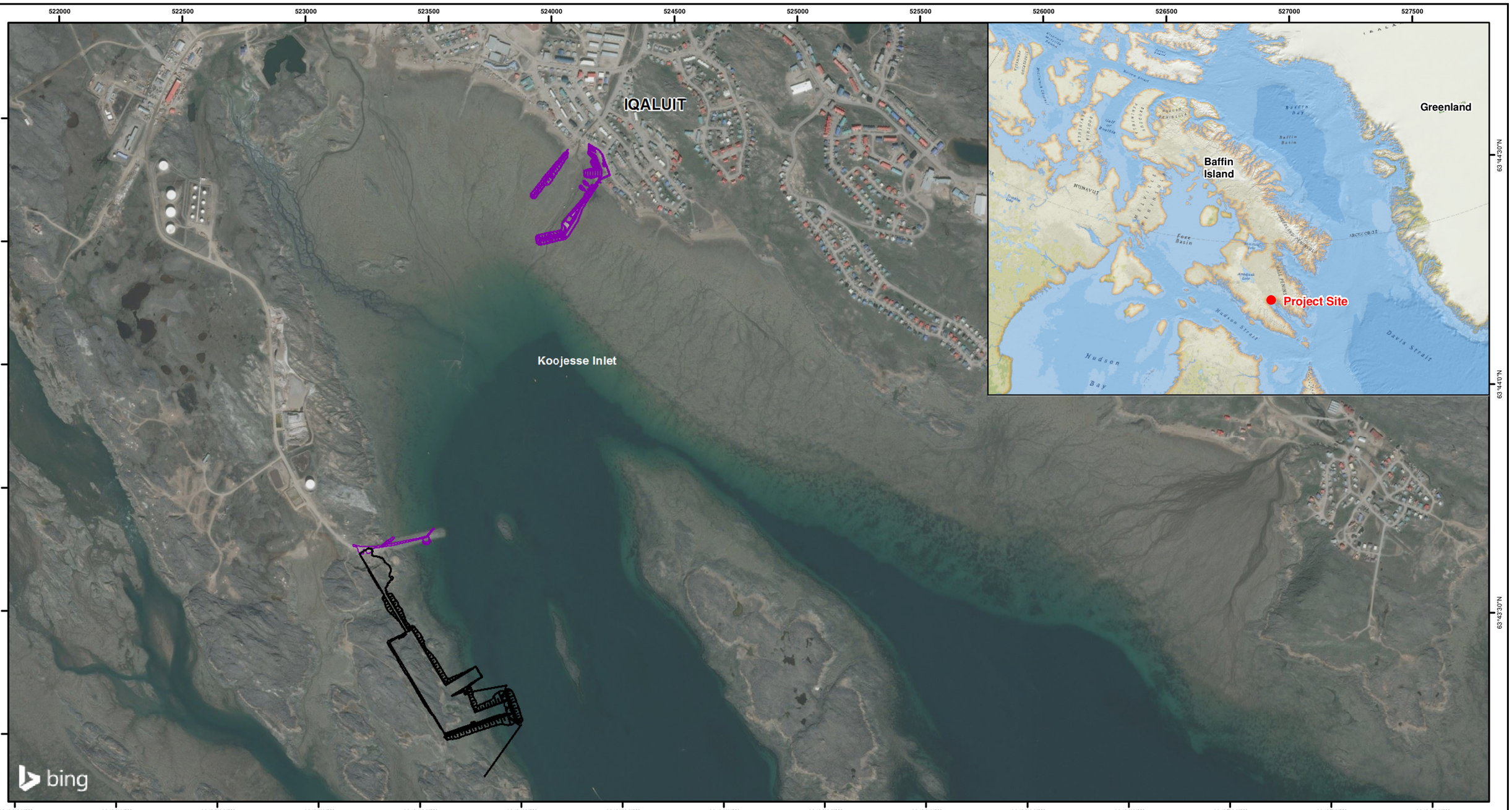
Attachment 1 Figure



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7068500 7068000 7067500 7067000 7066500 7066000

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Legend

- Proposed DSP Project
- Proposed SCH Project

0 100 200 400
Metres

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Note:
Coordinate System: NAD 1983 UTM Zone 19N
Aerial Photo and Basedata from City of Iqaluit, 2016

B SHEET	OneWay to zero harm
DATE:	04/06/2018
DRAWN:	Y.M.
EDITED:	K.R.
APPROVED:	XX

CUSTOMER: Nunavut

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IQALUIT MARINE INFRASTRUCTURE

PROJECT LOCATIONS

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WORLEYPARSONS PROJECT No:	FIG No:	REV
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FILE LOCATION: U:\YVR\307071\01148 GON_NVMarInfra\10 Eng\16 Geomatics\01 Mxd\NRI Permit\Figure1 2018-05-31 NRI Permit IQ Project Location.mxd

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