ECOLOGIC CONSULTANTS
UNIT 4 - 252 1ST STREET EAST
NORTH VANCOUVER BC V7L 1B3
PHONE: 604 803-7146

# MEMORANDUM

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| **DATE:** | 7 March 2019 |
| **TO:** | Talia Maksagak, Junior Technical Advisor, Nunavut Impact Review Board |
| **FROM:** | Kevin Tegumiar, Senior Administrative Officer, Municipality of Naujaat<br>Jason Jones, Ph.D., R.P.Bio., P.Biol., EcoLogic Consultants Ltd. |
| **SUBJECT**: | Responses to March 4, 2019 Information Request |

On March 4, 2019, Ms. Talia Maksagak requested additional information in support of the Municipality of Naujaat's NIRB proposal to build a community access trail (NIRB File No. 19PN003). We have attempted to address the information requests as completely as possible at this stage of project design (Table 1).

**Table 1. Municipality of Naujaat responses to NIRB information request.**

| NIRB Request | Municipalty Response |
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| Describe road maintenance procedures | Once constructed, standard trail maintenance (e.g., snow clearing) will be conducted by local individuals and equipment (e.g., grader). Should repairs to the trail be required (e.g., culvert upgrade), the municipality will engage the appropriate experts (e.g., Onsite Engineering Ltd.) |
| Describe the type and source materials that would be used for the construction of the road | The proposed trail is gravel surfaced using local borrow material for subgrade construction where appropriate. Material deficits will be addressed with small borrow sites along the alignment within the right-of way. Surfacing and large granular fills are proposed to be borrowed from several existing gravel deposits along the alignment. Borrow sites identified in the field are located along the alignment at: 4.4-4.75 km, 5.45-5.65 km, 5.85-6.6 km, and 9.15-9.55 km. There are also potential gravel sources that have not been confirmed in the field at 10.4 km, 13 km, and 14 km. There are frequent bedrock exposures along the entire alignment for use as culvert and bridge abutment riprap armouring as well as rock fills, if required. |
| Indicate on the map:<br>• locations of designated re-fuelling areas;<br>• water crossings; | We have attached an updated map that provides additional information known at this time. The primary fuel storage and refuelling station will be at the town site. Any fuelling done along the alignment will be conducted using small, truck-mounted fuel |

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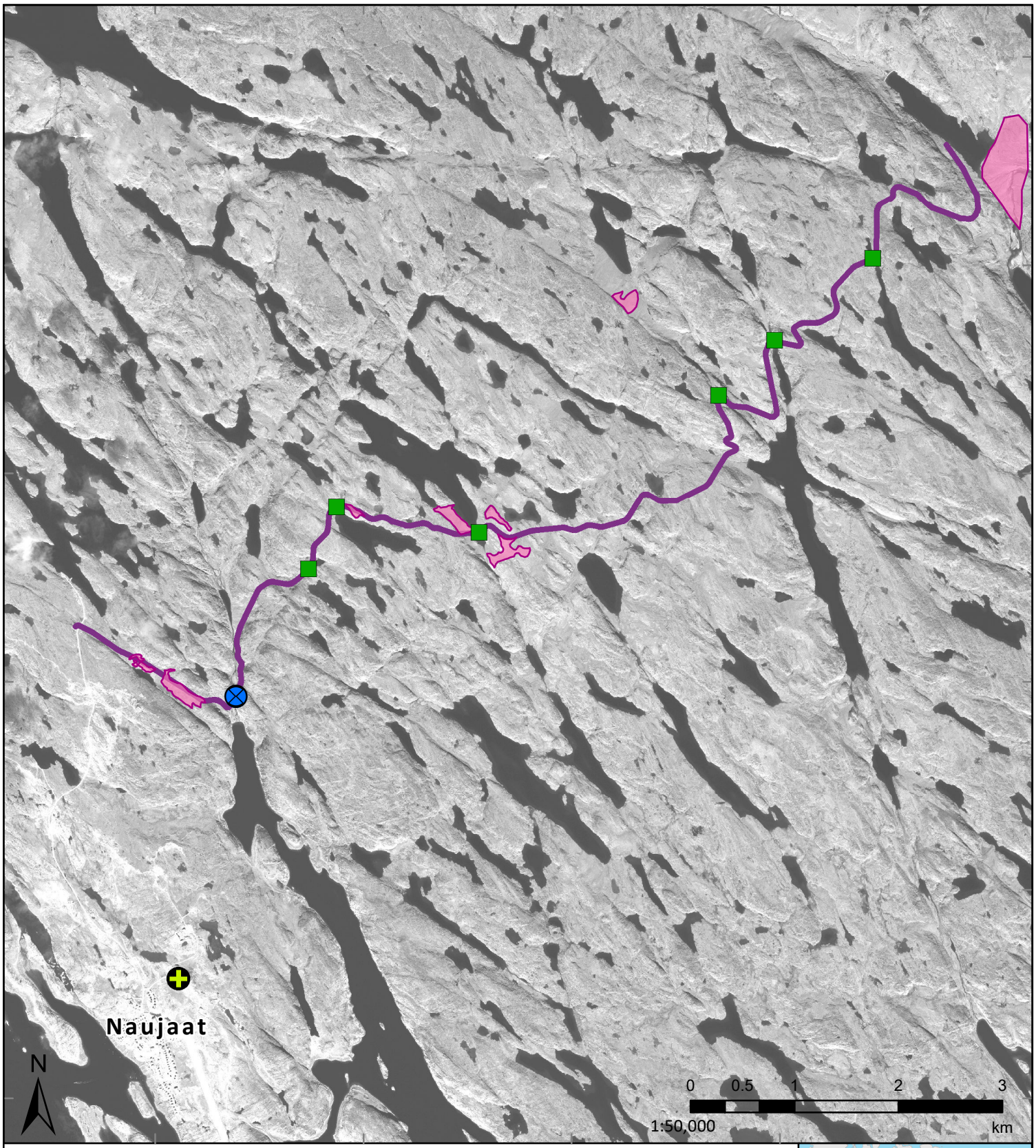
| • culverts;<br>• quarries/borrow sources; | tanks, and will be conducted in accordance with the Environmental Management Plan included in the "Environmental Considerations" document provided with our proposal. |
| Indicate the type of bridge is proposed | Only one bridge is proposed at approximately 1.85 km along the alignment. The proposed bridge is a clear span steel or steel and concrete superstructure with rock armoured, geosynthetic reinforced soil abutments. These abutments were chosen for their attributes of having a large stable footprint with light and portable imported building materials that primarily use local gravel sources for fill. The bridge elevation will be design with at least 1.5 m clearance over anticipated water and ice flows. Further study of the crossing location during spring freshet conditions is planned for 2019. |
| Describe bridge construction and maintenance | Bridge construction is proposed to proceed in the following order of operations:<br>• Temporary launch of superstructure to construction access across the stream.<br>• Clearing of unsuitable organic soils from the abutment footprint.<br>• Placement of riprap at and around the base of the abutments<br>• Construction of geosynthetic reinforced soil abutments<br>• Launch of superstructure from the temporary location adjacent to the crossing onto the abutments.<br>• Final grading and trimming of slopes<br><br>Bridge maintenance will consist primarily of cleaning the deck when necessary, grading approach roads, and infrequent maintenance of guard rails and coatings as required due to damage from use. Annual inspection will be carried out for the structure for the first two years of use to confirm stability of the riprap and passage of design flows. Depending on site conditions, future inspections will continue on a 3-year cycle. |




# North Arrow Minerals Naujaat Project

## Proposed Community Access Trail, Naujaat, NU

Date: 3/7/2019
Map Number: NAM-012
Coordinate System: NAD 1983 UTM Zone 16N
Projection: Transverse Mercator
Datum: North American 1983

**Legend**

- Proposed Community Access Trail
- Culvert crossing
- Bridge crossing
- Proposed Fuel Storage
- Gravel Deposits