Hamlet of Repulse Bay Water License Amendment for Construction of the North Pole River Access Road

Application Summary

January 2009

The Hamlet of Repulse Bay has submitted an application to the Nunavut Water Board (NWB) to amend its current water license, NWB3REP0409, for construction of the North Pole River Access Road (the Project). The activities undertaken in the construction of the access road in relation to waterbodies, fisheries and waterbody crossings are described in this summary.

The Hamlet of Repulse Bay needs to develop granular resource sites to allow for municipal road construction and other community projects. Four granular deposits have been identified northwest of the Hamlet and a preliminary design for a road to access these sites was designed in 2002. The proposed access road is 7.68 km long, will be constructed of granular materials, and measure approximately 6 m wide with additional width for shoulders and culverts in some areas.

The proposed access road will cross several waterbodies and authorization from the NWB is required before construction can begin. Six (6) streams (CRS-2, CRS-3, CRS-4, CRS-5, CRS-6, and CRS-7) and a small bouldery area (CRS-1) which drains a small freshwater lake into the marine Tariuraq Inlet will be crossed by the access road. Five (5) small lakes are also present within the Project route, located adjacent to the proposed access road. A well-used ATV trail is also present along the majority of the Project route. This existing trail leads to the North Pole River, an area frequented by community members, and has not been constructed or improved. Stream crossing improvements have also not been installed along the existing trail and ATV traffic traverse directly on the streambed. Impacts from ATV traffic are apparent at all trail crossings.

Three of the six streams crossed are expected to be ephemeral and flow during the freshet or significant precipitation events only. The remaining three streams were reported to flow throughout the ice-free season but would freeze to bottom in the winter. Fish were not observed within any of the waterbodies crossed by the proposed access road, however two fish species were observed in two small waterbodies adjacent to the access road. Fish may be present within the small freshwater lake and Tariuraq Inlet, and the headwater and/or outlet lakes of most streams have may have potential fish habitat.

Culverts will be installed at all waterbody crossings along the proposed access road route. Culverts will be a minimum diameter of 600 mm with varying lengths. The previously constructed portion of the access road presently crosses one stream (CRS-2) and the small bouldery area at CRS-1. A rudimentary culvert was installed at the CRS-2 crossing, however no culverts were installed at the CRS-1 crossing and water presently drains through the large riprap of the constructed road. Culverts will be installed or replaced at these two crossings. The following mitigative measures are planned to protect water quality and potential fish habitat within or downstream of the waterbodies:

- restricting in-water construction to a recommended timing window and to periods of low or no flow;
- using clean equipment and granular materials;
- performing regular equipment inspections for leaks, cracks and weak hoses;
- where water flow is present, monitoring the downstream environment for turbidity/total suspended solids levels;
- hand placement of riprap during culvert installation; and,
- installation of silt fences up-shore of the five small lakes adjacent to the access road.

ᓇᐅᔾᔮᓂ Hᐊᒻᒪᓚᑦᑯᑦ ᐃᒪᕐᒥᒃ ᐊᑐᕈᓐᓇᕐᓂᕐᒧᑦ ᓚᐃᓴᓐᓲᑦ ᐋᕿᒋᐊᖅᑕᐅᓂᖏᑦ ᓴᓇᔭᐅᓂᖓᓄᑦ ᑰᖕᒧᑦ ᐃᑳᕐᕕᒃᓴᒧᑦ ᐊᖅᑯᑎᒃᓴᖅ North Pole-ᖑᓂᖅᑕᐅᔪᒥ

ᐆᒃᑐᕈᑏᑦ ᓇᐃᓈᖅᑕᐅᓯᒪᓪᓗᑎᒃ ᖃᓄᐃᓕᖓᓂᖏᑦ

ᔭᓄᐊᕆ 2009

Hᐊᒻᓚᑦᑯᑦ ᓇᐅᔾᔮᕐᓂ ᑐᓂᓯᓯᒪᖕᒪᑕ ᐆᒃᑐᕈᑎᓂᒃ ᓄᓇᕗᒻᒥ ᐃᒪᕐᓄᑦ ᑲᑎᒪᔩᓄᑦ, ᐋᕿᒋᐊᕈᑎᒃᓴᖏᓐᓄᑦ ᓖᓐᓇᐅᔪᖅ ᐃᒪᐃᑦ ᐊᑐᖅᑕᐅᓂᖏᓐᓄᑦ ᓚᐃᓴᓐᓯᒥᓄᑦ, ᓈᓴᐅᑎᓕᒃ NWB3REP0409-ᒥᒃ, ᓴᓇᔭᐅᓂᖓᓄᑦ ᑰᖕᒧᑦ ᐃᑳᕐᕕᖕᒧᑦ North Pole-ᖑᓂᖅᑕᐅᔪᒥ (ᓴᓇᔭᐅᔪᒥ). ᐱᓕᕆᐊᒃᓴᐃᑦ ᐱᔾᔪᑎᖃᕋᔭᖅᑐᑦ ᓴᓇᔭᐅᓂᖓᓂᒃ ᐊᖅᑯᑎᒃᓴᐅᑉ ᖃᓂᒋᔭᖏᓐᓂ ᐃᒪᖃᖅᑐᑦ, ᐃᖃᓪᓕᐊᕐᕕᐅᕙᒃᑐᑦ ᐊᒻᒪᓗ ᐃᑳᕐᕕᐅᕙᒃᑐᑦ ᐅᖃᐅᓯᐅᔪᓂ ᑕᕝᕙᓂ ᓇᐃᓈᖅᑕᐅᓯᒪᔪᒥ ᐅᓂᒃᑳᒥ.

Hᐊᒻᒪᓚᑦᑯᑦ ᓇᐅᔾᔮᓂᒃ ᓯᐅᖅᑕᕐᕕᒃᑖᕆᐊᖃᕐᓂᐊᕐᒪᑕ ᐊᖅᑯᓯᐅᕈᑎᒃᓴᒥᓄᑦ ᐊᓯᖏᓄᓪᓗ ᓴᓇᕈᑎᒃᓴᓄᑦ ᓄᓇᓕᖓᓐᓂ. ᓯᑕᒪᐃᑦ ᓯᐅᕐᕋᖃᖅᑐᑦ ᓇᓗᓇᐃᖅᑕᐅᓯᒪᓕᖅᑐᑦ ᑲᓇᖕᓇᖓᑕ ᐱᖓᕐᓇᖅᐸᓯᐊᓂ Hᐊᒻᒪᓚᑦᑯᖏᓐᓂᒃ, ᐊᒻᒪᓗ ᓯᕗᓪᓕᖅᐹᖏᑦ ᑎᑎᕋᐅᔭᖅᑕᐅᓯᒪᓂᖏᑦ ᐊᕐᑯᑏᑦ ᑎᑭᑕᕐᕕᒃᓴᐃᑦ ᑖᒃᑯᓄᖓ ᐃᓂᒋᔭᐅᔪᕗᑦ ᓴᓇᔭᐅᓚᐅᖅᑐᑦ 2002-ᖑᑎᓪᓗᒍ. ᐊᕐᑯᑎᒃᓴᐅᓇᔭᖅᑐᖅ ᑕᑭᓂᖃᕋᔭᖅᐳᖅ 7.68 ᑭᓛᒥᑕᓂᒃ, ᓴᓇᔭᐅᓯᒪᓗᓂ ᓯᐅᕋᕐᒥᒃ, ᓂᕈᑐᓂᖃᕐᓗᓂᓗ 6 ᒦᑕᓂᒃ, ᐊᒻᒪᓗ ᓴᓂᕋᖃᕐᓗᓂ, ᐃᓚᖏᓐᓂᓗ ᐃᒪᕐᓄᑦ ᑯᓪᕕᓕᐅᖅᓯᒪᓗᓂ.

ᐊᖅᑯᑎᒃᓴᐅᑉ ᓴᓇᔭᐅᓂᖓ ᐃᑳᕋᔭᕐᒪᑦ ᐊᒥᓱᒐᓴᖕᓂᒃ ᐃᒪᓕᖕᓂᒃ, ᐊᖏᖅᑕᐅᓯᒪᔭᕆᐊᖅᓯᑎᓪᓗ ᓄᓇᕗᒻᒥ ᐃᒪᕐᓄᑦ ᑲᑎᒪᔩᓄᑦ, ᓴᓇᔭᐅᒋᐊᕈᓐᓇᖅᓯᓚᐅᖏᓐᓂᖏᓐᓇᓂ. 6-ᖑᖕᒪᑕ ᑰᒐᓛᒃᑐᑦ (ᓇᓗᓇᐃᒃᑯᑖᑦ CRS-2, CRS-3, CRS-4, CRS-5, CRS-6, ᐊᒻᒪᓗ CRS-7-ᒥᒃ) ᐊᒻᒪᓗ ᐊᑕᐅᓯᕐᒥᒃ ᒥᑭᔪᒥᒃ ᐅᔭᕋᖕᓛᓂᐅᓂᖅᑐᒥᒃ (CRS-1-ᒥᒃ) ᑕᓯᖃᖅᓱᓂ ᑯᕕᔪᒥᒃ ᑕᕆᐅᕐᒧᑦ ᑕᕆᐅᖅᒧᑦ, ᐃᑳᕐᕕᐅᓇᔭᖅᓱᓂ ᐊᖅᑯᑎᒃᓴᒧᑦ. ᑕᓪᓕᒪᐃᑦ (5) ᒥᑭᓐᓂᖅᓴᐃᑦ ᑕᓲᑦ ᑕᐅᕙᓃᒻᒥᔪᑦ ᐊᖅᑯᓯᐅᕐᕕᐅᓇᔭᖅᑐᒥ, ᐊᑭᐊᓂᑦᑎᐊᑯᓘᓇᔭᖅᑐᖅ ᐊᖅᑯᓯᐅᖅᑕᐅᔪᒪᔪᒧᑦ. ᐊᑐᖅᑕᐅᓯᒪᑦᑎᐊᖅᑐᒥᒃ Hᐋᓐᑕᓄᑦ ᐊᕐᑯᑎᖃᕐᒥᔪᖅ ᓴᓂᐊᓂ ᐊᖅᑯᓯᐅᕐᕕᐅᔪᒪᔫᑉ. ᑖᓐᓇ ᐊᑯᑎᐅᓕᐊᓂᒃᑐᖅ Hᐋᓐᑕᓄᑦ ᑎᑭᐅᒪᖕᒪᑦ North Pole-ᒥ ᑰᖕᒧᑦ, ᐊᑐᖅᑕᐅᕙᒃᑐᒥ ᐃᓄᖕᓄᑦ, ᓴᓇᔭᐅᓯᒪᓇᓂᓗ ᐱᐅᓯᑎᐊᖅᑕᐅᓯᒪᓇᓂᓗ. ᐃᑳᕐᕕᒃᓴᐃᑦ ᑰᖕᓄᑦ ᓴᓇᒋᐊᖅᑕᐅᓯᒪᖕᒥᒻᒥᔪᑦ ᓴᓂᐊᓂ Hᐊᓐᑕᑯᑦ ᐊᖅᑯᑎᐅᑉ, ᐊᒻᒪᓗ Hᐊᓐᓇᑦᑕᑯᑦ ᐊᐅᓖᖅᑐᑦ ᐃᒪᒃᑰᑦᑎᐊᒻᒪᕆᖃᑦᑕᖅᓯᑎᒃ ᐊᕐᑯᑎᖓᓂ. Hᐊᓐᑕᕕᐅᖃᑦᑕᖅᑐᖅ ᓇᓗᓇᖏᑦᑐᖅ ᑕᒪᓐᓇ ᑕᒪᐃᓐᓂ ᐃᓂᖃᕐᒪᑦ ᐊᐅᓛᕐᕕᐅᓯᒪᖃᑦᑕᕐᓂᖓ.

ᐱᖓᓲᓇᔭᖅᑐᑦ 6-ᖑᔪᓂᒃ ᑰᒐᔪᐃᑦ ᐃᑳᕐᕕᐅᖃᑦᑕᕋᔭᖅᑐᑦ ᑰᖃᑦᑕᕐᓴᓯᒋᔭᐅᔪᑦ ᐊᐅᒃᐸᓪᓕᐊᓇᕐᓃᓐᓇᕐᒥ ᐊᒻᒪᓗ ᐅᐱᖏᕙᓕᐊᓂᖓᓂ ᐅᕙᓗᓐᓃᑦ ᒪᑯᓪᔪᐊᓂᖓᓂ ᑭᓯᐊᓂ. ᐊᓯᖏᑦ ᐱᖓᓱᑦ ᑰᑦ ᐅᖃᐅᓯᐅᓯᒪᐅᔪᑦ ᑰᖃᑦᑕᕐᓂᖅᑕᐅᓪᓗᑎᒃ ᐊᕐᒍᒥ ᓯᑯᖃᕐᒋᓐᓂᕐᒥ ᑭᓯᐊᓂ ᖁᐊᖃᑦᑕᖅᓯᑎᒃ ᐅᑭᐅᒃᑯᑦ ᓇᑎᕐᒧᑦ ᐅᑭᐅᒃᑯᑦ. ᐃᖃᓗᐃᑦ ᑕᑯᔭᐅᖃᑦᑕᖅᓯᒪᖏᑦᑐᑦ ᑕᒪᐃᓐᓂᒃ ᐃᒪᕐᓂ ᐃᑳᕐᕕᐅᓂᐊᓇᔭᖅᑐᓂ ᐊᖅᑯᒥ, ᑎᓯᐊᓂ ᒪᕐᕉᖕᓂᒃ ᐊᔾᔩᖏᑦᑐᖕᓂᒃ ᐃᖃᓗᖃᕐᓂᖅᑕᐅᖃᑦᑕᖅᓯᒪᔫᒃ ᒪᕐᕉᒃ ᑰᒐᓛᖑᓂᖅᓵᒃ, ᐊᑭᐊᓃᓐᓇᖅᑐᑦ ᐊᖅᑯᑎᒃᓴᐅᑉ. ᐃᖃᓗᖃᑐᐃᓐᓇᓇᐊᖃᖅᑐᖅ ᒥᑭᓐᓂᖅᓴᕐᒥ ᑕᕆᐅᕐᒥᑦᑐᒥ ᑕᓯᕐᒥ, ᐊᒻᒪᓗ ᑕᕆᐅᓯᕐᒥ, ᐊᒻᒪᓗ ᑕᒪᕐᒥᒃᓴᐃᑦ ᑖᒃᑯᓇᖑᑦ ᑰᒃᑐᑦ ᐃᖃᓗᖃᑐᐃᓐᓇᓇᐊᖃᖅᓯᑎᒃ.

ᑰᖕᓄᑦ ᑰᓪᕕᑦ ᓴᓇᔭᐅᓯᒪᓗᑦ ᐃᓕᐅᖃᖅᑕᐅᓇᔭᖅᑐᑦ ᑕᒪᐃᓐᓂᒃ ᐃᒪᐃᑦ ᐊᖅᑯᑎᖏᓐᓂ ᐃᑳᕐᕕᐅᔪᒥ ᐊᕐᑯᑎᒃᓴᒥ ᖃᓚᔭᐅᓇᔭᖅᑐᓂ. ᑰᓪᕕᑦ ᐊᖏᓂᖃᕋᔭᖅᑐᑦ 600 mm-ᒥᒃ ᐊᖕᒪᓗᕐᓂᖃᖅᑐᒥᒃ, ᑕᑯᓂᖏᑦ ᐊᔾᔩᖏᑦᑐᑎᐅᓗᑎᒃ.

ᓴᓇᔭᐅᓯᒪᕕᓂᖅ ᐃᓚᖓ ᐊᖅᑯᑦ ᓖᓐᓇᐅᔪᒥ ᖁᓚᒎᕐᒪᑦ ᐊᑕᐅᓯᕐᒥᒃ ᑰᖕᒥᒃ (CR-2-ᒥᒃ) ᐊᒻᒪᓗ ᒪᑭᓐᓂᖅᓴᒥᒃ ᐅᔭᕋᖃᕐᓂᕐᒥᒃ CRS-1-ᒦᒃ. ᓴᓇᓯᒪᑦᑎᐊᖏᑦᑐᒥᒃ ᑰᓪᕕᓕᐅᒐᓗᐊᖅ CRS-2-ᒥ, ᑭᓯᐊᓂ ᑰᓪᕕᓕᐅᖅᑕᐅᓯᒪᖃᖏᑦᑐᖅ

CRS-1-ᒥ ᐃᑳᕐᕕᐊᓂ ᐊᒻᒪᓗ ᒫᓐᓇᐅᔪᖅ ᐃᒪᖅ ᑯᕕᕐᑲᑦᑕᖅᓯᓂ ᐅᔭᕋᓖᓐᓂᐅᔪᓂᒃ ᐊᖏᔪᒥᒃ ᓴᓇᔭᐅᓯᒪᔪᒥ ᐊᖅᑯᑎᒥ. ᑰᒡᕖᑦ ᐃᓕᐅᕐᑲᖅᑕᐅᓂᐊᖅᑐᑦ ᐊᓯᔾᔨᖅᑕᐅᓗᑎᒡᓗᓐᓃᑦ ᑖᒃᑯᓇᓂ ᒪᕐᕉᖕᓂᒃ ᐃᑳᕐᕕᐅᓯᒪᔪᓂ. ᐅᑯᐊ ᑕᒡᕙ ᐱᐅᓯᕆᐊᕈᑕᐅᓂᐊᖅᑐᑦ ᐊᑖᓂ ᐅᕐᑲᐅᓯᔪᑦ ᓴᐳᓐᓂᐊᖅᓯᒪᔾᔪᑕᐅᓂᐊᖅᑐᑦ ᐃᒪᐅᑉ ᐱᐅᔫᔭᓚᐊᕐᑲᕐᓂᖓᓂᒃ ᐊᒻᒪᓗ ᐃᕐᑲᓗᕐᑲᑐᐃᓐᓇᓚᐊᕐᑲᕐᓂᖏᓐᓄᑦ ᑰᒡᕕᐅᔪᓂ ᐃᒪᕐᓄᑦ:

- ᐃᒪᕐᒥ ᓴᓇᔭᐅᑎᑦᑎᑕᐃᓕᒪᓂᕐᐊᖅᑐᑦ

  ᓈᒻᒪᓂᐊᖏᑐᐊᕌᖓᑦ ᐊᕐᕿᒍᒥ ᐊᒻᒪᓗ ᒪᓕᖕᓂᐊᖅᑐᓂᒃ ᓴᓇᓗᑎᒃ ᑭᓯᐊᓂ ᑰᑦᑎᐊᖏᓐᓂᖏᓐᓂ, ᑰᖏᓐᓂᖏᓐᓂᓗᓐᓃᑦ;
- ᐊᑐᕐᓗᑎᒃ ᓴᓗᒪᔪᓂᒃ ᓴᓇᕐᕈᑎᓂᒃ ᐱᐅᔪᓂᒡᓗ ᓯᐅᕿᖕᒥᒃ/ᑐᐊᐸᔮᒥᒃ;
- ᖃᐅᔨᓴᖅᑕᐅᖏᓐᓇᕐᓂᐊᕐᓂᖏᑦ ᐱᕐᑯᑏᑦ ᑯᕕᖏᓐᓂᖏᓐᓄᑦ, ᑯᑐᓕᖏᓐᓂᖏᓐᓄᑦ, ᐊᖕᒪᔪᕐᑲᓕᕐᒪᖕᒑᑕ ᐊᒻᒪᓗ ᓴᖏᑦᑑᓗᐊᓕᕐᒪᖕᒑᑕ ᓱᓪᓗᓖᑦ;
- ᐃᒪᕐᒥᒃ ᑯᕕᔪᕐᑲᖅᐸᑦ, ᖃᐅᔨᓴᖅᑕᐅᓗᑎᒃ ᑰᒡᕕᐅᕙᓪᓗᐊᔪᑦ ᒪᕐᕿᕐᑲᕐᒪᖕᒑᑕ/ᓯᑎᔪᖅᑖᖅᐸᓪᓕᐊᖕᒪᖕᒑᑕᓗᓐᓗᓃᑦ ᓄᓇᓂᒃ/ᒪᕋᕐᓂᒃ;
- ᓴᓇᔨᑦ ᐊᒡᒐᖅᑎᑕᐅᓗᑎᒃ ᓴᓇᔭᐅᓂᐊᖅᑐᑦ ᐅᔭᕋᕐᑲᐅᖅᑐᓂᒃ ᑰᒡᕕᒃᓴᐃᑦ ᓴᓇᔭᐅᓂᖏᑦ; ᐊᒻᒪᓗ
- ᓴᓇᔭᐅᓂᖏᑦ ᒪᕐᕿᒃᑯᑏᑦ ᑰᒡᕕᐅᓂᖏᓐᓂᒃ ᑕᓪᓕᒪᐃᑦ ᑕᓰᑦ ᐊᑭᐊᓃᑦᑐᑦ ᐊᖅᑯᑎᓴᐅᑉ.