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Pursuant to the *Mackenzie Valley Resource Management Act* and Regulations, the Wek'èezhii Land and Water Board, hereinafter referred to as the Board, hereby grants to:

**Government of the Northwest Territories – Department of Infrastructure (GNWT-INF)**

**(Licensee)**

of

**P.O. Box 1320  
Yellowknife, NT X1A 2L9**

**(Mailing Address)**

Hereinafter called the Licensee, the right to alter, divert or otherwise use water subject to the restrictions and conditions contained in the *Waters Act* and Regulations made there under and subject to and in accordance with the conditions specified in this Licence.

Licence Number:	W2016L8-0001
Licence Type:	B
Water Management Area:	NORTHWEST TERRITORIES 01
Location:	KM 196 AT HIGHWAY 3 TO WHATÌ, NT
Purpose:	WATER USE FOR THE CONSTRUCTION OF THE TLICHO ALL-SEASON ROAD
Quantity of water <u>not to be exceeded</u> :	299 cubic metres
Effective Date of Licence:	FEBRUARY 27, 2019
Expiry Date of Licence:	FEBRUARY 26, 2024

This Licence issued and recorded at Yellowknife, NT includes and is subject to the annexed conditions.

**Wek'èezhii Land and Water Board:**

**Witness**

**Chair – Mr. Joe Mackenzie**

**APPROVED BY:**

**Green Highlighting** reflects common definitions, conditions, and schedules added by Board Staff

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## Part A: Scope and Definitions

### 1. Scope

- a) This Licence entitles the Government of the Northwest Territories Department of Infrastructure to use Water and to deposit Waste for the purpose of the construction of the Tłı̄chq All-Season Road in the Northwest Territories. This undertaking is described in the complete Application and includes the following:
- i. withdrawal and use of water from the water sources identified in Part C, Condition 1;
  - ii. construction, operation, and maintenance of road and water crossings;
  - iii. operation of camps;
  - iv. quarrying;
  - v. depositing of Waste; and
  - vi. progressive Reclamation and associated Closure and Reclamation activities.
- b) This Licence is issued subject to the conditions contained herein with respect to the taking of water and the depositing of Waste of any type in any waters or in any place under any conditions where such Waste or any other Waste that results from the deposit of such Waste may enter any waters. Whenever new Regulations are made or existing Regulations are amended by the Governor in Council under the *Waters Act*, or other statues imposing more stringent conditions relating to the quantity or type of Waste that may be so deposited or under which any such Waste may be so deposited, this Licence shall be deemed, upon promulgation of such Regulations, to be automatically amended to conform with such Regulations.

## 2. Definitions

**Act** means the *Waters Act*.

**Board** means the Wek'èezhìi Land and Water Board established under section 57.1 of the *Mackenzie Valley Resource Management Act*.

**Construction** means any activities undertaken to construct or build any components of, or associated with, the development of the Project.

**Discharge** means the release of any Waters or Waste to the receiving environment.

**Engineered Structure** means any constructed facility which was designed and approved by a Professional Engineer registered with the Northwest Territories and Nunavut Association of Professional Engineers and Geoscientists.

**Greywater** means all liquid wastes from showers, baths, sinks, kitchens, and domestic washing facilities but not including toilet wastes.

**Hazardous Waste** means a Waste which is a dangerous substance or material that is no longer used for its original purpose and is intended for recycling, treatment, disposal or storage.

**Inspector** means an Inspector designated by the Minister under Section 35(1) of the Act.

**Licensee** means the holder of this Licence.

**Management Plans** means the specific plans required by the Board under this Water Licence.

**Minister** means the Minister of Indian Affairs and Northern Development Canada or the Minister of the Government of the Northwest Territories – Department of Lands, as the case may be.

**Modification** means a change, other than an expansion, that does not alter the purpose or function of a structure.

**Ordinary High-Water Mark** means the usual or average level to which a body of water rises at its highest point and remains for sufficient time so as to change the characteristics of the land. In flowing waters (rivers, streams) this refers to the "active channel/bank-full level" which is often the 1:2 year flood flow return level. In inland lakes, wetlands, or marine environments, it refers to those parts of the watercourse bed and banks that are frequently flooded by water so as to leave a mark on the land and where the natural vegetation changes from predominately aquatic vegetation to terrestrial vegetation (excepting water tolerant species). For reservoirs, this refers to normal high operation levels (full supply level).

**Project** means all appurtenant undertakings as described in Part A, Condition 1 (a) of this licence.

**Regulations** means Regulations proclaimed pursuant to Section 63 of the *Waters Act*.

**Sewage** means all toilet Wastes and Greywater.

**Unauthorized Discharge** means a release or Discharge of any water or Waste not authorized under this Licence.

**Waste** means Waste as defined by section 1 of the *Waters Act*.

**Watercourse** means a natural watercourse, body of water or water supply, whether usually containing water or not, and includes groundwater, springs, swamps and gulches, as defined by section 2 of the Regulations.

**Water Source** comprises the water bodies listed in Table 1.

**Waters** means waters as defined by section 1 of the *Waters Act*.

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## Part B: General Conditions

1. The Licensee shall take every reasonable precaution to protect the environment.
2. Compliance with the terms and conditions of this Licence does not excuse the Licensee from its obligation to comply with the requirements of any other applicable federal, territorial, Tlicho, or municipal laws.
3. The Licensee shall ensure a copy of this Licence is maintained at each Project camp or office at all times.
4. All information submitted to the Board, as required by this Licence, shall:
  - a) be in a form that is acceptable to the Board;
  - b) be in accordance with the Mackenzie Valley Land and Water Board's *Document Submission Standards*; and
  - c) include a conformity table which identifies wherein the pertinent requirements of the Licence are addressed.
5. The Licensee shall ensure that all Project activities are confined to locations as described in the Water Licence application.
6. The Licensee shall make effort to ensure that no historical or archaeological site will be affected by this operation.
7. The Licensee shall operate in accordance with any plans approved pursuant to the conditions of this Licence and with any revisions to the plans as may be made from time to time pursuant to the conditions of this Licence and as approved by the Board. If any plan is not approved by the Board, the Licensee shall revise the plan according to the Board's direction and re-submit it to the Board for approval.
8. The Licensee shall annually review the plans referred to in: Part B, Condition 14; Part B, Condition 15; Part B, Condition 16; Part B, Condition 17; Part C, Condition 2; Part E, Condition 9; Part G, Condition 1; Part G, Condition 2; Part G, Condition 9; Part H, Condition 1; Part I, Condition 1; and Part J, Condition 1; and shall revise the plans as necessary to reflect changes in operations or technology, or as requested by the Board. All revised plans shall be submitted to the Board for approval.
9. Any revised Plan submitted to the Board under this Licence shall include a list of notable revisions to the Plan.
10. The Plans referred to in: Part B, Condition 14; Part B, Condition 15; Part B, Condition 16; Part B, Condition 17; Part E, Condition 9; Part G, Condition 1; Part G, Condition 2; Part G, Condition 9; Part G, Condition 16; Part H, Condition 1; Part H, Condition 2; Part I, Condition 1; and Part J, Condition 1, shall be presented in a format consistent with the Mackenzie Valley Land and Water Boards' *Standard Outline for Management Plans*, unless otherwise approved by the Board.
11. The Schedules and any compliance dates specified in this Licence may be updated at the discretion of the Board.
12. Meters, devices or other such methods used for measuring the volumes of water used and Waste Discharged shall be installed, operated and maintained by the Licensee to the satisfaction of an Inspector.
13. The Licensee shall file an **Annual Report** with the Board no later than 31 March of the year following the calendar year reported. The report shall contain the information listed in Schedule 1, Condition 1.

14. The Licensee shall comply with the **Engagement Plan**, once approved.
15. The Licensee shall comply with the **Wildlife Management and Monitoring Plan**, once approved. The Plan shall comply with Schedule 1, Condition 2.
16. The Licensee shall comply with the **Permafrost Management Plan**, once approved.
17. The Licensee shall comply with the **Archaeological Site Chance Find Protocol**, once approved.
18. Any reference to an Act, Regulation, Plan, or Guideline in this Licence is a reference to the most current version unless otherwise explicitly stated.
19. In conducting its activities under this Licence, the Licensee shall make best efforts to consider and incorporate any scientific information and Traditional Knowledge that is made available to the Licensee.
20. In each submission required by the Licence or a directive from the Board, the Licensee is to identify all recommendations based on Traditional Knowledge received, describe how the recommendations were incorporated into the submission and provide justification for any recommendation not adopted.
21. The Licensee shall notify the Inspector and the Board immediately of any non-compliance with the conditions of this Licence or any direction provided by the Board.

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### Part C: Conditions Applying to Water Use

1. The Licensee is authorized to use water from the Water Sources described in Table 1, without written approval from the Board, provided that use is consistent with the terms of this Licence and the following requirements are met:
  - a. the Licensee has notified the Board in writing of anticipated withdraw volumes, rates and schedules at least 20 days prior to beginning the use;
  - b. the use does not place the Licensee in contravention of either the Licence, the Act, or Federal, Territorial or Municipal Legislation;
  - c. the Board has not, during the 20 days following notification, informed the Licensee that review of the proposal will require more than 20 days; and
  - d. the Board has not rejected the proposed use.

**Table 1:** Water Sources authorized to be drawn from during Project construction

Water Source	Type	Latitude	Longitude
James River (Crossing 14)	river	62°58'38.11"N	116°54'42.48"W
La Martre River (Crossing 15)	river	63° 6'34.44"N	116°58'33.96"W
Duport River (Crossing 8)	river	62°43'47.50"N	116°50'20.99"W
Crossing 9	stream	62°46'12.76"N	116°48'50.99"W
Crossing 12	stream/lake	62°52'6.56"N	116°51'50.59"W
Unnamed Lake 1	lake	62°50'31.18"N	116°51'20.34"W
Unnamed Lake 2	lake	62°49'24.41"N	116°51'29.15"W
Unnamed Lake 3	lake	62°29'53.70"N	116°30'33.52"W
Unnamed Lake 4	lake	62°29'28.84"N	116°32'35.49"W
Unnamed Lake 5	lake	62°39'31.71"N	116°51'33.03"W
Unnamed Lake 6	lake	62°39'38.65"N	116°50'50.60"W
Unnamed Lake 7	lake	62°46'41.42"N	116°49'17.26"W
Unnamed Lake 8	lake	62°29'19.76"N	116°32'10.59"W
Unnamed Lake 9	lake	63°08'41.22"N	116°59'5.78"W
Unnamed Lake 10	lake	62°55'29.62"N	116°51'58.34"W

Note: Location indicates approximate center for lakes and approximate crossing point for rivers and streams

2. Within ninety 90 days of the effective date of the Licence, the Licensee shall submit to the Board for approval a **Fish and Fish Habitat Protection Plan**. The Plan shall comply with Schedule 4, Condition 2.
3. All water withdrawals from ice covered water bodies that support fish and fish habitat shall be in accordance with the limits described in the **Fish and Fish Habitat Protection Plan**.



#### **Part D: Conditions Applying to Stream Crossings**

1. The Licensee shall not remove naturally occurring material from the bed or banks of any Watercourse below the Ordinary High-Water Mark, except as described in the application.
2. The Licensee shall not cut or modify any stream banks while constructing ice bridges, unless approved by the Board. Construction of winter ice bridges or snow fills shall be in accordance with the **Fish and Fish Habitat Protection Plan**.
3. The Licensee shall not ford wet Watercourses or areas of overflow, unless authorized in writing by a the Inspector.
4. The Licensee shall not destroy or damage beaver or muskrat dams or lodges, and minimize disturbance to beaver and muskrat activities.
5. Every effort shall be made to retain riparian vegetation, as it is critical for the protection of littoral and riparian fish habitats as well as for providing cover and enhancing bank stability.

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## Part E: Conditions Applying to Construction

1. The Licensee shall provide the Board with the names and contact addresses for all Construction Contractors prior to Construction.
2. The Licensee shall ensure that all Contractors and Sub-Contractors are aware of, and shall conform to, all Terms and Conditions of this Licence.
3. At least 90 days prior to the start of Construction, the Licensee shall submit to the Board for approval a detailed design report for all Engineered Structures. The report shall be signed and stamped by a Professional Engineer and shall include: construction drawings, construction specifications and construction quality control/quality assurance plan.
4. A minimum of 90 days prior to the commencement of Construction of any Engineered Structures, the Licensee shall submit to the Board for approval, a **Construction Plan** in accordance with Schedule 2, Condition 1.
5. Within 30 days of the effective date of the Licence, the Licensee shall submit to the Board an updated schedule of Construction activities for the first year of Construction, and thereafter updated annually in the **Annual Report**.
6. A minimum of 10 days prior to commencement of Construction, the Licensee shall provide written notification to an Inspector.
7. Within 90 days of completion of the Construction of Engineered Structures related to water use and Waste disposal for the Project, excluding the Construction of Sumps, the Licensee shall submit an as-built report to the Board. The report shall be prepared by a Professional Engineer and shall include: as-built drawings, documentation of field decisions that deviate from original plans, and any data used to support these decisions.
8. The Licensee shall ensure that Construction of Engineered Structures is supervised by a Professional Engineer.
9. Within 90 days of the effective date of the Licence the Licensee shall submit to the Board for approval a **Quarry Operations Plan** that lists the quarry sites to be utilized during Year 1 Construction. The Plan shall detail how the Licensee will design, manage, and operate the quarry sites as a source of construction material, and be in accordance to Schedule 1, Condition 3. In subsequent years of Construction, no later than 30 days prior to the development of each additional quarry site, the Licensee shall submit to the Board for approval an updated **Quarry Operations Plan** that includes the proposed sequence and timing of quarry development.
10. The Licensee shall ensure that there is no obstruction of water flow in Watercourses as a result of Engineered Structures being placed in, or about, a Watercourse.
11. The Licensee shall undertake necessary corrective measures to mitigate negative impacts on surface drainage resulting from the Licensee's activities. Camp or work facilities shall be located so as to minimize negative impacts to surface drainage.
12. The Licensee shall construct and operate all Infrastructure and Facilities designed to contain, withhold, divert or retain Water or Waste in accordance with all applicable Federal or Territorial legislation and industry standards.
13. The Licensee shall construct and operate any Bulk Fuel Storage Facilities in accordance with all applicable Federal and Territorial legislation and industry standards, including: Environmental Code of Practice for Aboveground and Underground Storage Tank Systems Containing Petroleum and Allied Petroleum Products (2003), and the National Fire Code of Canada (2010).

14. All materials used for construction or materials used for bank restoration, including riprap and infill gravel materials, must be obtained from an approved source, and be clean and free of contaminants. Such material shall not be removed or gathered from below the Ordinary High-Water Mark of any waterbody, or from any other Watercourse.

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## **Part F: Conditions Applying to Modifications**

1. The Licensee may, without written approval from the Board, carry out Modifications to Engineered Structures provided that such Modifications are consistent with the terms of this Licence and the following requirements are met:
  - a) the Licensee has notified the Board in writing of the proposed Modifications at least 60 days prior to beginning the Modifications;
  - b) the proposed Modifications do not place the Licensee in contravention of either the Licence, the Act, or Federal, Territorial or Municipal Legislation;
  - c) the Board has not, during the 60 days following notification of the proposed Modifications, informed the Licensee that review of the proposal will require more than 60 days;
  - d) An Inspector has authorized the proposed Modifications and provided a letter of notification to the Board; and
  - e) the Board has not rejected the proposed Modifications.
2. Modifications for which all of the conditions referred to in Part F, Condition 1, have not been met, may be carried out only with written approval from the Board.
3. Within 90 days of completion of the Modifications, the Licensee shall provide to the Board as-built plans and drawings of the Modifications referred to in this Licence.

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## **Part G: Conditions Applying to Water and Waste Management**

1. Within 90 days of the effective date of the Licence, the Licensee shall submit to the Board for approval a **Waste Management Plan** in accordance with the Mackenzie Valley Land and Water Board's *Guidelines for the Development of a Waste Management Plan*. The Plan shall describe how all Waste streams associated with the Project are managed, including references to other plans as necessary.
2. The Licensee shall manage all Sewage, Greywater, solid Waste and Hazardous Waste in accordance with the approved **Waste Management Plan** or as otherwise approved by the Board.
3. If incinerators will be used, within 90 days of the effective date of the Licence, the Licensee shall submit to the Board for approval an **Incineration Management Plan**.
4. The Licensee shall comply with the **Incineration Management Plan**, once approved.
5. No materials cleared from the site shall be disposed of in any Watercourse. All materials shall, if necessary, be disposed of above one hundred (100) metres from the Ordinary High-Water Mark of the Watercourse, and in such a manner to prevent entry into the Watercourse.
6. The Licensee shall ensure that any unauthorized Wastes associated with the Project do not enter any Watercourse.
7. The Licensee shall not deposit raw, untreated sewage on the land surface, unless authorized by an Inspector.
8. The Licensee shall not store Waste on the surface of frozen streams or lakes except what is required for immediate use as and where approved by an Inspector.
9. Within 90 days of the effective date of the Licence, the Licensee shall submit to the Board for approval an **Erosion and Sedimentation Plan**. This Plan shall comply with Schedule 3, Condition 1.
10. The Licensee shall comply with the **Erosion and Sedimentation Plan**, once approved.
11. The Licensee shall minimize erosion by installing and maintaining erosion control structures where necessary to prevent the deposition of sediment into any streams.
12. A silt curtain, constructed of woven geotextile, or another appropriate erosion control structure will be used when working in waterways. It will be maintained in any manner at the request of an Inspector.
13. All sites affected by construction or removal activities shall be stabilized, groomed and landscaped as necessary and suitable erosion control measures implemented to minimize sediment deposition into any Watercourse.
14. Topsoil, any other material removed from the stream bank, or un-used fill material shall be stockpiled at a minimum 100 metres from the Watercourse or any drainage if possible and be sufficiently bermed. Topsoil stockpile will be covered to prevent erosion.
15. Erosion Mitigation:
  - a) erosion prevention structures that are satisfactory to an Inspector shall be used at all points where water or Waste is Discharged;
  - b) daily erosion inspections of Discharge points shall be carried out and records of these inspections shall be kept for review upon the request of an Inspector. If any erosion is observed, the Licensee shall notify an Inspector and take necessary corrective action to mitigate the erosion problem to the satisfaction of an Inspector.
16. During Construction the Licensee shall collect water samples upstream and downstream of each monitored watercourse crossing, as described in the approved **Water Monitoring Plan**.

17. The Licensee shall notify the Inspector on any day when weather conditions do not permit the collection of a TSS sample.

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**Part H: Conditions Applying to the Aquatic Effects Monitoring**

1. Within 90 days of the effective date of the Licence, the Licensee shall submit to the Board for approval a **Water Monitoring Plan**. The Plan shall comply with Schedule 4, Condition 1.
2. The Licensee shall consult the Tłıchǫ Government in the assessment of aquatic effects within the Project area.

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## Part I: Conditions Applying to Contingency Planning

1. Within 90 days of the effective date of the Licence, the Licensee shall submit to the Board for approval a **Spill Contingency Plan** in accordance with *Indian and Northern Affairs Canada's Guidelines for Spill Contingency Planning*. The **Spill Contingency Plan** shall include a description of proper work practices for fueling equipment and handling petroleum. Revisions to the plan shall be submitted to the Board for approval.
2. The Licensee shall ensure that petroleum products, hazardous material and other Wastes associated with the Project do not enter any Waters.
3. The Licensee shall ensure all refueling, and storage of fuels, chemicals or deleterious substances are located a minimum of 30 metres from the Ordinary High-Water Mark of any Waters.
4. If, during the period of this Licence, a spill or Unauthorized Discharge occurs or is foreseeable, the Licensee shall:
  - a) implement the approved **Spill Contingency Plan**;
  - b) report the incident immediately via the 24-Hour Spill Reporting Line (867) 920-8130 in accordance with the instructions contained in the Spill Report Form NWT;
  - c) report each spill and Unauthorized Discharge of Waste to the Board and an Inspector, within 24 hours; and,
  - d) within 30 days of a spill or Unauthorized Discharge reported under Part I, Condition 4(b), the Licensee shall submit a detailed report to the Board and an Inspector.
5. All spills and Unauthorized Discharges of water or Waste shall be cleaned up and the affected area reclaimed to the satisfaction of an Inspector.



**Part J: Conditions Applying to Closure and Reclamation**

1. A minimum of 90 days prior to commencement of Construction, the Licensee shall submit a **Closure and Reclamation Plan** to the Board for approval. The Plan shall comply with Schedule 5, Condition 1.
2. The Licensee shall carry out progressive Reclamation of areas that are abandoned prior to the end of the Construction of the Project.

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**Schedule 1**  
**Part B: General Conditions**

1. The **Annual Report** referred to in Part B, Condition 13, shall include, but not be limited to, the following:

**Measuring and Reporting on Water and Waste:**

- a) A summary of the calibration and status of the meters and devices referred to in Part B of this Licence;
- b) Monthly and annual quantities in cubic metres of water obtained from each Water Source listed in Part C, Condition 1;
- c) Monthly and annual quantities in cubic metres of solid Waste accepted by the communities of Whatì and Behchokò;
- d) Monthly and annual quantities in cubic metres of Sewage accepted by the communities of Whatì and Behchokò;
- e) Monthly and annual quantities and types of Hazardous Waste removed from the Project.

**Management Plans and Activities:**

- f) A summary of engagement activities conducted in accordance with the approved Engagement Plan, referred to in Part B, Condition 14 of this Licence;
- g) Details of work completed, including restoration;
- h) A summary of Construction activities in accordance with Part E of this Licence;
- i) A summary of Modifications and/or major maintenance work in accordance with Part F of this Licence;
- j) A summary of any Closure and Reclamation work completed during the year
- k) A summary of activities conducted in accordance with the approved **Erosion and Sedimentation Plan**, required in Part G, Condition 9 of this Licence, including:
  - i. A summary of approved updates or changes to the process or facilities required for the management of erosion and sedimentation;
  - ii. A description of any erosion susceptible areas encountered;
  - iii. A summary of activities undertaken to prevent or mitigate erosion;
  - iv. A report of the performance of mitigations applied to each area;
  - v. A summary and interpretation of monitoring results, including any Action Level exceedances; and
  - vi. A description of actions taken in response to any Action Level exceedances;
- l) A description of any updates or revisions to any of the following plans:
  - i. **Erosion and Sedimentation Plan;**
  - ii. **Waste Management Plan;**
  - iii. **Incineration Management Plan;**
  - iv. **Spill Contingency Plan;**
  - v. **Water Monitoring Plan;**
  - vi. **Quarry Operations Plan;**
  - vii. **Permafrost Management Plan;**
  - viii. **Fish and Fish Habitat Protection Plan;**
  - ix. **Wildlife Management and Monitoring Plan;**
  - x. **Archaeological Site Chance Find Protocol;** and
  - xi. **Closure and Reclamation Plan.**

**Spills and Unauthorized Discharges:**

- m) A list and description, including volumes, of all Unauthorized Discharges and summaries of follow-up action taken; and
- n) An outline of any spill training and communications exercises carried out;

**Other Reporting Requirements:**

- o) Results and findings from the annual inspection; and
- p) A report on any studies required by the Board that relate to the Licence;

**2. The Wildlife Management and Monitoring Plan referred to in Part B, Condition 15, but not be limited to the following:**

- a) information specific to the management and protection of boreal and barren ground caribou and caribou habitat according to measures 6-1, 6-2, and 6-3 of the REA; and measures 7-1 and 7-2 of the REA, respectively;
- b) a description of the management and protection of migratory birds and bird species at risk, providing a description of potential habitat (e.g., borrow sources, nesting areas etc.) and its protection;
- c) include Traditional Knowledge from all Aboriginal groups that harvest in the area on ways to mitigate, monitor, and adaptively manage impacts from the Project to wildlife;
- d) results of available surveys and monitoring, such as caribou, bird (Measure 10-1), and moose surveys;
- e) construction activities, including clearing, consider sensitive wildlife periods, for example nesting periods of migratory birds; and
- f) any relevant monitoring plans should be referenced.

**3. The Quarry Operations Plan referred to in Part E, Condition 9, shall include, but not be limited, to the following:**

- a) details regarding the design of the quarry sites;
- b) hydrogeological considerations contemplated in the design of the quarry;
- c) geochemical analysis of each quarry site that includes:
  - i. potential acid-rock drainage and metal-leaching issues associated with road construction and operation;
  - ii. a description of how the Licensee will ensure that materials used within the proposed TASR corridor are not susceptible to acid-rock drainage and/or metal leaching; and
  - iii. a description of the characterization, testing, monitoring, and management of rock with acid rock drainage and/or metal leaching potential to prevent impacts associated with quarrying and road construction on water quality; and
- d) details of any camps that will be located at quarry sites, as well as the details pertaining to explosives management.

## Schedule 2

### Part E: Conditions Applying to Construction

1. A **Construction Plan** referred to in Part E, Condition 4 shall will include, but not be limited to, the following information:

- a) a description of the facilities to be constructed;
- b) the proposed location for the structures;
- c) any potential impacts to the aquatic environment;
- d) a description of any monitoring including, but not limited to, sampling locations, parameters measured, and frequencies of sampling to be carried out to determine impacts to the aquatic environment, with rationale;
- e) a detailed description of any measures used to prevent or mitigate impacts to the aquatic environment;
- f) a schedule for the Construction;
- g) drawings of Engineered Structures stamped by a Professional Engineer; and
- h) description of adaptive management processes that systematically link monitoring results to management activities and allow management activities to be developed adaptively, in response to changes in the environment.

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**Schedule 3**

**Part G: Conditions Applying to Water and Waste Management**

1. An **Erosion and Sedimentation Plan** referred to in Part G, Condition 9, but not be limited to, the following information:
  - a) plans for implementing erosion and sediment control measures for road construction and operation;
  - b) measures for potential thermal erosion events; and
  - c) relevant lessons learned from other northern road projects (e.g., Inuvik to Tuktoyaktuk Highway) with respect to sediment and erosion control.

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#### Schedule 4

### Part H: Applying to the Aquatic Effects Monitoring

1. A **Water Monitoring Plan** referred to in Part H, Condition 1, will include, but not be limited to, the following information:
  - a) Identification of monitoring locations and parameters;
  - b) sampling frequency and duration;
  - c) analytical requirements (e.g., proposed levels of TSS);
  - d) quality assurance and quality control;
  - e) and reporting requirements.
  
2. A **Fish and Fish Habitat Protection Plan** referred to in Part C, Condition 2, will include, but not be limited to, the following information:
  - a) a description of how fish and fish habitat (i.e., watercourses) will be managed regarding water quality for the project, and specifically at the proposed water crossings
  - b) a description of the potential pathways of fish habitat degradation (e.g., use of explosives, blasting residue, sediment release, spills); and
  - c) the plans for mitigation of fish habitat degradation and protection.

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**Schedule 5**

**Part J: Applying to the Closure and Reclamation**

1. A **Closure and Reclamation Plan** referred to in Part J, Condition 1, including but not limited to, the following information:
  - a) A description of each Project component, including, but not limited to:
    - i. temporary access roads, and work camps;
    - ii. quarries;
    - iii. areas affected by spills or Unauthorized Discharges; and
    - iv. other areas affected by Project activities.
  - b) A description of closure and reclamation of borrow sources, focusing on the restoration of natural drainage patterns, slope grading, capping with organics/vegetation (from pre-stripping stockpiles), and revegetation with native plant species.
  - c) A description of any planned Progressive Reclamation; and
  - d) An implementation schedule that includes Progressive Reclamation and final Closure and Reclamation activities.

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