



Box 32, Wekweètì, NT X0E 1W0  
 Tel: 867-713-2500 Fax: 867-713-2502

#1-4905 48<sup>th</sup> Street, Yellowknife, NT X1A  
 3S3 Tel: 867-765-4592 Fax: 867-765-4593  
[www.wlwb.ca](http://www.wlwb.ca)

## Reasons for Decision

Issued pursuant to section 54 of the *Waters Act* and paragraph 40(2)(c) of the *Mackenzie Valley Land Use Regulations*

Land Use Permit and Water Licence Application for the Tlicho All-Season Road	
<b>Reference/File Number:</b>	W2016L8-0001 and W2016E0004
<b>Applicant:</b>	Government of the Northwest Territories – Department of Infrastructure
<b>Project:</b>	Tlicho All-Season Road

### Wek'èezhìi Land and Water Board Meeting of

April 17, 2019

#### Table of Contents

1.0 Background .....	4
1.1. Environmental Assessment and Preliminary Screening .....	4
2.0 Decision on Licence and Permit Applications .....	6
3.0 General Principles .....	7
4.0 Decisions Preceding Water Licence Issuance .....	7
4.1. Existing Licensees .....	7
4.2. Existing Water Users.....	7
4.3. Water Quality Standards .....	7
4.4. Effluent Quality Standards.....	7
4.5. Financial Responsibility of the Applicant.....	8
5.0 Other Legal Decisions associated with Licence W2016L8-0001 .....	8
5.1. Requirements of subsection 27(2) of the Waters Act.....	8

5.2. Requirements of subsection 61 of the MVRMA.....	8
5.3. Requirements of subsection 62 of the MVRMA.....	8
5.4. Consideration of Monitoring Plans and Management Plans.....	9
6.0 Water Licence W2016L8-0001.....	9
6.1. Scope and Definitions - Part A.....	9
6.2. General Conditions - Part B and Schedule 1.....	9
6.2.1 Adaptive Management.....	9
6.2.2 Follow-up Monitoring.....	10
6.2.3 Engagement .....	10
6.2.4 Wildlife Management and Monitoring .....	13
6.2.5 Traditional Knowledge .....	19
6.2.6 Permafrost Management Plan .....	19
6.2.7 Archaeological Site Chance Find Protocol.....	20
6.3 Conditions Applying to Water Use - Part C .....	21
6.4 Conditions Applying to Stream Crossings - Part D and Schedule 4.....	22
6.5 Conditions Applying to Construction - Part E and Schedule 2.....	22
6.6 Conditions Applying to Modifications - Part F .....	24
6.7 Conditions Applying to Water and Waste Management - Part G and Schedule 3 .....	24
6.7.1 Waste Management Plan.....	25
6.7.2 Scope of the Waste Management Plan.....	25
6.7.3 Waste Disposal Authorizations .....	25
6.7.4 Potential Impacts Related to Dust .....	25
6.7.5 Onsite Sewage Disposal .....	26
6.7.6 Incinerator Management Plan .....	26
6.7.7 Erosion and Sedimentation Plan .....	27
6.8 Conditions Applying to Aquatic Effects Monitoring - Part H and Schedule 4.....	28
6.8.1 Suspended Solids Monitoring .....	28
6.8.2 Fish and Fish Habitat Protection .....	30
6.9 Conditions Applying to Contingency Planning - Part I and Schedule 7.....	31
6.10 Conditions Applying to Closure and Reclamation - Part J and Schedule 5 .....	32
7.0 Decisions Pertaining to Land Use Permit W2016E0004 .....	32
7.1 Scope and Definitions .....	33
7.2 Conditions .....	33
7.3 Adaptive Management and Management Plans .....	38
8.0 Conclusion.....	38

Acronyms Page

AEMP	Aquatic Effects Monitoring Program
DFO	Department of Fisheries and Oceans Canada
EA	Post-Environmental Assessment
ECCC	Environment and Climate Change Canada
GNWT-ENR	Government of the Northwest Territories, Department of Environment and Natural Resources
GNWT-INF	Government of the Northwest Territories, Department of Infrastructure
GNWT-Lands	Government of the Northwest Territories, Department of Lands
INAC	Indigenous Northern Affairs Canada
IR	Information Request
MVLWB	Mackenzie Valley Land and Water Board
MVRMA	Mackenzie Valley Resource Management Act
NSMA	North Slave Metis Alliance
Report of EA	Report of Environmental Assessment
TASR	Tlicho All-Season Road
TG	Tlicho Government
UPD	Updated Project Description
WLWB	Wek'èezhìi Land and Water Board
WMMP	Wildlife Management and Monitoring Plan

## 1.0 Background

The proposed Tlicho All-Season Road (TASR) Project involves the construction, maintenance and operation of a 97 km long dual-lane gravel highway running from km #196 on Highway 3, near Behchokò, to the community of Whatì.<sup>1</sup> The highway would consist of a 60 m right-of-way and 16 water course crossings requiring culverts or bridges. The construction of the watercourse crossings and the use of water for road compaction, dust suppression, winter road construction, and for use at construction camps (total water use of less than 299 m<sup>3</sup>/day) triggers the need for a Type B Water Licence. The use of vehicles and machines over 10 tonnes, use of self-propelled machines for moving earth or clearing land, use of earth-drilling machinery exceeding 2.5 tonnes, temporary construction camps (two 50-person and one 200-person camp), establishment of a petroleum storage facility with two 40,000 litre capacity diesel fuel tanks and one 15,000 litre capacity gasoline tank trigger the requirement for a Type A Land Use Permit. The proposed project would also involve the development and operation of quarries, use of explosives, construction of access roads and winter roads, and the construction of bridges and culverts.

### 1.1. Environmental Assessment and Preliminary Screening

The GNWT-INF (at the time GNWT-Department of Transportation) first applied for the Type A Land Use Permit (the Permit) and Type B Water Licence (the Licence) on March 31, 2016.<sup>2</sup> The Permit and Licence applications were distributed for public review on July 4, 2016. On July 21, 2016, the Mackenzie Valley Environmental Impact Review Board (Review Board) decided, on its own motion, to conduct an Environmental Assessment (EA) of the TASR Project.<sup>3</sup> A Report of Environmental Assessment (Report of EA)<sup>4</sup> was released on March 29, 2018 and the final decision from the Minister of Lands was rendered on October 25, 2018.<sup>5</sup>

Following the Minister's decision, the Wek'èezhìi Land and Water Board (WLWB) sent the GNWT-INF a request for information,<sup>6</sup> in accordance with subsection 34(2) of the *Waters Act* and subsection 19(2) of the *Mackenzie Valley Land Use Regulations*.<sup>7, 8</sup> The Post-Environmental Assessment Information Package was to include updated Land Use Permit and Water Licence Applications, an updated project description (UPD), select management plans, and other supporting information.

The GNWT-INF submitted a complete application with the required information on January 7, 2019.<sup>9, 10</sup>

---

<sup>1</sup> See WLWB Online Registry for [W2016L8-0001 - TASR - WL Application - Jan 8 19.pdf](#)

<sup>2</sup> See WLWB Online Registry for [W2016L8-0001 - TASR - WL Application - Jan 8 19.pdf](#)

<sup>3</sup> See WLWB Online Registry for [W2016L8-0001 - TASR - MVEIRB Environmental Assessment Notification and Reasons for Decision - Jul 27 16](#)

<sup>4</sup> See MVEIRB's Online Registry at [www.reviewboard.ca](http://www.reviewboard.ca) for [TASR Report of Environmental Assessment](#)

<sup>5</sup> See WLWB ([www.wlwb.ca](http://www.wlwb.ca)) Online Registry for the [Minister's Final Wording and Reasons for Decision for the GNWT TASR Project](#)

<sup>6</sup> See WLWB Online Registry for [W2016E0004 - TASR - WLWB Letter to GNWT-INF - Request for Information - October 26 18](#)

<sup>7</sup> See [www.justice.gov.nt.ca](http://www.justice.gov.nt.ca) for the *Waters Act*

<sup>8</sup> See [www.aadnc-aandc.gc.ca](http://www.aadnc-aandc.gc.ca) for the *Mackenzie Valley Land Use Regulations*

<sup>9</sup> See WLWB Online Registry for [W2016E0004 - TASR - LUP Application - Cover Letter - Jan 8 19](#)

<sup>10</sup> See WLWB Online Registry for [W2016E0004 - TASR - LUP Application - Jan 8 19](#)

With the Application, the GNWT-INF included: an Updated Project Description;<sup>11</sup> Engagement Plan and Record;<sup>12</sup> Waste Management Plan;<sup>13</sup> Incinerator Management Plan;<sup>14</sup> Spill Contingency Plan;<sup>15</sup> Wildlife Mitigation and Monitoring Plan;<sup>16</sup> Fish and Fish Habitat Protection Plan;<sup>17</sup> Permafrost Management Plan;<sup>18</sup> Erosion and Sediment Control Plan;<sup>19</sup> Quarry Operations Plan;<sup>20</sup> Conceptual Closure and Reclamation Plan;<sup>21</sup> Water Monitoring Plan;<sup>22</sup> and Archaeological Site Chance Find Protocol.<sup>23</sup> The submission also included a draft Permit and Licence.<sup>24, 25</sup>

As per the *Preliminary Screening Requirement Regulations of the Mackenzie Valley Resource Management Act (MVRMA)*, the Board must conduct a preliminary screening for an application for a proposed development that requires a Land Use Permit or Water Licence unless it is exempt from preliminary screening in accordance with the *Exemption List Regulations*. An application that has been through an environmental assessment is typically exempt from a preliminary screening. However, if the proponent decides to modify the development that has been assessed after coming out of EA, those changes may be subject to a preliminary screening. The GNWT-INF included a list of changes to the Project in the cover letter of the post-EA application package. As part of the public review, Board staff requested Parties to provide comments and recommendations on the changes to the Project, as identified by the GNWT-INF in the cover letter to the Application, to assist with the completion of the preliminary screening.

The following were listed as changes since the March 30, 2016 submission and/or environmental assessment:

- A total of 21 borrow sources being investigated instead of the 13 listed in the Adequacy Statement Response
- Sewage disposal may now include removal to community sewage lagoon, on-site lagoons, or treatment plans
- Increase in estimated solid waste generated from 75 m<sup>3</sup> to approximately 5,500 m<sup>3</sup> per year
- Increase in number of construction camps from two to three – combined capacity remains at 300 crew
- Northern abutment of the La Maître River bridge has been moved by approximately 40 m
- Potential stream re-alignment at Crossing 10a

---

<sup>11</sup> See WLWB Online Registry for [W2016E0004 - TASR - Updated Project Description - Jan 8 19](#)

<sup>12</sup> See WLWB Online Registry for [W2016E0004 - TASR - Engagement Plan - Jan 8 19](#)

<sup>13</sup> See WLWB Online Registry for [W2016E0004 - TASR - Waste Management Plan - Jan 8 19](#)

<sup>14</sup> See WLWB Online Registry for [W2016E0004 - TASR - Incineration Management Plan - Jan 8 19](#)

<sup>15</sup> See WLWB Online Registry for [W2016E0004 - TASR - Spill Contingency Plan - Jan 8 19](#)

<sup>16</sup> See WLWB Online Registry for [W2016E0004 - TASR - Wildlife Management and Monitoring Plan - Version 3.2 - Jan 8 19](#)

<sup>17</sup> See WLWB Online Registry for [W2016E0004 - TASR - Fish and Fish Habitat Protection Plan - Jan 8 19](#)

<sup>18</sup> See WLWB Online Registry for [W2016E0004 - TASR - Fish and Fish Habitat Protection Plan - Jan 8 19](#)

<sup>19</sup> See WLWB Online Registry for [W2016E0004 - TASR - Erosion and Sediment Control Plan - Jan 8 19](#)

<sup>20</sup> See WLWB Online Registry for [W2016E0004 - TASR - Quarry Operations Plan - Jan 8 19](#)

<sup>21</sup> See WLWB Online Registry for [W2016E0004 - TASR - Conceptual Closure and Reclamation Plan - Jan 8 19](#)

<sup>22</sup> See WLWB Online Registry for [W2016E0004 - TASR - Water Monitoring Plan - Jan 8 19](#)

<sup>23</sup> See WLWB Online Registry for [W2016E0004 - TASR - Archaeological Site Protocol - Jan 8 19](#)

<sup>24</sup> See WLWB Online Registry for [W2016L8-0001 - TASR - Draft Water Licence Conditions - Jan 16 19](#)

<sup>25</sup> See WLWB Online Registry for [W2016E0004 - TASR - Draft Land Use Permit Conditions - Jan 16 19](#)

The Application and supporting materials were distributed for public review on January 17, 2019, with a Draft Water Licence<sup>26</sup> and Draft Land Use Permit<sup>27</sup> prepared by Board staff. When these drafts were distributed, it was indicated that:

- The purpose of the Draft Land Use Permit and Draft Water Licence was to allow parties to comment on Board staff's suggested conditions based on the evidence on the record thus far;
- These draft materials were not intended to limit in any way the scope of parties' evidence and arguments; and
- The Board was not bound by the contents of the Draft Land Use Permit and Draft Water Licence and would make its decision at the close of the Proceeding based on all the evidence and arguments filed by all parties.

Reviewer comments were due by February 21, 2019. Comments were received from Environment and Climate Change Canada (ECCC), Fisheries and Oceans Canada (DFO), the GNWT – Department of Lands (GNWT-Lands), the North Slave Metis Alliance (NSMA), the Tlicho Government (TG), and the Wek'èezhìi Land Renewable Resources Board (WRRB). Board staff also submitted comments on the Application. Proponent responses were received by the due date of March 14, 2019. Reviewer comments and recommendations, and proponent responses are available on the WLWB Online Registry.<sup>28</sup>

During the public review, ECCC commented on the potential use of on-site lagoons for sewage (see discussion in Section 6.7.1 and the Preliminary Screening Form). No other Parties commented or raised any concern on the proposed changes listed above. Based on the proposed activities and the mitigation included in the Preliminary Screening, the Board does not believe that the proposed activities may have a significant adverse impact on the environment or may be a cause for public concern, therefore approves the Preliminary Screening.<sup>29</sup>

***Decision: The Board has determined that with the mitigations, the proposed activities don't appear likely to cause significant adverse impact on the environment or a cause for public concern.***

## **2.0 Decision on Licence and Permit Applications**

After reviewing the Applicant's submission and the written comments and submissions received by the Board, and having due regard to the facts and circumstances, the merits of the submissions made to it, and to the purpose, scope, and intent of the *Waters Act* and Regulations made thereunder, the Board has decided that Water Licence W2016L8-0001 and Land Use Permit W2016E0004 be issued, subject to the terms and conditions contained therein. The reasons for these decisions are set out below.

---

<sup>26</sup> See WLWB Online Registry for [W2016L8-0001 - TASR - Draft Water Licence Conditions – Jan 16 19](#)

<sup>27</sup> See WLWB Online Registry for [W2016E0004 - TASR - Draft Land Use Permit Conditions - Jan 16 19](#)

<sup>28</sup> See WLWB Online Registry for [W2016E0004 - TASR - Review Summary and Attachments - Apr 12 19](#)

<sup>29</sup> See WLWB Online Registry for [W2016E0004 – TASR – Preliminary Screening – May 30 19](#); [W2016L8-0001 – TASR – Preliminary Screening – May 30 19](#)

### **3.0 General Principles**

The scope, definitions, and conditions set forth in the Licence W2016L8-0001 (the Licence) and Land Use Permit W2016E0004 (the Permit) have been developed to address the Board's statutory responsibilities, its role in regulation of the TASR Project, and matters that were raised during this Proceeding. These Reasons for Decision (the Reasons) focus on the major concerns raised by parties including those that were the subject of substantive argument by one or more parties. These Reasons also addresses evidence which resulted in the inclusion of new or revised conditions. All conditions in the Licence and Land Use Permit are, in the Board's opinion, based on the specific evidence related to the TASR operation.

### **4.0 Decisions Preceding Water Licence Issuance**

#### **4.1. Existing Licensees**

No parties, or existing Licensees, raised concern with the potential for the TASR Project to affect existing Licensees. Therefore, after reviewing the submissions filed on the Public Registry, the Board is satisfied that, with respect to paragraph 26(5)(a) of the *Waters Act*, the granting of this Water Licence to GNWT-INF will not adversely affect, in a significant way, any existing Licensee, providing the conditions of the Licence are complied with.

#### **4.2. Existing Water Users**

Paragraph 26(5)(b) of the *Waters Act* prohibits the issuance of a licence unless the WLWB is satisfied that appropriate compensation has been or will be paid by the Applicant to people who were, at the time when the Applicant filed its application with the Board, members of the classes of water users, depositors, owners, occupiers, or holders listed under paragraph 26(5)(b), who would be adversely affected by the use of waters or deposit of waste proposed by the Applicant. On January 18, 2019,<sup>30</sup> the Board requested parties file any claims for compensation by February 21, 2019. The Board received no claims for compensation either during the prescribed period or afterwards. Provided that compliance with the Water Licence conditions is achieved, the Board does not believe that any users or persons listed in paragraph 26(5)(b) of the *Waters Act* will be adversely affected by the use of waters or the deposit of Waste proposed by the Applicant.

#### **4.3. Water Quality Standards**

Insofar as subparagraph 26(5)(c)(i) of the *Waters Act* is concerned, the WLWB is of the view that compliance with the Licence conditions will ensure the Waste produced by the Construction and operation of the TASR Project will be treated and disposed of in a manner which will maintain water quality consistent with applicable standards and the Board's *Water and Effluent Quality Management Policy*.<sup>31</sup>

#### **4.4. Effluent Quality Standards**

Consistent with subparagraph 26(5)(c)(ii) of the *Waters Act*, the Board is satisfied that the effluent standards it has set out in the Licence as conditions are consistent with the Board's *Water and Effluent Quality Management Policy* and will protect the receiving waters and environment.

---

<sup>30</sup> See WLWB Online Registry for [W2016L8-0001 - TASR - WL Application - Public Notice - Jan 18 19](#)

<sup>31</sup> See WLWB (wlwb.ca) 'Policies and Guidelines' webpage for MVLWB (2011) [Water and Effluent Quality Management Policy](#)

#### **4.5. Financial Responsibility of the Applicant**

The GNWT is exempted from posting security as per section 94 of the MVRMA.

### **5.0 Other Legal Decisions associated with Licence W2016L8-0001**

#### **5.1. Requirements of subsection 27(2) of the Waters Act**

It is the opinion of the Board that compliance with the conditions of the Licence will ensure that any potential adverse effects on other water users, which might arise as a result of the issuance of the Licence, will be minimized.

#### **5.2. Requirements of subsection 61 of the MVRMA**

Pursuant to subsection 61(2) of the MVRMA, the Board may not issue a licence or permit except in accordance with any applicable land use plan.

As stated in the Report of EA:

For the proposed Project, approximately 17 km would be on Tłıchq Lands. The Review Board acknowledges that the Tłıchq Land Use Plan, established under Tłıchq law on June 1, 2013, is applicable to these lands. The area of the proposed road is designated as Tłıchq Nawoo Ké Dét'ahot' ıı (Cultural Heritage Zone) in the Tłıchq Land Use Plan. Page 40 of the Plan provides a description, the goal and objectives and the land uses considered in this zone: "transportation corridor" is one of the uses considered. The Review Board also acknowledges the Tłıchq Government's stated intention of granting the developer access to Tłıchq Lands, by way of an interim access agreement. The Tłıchq Government has authority over access to Tłıchq Lands and authority over the Tłıchq Land Use Plan. The Tłıchq Government is also a decision-maker on this EA. The Review Board also notes that the MVRMA (subsection 61(2)) requires any permit or licence issued by the Wek'èezhıı Land and Water Board to be in accordance with the Tłıchq Land Use Plan. The Project appears to be consistent with the Tłıcho land use plan.

No evidence was received to contradict the findings of the Review Board, therefore, the WLWB agrees that the Project is in accordance with the Tłıcho Land Use Plan.

#### **5.3. Requirements of subsection 62 of the MVRMA**

The TASR Project was the subject of an EA conducted by the Review Board. The Report of EA was approved by the responsible Minister and included several Measures within the jurisdiction of the WLWB. As a matter of law, such Measures must be reflected in conditions set out in any licence or permit issued by the WLWB as section 62 of the MVRMA makes it mandatory to do so.

The approved Report of EA included 23 Measures. Not all of the Measures recommended by the Review Board for the TASR were fully or partially within WLWB jurisdiction. A careful review of each Measure and the text associated with it in the Report of EA was conducted to determine whether conditions reflecting that measure could be included in the Licence or Permit. The Board notes, however, that EA Measures are sometimes written in broad terms which are not appropriate for direct inclusion in a regulatory instrument. Therefore, where necessary, conditions were developed to satisfy the intent and achieve the outcome required by an EA measure. In these Reasons, the Board has identified those Licence conditions that, in their view satisfy the intent of Report of EA Measures relevant to the Board's jurisdiction. The Review Board also provided additional suggestions "to further reduce the potential adverse impacts of



the Project and maximize its benefits”. The Board has considered the Review Board’s suggestions as well as the commitments made by the Proponent as documented in the Report of EA.

The Board notes that the Report of EA includes a requirement (Measure 14-2) for annual reporting from government and regulatory authorities. The Board acknowledges that the requirements of Measure 14-2 are directed to the WLWB. The Board has directed staff to work with the Review Board to determine how to best respond to this requirement.

#### **5.4. Consideration of Monitoring Plans and Management Plans**

The Board reviewed the plans submitted for this Proceeding and, based on the available evidence, determined whether approval is appropriate at this time. The specific management plans and Board decisions are discussed in the relevant sections below.

### **6.0 Water Licence W2016L8-0001**

#### **6.1. Scope and Definitions - Part A**

No comments or recommendations for change were received from any parties on the scope or definitions proposed in the Draft Water Licence. The definitions set out in the Licence are used in and apply to these Reasons and all documents related to the Licence. In their Application, GNWT-INF proposed that the project would commence in August 2019 and complete in August 2024. The Tlicho Government (TG comment 36) recommended a term of 7 years “to line up with the LUP and potential extension”.

#### **6.2. General Conditions - Part B and Schedule 1**

The General Conditions section stipulates matters regarding compliance and conformity with the MVRMA, the *Waters Act*, and associated regulations.

##### **6.2.1 Adaptive Management**

In Appendix B of the Report of EA, the Review Board required adaptive management frameworks for several Measures and outlined essential parts of these frameworks. The Report of EA also included Suggestion 14-1:

The developer should incorporate adaptive management principles (such as action levels and management responses), based on Appendix B of this report, into all relevant management plans and monitoring programs. The Review Board encourages regulators to consider these adaptive management principles when setting regulatory requirements and when reviewing and approving management plans and monitoring programs.

In response to the Post-EA Information Request, the GNWT-INF provided an Adaptive Management Framework for the TASR Project. While this submission was not specifically requested, it was provided by the GNWT-INF as part of a list of management and monitoring plans. NSMA commented that the Adaptive Management Framework “provides a good summary of adaptive management concept, including considerations and approaches; however, it does not discuss how the Proponent [sic] plans to apply the framework on the project as a whole or on each of the various applicable management plans” (NSMA

comment 2). NSMA thus recommended that the Adaptive Management Framework be updated to provide more details on how the framework would be implemented.

In response, the GNWT-INF explained that adaptive management Measures are outlined within the relevant management plans and that adding this to the Adaptive Management Framework would not only be duplicative but could require the need for frequent updates as management plans are revised. The requirement for an Adaptive Management Framework (or Adaptive Management Plan) was not included in the Draft Water Licence. Including such a requirement would not be practical given that the adaptive management details are likely to differ for each management plan.

In reflection of this Suggestion, and to ensure that adaptive management is appropriately addressed within relevant management plans as required by EA Measures, the Board has decided to include the following general condition:

***Decision: Addition of Part B, Condition 15 - In each management and/or monitoring plan submitted to the Board, the Licensee is to identify how it has incorporated adaptive management as outlined in Appendix B of the Report of EA or provide a rationale for why an adaptive management framework was not adopted.***

The Board is not requiring an update to the Adaptive Management Framework submitted and are of the opinion that the addition of Part B, Condition 15 is a better approach to addressing the inclusion of adaptive management.

### **6.2.2 Follow-up Monitoring**

Some of the Measures in the Report of EA include a requirement for monitoring activities. These monitoring requirements have been outlined in Appendix C of the Report of the EA. The Report of EA also included Suggestion 14-2:

The developer should incorporate monitoring requirements based on Appendix C of this report into all relevant monitoring programs and activities. The Review Board encourages regulators to consider these monitoring objectives when setting regulatory requirements and when reviewing and approving monitoring programs or activities.

In reflection of this suggestion and to ensure that follow-up monitoring requirements are appropriately developed and implemented for all relevant monitoring programs and activities, the Board has included the following general condition:

***Decision: Addition of Part B, Condition 16 - In each management and/or monitoring plan submitted to the Board that includes monitoring activities, the Licensee is to identify how it has incorporated monitoring requirements as outlined in Appendix C of the Report of EA.***

### **6.2.3 Engagement**

The Board has not approved Version 1.0 of the Engagement Plan and require submission of Version 1.1 90 days prior to Construction for the following reasons, and as described in more detail below:

1. The Board has not been provided evidence that the EA Measure 5-5 has been satisfied; and
2. The Plan does not conform to the requirements of the MVLWB Policy /Guidelines

Construction is anticipated to commence at the beginning of September. The Board understands that Engagement is required by the Policy, Guidelines, and Report of EA, and takes time to carry out appropriately. Requiring Version 1.1 of the Engagement Plan 90 days prior to Construction will help to ensure an approved Plan is in place with sufficient time to carry out the necessary Engagement prior to construction.

#### Conformance to EA measure

Measure 5-5 of the Report of EA requires the developer to hold public engagement sessions with the Communities of Whatì and Behchokò to discuss project-related community concerns, and to have a camp grievance mechanism and a community grievance mechanism, that allow individuals and communities to raise concerns in a timely and open manner, in place before the start of Project construction.

The Post-EA Information Request required that the Engagement Plan outline the Proponent's community grievance mechanism, as per MVEIRB's Report of EA Measure 5-5, and to describe when the public engagement sessions with the communities of Whatì and Behchokò sessions, and other proposed engagement activities, will take place.

During the public review Board staff asked GNWT-INF to comment on how it believes these two items have been addressed (WLWB staff comment 8). GNWT-INF responded that "Clarification will be provided in update of plan." The Board does not have evidence that this Measure has been satisfied. The Board has not approved the Engagement Plan and requires GNWT-INF to address Measure 5-5 in Version 1.1 of the Engagement Plan. As noted in the Report of EA, timing and frequency of the public engagement sessions should be determined in consultation with the communities.

***Decision: The Board has not approved the Engagement Plan and requires the GNWT-INF to submit Version 1.1 of the Engagement Plan, along with an updated Engagement Record, for Board approval 90 days prior to Construction.***

#### Conformance with Engagement Policy and Guidelines

The MVLWB Engagement Policy and Guidelines require the Proponent to demonstrate how disputes and grievances will be managed. As described above, this information has not been provided in the Engagement Plan. The Engagement Policy and Guidelines also requires that Proponents identify when and how engagement with affected Parties will take place over the life of the project. The triggers listed in Table 2 do not align with the correct Project phase. Some of the triggers listed may occur during Construction and/or Operations but this is not accurately conveyed in the Engagement Plan. In addition, Table 3 includes proposed engagement that is not with affected Parties (e.g., occurrence of a spill). Engagement required by the Land and Water Boards are those activities conducted with affected Parties, therefore Table 3 should be revised. GNWT-INF agreed to address these two issues in an updated Plan. The Board requires this information to be provided in Version 1.1.

***Decision: The Board requires GNWT-INF to revise Tables 2 and 3 to propose appropriate engagement triggers in Version 1.1 of the Engagement Plan.***

#### Other revisions to Engagement Plan

During the public review, topics were raised relevant to engagement. Because Version 1.1 of the Engagement Plan is required, the Board believes that the following engagement activities should be discussed.

**Decision: The Board requires the GNWT-INF to include the commitments included in Table 1 (below) in Version 1.1 of the Engagement Plan.**

Table 1: Other Required Revisions to the Engagement Plan

i.	<i>Update the Engagement Plan to reflect the parties invited to participate in the Tlicho All-Season Road Corridor Working Group, and that funding for participation in the Tlicho ASR Corridor Working Group will be finalized in the Tlicho ASR Corridor Working Group Terms of Reference. (NSMA comment 1)</i>
ii.	<i>Include statement regarding adaptive management meetings occurring in the communities. (TG comment 2)</i>
iii.	<i>Describe how (e.g. frequency, triggers) the contractor will maintain communications with Tlicho Government and GNWT to facilitate access during construction. (TG comment 23)</i>
iv.	<i>Details regarding engagement about the location of the access roads. (TG comment 25)</i>
v.	<i>Details regarding how GNWT-INF will engage on the Camp 2 location, water crossings, and cultural heritage issues. (TG comment 26)</i>
vi.	<i>Details regarding engagement to ensure local people are able to recover harvested trees during construction. (TG comment 27)</i>
vii.	<i>Details regarding engagement with the TG – DCLP for inspection of the proposed land use area. (TG comment 30)<sup>32</sup></i>
viii.	<i>Details regarding engagement with the TG – DCLP, CGB, and CGW prior to the commencement of the land use operation. (TG comment 31)</i>
ix.	<i>Details regarding engagement with the TG – DCLP, prior to the completion of the land-use operation, to discuss: (a) the plan for removal or storage of equipment and materials; and (b) when final cleanup and reclamation of the land used will be completed. (TG comment 32)</i>
x.	<i>Details regarding engagement with the TG – DCLP when a suspected archaeological or historical site, or burial ground is discovered. (TG comment 33)</i>
xi.	<i>Details regarding engagement with the TG – DCLP prior to any new land disturbance, the to identify if an Archaeological Impact Assessment of the sites where disturbance is planned. (TG comment 34)</i>
xii.	<i>Details regarding engagement with the TG – DCLP surrounding the location and quantity of fuel caches. (TG comment 35)</i>
xiii.	<i>Revise contact information. (TG comment 39)</i>
xiv.	<i>Include a statement stating that GNWT-INF will utilize the Tlicho Government Engagement Policy once it is finalized. (TG comment 40)</i>
xv.	<i>Include statement that Engagement will be carried out through the appropriate Tlicho Government's department or the Working Groups that have been formed to ensure effective implementation. (TG comment 41)</i>
xvi.	<i>Update section 3 to state that: "The GNWT-INF will work collaboratively with the Tlicho Government to ensure translation services are available as appropriate". (WLWB staff comment 3)</i>

<sup>32</sup> Engagement activities to address TG comments 30-35 have been added to the requirements of the Engagement Plan instead of the Permit condition as initially recommended

xvii.	Update Section 3.1 to read: “When electronic mail is not available or easily accessible by affected parties, faxes and/or letters delivered by post will be utilized”. (WLWB staff comment 4)
xviii.	Revise section 3 clarifying how and when the proposed communication methods will be used for engagement. (WLWB staff comment 5)
xix.	Revise the Plan with the corrected table numbers. (WLWB staff comment 6)

#### 6.2.4 Wildlife Management and Monitoring

##### Wildlife Management and Monitoring Plan

The proposed monitoring, mitigation, and adaptive management for managing effects of the Project on wildlife is found in the GNWT-INF’s Wildlife Management and Monitoring Plan (WMMP). Section 10.3.5 of the Report of EA notes that both the Review Board and ENR require a WMMP and that “the Review Board acknowledges the public review and approval process for the WMMP as administered by GNWT-ENR”. The Wek’èezhii Renewable Resource Board (WRRB) will provide a formal review of the WMMP in this process, before ENR makes a final determination.<sup>33</sup> Because of the Boards’ jurisdiction regarding wildlife habitat, a shared responsibility for review and approval of the WMMP will be required to ensure that the WLWB fulfils its obligations regarding the protection of wildlife habitat, and to ensure that the content of the WMMP does not conflict with the Permit or Licence conditions. This parallel process is new territory given that the GNWT’s requirement for WMMP’s is recent. The Post-EA Information Request required that GNWT-INF submit the WMMP to the WLWB to ensure that mitigation of potential impacts to wildlife habitat and potential impacts to wildlife related to the changes to the Project since the Report of Environmental Assessment have been addressed appropriately and relevant draft conditions included.

The GNWT-INF submitted the WMMP Version 3.2 to the Board as part of its Application Package. The GNWT-ENR solicited comments on the Plan through the WLWB Online Review system for its review process that is anticipated to take up to the end of June 2019.<sup>34</sup> GNWT-INF has committed to revisions to the Plan based on reviewer comments. Furthermore, there were unresolved issues after the public review that are detailed further below and for which the Board requires be addressed in a revision to the WMMP. These revisions are captured in Table 2 (below).

Table 2: Revisions Required for Version 3.3 of the Wildlife Monitoring and Management Plan

<b>Reviewer</b>	<b>Comment #</b>
ECCC	9, 10, 11, 12, 13, 16, 17, 18, 19 <sup>35</sup> , 20
NSMA	6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 19
TG	4, 5, 6, 7, 8, 9, 10, 11, 12, 13 <sup>36</sup> , 14, 15
WRRB	2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14 <sup>37</sup> , 15 <sup>38</sup> , 16, 17, 18, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29

<sup>33</sup> See WLWB Online Registry for [W2016L8-0001 - TASR - GNWT-ENR Letter Re Wildlife Management and Monitoring Plan - Jan 22 19](#)

<sup>34</sup> See WLWB Online Registry for [W2016E0004 - TASR - Review Summary and Attachments - Apr 12 19](#), see cover letter to Proponent Responses.

<sup>35</sup> Board direction described in more detail

<sup>36</sup> Included in Schedule 1 (Annual Report Requirements)

<sup>37</sup> WMMP to be updated to note that the surveys include access roads and borrow sources

<sup>38</sup> WMMP to be updated to detail extra efforts taken when camps will be unoccupied

Version 3.2 is not considered to be approved, and it is expected that Version 3.3 will include all revisions and commitments outlined in the Reasons for Decision, to be submitted to the WLWB for final approval, following approval by the Minister, and at least 90 days prior to Construction in line with standard timelines for review.

***Decision: The Board has decided that Version 3.2 is not considered to be approved, and it is expected that Version 3.3 will include all revisions and commitments outlined in these Reasons for Decision (Table 2), to be submitted to the WLWB for approval, following approval by the Minister, and at least 90 days prior to Construction.***

GNWT-ENR, in their responses to public review comments, noted that “once proposed wildlife regulations pursuant to Section 95 of the Wildlife Act come into force, compliance with the approved Wildlife Management and Monitoring Plan will also be enforced by GNWT-ENR” and recommended that the WLWB “consider amending or removing this Water Licence condition once wildlife regulations come into force that allow GNWT-ENR to enforce compliance with an approved Wildlife Management and Monitoring Plan”. Given the overlapping jurisdiction regarding wildlife habitat as noted above, the Board does not see this removal as essential, and has confidence that the GNWT-ENR can enforce compliance if the condition is not removed.

In their responses, GNWT-INF also noted that “Part B, Condition 15 pertains to the Wildlife Management and Monitoring Plan (WMMP). The WMMP is also a requirement of the *Wildlife Act*. GNWT-ENR has developed draft guidelines for the content and format of WMMPs which the Licensee is encouraged to follow”.<sup>39</sup> The GNWT-INF recommended that “in the event that there is inconsistency between GNWT-ENR’s draft WMMP guidelines, and the MVLWB’s Standard Outline for Management Plans, it is recommended to either a) remove “Part B, Condition 15” from this Condition, or b) specifically reference that the plan referred to in “Part B, Condition 15” shall be presented in a format consistent with GNWT-ENR’s draft “Wildlife Management and Monitoring Plan (WMMP) Guidelines” (December 2018 version)”. The Board notes that the Board has the discretion to approve changes to a Plan that is not in line with the MVLWB’s Standard Outline for Management Plans if there is sufficient rationale to do so. The Board therefore does not see the change to a condition necessary, rather, the proponent may request the approval of the change to the Plan in its submission of that Plan providing it has sufficient rationale.

#### EA Measures

The GNWT-ENR suggested that the Water Licence requirement for Schedule 1, Condition 2a) for information related to Report of EA Measures 6-1, 6-2, 6-3, and 7-2 be removed.<sup>40</sup>

Measure 6-1 requires the GNWT-ENR to develop and implement a range plan for boreal caribou (ṯḏzi) in the North Slave portion of the NT1 range, as required by the Recovery Strategy for the Boreal Caribou in the NWT as well as develop and implement a range plan for any other region where boreal caribou (ṯḏzi) may experience impacts related to the Project. Measure 6-2 requires the GNWT-ENR, in collaboration with Aboriginal groups and in accordance with the requirements of the Ṯj̱cẖ Agreement to mitigate significant adverse impacts from the project on boreal caribou (ṯḏzi), to ensure sustainable harvest levels.

The GNWT-ENR commented that the requirement for information pertaining to Measures 6-1 and 6-2 from Schedule 1, Condition 2a) of the Water Licence should be removed as these Measures refer to stand-

---

<sup>39</sup> Note that this reference is to the Draft Water Licence

<sup>40</sup> See WLWB Online Registry for [W2016L8-0001 - TASR - Review Summary and Attachments - Apr 12, 19](#)

alone requirements that are approved under a separate process and authorities and are out of the scope WMMP. ENR proposed that implementation of these Measures through the Recovery Strategy for Boreal Caribou in the NWT or range plan(s) would be more appropriate. NSI, however, in their responses to review comments, recommended that the requirement be to “cite” rather than provide the information.

Measure 6-3 requires the developer (GNWT-INF) to offset effective boreal caribou (t̄qdzı) habitat lost because of disturbance from the Project. The GNWT-INF is to prepare and implement a Habitat Offset Plan with the involvement of the GNWT-ENR. The Habitat Offset Plan is to describe how the required offset areas will be determined and how it will be achieved, and a draft and final plan are to be submitted to the WRRB 30 days prior to Construction and 90 days prior to public use of the road.

The GNWT-ENR commented that the requirement for information pertaining to Measure 6-3 should be removed from Schedule 1, Condition 2a) as this Measure is more appropriately implemented through the Habitat Offset Plan that is required by the draft Land Use Permit. The Board agrees that the draft Land Use Permit requires the submission of a Habitat Offset Plan, however, believes that it is appropriate to keep the requirement for updates on relevant information pertaining to this Measure but in the Annual Report instead, as further described below.

Measure 7-2 requires the GNWT-ENR and T̄ı̄ch̄q̄ Government, along with their co-management partners in the Wek’èezhii area to manage significant adverse impacts to barren-ground caribou (̄ekw̄q̄) resulting from the Project. The requirement involves completing the Bathurst Caribou Range Plan prior to the expiry of the WMMP and to consider protecting barren-ground caribou historic winter habitat from fires when determining where and when fires are fought, to offset effective habitat loss from the Project. The GNWT-ENR commented that the requirement for information pertaining to Measure 7-2 should be removed from Schedule 1, Condition 2(a). The rationale provided was that, although this Measure mentions the WMMP, it only requires completion of the Bathurst Caribou Range Plan prior to the expiry of the WMMP and does not specify a requirement to include this information in the WMMP.

The Board believes that updates on the status of the wildlife and wildlife habitat-related Measures is important and relevant information for reviewers, and agrees with the rationale provided by NSI above, that, rather than providing all details, it is possible to refer to or cite where the information may be found. The Board has decided that to include requirements for updates in the Annual Report so that reviewers can be kept up to date with the progress of the various wildlife management-related processes and to refer reviewers to where further details about the applicable information may be found.

***Decision: To include “updates on progress 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” as a requirement of Schedule 1, Condition 1(n).***

Measure 7-1, requires the GNWT-INF to include Traditional Knowledge in barren-ground caribou (̄ekw̄q̄) monitoring and management in order to improve and inform mitigation of significant adverse impacts to barren-ground caribou (̄ekw̄q̄) resulting from increased access due to the Project. The GNWT-ENR suggested keeping the requirement for Measure 7-1 in Schedule 1, Condition 2a) and altering the condition as follows:

The Wildlife Management and Monitoring Plan referred to in Part B, Condition 18, shall include, but not be limited to the following:

- a) Findings of the program that uses T̄ı̄ch̄q̄ harvesters’ traditional knowledge and methods to monitor the state of barren-ground caribou (̄ekw̄q̄) winter habitat,

during and after the construction of the Project while the WMMP is in place, as per measure 7-1(c) of the Report of EA.

The Board believes that the proposed revision captures the intent of the condition and provides adequate detail of the required information on Traditional Knowledge input into barren-ground caribou (ᐅᓃᓂᓂᓂ) management and monitoring that is to be included in the WMMP.

***Decision: To include “Findings of the program that uses Th̄chq̄ harvesters’ traditional knowledge and methods to monitor the state of barren-ground caribou (ᐅᓃᓂᓂᓂ) winter habitat, during and after the construction of the Project while the WMMP is in place, as per measure 7-1(c) of the Report of EA” as a requirement of Schedule 1, Condition 2.***

The Board notes however, that the status of Measure 7-1 (e.g. design and implementation as per Measure 7-1(a)) as required in will still be reported on as required in the Annual Report.

The original Schedule 1, Condition 2(d) required results of available surveys and monitoring in order to satisfy Measure 10-1 of the EA. Because plans typically do not contain results of monitoring, the Board believes that monitoring results are more appropriately included in the Water Licence Annual Report. This requirement has been moved to Schedule 1, Condition 1(o).

***Decision: To include the results of available surveys and monitoring, such as caribou, bird (Measure 10-1), and moose surveys in the Water Licence Annual Report requirements.***

However, in order to satisfy Measure 10-2, Part 2 that “the Wildlife Management and Monitoring Plan will be updated based on the results of available surveys and monitoring, such as caribou, bird (Measure 10-1), and moose surveys”, an additional requirement has been included in the Schedule 1, Condition 2 requirements for the WMMP.

***Decision: To include “a description of how the Plan has been updated based on results of available surveys and monitoring, such as caribou, bird (Measure 10-1), and moose surveys, as per Measure 10-2, Part 2” in Schedule 1, Condition 2 for the WMMP;***

Measure 10-1 requires the developer to conduct pre-construction field surveys of bird species at risk and migratory birds prior to disturbing potential habitat, and Part 2 requires the developer to use the results from surveys in 10-1 Part 1 to inform mitigations. In their comments, ECCC (comment 19) noted that GNWT-INF had developed protocols for the field surveys in consultation with ECCC, however, that a monitoring objective should be added to Section 5.2 of the WMMP to reflect these surveys. GNWT-INF disagreed with the latter and responded that the WMMP “also includes ongoing monitoring during construction to detect migratory bird activity on Project infrastructure, pits and quarries”, and that “the Project has incorporated all the mitigation suggested by ECCC to date, and will continue to implement new mitigation as required to avoid disturbance to migratory birds based on the results of the monitoring”.

It is evident from ECCC’s comment and GNWT-INF’s response that the parties agree that the first part of Measure 10-1 (to conduct pre-construction field surveys of bird species at risk and migratory birds prior to disturbing habitat) has been adequately met, however, Measure 10-1, Part 2, requires that:

The developer will use the results from surveys in 10-1 Part 1 to inform mitigations. The mitigations will help protect bird species at risk and migratory birds and ensure habitats and nesting sites are protected. For all project-related infrastructure and activities during the construction and operations phase, the developer will:



- a) use the information from the survey(s) to inform and adjust proposed mitigations;
- b) implement mitigations as described in its commitments table and its Wildlife Management and Monitoring Plan;
- c) implement additional mitigations to eliminate or reduce impacts, if warranted based on surveys;...

In their response to ECCC's comment, GNWT-INF noted that "The Project has incorporated all the mitigation suggested by ECCC to date, and will continue to implement new mitigation as required to avoid disturbance to migratory birds based on the results of the monitoring". However, it is unclear how GNWT-INF will determine whether additional mitigation is required or not without a monitoring objective (e.g. what are the thresholds). As noted by ECCC in their comment, the "WMMP should discuss what type of measurable results from these surveys would warrant additional mitigations (i.e. threshold)". ECCC recommended the objective to "Determine the abundance, distribution and habitat use of avian species at risk in the TASR study area before road construction". GNWT-INF did not provide rationale for why this proposed objective would not be appropriate or possible.

Measure 10-2, Part 2 states that "During permitting, the developer will involve Environment and Climate Change Canada, GNWT-ENR, Wek'èzhii Renewable Resources Board, Tlicho Government and Aboriginal groups that harvest in the area, in developing an updated Wildlife Management and Monitoring Plan". ECCC's comments indicate it is not satisfied with this aspect. The Report of EA was very clear about the Review Board's concern regarding impacts to birds. For example, Section 10.3.4 of the Report of EA states that:

"The Review Board is concerned that the fate of some bird species at risk may be extirpation if nothing is done to reverse the declining population trend for those species. In the opinion of the Review Board, it is important that a higher level of care is taken to protect bird species at risk. For these reasons, the Review Board views any potentially adverse impact from the Project to a bird species at risk as a significant impact."

Measure 10-2, Part 2 also specifies that "The Wildlife Management and Monitoring Plan will be updated based on the results of available surveys and monitoring, such as caribou, bird (Measure 10-1), and moose surveys". However, Section 5.2 of the WMMP begins with: "The proposed monitoring of effects of the Tłıchǫ ASR on wildlife and wildlife habitat focus on boreal caribou, barren-ground caribou, moose, and bison" despite the high level of concern established by the Review Board. The Report of EA concluded that the Project will likely cause significant adverse impacts to bird species at risk.

Furthermore, Measure 10-1, Part 3 of the Report of EA states that "Monitoring will meet the requirement of Appendix C of this report" and Appendix C states that "To be effective, monitoring programs must **meet the necessary objectives** [emphasis added] to reliably support adaptive management (described in Appendix B) and track the effectiveness of mitigation and Measures."

Given the severity of impacts to bird species at risk, and the need to be able to appropriately adjust mitigation if needed, the Board has adopted ECCC's recommendation to add to Section 5.2 of the WMMP the objective that GNWT-INF must "determine the abundance, distribution and habitat use of avian species at risk in the TASR study area before road construction". It is expected that GNWT-INF will then report on this aspect and mitigations taken.

***Decision: The Board requires that the following text: "determine the abundance, distribution and habitat use of avian species at risk in the TASR study area before road construction", be added as a primary objective in Section 5.2 of the WMMP.***

### Fire Monitoring

ECCC (comment 15) noted that the existing GNWT-ENR fire monitoring and mapping is not included as a monitoring approach for “reduced habitat availability and distribution due to any increases in fires resulting from use of the road” in Table 4 of the WMMP. ECCC recommended that the GNWT-ENR include fire monitoring and mapping as a monitoring approach for this effects pathway. Currently, Table 4 lists Boreal Caribou Collaring, Barren-ground Caribou Collaring, Moose and Bison Population Monitoring, and Access and Harvest Monitoring as secondary monitoring methods to address that effects pathway. GNWT-INF’s response states that “there are any number of external data sources that may be used in the comprehensive reports, and the GNWT fire mapping data is one such possible source”.

***Decision: The Board has decided that the response is appropriate. The Board has confidence that GNWT-INF will consider all appropriate sources when undertaking analysis and reporting.***

### Water Licence Annual Report

GNWT-INF committed to including the survey results for pre-clearing bird surveys in the Annual Report (see response to ECCC comment 17). The Water Licence schedule (Schedule 1, Condition 1 (o)) has been adjusted accordingly.

### Survey Methods

The NSMA recommended that GNWT-INF include clear survey methods for determining locations of key habitat features for caribou and bison including rutting areas, mineral licks, and water crossings, and include details of when surveys will be conducted relative to construction, how data will be used relative to road construction and mitigation (NSMA Comment 18). GNWT-INF indicated that “the Traditional Knowledge studies completed by the Tlicho, Yellowknives Dene First Nation, and NSMA did not identify mineral licks as being a component of this environment”, however, did not provide any additional information regarding what would happen if they were encountered. GNWT-INF also did not address the other habitat features (i.e. rutting area, water crossings) noted by NSMA. The Report of EA (pg. 285) notes that “in its response to technical reports, the developer agreed to expanded monitoring of boreal caribou, moose and bison and described the proposed monitoring for these species in its WMMP...The wildlife monitoring proposed in the WMMP will allow the tracking of direct and indirect loss of wildlife habitat...”. The Board therefore believes that the concern has been addressed.

NSMA also requested that GNWT-INF clarify how wetlands, an important moose habitat, will be surveyed for and recommended using appropriate 30m setbacks from these area (NSMA comment 20). GNWT-INF referred to the project description for factors used to determine the route alignment to minimize environmental factors. As noted above, the Report of EA notes that the developer agreed to expanded monitoring of boreal caribou, moose, and bison and described the proposed monitoring for these species in its WMMP and that the wildlife monitoring proposed will allow the tracking of direct and indirect loss of wildlife habitat. The Board is of the opinion that the concern has been addressed.

### Habitat offsetting

In their comments (NSMA comment 5), noted that during the EA, the NSMA requested that the Proponent offset for habitat loss that will occur due to the project, such as compensation for habitat loss by decommissioning and restoring old or historic linear corridors within the southern portions of the NT1 range. The NSMA requested that the GNWT provide (1) any updates on the GNWT’s work studying the

utility, effectiveness, and legal implications of habitat offsetting approaches, (2) an update as to whether the GNWT has developed a policy or guidelines that could be applied to the TASR project; an update on and, (3) whether offsetting/habitat restoration is considered feasible or ineffective, and whether the GNWT is considering preserving additional undisturbed habitat as an offsetting tool. GNWT-INF responded that “an offsetting plan for boreal caribou habitat is currently being developed as per Report of Environmental Assessment Measure 6-3. In order to properly (sic) define this plan for this project, work has already started with a workshop already completed and a plan is in place to meet this Measure”.

As detailed above, conditions for a Habitat Offset Plan have been included in the Permit.

#### **6.2.5 Traditional Knowledge**

Measure 9-3 requires that the WLWB will consider traditional knowledge in the WMMP and in permitting. The Board has included standard conditions (Part B, Conditions 22 and 23) in the Water Licence requiring that 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. The Licence also requires that 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.

#### **6.2.6 Permafrost Management Plan**

Measure 11-1 of the Report of EA required that a Permafrost Management Plan (PMP) be submitted for Board approval. Measure 11-1, which outlines the requirement for the PMP, stipulates that the plan is to include monitoring following the requirements of Appendix C and adaptive management following the requirements of Appendix B. Measure 11-1 also stipulated that the PMP was to incorporate the recommendations made by Natural Resources Canada (NRCAN) during the environmental assessment process as well as recommendations from the working group (Measure 14-3). Additionally, Suggestion 11-1 of the Report of EA stated that “the developer should share information, techniques and lessons learned from other road construction projects in the north with its P3 operator, such as the Inuvik to Tuktoyaktuk highway and Highway 3”.

In regards to the adaptive management requirement, the Report of EA stated that:

The developer has not persuaded the Review Board that the Project is unlikely to cause significant adverse impacts to permafrost; in other words, the developer has not met its burden of proof. The Review Board considers the mitigations proposed by the developer for the effects of permafrost insufficient. The Review Board concludes that additional mitigation is required to effectively mitigate and manage impacts to and from permafrost, as well as prevent significant adverse impacts that are otherwise likely and costly.

The PMP states that “adaptive management measures can then be undertaken in real time to address any concerns of permafrost degradation during construction, as per the Adaptive Management Framework for this Project”. However, these “adaptive management measures” are not described. The PMP must describe the additional mitigations that will be used, and when, to mitigate impacts to permafrost.

As summarized in the Report of EA, NRCAN made the following recommendations in its technical report:

- complete detailed geotechnical investigations for the whole roadway;
- monitor embankment and thermal and hydrologic regimes;
- complete further investigations for permafrost and subsurface conditions;
- only remove permafrost/ice after confirming extent of material;
- deeper geotechnical boreholes, temperature cables, geophysical surveys would be helpful; and,
- provide a final assessment of quality & quantity of borrow material.

In the Permafrost Management Plan, it is noted that “these recommendations will be considered”, however, no details have been provided about how.

Furthermore, the last paragraph of the Plan states that:

NSI’s current opinion is that most of the warm permafrost along the alignment has **probably** already been thermally disturbed from previous clearing of portions of the alignment or forest fires and is likely thawing. We consider that all warm permafrost will be vulnerable to thawing due to site development. **Despite efforts to reduce impacts on permafrost during construction and operations, it is expected that much of the remaining permafrost along the alignment will disappear due to climate warming in the next decades** [emphasis added].

The Board finds these statements unfounded, unacceptable, and not in line with the direction from the Report of EA.

Despite no comments being received on the PMP during the public review, the Board is not satisfied that the PMP addresses the concerns noted in the Report of EA. For this reason, the Board has not approved Version 1.0 of the PMP.

***Decision: The Board has not approved Version 1.0 of the Permafrost Management Plan and requires the submission of Version 1.1 ninety (90) days prior to Construction that clearly addresses and articulates NRCan’s recommendations (Measure 11-1), recommendations from the Measure 14-3 working group, and relevant lessons learned from the developer (Suggestion 11-1).***

The Board notes that the Permafrost Management Plan will likely change over time given the twice annual Measure 14-3 working group meetings, and the adaptive management nature of the PMP, therefore, more frequent resubmissions than the typical annual review may be required. The Board notes that the addition of Part B, Conditions 15 and 16 of the Water Licence satisfy the adaptive management and monitoring requirements outlined in Measure 11-1.

### **6.2.7 Archaeological Site Chance Find Protocol**

The GNWT-INF committed during the EA (see Report of EA, Appendix D, No. 49) to implementing the Archaeological Site Find Protocol to provide guidance to employees and contractors conducting ground disturbing operations. During the public review, the Tlicho Government provided comments mainly related to revising certain sections of the Protocol to better align with the Tlicho Agreement (TG comments 16-20). The GNWT-INF agreed to carry out all the revisions recommended by the Tlicho Government. The revisions (see Table 4 below) appear to be relatively straightforward and administrative in nature, and as there were no other comments or concerns on the Protocol during the public review,

the Board has approved the Archaeological Site Chance Find Protocol and requires that Version 1.1 of the Protocol is submitted to the Board with the revisions, at least 90 days prior to the start of Construction.

***Decision: The Board has approved the Archaeological Site Chance Find Protocol and requires submission of Version 1.1 of the Protocol 90 days prior to the start of Construction with the revisions listed in Table 4.***

Table 4: Revisions for Version 1.1 of the Archaeological Site Chance Find Protocol

	Revision and associated comment number
i)	<i>Include a reference to the Tlicho Agreement, Chapter 17 (Heritage Resources) and Chapter 26 (Economic Measures) in the legislation and guidelines section (TG comment 16)</i>
ii)	<i>Update Section 5 to recognize the Tlicho Government as a potential delivery provider and should refer to Chapter 26 of the Tlicho Agreement (TG comment 17)</i>
iii)	<i>Update 'Discovery Protocols' Section to be consistent with Chapter 17 of the Tlicho Agreement, and ensure that all protocols are followed with appropriate Tlicho direction. In addition, primary contact should be DCLP Director (TG comment 18)</i>
iv)	<i>Update the Contacts section with to include the TG as a key contact through the DCLP, when an object has been identified (TG comment 19)</i>
v)	<i>Include burial sites, as an additional area that may need to be identified and broaden the heritage resources to include burial sites, place names, as well as sensitive cultural heritage sites (TG comment 20)</i>

### 6.3 Conditions Applying to Water Use - Part C

The conditions in Part C address the sources and maximum amounts of Water that can be used for any purpose for the Project, and stipulate other restrictions related to water withdrawals.

The *Guide to Completing Water Licence Applications to the Mackenzie Valley Land and Water Board (MVLWB)* and the MVLWB's *Guide to the Land Use Permitting Process* require the Proponent to provide the water volumes and water sources to be used, including their available capacity. This information is used to evaluate potential impacts of proposed water withdrawal. In the Updated Project Description,<sup>41</sup> Water Monitoring Plan,<sup>42</sup> and the Fish and Fish Habitat Protection Plan<sup>43</sup> (FFHPP), the GNWT-INF listed 15 potential water sources for withdrawal of water however no information on the available volumes or bathymetry of each water source was provided. In the Application, the GNWT-INF proposed that total water use would be less than 299 m<sup>3</sup>/day and in accordance with the *DFO Protocol for Winter Withdrawal from Ice-Covered Waterbodies in the NWT and Nunavut*, however no source-specific limits were proposed.

In review of the Application, DFO recommended that a finalized list of water sources and additional information on the planned withdraws be provided for review prior to Construction (DFO comment 3). On March 19, 2019, an Information Request (IR) required the GNWT-INF to provide additional information regarding Water Sources.<sup>44</sup> In response, the GNWT-INF provided specific monthly, annual, and seasonal withdraw limits calculated using DFO Guidelines.<sup>45</sup>

<sup>41</sup> See WLWB Online Registry for [W2016L8-0001 - TASR - Updated Project Description - Jan 8 19.pdf](#)

<sup>42</sup> See WLWB Online Registry for [W2016L8-0001 - TASR - Water Monitoring Plan - Jan 8 19.pdf](#)

<sup>43</sup> See WLWB Online Registry for [W2016L8-0001 - TASR - Fish and Fish Habitat Protection Plan - Jan 8 19.pdf](#)

<sup>44</sup> See WLWB Online Registry for [W2016L8-0001 - TASR - Water Sources - Information Request - March 19 19.pdf](#)

<sup>45</sup> See WLWB Online Registry for [W2016L8-0001 - TASR - Water Sources - GNWT-INF Response to Information Request - Apr 3 19](#)

***Decision: The Board has included Part C, Conditions 1-5 to reflect the daily limit proposed in the Application and the DFO guidance referenced by the GNWT-INF in response to the March 19, 2019 IR.***

***Decision: The Board has, in accordance with standard practice,<sup>46</sup> included Part C, Condition 6, which specifies that prior to locating a Water intake in a fish-bearing Watercourse, the Licensee shall obtain written authorization for the location from an Inspector.***

The Board recognizes that Parties did not have an opportunity to comment on these conditions as they were not included in the draft Licence, however, believe these conditions are reasonable, are not in conflict with any commitments or obligations of the GNWT-INF, and do not introduce any unreasonable burden. As discussed further in Part H, and in line with DFO comment 3, Parties will have an opportunity to comment on the specific proposed withdraw limits in review of the updated FFHP. At minimum, updates to the FFHP must be in accordance with the requirements of Part C.

#### **6.4 Conditions Applying to Stream Crossings - Part D and Schedule 4**

Part D, Condition 4 requires the Licensee to not destroy or damage beaver or muskrat dams or lodges, and to minimize disturbance to beaver and muskrat activities. ECCC (comment 11) recommended GNWT-INF schedule beaver dam removal prior to or after the nesting period (May 1 – August 15). GNWT-INF responded stating no dams or lodges will be removed without necessary approvals and in the proponent's comments, they recommended adding this as a condition. The Board has changed the condition to "not destroy or damage beaver or muskrat dams or lodges without approval from GNWT-ENR".

#### **6.5 Conditions Applying to Construction - Part E and Schedule 2**

Part E, Condition 3 requires the submission of a design report for Engineered Structures. North Start Infrastructure (NSI), the contractor of the Project, commented that the "term Construction applies to all work including clearing and site mobilization, that would not be affected by a design report for engineered structures. With the project being a Design-Build model this report would not be at submittal stage this far ahead of the start of Project." NSI recommended that 'Construction' be replaced by 'Construction of any Engineered Structures' in the condition.

***Decision: The Board agree with the rationale provided and have changed the condition to:***

***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 Detailed Design Report. 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.***

##### **6.5.1 Quarry Operations Plan**

The Quarry Operations Plan was required in the Post-EA Information Request.

---

<sup>46</sup> Recent examples include: See WLWB Online Registry for [W2018L2-0002 - Nighthawk - Water Licence \(federal\) - Feb 15 19.pdf](#) ; and MVLWB Online Registry at [www.mvlwb.ca](http://www.mvlwb.ca) for [MV2018L2-0006 - TerraX Minerals Inc - Type B Water Licence - Mar22-19.pdf](#)

ECCC (comment 8) noted that there are linkages with the WMMP throughout the Quarry Operations Plan and that these should be reflected in training sessions related to quarry operations. ECCC suggested that detailed training records are maintained and documented in annual reports. GNWT-INF committed to including the suggested information in the Quarry Operations Plan and annual reports.

***Decision: The Board has updated Schedule 1, Condition 1 (q) to include a requirement to “include a summary of training sessions related to quarry operations conducted”.***

ECCC recommended that the Quarry Operations Plan be updated to include storage Measures for ammonia-based explosives, such that material will be stored in a location and manner to prevent discharge of ammonia/nitrate to fish-bearing waters (ECCC comment 3). GNWT-INF agreed stating that “the Plan will be updated to include storage Measures for ammonia-based explosives such that material be stored in a location and manner to prevent discharge of ammonia/nitrate to fish-bearing waters.” The Board does not approve the Quarry Operations Plan until this commitment has been fulfilled and the required Version 1.1 be submitted with this revision at least 90 days prior to the start of Construction.

***Decision: The Board has not approved the Quarry Operations Plan and requires submission of Version 1.1 of the Plan at least 90 days prior to the start of Construction. Version 1.1 of the Quarry Operations Plan must include storage Measures for ammonia-based explosives, such that material will be stored in a location and manner to prevent discharge of ammonia/nitrate to fish-bearing waters.***

In the draft Licence, the condition required that:

“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”.

The Board has revised the condition as the Boards’ typical review process requires 90 days as opposed to 30 days. Furthermore, the requirement for proposed sequence and timing of quarry development has been included in the Schedule.

#### Metal leaching/ARD potential

GNWT-INF included a ‘Geochemical Analysis Plan’ in Section 2.15 of the Quarry Operations Plan which stated that the Geochemical Analysis Plan was “prepared to mitigate the potential risk of acid rock drainage (ARD) and/or metal leaching (ML) from borrow materials excavated from local quarries during road construction.” This section provided context on the evaluation of gravel sources and material properties and the results for the 13 of the prospective 21 borrow sources that the GNWT-INF intends to use. The Plan noted that Prospect 68a was not assessed and Prospect 116 was found to have the potential for ML, and both these would be tested when conduction geochemical analysis at the additional 8 sites.

Noting that the Report of EA includes a commitment that the GNWT-INF “will avoid using borrow sources that have been characterized as having high or moderate acid rock drainage or metal leaching potential to avoid impacting fish habitat with deleterious substances”. Board staff asked GNWT-INF to confirm that

Prospects 116 and other sources that have metal leaching potential/ARD potential will be removed or not used (WLWB staff comment 12). GNWT-INF's response indicated additional testing is proposed for Prospect 116 as part of additional quarry investigations planned prior to Construction and if ML potential is confirmed, it will be removed from list. GNWT-INF response confirmed that no sources that do not align with the Report of EA commitments will be used. The Board notes that the Water Licence also includes a condition requiring the use of clean Construction material.

The Plan also stated that site-specific Quarry Operations Plan will be submitted for each quarry to document management of risks associated with drainage and leaching. Board staff sought clarification requested about timing of these proposed submissions (WLWB staff comment 13). GNWT-INF explained that the reference was regarding the potential use of material from Prospect 68a and Prospect 116 if they showed geochemical risks through the use of site-specific risk management Measures. GNWT-INF committed to revising the section to remove this reference.

***Decision: The Board requires that the statement indicating that separate site-specific plans will be submitted for Prospects 116 and 68a is removed from Section 2.1.5 the Plan.***

Appendix B in the Quarry Operations Plans provides a list of the borrow sources selected as the most preferred options for the Project. As indicated in the Plan, there are still several potential borrow locations that have not been through a geochemical verification. The Plan must contain the geochemical test results of each source prior to its use and the results of the remaining potential locations must be submitted to the Board for approval prior to their use.

***Decision: The Board requires the GNWT-INF to update the Quarry Operations Plan with the results of geochemical tests of all borrow locations and submit it to the Board for approval 90 days prior to the use of the respective borrow source.***

## **6.6 Conditions Applying to Modifications - Part F**

Part F of the Licence contains conditions outlining when and how Modifications to Engineered Structures may be authorized. No issues/concerns were raised with the draft conditions during the public review.

## **6.7 Conditions Applying to Water and Waste Management - Part G and Schedule 3**

Part G of the Licence contains conditions related to Waste management activities and is consistent with standard conditions found in previous water licences issued by the Board. New site-specific conditions were developed where necessary. Schedule 3 sets out the required contents of specific reports, plans, and investigations required by the conditions in Part G.

Part G, Condition 10 requires sites to be maintained to minimize sediment deposition into watercourses. NSI commented that "the terms groomed and landscaped imply a certain level of expectations that may not be realistic given site conditions" and recommended that the terms 'groomed and landscaped' be changed to read "in accordance with the Closure and Reclamation Plan". The Board notes that the standard condition ensures that appropriate erosion control is in place during Construction, and this is different than the final closure of disturbed areas that the approved Closure and Reclamation Plan will require. The Board agrees and Part G, Condition 10 includes reference to the approved Closure and Reclamation Plan.



### **6.7.1 Waste Management Plan**

The Board has not approved Version 1.0 of the Waste Management Plan and require submission of Version 1.1 at least 90 days prior to Construction for the reasons described in the sections below.

Requiring Version 1.1 of the Waste Management Plan to be submitted to the Board at least 90 days prior to Construction will provide time for the Board's typical public review and decision-making process to take place.

***Decision: The Board has not approved Version 1.0 of the Waste Management Plan and requires the GNWT-INF to submit Version 1.1 of the Waste Management Plan at least 90 days prior to Construction.***

### **6.7.2 Scope of the Waste Management Plan**

The scope of the environmental assessment for the TASR Project included both the Construction and operations phase. The scope of the draft land use Permit submitted by GNWT-INF included "Construction and operation" of the highway, however, the Waste Management Plan does not include information related to the operations phase of the Project. NSMA (comment 3) raised this concern during the public review and GNWT-INF agreed that that waste management should continue into operations. The scope of the draft Permit includes both the Construction and operations phase of the Project.

***Decision: The Board requires the GNWT-INF to include waste management strategies for the operations phase of the Project in Version 1.1 of the Waste Management Plan.***

### **6.7.3 Waste Disposal Authorizations**

The *MVLWB Guidelines for Developing a Waste Management Plan* (the Guidelines) state that "Proponents must not transfer responsibility for waste disposal to a third party without prior consent, and must ensure they have an agreement (between the waste generator and the community/territorial government) that details the terms and conditions of any transfer of responsibility for waste disposal". The Updated Project Description stated that GNWT-INF has preliminary written consent for waste authorization given in 2015. Given the projected increase of waste generation for the Project from 75 m<sup>3</sup> to 5500 m<sup>3</sup> identified by the Proponent, it is necessary to ensure that the communities provide authorization for this increased amount of waste along with terms and conditions for the transfer of responsibility. GNWT-INF advised that agreements with the communities of Whati and Behchoko will be finalized following finalization of the Project Contract in Spring 2019 (see response to WLWB comment 2). In accordance with typical practice, written authorizations from the proposed communities are required prior to approval of the Waste Management Plan.

***Decision: GNWT-INF is required to provide written authorization of waste disposal from the communities of Whati and Behchoko and include them in Version 1.1 of the Waste Management Plan.***

### **6.7.4 Potential Impacts Related to Dust**

The Guidelines state: "...waste management goals and objectives; goals and objectives should consider ...environmental factors such as: land, water, air, wildlife, fish, and vegetation". It was noted that no air quality, dust management plan or related information was provided to outline how dust emissions would be managed during project Construction and operation (ECCC comment 7). Dust emission is likely to occur

from activities such as blasting, material handling from quarry activities, and fugitive emissions of dust during road construction. The GNWT-INF agreed and committed to updating the Plan to include a section on air quality management and mitigation Measures for Construction activities. This commitment was made in response to ECCC's comment that was made on the topic of Quarry Operations and road Construction. Because Project activities will generate dust from many sources, the mitigation of potential impacts from dust is most appropriately outlined in the Waste Management Plan.

***Decision: The Board requires that the GNWT-INF include a section in Version 1.1 of the Waste Management Plan that outlines dust mitigation and management during project construction and operation.***

#### **6.7.5 Onsite Sewage Disposal**

The Waste Management Plan states that Sewage may be disposed of in "onsite lagoons or site-specific treatment systems, such as a leaching field, pending approval from an Inspector." ECCC commented that any onsite disposal of sewage should be planned and implemented in such a way as to prevent the deposit or potential deposit of any deleterious substances to waters frequented by fish (ECCC comment 5).

***Decision: The Board require the GNWT-INF to include their response to ECCC comment 5 in the appropriate section of Version 1.1 of the Waste Management Plan:***

***"Sewage, including greywater, management will be such that no material is deposited within 100 m of a water body or to a drainage area that leads to a waterbody. Onsite lagoons or site-specific treatment systems will be monitored daily to ensure they are functioning correctly. A vendor review will be completed for any waste haulers to ensure equipment and training requirements are adequate. Vendor performance will be monitored on a regular basis."***

***Decision: In consideration of GNWT-INF's response to ECCC comment 5, the Board also requires the GNWT-INF to remove "pending approval from an Inspector" to the sentence in Section 6.2.2, paragraph 2 of the Waste Management Plan and add, "any onsite sewage disposal facilities will be located in accordance with written authorization from an Inspector" to clarify that authorization must be obtained in writing.***

#### **6.7.6 Incinerator Management Plan**

The Incinerator Management Plan was unclear on the exact guidelines that would be used for ash characterization. GNWT-INF clarified, in response to WLWB staff comment 9, that US EPA 1311 - Toxicity Characteristic Leaching Procedure (TCLP) will be used and that samples and analyzed in a laboratory. The relevant section (2.5.3) of the Incinerator Management Plan must be updated with the information provided in GNWT-INF's response. There were no other comments regarding the Incinerator Management Plan.

***Decision: The Board has approved the Incinerator Management Plan and requires GNWT-INF to revise Section 2.5.3 of the Plan to incorporate the commitment to WLWB staff comment 9.***

Considering that incineration is considered a stream of waste, as stated in the *MVLWB Guidelines for Developing a Waste Management Plan*, and that Waste Management Plans for other projects have

included incineration, this information should be included within the Waste Management Plan for future submissions.

***Decision: The Board direct the GNWT-INF to include the Incineration Management Plan as an appendix or chapter in Version 1.1 and future versions of the Waste Management Plan as opposed to a stand-alone plan.***

#### **6.7.7 Erosion and Sedimentation Plan**

The Board approves the Erosion and Sediment Control (ESC) Plan and require that the GNWT-INF submit Version 1.1 of the Plan to the Board prior to Construction as described in more detail below.

***Decision: The Board has approved the Erosion and Sediment Control Plan and requires submission of Version 1.1 of the Plan at least 90 days prior to the start of Construction.***

Section 4 of the Erosion and Sediment Control Plan describes the Contingency Plan and states that “The NSI Environmental Manager or designate will monitor work close to waterbodies on a daily basis and are delegated stop-work authority from the NSI Project Manager” and that “work will be suspended if there is an unacceptable risk of erosion and sedimentation or if control Measures are not in place.” DFO commented that it was unclear what criteria would be used to determine unacceptable risk that would result in a stop-work order (DFO comment 5) and requested that GNWT-INF clarify this, identifying the thresholds required for a stop-work order. GNWT-INF responded that:

Criteria used to determine if a stop-work order is issued may include, working in area with control Measures such as silt fencing and check dams near capacity, Near and in-water work taking place with turbidity levels continually increasing towards established limits and observations of fish in distress close to or within work areas.

The response provided does not clarify what thresholds and criteria GNWT-INF will use. Appropriate thresholds and criteria should be developed by consultation between GNWT-INF and DFO. These criteria and thresholds be included in the next version of the ESC Plan.

***Decision: The Board requires GNWT-INF to consult with DFO on appropriate thresholds and criteria to determine 'unacceptable risk' and include these in Version 1.1 of the Erosion and Sediment Control Plan.***

The Post-EA Information Request required an Erosion and Sedimentation Management Plan which provides relevant lessons learned from other northern road projects, such as the Inuvik to Tuktoyaktuk Highway, with respect to sediment and erosion control. The Erosion and Sediment Control Plan submitted by the GNWT-INF did not fully address this requirement as relevant lessons learned from the Inuvik to Tuktoyaktuk Highway were not included in the Plan. ECCC (comment 6) identified several lessons regarding ESC encountered during the construction of the Inuvik to Tuktoyaktuk Highway that could be applied to the Project and recommended that GNWT-INF include these lessons in the ESC Plan. GNWT-INF agreed.

***Decision: The Board requires the GNWT-INF to update the lessons learned section of the Erosion and Sediment Control Plan incorporating the following key issues that occurred during construction of the Inuvik to Tuktoyaktuk Highway in the Erosion and Sediment Control Plan:***

- i) improper erosion prevention at areas of high erosion potential;***

- ii) incorrect selection of ESC Measures; and*
- iii) improper installation and maintenance of ESC Measures; and*

Both the ECCC (comment 6) and DFO (comment 4) commented that GNWT-INF should use the guidance of a Certified Professional in Erosion and Sediment control (CPESC or equivalent) in developing site-specific ESC plans for any near or in-water works. DFO recommended that these be provided to DFO review prior to Construction. GNWT-INF agreed and committed that information will be “provided for review prior to construction.” GNWT-INF must provide the information on site-specific ESC plans for review to DFO.

***Decision: The Board has decided that the GNWT-INF is required to provide information on site-specific Erosion and Sediment Control Plans to DFO for approval.***

## **6.8 Conditions Applying to Aquatic Effects Monitoring - Part H and Schedule 4**

The conditions in Part H address the monitoring of potential aquatic effects resulting from the Project.

### **6.8.1 Suspended Solids Monitoring**

#### Compliance Limit

In the October 26, 2018 Request for Information, the GNWT-INF was requested to include the following in their Post-EA Application:

...limits for Total Suspended Solids (TSS) should be included, as well as proposed action levels and management actions (e.g., more frequent monitoring, installation of additional silt curtains, cessation of construction, etc.) that will be taken to ensure proposed TSS limits will not be exceeded.

In response to this request, the GNWT-INF committed to compare TSS or turbidity levels to the Canadian Council of Ministers of the Environment Canadian Water Quality Guidelines for the Protection of Aquatic Life (CCME Guidelines) in the Water Monitoring Plan. In addition, the Water Monitoring Plan proposes specific triggers and actions to be taken in response to TSS results above background levels, and water sampling locations.

Because the GNWT-INF did not propose a specific SNP program, the Board is of the opinion that the proposed limit should be reflected as a water licence condition for compliance purposes. The Board acknowledges that no Parties have had a chance to comment on this specific condition, however, the Board believes that it is reasonable to include a limit for in-water Construction because it is consistent with requirements for in-water Construction in other water licences,<sup>47</sup> in line with the Response Framework proposed by GNWT-INF in the Water Monitoring Plan, and consistent with the CCME Guidelines (which were acknowledged by the GNWT-INF in their Plan).

***Decision: The Board includes the following Licence condition (Part G, Condition 14):***

***The Licensee shall ensure that in-water Construction activities meet the following criteria:***

---

<sup>47</sup> See Ekati and Diavik Water Licences.

- a) *if background TSS is  $\leq 250$  mg/L, the maximum concentration for Total Suspended Solids shall not exceed 25 mg/L above background concentration TSS in any daily sample, or 5 mg/L above background TSS averaged over any 30-day period;*
- b) *if background TSS is  $> 250$  mg/L, TSS shall not exceed 10% of background levels; and*
- c) *all TSS samples are to be measured in accordance with the approved Water Monitoring Plan referred to in Part H, Condition 1.*

As the Board has determined previously,<sup>48</sup> due to the potential enforcement issues regarding turbidity as the measure of compliance, turbidity cannot be used as a compliance limit. Therefore, as discussed further below (see Water Monitoring Plan), it is necessary that sampling of TSS is completed at a reasonable frequency.

#### Water Monitoring Plan

The GNWT-INF submitted a Water Monitoring Plan proposing water management and monitoring for potential effects of in-water construction on suspended sediments. During the public review, ECCC was the only Party to comment on the Water Monitoring Plan (ECCC comment 2). ECCC suggested that the GNWT-INF carry out “periodic monitoring of TSS samples concurrent with turbidity readings, in order to validate or calibrate the TSS-turbidity relationship” (ECCC comment 2). The GNWT-INF agreed and stated that the GNWT-INF “will submit periodic TSS samples, during periods when there is in-water construction, to an accredited laboratory to continually verify the accuracy of the turbidity meter and to improve the accuracy of the correlation.”

The GNWT-INF did not specify, nor did ECCC recommend, the specific frequency by which ‘periodic’ monitoring of TSS will occur. As discussed below, an approved frequency of TSS monitoring is required to ensure compliance with TSS limits is maintained. ***The Water Monitoring Plan must be updated to propose the specific frequency by which TSS monitoring will occur (Schedule 4, Condition 1(f)).*** Given this missing information, the Board has not approved Version 1.0 of the Water Monitoring Plan at this time, and requires the revisions to be incorporated in Version 1.1.

***Decision: The Board has not approved Version 1.0 of the Water Monitoring Plan.***

***Decision: The Board has included Part H, Condition 1 to require an updated Plan:***

***A minimum of 90 days prior to the commencement of Construction, the Licensee shall submit to the Board for approval a Water Monitoring Plan. The Plan shall be in accordance with Schedule 4, Condition 1. The Licensee shall comply with the Water Monitoring Plan, once approved.***

The water sources provided in the Water Monitoring Plan show tables titled ‘Approximate Annual Water Taking Volumes by Location’. The Board notes that the tables show the months of anticipated water withdrawal from sources over the Construction period, however, the year is not indicated.

---

<sup>48</sup> See WLWB Online Registry for [Diavik - Amendment - TSS - WLWB Recommendation to Minister - May 11 16.pdf](#);

**Decision: That the Appendix D be revised to include the month and year of the proposed withdrawals. In addition, the GNWT-INF must revise the table's title to make it more accurate (e.g., "Daily estimated volumes of water withdrawal by Water Source.")**

### **6.8.2 Fish and Fish Habitat Protection**

In the October 26, 2018 Request for Information, the GNWT-INF was requested to provide a Fish and Fish Habitat Protection Plan (FFHPP) to:

Include 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. This could include a description of the potential pathways of fish habitat degradation (e.g., use of explosives, blasting residue, sediment release, spills) and the plans for mitigation of fish habitat degradation and protection.

The GNWT-INF submitted a FFHPP to address this requirement. During the public review, DFO and Board staff provided comments and recommendations on the FFHPP. In consideration of Parties comments and proponent responses, the Board has not approved the Plan at this time.

**Decision: The Board has not approved Version 1.0 of the Fish and Fish Habitat Protection Plan.**

As discussed below, the GNWT-INF committed to providing the information requested by DFO prior to Construction (DFO comments 1 and 2). The suggested collaboration between the GNWT-INF and DFO is desirable, and ideally, DFO will have reviewed the proposed revisions to Version 1.1 prior to submission to the Board.

**Decision: The Board has included Part H, Condition 3 to require a revised Plan:**

***A minimum of 90 days prior to the commencement of Construction, the Licensee shall submit to the Board for approval a Fish and Fish Habitat Protection Plan. The Plan shall be in accordance with Schedule 4, Condition 2. The Licensee shall comply with the Fish and Fish Habitat Protection Plan, once approved.***

As discussed above, the Board requires the GNWT-INF to propose specific withdraw limits, as proposed in the Response to IR, in the updated FFHP (Schedule 4, Condition 2(d)). This will satisfy DFO's recommendation to review the proposed limits (DFO comment 3).

**Decision: The Board include the following as a requirement for Version 1.1 of the FFHPP, in Schedule 4, Condition 2(d):**

***the maximum volume of Water intended for withdrawal (i.e. annual and under-ice limits) from each Water Source, to ensure no impacts to fish and fish habitat.***

### Fish Passage

In the FFHPP, the GNWT-INF proposes minimum requirements for the establishment and maintenance of mitigation Measures to protect fish and fish habitat during construction works. The road alignment crosses 17 water bodies, of which 12 have ephemeral or intermittent flow, and five have permanent flow. The FFHPP describes crossing installation stating:

Culvert size for crossing over watercourses [sic] that support large-bodied fish will be designed to allow passage of upstream movement of spawning -sized fish (e.g. Northern Pike and Arctic Grayling) with no more than a three day delay during a 1:10 year flow event.

DFO stated that Watercourse crossings (specifically culverts), need to be designed to pass all fishes that use the Watercourse, identifying that it was unclear whether the proposed design provides passage for small fish (DFO comment 1). DFO recommended that the GNWT-INF provide the calculations and baseline data (fish species and swim speeds) used to inform the sizing of the culverts. DFO recommended this information be provided to DFO prior to Construction.

***Decision: The Board has included this as a requirement for Version 1.1 of the FFHPP, as Schedule 4, Condition 2(e):***

***(e) the baseline data (e.g., fish species swim speeds) and calculations used to inform the sizing of the culverts that will be constructed in fish-bearing streams to ensure that they provide passage for all fish.***

In the FFHPP, the GNWT-INF indicates that fish screens will be designed using the *Fish Screen Design Criteria for Flood and Water Truck Pumps (2011)*, however the design criteria or size of screens was not provided. DFO recommended the GNWT-INF provide the DFO with the intended screens size(s) that will be used, and the design criteria that were used to inform the design prior to Construction (DFO comment 2).

***Decision: The Board has included this as a requirement for Version 1.1 of the FFHPP, as Schedule 4, Condition 2(f):***

***(f) intended screen size(s) that will be used, and the design criteria that were used to inform the design.***

#### Watercourse Buffer for Fuel and Chemicals

In Section 6.2 of the FFHPP, GNWT-INF stated that use of “ammonium nitrate-fuel oil mixtures will not occur in or within 30 m of fish-bearing water due to the potential production of toxic by-products (e.g., ammonia).” Board staff requested that the GNWT-INF provide rationale for not using the standard 100 m buffer for distance of fuel use and storage from water courses (WLWB comment 11). The GNWT-INF responded that a 100 m buffer can be implemented and committed to revising the Plan with this information. The Board also notes that the Permit specifies a 100m buffer.

***Decision: GNWT-INF is required to update Section 6.2 of the FFHPP to reflect that shall Fuel Storage Containers or Tanks will not be placed within 100 metres of the Ordinary High-Water Mark of any Watercourse, unless approved by the Board or authorized in writing by the Inspector.***

#### **6.9 Conditions Applying to Contingency Planning - Part I and Schedule 7**

The Spill Contingency Plan conforms to the Indigenous and Northern Affairs Canada (INAC) Guidelines for Spill Contingency Planning and no comments were received on the Spill Contingency Plan during the public review. Therefore, the Board has approved Version 1.0 of the Spill Contingency Plan.

***Decision: The Board has approved the Spill Contingency Plan.***

## 6.10 Conditions Applying to Closure and Reclamation - Part J and Schedule 5

Part J of the Licence pertains to closure and reclamation conditions.

The Tlicho Government provided two comments on the Closure and Reclamation Plan (TG comments 21 and 22). TG comment 21 was that there should be dialogue with the Tlicho Government on closure of access roads “as it may be desirable to have modifications made to plans (sic) for harvesters.” The GNWT-INF committed to having discussion with the Tlicho Government prior to final site reclamation.

***Decision: The Board requires that the GNWT-INF include details of planned discussions with the Tlicho Government regarding closure of access roads, prior to site reclamation, in their Engagement Plan.***

TG (comment 22) was regarding quarries that the Tlicho Government noted are on Tlicho Lands and that the Tlicho Government be included in the review of quarries and quarry plans. The GNWT-INF responded that “quarry applications” have been prepared for proposed borrow sources on Tlicho lands and will be submitted to the Tlicho Government.

***Decision: The Board requires that the GNWT-INF include details of planned discussions with the Tlicho Government regarding quarries on Tlicho Lands, in their Engagement Plan.***

***Decision: The Board has approved the Closure and Reclamation Plan as submitted.***

## 7.0 Decisions Pertaining to Land Use Permit W2016E0004

The Board has issued Land Use Permit W2017D0004 (the Permit) for a period of five years.

The reasons for this decision are as follows:

- The Board is satisfied that adequate consultation has been conducted with affected parties and that advice has been sought and considered in accordance with sections 63 and 64 of the MVRMA.
- The use of land proposed by the Applicant is of a nature contemplated by the MVRMA.
- The operation will likely contribute to the socio-economic well-being and economic development of the region.
- It is the opinion of the Board that the terms and conditions attached to W2016E0004, pursuant to the MVRMA, will prevent or mitigate any potential significant environmental impacts which might result from the TASR Project.

A Draft Land Use Permit, prepared in accordance with the MVLWB's *Standard Land Use Permit Conditions Template*,<sup>49</sup> and identifying non-standard conditions, was distributed for public review on January 17, 2019.

---

<sup>49</sup> See WLWB webpage for MVLWB's [Standard Land Use Permit Conditions Template](#)



## 7.1 Scope and Definitions

The GNWT-Lands Inspector provided five recommendations for the scope of the Land Use Permit. GNWT-INF had no issues with the recommendations. The scope was revised according to the Inspector's recommendations as follows:

- Part A, Condition 1(a) - 'maintenance' was added as a phase of the Project as per GNWT-Lands comment 1;
- Part A, Condition 1(c) - the mention of the seasons 'summer and winter' was removed because construction camps may be operational in other seasons as per GNWT-Lands comment 2;
- Part A, Condition 1(e) – 'equipment over 10 tons' was replaced with 'vehicles and machines over 10 tons' to align with Sections 4 and 5 of the Mackenzie Valley Land Use Regulations as per GNWT-Lands comment 3;
- Part A, Condition 1(f) – replaced "the use of single containers for the storage of petroleum fuel that have a capacity exceeding 4000 litres" with "the establishment of a petroleum storage facility" as per GNWT-Lands comment 4; and
- Part A, Condition 1(h) – removed "quarries and water sources" because "...access roads may also be required for culverts, bridges, and other sites throughout the land use area", as per GNWT-Lands comment 5.

## 7.2 Conditions

After reviewing the Parties' recommendations pertaining to the Land Use Permit, as well as the proponent's responses, as discussed in the preceding sections, the Board believes the Land Use Permit, contains provisions that are sufficient to mitigate potential impacts of the development and has approved the issuance of the land use permit for the requested time.

### Consultation requested

The Tlicho Government provided eight comments on the draft Land Use Permit conditions. TG comments 30-35 commented that the Tlicho Government and the Community Governments of Whati and Behchoko should be listed as Parties to be consulted with in the following conditions: 8 (Inspect Locations), 10 (Contact Inspector), 11 (Identify Agent), 12 (Reports Before Removal), 62 (Site Discovery and Notification), 64 (AIA) and 74 (Report Fuel Location). The GNWT-INF responded that the "request may be better suited for a stand-alone agreement between the GNWT and TG than as a condition in the permit that would bind the TG." The Board notes that adding Parties to a condition could potentially present issues should the Party's mandate or name change in the future, for example, which would require changes to the conditions and in turn require an amendment to the Land Use Permit. The Board is of the opinion that this consultation can better be reflected in the Plan and Record.

***Decision: The Board requires that the GNWT-INF engage with the Tlicho Government on the changes requested in TG comments 30-35, and note these engagement activities in the Engagement Plan, as well as include the results of the engagement in future versions of the Engagement Record.***

### Avoid Cabins (Condition 1)

The 'Avoid Cabins' condition establishes a buffer from traditional cabins. The Tłı̨chǫ Government (comment 28) noted that there is a historic cabin within 300 m of the proposed TASR alignment. GNWT-

INF responded that during the environmental assessment, GNWT-INF committed to 50 m set back and mentions that cabins have been constructed near the existing Old Airport Road trail. Board staff sent follow-up correspondence to the Tłıchǫ Government requesting the location of this cabin and any others along the alignment, an acceptable buffer distance and how the Tłıchǫ Government envisions authorizing this.<sup>50</sup> The Tłıchǫ Government provided the location of one cabin, stating that it is 105 m to the south of the TASR alignment. Regarding an acceptable setback, the Tłıchǫ Government stated that the “300m is acceptable as a buffer in general, with the exception of where Tłıchǫ Government provides approval for a closer distance as is the case for Cabin 1 listed above.” The Tłıchǫ Government stated it will review any other cabin locations with GNWT-INF on a case-by-case basis.

The Board believes that the 300 m buffer can be maintained in the condition since the Tłıchǫ Government has expressed that it is acceptable and no other Parties expressed concern with the proposed buffer. The condition provides for exceptions to the 300 m if the Board authorizes them, therefore the Board believes that the condition is appropriate.

***Decision: The Board authorizes the GNWT-INF to conduct any part of the land use operation 105 m from the TASR alignment at the location of the identified cabin. If, at a future time, other cabins are identified to potentially be located within 300 m of the proposed TASR alignment, the Board requires that GNWT-INF consult with the Tlıcho Government and include this engagement trigger and the results of the engagement in the Engagement Plan and Record, respectively, as well as a request in writing to the Board, submitted for Board approval.***

The GNWT-Inspector also commented on the ‘Avoid Cabins’ condition, suggesting that it be replaced with the ‘Private Property’ condition since the ‘Private Property’ condition encompasses all structures and not solely cabins for traditional activities (GNWT-Lands comment 6). The Board believes that the proposed condition meets the intent of the ‘Avoid Cabins’ condition and have revised the draft Permit, replacing the ‘Avoid Cabins’ condition with the ‘Private Property’ condition.

In the cover letter that the GNWT-INF provided with the proponent responses, it is noted that GNWT-INF had sought the expertise of the GNWT-ENR and North Star Infrastructure (NSI) and that both had provided further comments on the draft Permit and Licence conditions in appendices 1 and 2 of the cover letter respectively. The comments are provided in the following sections.

#### Camp Location (Condition 2)

This condition requires camps to be located on durable land or previously cleared areas. Appendix 2 of cover letter that the GNWT-INF submitted with the proponent responses contains comments by NSI. NSI suggested that the condition as written may not be practical in all circumstances because potential camp locations may require clearing beyond existing clearing “due to size of area required for camp footprint, parking, equipment and construction laydown.” NSI recommended adding “unless otherwise authorized in writing by an Inspector.” There are 6 proposed camp locations provided in the updated project description which states “It is expected temporary camps will be located on either Territorial or Tłıchǫ Lands (although not on CGW Lands) and situated either on the alignment or within a quarry.” The Board believes that the standard condition allows for camps to be established on either durable land or previously cleared land, and the rationale provided by NSI does not warrant a change to Condition 2 of the Permit.

---

<sup>50</sup> See WLWB Online Registry for [W2016E0004 - TASR - Follow-up Correspondence with TG - March 7, 19](#)

#### Width Right-Of-Way (Condition 9)

The draft Land Use Permit that was distributed for review stated that width of the Right-Of-Way (ROW) will be confined to a maximum of 60 m. However, because access roads are in the scope of the Project, the condition has been revised to specify the TASR highway and access road ROW widths. The standard 12 m ROW has been added to the condition to accommodate for access roads.

#### Dogleg Approaches (Condition 16)

This condition requires the Permittee to Dogleg quarry access roads that approach Watercourses or public roads. NSI commented in Appendix 1 of the GNWT-INF's cover letter, that this may "not be practical in all circumstances during the construction period taking into consideration sightlines required for the large haul trucks to operate safely." NSI proposed that the condition be revised by adding "unless otherwise authorized in writing by an Inspector" and stated that it will confirm road layouts with an Inspector as part of site tours. The Board has revised the condition to express that Doglegging should be carried out "When possible."

#### Tree Screen (Condition 21)

This condition requires that a buffer strip of undisturbed vegetation is left between cleared areas and public roads. NSI commented that this may "not be practical in all circumstances as quarries overlap road alignment and due to existing cleared or limited vegetation areas where construction activities take place." And proposed that the condition be revised by adding "unless otherwise authorized in writing by an Inspector" and stated that NSI will confirm road layouts with an Inspector as part of site tours. The Board agrees that there may be instances where it may not be possible to have a buffer strip. The condition has been revised by adding: "except where quarries overlap the road alignment, or at existing cleared areas or limited vegetation areas."

#### Wildlife Management and Monitoring Plan (Condition 53)

This condition states the requirement of a Wildlife Management and Monitoring Plan. Appendix 1 of the GNWT-INF's cover letter provided with the proponent responses, the GNWT-ENR states that the WMMP may not be approved within 60 days of the effective date of the permit due to its approval process with input from the WRRB. The GNWT-ENR suggests revising the condition to require the Plan be submitted a minimum of 60 days prior to Construction. The Board acknowledges that the approval process for the WMMP will take longer than the WLWB's process for the Permit and Licence applications and agree that a revision to the timing of submission is warranted. Since the Board also has its own approval process for the WMMP and will be requiring the Plan be submitted to the Board after the GNWT-ENR approval process is complete, the condition has been revised to require submission of the WMMP to the Board 90 days prior to the commencement of Construction in line with the standard timeframe needed for review.

#### Site Discovery and Notification (Condition 63)

The 'Site Discovery and Notification' condition requires the Permittee to contact the appropriate authorities when an archaeological or historical site, or burial ground is discovered. The Tłıchǵ Government (comment 33) commented that both the Board and Inspector, should be contacted in the event of a discovery, instead of either one or the other, as the proposed condition read. The Board agrees and have revised the condition to reflect that both the Board and Inspector are included as authorities to be notified.

#### Trails Restoration (Condition 87)

The condition requires that trails are restored by the Permittee after the land-use operation. In Appendix 1 of GNWT-INF's cover letter, the GNWT-ENR stated that condition 87 as written may limit GNWT to implement commitments made in the Environmental Assessment and draft WMMP related to mitigating

the impacts of the road on wildlife in terms of improved access and harvesting. It provided the following rationale:

Section 4.5.2 of the draft WMMP includes a commitment to “Discuss use of windrows to limit access to spur trails with the Tłı̄çhǫ ASR Corridor Working Group”. This is particularly relevant to those sections of the existing old winter road cutline that will not be reused for the construction and operation of the TASR, as there may be no rationale for keeping those sections open. This condition may also fetter the GNWT’s options for identification of candidate sites for habitat-restoration based offsets in the Offsetting Plan required under conditions [54 and 55].

GNWT-ENR suggested adding the wording “Unless otherwise agreed to in the draft/final Offset Plan.” The Board agrees with the rationale provided, and the Habitat Offset Plan would identify any areas where trails restoration is not practical. The condition has been updated accordingly.

The GNWT-Lands Inspector provided comments (GNWT-Lands comments 6-17) on the draft Land Use Permit conditions. The GNWT-INF had no issues with GNWT-Lands comments 7-17. GNWT-Lands comment 6 is discussed under the ‘Avoid Cabins (Condition 1)’ section below. The following considerations to the Land Use Permit conditions were made as a result of the Inspector’s recommendations:

- Fire-Fighting Equipment (Condition 15) – This condition requires firefighting equipment to be kept on the site of the land use operation. The GNWT-Lands Inspector suggested the whole condition be removed from the Permit citing that “the *Forest Protection Act, Forest Management Regulations, and the Government of the Northwest Territories’ Forest Fire Prevention and Suppression Guidelines for Industrial Activities* dictate the requirements of a person and therefore Statutes and Guidelines should not be repeated in a land use permit (GNWT-Lands comment 7). The Board agrees that a reference to legislation isn’t necessary but note that this condition is a standard condition, doesn’t conflict with any of the legislation cited by the Inspector, and serves to mitigate potential impacts to habitat.
- Mineral Exploration Drill Casings (Condition 17) – This standard condition requires drill casings to be sealed after the land use operation is completed. The GNWT-Lands (comment 8) suggested adding this condition since core drilling may occur. The Board agrees with the addition of this condition as drilling is in the scope of the Permit and the intent of the condition is to reduce the potential safety hazard for wildlife and humans.
- Winter Roads (Condition 18) – This condition sets out requirements for winter roads. As written, the condition implied that the portion within the road alignment does not need to be maintained with a snow or ice pack. GNWT-Lands (comment 9) suggested revising the condition in order to ensure that the whole overland portion of the winter road is always maintained with packed snow or ice. The Inspector stated that damage to the ground surface is not acceptable when constructing, using and maintaining winter roads, wherever they are in the land use area. The Board agrees that the entirety of the winter road should be maintained with a snow or ice cover and have included the condition as suggested.
- Excavated Material (Condition 20) – GNWT-Lands (comment 8) suggested adding this condition because test pitting may be conducted when searching out granular sources. The condition is standard and requires excavated material to be replaced unless otherwise authorized by the Inspector. The Board has included the condition as suggested.

- Natural Drainage (Condition 26) – This condition requires that the land use operation does not obstruct natural drainage. GNWT-Lands (comment 10) suggested including this standard condition. The Board agrees that it is important to prevent impoundment of water for this land use operation and have included the condition as suggested.
- Vehicle Movement Freeze-up (Condition 32) – This condition requires the Permittee to ensure that equipment and vehicles are moved only if the ground surface is firm enough or frozen enough to support them. GNWT-Lands (comment 11) suggested that the following wording be removed, "Outside the road corridor, quarries, quarry and water source access roads," and that the standard condition should be used as rutting or gouging is not acceptable in the land use area. The Inspector further commented that that this condition is for winter road aspects of the project and therefore must remain as worded to ensure protection of potential permafrost areas along the right-of-way or access roads. The Board has included the condition as suggested.
- Reclaim Sumps (Condition 45) - GNWT-Lands (comment 12) suggested that the Reclaim Sumps condition be removed since the Condition 48 (Backfill sumps) "is acceptable to mitigate potential environmental concerns from sumps." The Board agrees that the noted condition achieves the same purpose and have removed the condition as suggested.
- AIA (Condition 64) – This condition sets out the requirement for an Archaeological Impact Assessment (AIA). GNWT-Lands (comment 13) suggested that the Inspector be listed as an authority that receives a summary report if an AIA is required. The condition previously listed the Board and the NWT Cultural Places Program. The Board agrees with adding the Inspector as the Inspector will be enforcing the Permit and have updated the condition accordingly. The reference from 'NWT Cultural Places Program' to 'Prince of Wales Northern Heritage Centre' to match the standard conditions has also been updated.
- Repair Leaks (Condition 65) (formerly Check for Leaks) – This condition requires that the Permittee check for leaks once a day and repair leaks immediately. GNWT-Lands (comment 14) suggested that the condition be removed from the permit because examining Fuel Storage Containers daily and repairing leaks immediately, as the condition required, would not be feasible during seasonal shutdowns. The Board agrees that the seasonality of the land use operations could make it difficult to comply with the condition. The Board has updated the condition removing the requirement for daily checks and instead requiring that Fuel Storage Container leaks are repaired immediately.
- Fuel Near Water (Condition 66) – The FFHPP states that refueling "will occur, a minimum of 30 m away from any watercourse, and 100 m where possible." Board staff requested the GNWT-INF provide rationale for why it believes that a 100 m buffer from watercourses will not always be possible (WLWB staff comment 10). INF responded that "some of the large equipment required for bridge installations, such as cranes, will not be easily mobile once set-up at a water crossing site due to size, limited space and strict tolerances for positioning. Moving them for re-fueling or maintenance and reinstallation may not be practical at all times." GNWT-INF committed to having site-specific re-fueling mitigation Measures in place for such equipment. The Board agrees that it would be operationally challenging to relocate such equipment for refueling, and with GNWT-INF's commitment to ensuring there will be mitigation Measures in place as well are satisfied with the resolution. The Board has revised Condition 66 (Fuel Near Water) to reflect that fuel can be stored within 100 of the Ordinary High-Water Mark with the Board's and Inspector's approval.
- Fuel Container Stands (formerly Condition 67) – This condition requires the Inspector to approve fuel stands used by a Permittee. GNWT-Lands (comment 15) suggested that this condition be

removed because Inspectors do not enforce the types of fuel stands used by a Permittee. The Board agrees with the rationale and, because there are other conditions related to fuel such as requirements for adequate containment, drip trays and marking and reporting fuel location within the Permit, have removed the condition as suggested.

- Maximum Fuel on Site (Condition 73) – This condition outlines the maximum fuel authorized on site. GNWT-Lands (comment 16) suggested that the non-standard condition was too restricted as worded with itemized amounts by fuel type listed in the condition. The Inspector suggested using the standard condition that lists the total volume of all fuel types. GNWT-INF confirmed the maximum fuel amount that would be on site. The condition has been updated.
- No Stockpiles (Condition 116) – This condition requires that stockpiles are levelled to maintain aesthetic values at quarry sites before the Permit expires. GNWT-Lands (comment 17) suggested that the condition be removed from the permit since stockpiles will be required for construction and maintenance activities once the highway is constructed. The Board agrees that some stockpiles of granular material may be used during road operations and have removed the condition as suggested.

### **7.3 Adaptive Management and Management Plans**

The discussion of the adaptive management condition is provided in section 6.2.1 above. The submitted management plans are applicable as per both the Licence and Permit. Discussions regarding individual management plans are addressed above in the relevant sections. Condition 92 of the Permit requires that adaptive management be addressed in all management plans.

### **8.0 Conclusion**

Subject to the terms and conditions set out in the Licence and Permit, and for the reasons expressed herein, the Board is of the opinion that the licensed Undertaking for water use and Waste disposal associated with the TASR Project can be completed while providing for the conservation, development, and utilization of Waters in a manner that will provide the optimum benefit for all Canadians and in particular for the residents of Wek'èezhii.

The Board believes that the Licence W2016L8-0001 and Land Use Permit W2016E0004 contain the necessary provisions to ensure and monitor compliance with the MVRMA, the *Waters Act*, and the Regulations made thereunder. The Board is of the opinion that the Licence and Land Use Permit include appropriate safeguards in respect of the Applicant's use of the water and land affected by TASR.

***Decision: The Board has issued Water Licence W2016L8-0001 and Land Use Permit W2016E0004 to the GNWT-INF.***

Signed the 30<sup>th</sup> day of May 2019 on behalf of the Wek'èezhii Land and Water Board



Witness



Joe Mackenzie  
Chair, Wek'èezhii Land and Water Board