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August 26, 2025

Files: W2025X0003, W2025L8-0002

Mark Cliffe-Phillips  
Mackenzie Valley Review Board  
200 Scotia Centre  
Box 938, 5102-50th Avenue  
Yellowknife NT X1A 2N7

Sent by email

Dear Mark Cliffe-Phillips,

**Re: Dehk'è Frank Channel Bridge Replacement – Notice of Preliminary Screening Determination – Applications for Land Use Permit and Water Licence – Miscellaneous – Dehk'è Frank Channel; Highway-3 corridor, NT**

The Wek'èezhì Land and Water Board (Board) met on August 26, 2025 and considered the Application Packages from the Government of the Northwest Territories, Department of Infrastructure (GNWT-INF) for Land Use Permit (Permit) W2025X0003 and Water Licence (Licence) W2025L8-0002 for the Dehk'è Frank Channel Bridge Replacement Project (Project) in accordance with the *Mackenzie Valley Resource Management Act* (MVRMA).

The Board conducted a preliminary screening based on the public record for the proceeding. Based on the evidence provided, the Board is satisfied the screening has been completed according to section 125 of the MVRMA and has decided **not to refer** the Project to environmental assessment. The Board's Preliminary Screening Determination and Reasons for Decision, as required by section 121 of the MVRMA, is attached.

If the Board does not receive notice of referral to environmental assessment, it can proceed with issuance of Permit W2025X0003 and Licence W2025L8-0002 on **Monday, September 8, 2025**.

The Board and staff look forward to continued communications throughout the pause period. Please contact Ryan Fequet via [email](#) or at (867) 765-4589 with any questions or concerns regarding this letter.

Yours sincerely,



Mason Mantla  
Chair, Wek'èezhìi Land and Water Board

BCC'd to: Wek'èezhìi Distribution List  
Chaudary Murtaza, GNWT-INF  
Dr. Benjamin Bey, GNWT-INF

Attached: Preliminary Screening Determination and Reasons for Decision



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## Preliminary Screening Determination and Reasons for Decision

Water Licence and Land Use Permit Applications	
<b>File Number</b>	W2025X0003 and W2025L8-0002
<b>Company</b>	Government of the Northwest Territories, Department of Infrastructure
<b>Project</b>	Dehk'è Frank Channel Bridge Replacement
<b>Location</b>	Dehk'è Frank Channel; Highway-3, NT
<b>Activity</b>	Miscellaneous
<b>Date of Decision</b>	August 26, 2025

### 1.0 Decision

In accordance with subsection 124(1) of the [Mackenzie Valley Resource Management Act](#) (MVRMA), the Wek'èezhì Land and Water Board (WLWB or Board) met on August 26, 2025 to make a preliminary screening determination on the Applications from the Government of the Northwest Territories, Department of Infrastructure (GNWT-INF; Applicant) for Land Use Permit W2025X0003 (Permit)<sup>1</sup> and Water Licence W2025L8-0002 (Licence)<sup>2</sup> for the Dehk'è Frank Channel Bridge Replacement (Project).

The Board has decided not to refer the proposed Project to the Mackenzie Valley Environmental Impact Review Board (the Review Board) for Environmental Assessment because, based on the evidence, it is the Board's opinion that the proposed Project is not likely to have a significant adverse impact on air, water, and/or renewable resources, and will not be a cause of public concern.

The Board's determination, including reasons for its decision, are detailed in sections [3.0](#) and [4.0](#).

<sup>1</sup>See WLWB Online Registry ([www.wlwb.ca](http://www.wlwb.ca)) for [Dehk'è Frank Channel Bridge - LUP Application Form - May 2 25](#)

<sup>2</sup> See WLWB Online Registry for [Dehk'è Frank Channel Bridge - WL Application Form - May 2 25](#)

## 2.0 List of Defined Terms and Acronyms

Applicant	Government of the Northwest Territories, Department of Infrastructure
Application	The complete application package submitted by the Applicant for Land Use Permit W2025X0003 and Water Licence W2025L8-0002.
AIA	Archaeological Impact Assessment
AOA	Archaeological Overview Assessment
Board	Wek'èezhì Land and Water Board
CGB	Community Government of Behchokq
CRP	Closure and Reclamation Plan
DFO	Fisheries and Oceans Canada
EA	Environmental Assessment
ESCP	Erosion and Sediment Control Plan
GDR	Geotechnical Design Report
GNWT	Government of the Northwest Territories
GNWT-ECC	Government of the Northwest Territories – Environment and Climate Change
Inspector	An Inspector designated under subsection 84(1) of the <a href="#">Mackenzie Valley Resource Management Act</a>
Licence	Water Licence W2025L8-0002
MVRMA	<a href="#">Mackenzie Valley Resource Management Act</a>
OHWM	Ordinary High-Water Mark
ORS	Online Review System ( <a href="http://www.new.onlinereviewssystem.ca">www.new.onlinereviewssystem.ca</a> )
Party	As per the LWB <a href="#">Rules of Procedure</a> , an applicant, a person, or an organization participating in the regulatory proceeding for the Applications.
Permit	Land Use Permit W2025X0003
Project	Dehk'è Frank Channel Bridge Replacement, which is the proposed development (as defined in Part 5 of the MVRMA). <sup>3</sup>
PSD	Project Screening Document
Review Board	Mackenzie Valley Environmental Impact Review Board
RoW	Right-of-Way
SPCP	Spill Prevention and Contingency Plan
Standard Licence Conditions	LWB <a href="#">Standard Water Licence Conditions Template</a>
Standard Permit Conditions	LWB <a href="#">Standard Land Use Permit Conditions Template</a>
TG	Tłıchq Government
TK	Traditional Knowledge
VC	Valued (Ecosystem) Component
WLWB or Board	Wek'èezhì Land and Water Board

<sup>3</sup> “development” is defined in Part 5 of the [MVRMA](#) as:

“any undertaking, or any part or extension of an undertaking, that is carried out on land or water and includes an acquisition of lands pursuant to the *Historic Sites and Monuments Act* and measures carried out by a department or agency of government leading to the establishment of a park subject to the *Canada National Parks Act* or the establishment of a park under a territorial law.”

WMMP	Wildlife Management and Monitoring Plan
WMP	Waste Management Plan
WQMP	Water Quality Monitoring Plan

### 3.0 **Background and Scope of Screening**

The WLWB received a Land Use Permit Application and a Water Licence Application (the Application) from the Government of the Northwest Territories, Department of Infrastructure (GNWT-INF) on May 2, 2025. The purpose of the Application is to allow GNWT-INF to replace the Dehk'è Frank Channel Bridge. In the Application, GNWT-INF indicated that construction of a new bridge is required because the existing bridge is reaching the end of its useful life. The bridge is part of a critical transportation corridor, Highway 3, which connects Yellowknife and the surrounding communities, mines, and developments to the broader Canadian highway system. The existing bridge is also not safe for pedestrians and cyclists who must travel on the narrow shoulder, and its overhead structure limits the size of large vehicles and freight that can use the bridge. The bridge crosses the Frank Channel on Highway 3, entirely within the boundaries of the Community Government of Behchokò (CGB) and connects the community of Frank Channel to the communities of Rae and Edzo that are located on either side of the channel. The bridge replacement includes the construction of a new bridge to the north of the existing one and the deconstruction of the existing bridge. This also involves re-alignment of the road approaches on either side of the bridge. The Project is scheduled to begin in fall 2025 and end in fall 2028.

GNWT-INF submitted an Engagement Record as part of the Application which detailed who was engaged with, when engagement happened and a summary of what was discussed.<sup>4</sup> GNWT-INF engaged with the following Parties: Community Government of Behchokò, Community Government of Whatì, Community Government of Wekweètì, Tłı̄chq̄ Government, Akaitcho Territory Government, Akaitcho Dene First Nations, North Slave Metis Alliance, Yellowknife's Dene First Nation, and residents of Frank Channel.

In accordance with paragraph 125(2)(a) of the [MVRMA](#), the Board must conduct a preliminary screening of the proposed Project to determine and report to the Review Board whether, in its opinion, the proposed Project is likely to have a significant adverse impact on air, water, and/or renewable resources, or might be a cause of public concern. The details of the Board's analysis are set out in section [4.0](#) below.

#### **3.1 Scope of Screening:**

The Project activities include:

- Mobilization and demobilization of equipment and materials;
- Construction and operation of a temporary camp and a laydown area;
- Tree clearing and grubbing along a new alignment of Highway 3 and bridge approaches;
- Construction of temporary accesses to build the new bridge and deconstruct the existing one;
- Rock blasting to construct these accesses;

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<sup>4</sup> See WLWB Online Registry for [Dehk'è Frank Channel Bridge - LUP Application - Engagement Plan - May 2 25](#)

- Construction of temporary ice bridges for the work during the winter seasons (for the new bridge and the deconstruction of the existing one);
- Installation of a temporary bridge for the work during summer seasons;
- Construction of temporary causeways (for the new bridge and the deconstruction of the existing one);
- Construction of new abutments (2) and piers (3) with drilled shaft foundations (10) for the new bridge;
- Completion of the new bridge superstructure, deck and pavement;
- Construction of the new roadway approaches to the future bridge, including excavation, backfilling, paving, marking, and signage;
- Implementation of various measures for the maintenance of traffic during construction;
- Reconfiguration of the new intersection of Frank Channel Tili to accommodate the eastern approach;
- Construction of a multi-user path across the new bridge, linking both sides of the channel;
- Installation of a temporary drainage system and construction of a permanent drainage system with new culverts (6);
- Removal of structural elements from existing bridge for deconstruction;
- Dismantling of the existing concrete substructure piers;
- Removal of surplus material from temporary causeways;
- Demolition of roadway elements is no longer required (pavement, culverts, guardrails, etc.); and
- Water use and waste management associated with all activities.

The Project is located at kilometre 243.8 on Highway 3, approximately 100 km west of Yellowknife. Frank Channel is located on the North Arm of Great Slave Lake and connects Great Slave Lake, Marian Lake, and Russell Lake. The water in Frank Channel generally flows south towards Great Slave Lake, but flow direction can be impacted by lake inflow, outflow, and wind.

### **3.2 Public Record and Regulatory Proceeding**

To assist the Board in its preliminary screening determination for the Project, the Board distributed the Applications and a draft Licence and Permit for public review on May 13, 2025, inviting reviewers to provide comments and recommendations on the Applications and the preliminary screening (e.g., on impacts and mitigation measures) using the Online Review System (ORS). Comments were due on June 24, 2025, with responses from the Applicant due on July 8, 2025. The Board received comments and recommendations from Fisheries and Oceans Canada (DFO); Environment and Climate Change Canada (ECCC); Government of the Northwest Territories, Department of Environment and Climate Change – Environmental Regulatory Analyst (GNWT – ECC); Government of the Northwest Territories, Department of Environment and Climate Change – Inspectors (GNWT – Inspector); the Tłıchǫ Government (TG); and the Wek'èezhì Renewable Resources Board (WRRB).<sup>5</sup> Board staff also submitted comments and questions for the purposes of clarification. No letters or comments recommending referral to Environmental

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<sup>5</sup> See WLWB Online Review System (ORS; [www.new.onlinereviewsystem.ca](http://www.new.onlinereviewsystem.ca)) for [GNWT-INF - Dehk'è Frank Channel Bridge - Type A Land Use Permit and Type B Water Licence Application \(W2025X0003 & W2025L8-0002\)](#)

Assessment (EA) were received. GNWT-INF also submitted comments and recommendations on the draft Licence conditions after the review comment and response due dates (GNWT-INF comments 1 and 2). In making its determination on the Licence and Permit, the Board accepted the late comments and responses as evidence because the response provided additional information on the potential impacts and mitigations of the Project.

The Board notes that as part of the public review, the Tłıchq Government provided a memorandum of key findings from a study on Traditional Knowledge (TK), which included anticipated Project impacts and recommendations to mitigate against those impacts. In response, GNWT-INF acknowledged the importance of the Dehk'è Frank Channel area to Tłıchq citizens and committed to further discussions on a shared approach and plan for implementing the recommendations contained in the memo in a responsive and meaningful manner with the Tłıchq Government. These impacts and mitigations detailed in the memo have been considered as part of this preliminary screening.

Upon review of reviewer recommendations and Applicant responses, additional information was required to assist the Board in its decision-making process; an Information Request (IR) was thus issued to GNWT-INF and to DFO on July 29, 2025.<sup>6</sup> DFO responded on July 31, 2025<sup>7</sup> and GNWT-INF responded on July 31, 2025.<sup>8</sup> Based on the response to the initial Information Requests, an additional Information request was issued to GNWT-INF and to DFO on August 8, 2025.<sup>9</sup> DFO responded on August 12, 2025<sup>10</sup> and GNWT-INF responded on August 13, 2025.<sup>11</sup>

Since there were no requests to extend the reviewer comment deadline, the Board is satisfied that a reasonable period of notice was given to affected communities and First Nations, as required by subsection 63(2) of the [MVRMA](#).

The Board is also satisfied that notice of the Application was provided to the Tłıchq Government (TG) and that a reasonable period of time was provided for the TG to make representations to the Board in accordance with section 63 of the [MVRMA](#).

#### **4.0 Potential Impacts and Proposed Mitigations**

During the public review, reviewers were encouraged to provide comments and recommendations on impacts and mitigation measures to assist with the Board's preliminary screening determination. Comments and questions were received during the public review regarding potential impacts from the proposed activities. Impact-Mitigation Tables were included as part of the Application (i.e., Section 17

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<sup>6</sup> See WLWB Online Registry for [Dehk'è Frank Channel Bridge - LUP Application - Information Request - Jul 29 25](#) and [Dehk'è Frank Channel Bridge - WL Application - Information Request - Jul 29 25](#)

<sup>7</sup> See WLWB Online Registry for [Dehk'è Frank Channel Bridge - LUP Application - DFO Response to IR - Jul 31 25](#) and [Dehk'è Frank Channel Bridge - WL Application - DFO Response to IR - Jul 31 25](#)

<sup>8</sup> See WLWB Online Registry for [Dehk'è Frank Channel Bridge - LUP Application - GNWT-INF Response to IR - Jul 31 25](#) and [Dehk'è Frank Channel Bridge - WL Application - GNWT-INF Response to IR - Jul 31 25](#)

<sup>9</sup> See WLWB Online Registry for [Dehk'è Frank Channel Bridge - WL Application - Information Request - Aug 8 25](#)

<sup>10</sup> See WLWB Online Registry for [DFO Response to IR3](#)

<sup>11</sup> See WLWB Online Registry for [GNWT-INF Response to IR4](#)

of the Permit Application and Section 10 of the Licence Application).

The Board has completed a preliminary screening as required by the MVRMA using the information provided in the Applications and during the regulatory proceeding. Table 1 below summarizes:

- the potential impacts of the proposed Project;
- the concerns that were identified during the regulatory proceeding and how the Applicant addressed those concerns;
- the proposed and potential mitigations for the potential impacts; and
- the Board's analysis of the potential impacts and proposed mitigations.

**Table 1: Potential Impacts and Proposed Mitigations for the Proposed Project**

Potential Impact	Activity	Proposed Mitigations <i>Description of measures to reduce potential impacts, including consideration of cumulative impacts and climate change.</i>	Board Analysis and Determination
Surface water: changes in water quality	Risk of petroleum hydrocarbons contamination from equipment, vehicles, and fuel storage; risk of water in contact with concrete; risk of spill of wash water; debris from construction and demolition activities; pollution and contaminants (e.g., lead paint chips, road salt) introduced to surface water and ice.	<ul style="list-style-type: none"> <li>• The Applicant proposed the following mitigations in the Applications and within the Project Screening Document:               <ul style="list-style-type: none"> <li>• The contractor will implement the Spill Prevention and Contingency Plan (SPCP),<sup>12</sup> the Erosion and Sediment Control Plan (ESCP),<sup>13</sup> and the Waste Management Plan (WMP).<sup>14</sup></li> <li>• Inspecting equipment when it arrives to site and at least daily before use, ensuring it is free of oil, grease, or other contaminants.</li> <li>• Placing drip pans under equipment that is stationary.</li> <li>• Storing fuel, paint, and other deleterious substances, as well as equipment such as dewatering pumps and generators, in secondary containment capable of holding at least 100% of the total fluid volumes.</li> <li>• Using biodegradable hydraulic fluids in equipment operating below the Ordinary High Water Mark (OHWM) and from the constructed ice bridge, where feasible. Additional mitigation measures will be implemented for equipment that cannot be equipped with biodegradable hydraulic fluids.</li> <li>• Equipping all equipment with a spill kit and ensuring all crew are trained in spill response procedures.</li> <li>• Storing spill response equipment (e.g., booms) at a location that allows for rapid deployment in the event of a spill in the channel.</li> </ul> </li> </ul>	Based on the described mitigations, it is the Board’s opinion that the proposed activities are not likely to have a significant adverse impact on air, water, and/or renewable resources, and will not be a cause of public concern.

<sup>12</sup> See the WLWB Online Registry for [Dehk’è Frank Channel Bridge - LUP Application - Spill Contingency Plan - May 2 25](#)

<sup>13</sup> See the WLWB Online Registry for [Dehk’è Frank Channel Bridge - LUP Application - PSD - Appendix B - Part 1 - May 2 25](#)

<sup>14</sup> See the WLWB Online Registry for [Dehk’è Frank Channel Bridge - LUP Application - Waste Management Plan - May 2 25](#)

		<ul style="list-style-type: none"> <li>• Small portable concrete mixers, if used, will be placed on tarpaulins, polyethylene sheets or similar covers.</li> <li>• Wastewater that has contacted concrete must be contained and tested before being pumped into a HydroVac truck and transported off-site to an approved receiver. If necessary, the affected water will be treated with suitable control agents (acid, carbon dioxide).</li> <li>• Concrete washout will be constructed in the ground with berms and liners of geotextiles and/or polyethylene sheets anchored into the berms.</li> <li>• Washing of concrete trucks, vehicles and equipment will take place only at designated, properly equipped sites, where wastewater will be properly managed before off-site disposal.</li> <li>• No detergents or cleaning agents will be used in washing areas.</li> <li>• Washing of equipment likely to generate grease or oily water, or requiring detergents or cleaning agents, is authorized only in fully enclosed areas where wash water can be collected and disposed of off site.</li> <li>• Chemical toilets and domestic wastewater recover tanks will be regularly serviced and emptied by vacuum trucks at approved facilities.</li> <li>• To mitigate impacts to water quality associated with working from ice bridges, all debris and surface staining will be removed and cleaned from the surface of the ice before ice-off each year.</li> <li>• Stockpiled materials will be located at least 30m from water bodies and watercourses and be surrounded by silt fencing or similar measures if within those limits.</li> <li>• Disturbed areas will be re-graded and stabilized according to the design or pre-disturbance grades as soon as is practicable. Restoration of the site following construction and</li> </ul>	
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		<p>deconstruction will follow the Conceptual Closure and Reclamation Plan (CRP).<sup>15</sup></p> <ul style="list-style-type: none"> <li>• In its Memo submitted during the public review, the Tłıchǫ Government Memo, noted potential pollution or contamination of surface water and ice during the construction and deconstruction phases, and throughout the life of the bridge. The Tłıchǫ Government recommended mitigations for this impact including using barriers and other proven methods. The Applicant committed to further discussions on a shared approach and plan for implementing the recommendations contained in the Memo in a responsive and meaningful manner with the Tłıchǫ Government. In the Project Description Report, GNWT-INF also committed to installing a tarp under the bridge during the deconstruction on causeways and on the ice bridges to capture residual or flakes of lead paint to contain for disposal at an approved offsite facility.</li> <li>• The Board has standard permit conditions that are typically used to mitigate the identified potential impacts. These standard conditions include:<sup>16</sup> <ul style="list-style-type: none"> <li>• CAMP SETBACK</li> <li>• SUMP SETBACK</li> <li>• QUARRY SETBACK</li> <li>• PARALLEL WATERCOURSE SETBACK</li> <li>• STORAGE ON ICE</li> <li>• CONSTRUCT ICE BRIDGES SNOWFILLS</li> <li>• REMOVE ICE BRIDGES / SNOWFILLS</li> <li>• EXCAVATION SETBACK</li> <li>• DRILLING NEAR WATER OR ON ICE</li> <li>• DRILLING WASTE</li> <li>• DRILLING WASTE DISPOSAL</li> <li>• DRILLING WASTE CONTAINMENT</li> </ul> </li> </ul>	
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<sup>15</sup> See the WLWB Online Registry for [Dehk'è Frank Channel Bridge - LUP Application - CRP - May 2 25](#)

<sup>16</sup> See the WLWB Policies and Resources webpage to access the LWB [Standard Water Licence Conditions Template](#) and LWB [Standard Land Use Permit Conditions Template](#).

		<ul style="list-style-type: none"> <li>• GREYWATER DISPOSAL – SUMP SETBACK</li> <li>• SEWAGE DISPOSAL – PLAN</li> <li>• FUEL STORAGE SETBACK</li> <li>• FUEL CONTAINMENT</li> <li>• FUEL ON LAND</li> <li>• SPILL RESPONSE</li> <li>• DRIP TRAYS</li> <li>• CLEAN UP SPILLS</li> </ul> <p>• The Board has standard licence conditions that are typically used to mitigate the identified potential impacts. These standard conditions include:<sup>17</sup></p> <ul style="list-style-type: none"> <li>• EROSION AND SEDIMENT CONTROL PLAN</li> <li>• WATER QUALITY MONITORING PLAN</li> <li>• IN-WATER CONSTRUCTION ACTIVITIES – WATER QUALITY</li> <li>• OBJECTIVE – PREVENT WASTE INTO WATER</li> <li>• SPILL CONTINGENCY PLAN</li> <li>• SPILL PREVENTION AND RESPONSE EQUIPMENT</li> <li>• CLEAN UP SPILLS</li> </ul>	
Surface water: changes in water quality	increased turbidity and total suspended solids from in-water Construction activities; runoff from blasting.	<p>• The Applicant proposed the following mitigations in the Applications and within the Project Screening Document:</p> <ul style="list-style-type: none"> <li>• The contractor will implement the Spill Prevention and Contingency Plan (SPCP),<sup>18</sup> the Erosion and Sediment Control Plan (ESCP),<sup>19</sup> and the Waste Management Plan (WMP).<sup>20</sup></li> <li>• Installing Sediment and Erosion controls proactively.</li> <li>• The contractor will implement the Water Quality Monitoring Plan (WQMP)<sup>21</sup> for all work in or near the Dehk'è Frank Channel. The Applicant indicated that it would monitor for</li> </ul>	GNWT-INF submitted the Water Quality Monitoring Plan as part of the Application Package, which includes responses to specific turbidity thresholds. The Board may decide that the WQMP requires additional thresholds in order to mitigate potential effects from increase in turbidity, including stopping work at a particular threshold. The Board may also decide that GNWT-INF must include

<sup>17</sup> See the WLWB Policies and Resources webpage to access the LWB [Standard Water Licence Conditions Template](#) and LWB [Standard Land Use Permit Conditions Template](#).

<sup>18</sup> See the WLWB Online Registry for [Dehk'è Frank Channel Bridge - LUP Application - Spill Contingency Plan - May 2 25](#)

<sup>19</sup> See the WLWB Online Registry for [Dehk'è Frank Channel Bridge - LUP Application - PSD - Appendix B - Part 1 - May 2 25](#)

<sup>20</sup> See the WLWB Online Registry for [Dehk'è Frank Channel Bridge - LUP Application - Waste Management Plan - May 2 25](#)

<sup>21</sup> See WLWB Online Registry for [Dehk'è Frank Channel Bridge - LUP Application - PSD - Appendix B - Part 3 - May 2 25](#)

		<p>turbidity. The WQMP includes an Adaptive Management response where situations will be managed on a case-by-case basis depending on the turbidity threshold as defined in the WQMP.</p> <ul style="list-style-type: none"> <li>• Environmental Monitors will be on-site during construction to monitor activities that could impact water quality. The planned monitoring activities are documented in the WQMP.</li> <li>• Fresh concrete pours will be protected with an impermeable cover until the concrete has hardened, to prevent runoff.</li> <li>• Surface runoff will be directed away from existing waterbodies, where possible.</li> </ul> <ul style="list-style-type: none"> <li>• During the public review, Board staff commented that the Application did not indicate whether the rock that will be blasted and/or used in construction has the potential for metal leaching or acid generating (ML/ARD), and asked the Applicant to confirm if it anticipates any ML/ARD rock being used or exposed at the site. (WLWB comment 6). In response, the Applicant stated that the proposed source of aggregate was assessed and determined to have low ML/ARD potential. GNWT-INF also noted that blast design will aim to minimize the volume and area of exposed rock by limiting overbreak, vibration, and fracturing.</li> <li>• During the public review, GNWT-INF was asked why total suspended solids (TSS) was not being monitored during in-water works given TSS is used . GNWT-INF responded that there were several reasons why it was not proposing to monitor for TSS: the Canadian Council of the Ministers of the Environment (CCME) provide acceptable targets and increases to concentrations for both parameters; TSS is more typically used for long-term discharge; turbidity is being used to guide compliance for in-water construction (pace of placement); development of a valid TSS correlation takes numerous field and laboratory results over time and varying conditions; GNWT-INF cannot artificially create surrogate samples for TSS analysis as the principal</li> </ul>	<p>monitoring for TSS in the WQMP, given turbidity is not used as a compliance limit.<sup>25</sup> .</p> <p>In relation to the mitigations that GNWT-INF indicated it would implement related to managing blasting residues, the Board may decide that these mitigations and other mitigations be included in an updated Management Plan or Design and Construction Plan.</p> <p>Based on the described mitigations and options available to the Board, it is the Board’s opinion that the proposed activities are not likely to have a significant adverse impact on air, water, and/or renewable resources, and will not be a cause of public concern.</p>
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<sup>25</sup> See the WLWB Online Registry for [W2016L8-0001 - TASR - Land Use Permit and Water Licence Applications - Reasons for Decision - May 30 19](#)

		<p>driver for suspended sediment levels is Marion Lake and this sediment type cannot be readily found and sampled at Frank Channel; and DFO noted that the Water Monitoring Plan contained sufficient details to address FA concerns.</p> <ul style="list-style-type: none"> <li>• In the Response to Information Request#1, GNWT-INF described mitigations to blasting residues as a potential waste stream. These mitigations included:<sup>22</sup> <ul style="list-style-type: none"> <li>• Only the required amount of explosives necessary for the blast will be brought to the site;</li> <li>• Pre-packaged explosives will be used to prevent exposure of explosives to water and any leaching of material from loaded holes prior to blast;</li> <li>• Blasts will be designed and scheduled such that there is sufficient time to excavate the blasted rock material from the blast site prior to end of the working day;</li> <li>• Blasting mats will be used to prevent material from becoming airborne and landing in adjacent waterbodies;</li> <li>• Blasting will be avoided during periods of rainfall where there is a potential for runoff to enter the river;</li> <li>• Blast site will be monitored following the blast and during excavation of rock material for any un-exploded explosive residue. Material will be cleaned up and removed by the blasting subcontractor and/or licensed hazardous waste subcontractor as required;</li> <li>• Install berms and/or ditching around the area pre-blast to prevent runoff from entering the area; If runoff does occur, response measures from the Spill Preventions and Contingency Plan will be implemented. Additional measures may include: Use of equipment (excavators, loaders, etc.) to divert and/or contain affected runoff by constructing additional berms or ditching as</li> </ul> </li> </ul>	
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<sup>22</sup> See the WLWB Online Registry for [Dehk'è Frank Channel Bridge - WL Application - GNWT-INF Response to IR - Jul 31 25](#).

		<p>needed; installation of turbidity curtains/silt fencing (if conditions allow) to limit movement of suspended sediments containing blasting residue; and collection and removal of water with vacuum trucks for offsite disposal.</p> <ul style="list-style-type: none"> <li>• The Board has standard permit conditions that are typically used to mitigate the identified potential impacts. These standard conditions include:<sup>23</sup> <ul style="list-style-type: none"> <li>• QUARRY SETBACK</li> <li>• PARALLEL WATERCOURSE SETBACK</li> <li>• STORAGE ON ICE</li> <li>• CONSTRUCT ICE BRIDGES SNOWFILLS</li> <li>• REMOVE ICE BRIDGES / SNOWFILLS</li> <li>• EXCAVATION SETBACK</li> <li>• DRILLING NEAR WATER OR ON ICE</li> <li>• DRILLING WASTE</li> <li>• DRILLING WASTE DISPOSAL</li> <li>• DRILLING WASTE CONTAINMENT</li> <li>• GREYWATER DISPOSAL – SUMP SETBACK</li> <li>• SEWAGE DISPOSAL – PLAN</li> <li>• SPILL RESPONSE</li> <li>• CLEAN UP SPILLS</li> </ul> </li> <li>• The Condition WATER QUALITY MONITORING PLAN was included in the draft Licence, requiring the Applicant to comply with the Water Quality Monitoring Plan, once approved. No Parties commented on this condition during the public review and the Applicant submitted a WQMP with the Application for Board approval.</li> <li>• The Board has standard licence conditions that are typically used to mitigate the identified potential impacts. These standard conditions include:<sup>24</sup></li> </ul>	
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<sup>23</sup> See the WLWB Policies and Resources webpage to access the LWB [Standard Water Licence Conditions Template](#) and LWB [Standard Land Use Permit Conditions Template](#).

<sup>24</sup> See the WLWB Policies and Resources webpage to access the LWB [Standard Water Licence Conditions Template](#) and LWB [Standard Land Use Permit Conditions Template](#).

		<ul style="list-style-type: none"> <li>• EROSION AND SEDIMENT CONTROL PLAN</li> <li>• WATER QUALITY MONITORING PLAN</li> <li>• IN-WATER CONSTRUCTION ACTIVITIES – WATER QUALITY</li> <li>• OBJECTIVE – PREVENT WASTE INTO WATER</li> <li>• SPILL CONTINGENCY PLAN</li> <li>• SPILL PREVENTION AND RESPONSE EQUIPMENT</li> <li>• CLEAN UP SPILLS</li> </ul>	
Soil contamination	<p>Spills of deleterious substances (e.g., petroleum) during fuel transfer, equipment malfunction, storage, equipment maintenance, and leaks from stationary equipment. Leaks and spills from the concrete wash-out basin.</p> <p>Temporary on-site storage of waste materials (i.e., domestic, petroleum products, hazardous waste) during construction.</p>	<ul style="list-style-type: none"> <li>• The Applicant proposed the following mitigations in the Applications: <ul style="list-style-type: none"> <li>• The contractor will follow the SPCP, which outlines the mitigation measures for fuel storage and refueling, equipment storage and designated maintenance areas, daily equipment checklists, spill response procedures, and reporting requirements.</li> <li>• Spills will be reported to the Government of the Northwest Territories (GNWT) Spill Registry. The contractor will follow the spill reporting and clean-up protocol for any spills detailed in the SPCP.</li> <li>• To mitigate the risk of contamination, the contractor will also follow the Waste Management Plan (WMP), including hazardous waste management.</li> <li>• The concrete washout basin will be dug into the ground with berms and lined with geotextile material, or polyethylene sheets anchored in the berms to be completely watertight.</li> </ul> </li> <li>• No concerns related to this impact were raised during the public review period.</li> <li>• The Board has standard permit conditions that are typically used to mitigate the identified potential impacts. These standard conditions include: <ul style="list-style-type: none"> <li>• WASTE MANAGEMENT PLAN</li> <li>• REPAIR LEAKS</li> <li>• FUEL CACHE SECONDARY CONTAINMENT</li> <li>• SECONDARY CONTAINMENT – REFUELING</li> </ul> </li> </ul>	Based on the described mitigations, it is the Board’s opinion that the proposed activities are not likely to have a significant adverse impact on air, water, and/or renewable resources, and will not be a cause of public concern.

		<ul style="list-style-type: none"> <li>• FUEL CONTAINMENT</li> <li>• SEAL OUTLET</li> <li>• SPILL CONTINGENCY PLAN</li> <li>• SPILL RESPONSE</li> <li>• DRIP TRAYS</li> <li>• CLEAN UP SPILLS</li> <li>• REPORT SPILLS</li> </ul> <p>• The Board has standard licence conditions that are typically used to mitigate the identified potential impacts. These standard conditions include:</p> <ul style="list-style-type: none"> <li>• WASTE MANAGEMENT PLAN</li> <li>• SPILL CONTINGENCY PLAN</li> <li>• REPORT SPILLS</li> <li>• SPILL PREVENTION AND RESPONSE EQUIPMENT</li> <li>• CLEAN UP SPILLS</li> </ul>	
Soil compaction	Repeated use of equipment or storage of equipment and materials during construction	<ul style="list-style-type: none"> <li>• During the public review, the GNWT-Inspector noted that equipment for winter road construction and snow clearing were not included in the equipment list in the Application (GNWT-Inspector comment 4). The Applicant proposed the following mitigations for the potential impacts related to the use of this equipment: <ul style="list-style-type: none"> <li>• The contractor will clearly mark access routes, work area boundaries, and clearing limits to minimize damage to undisturbed areas outside the project footprint.</li> <li>• Contractors will also use pre-existing disturbed areas, where possible, for laydown areas, equipment access, and to set up a worker’s camp for the duration of the construction – deconstruction activities.</li> <li>• Heavy equipment access on the island in the center of the channel is expected to occur when the ground is frozen and during the winter seasons. Work pads on the island will be laid out during the winter, and the equipment intended to operate beyond the winter season will remain in predetermined</li> </ul> </li> </ul>	Based on the described mitigations, it is the Board’s opinion that the proposed activities are not likely to have a significant adverse impact on air, water, and/or renewable resources, and will not be a cause of public concern.

		<p>locations. No additional disturbance, backfilling or vegetation removal will be carried out during the spring, summer, or early fall.</p> <ul style="list-style-type: none"> <li>• Compacted areas that are not bedrock or any areas outside the Project footprint will be restored. Site restoration measures are outlined in the CRP. <ul style="list-style-type: none"> <li>▪ Seeding (manual scatter method).</li> <li>▪ Rolled Erosion Control Products (RECP), such as coconut fiber rolls, will also be used when needed.</li> <li>▪ Recovering topsoil for seeding and importing topsoil if quantities are insufficient.</li> <li>▪ Remove all equipment, structures, and materials on temporary fill.</li> <li>▪ Fill ruts larger than 20 cm and level used areas, while respecting the site’s natural drainage pattern.</li> <li>▪ Cover disturbed soils with topsoil that has been previously stockpiled on site or that has been imported to the site.</li> <li>▪ Avoid compacting the topsoil when placing it and avoid all traffic on it.</li> <li>▪ Scarify compacted areas over at least 20 cm of excess soil to loosen it and facilitate vegetation regeneration.</li> </ul> </li> <li>• The Board has standard permit conditions that are typically used to mitigate the identified potential impacts. These standard conditions include: <ul style="list-style-type: none"> <li>• PARALLEL ROADS</li> <li>• WIDTH RIGHT-OF-WAY</li> <li>• PREVENTION OF RUTTING</li> <li>• SUSPEND OVERLAND TRAVEL</li> <li>• VEHICLE MOVEMENT FREEZE-UP</li> </ul> </li> </ul>	
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Destabilization / erosion	Vegetation clearing of riparian and island areas, grubbing, soil excavation activities, decommissioning of the old bridge abutments, installation of new bridge abutments, and changes to drainage patterns may result in erosion and destabilization due to exposed soil and in-water or near-water works.	<ul style="list-style-type: none"> <li>• The Applicant proposed the following mitigations in the Applications: <ul style="list-style-type: none"> <li>• The contractor will follow the mitigation measures outlined in the ESCP. This includes installing temporary erosion and sediment control measures until disturbed areas are stabilized with permanent measures. Controls may include perimeter barriers, water conveyance systems, check structures, etc.</li> <li>• Erosion control measures for permanent installations are described in detail in the Stormwater Management Report.<sup>26</sup> Retaining walls will be installed at the new bridge abutments, and riprap will be installed to protect these installations. Bridge structure drawings detailing these arrangements are included in the Project Screening Document (PSD).<sup>27</sup></li> </ul> </li> <li>• No concerns related to this impact were raised during the public review period.</li> <li>• The Board has standard permit conditions that are typically used to mitigate the identified potential impacts. These standard conditions include: <ul style="list-style-type: none"> <li>• NATURAL DRAINAGE</li> <li>• PROGRESSIVE EROSION CONTROL</li> <li>• REPAIR EROSION</li> <li>• STREAM BANKS</li> <li>• MINIMIZE APPROACH</li> <li>• EXCAVATION AND EMBANKMENTS</li> <li>• EQUIPMENT: WATERCOURSE BUFFER</li> <li>• EXCAVATION SETBACK</li> <li>• MINIMIZE AREA CLEARED</li> </ul> </li> <li>• The Board has standard licence conditions that are typically used to mitigate the identified potential impacts. These standard conditions include:</li> </ul>	Based on the described mitigations, it is the Board's opinion that the proposed activities are not likely to have a significant adverse impact on air, water, and/or renewable resources, and will not be a cause of public concern.
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<sup>26</sup> See the WLWB Online Registry for [Dehk'è Frank Channel Bridge - LUP Application - PSD - Appendix C - May 2 25](#)

<sup>27</sup> See the WLWB Online Registry for [Dehk'è Frank Channel Bridge - LUP Application - PSD - Appendix A Design Drawings - May 2 25](#)

		<ul style="list-style-type: none"> <li>• EROSION CONTROL</li> <li>• EROSION AND SEDIMENT CONTROL PLAN</li> </ul>	
Change in soil structure	Through soil compaction, as described above. If geotechnical drilling is done during the next phases of the Project, the soil structure will be changed within the diameter of the boreholes.	<ul style="list-style-type: none"> <li>• During the public review, the GNWT-Inspector noted that equipment for geotechnical investigations (i.e., diamond drill, RC drill, etc.) was not included in the equipment list in the Application (GNWT-Inspector comment 4). The Applicant proposed the following mitigations for potential impacts related to the use of this equipment: <ul style="list-style-type: none"> <li>• See Soil Compaction entry above for additional details</li> <li>• If a geotechnical investigation is conducted during later phases of the Project, the boreholes will be filled in after testing is completed.</li> <li>• If geotechnical drilling is done, the boreholes will be small, and they will be filled in.</li> </ul> </li> <li>• The Board has standard permit conditions that are typically used to mitigate the identified potential impacts. These standard conditions include: <ul style="list-style-type: none"> <li>• DRILL LOCATIONS</li> <li>• EXCAVATED MATERIAL TEST PITS</li> <li>• PERMAFROST PROTECTION</li> <li>• PREVENTION OF RUTTING</li> <li>• SUSPEND OVERLAND TRAVEL</li> <li>• VEHICLE MOVEMENT FREEZE-UP</li> <li>• PRE-CONSTRUCTION PROFILES</li> </ul> </li> </ul>	Based on the described mitigations, it is the Board's opinion that the proposed activities are not likely to have a significant adverse impact on air, water, and/or renewable resources, and will not be a cause of public concern.
Inability to support vegetation	Soil compaction and soil stripping may create conditions unsuitable for vegetation growth. Some areas of the Project will be permanently altered	<ul style="list-style-type: none"> <li>• The Applicant proposed the following mitigations in the Applications: <ul style="list-style-type: none"> <li>• Heavy equipment access to the island is expected to occur when the ground is frozen</li> <li>• Revegetation proposed as part of the Project will be much greater than that which will be permanently lost as part of the works.</li> <li>• Further details on revegetation are in the CRP, which includes a conceptual presentation of the restoration and revegetation</li> </ul> </li> </ul>	Based on the described mitigations, it is the Board's opinion that the proposed activities are not likely to have a significant adverse impact on air, water, and/or renewable resources, and will not be a cause of public concern.

	<p>to support the new bridge structure (e.g., abutments and piers).</p>	<p>work.</p> <ul style="list-style-type: none"> <li>▪ Rolled Erosion Control Products (RECP), such as coconut fiber rolls, will also be used when needed</li> <li>▪ Recovering topsoil for seeding and importing topsoil if quantities are insufficient.</li> <li>▪ Ensure that stormwater is controlled in such a way as to minimize erosion and comply with the measures set out in the Stormwater Management Report.</li> <li>▪ Re-establish the site’s natural drainage and initial topography so that it fits in well with the surrounding relief and is sufficiently drained, even improving it to encourage water inflow to the wetlands to be restored.</li> <li>▪ Cover disturbed soils with topsoil that has been previously stockpiled on site or that has been imported to the site.</li> <li>▪ Avoid compacting the topsoil when placing it and avoid all traffic on it.</li> <li>▪ Scarify compacted areas over at least 20 cm of excess soil to loosen it and facilitate vegetation regeneration.</li> </ul> <ul style="list-style-type: none"> <li>• No concerns related to this impact were raised during the public review period.</li> <li>• The Board has standard permit conditions that are typically used to mitigate the identified potential impacts. These standard conditions include: <ul style="list-style-type: none"> <li>• MINIMIZE AREA CLEARED</li> <li>• NATURAL VEGETATION</li> <li>• ACTIVE REVEGETATION</li> </ul> </li> </ul>	
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Changes to infiltration rate	Clearing and grubbing of vegetation, along with activities leading to soil compaction, may change the rate and location of surface water infiltration to groundwater	<ul style="list-style-type: none"> <li>• The Applicant proposed the following mitigations in the Applications: <ul style="list-style-type: none"> <li>• See mitigations in the Soil Compaction entry above for additional details.</li> </ul> </li> <li>• No concerns related to this impact were raised during the public review period.</li> <li>• The Board has standard permit conditions that are typically used to mitigate the identified potential impacts. These standard conditions include: <ul style="list-style-type: none"> <li>• NATURAL DRAINAGE</li> <li>• PROGRESSIVE EROSION CONTROL</li> <li>• REPAIR EROSION</li> <li>• FLOWING ARTESIAN WELL</li> </ul> </li> </ul>	Based on the described mitigations, it is the Board's opinion that the proposed activities are not likely to have a significant adverse impact on air, water, and/or renewable resources, and will not be a cause of public concern.
Changes in groundwater quality	Spills of deleterious substances (e.g., petroleum hydrocarbon products) during the transfer, storage, and use of petroleum products during construction. Concrete wastewater, chemical toilets, domestic wastewater, and water from the washing station may also affect groundwater quality.	<ul style="list-style-type: none"> <li>• The Applicant proposed the following mitigations in the Applications: <ul style="list-style-type: none"> <li>• There are no boreholes or wells in proximity that could be impacted by these potential sources of contamination</li> <li>• The contractor will follow the SPCP for spill prevention and response, as well as the WMP for all waste presenting a risk of groundwater contamination.</li> <li>• Concrete washouts will be constructed in the ground with berms and liners of geotextiles and/or polyethylene sheets anchored into the berms.</li> <li>• Concrete wastewater will be pumped into a HydroVac truck for disposal at authorized sites, and hardened concrete spoils will be removed to acceptable facilities.</li> <li>• The washing station will operate based on manual clean-up with water pressure and labourer. The washing surface will be waterproofed with a containment area, and mud will be collected and managed with HydroVac truck.</li> <li>• Chemical toilets and domestic wastewater recovery tanks will be regularly serviced and emptied by vacuum trucks at approved facilities.</li> </ul> </li> <li>• The Board has standard permit conditions that are typically used to</li> </ul>	Based on the described mitigations, it is the Board's opinion that the proposed activities are not likely to have a significant adverse impact on air, water, and/or renewable resources, and will not be a cause of public concern.

		<p>mitigate the identified potential impacts. These standard conditions include:</p> <ul style="list-style-type: none"> <li>• DRILLING WASTE</li> <li>• DRILLING WASTE CONTAINMENT</li> <li>• WASTE CHEMICAL DISPOSAL</li> <li>• WASTE PETROLEUM DISPOSAL</li> <li>• GREYWATER DISPOSAL – SUMP SETBACK</li> <li>• SEWAGE DISPOSAL – PLAN</li> <li>• REPAIR LEAKS</li> <li>• FUEL CACHE SECONDARY CONTAINMENT</li> <li>• FUEL CONTAINMENT</li> <li>• SEAL OUTLET</li> <li>• SPILL RESPONSE</li> <li>• DRIP TRAYS</li> <li>• CLEAN UP SPILLS</li> </ul> <p>• The Board has standard licence conditions that are typically used to mitigate the identified potential impacts. These standard conditions include:</p> <ul style="list-style-type: none"> <li>• OBJECTIVE – WASTE AND WATER MANAGEMENT</li> <li>• WATER QUALITY MONITORING PLAN</li> <li>• OBJECTIVE – PREVENT WASTE INTO WATER</li> <li>• SPILL CONTINGENCY PLAN</li> <li>• SPILL PREVENTION AND RESPONSE EQUIPMENT</li> <li>• CLEAN UP SPILLS</li> </ul>	
Permafrost: loss or change in extent; changes in seasonal fluctuations; change in persistence	Excavations that encounter permafrost may continue to degrade the permafrost even after backfilling. The placement of materials during	<p>• The Applicant proposed the following mitigations in the Applications:</p> <ul style="list-style-type: none"> <li>• To accommodate the new design speed, the proposed embankment will be placed over the existing embankment, thereby increasing fill height.</li> <li>• The proposed slopes for additional fill are predominantly 4H:1V, with some locations at 3H:1V to avoid sliver fills extending into existing ditches.</li> <li>• The proposed subgrade preparation to accommodate the</li> </ul>	Based on the described mitigations, it is the Board’s opinion that the proposed activities are not likely to have a significant adverse impact on air, water, and/or renewable resources, and will not be a cause of public concern.

	<p>construction could lead to sinking, heaving of soils, or generate instability. During the warm season, the effectiveness of the active layer of soil protection may be reduced due to various possible incidents.</p>	<p>increased fill height is expected to take place within the existing embankment fill area (i.e., no ground disturbance outside of the existing embankment footprint is expected).</p> <ul style="list-style-type: none"> <li>• Other recommendations are contained in Section 6.2 of the Geotechnical Design Report (GDR).<sup>28</sup> <ul style="list-style-type: none"> <li>▪ Increasing the embankment fill height for increased insulating cover.</li> <li>▪ Avoiding cuts and grubbing to reduce ground disturbance.</li> <li>▪ Flattening side slopes (4H:1V or shallower), which reduces snowbank development at the toe of the slopes and insulating them from winter temperatures.</li> <li>▪ Methods based on heat extraction from the embankment, such as air ducts, thermosyphons, and Air Convention Embankments.</li> <li>▪ Methods based on prevent of heat intake underneath the embankment such as snow sheds and thermosyphons.</li> <li>▪ Methods based on reinforcement of the embankment in order to resist permafrost degradation problems, such as use of geosynthetics and/or geogrids.</li> </ul> </li> <li>• No concerns related to this impact were raised during the public review period.</li> <li>• The Board has standard permit conditions that are typically used to mitigate the identified potential impacts. These standard conditions include: <ul style="list-style-type: none"> <li>• PERMAFROST PROTECTION</li> </ul> </li> </ul>	
Surface water: water flow or level changes	Impacts resulting from the presence of the new bridge with	<ul style="list-style-type: none"> <li>• The Applicant proposed the following mitigations in the Applications: <ul style="list-style-type: none"> <li>• Hydraulic modelling was carried out, and the results indicated that velocity increases are negligible, and there are no</li> </ul> </li> </ul>	Based on the described mitigations, it is the Board's opinion that the proposed activities are not likely to have a significant adverse

<sup>28</sup> See WLWB Online Registry for [Dehk'è Frank Channel Bridge - LUP Application - PSD - Appendix C - May 2 25](#)

(permanent, temporary, seasonal)	the new piers in place in the water, as well as the removal of the existing piers. Impacts resulting from the presence of temporary causeways during the years of construction.	<p>significant changes in anticipated water levels. These results are presented in Sections 6 and 7 of the Two-Dimensional Hydraulic Modelling of Frank Channel Report.<sup>29</sup></p> <ul style="list-style-type: none"> <li>• Given the minimal impact on velocities and water levels, no additional mitigation measures are necessary beyond those already incorporated in the design to limit the impacts on the surface water.</li> <li>• The design of the permanent bridge installations considerably limits encroachment into the water environment (only seven (7) piles under OHMW and limited to 18 m<sup>2</sup>).</li> <li>• For the causeways that will be in use during the construction period, the design ensures a sufficiently wide free flow of water on either side of the island, while preserving the deepest parts of each channel.</li> </ul> <ul style="list-style-type: none"> <li>• No concerns related to this impact were raised during the public review period.</li> <li>• The Board has standard permit conditions that are typically used to mitigate the identified potential impacts. These standard conditions include: <ul style="list-style-type: none"> <li>• PORTABLE RAMPS</li> <li>• STREAM BANKS</li> <li>• MINIMIZE APPROACH</li> <li>• DRY FORDING</li> <li>• EXCAVATION AND EMBANKMENTS</li> </ul> </li> <li>• The Board has standard licence conditions that are typically used to mitigate the identified potential impacts. These standard conditions include: <ul style="list-style-type: none"> <li>• IN-WATER CONSTRUCTION ACTIVITIES – WATER QUALITY</li> </ul> </li> </ul>	impact on air, water, and/or renewable resources, and will not be a cause of public concern.
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<sup>29</sup> See WLWB Online Registry for [Dehk'è Frank Channel Bridge - LUP Application - PSD - Appendix C - May 2 25](#)

<p>Surface water: drainage pattern changes</p>	<p>Installation of a new bridge; installation of culverts or several water withdrawals</p>	<ul style="list-style-type: none"> <li>• The Applicant proposed the following mitigations in the Applications: <ul style="list-style-type: none"> <li>• Surface drainage for the new bridge and approaches will be like the existing bridge, with no significant impacts anticipated.</li> <li>• Measures have been incorporated into the design to limit potential impacts from both temporary and permanent drainage.</li> <li>• All culvert design will adhere to the standards and criteria applicable in the Northwest Territories, with considerations for climate change incorporated.</li> <li>• Water will only be drawn from the Frank Channel, and the quantities drawn will be marginal in relation to the hydraulic capacity of this watercourse.</li> </ul> </li> <li>• No concerns related to this impact were raised during the public review period.</li> <li>• The Board has standard permit conditions that are typically used to mitigate the identified potential impacts. These standard conditions include: <ul style="list-style-type: none"> <li>• CULVERT SIZE</li> <li>• NATURAL DRAINAGE</li> <li>• REMOVE ICE BRIDGES/SNOWFILLS</li> <li>• STREAM BANKS</li> </ul> </li> <li>• The Board has standard licence conditions that are typically used to mitigate the identified potential impacts. These standard conditions include: <ul style="list-style-type: none"> <li>• WATER SOURCE AND MAXIMUM VOLUME</li> <li>• IN-WATER CONSTRUCTION ACTIVITIES – WATER QUALITY</li> </ul> </li> </ul>	<p>Based on the described mitigations, it is the Board’s opinion that the proposed activities are not likely to have a significant adverse impact on air, water, and/or renewable resources, and will not be a cause of public concern.</p>
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<p>Surface water: temperature changes</p>	<p>Localized increases in turbidity could impact the water temperature. Concrete wastewater also has the potential to increase water temperature if discharged into a surface water body.</p>	<ul style="list-style-type: none"> <li>• The Applicant proposed the following mitigations in the Applications: <ul style="list-style-type: none"> <li>• Contractor to implement the ESCP throughout the construction period.</li> <li>• A Wildlife Management and Monitoring Plan (WMMP)<sup>30</sup> and WQMP will be implemented during construction.</li> <li>• For the water quality monitoring in the Dehk'è Frank Channel, water temperature will be monitored at the same time as turbidity monitoring is done. Details of this monitoring are in the WQMP.</li> <li>• Concrete wastewater will not be discharged to the environment. If an accidental discharge occurs, the water will be treated and cooled. Specific procedures are outlined in the SPCP.</li> <li>• See all concrete-related water management measures previously presented in the table for groundwater protection and those presented below to protect the water quality during the work.</li> </ul> </li> <li>• During the public review, Board staff asked the Applicant whether temperature changes could trigger adaptive management techniques (WLWB comment 8). GNWT-INF responded that water temperature data was included as it is a readily available parameter measured by the sampling equipment that will be used. It confirmed temperature is recorded as background information that may be used for fisheries related assessment and ice bridge conditions but is not intended to trigger adaptive management techniques.</li> </ul>	<p>Based on the described mitigations, it is the Board's opinion that the proposed activities are not likely to have a significant adverse impact on air, water, and/or renewable resources, and will not be a cause of public concern.</p>
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<sup>30</sup> See WLWB Online Registry for [Dehk'è Frank Channel Bridge - LUP Application - PSD - Appendix B - Part 2 - May 2 25](#)

<p>Surface water: wetland impairment</p>	<p>Earthworks associated with the new road alignment and laydown areas for bridge construction may impact wetland surface water quality.</p>	<ul style="list-style-type: none"> <li>• The Applicant proposed the following mitigations in the Applications: <ul style="list-style-type: none"> <li>• Direct impacts to wetlands are not anticipated due to the application of a 30m buffer zone during the Project.</li> <li>• Prior to construction, identify and mark the mapped wetlands near the work sites and the camp and laydown area.</li> <li>• Develop and implement the ESCP and WMMP to preserve the quality of wetlands and protect the wildlife that can be found there, particularly through the installation and maintenance of temporary erosion and sediment control measures to mitigate introducing suspended solids into the wetlands (ESCP).</li> <li>• A setback distance of 30 m from wetlands and water bodies has been established for various operations and facilities.</li> </ul> </li> <li>• No concerns related to this impact were raised during the public review.</li> <li>• The Board has standard permit conditions that are typically used to mitigate the identified potential impacts. These standard conditions include: <ul style="list-style-type: none"> <li>• EQUIPMENT: WATERCOURSE BUFFER</li> <li>• EXCAVATION SETBACK</li> </ul> </li> </ul>	<p>Based on the described mitigations, it is the Board’s opinion that the proposed activities are not likely to have a significant adverse impact on air, water, and/or renewable resources, and will not be a cause of public concern.</p>
<p>Surface water: changes to aquatic habitat (see Biotic section below as well)</p>	<p>Clearing of riparian vegetation, instream work including the placement of fill in the channel, construction of an ice bridge, and activities related to the installation of the new bridge, such as casting concrete piers and work conducted above the</p>	<ul style="list-style-type: none"> <li>• The Applicant proposed the following mitigations in the Applications: <ul style="list-style-type: none"> <li>• See mitigations listed below for vegetation clearing and work in aquatic habitat.</li> <li>• The WQMP contains additional details regarding habitat preservation measures for the Dehk’è Frank Channel. <ul style="list-style-type: none"> <li>▪ Field monitoring of water within Frank Channel will occur during in-water construction and construction below the high-water mark when flows are present.</li> <li>▪ If at 200 m downstream of the work zone the turbidity is still exceeding allowable limits, the Project Environmental Manager or designate on site will assess the situation and implement applicable remedial actions such as adjusting construction pace</li> </ul> </li> </ul> </li> </ul>	<p>GNWT-INF submitted the Water Quality Monitoring Plan as part of the Application Package, which includes responses to specific turbidity thresholds. The Board may decide that the WQMP requires additional thresholds in order to mitigate potential effects to aquatic habitat from increase in turbidity, including stopping work at a particular threshold. The Board may also decide that GNWT-INF must include monitoring for TSS in the WQMP, given turbidity is not used as a</p>

	water.	<p>and duration of in water activity to bring turbidity within acceptable levels. If all fails, work will be stopped until acceptable water quality reading is achieved.</p> <ul style="list-style-type: none"> <li>• In the Wildlife Management and Monitoring Plan (WMMP) submitted with the application package, GNWT-INF included the following habitat avoidance and protections measures: <ul style="list-style-type: none"> <li>○ Construction activities will be kept within boundaries of the design footprint of the project</li> <li>○ All in-water work (causeways, blasting, in-filling, etc.) requires the involvement of the contractor Project Environmental Manager (PEM) and regulatory approval.</li> <li>○ Snow stockpiles will be located a minimum of 15 m away from any waterbody or crossing.</li> <li>○ All in or near water blasting will be conducted in accordance with the DFO’s “Guidelines for the Use of Explosives in or Near Canadian Fisheries Waters.”.</li> </ul> </li> <li>• During the public review, the Tłıchq Government uploaded a letter of support for the project. In the letter, the Tłıchq Government indicated that it understood the Project would need a Fisheries Act Authorization (FAA) from the Department of Fisheries and Oceans Canada, partly because there is a likelihood that temporary fish habitat loss and/or alteration of habitat could occur. The Tłıchq Government indicated that the construction of the causeways which will include placement of rock permanently in the channel will: increase fish habitat complexity; encourage increased residency time for migratory and transient fish species of all life species; potentially increase and diversify forage sources in Frank Channel; introduce substrates suitable for opportunistic spawning for multi-species; and create refuge habitat from both velocity and predation for fish communities. The Tłıchq Government summarized that “while placement of material in Frank</li> </ul>	<p>compliance limit.<sup>33</sup></p> <p>In the WMMP, GNWT-INF has made commitments to implement measures to protect and avoid aquatic habitat. The Board could decide to approve the WMMP to ensure compliance with the WMMP, or it could require the measures to be included in other plans (e.g., Design and Construction Plan).</p> <p>The Board also notes that the Tłıchq Government indicated that there could be positive benefits from the deposit of coarse substrate in the channel for the causeways that could outweigh the negative effects to fish habitat.</p> <p>Based on the described mitigations, benefits communicated by the Tłıchq Government and options available to the Board, it is the Board’s opinion that the proposed activities are not likely to have a significant adverse impact on air, water, and/or renewable resources, and will not be a cause of public concern.</p>
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<sup>33</sup> See the WLWB Online Registry for [W2016L8-0001 - TASR - Land Use Permit and Water Licence Applications - Reasons for Decision - May 30 19](#)

		<p>Channel during causeway construction will have an overall habitat alteration footprint...as determine by DFO...placement of coarse material in Frank Channel, in and of itself provides for the basis of fish habitat enhancement to offset the limited disturbance during the construction period...".<sup>31</sup></p> <ul style="list-style-type: none"> <li>• DFO confirmed that a Fisheries Act Authorization will be required for the Project.<sup>32</sup> A Fisheries Act Authorization application is required when the Project is likely to result in death of fish by means other than fishing and/or the harmful alteration, disruption or destruction of fish habitat.</li> <li>• The Board has standard permit conditions that are typically used to mitigate the identified potential impacts. These standard conditions include: <ul style="list-style-type: none"> <li>• CONSTRUCT ICE BRIDGES SNOWFILLS</li> <li>• REMOVE ICE BRIDGES / SNOWFILLS</li> <li>• STREAM BANKS</li> <li>• DRILLING NEAR WATER OR ON ICE</li> <li>• HABITAT DAMAGE</li> </ul> </li> <li>• The Board has standard licence conditions that are typically used to mitigate the identified potential impacts. These standard conditions include: <ul style="list-style-type: none"> <li>• IN-WATER CONSTRUCTION ACTIVITIES – WATER QUALITY</li> </ul> </li> </ul>	
Changes in air quality	Temporary increase in particulate matter during constructions activities, resulting from the mobilization and increased use of equipment, traffic,	<ul style="list-style-type: none"> <li>• The Applicant proposed the following mitigations in the Applications: <ul style="list-style-type: none"> <li>• The contractor will implement dust control measures, including watering the roads and work areas as necessary, enforcing low-speed limits for vehicles, and covering loads when required.</li> <li>• Ensure proper operation and maintenance of gasoline/diesel powered equipment.</li> <li>• Repair, as quickly as possible, any site equipment exhibiting</li> </ul> </li> </ul>	Based on the described mitigations, it is the Board's opinion that the proposed activities are not likely to have a significant adverse impact on air, water, and/or renewable resources, and will not be a cause of public concern.

<sup>31</sup> See WLWB Online Review System for [GNWT-INF – Dehk'è Frank Channel Bridge – Type A Land Use Permit and Type B Water Licence Application \(W2025X0003 & W2025L8-0002\)](#) TG comment 1.

<sup>32</sup> See WLWB Online Registry for [Dehk'è Frank Channel Bridge - WL Application - DFO Response to IR - Jul 31 25](#)

	and exposed soil.	<p>abnormal exhaust emissions, and maintain its anti-pollution system in good condition.</p> <ul style="list-style-type: none"> <li>• During the public review, the Tłıchq Government provided a Memorandum on Key Findings from Tłıchq Government Traditional Knowledge Study for the Dehk'è Frank Channel Bridge Replacement Project (Memo). The Memo noted potential dust-related impacts and recommended GNWT-INF develop plans to minimize traffic and dust during construction to mitigate these impacts. The Applicant committed to further discussions on a shared approach and plan for implementing the recommendations contained in the Memo in a responsive and meaningful manner with the Tłıchq Government.</li> </ul>	
Increased greenhouse gases	Temporary increase in greenhouse gas (GHG) emissions during construction from idling and the operation of construction equipment.	<ul style="list-style-type: none"> <li>• No concerns related to this impact were raised during the public review period.</li> <li>• The Applicant proposed the following mitigations in the Applications: <ul style="list-style-type: none"> <li>• The existing bridge will remain open during construction to minimize traffic disruption, which will help limit GHG emissions.</li> <li>• Minimize idling of construction equipment and vehicles.</li> <li>• Maintain construction equipment according to the manufacturer's specifications.</li> <li>• Source construction materials and equipment locally, whenever possible, to minimize transport distances.</li> <li>• Follow the GNWT's green procurement guidelines.</li> <li>• Select construction equipment that is appropriately sized and energy-efficient for the required tasks.</li> </ul> </li> </ul>	Based on the described mitigations, it is the Board's opinion that the proposed activities are not likely to have a significant adverse impact on air, water, and/or renewable resources, and will not be a cause of public concern.

<p>Direct loss of vegetation</p>	<p>The Project will require the removal of wooded areas over approximately 6,390 m<sup>2</sup> (with an additional contingency of 1,400 m<sup>2</sup> for a potential temporary access road southeast of the existing bridge) and other vegetated areas (grass, shrubs, herbaceous plants) over approximately 5,915 m<sup>2</sup>. This represents a total vegetation removal area of approximately 12,305 m<sup>2</sup>.</p>	<ul style="list-style-type: none"> <li>• No concerns related to this impact were raised during the public review period.</li> <li>• The Applicant proposed the following mitigations in the Applications: <ul style="list-style-type: none"> <li>• The design of the new bridge was selected because it is primarily within the existing bridge Right of Way (RoW); therefore, much of the area is already disturbed for the highway or bridge alignment and access roads to residents. Other alignment alternatives would have resulted in a larger footprint and greater disturbance to undisturbed forested areas.</li> <li>• During the work, clearing will be restricted to only what is necessary to complete construction.</li> <li>• Vegetation clearing and disturbance limits will be clearly marked to minimize disturbance.</li> <li>• Existing disturbed areas will be used for laydown and camp areas.</li> <li>• Restoration activities are planned as part of the CRP. A total of 26,700 m<sup>2</sup> will be revegetated – exceeding the area of vegetation removed by more than 14,300 m<sup>2</sup>.</li> </ul> </li> <li>• The Board has standard permit conditions that are typically used to mitigate the identified potential impacts. These standard conditions include: <ul style="list-style-type: none"> <li>• WIDTH RIGHT-OF-WAY</li> <li>• MINIMIZE AREA CLEARED</li> </ul> </li> </ul>	<p>Based on the described mitigations, it is the Board’s opinion that the proposed activities are not likely to have a significant adverse impact on air, water, and/or renewable resources, and will not be a cause of public concern.</p>
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<p>Change in species composition</p>	<p>Construction of the new bridge and abutments, as well as access needs, could disturb vegetation communities mapped by Natural Resource Solutions Inc. (NRSI) in 2021.<sup>34</sup> While most of the Project footprint remains within the existing RoW and previously disturbed (anthropogenic) areas, additional vegetation on the island will be disturbed during construction.</p>	<ul style="list-style-type: none"> <li>• The Applicant proposed the following mitigations in the Applications: <ul style="list-style-type: none"> <li>• Limit disturbance to the areas required to complete the Project.</li> <li>• Following construction, apply the CRP.</li> <li>• Disturbed areas will be re-graded and stabilized to match design or pre-disturbance levels.</li> <li>• Where feasible, organic material and topsoil will be salvaged for use in reclamation.</li> <li>• Closure and reclamation efforts will prioritize the re-establishment of native vegetation ground cover, in accordance with the CRP.</li> </ul> </li> <li>• No concerns related to this impact were raised during the public review period.</li> <li>• The Board has standard permit conditions that are typically used to mitigate the identified potential impacts. These standard conditions include: <ul style="list-style-type: none"> <li>• WIDTH RIGHT-OF-WAY</li> <li>• MINIMIZE AREA CLEARED</li> <li>• PRE-CONSTRUCTION PROFILES</li> <li>• SAVE AND PLACE ORGANIC SOIL</li> </ul> </li> <li>• The Board has standard licence conditions that are typically used to mitigate the identified potential impacts. These standard conditions include: <ul style="list-style-type: none"> <li>• PROGRESSIVE RECLAMATION</li> </ul> </li> </ul>	<p>Based on the described mitigations, it is the Board’s opinion that the proposed activities are not likely to have a significant adverse impact on air, water, and/or renewable resources, and will not be a cause of public concern.</p>
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<sup>34</sup> See WLWB Online Registry for [Dehk’è Frank Channel Bridge - LUP Application - PSD - Appendix C - May 2 25](#)

<p>Introduction of non-native (invasive) species</p>	<p>Invasive plant species may be introduced or spread by equipment, tools, humans, and clothing. They may also be introduced through the use of non-native, commercial seed mix for revegetation.</p>	<ul style="list-style-type: none"> <li>• The Applicant proposed the following mitigations in the Applications: <ul style="list-style-type: none"> <li>• Equipment must arrive on site clean and free of dirt, mud, and plant pieces to minimize the potential to introduce invasive plant species.</li> <li>• Monitor for invasive plant species, such as sweet clover (<i>Melilotus</i> spp.), during construction, and control them by manually pulling the plant and roots, then disposing of them in plastic bags at the landfill.</li> <li>• Use locally sourced seeds and shrubs for revegetation, if possible.</li> <li>• If a seed mix is applied, select species that are native to the area and are certified weed-free.</li> </ul> </li> <li>• No concerns related to this impact were raised during the public review period.</li> <li>• The Board has standard permit conditions that are typically used to mitigate the identified potential impacts. These standard conditions include: <ul style="list-style-type: none"> <li>• SAVE AND PLACE ORGANIC SOIL</li> <li>• NATURAL VEGETATION</li> </ul> </li> </ul>	<p>Based on the described mitigations, it is the Board’s opinion that the proposed activities are not likely to have a significant adverse impact on air, water, and/or renewable resources, and will not be a cause of public concern.</p>
<p>Effects on plant health (dust, metals, toxins)</p>	<p>Construction activities and increased equipment and vehicle use in the area may result in the deposition of dust on adjacent vegetation.</p>	<ul style="list-style-type: none"> <li>• The Applicant proposed the following mitigations in the Applications: <ul style="list-style-type: none"> <li>• Implement dust control measures as needed, such as watering of roads and enforcing reduced speed limits.</li> </ul> </li> <li>• No concerns related to this impact were raised during the public review period.</li> <li>• The Board has standard permit conditions that are typically used to mitigate the identified potential impacts. These standard conditions include: <ul style="list-style-type: none"> <li>• CLEAN WORK AREA</li> <li>• HABITAT DAMAGE</li> </ul> </li> </ul>	<p>Based on the described mitigations, it is the Board’s opinion that the proposed activities are not likely to have a significant adverse impact on air, water, and/or renewable resources, and will not be a cause of public concern.</p>

<p>Increased risk of fire</p>	<p>Use of machinery on unpaved or undeveloped ground has the potential to ignite vegetation. Equipment may also produce sparks when contacting rocks or other hard surfaces. Hot work activities (welding) during bridge construction introduces a temporary fire risk.</p>	<ul style="list-style-type: none"> <li>• The Applicant noted that due to the proximity of the Project area to Frank Channel and the surrounding vegetation communities, the area is generally wet, but proposed the following mitigations in the Applications: <ul style="list-style-type: none"> <li>• Ensure that all equipment exhausts are clear of debris and that all machinery is equipped with fire extinguishers.</li> <li>• Implement hot work procedures during welding activities, including removing flammable materials from the work area (e.g., brush piles).</li> <li>• Maintaining emergency water response equipment nearby and monitoring the area for sparks during operation.</li> <li>• Follow appropriate health and safety procedures for handling explosives and conducting blasting activities.</li> </ul> </li> <li>• No concerns related to this impact were raised during the public review period.</li> <li>• The Board has standard permit conditions that are typically used to mitigate the identified potential impacts. These standard conditions include: <ul style="list-style-type: none"> <li>• BRUSH DISPOSAL/TIME</li> </ul> </li> </ul>	<p>Based on the described mitigations, it is the Board's opinion that the proposed activities are not likely to have a significant adverse impact on air, water, and/or renewable resources, and will not be a cause of public concern.</p>
<p>Compaction of vegetation</p>	<p>Equipment, materials, and demolition debris have the potential to compact vegetation during construction activities</p>	<ul style="list-style-type: none"> <li>• The Applicant proposed the following mitigations in the Applications: <ul style="list-style-type: none"> <li>• Clearly limit the Project work boundaries and restrict equipment access and material placement to within these limits.</li> <li>• Establish laydown and demolition processing areas within already disturbed or within the footprint of the new Project.</li> <li>• Do not temporarily stockpile materials on vegetation outside of the Project limits, especially in riparian areas.</li> </ul> </li> <li>• No concerns related to this impact were raised during the public review period.</li> <li>• The Board has standard permit conditions that are typically used to mitigate the identified potential impacts. These standard conditions include:</li> </ul>	<p>Based on the described mitigations, it is the Board's opinion that the proposed activities are not likely to have a significant adverse impact on air, water, and/or renewable resources, and will not be a cause of public concern.</p>

		<ul style="list-style-type: none"> <li>• HABITAT DAMAGE</li> </ul>	
Direct loss or removal of habitat, dens, or nests	Breeding or nesting migratory birds, as well as their nests, eggs, and young, could be disturbed or destroyed by construction activities such as vegetation clearing, fill placement, earthworks using heavy equipment, and bridge demolition. Construction activities, such as the removal of trees or suitable roosting habitat (e.g., unoccupied cabins), could disturb or destroy maternity roosts of little brown myotis ( <i>Myotis lucifugus</i> ), a species listed as endangered under the Species at Risk Act (SARA).	<ul style="list-style-type: none"> <li>• The Applicant noted that Behchokò is located near the divide between the B7 and C8 nesting zones, where the combined nesting period for both zones for open, wetland, and forest habitats is between April 29 and August 21. The Applicant also indicated that construction activities cannot be avoided during the migratory bird nesting period, and proposed the following mitigations in the Applications: <ul style="list-style-type: none"> <li>• The contractor must follow the Guidelines to Avoid Harm to Migratory Birds (ECCC 2023).</li> <li>• Before any disturbance activities during the bird nesting period (late April to late August) and the bat active period (mid July to October), a qualified environmental professional (QEP) must conduct pre-disturbance surveys for bird nests and bat maternity roosts. If active nests or roosts are found, a no disturbance buffer will be established around the nest by the qualified environmental professional until they determine that the nest has become inactive.</li> <li>• The contractor must follow all recommendations issued by the QEP, including any additional monitoring or surveys.</li> <li>• The QEP should be aware that an unidentified nest was discovered under the bridge in 2016 along the east side of the abutment, however, it was not identified by NRSI during their surveys (2021).</li> <li>• To support the mitigation of potential impacts on birds, a WMMP has been developed and will be implemented.</li> </ul> </li> <li>• The Applicant noted that maternity roosts can occur in tree cavities, under tree bark, or in anthropogenic structures suitable for roosting including cabins, attics, and barns during the active period. The active period for bats in the Yellowknife area ranges from mid to late July to September/October. The Applicant proposed the following mitigations in the WMMP: <ul style="list-style-type: none"> <li>• Removal of natural vegetation and other potential roosting</li> </ul> </li> </ul>	Based on the described mitigations, including it is the Board's opinion that the proposed activities are not likely to have a significant adverse impact on air, water, and/or renewable resources, and will not be a cause of public concern.

		<p>structures for little brown myotis avoided between May 1 and October 31 of any given year.</p> <ul style="list-style-type: none"> <li>• In the event that removals for critical work cannot comply with this window, a qualified biologist will conduct a survey to clear areas and structures for removals or indicate locations of roosting for protection with established buffers and signage.</li> <li>• Removal of natural vegetation and other potential roosting structures for lesser yellowlegs and rusty blackbird avoided between May 1 and August 30 of any given year.</li> <li>• In the event that removals for critical work can not comply with this window, a qualified avian biologist will conduct a survey to clear areas for removals or indicate locations with nesting presence with protection with established buffers and signage.</li> </ul> <ul style="list-style-type: none"> <li>• During the public review, the Tłıchq Government provided a Memorandum on Key Findings from Tłıchq Government Traditional Knowledge Study for the Dehk'è Frank Channel Bridge Replacement Project (Memo). The Memo noted potential impacts to bird habitat and recommended protecting important bird habitat features (e.g., stopover/staging areas, nesting sites) identified by the Tłıchq Government and during pre-construction on-the-ground surveys. The Applicant committed to further discussions on a shared approach and plan for implementing the recommendations contained in the Memo in a responsive and meaningful manner with the Tłıchq Government.</li> <li>• In the WMMP submitted as a supporting document with the Application Package, GNWT-INF indicated that “workers shall conduct a sweep of the construction area daily, prior to work activities, to verify that no nests are present in construction areas or equipment” and that “nest searches must take place within 24-hours of the work”.</li> <li>• The Board has standard permit conditions that are typically used to mitigate the identified potential impacts. These standard conditions include: <ul style="list-style-type: none"> <li>• HABITAT DAMAGE</li> </ul> </li> </ul>	
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Loss or removal of keystone species and/or Species at Risk habitat	Several wildlife Species at Risk have ranges that overlap with the study area	<ul style="list-style-type: none"> <li>• The Applicant noted that Species at Risk with ranges that overlap the study area include: <ul style="list-style-type: none"> <li>• Mammals: little brown myotis, hoary bat, barren-ground caribou (Bathurst), wolverine and wood bison.</li> <li>• Birds: bank swallow, barn swallow, common nighthawk, evening grosbeak, Harris' sparrow, horned grebe, lesser yellowlegs, olive-sided flycatcher, red-necked phalarope, rusty blackbird, short-eared owl.</li> <li>• Insects: transverse lady beetle, yellow banded bumble bee.</li> </ul> </li> <li>• The Applicant proposed the following mitigations in the Applications: <ul style="list-style-type: none"> <li>• A WMMP has been developed for the Project and will be implemented.</li> </ul> </li> <li>• The Applicant proposed the following mitigations in the WMMP: <ul style="list-style-type: none"> <li>• Removal of natural vegetation and other potential roosting structures for little brown myotis avoided between May 1 and October 31 of any given year.</li> <li>• In the event that removals for critical work cannot comply with this window, a qualified biologist will conduct a survey to clear areas and structures for removals or indicate locations of roosting for protection with established buffers and signage.</li> <li>• Removal of natural vegetation and other potential roosting structures for lesser yellowlegs and rusty blackbird avoided between May 1 and August 30 of any given year.</li> <li>• In the event that removals for critical work can not comply with this window, a qualified avian biologist will conduct a survey to clear areas for removals or indicate locations with</li> </ul> </li> </ul>	Based on the described mitigations, it is the Board's opinion that the proposed activities are not likely to have a significant adverse impact on air, water, and/or renewable resources, and will not be a cause of public concern.

		<p>nesting presence with protection with established buffers and signage.</p> <ul style="list-style-type: none"> <li>• The Board has standard permit conditions that are typically used to mitigate the identified potential impacts. These standard conditions include: <ul style="list-style-type: none"> <li>• REMOVE WIRE</li> <li>• HABITAT DAMAGE</li> <li>• MINIMIZE AREA CLEARED</li> <li>• MIGRATORY BIRD NEST DISTURBANCE</li> </ul> </li> <li>• The Board has standard licence conditions that are typically used to mitigate the identified potential impacts. These standard conditions include: <ul style="list-style-type: none"> <li>• PRECAUTION TO PROTECT THE ENVIRONMENT</li> </ul> </li> </ul>	
Fragmentation of wildlife corridor	Clearing of vegetation contributes to habitat fragmentation	<ul style="list-style-type: none"> <li>• The Applicant noted that construction will primarily take place within the existing highway RoW corridor, or adjacent to this corridor, and proposed the following mitigations in the Applications: <ul style="list-style-type: none"> <li>• The design selected is the one with the least disturbance to intact forests (existing corridor).</li> <li>• Vegetation clearing will be restricted to the minimum required to complete the work.</li> <li>• Restoration will be carried out according to the CRP to restore the area post-construction.</li> </ul> </li> <li>• The Applicant proposed the following mitigations in the WMMP: <ul style="list-style-type: none"> <li>• Constructed embankments should not be too steep to avoid creating barriers to wildlife movements. Slopes will be provided at suitable locations to enable crossing.</li> <li>• Light pollution resulting from night lights may impact wildlife habitat and corridor use. The following work procedures and equipment can be used to minimize light spill: <ul style="list-style-type: none"> <li>▪ Minimize nighttime construction activity in and around waterbodies and stream crossings where possible.</li> </ul> </li> </ul> </li> </ul>	Based on the described mitigations, it is the Board's opinion that the proposed activities are not likely to have a significant adverse impact on air, water, and/or renewable resources, and will not be a cause of public concern.

		<ul style="list-style-type: none"> <li>▪ Use directional lighting to focus on the construction area and away from waterbodies and stream crossings.</li> <li>▪ Use only the required amount of lighting.</li> <li>▪ Turn off unnecessary lighting.</li> <li>• Remove brush and vegetation, as necessary, from the sides of access roads to increase sightlines and reduce vehicle and animal collisions.</li> <li>• No concerns related to this impact were raised during the public review period.</li> <li>• The Board has standard permit conditions that are typically used to mitigate the identified potential impacts. These standard conditions include: <ul style="list-style-type: none"> <li>• CULVERT SIZE</li> <li>• HABITAT DAMAGE</li> <li>• MINIMIZE AREA CLEARED</li> </ul> </li> <li>• The Board has standard licence conditions that are typically used to mitigate the identified potential impacts. These standard conditions include: <ul style="list-style-type: none"> <li>• PRECAUTION TO PROTECT THE ENVIRONMENT</li> </ul> </li> </ul>	
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<p>Direct injury or mortality</p>	<p>The presence of humans and the establishment of a camp could increase the potential to human-to-wildlife conflicts. Improper storage of scented items like garbage and food can attract wildlife, potentially leading to negative outcomes, including wildlife mortality.</p>	<ul style="list-style-type: none"> <li>• The Applicant proposed the following mitigations in the Applications: <ul style="list-style-type: none"> <li>• The contractor will integrate procedures that address the potential for human-wildlife conflicts to the construction environmental management plan (CEMP). These procedures will align with the WMMP and will include: <ul style="list-style-type: none"> <li>▪ Training crew members on wildlife awareness.</li> <li>▪ Implementing a wildlife observation reporting system;</li> <li>▪ Properly storing and managing garbage and scented items, especially those generated at the camp area.</li> </ul> </li> <li>• Utilizing perimeter controls, such as a berm, to deter bears.</li> </ul> </li> <li>• The Applicant proposed the following mitigations in the WMMP: <ul style="list-style-type: none"> <li>• Where garbage containers are required, ensure containers are inaccessible to wildlife or wildlife resistant.</li> <li>• Obey speed limits and be observant for animals on roadways.</li> <li>• Fishing, hunting, feeding or harassing wildlife on the project site is prohibited.</li> <li>• Signs and road markers will be posted to inform drivers of speed limits.</li> <li>• Communicate the presence of wildlife to other drivers and on-site Project personnel.</li> <li>• Constructed embankments</li> </ul> </li> <li>• The Board has standard permit conditions that are typically used to mitigate the identified potential impacts. These standard conditions include: <ul style="list-style-type: none"> <li>• CLEAN WORK AREA</li> <li>• WASTE MANAGEMENT PLAN</li> <li>• GARBAGE CONTAINER</li> </ul> </li> </ul>	<p>Based on the described mitigations, it is the Board’s opinion that the proposed activities are not likely to have a significant adverse impact on air, water, and/or renewable resources, and will not be a cause of public concern.</p>
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<p>Disturbances to key lifecycle stages: breeding, feeding, nesting, staging (terrestrial)</p>	<p>Construction activities could cause greater disturbance to mammals and birds during key lifecycle stages. The Project area is used as annual ranges and calving areas for barren-ground caribou (Bathurst), as well as potential nesting and roosting areas for birds and bats. Bison also use the surrounding territory.</p>	<ul style="list-style-type: none"> <li>• The Applicant noted that various management and monitoring plans developed for the Project incorporate mitigation and protection measures for various wildlife components.</li> <li>• The Applicant proposed the following mitigations in the WMMP: <ul style="list-style-type: none"> <li>• Mandatory orientation training for all on-site workers, including: <ul style="list-style-type: none"> <li>▪ Basic understanding of the protection of breeding birds through the Migratory Bird Convention Act and Species at Risk Act.</li> <li>▪ Tree clearing is permitted from September 1 to April 30 of each year.</li> <li>▪ In the event tree clearing is required outside of the permitted timing window, there is a protocol for the completion of bird nesting surveys in advance of any clearing.</li> <li>▪ Requirements relating to habitat protection through good housekeeping practices.</li> </ul> </li> <li>• Construction activities will be kept within the boundaries of the design footprint for the Project.</li> <li>• Where feasible, construction activities related to site preparation will occur outside of sensitive seasons for migratory birds.</li> <li>• If clearing outside of the sensitive timing window is not feasible, the site will be inspected by a biologist, prior to clearing, to check for the presence of nests.</li> <li>• If demolition of structures occurs, an avian sweep by a qualified avian biologist will be conducted to determine if nests are present.</li> <li>• Workers shall conduct a sweep of the construction area daily, prior to work activities, to verify that no nests are present in construction areas or equipment. Nest searches must take place within 24 hours of the works.</li> </ul> </li> </ul>	<p>Based on the described mitigations, it is the Board’s opinion that the proposed activities are not likely to have a significant adverse impact on air, water, and/or renewable resources, and will not be a cause of public concern.</p>
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		<ul style="list-style-type: none"> <li>• Heavy machinery is recommended to be moved daily throughout the migratory birds breeding window to prevent nesting.</li> <li>• Staff will be briefed by the Project Environmental Department on measures to take when nesting birds are observed on site.</li> <li>• If active nests are identified, those areas must be buffered and left undisturbed until the nest is no longer active.</li> <li>• Signage will be installed to advise construction staff of bird nesting presence.</li> <li>• No concerns related to this impact were raised during the public review period.</li> <li>• The Board has standard permit conditions that are typically used to mitigate the identified potential impacts. These standard conditions include: <ul style="list-style-type: none"> <li>• HABITAT DAMAGE</li> <li>• MIGRATORY BIRD NEST DISTURBANCE</li> </ul> </li> <li>• The Board has standard licence conditions that are typically used to mitigate the identified potential impacts. These standard conditions include: <ul style="list-style-type: none"> <li>• PRECAUTION TO PROTECT THE ENVIRONMENT</li> </ul> </li> </ul>	
Effects on population abundance (terrestrial)	Construction activities may increase traffic, leading to higher pressure on wildlife and potentially higher mortality rates. These activities also increase the potential for waste and litter to be	<ul style="list-style-type: none"> <li>• The Applicant proposed the following mitigations in the Applications: <ul style="list-style-type: none"> <li>• Staff will be provided with environmental awareness and training.</li> <li>• Additional mitigation measures are outline in the WMMP: <ul style="list-style-type: none"> <li>▪ Habitat avoidance and protection.</li> <li>▪ Timing of construction activities.</li> <li>▪ Best management practices for construction activities.</li> <li>▪ Specific wildlife species management.</li> </ul> </li> </ul> </li> <li>• No concerns related to this impact were raised during the public review period.</li> <li>• The Board has standard permit conditions that are typically used to</li> </ul>	Based on the described mitigations, it is the Board’s opinion that the proposed activities are not likely to have a significant adverse impact on air, water, and/or renewable resources, and will not be a cause of public concern.

	<p>deposited in Project areas, which may displace wildlife from their habitat due to direct habitat removal or indirect effects such as noise and dust. Both temporary and permanent loss of wildlife habitats can result from construction. Harassment or feeding of wildlife by personnel can disrupt the animals' natural patterns and behaviour, and food and waste storage in camp areas can attract wildlife.</p>	<p>mitigate the identified potential impacts. These standard conditions include:</p> <ul style="list-style-type: none"> <li>• REMOVE WIRE</li> <li>• EXCAVATED MATERIAL TEST PITS</li> <li>• CULVERT SIZE</li> <li>• EXCAVATION AND EMBANKMENTS</li> <li>• HABITAT DAMAGE</li> <li>• GARBAGE CONTAINER</li> <li>• MINIMIZE AREA CLEARED</li> <li>• LEVEL STOCKPILES</li> <li>• MIGRATORY BIRD NEST DISTURBANCE</li> </ul> <p>• The Board has standard licence conditions that are typically used to mitigate the identified potential impacts. These standard conditions include:</p> <ul style="list-style-type: none"> <li>• PRECAUTION TO PROTECT THE ENVIRONMENT</li> </ul>	
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<p>Effects on wildlife health (toxins, metals, etc.)</p>	<p>Surface water quality may be impacted by construction activities, which may affect wildlife health. Dust emissions from construction activities can also harm animal species. The consumption of waste by wildlife presents another health risk.</p>	<ul style="list-style-type: none"> <li>• The Applicant proposed the following mitigations in the Applications: <ul style="list-style-type: none"> <li>• The contractor will follow the WMMP.</li> <li>• The contractor will follow the ESCP.</li> <li>• The contractor will follow the SPCP.</li> <li>• The contractor will follow the WMP.</li> </ul> </li> <li>• No concerns related to this impact were raised during the public review period.</li> <li>• The Board has standard permit conditions that are typically used to mitigate the identified potential impacts. These standard conditions include: <ul style="list-style-type: none"> <li>• SUMP SETBACK</li> <li>• QUARRY SETBACK</li> <li>• PARALLEL WATERCOURSE SETBACK</li> <li>• CULVERT SIZE</li> <li>• PROGRESSIVE EROSION CONTROL</li> <li>• REPAIR EROSION</li> <li>• STREAM BANKS</li> <li>• MINIMIZE APPROACH</li> <li>• EXCAVATION AND EMBANKMENTS</li> <li>• EXCAVATION SETBACK</li> <li>• DRILLING ON WATER OR NEAR ICE</li> <li>• DRILLING WASTE</li> <li>• DRILLING WASTE DISPOSAL</li> <li>• DRILLING WASTE CONTAINMENT</li> <li>• WASTE CHEMICAL DISPOSAL</li> <li>• WASTE PETROLEUM DISPOSAL</li> <li>• HABITAT DAMAGE</li> <li>• GARBAGE CONTAINER</li> <li>• GREYWATER DISPOSAL – SUMP SETBACK</li> <li>• REPAIR LEAKS</li> <li>• FUEL STORAGE SETBACK</li> </ul> </li> </ul>	<p>Based on the described mitigations, it is the Board’s opinion that the proposed activities are not likely to have a significant adverse impact on air, water, and/or renewable resources, and will not be a cause of public concern.</p>
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		<ul style="list-style-type: none"> <li>• FUEL CACHE SECONDARY CONTAINMENT</li> <li>• FUEL CONTAINMENT</li> <li>• SEAL OUTLET</li> <li>• SPILL RESPONSE</li> <li>• CLEAN UP SPILLS</li> </ul> <ul style="list-style-type: none"> <li>• The Board has standard licence conditions that are typically used to mitigate the identified potential impacts. These standard conditions include: <ul style="list-style-type: none"> <li>• OBJECTIVE – CONSTRUCTION</li> <li>• OBJECTIVE – WASTE AND WATER MANAGEMENT</li> <li>• EROSION CONTROL</li> <li>• IN-WATER CONSTRUCTION ACTIVITIES – WATER QUALITY</li> <li>• OBJECTIVE – PREVENT WASTE INTO WATER</li> <li>• SPILL CONTINGENCY PLAN</li> <li>• SPILL PREVENTION AND RESPONSE EQUIPMENT</li> <li>• CLEAN UP SPILLS</li> </ul> </li> </ul>	
<p>Changes to migratory movement patterns</p>	<p>Physical activities related to construction work have the potential to create physical or sensory barriers that could temporarily hinder wildlife movement. Wildlife movements may also be affected by noise, vibrations, or other forms of nuisance generated by the work.</p>	<ul style="list-style-type: none"> <li>• The Applicant proposed the following mitigations in the Applications: <ul style="list-style-type: none"> <li>• Staff will be provided with environmental awareness and training.</li> <li>• Additional mitigation measures are outlined in the WMMP: <ul style="list-style-type: none"> <li>▪ Habitat avoidance and protection.</li> <li>▪ Timing of construction activities.</li> <li>▪ Best management practices for construction activities.</li> <li>▪ Specific wildlife species management.</li> </ul> </li> </ul> </li> <li>• No concerns related to this impact were raised during the public review period.</li> <li>• The Board has standard permit conditions that are typically used to mitigate the identified potential impacts. These standard conditions include: <ul style="list-style-type: none"> <li>• REMOVE WIRE</li> <li>• EXCAVATED MATERIALS TEST PITS</li> </ul> </li> </ul>	<p>Based on the described mitigations, it is the Board’s opinion that the proposed activities are not likely to have a significant adverse impact on air, water, and/or renewable resources, and will not be a cause of public concern.</p>

		<ul style="list-style-type: none"> <li>EXCAVATION AND EMBANKMENTS</li> <li>HABITAT DAMAGE</li> </ul>	
Change in species diversity (and in fish habitat)	Potential impacts to aquatic species diversity may arise from changes in water velocity during construction, the presence of riprap in the channel, and the use of heavy equipment; in-water and shoreline works can have such effects; impacts to fish spawning habitat.	<ul style="list-style-type: none"> <li>The Applicant proposed the following mitigations in the Applications: <ul style="list-style-type: none"> <li>Maintain a permanent design that minimizes encroachment into the aquatic environment to the greatest extent possible.</li> <li>Clearly mark work boundaries, restrict equipment access and material placement to designated areas, and prioritizing the use of existing disturbed areas.</li> <li>Avoid stockpiling on vegetation, especially within riparian areas.</li> <li>Construction activities will be planned to ensure that all in-stream work is carried out within the design footprint.</li> <li>For causeway installation, scare tactics will be implemented (e.g., slow passes with an empty excavator bucket prior to placement) and rock will be placed in the water slowly to allow fish and other aquatic species to escape the area.</li> <li>Disturbance of the natural banks will be kept to a minimum.</li> <li>Vegetation removal will be limited to the width of the alignment and designated work areas.</li> <li>The Project will utilize existing accesses, trails, and previously disturbed areas within the bridge RoW to minimize clearing of riparian and upland vegetation.</li> <li>Rocks and materials placed below the OHWM must be clean and free of fine particles.</li> <li>Geotextiles will be used to control the causeway materials.</li> <li>Water quality will be monitored during construction to minimize impacts on fish habitat, as outlined in the WQMP.</li> <li>Where feasible, trees or shrubs on the shores and the island, will not be cut at ground level to allow the root structure to maintain soil stability.</li> <li>Disturbed banks will be stabilized and re-vegetated upon completion of works, as described in the CRP.</li> </ul> </li> </ul>	<p>A <i>Fisheries Act</i> Authorization will be in place for the Project which as DFO shared in its response to the Board’s Information Request #3 will include restrictions on the timing of in-water construction during the month of May and other times during the Project.</p> <p>GNWT-INF is no longer proposing to use the Flexifloat bridge, and therefore no in-water works is planned for the summer months.</p> <p>The Board also notes that the Tłıchǫ Government indicated that there could be positive benefits from the deposit of course substrate in the channel for the causeways that could outweigh the negative effects to fish habitat.</p> <p>Based on the described mitigations, it is the Board’s opinion that the proposed activities are not likely to have a significant adverse impact on air, water, and/or renewable resources, and will not be a cause of public concern.</p>

		<ul style="list-style-type: none"> <li>• Waste materials generated during construction, including debris, excess soils, removed vegetation, and excess construction materials, will be stabilized and promptly removed from the worksite to prevent their entry into watercourses and potential for fish blockages or the introduction of deleterious substances.</li> <li>• During the public review, the Tłıchq Government provided a Memorandum on Key Findings from Tłıchq Government Traditional Knowledge Study for the Dehk'è Frank Channel Bridge Replacement Project (Memo). The Memo noted potential impacts to fish spawning habitat and recommendations for mitigating these impacts including avoid any in-stream impacts during times of the year where fish, and fish habitat, would be especially vulnerable to disturbances. For example, Tłıchq Government noted that pickerel spawning runs through Dehk'è starting in the month of May. The Applicant committed to further discussions on a shared approach and plan for implementing the recommendations contained in the Memo in a responsive and meaningful manner with the Tłıchq Government.</li> <li>• The Applicant indicated during the public review that a <i>Fisheries Act</i> Authorization will be required for the Project under the authority of DFO to mitigate against impacts to fish species diversity and fish habitat.</li> <li>• An Information Request was issued to DFO asking what could be included in the <i>Fisheries Act</i> Authorization related to restrictions to work during fish spawning timing windows.<sup>35</sup> DFO indicated the following: “The Authorization – currently in draft form – states “in-water works shall be avoided during the restricted activity timing window from 1 April to 15 July and from 15 September to 31 October when spring and fall fish migration occurs, or as otherwise approved by DFO”. This restricted activity timing window accounts for the spring and summer spawners as per the Northwest Territories Restricted</li> </ul>	
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		<p>Activity Timing Windows for the Protection of Fish and Fish Habitat. Based on expert advice from the Tłıchq Government’s fisheries biologist regarding the Dehk’è fish populations, the fall spawning restricted activity period has been modified and the winter spawning restricted activity period has been disregarded.”</p> <ul style="list-style-type: none"> <li>• GNWT-INF indicated in the WMMP submitted as part of the Application package that: “In water work or construction will be scheduled to avoid fish spawning periods, with the exception of the Flexifloat set-up and relocation”. According to the Project Screening Document submitted as part of the Application Package, the Flexifloat was to be installed in April 2026 and remain in place for seven months. In response to the Information request to DFO and GNWT-INF, DFO confirmed that GNWT-INF will not be using the Flexifloat bridge, but will use a temporary clear span bridge instead, which does not require any in-water works.</li> <li>• During the public review, the Tłıchq Government uploaded a letter of support for the project. In the letter, the Tłıchq Government indicated that it understood the Project would need a Fisheries Act Authorization (FAA) from the Department of Fisheries and Oceans Canada, partly because there is a likelihood that temporary fish habitat loss and/or alteration of habitat could occur. The Tłıchq Government indicated that the construction of the causeways which will include placement of rock permanently in the channel will: increase fish habitat complexity; encourage increased residency time for migratory and transient fish species of all life species; potentially increase and diversify forage sources in Frank Channel; introduce substrates suitable for opportunistic spawning for multi-species; and create refuge habitat from both velocity and predation for fish communities. The Tłıchq Government summarized that “while placement of material in Frank Channel during causeway construction will have an overall habitat alteration footprint...as determine by DFO...placement of coarse material in Frank Channel, in and of itself provides for the basis of fish habitat enhancement to offset the limited disturbance during the</li> </ul>	
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		<p>construction period...".<sup>36</sup></p> <ul style="list-style-type: none"> <li>• The Board has standard permit conditions that are typically used to mitigate the identified potential impacts. These standard conditions include: <ul style="list-style-type: none"> <li>• CAMP SETBACK</li> <li>• SUMP SETBACK</li> <li>• QUARRY SETBACK</li> <li>• PARALLEL WATERCOURSE SETBACK</li> <li>• CULVERT SIZE</li> <li>• PROGRESSIVE EROSION CONTROL</li> <li>• REPAIR EROSION</li> <li>• CONSTRUCT ICE BRIDGES SNOWFILLS</li> <li>• REMOVE ICE BRIDGES / SNOWFILLS</li> <li>• STREAM BANKS</li> <li>• MINIMIZE APPROACH</li> <li>• DRY FORDING</li> <li>• EXCAVATION AND EMBANKMENTS</li> <li>• EQUIPMENT: WATERCOURSE BUFFER</li> <li>• EXCAVATION SETBACK</li> <li>• DRILLING NEAR WATER OR ON ICE</li> <li>• DRILLING WASTE</li> <li>• DRILLING WASTE DISPOSAL</li> <li>• DRILLING WASTE CONTAINMENT</li> <li>• WASTE CHEMICAL DISPOSAL</li> <li>• WASTE PETROLEUM DISPOSAL</li> <li>• HABITAT DAMAGE</li> <li>• GREYWATER DISPOSAL – SUMP SETBACK</li> <li>• FUEL STORAGE SETBACK</li> <li>• FUEL CONTAINMENT</li> </ul> </li> </ul>	
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<sup>36</sup> See WLWB Online Review System for [GNWT-INF – Dehk’è Frank Channel Bridge – Type A Land Use Permit and Type B Water Licence Application \(W2025X0003 & W2025L8-0002\)](#) TG comment 1.

		<ul style="list-style-type: none"> <li>• FUEL ON LAND</li> <li>• MINIMIZE AREA CLEARED</li> <li>• CLEARING SENSITIVE AREA</li> </ul> <ul style="list-style-type: none"> <li>• The Board has standard licence conditions that are typically used to mitigate the identified potential impacts. These standard conditions include: <ul style="list-style-type: none"> <li>• WATER SOURCE AND MAXIMUM VOLUME</li> <li>• WATER INTAKE SCREEN</li> <li>• EROSION CONTROL</li> <li>• IN-WATER CONSTRUCTION ACTIVITIES – WATER QUALITY</li> <li>• OBJECTIVE – PREVENT WASTE INTO WATER</li> </ul> </li> </ul>	
Effects on aquatic habitat health (toxins, metals, sediment, etc.)	Sediments and deleterious substances entering the water can negatively impact fish species and their habitats. The use of explosives may also affect the health of fish populations.	<ul style="list-style-type: none"> <li>• The Applicant proposed the following mitigations in the Applications: <ul style="list-style-type: none"> <li>• The same water quality measures will apply.</li> <li>• The SPCP, ESCP, WMP, and WQMP will be implemented.</li> <li>• All debris and surface staining will be removed and cleaned from the ice surface before ice-off each year.</li> <li>• In-stream work will be confined to the design footprint, with fish protection measures implemented during causeway construction and rigorous monitoring conducted throughout construction to preserve water quality and minimize impacts on fish and fish habitat.</li> <li>• Machinery operating below the OHWM will only use biodegradable hydraulic fluid.</li> <li>• Geotextiles (geogrids) will be installed on the causeway surfaces to prevent sedimentation.</li> <li>• All sediment and erosion control measures will be regularly inspected and maintained to ensure they are functioning as intended.</li> <li>• Blasting activities near Frank Channel will adhere to Fisheries and Oceans Canada (DFO) guidelines specifically maintaining a</li> </ul> </li> </ul>	<p>GNWT-INF submitted the Water Quality Monitoring Plan as part of the Application Package, which includes responses to specific turbidity thresholds. The Board may decide that the WQMP requires additional thresholds in order to mitigate potential effects from increase in turbidity, including stopping work at a particular threshold. The Board may also decide that GNWT-INF must include monitoring for TSS in the WQMP, given turbidity is not used as a compliance limit.<sup>38</sup></p> <p>In relation to the mitigations that GNWT-INF indicated it would implement related to managing blasting residues, the Board may decide that these mitigations and other mitigations be included in an updated Waste Management Plan.</p> <p>Based on the described mitigations, and</p>

<sup>38</sup> See the WLWB Online Registry for [W2016L8-0001 - TASR - Land Use Permit and Water Licence Applications - Reasons for Decision - May 30 19](#)

		<p>maximum overpressure of 50 kPa and a peak particle velocity of less than 13 mm/s. If these criteria can not be met, blasting loads will be adjusted accordingly, or alternative excavation methods will be employed.</p> <ul style="list-style-type: none"> <li>• Additional mitigation strategies may include decked blasting techniques, reducing the load per delay through proper timing, implementing pre-blast fish scare measures and noise tactics, and, if necessary, removing fish populations.</li> <li>• The WQMP contains additional details regarding measures in relation to sediments entering Frank’s Channel: <ul style="list-style-type: none"> <li>• Field monitoring of water within Frank Channel will occur during in-water construction and construction below the high-water mark when flows are present.</li> <li>• If at 200 m downstream of the work zone, the turbidity is still exceeding allowable limits, the Project Environmental Manager or designate on site will assess the situation and implement applicable remedial actions such as adjusting construction pace and duration of in water activity to bring turbidity within acceptable levels. If all fails, work will be stopped until acceptable water quality reading is achieved.</li> </ul> </li> <li>• During the public review, the Tłıchq Government provided a Memorandum on Key Findings from Tłıchq Government Traditional Knowledge Study for the Dehk’è Frank Channel Bridge Replacement Project (Memo). The Memo noted potential impacts to fish and fish habitat and recommendations for mitigating these impacts. The Applicant committed to further discussions on a shared approach and plan for implementing the recommendations contained in the Memo in a responsive and meaningful manner with the Tłıchq Government.</li> <li>• During the public review, board staff commented that the Application did not indicate whether the rock that will be blasted and/or used in construction has the potential for metal leaching or acid generating (ML/ARD), and asked the Applicant to confirm if it anticipates any ML/ARD rock being used or exposed at the site. (WLWB comment 6). In</li> </ul>	<p>options available to the Board, it is the Board’s opinion that the proposed activities are not likely to have a significant adverse impact on air, water, and/or renewable resources, and will not be a cause of public concern.</p>
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		<p>response, the Applicant stated that the proposed source of aggregate was assessed and determined to have low ML/ARD potential. GNWT-INF also noted that blast design will aim to minimize the volume and area of exposed rock by limiting overbreak, vibration, and fracturing.</p> <ul style="list-style-type: none"> <li>• In the Response to Information Request#1, GNWT-INF described mitigations to blasting residues as a potential waste stream. These mitigations included:<sup>37</sup> <ul style="list-style-type: none"> <li>• Only the required amount of explosives necessary for the blast will be brought to the site;</li> <li>• Pre-packaged explosives will be used to prevent exposure of explosives to water and any leaching of material from loaded holes prior to blast;</li> <li>• Blasts will be designed and scheduled such that there is sufficient time to excavate the blasted rock material from the blast site prior to end of the working day;</li> <li>• Blasting mats will be used to prevent material from becoming airborne and landing in adjacent waterbodies;</li> <li>• Blasting will be avoided during periods of rainfall where there is a potential for runoff to enter the river;</li> <li>• Blast site will be monitored following the blast and during excavation of rock material for any un-exploded explosive residue. Material will be cleaned up and removed by the blasting subcontractor and/or licensed hazardous waste subcontractor as required;</li> <li>• Install berms and/or ditching around the area pre-blast to prevent runoff from entering the area;</li> <li>• If runoff does occur, response measures from the Spill Preventions and Contingency Plan will be implemented. Additional measures may include: Use of equipment (excavators, loaders, etc.) to divert and/or contain affected runoff by constructing additional berms or ditching as</li> </ul> </li> </ul>	
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<sup>37</sup> See the WLWB Online Registry for [Dehk'è Frank Channel Bridge - WL Application - GNWT-INF Response to IR - Jul 31 25](#).

		<p>needed; installation of turbidity curtains/silt fencing (if conditions allow) to limit movement of suspended sediments containing blasting residue; and collection and removal of water with vacuum trucks for offsite disposal.</p> <ul style="list-style-type: none"> <li>• The Board has standard permit conditions that are typically used to mitigate the identified potential impacts. These standard conditions include: <ul style="list-style-type: none"> <li>• CAMP SETBACK</li> <li>• SUMP SETBACK</li> <li>• QUARRY SETBACK</li> <li>• PARALLEL WATERCOURSE SETBACK</li> <li>• CULVERT SIZE</li> <li>• PROGRESSIVE EROSION CONTROL</li> <li>• REPAIR EROSION</li> <li>• CONSTRUCT ICE BRIDGES SNOWFILLS</li> <li>• REMOVE ICE BRIDGES / SNOWFILLS</li> <li>• STREAM BANKS</li> <li>• MINIMIZE APPROACH</li> <li>• DRY FORDING</li> <li>• EXCAVATION AND EMBANKMENTS</li> <li>• EQUIPMENT: WATERCOURSE BUFFER</li> <li>• EXCAVATION SETBACK</li> <li>• DRILLING NEAR WATER OR ON ICE</li> <li>• DRILLING WASTE</li> <li>• DRILLING WASTE DISPOSAL</li> <li>• DRILLING WASTE CONTAINMENT</li> <li>• WASTE CHEMICAL DISPOSAL</li> <li>• WASTE PETROLEUM DISPOSAL</li> <li>• HABITAT DAMAGE</li> <li>• GREYWATER DISPOSAL – SUMP SETBACK</li> <li>• FUEL STORAGE SETBACK</li> <li>• FUEL CONTAINMENT</li> </ul> </li> </ul>	
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		<ul style="list-style-type: none"> <li>• FUEL ON LAND</li> <li>• MINIMIZE AREA CLEARED</li> <li>• CLEARING SENSITIVE AREA</li> </ul> <ul style="list-style-type: none"> <li>• The Board has standard licence conditions that are typically used to mitigate the identified potential impacts. These standard conditions include: <ul style="list-style-type: none"> <li>• IN-WATER CONSTRUCTION ACTIVITIES – WATER QUALITY</li> <li>• OBJECTIVE – PREVENT WASTE INTO WATER</li> </ul> </li> </ul>	
Effects on aquatic population abundance	Potential impacts to population abundance may arise from noise, vibration, and blasting from equipment use, pump intakes, piling work, and blasting work near Dehk'è Frank Channel. Additional impacts could result from the placement and removal of riprap during causeway construction and removal, and water withdrawal activities.	<ul style="list-style-type: none"> <li>• The Applicant proposed the following mitigations in the Applications: <ul style="list-style-type: none"> <li>• Implement scare tactics (e.g., slow passes with an empty excavator bucket prior to placement (and place rock into the water slowly to allow fish to escape the area (for causeways).</li> <li>• Follow the DFO guidelines for blasting activities.</li> <li>• Equip dewatering pumps with appropriately sized intake screens per DFO's Fish Screen Design Criteria for Flood and Water Truck Pumps.</li> <li>• Conduct winter water withdrawal following the Protocol for Winter Water Withdrawal in the Northwest Territories (DFO, 2011).</li> <li>• Construct ice bridges following DFO Code on that matter.</li> <li>• Ensure that intake screens are kept clean and free of ice and debris and inspect them for damage prior to each withdrawal.</li> <li>• If any evidence of fish impingement or entrainment is observed, immediately stop pumping operations and relocate to an alternate water source.</li> <li>• Maintain a backup intake screen on hand to allow for immediate replacement if the primary screen is frozen due to icing or is damaged during operations.</li> </ul> </li> <li>• During the public review, Fisheries and Oceans Canada (DFO) commented that blasting near water could cause fish injury or death</li> </ul>	<p>Based on DFO's response to IR#1, a Blasting Management and Monitoring Plan will be required before a <i>Fisheries Act</i> Authorization will be issued.</p> <p>GNWT-INF submitted the Water Quality Monitoring Plan as part of the Application Package, which includes responses to specific turbidity thresholds. The Board may decide that the WQMP requires additional thresholds in order to mitigate potential effects from increase in turbidity, including stopping work at a particular threshold. The Board may also decide that GNWT-INF must include monitoring for TSS in the WQMP, given turbidity is not used as a compliance limit.<sup>39</sup></p> <p>In relation to the mitigations that GNWT-INF indicated it would implement related to managing blasting residues, the Board may decide that these mitigations and other mitigations be included in an updated Waste Management Plan.</p>

<sup>39</sup> See the WLWB Online Registry for [W2016L8-0001 - TASR - Land Use Permit and Water Licence Applications - Reasons for Decision - May 30 19](#)

		<p>through increases in pressure and particle velocity (DFO comment 3). In response, the Applicant committed to following DFO's recommendations for blasting near water and to providing a Blasting Management and Monitoring Plan for submission to DFO as a condition of their Fisheries Act Authorization.</p> <ul style="list-style-type: none"> <li>• DFO confirmed in response to IR#1 that a Blasting Design and Monitoring Plan will be required prior to issuing the <i>Fisheries Act</i> Authorization. The Blasting Design and Monitoring Plan is meant to provide details on how GNWT-INF will ensure conformance with DFO's blasting guidelines.</li> <li>• The WQMP contains additional details regarding measures in relation to in-stream work in Frank's Channel: <ul style="list-style-type: none"> <li>• Field monitoring of water within Frank Channel will occur during in-water construction and construction below the high-water mark when flows are present.</li> <li>• If at 200 m downstream of the work zone, the turbidity is still exceeding allowable limits, the Project Environmental Manager or designate on site will assess the situation and implement applicable remedial actions such as adjusting construction pace and duration of in water activity to bring turbidity within acceptable levels. If all fails, work will be stopped until acceptable water quality reading is achieved.</li> </ul> </li> <li>• The Board has standard permit conditions that are typically used to mitigate the identified potential impacts. These standard conditions include: <ul style="list-style-type: none"> <li>• CAMP SETBACK</li> <li>• SUMP SETBACK</li> <li>• QUARRY SETBACK</li> <li>• PARALLEL WATERCOURSE SETBACK</li> <li>• CULVERT SIZE</li> <li>• PROGRESSIVE EROSION CONTROL</li> <li>• REPAIR EROSION</li> <li>• CONSTRUCT ICE BRIDGES SNOWFILLS</li> </ul> </li> </ul>	<p>Based on the described mitigations and options available to the Board, it is the Board's opinion that the proposed activities are not likely to have a significant adverse impact on air, water, and/or renewable resources, and will not be a cause of public concern.</p>
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		<ul style="list-style-type: none"> <li>• REMOVE ICE BRIDGES / SNOWFILLS</li> <li>• STREAM BANKS</li> <li>• MINIMIZE APPROACH</li> <li>• DRY FORDING</li> <li>• EXCAVATION AND EMBANKMENTS</li> <li>• EQUIPMENT: WATERCOURSE BUFFER</li> <li>• EXCAVATION SETBACK</li> <li>• DRILLING NEAR WATER OR ON ICE</li> <li>• DRILLING WASTE</li> <li>• DRILLING WASTE DISPOSAL</li> <li>• DRILLING WASTE CONTAINMENT</li> <li>• WASTE CHEMICAL DISPOSAL</li> <li>• WASTE PETROLEUM DISPOSAL</li> <li>• HABITAT DAMAGE</li> <li>• GREYWATER DISPOSAL – SUMP SETBACK</li> <li>• FUEL STORAGE SETBACK</li> <li>• FUEL CONTAINMENT</li> <li>• FUEL ON LAND</li> <li>• MINIMIZE AREA CLEARED</li> <li>• CLEARING SENSITIVE AREA</li> </ul> <ul style="list-style-type: none"> <li>• The Board has standard licence conditions that are typically used to mitigate the identified potential impacts. These standard conditions include: <ul style="list-style-type: none"> <li>• IN-WATER CONSTRUCTION ACTIVITIES – WATER QUALITY</li> <li>• OBJECTIVE – PREVENT WASTE INTO WATER</li> </ul> </li> </ul>	
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<p>Effects on traditional land use, subsistence, and harvesting rights</p>	<p>Fish nets are present in the channel near the Project site during both winter and summer periods. Observations from 2025 indicate that winter fish nets may be located directly at the site where the existing bridge will be deconstructed on the west side of the channel.</p> <p>In addition, there is a shoreline fishing spot located on a rocky point northwest of the future bridge. The channel is also used by recreational and fishing boats, and occasionally by seaplanes, which sometimes pass under the bridge. Impacts to food and medicine plants, their habitat, and trails used for harvesting these resources.</p>	<ul style="list-style-type: none"> <li>• The Applicant noted that the bridge’s design already provided sufficient clearance for water traffic in the Frank Channel, and proposed the following mitigations in the Applications: <ul style="list-style-type: none"> <li>• Mitigation measures outlined for other Valued Components (VC)s will also help reduce or avoid effects on traditionally harvested plant and animal resources.</li> <li>• Pre-construction coordination and planning will be carried out with the Community Government of Behchokò (CGB) and with fishers who have fishing nets in the channel to limit the impact on their activities.</li> <li>• The Project-specific WMMP will be implemented to protect wildlife and wildlife habitat.</li> <li>• The Project will minimize disturbance to new areas to the extent practical.</li> <li>• Construction activities will respect the recommended setbacks (30 m protection buffer for wetlands and waterbodies from storage area, petroleum products, camps, and laydown areas) and adhere to timing restrictions for wildlife as outlined in the WMMP, where possible.</li> <li>• Personnel will not feed, harass, hunt wildlife or fish while working on the Project.</li> <li>• Construction vehicle travel will be confined to existing infrastructure roads and trails as much as possible to avoid disturbing vegetated areas.</li> <li>• Clearing will be limited to areas required for construction and safe operations (i.e., width of the RoW and approved access roads).</li> <li>• Water flow and fish passage will be maintained during construction.</li> <li>• Discussions will be conducted with the individuals concerned prior to each construction season to ensure that construction activities do not interfere with the placement or use of fishing</li> </ul> </li> </ul>	<p>Based on the described mitigations, it is the Board’s opinion that the proposed activities are not likely to have a significant adverse impact on air, water, and/or renewable resources, and will not be a cause of public concern.</p>
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		<p>nets.</p> <ul style="list-style-type: none"> <li>• Coordination will be undertaken with CGB representatives and the community to more precisely determine the characteristics of use of the fishing site located on the northwest shore of the existing bridge (e.g., frequentation, periods of use, access). Based on this information, mitigation measures will be proposed prior to construction to ensure safe access to the site (signage, dissemination of specific information, closure of access for short periods for safety reasons).</li> <li>• Access through the Project Area by traditional land users will not be impeded, except where restrictions are needed for public safety.</li> <li>• Travel of construction vehicles will be confined to existing infrastructure roads and trails as much as possible to avoid disturbing vegetated areas.</li> <li>• Other measures regarding the traditional and historical use of the Project Area may follow when the TK Study will be completed in summer 2025.</li> <li>• During the public review, the Tłıchq Government provided a Memorandum on Key Findings from Tłıchq Government Traditional Knowledge Study for the Dehk'è Frank Channel Bridge Replacement Project (Memo). The Memo noted potential impacts to food and medicine plants, their habitat, and trails used for harvesting these resources. Tłıchq Government recommended that the GNWT-INF protect fish populations from increased fishing pressure, and preserve fishing opportunities for Tłıchq citizens, by restricting or limiting Project workers' fishing access. The Applicant committed to further discussions on a shared approach and plan for implementing the recommendations contained in the Memo in a responsive and meaningful manner with the Tłıchq Government.</li> <li>• The Board has standard permit conditions that are typically used to mitigate the identified potential impacts. These standard conditions</li> </ul>	
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		<p>include:</p> <ul style="list-style-type: none"> <li>• REMOVE WIRE</li> <li>• TRAILS RESTORATION</li> </ul> <p>• The Board has standard licence conditions that are typically used to mitigate the identified potential impacts. These standard conditions include:</p> <ul style="list-style-type: none"> <li>• IDENTIFY TRADITIONAL KNOWLEDGE</li> <li>• INCORPORATE SCIENTIFIC INFORMATION AND TRADITIONAL KNOWLEDGE</li> </ul>	
Change to or loss of heritage resource	Dismantling of two cabins, commemoration of the history of Dehk'è	<p>• The Applicant noted that during the engagement sessions in February 2025, a Frank Channel resident noted the significance and historical value of Frank to the local community and that GNWT should consider installing a commemorative element about its history. In response, GNWT will explore the possibility of incorporating elements along the multi-user pathway (e.g., interpretive panel, small plaza). The Applicant also proposed the following mitigations in the Applications:</p> <ul style="list-style-type: none"> <li>• For the two cabins to be dismantled, approaches and work methods will be developed in consultation with CGB authorities. The third cabin, known as "Old Man's Cabin" will remain in place given it represents a cultural and historical value in the Frank Channel area.</li> <li>• Travel of construction vehicles will be confined to existing infrastructure roads and trails to minimize disturbing vegetated areas.</li> <li>• The Project will limit disturbance to new areas as much as possible.</li> <li>• Clearing will be limited to areas required for construction and safe operations (i.e., to the width of the RoW and approved access roads)</li> <li>• Other measures regarding the traditional and historical use of the Project Area may follow when the TK Study will be completed in summer 2025.</li> </ul>	Based on the described mitigations, it is the Board's opinion that the proposed activities are not likely to have a significant adverse impact on air, water, and/or renewable resources, and will not be a cause of public concern.

		<ul style="list-style-type: none"> <li>• During the public review, the Tłıchǫ Government provided a Memorandum on Key Findings from Tłıchǫ Government Traditional Knowledge Study for the Dehk'è Frank Channel Bridge Replacement Project (Memo). The Memo noted potential impacts to documented and undocumented Tłıchǫ values. Tłıchǫ Government recommended that the GNWT-INF avoid impacts by working with Tłıchǫ Government to complete on-the-ground and Tłıchǫ-led surveys and monitoring for the purposes of identifying these values. The Applicant committed to further discussions on a shared approach and plan for implementing the recommendations contained in the Memo in a responsive and meaningful manner with the Tłıchǫ Government</li> <li>• During GNWT-INF indicated that an Archaeological Impact Assessment (AIA) is planned for summer 2025. The AIA may reveal the need for additional mitigation measures.</li> <li>• The Board has standard permit conditions that are typically used to mitigate the identified potential impacts. These standard conditions include: <ul style="list-style-type: none"> <li>• FINAL CLEANUP AND RESTORATION</li> </ul> </li> <li>• The Board has standard licence conditions that are typically used to mitigate the identified potential impacts. These standard conditions include: <ul style="list-style-type: none"> <li>• AIA – HIGH POTENTIAL</li> <li>• IDENTIFY TRADITIONAL KNOWLEDGE</li> <li>• INCORPORATE SCIENTIFIC INFORMATION AND TRADITIONAL KNOWLEDGE</li> </ul> </li> </ul>	
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Archaeological resources	Impacts to potential archaeological zones.	<ul style="list-style-type: none"> <li>• The Applicant noted that Archaeological Overview Assessment (AOA) was carried out in 2021, which recommended an archaeological impact study as elevated archaeological potential zones were identified. This Archaeological Impact Assessment (AIA) will be completed in summer 2025, and mitigation measures will be taken, if necessary, following the recommendations of this study.</li> <li>• No concerns related to this impact were raised during the public review period.</li> <li>• The Board has standard permit conditions that are typically used to mitigate the identified potential impacts. These standard conditions include: <ul style="list-style-type: none"> <li>• ARCHAEOLOGICAL BUFFER</li> <li>• SITE DISTURBANCE</li> <li>• SITE DISCOVERY AND NOTIFICATION</li> <li>• ARCHAEOLOGICAL OVERVIEW</li> <li>• AIA – HIGH POTENTIAL</li> </ul> </li> <li>• The Board has standard licence conditions that are typically used to mitigate the identified potential impacts. These standard conditions include: <ul style="list-style-type: none"> <li>• IDENTIFY TRADITIONAL KNOWLEDGE</li> <li>• INCORPORATE SCIENTIFIC INFORMATION AND TRADITIONAL KNOWLEDGE</li> </ul> </li> </ul>	Based on the described mitigations, it is the Board’s opinion that the proposed activities are not likely to have a significant adverse impact on air, water, and/or renewable resources, and will not be a cause of public concern.
Increased human health hazard and risk	During the construction phase, there may be some inconvenience caused by noise, vibrations, blasting, and air emissions. Increased presence of non- Tłıchq people in the area	<ul style="list-style-type: none"> <li>• The Applicant noted that there are no significant concerns regarding increased danger and risk to human health during the operation phase. The Applicant added that this risk will be reduced post-construction, as the road and bridge will be safer than their current state. The Applicant did indicate that there could be impacts during the construction phase and proposed the following mitigations in the Applications: <ul style="list-style-type: none"> <li>• Noise mitigations: <ul style="list-style-type: none"> <li>▪ Inform the Community about the period and times of the noisiest work before it begins.</li> </ul> </li> </ul> </li> </ul>	The Board notes that the Tłıchq Government provided recommendations related to potential human health hazards and risks, including traffic hazards, safety measures for the Bridge design, noise and light pollutions, etc. While GNWT-INF did not specifically address all of these recommendations, GNWT-INF did commit to further engaging with the Tłıchq Government on these recommendations. The Board’s Reasons for

	<p>(community safety). Impact on movement between Edzo, Dehk'è, and Rae. People jumping off bridge. Light pollution. Collision concern for buffalo crossing the bridge.</p>	<ul style="list-style-type: none"> <li>▪ Avoid evening or night-time work that generates a tonal noise or vibrations perceptible to potentially sensitive receptors.</li> <li>▪ Plan schedules for the noisiest jobs, taking into account the disturbance that may be caused by noise.</li> <li>▪ Ensure proper maintenance of mobile equipment (including generators and compressors) to check that silencers and other noise-reducing equipment are in good working order.</li> <li>▪ If the level of back-up alarms is a problem on the worksite, use variable-intensity alarms (automatically adjusted according to ambient noise level) on worksite equipment likely to reverse frequently.</li> <li>▪ Avoid rattling rear panels on tippers.</li> <li>▪ Avoid hitting loader tailgates and buckets.</li> <li>▪ If necessary, set a speed limit on the worksite.</li> <li>• Vibration and blasting mitigations: <ul style="list-style-type: none"> <li>▪ Implement a quality assurance procedure to prevent rock splinters from blasting and use blasting mats as needed to control debris.</li> <li>▪ Include pre- and post-blast assessment as part of the quality assurance procedure.</li> <li>▪ Do not use water-soluble nitrate-based explosives or explosives containing perchlorate in or near water.</li> </ul> </li> <li>• During the public review, the Tłı̨chq̓ Government provided a Memorandum on Key Findings from Tłı̨chq̓ Government Traditional Knowledge Study for the Dehk'è Frank Channel Bridge Replacement Project (Memo). The Memo noted potential impacts to community safety due to the increased presence of non-community members in the area; traffic hazards for foot traffic; impact to movement between Edzo, Dehk'è; construction noise; light pollution; collision concern for buffalo crossing the bridge; and people jumping from the bridge and made recommendations for mitigating these impacts. The Applicant</li> </ul>	<p>Decision on the Applications could include requirements or conditions in the Licence or Permit to specifically address these recommendations.</p> <p>Based on the described mitigations and options available to the Board, it is the Board's opinion that the proposed activities are not likely to have a significant adverse impact on air, water, and/or renewable resources, and will not be a cause of public concern.</p>
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		committed to further discussions on a shared approach and plan for implementing the recommendations contained in the Memo in a responsive and meaningful manner with the Tłıchq Government.	
Economic opportunities or losses (employment, training)	Employment and training opportunities	<ul style="list-style-type: none"> <li>No concerns related to this impact were raised during the public review period.</li> <li>The Applicant noted that no significant negative impacts were anticipated, except for the direct effects on two unoccupied cabins. The Project is expected to yield positive impacts, including local and regional benefits such as: <ul style="list-style-type: none"> <li>Indigenous and local labour that may be hired for the Project</li> <li>Provision of services, Indigenous and local subcontractors, suppliers-vendors from Yellowknife or other NWT locations.</li> <li>Increased spending in the region and community during the construction period.</li> <li>The contractor will have to implement its own programs to maximize benefits for the community, Indigenous population, and the region.</li> </ul> </li> </ul>	Based on the described mitigations, it is the Board's opinion that the proposed activities are not likely to have a significant adverse impact on air, water, and/or renewable resources, and will not be a cause of public concern.
Change in ecological, cultural, social, or economic values identified for protection in approved Land Use Plans	Culturally and historically significant Cabin partially located in the RoW. Impacts to sacred or spiritual sites. Impacts to Tłıchq culture and history.	<ul style="list-style-type: none"> <li>The Applicant noted that a culturally and historically significant Cabin (Old Man's Cabin) to the southwest of the bridge will be protected and preserved as requested by the Community.</li> <li>During the public review, the Tłıchq Government provided a Memorandum on Key Findings from Tłıchq Government Traditional Knowledge Study for the Dehk'è Frank Channel Bridge Replacement Project (Memo). The Memo noted potential impacts to sacred or spiritual sites to Tłıchq culture and history. Tłıchq provided recommendations including: <ul style="list-style-type: none"> <li>Avoid impacts to documented and undocumented Tłıchq values by working with Tłıchq Government to complete on-the-ground and Tłıchq-led surveys and monitoring for the purposes of identifying these values.</li> <li>Ensure that all Project workers complete a Tłıchq-led cultural safety training.</li> </ul> </li> </ul>	The Board notes that the Tłıchq Government provided recommendations related to potential mitigations to impacts to cultural, social, or economic values, including avoiding documented and undocumented Tłıchq values, and by ensuring project workers complete Tłıchq-led cultural safety training. While GNWT-INF did not specifically address these recommendations, GNWT-INF did commit to further engaging with the Tłıchq Government on these recommendations. The Board's Reasons for Decision on the Applications could include requirements or conditions in the Licence or Permit to specifically address these recommendations.

		<p>The Applicant committed to further discussions on a shared approach and plan for implementing the recommendations contained in the Memo in a responsive and meaningful manner with the Tłıchǫ Government.</p> <ul style="list-style-type: none"> <li>• The Board has standard licence conditions that are typically used to mitigate the identified potential impacts. These standard conditions include: <ul style="list-style-type: none"> <li>• IDENTIFY TRADITIONAL KNOWLEDGE</li> <li>• INCORPORATE SCIENTIFIC INFORMATION AND TRADITIONAL KNOWLEDGE</li> </ul> </li> <li>• The Board has standard permit conditions that are typically used to mitigate the identified potential impacts. These standard conditions include: <ul style="list-style-type: none"> <li>• ARCHAEOLOGICAL BUFFER</li> <li>• SITE DISTURBANCE</li> <li>• SITE DISCOVERY AND NOTIFICATION</li> <li>• ARCHAEOLOGICAL OVERVIEW</li> <li>• AIA – HIGH POTENTIAL</li> </ul> </li> </ul>	<p>Based on the described mitigations and options available to the Board, it is the Board’s opinion that the proposed activities are not likely to have a significant adverse impact on air, water, and/or renewable resources, and will not be a cause of public concern.</p>
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<p>Impairment of the recreational or traditional uses of the land or water</p>	<p>Impacts on cabins in the vicinity of the Project; decrease in fishing opportunities for Tłıchǫ citizens; impacts to gravesites and other sacred or ceremonial places.</p>	<ul style="list-style-type: none"> <li>• The Applicant noted that the two cabins on the northwest side of the existing bridge will be directly affected by the Project, but they are not occupied. Discussions are ongoing with the CGB to determine the future of these cabins (e.g., relocation, other). The Applicant also noted that a cabin on the southwest side of the existing bridge could have been affected by the works (this cabin is occupied), but an optimization to the Project has been made after the February 2025 sessions engagements, so as to be able to keep it in place. This is the cabin known as Old Man’s Cabin. This cabin is partly located in the existing RoW of Highway 3 (south side).</li> <li>• During the public review, the Tłıchǫ Government provided a Memorandum on Key Findings from Tłıchǫ Government Traditional Knowledge Study for the Dehk’è Frank Channel Bridge Replacement Project (Memo). The Memo noted potential impacts to sacred and spiritual sites, impacts to fishing opportunities for Tłıchǫ citizens, and provided recommendations for mitigating these impacts, including restricting or limiting Project workers’ fishing access, and developing a protocol or plan with Tłıchǫ Government for mitigating impacts to cultural heritage values, including gravesites and other sacred or ceremonial places. The Applicant committed to further discussions on a shared approach and plan for implementing the recommendations contained in the Memo in a responsive and meaningful manner with the Tłıchǫ Government.</li> <li>• In the Project Description Report, GNWT-INF indicated that workers at the site will not be permitted to fish or hunt in the area.</li> <li>• The Applicant noted that Archaeological Overview Assessment (AOA) was carried out in 2021, which recommended an archaeological impact study as elevated archaeological potential zones were identified. This Archaeological Impact Assessment (AIA) will be completed in summer 2025, and mitigation measures will be taken, if necessary, following the recommendations of this study.</li> </ul>	<p>The Board notes that the Tłıchǫ Government provided recommendations related to potential mitigations to impairment of the recreational or traditional uses of the land or water, including restricting workers from fishing, and developing a plan with Tłıchǫ Government for mitigating impacts to cultural heritage values. In the Project Screening Document, GNWT-INF did indicate that project staff will be prohibited from hunting and fishing.<sup>40</sup> In the Project Screening Document, GNWT-INF also committed to implementing its own Archeological Site Chance Find Protocol after the AIA is complete. GNWT-INF also commit to further engaging with the Tłıchǫ Government on the recommendations. The Board’s Reasons for Decision on the Applications could include requirements or conditions in the Licence or Permit to specifically address these recommendations</p> <p>Based on the described mitigations and options available to the Board, it is the Board’s opinion that the proposed activities are not likely to have a significant adverse impact on air, water, and/or renewable resources, and will not be a cause of public concern.</p>
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<sup>40</sup> [Dehk’è Frank Channel Bridge - WL Application - Project Screening Document - May 2 2](#), pg. 9.12.

		<ul style="list-style-type: none"> <li>• The Board has standard permit conditions that are typically used to mitigate the identified potential impacts. These standard conditions include: <ul style="list-style-type: none"> <li>• ARCHAEOLOGICAL BUFFER</li> <li>• SITE DISTURBANCE</li> <li>• SITE DISCOVERY AND NOTIFICATION</li> <li>• ARCHAEOLOGICAL OVERVIEW</li> <li>• AIA – HIGH POTENTIAL</li> </ul> </li> <li>• The Board has standard licence conditions that are typically used to mitigate the identified potential impacts. These standard conditions include: <ul style="list-style-type: none"> <li>• IDENTIFY TRADITIONAL KNOWLEDGE</li> <li>• INCORPORATE SCIENTIFIC INFORMATION AND TRADITIONAL KNOWLEDGE</li> </ul> </li> </ul>	
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<p>Impairment of the aesthetic quality of the land or water</p>	<p>The landscape will be temporarily affected during construction due to the presence of equipment, new structures, and various pilings located throughout the area</p>	<ul style="list-style-type: none"> <li>• The Applicant noted that the temporary presence of equipment, new structures, and pilings are not significant issues, as they will occur in an already highly anthropogenic road corridor. The Applicant added that the visual impact on road users would be improved once the Project is completed, particularly with the removal of the high structure at the Frank Channel crossing. The lowered profile of the new bridge and the absence of an overhead structure will provide clearer views than are currently available. The Applicant proposed the following mitigation in the Applications: <ul style="list-style-type: none"> <li>• If special mitigation measures are required during construction, they will be developed with the community.</li> </ul> </li> <li>• No concerns related to this impact were raised during the public review period.</li> <li>• The Board has standard permit conditions that are typically used to mitigate the identified potential impacts. These standard conditions include: <ul style="list-style-type: none"> <li>• EXCAVATION AND EMBANKMENTS</li> <li>• RECLAIM NON-OIL AND GAS SUMPS</li> <li>• BRUSH DISPOSAL / TIME</li> <li>• PRE-CONSTRUCTION PROFILES</li> <li>• DISPOSAL OF OVERBURDEN</li> <li>• LEVEL STOCKPILES</li> </ul> </li> <li>• The Board has standard licence conditions that are typically used to mitigate the identified potential impacts. These standard conditions include: <ul style="list-style-type: none"> <li>• IDENTIFY TRADITIONAL KNOWLEDGE</li> <li>• INCORPORATE SCIENTIFIC INFORMATION AND TRADITIONAL KNOWLEDGE</li> </ul> </li> </ul>	<p>Based on the described mitigations, it is the Board's opinion that the proposed activities are not likely to have a significant adverse impact on air, water, and/or renewable resources, and will not be a cause of public concern.</p>
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#### **4.1 Consideration of Potential Impacts**

Based on the potential impacts and proposed mitigations identified above in Table 1, the Board considered whether the Project is likely to have a significant adverse impact on air, water, and/or renewable resources. In general, impacts of the Project on the air, water, and/or renewable resources can be mitigated through the use of standard permit and licence conditions and/or project-specific conditions established by the Board as per the LWB [Standard Process for Creating New Conditions](#). These conditions may include requirements for management and monitoring plans that provide detailed information regarding the implementation of mitigation measures and the evaluation of their effectiveness.

A draft Licence and Permit were circulated for review during the regulatory proceeding, and all Parties were given the opportunity to provide comments and recommendations on the draft conditions. In finalizing the conditions, the Board will consider all of the evidence provided through the regulatory proceeding.

#### **4.2 Consideration of Public Concern**

In addition to considering the potential impacts of the Project, the Board considered whether the Project might be a cause of public concern. As described above, the Tłıchǵ Government provided a Memorandum on Key Findings from Tłıchǵ Government Traditional Knowledge Study for the Dehk'è Frank Channel Bridge Replacement Project (Memo). The Memo detailed concerns from Tłıchǵ citizens including potential impacts to water and fish habitat from in-stream and near-stream construction, potential introduction of pollution and contaminants into the channel during construction, increased traffic and noise, potential impacts to Tłıchǵ cultural values including sacred or spiritual sites, etc. GNWT-INF has included mitigations to these impacts as detailed in the table above and has committed to further engaging with the Tłıchǵ Government. In the Board's decision on the Application, the Board can include requirements that adequate engagement occurs prior to commencement of construction activities. Based on the evidence provided during the regulatory proceeding, the Board did not identify any comments or issues that indicate that the Project is a cause of public concern.

#### **5.0 Conclusion**

The Board has reviewed all the evidence received during the regulatory process with respect to the Preliminary Screening of the proposed Project. Based on the evidence, it is the Board's opinion that the proposed Project is not likely to have a significant adverse impact on air, water, and/or renewable resources, and will not be a cause of public concern, as set out in paragraph 125(2)(a) of the [MVRMA](#). The Board has therefore decided not to refer the proposed Project to Environmental Assessment.

If the Board does not receive a notice of referral to environmental assessment by September 5, 2025, the Board can issue the Permit and Licence on September 8, 2025.

SIGNATURE

  
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**Mason Mantla, Chair**  
**Wek'èezhìi Land and Water Board**

August 26, 2025

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**Date**