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February 21, 2025

File: S25S-002

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: Deline Got'ine Government – Notice of Preliminary Screening Determination – Application for Land Use Permit – Geotechnical Investigation – Near Deline, NT**

The Sahtu Land and Water Board (Board) met on February 21, 2025 and considered the Application Package from Deline Got'ine Government (DGG) for Land Use Permit (Permit) S25S-002 for the Geotechnical Investigation (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 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 S25S-002 on March 4, 2025.

The Board and staff look forward to continued communications throughout the pause period. Please contact Paul Dixon [via email](#) or (867) 598-2413 with any questions or concerns regarding this letter.

Yours sincerely,



Valerie Gordon  
Chair, Sahtu Land and Water Board

BCC'd to: Deline District Distribution List  
Phebie Kenny, DGG

Attached: Preliminary Screening Determination and Reasons for Decision



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## Preliminary Screening Determination and Reasons for Decision

Land Use Permit Application	
<b>File Number</b>	S25S-002
<b>Company</b>	Deline Got'ine Government
<b>Project</b>	Deline Hydro Project – Geotechnical Drilling
<b>Location</b>	Deline, NT
<b>Activity</b>	Geotechnical Drilling
<b>Date of Decision</b>	February 21, 2025

### 1.0 Decision

In accordance with subsection 124(1) of the [Mackenzie Valley Resource Management Act](#) (MVRMA), the Sahtu Land and Water Board (SLWB or Board) met on February 21, 2025 to make a preliminary screening determination on the Application from Deline Got'ine Government (DGG) (Applicant) for S25S-002 (Permit)<sup>1</sup> for the Deline Hydro Project - Geotechnical Drilling (Project).<sup>2</sup>

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 will not have a significant adverse impact on the environment or be a cause of public concern.

<sup>1</sup>See SLWB Online Registry [www.slwb.com](http://www.slwb.com) for S25S-002 – DGG – Land Use Permit Application – Jan13\_25

<sup>2</sup> The Project is the Deline Hydro Project – Geotechnical Drilling, which is the proposed development, where “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.”

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

## 2.0 List of Defined Terms and Acronyms

Applicant	Deline Got’ine Government
Application	The complete application package submitted by the Applicant for Land Use Permit S25S-002
Board	Sahtu Land and Water Board
CRP	Closure and Reclamation Plan
GNWT-ECC	Government of the Northwest Territories – Environment and Climate Change
MVRMA	<a href="#">Mackenzie Valley Resource Management Act</a>
Minister	Minister of the Government of the Northwest Territories – Environment and Climate Change
ORS	Online Review System ( <a href="http://www.new.onlinereviewssystem.ca">www.new.onlinereviewssystem.ca</a> )
Project	Deline Hydro Project – Geotechnical Drilling, which is the proposed development (as defined in Part 5 of the MVRMA). <sup>3</sup>
Review Board	Mackenzie Valley Environmental Impact Review Board
SCP	Spill Contingency Plan
Standard Permit Conditions	LWB <a href="#">Standard Land Use Permit Conditions Template</a>
WMP	Waste Management Plan
GNWT-ECE-PWNHC	Government of Northwest Territories – Education, Culture, and Employment – Prince of Wales Northern Heritage Centre
DFO	Government of Canada – Department of Fisheries and Oceans

## 3.0 Background and Scope of Screening

The Applicant submitted a complete Application for a Type A Land Use Permit to conduct a Geotechnical Investigation as part of a feasibility study for installing a low-head hydro facility on the Great Bear River near Deline, NT. Drilling of one or possibly two boreholes at each of three potential locations for the Intake Structure, the Power Canal and the Powerhouse is expected to take one week and is proposed to be completed between February 21 to April 1, 2025, unless otherwise delayed by poor winter road conditions.

The objective of the geotechnical investigation is to determine the presence and extent of permafrost by installing thermistors in the boreholes that can be continuously monitored over a three-year period.

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<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.”

The site will be accessed by a 4 km ice road spur to be built from the ice road that crosses the Great Bear Lake to Deline. Minimal clearing of vegetation is anticipated on the new access road and on the drilling pads.

These activities are located within the Sahtu Settlement Area in the Deline District on Territorial Land. The Applicant received permission to occupy the lands from the GNWT-ECC – Lands Administration on February 21, 2025 and has met eligibility requirements for the Project.



Figure 1: Project Overview Map

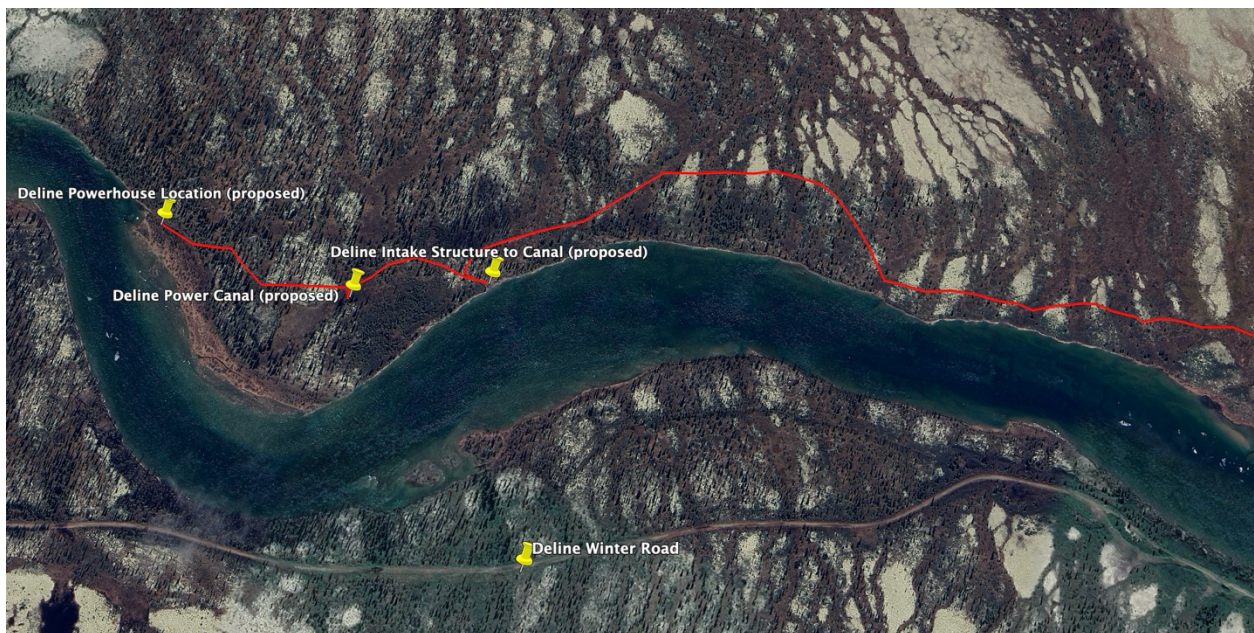


Figure 2: Zoomed in area of Project Location

In accordance with paragraph 125(1)(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 might have a significant adverse impact on the environment, 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 will occur near the mouth of Great Bear Lake along the North side of the Great Bear River. The Project will consist of drilling 3 boreholes (with provision for additional 3 boreholes if required), the creation of an offshoot ice road, and widening of a winter trail for access to the Project. The boreholes will be drilled to approximately a depth of 30m or until the confirmation of bedrock. Drilling pads will be prepared in a suitable area with minimal brush clearing. The Project aims to determine the presence of permafrost and its thickness by penetrating and sampling frozen sediments. The boreholes will have thermistor strings installed within a 2-inch PVC casing and include thermistor housing. The Applicant also submitted the following management plans: a Waste Management Plan<sup>4</sup>, a Spill Contingency Plan<sup>5</sup>, an Engagement Plan<sup>6</sup>, a Closure and Reclamation Plan<sup>7</sup>, and an Archaeology Plan.

A list of specific project components is broken down below:

- Drilling of boreholes
- Widening of winter trail to accommodate drilling equipment
- Installation of monitoring equipment
- Use of equipment
- Creation of ice road
- Collection of samples to establish permafrost presence

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

To assist the Board in its preliminary screening determination for the Project, the Board distributed the Application for public review on January 20, 2025, inviting reviewers to provide comments and recommendations on the Application and the preliminary screening (e.g., on impacts and mitigation measures) using the Online Review System (ORS). Comments were due January 29, 2025, with responses from the Applicant due February 4, 2025. The Board received comments and recommendations from Environment and Climate Change Canada (ECCC), Government of Northwest Territories – Education, Culture, and Employment – Prince of Wales Northern Heritage Centre (GNWT-ECE PWNHC), Government of Canada – Department of Fisheries and Oceans (GOC-DFO) (attached).<sup>8</sup>

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<sup>4</sup> See SLWB Online Registry for [S25S-002 – DGG – Waste Management Plan – V1.0 – Jan13 25](#)

<sup>5</sup> See SLWB Online Registry for [S25S-002 – DGG – Spill Contingency Plan – V2.0 – Feb13 25](#)

<sup>6</sup> See SLWB Online Registry for [S25S-002 – DGG – Engagement Plan – V1.1 – Jan15 24](#)

<sup>7</sup> See SLWB Online Registry for [S25S-002 – DGG – Closure and Reclamation Plan – V2.0 – feb13 25](#)

<sup>8</sup> See SLWB Online Registry for [S25S-002 – DGG – Reviewer Comments and Proponent Responses – Feb12 25](#)

The Board is satisfied that a reasonable period of notice was given to all potentially affected communities and First Nations, including to the Délı̨ne Got'ine Government (DGG), in accordance with section 63 of the [MVRMA](#).

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

All Parties have had an opportunity to provide recommendations to the Board regarding draft conditions. The Board has standard permit conditions that are typically used to mitigate the identified potential impacts. Board staff have cross-referenced these standard conditions with the proposed mitigation measures and note that the majority of the mitigation measures proposed by the Applicant for potential impacts are covered by the standard permit conditions list. In finalizing the conditions, the Board considered these recommendations, and all the evidence provided through the regulatory proceeding.

Table 1 below summarizes only the potential impacts and of the proposed Project for which there were reviewer comments and recommendations for new or modified conditions and different conditions suggested by the reviewer and the Applicant. Board discussion of these is needed to determine the final conditions to be included in the permit.

**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>
<p><b>Land</b></p> <ul style="list-style-type: none"> <li>• Soil Contamination</li> <li>• Soil Compaction</li> <li>• Change in Soil Structure</li> </ul>	<ul style="list-style-type: none"> <li>• Drilling of Boreholes</li> <li>• Use of heavy equipment</li> <li>• Clearing of winter Trail</li> <li>• Stripping of vegetation for drill pads</li> <li>• Transfer, storage, and use of petroleum products and/ or chemicals</li> <li>• Mobilization of equipment</li> <li>• Demobilization of equipment</li> </ul>	<p>The Applicant provided the following responses to Reviewer Recommendations:</p> <ul style="list-style-type: none"> <li>○ <b>GNWT-ECC Comment ID #3</b> The winter road (2025) will only be constructed for one year to allow for the geotechnical exploration drilling program. The winter road will not be maintained annually, and the minimal brushing required will revegetate naturally.</li> <li>○ <b>GNWT-ECC Comment ID #4</b> The Applicant will remove the thermistors when they are no longer required this includes the thermistor itself and the casing its enclosed in. (Added to the CRP Section 5.4).</li> <li>○ <b>ECCC Comment ID #2</b> If the Applicant stores waste oils, lubricants, other toxic substances it will be in double walled containers and not stored within 100 metres of the ordinary high watermark.</li> <li>○ <b>ECCC Comment ID #3</b> The SCP has been updated to include drip trays under Equipment (Section 4.0 of the SCP).</li> <li>○ <b>ECCC Comment ID #5</b> The Applicant in the case of a spill will immediately report it to the 24-Hour Spill Report Line (Added to the SCP Section 5.3)</li> <li>○ <b>ECCC Comment ID #6</b> The Applicant will ensure that all project staff are trained in spill response, understand the SCP, have completed fuel handling and inspection, WHIMIS, and safe operation of equipment before arriving on site and will fully understand how to respond to any potential accidents or malfunctions (Added to SCP Section 6.0)</li> <li>○ <b>ECCC Comment ID #9</b> The Applicant will have the contractor work with the SLWB staff to show final borehole locations.</li> </ul>
<p>The following conditions are proposed to address reviewer recommendations:</p> <ul style="list-style-type: none"> <li>○ <b>DRILL PADS:</b> Snowpack and snow cover will be maintained to a depth of 6” to ensure that the ground in the vicinity of the borehole location is not disturbed.</li> </ul>		

<ul style="list-style-type: none"> <li>○ <b>DRILL LOCATIONS:</b> The final drill locations will be submitted to the Board and the Inspector, prior to commencement of drilling.</li> </ul>		
<p><b><u>Groundwater</u></b></p> <ul style="list-style-type: none"> <li>• Infiltration Changes</li> <li>• Changes in Water Quality</li> </ul>	<ul style="list-style-type: none"> <li>• Same as above</li> </ul>	<p>The Applicant proposed the following mitigations in the Application:</p> <ul style="list-style-type: none"> <li>○ Use Bentonite to seal boreholes to mitigate the risk of changes in groundwater quality.</li> </ul> <p>The Applicant provided the following responses to Reviewer Recommendations:</p> <ul style="list-style-type: none"> <li>○ <b>ECCC Comment ID #2, 3, 4, 5, 6, 9 as above</b></li> </ul>
<p><b><u>Permafrost</u></b></p> <ul style="list-style-type: none"> <li>• Loss or Change in Extent of Permafrost</li> </ul>	<ul style="list-style-type: none"> <li>• Same as above</li> </ul>	<p>The Applicant provided the following responses to Reviewer Recommendations:</p> <ul style="list-style-type: none"> <li>○ N/A</li> </ul>
<p><b><u>Surface Water</u></b></p> <ul style="list-style-type: none"> <li>• Water Flow or Level Changes (Permanent, Temporary, Seasonal)</li> <li>• Changes in Water Quality</li> </ul>	<ul style="list-style-type: none"> <li>• Same as above</li> <li>• Clearing of ice crossing</li> <li>• Clearing of winter trail</li> </ul>	<p>The Applicant provided the following responses to Reviewer Recommendations:</p> <ul style="list-style-type: none"> <li>○ <b>DFO Comment ID #1</b> The Applicant will respect the Projects Near Water – Northwest Territories Restricted Activity Timing Windows for the Protection of Fish and Fish Habitat.</li> <li>○ <b>DFO Comment ID #1</b> The Applicant will follow DFO’s protective measures for fish and fish habitat.</li> <li>○ <b>DFO Comment ID #1</b> The Applicant will review DFO’s code of practice for Ice bridges and snow fills and submit a notification form for the works to DFO.</li> <li>○ <b>GNWT-ECC Comments ID #3, 4, 5, 6 as above</b></li> </ul>
<p>The following modified or new non-standard conditions are proposed to address reviewer recommendations:</p> <ul style="list-style-type: none"> <li>○ <b>NOTIFY DFO:</b> The Permittee shall notify the DFO, the Board and the Inspector ten (10) days prior to commencement of project activities that may have the potential to impact fish or fish habitat.</li> </ul>		

<p><b><u>Air</u></b></p> <ul style="list-style-type: none"> <li>Increased Greenhouse Gases</li> </ul>	<ul style="list-style-type: none"> <li>Same as above</li> </ul>	<p>The Applicant provided the following responses to Reviewer Recommendations:</p> <p>N/A</p>
<p>The following modified or new non-standard conditions are proposed to address reviewer recommendations:</p> <p>N/A</p>		
<p><b><u>Vegetation</u></b></p> <ul style="list-style-type: none"> <li>Introduction of Non-Native (Invasive) Species</li> <li>Compaction of Vegetation</li> </ul>	<ul style="list-style-type: none"> <li>Same as above</li> <li>Clearing of drill pads</li> </ul>	<p>The Applicant provided the following responses to Reviewer Recommendations:</p> <ul style="list-style-type: none"> <li>○ <b>GNWT-ECC Comment ID #3</b> The winter road (2025) will only be constructed for one year to allow for the geotechnical exploration drilling program. The winter road will not be maintained annually, and the minimal brushing required will revegetate naturally.</li> <li>○ <b>ECCC Comment ID #7,8</b> The Applicant will monitor the project area during activities to ensure that Species at Risk and their critical habitat are recorded and work is halted in that area immediately.</li> <li>○ <b>ECCC Comment ID #7,8</b> The Applicant will have wildlife/cultural monitors onsite during the winter drilling program</li> <li>○ <b>GNWT-ECE – PWNHC Comment ID #2</b> The Applicant will clear brush and the drill pads by hand.</li> </ul>
<p>The following modified or new non-standard conditions are proposed to address reviewer recommendations:</p> <ul style="list-style-type: none"> <li>○ <b>CLEAR BRUSH BY HAND:</b> Brush and drill locations will be cleared by hand to ensure that if unrecorded sites are encountered that work will stop immediately and the Prince of Wales Northern Heritage Centre will be contacted.</li> </ul>		
<p><b><u>Terrestrial Wildlife Habitat</u></b></p> <ul style="list-style-type: none"> <li>Direct Injury or Mortality</li> <li>Disturbances to Key Lifecycle Stages: Breeding, Feeding, Nesting, Staging</li> <li>Effects on</li> </ul>	<ul style="list-style-type: none"> <li>Equipment or trucks coming from other sites</li> <li>Injury on roadways during equipment mobilization/demobilization</li> <li>Increased noise levels</li> <li>Clearing of drill pads</li> <li>Drilling of Boreholes</li> </ul>	<p>The Applicant provided the following responses to Reviewer Recommendations:</p> <ul style="list-style-type: none"> <li>○ <b>GNWT-ECC Comment ID #3, 7,8 as above</b></li> </ul>

<p>Wildlife Health (Toxins, Metals, Etc.)</p>	<ul style="list-style-type: none"> <li>• Transfer, storage, and use of petroleum products and/ or chemicals</li> <li>• Clearing of winter trail</li> </ul>	
<p>The following modified or new non-standard conditions are proposed to address reviewer recommendations:</p> <ul style="list-style-type: none"> <li>○ <b>CARIBOU AND WOLVERINE:</b> If caribou or wolverines are encountered, all work will halt immediately, and the appropriate actions will be taken to ensure compliance with the SARA.</li> <li>○ <b>WILDLIFE MONITOR:</b> A wildlife monitor will be retained to be onsite to monitor all activities during the winter drilling program including any culturally significant sites.</li> </ul>		
<p><b><u>Cultural Integrity and Heritage Resources</u></b></p> <ul style="list-style-type: none"> <li>• Change to or Loss of Cultural Integrity</li> <li>• Change to or Loss of Traditional Lifestyle</li> <li>• Change to or Loss of Heritage Resource</li> </ul>	<ul style="list-style-type: none"> <li>• Same as above</li> </ul>	<p>The Applicant provided the following responses to Reviewer Recommendations:</p> <ul style="list-style-type: none"> <li>○ <b>GNWT-ECE – PWNHC Comment ID #2</b> The Applicant will clear brush and the drill pads by hand to ensure that if unrecorded sites are encountered that work will stop immediately and the Prince of Wales Northern Heritage Centre will be contacted.</li> <li>○ <b>GNWT-ECE – PWNHC Comment ID #2</b> The Applicant will make sure that the project team understands there is potential for unrecorded archaeological sites in the area and that existing sites in the area should be marked and buffers set around them for zero disturbance.</li> <li>○ <b>GNWT-ECE – PWNHC Comment ID #2</b> The Applicant will if a burial site or archaeological site is discovered during project activities will implement a setback of 500m for an archaeological site and 150m for a burial site. If the setback cannot be maintained protective measures will be developed.</li> <li>○ <b>GNWT-ECE – PWNHC Comment ID #2</b> The Applicant will have a wildlife/cultural monitor on site during project activities.</li> <li>○ <b>GNWT-ECC Comment ID #3</b> The winter road (2025) will only be constructed for one year to allow for the geotechnical exploration drilling program. The winter road will not be maintained annually, and the minimal brushing required will revegetate naturally.</li> </ul>

The following modified or new non-standard conditions are proposed to address reviewer recommendations:

- **ARCHAEOLOGICAL OVERVIEW ASSESSMENT (AOA):** The Permittee shall conduct an AOA to identify areas of high and low potential for archaeological and burial sites and shall submit a summary report to the PWNHC.
- **ARCHAEOLOGICAL IMPACT ASSESSMENT (AIA- HIGH POTENTIAL):** If the desktop AOA identifies high potential for archaeological or burial sites, the Permittee shall conduct a field-based archaeological impact assessment in the summer season following initial geotechnical investigation and prior to any further activity.
- **CLEAR BRUSH BY HAND:** Brush and drill locations will be cleared by hand to ensure that if unrecorded sites are encountered that work will stop immediately and the Prince of Wales Northern Heritage Centre will be contacted.

<p><b><u>Social and Economic Well-being</u></b></p> <p>Impairment of the Recreational or Traditional Uses of the Land or Water</p>	<ul style="list-style-type: none"> <li>• Same as above</li> </ul>	<p>The Applicant provided the following responses to Reviewer Recommendations:</p> <ul style="list-style-type: none"> <li>○ <b>GNWT-ECC Comment ID #3 as above</b></li> <li>○ <b>GNWT-ECE – PWNHC Comment ID #2 as above.</b></li> </ul>
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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 might have a significant adverse impact on the environment. In general, impacts of the Project on the environment can be mitigated through the use of standard permit 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 Permit was 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 considered all the evidence provided through the regulatory proceeding.

PWNHC indicated high archaeological potential at the Project site that needed to be confirmed through an Archaeological Overview Assessment (AOA) and a field program Archaeological Impact Assessment (AIA), as mentioned above in the Impact Mitigation Table. The Board's opinion was that the drilling could commence prior to the on-site field-based archaeological work because the potential for disrupting sensitive cultural features at the specific drilling locations was small, given that the diameter of the boreholes were less than 30 cm.

#### 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.

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 that couldn't be mitigated using the LWBs Standard Permit Conditions, Management, and the evidence received through the regulatory proceeding.

#### 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 will not have a significant adverse impact on the environment or be a cause of public concern, as set out in paragraph 125(1) (a) of the [MVRMA](#). The Board has therefore decided not to refer the proposed Project to Environmental Assessment.



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**Valerie Gordon, Chair**  
**Sahtu Land and Water Board**

February 21, 2025

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**Date**