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March 27, 2024,

File: W2024X0001

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: Whatì Groundwater Monitoring – Notice of Preliminary Screening Determination – Application for Land Use Permit – Whatì, NT**

The Wek'èezhì Land and Water Board (Board) met on March 27, 2024, and considered the Application Package from Queen's University for Land Use Permit (Permit) W2024X0001 for the Whatì Groundwater Monitoring Project IN Whatì, NT, 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 Whatì Groundwater Monitoring 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 W2024X2001 on April 8, 2024.

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,

A handwritten signature in black ink, appearing to read 'Mason Mantla', written in a cursive style.

Mason Mantla  
Chair, Wek'èezhii Land and Water Board

BCC'd to: Wek'èezhii Distribution List  
Stephanie Wright, Queen's University

Attached: Preliminary Screening Determination and Reasons for Decision

## Preliminary Screening Determination and Reasons for Decision

| Land Use Permit Application |                              |
|-----------------------------|------------------------------|
| <b>File Number</b>          | W2024X0001                   |
| <b>Company</b>              | Queen's University           |
| <b>Project</b>              | Whatì Groundwater Monitoring |
| <b>Location</b>             | Whatì ,NT                    |
| <b>Activity</b>             | Miscellaneous                |
| <b>Date of Decision</b>     | March 27, 2024               |

### 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 March 27, 2024 to make a preliminary screening determination on the Application from Queen's University (Applicant) for Land Use Permit W2024X0001 (Permit)<sup>1</sup> for the Whatì Groundwater Monitoring Project (the 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 determinations, including reasons for its decision, are detailed in sections [3.0](#) and [4.0](#).

### 2.0 List of Defined Terms and Acronyms

|             |  |
|-------------|--|
| Applicant   | Queen's University   |
| Application | The complete application package submitted by the Applicant for Land Use Permit W2024X0001 |
| Board       | Wek'èezhì Land and Water Board   |
| CRP         | Closure and Reclamation Plan   |
| EA          | Environmental Assessment   |

<sup>1</sup>See WLWB Online Registry [www.wlwb.ca/](http://www.wlwb.ca/) for [Whatì Groundwater Monitoring – Permit Application – Feb 15 24](#)

|                             |  |
|-----------------------------|--|
| GNWT                        | Government of the Northwest Territories  |
| GNWT-ECC                    | Government of the Northwest Territories – Environment and Climate Change   |
| MVLWB                       | Mackenzie Valley Land and Water Board  |
| MVRMA                       | <a href="#">Mackenzie Valley Resource Management Act</a>   |
| 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 Application. |
| Project                     | Whatì Groundwater Monitoring which is the proposed development (as defined in Part 5 of the MVRMA). <sup>2</sup>   |
| Review Board                | Mackenzie Valley Environmental Impact Review Board   |
| SCP                         | Spill 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>   |
| SCP                         | Spill Contingency Plan   |
| TG                          | Tłıchǫ Government  |
| TK                          | Traditional Knowledge  |
| WMP                         | Waste Management Plan  |

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

On February 5, 2024, Queen’s University submitted an application for a type A land use permit (permit). The purpose of the project is to assess the vulnerability of the community well to the impacts of climate change by establishing a groundwater and permafrost monitoring network in Whatì. The Project is anticipated to commence June 2024 and continue for a period of five years.

A community engagement event was hosted by the Applicant in August 2022 to discuss concerns related to changing land and water and which motivated the proposed project. Engagement took place through phone call and email with the objective of presenting the project and mapping potential threats to the community drinking water well. An Engagement Plan and Summary were submitted as part of the application.

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:**

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<sup>2</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 proposed activities for the Project include:

- a) Drilling Boreholes for groundwater and permafrost monitoring,
- b) Use of drill equipment and vehicles, and
- c) Use and temporary storage of fuel.

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

To assist the Board in its preliminary screening determination for the Project, the Board distributed the Application and a draft Permit for public review on February 15, 2024, 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 March 7, 2024, with responses from the Applicant due March 14, 2024. The Board received comments and recommendations from Government of the Northwest Territories (GNWT) Lands North Slave Region (i.e., the Inspector), Tłı̄chǫ Government (TG), GNWT Education, Culture and Employment Prince of Wales Northern Heritage Centre (ECE PWNHC), and Fisheries and Oceans Canada (DFO).<sup>3</sup> Environment and Climate Change Canada (ECCC) and GNWT Environment and Climate Change (ECC) indicated that they had no comments or recommendations for the submission. Board staff also submitted comments and questions for the purposes of clarification.

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](#).

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

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 will consider all of the evidence provided through 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.

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<sup>3</sup> See WLWB Online Review for [Whatì Groundwater Monitoring - Item for Review - Feb 15 24](#)

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

| Potential Impact   | Activity   | Proposed Mitigations<br><i>Description of measures to reduce potential impacts, including consideration of cumulative impacts and climate change.</i>  | Board Analysis and Determination   |
|--------------------|--|--|--|
| Soil Contamination | Potential spills from the storage, transfer, and use of identified contaminants as laid out in the Spill Contingency Plan. | <ul style="list-style-type: none"> <li>• The Applicant proposed the following mitigations in the Application and during the public review:               <ul style="list-style-type: none"> <li>○ Follow an approved Spill Contingency Plan.</li> <li>○ Follow an approved Waste Management Plan.</li> </ul> </li> <li>• The Board has standard permit conditions that are typically used to mitigate the identified potential impacts. These standard conditions include:<sup>4</sup> <ul style="list-style-type: none"> <li>○ CHEMICALS</li> <li>○ DRILLING WASTE DISPOSAL</li> <li>○ DRILLING WASTE CONTAINMENT</li> <li>○ WASTE CHEMICAL DISPOSAL</li> <li>○ CLEAN UP SPILLS</li> <li>○ CLEAN WORK AREA</li> <li>○ DRIP TRAYS</li> <li>○ SECONDARY CONTAINMENT -REFUELING</li> <li>○ REPAIR LEAKS</li> <li>○ FUEL CONTAINMENT</li> <li>○ LOCATION OF ACTIVITIES</li> <li>○ REPORT SPILLS</li> <li>○ RESPONSIBILITY FOR REMEDIATION COSTS</li> <li>○ SPILL CONTINGENCY PLAN</li> <li>○ SPILL RESPONSE</li> <li>○ WASTE MANAGEMENT</li> <li>○ GARBAGE CONTAINER</li> <li>○ WASTE PETROLEUM DISPOSAL</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, or renewable resources, and will not be a cause of public concern. |

<sup>4</sup> See the WLWB Policies and Resources webpage to access the LWB [Standard Land Use Permit Conditions Template](#).

|  |   |   |  |
|--|---|---|--|
| Changes in water quality                                       | Fuel storage, refueling, drilling waste, use of heavy equipment | <ul style="list-style-type: none"> <li>• The applicant proposed the following mitigations in the Application: <ul style="list-style-type: none"> <li>○ Follow an approved Spill Contingency Plan and Waste Management Plan.</li> <li>○ In the event there is clear evidence of existing contaminated soils during drilling (e.g., smell, visual inspection), all drilling will cease in that location to prevent migration of the contaminant into the community bedrock aquifer.</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>○ FLOWING ARTESIAN WELL</li> <li>○ SPILL CONTINGENCY PLAN</li> <li>○ CLEARING SENSITIVE AREA</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, or renewable resources, and will not be a cause of public concern. |
| Water flow or level changes; effects to fish and fish habitat. | Withdrawal of freshwater from Lac La Martre                     | <ul style="list-style-type: none"> <li>• The applicant proposed the following mitigations during Public Review (see responses to DFO comments 2 and 3; and response to WLWB staff comment 3): <ul style="list-style-type: none"> <li>○ Comply with the conditions and measure set out in DFO's Interim Code of Practice</li> <li>○ Water withdrawal will be limited to a maximum daily withdrawal of 5,678 L (5.7 m3)</li> <li>○ Daily water use will be well below the threshold for 100 cubic meters a day.</li> </ul> </li> <li>• The Board's standard permit condition HABITAT DAMAGE is typically used to mitigate impacts to aquatic life.</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, or renewable resources, and will not be a cause of public concern. |
| Loss or change in permafrost extent                            | Drilling through permafrost and in areas where there may be     | <ul style="list-style-type: none"> <li>• The applicant proposed the following mitigations in the Application: <ul style="list-style-type: none"> <li>○ Installation of monitoring equipment will follow standard protocol to avoid disturbance of permafrost</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,  |

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|----------------------------|--|---|---|
|                            | permafrost                             | <p>extent.</p> <ul style="list-style-type: none"> <li>○ Disturbance to the land will be minimized by drilling in or on the edge of existing clearings and open areas to avoid altering the protective vegetative cover of underlying permafrost.</li> <li>• The Board's standard permit condition MINIMIZE AREA CLEARED mitigates potential impacts to areas where there may be permafrost .</li> </ul>   | or renewable resources, and will not be a cause of public concern.  |
| Increased greenhouse gases | Generator and heavy equipment fuel use | <ul style="list-style-type: none"> <li>• The Applicant proposed the following mitigations in the Application: <ul style="list-style-type: none"> <li>○ Efforts will be made to limit any idling of the drill.</li> </ul> </li> <li>• The Board has <b>no</b> standard permit conditions that are typically used to mitigate the described impacts.</li> </ul>   | <p>Project equipment consists of one drill (D-50 Diedrich drill) and a small generator. The Applicant has committed to minimizing drilling and generator use to reduce air quality impacts. Considering the limited scale (one drill and a small generator) the main air quality impacts will likely be localized and occur during the short periods of drilling activity. Therefore, the Board believes that the proposed activities are not likely to have a significant adverse impact on air, water, or renewable resources, and will not be a cause of public concern.</p> |
| Direct loss of vegetation  | Area needed for drilling               | <ul style="list-style-type: none"> <li>• The Applicant proposed the following mitigations in the Application: <ul style="list-style-type: none"> <li>○ Drilling will take place in areas of existing clearings and roadways to minimize vegetative loss.</li> </ul> </li> <li>• The Board has standard permit conditions that are typically used to mitigate the described impacts. These standard conditions include: <ul style="list-style-type: none"> <li>○ HABITAT DAMAGE</li> <li>○ LOCATION OF ACTIVITIES</li> <li>○ DRILL LOCATIONS</li> <li>○ MINIMIZE AREA CLEARED</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, or renewable resources, and will not be a cause of public concern.  |



|   |                                    |  |  |
|---|------------------------------------|--|--|
|   |                                    | <ul style="list-style-type: none"> <li>○ SUSPEND OVERLAND TRAVEL</li> <li>○ VEHICLE MOVEMENT FREEZE-UP</li> </ul>  |  |
| Compaction of vegetation                                | Storage and use of heavy equipment | <ul style="list-style-type: none"> <li>• The Applicant proposed the following mitigations in the Application: <ul style="list-style-type: none"> <li>○ Disturbance to the land will be minimized by drilling in or on the edge of existing clearings and open areas to avoid altering the protective vegetative cover of underlying permafrost.</li> </ul> </li> <li>• The Board has standard permit conditions that are typically used to mitigate the described impacts. These standard conditions include: <ul style="list-style-type: none"> <li>○ LOCATION OF ACTIVITIES</li> <li>○ PROGRESSIVE RECLAMATION</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, or renewable resources, and will not be a cause of public concern.   |
| Human-Wildlife Conflicts                                | Drilling and monitoring on site    | <ul style="list-style-type: none"> <li>• The Applicant proposed the following mitigations in the Application: <ul style="list-style-type: none"> <li>○ Efforts will be made to not disturb any potential habitat or engage in any way with wildlife by drilling in preexisting clearings and right of ways as well as minimizing bush clearing.</li> </ul> </li> <li>• The Board has standard permit conditions that are typically used to mitigate the described impacts. These standard conditions include: <ul style="list-style-type: none"> <li>○ GARBAGE CONTAINER</li> <li>○ LOCATION OF ACTIVITIES</li> <li>○ MINIMIZE AREA CLEARED</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, or renewable resources, and will not be a cause of public concern.   |
| Economic opportunities or losses (employment, training) | Drilling, monitoring               | <ul style="list-style-type: none"> <li>• The Applicant proposed the following actions in the Application: <ul style="list-style-type: none"> <li>○ Three Environmental monitors will be hired to oversee the drilling activities. Training opportunities include (but are not limited to): logging of soil and rock core, groundwater monitoring and sampling, and permafrost</li> </ul> </li> </ul>   | No comments on this topic were received during the public review. Based on the actions described by the Applicant, the Board's opinion is that the proposed activities are not likely to have a significant adverse impact on air, |

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|   |  | <ul style="list-style-type: none"> <li>○ monitoring.</li> <li>○ Engagement Plan Version 1.0</li> <li>• The Board has no standard permit conditions that are typically used to mitigate economic impacts.</li> </ul>  | <p>water, or renewable resources, and will not be a cause of public concern.</p>  |
| Impairment of the recreational or traditional uses of the land or water | Fuel storage, drilling, equipment storage                | <ul style="list-style-type: none"> <li>• The Applicant proposed the following mitigations in the Application: <ul style="list-style-type: none"> <li>○ Community workshops and discussions with the community Council will ensure drilling locations are optimized to prevent negative impacts to traditional land uses.</li> <li>○ Engagement Plan Version 1.0</li> </ul> </li> <li>• The Board has standard permit conditions that are typically used to mitigate the described impacts. These standard conditions include: <ul style="list-style-type: none"> <li>○ CLEAN WORK AREA</li> <li>○ PROGRESSIVE RECLAMATION</li> <li>○ LOCATION OF ACTIVITIES</li> <li>○ DRILL LOCATIONS</li> </ul> </li> </ul>  | <p>The Applicant has committed to communicating with the community prior to finalizing drill locations and no Parties expressed concern with regards to impairment of the recreational or traditional uses of the land during the public review. For these reasons, it is the Board’s opinion that the proposed activities are not likely to have a significant adverse impact on air, water, or renewable resources, and will not be a cause of public concern.</p>  |
| Change to or loss of cultural integrity or heritage resources           | Clearing of vegetation, drilling, use of heavy equipment | <ul style="list-style-type: none"> <li>• The Applicant proposed the following mitigations in the Application and during the public review: <ul style="list-style-type: none"> <li>○ Community workshops and discussions with the community Council will ensure drilling locations are optimized to prevent negative impacts to traditional land uses.</li> <li>○ Setback from known burial site.</li> <li>○ Engagement Plan Version 1.0</li> </ul> </li> <li>• The Board has standard permit conditions that are typically used to mitigate the described 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> </ul> </li> </ul> | <p>Through the public review GNWT-ECE - PWNHC (Prince of Wales Northern Heritage Centre) indicated that the proposed activities described in the LUP represent a low risk to archaeological sites and that archeological standard conditions included in the Permit are sufficient to prevent change to or loss of cultural integrity or heritage resources. The proponent also indicated that a Burial site was identified and that measures would be taken (i.e., ARCHAEOLOGICAL BUFFER) to prevent impacts to the area. The Applicant has committed to communicating with the community prior to finalizing drill locations and no Parties expressed concern regarding loss of</p> |

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|--|--|--|--|
|  |  | <ul style="list-style-type: none"> <li>○ MINIMIZE AREA CLEARED</li> </ul>  | <p>cultural integrity or heritage resources. For these reasons, it is the Board's opinion that the proposed activities are not likely to have a significant adverse impact on air, water, or renewable resources, and will not be a cause of public concern.</p>   |
| <p>Disturbance and/or damage to private property resulting from overlapping land uses.</p> | <p>Drilling, use of project equipment, noise</p> | <ul style="list-style-type: none"> <li>• The Applicant proposed the following mitigations in the Application and during the public review: <ul style="list-style-type: none"> <li>○ Community workshops and discussions with the community Council will ensure drilling locations are optimized to prevent negative impacts to traditional land uses.</li> <li>○ Engagement Plan Version 1.0</li> </ul> </li> <li>• The Board has standard permit conditions that are typically used to mitigate the described impacts. These standard conditions include: <ul style="list-style-type: none"> <li>○ LOCATION OF ACTIVITIES</li> <li>○ CLEAN WORK AREA</li> <li>○ DRILL LOCATIONS</li> <li>○ MINIMIZE AREA CLEARED</li> </ul> </li> </ul> | <p>No issues have been raised during the engagement process and public review, and a letter confirming Community support has been provided by the Applicant. The Applicant has also committed to communicating with the community prior to finalizing drill locations. As such, it is the Board's opinion that the proposed activities are not likely to have a significant adverse impact on air, water, 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 might have a significant adverse impact on air, water, or renewable resources. 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 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.

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 April 7, 2024, the Board can issue the Permit on April 8, 2024.

SIGNATURE



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

March 27, 2024

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**Date**