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May 27, 2022

File: MV2022X0004

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: Government of the Northwest Territories – Environment and Natural Resources – Notice of Preliminary Screening Determination – Application for Land Use Permit – Miscellaneous – Yellowknife Area, NT**

The Mackenzie Valley Land and Water Board (Board) met on May 26, 2022 and considered the Application from the Government of the Northwest Territories – Environment and Natural Resources (GNWT – ENR) for Land Use Permit (Permit) MV2022X0004 for the remediation and site investigation of various sites in the Yellowknife Area (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 MV2022X0004 on **Tuesday June 7, 2022**.

The Board and staff look forward to continued communications throughout the pause period. Please contact [Shelagh Montgomery](#) at (867) 766-7457 with any questions or concerns regarding this letter.

Yours sincerely,



Mavis Cli-Michaud  
Chair, Mackenzie Valley Land and Water Board

BCC'd to: Akaitcho Distribution List  
Kelly Fischer, GNWT - ENR

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>	MV2022X0004
<b>Company</b>	Government of the Northwest Territories – Environment and Natural Resources
<b>Project</b>	Site Assessment, Site Maintenance, Geotechnical Drilling for monitoring wells and other activities)
<b>Location</b>	Yellowknife Area, NT
<b>Activity</b>	Miscellaneous
<b>Date of Decision</b>	May 26, 2022

### 1.0 Decision

In accordance with subsection 124(1) of the *Mackenzie Valley Resource Management Act* (MVRMA), the Mackenzie Valley Land and Water Board (MLWB or Board) met on May 26, 2022 to make a preliminary screening determination on the Application from Government of the Northwest Territories – Environment and Natural Resources (Applicant) for Land Use Permit MV2022X0004 (Permit)<sup>1</sup> for the Site Assessment, Site Maintenance, Geotechnical Drilling for monitoring wells and other activities (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 MLWB Online Registry [www.mvlwb.com](http://www.mvlwb.com) for [Government of the Northwest Territories – Environment and Natural Resources – Permit Application – April 6, 22](#)

<sup>2</sup> The Project is the Miscellaneous, 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	Government of the Northwest Territories – Environment and Natrual Resources
Application	The complete application package submitted by the Applicant for Land Use Permit MV2022X0004
Board	Mackenzie Valley Land and Water Board
CRP	Closure and Reclamation Plan
EA	Environmental Assessment
GNWT	Government of the Northwest Territories
GNWT-ENR	Government of the Northwest Territories – Environment and Natural Resources
GNWT-Lands	Government of the Northwest Territories – Lands
MVLWB	Mackenzie Valley Land and Water Board
MVRMA	<i>Mackenzie Valley Resource Management Act</i>
Minister	Minister of the Government of the Northwest Territories – Lands (GNWT-Lands)
ORS	Online Review System ( <a href="http://www.new.onlinereviewssystem.ca">www.new.onlinereviewssystem.ca</a> )
Party	As per the MVLWB <a href="#">Rules of Procedures</a> , an applicant, a person, or an organization participating in the regulatory proceeding for the Application.
Project	Miscellaneous – (Site Assessment, Site Maintenance, Geotechnical Drilling for monitoring wells and other activities), 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	MVLWB <a href="#">Standard Land Use Permit Conditions Template</a>
TG	Tłı̨chǫ Government
TK	Traditional Knowledge
WMP	Waste Management Plan

## 3.0 Background and Scope of Screening

On April 6, 2022, the GNWT – ENR submitted an application to complete work at six hoistoric mine sites in the vicinity of Yellowknife. The work includes, boulder placement, fencing, drilling of monitoring wells, and dust suppression. Below is a summary of the site as well as a description of what work is being proposed at each of the sites. The sites that are included are; Ptarmigan Mine, Tom Mine, Tin Mine, Burwash Mine, Crestaurum Mine and Rodstrom Mine.

The Application was deemed complete on April15, 2022 with comments and recommendations due to be submitted on May 6, 2022 following responses on May 11, 2022.

<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.”

An Engagement Record and Engagement Plan were included in the Application. GNWT - ENR noted they engaged with the following Parties:

- Tłıchǫ Government;
- Denínu Kúé First Nation;
- Yellowknives Dene First Nation (Ndıłǫ);
- Yellowknives Dene First Nation (Dettah);
- Łutsel K'e Dene First Nation;
- North Slave Métis Alliance; and
- City of Yellowknife.

The Engagement Record submitted indicated that the Parties were engaged with on March 1, 2022 and March 22, 2022.

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:**

#### Activities:

##### *Proposed Road Boulders and Fencing – Ptarmigan Mine*

During the winter of 2016/2017, the GNWT installed chain link fencing around the head frame and lift area and mill and crusher area for public safety purposes as well as placed boulders on the access road. Since being installed, the fencing was compromised and boulders moved allowing public access to mine site. The GNWT identified eight areas of fencing requiring repairs and two locations where boulders need to be strategically placed. Repairs to the fencing were completed in November 2021. While continuing care and maintenance of the site, additional fencing repairs may be required to maintain public safety. Fencing repairs will occur as required. Replacement of boulders along the access road is planned to be completed in the summer of 2022. Placement of boulders will be completed with the use of heavy equipment. Heavy equipment to be used for the movement and placement of boulders will be determined by the hired contractor.

##### *Fencing Repairs – Tom and Tin Mine*

Fencing was installed at the Tom and Tin Mine sites in 2017. While continuing care and maintenance at the sites, additional fencing repairs may be required to maintain public safety mitigations. Fencing repairs at the Tom and Tin Mine sites will be completed as required. Equipment and tools to be used for required fencing repairs will be determined by the hired contractor. Proposed Dust Suppression Approximately 262,000 tonnes of uncovered tailings are present at the Ptarmigan Mine site. The tailings containment area and dam were constructed in November/December 1988 and was in operation until 1994. The GNWT is currently in the process for determining next steps for the excepted waste sites, including Ptarmigan Mine. Further environmental site assessment work and risk assessment work is required prior to determining next steps. Until next steps are determined, the GNWT is proposing to undertake a dust

suppression program at the tailings containment area to mitigate the effects of windblown dust on the surrounding area. The initial spray of dust suppression is expected to be completed in summer 2022. Source of water for the dust suppression program is to be determined by the hired contractor. The volume of water to be used onsite will not exceed 100m<sup>3</sup> per day. Water will not come from any nearby waterbodies but will be water transported from Yellowknife. Additional details of the type of dust suppression to be used, source of water, and exact dates of program will be determined by the hired contractor. Dust suppression work will occur at least once a year or as required, depending on the site conditions.

#### *Proposed Environmental Site Assessment and Risk Assessment Work*

A Phase I/II Environmental Site Assessment (ESA) was completed at the Ptarmigan, Tom, Tin, Burwash and Crestaurum Mine sites in 2013 by the Government of Canada. A Phase I/II ESA was completed at Rodstrom Mine in 2017 by the GNWT. A Phase III ESA was completed at the Ptarmigan, Tom, Tin, Burwash and Crestaurum Mine in 2017 by the GNWT. Results of the ESAs identified contamination in soil, groundwater, surface water and sediment. Additional ESA work and risk assessment work is required at all six excepted waste sites to determine current site conditions.

A field program will be conducted to collect data to support the environmental site assessment and risk assessment work. The field program will include the completion of soil, groundwater, surface water and sediment sampling at the Ptarmigan, Tom, Tin, Burwash, Crestaurum and Rodstrom Mine sites.

Installation of new groundwater monitoring wells will occur onsite to support the groundwater sampling for the environmental site assessments and for potential future groundwater monitoring programs. Groundwater monitoring wells are expected to be installed using a drill rig, but equipment to be used onsite for the installation of groundwater wells will be determined by the hired environmental consultant. The number of groundwater wells to be installed, and the locations of the groundwater wells will be determined by the hired environmental consultant in their sampling plan. Information on the groundwater monitoring well locations will be determined by the hired environmental consultant. Test pits and boreholes will be completed to collect soil samples.

Test pits will be advanced using an excavator or backhoe. Boreholes will be advanced using a drill rig. No Heavy equipment will be used at Burwash or Rodstrom Mine sites. Locations of test pits and boreholes are to be determine by the hired environmental consultant. Information on soil sampling locations will be provided once they are available.

Surface water samples and sediment samples are to be completed via grab samples unless otherwise indicated by the hired environmental consultant.

Newly installed groundwater monitoring wells will be left onsite to support potential future monitoring programs and all test pits will be backfilled after sampling has been completed.

### **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 April 15, 2022, 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 May 6, 2022, with responses from the Applicant due May 11, 2022. The Board received comments and recommendations from Government of the Northwest Territories – Department of Lands (Inspector), Tłı̨chǫ Government, Government of the Northwest Territories – Prince of Wales Northern Heritage Centre and Government of the Northwest Territories – North Slave Region (attached).<sup>4</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.

Pursuant to Schedule 4.1 of the Northwest Territory Métis Nation (NWTMN) Interim Measures Agreement, the Board determined that written notice was given to the NWTMN and that a reasonable period of time was allowed for NWTMN to make representations with respect to the Application.

Pursuant to subsection 1.6, paragraphs (a) and (b) of the Akaitcho Territory Dene First Nations (ATDFN) Interim Measures Agreement, the Board determined that written notice was given to the ATDFN and that a reasonable period of time was allowed for ATDFN to make representations with respect to the Application.

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

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>4</sup> See MLWB Online Registry for Government of the Northwest Territories – Environment and Natural Resources – MV2022X0004 – [Review Comment Summary Table – May11\\_22](#).

**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
Soil contamination	Use of fuel Site investigations - drilling	<p>Mitigation from the Application and Supporting Documents</p> <ul style="list-style-type: none"> <li>• Soil cuttings from boreholes may contain contaminated soil. Soil cuttings will be contained on site in soil bags provided by a licenced facility to prevent any migration of contaminants. Once drilling has been completed, the soil cuttings will be disposed of off site at a licenced facility.</li> <li>• Potential release of fuel into the environment through use of heavy equipment on site. A Spill Contingency Plan has been developed for further information.</li> </ul> <p>The Board has standard permit conditions that are typically used to mitigate the described impacts. These standard conditions include:<sup>5</sup></p> <ul style="list-style-type: none"> <li>• Repair Leaks</li> <li>• Fuel Storage Setback</li> <li>• Fuel Containment</li> <li>• Spill Contingency Plan</li> <li>• Spill Response</li> <li>• Drip Trays</li> <li>• Clean up Spills</li> <li>• Report Spills</li> </ul>	Based on the described mitigations, it is staff opinion that the proposed activities will not have a significant adverse impact on the environment <b>OR</b> have a significant adverse impact on air, water, renewable resources, and will not be a cause of public concern.
Destabilization/erosion	Site Investigation – Drilling and collecting soil samples	<p>Mitigation from the Application and Supporting Documents</p> <ul style="list-style-type: none"> <li>• Collection of soil samples for the environmental site assessment will involve test pitting. Once samples have been collected, the test pits will be backfilled with soil from the excavated area to prevent erosion.</li> </ul>	Based on the described mitigations, it is staff opinion that the proposed activities will not have a significant adverse impact on the environment <b>OR</b> have a significant adverse impact on air, water, renewable resources,

<sup>5</sup> See the MLWB Policies and Resources webpage to access the MVLWB [Standard Land Use Permit Conditions Template](#).



		<ul style="list-style-type: none"> <li>• Installation of groundwater monitoring wells would result in disturbance of land through soil removal from the ground during the drilling of boreholes affecting soil stability. After the boreholes have been drilled, a groundwater monitoring well will be installed in the borehole to ensure the stabilization of the borehole.</li> </ul> <p>The Board has standard permit conditions that are typically used to mitigate the described impacts. These standard conditions include:<sup>6</sup></p> <ul style="list-style-type: none"> <li>• Natural Drainage</li> <li>• Progressive Erosion Control</li> <li>• Repair Erosion</li> <li>• Flowing Artesian Well</li> <li>• Excavation Setback</li> </ul>	and will not be a cause of public concern.
Changes in water quality	Use of fuel	<p>Mitigation from the Application and Supporting Documents</p> <ul style="list-style-type: none"> <li>• Potential release of fuel into the environment through use of heavy equipment on site. A Spill Contingency Plan has been developed for further information.</li> </ul> <p>The Board has standard permit conditions that are typically used to mitigate the described impacts. These standard conditions include:<sup>7</sup></p> <ul style="list-style-type: none"> <li>• Repair Leaks</li> <li>• Fuel Storage Setback</li> <li>• Fuel Containment</li> <li>• Spill Contingency Plan</li> <li>• Spill Response</li> <li>• Drip Trays</li> <li>• Clean up Spills</li> <li>• Report Spills</li> </ul>	Based on the described mitigations, it is staff opinion that the proposed activities will not have a significant adverse impact on the environment <b>OR</b> have a significant adverse impact on air, water, renewable resources, and will not be a cause of public concern.

<sup>6</sup> See the MLWB Policies and Resources webpage to access the MVLWB [Standard Land Use Permit Conditions Template](#).

<sup>7</sup> See the MLWB Policies and Resources webpage to access the MVLWB [Standard Land Use Permit Conditions Template](#).

Changes in air quality	Dust from site	<p>Mitigation from the Application and Supporting Documents</p> <ul style="list-style-type: none"> <li>• The application of dust suppressant will improve air quality in the area.</li> </ul>	Based on the described mitigations, it is staff opinion that the proposed activities will not have a significant adverse impact on the environment <b>OR</b> have a significant adverse impact on air, water, renewable resources, and will not be a cause of public concern.
Direct loss of vegetation	Removal of branches and shrubs	<p>Mitigation from the Application and Supporting Documents</p> <ul style="list-style-type: none"> <li>• Drilling and excavation activities may result in potential removal of vegetation. During soil excavation and drilling activities, efforts would be made to ensure that the impacted area is kept to a minimum.</li> </ul> <p>The Board has standard permit conditions that are typically used to mitigate the described impacts. These standard conditions include:<sup>8</sup></p> <ul style="list-style-type: none"> <li>• Brush disposal/time</li> <li>• Minimize area cleared</li> </ul>	Based on the described mitigations, it is staff opinion that the proposed activities will not have a significant adverse impact on the environment <b>OR</b> have a significant adverse impact on air, water, renewable resources, and will not be a cause of public concern.
Effects on wildlife health (toxins, metals, etc.)	Use of fuel	<p>Mitigation from the Application and Supporting Documents</p> <ul style="list-style-type: none"> <li>• Potential release of fuel into the environment through use of heavy equipment on site. A Spill Contingency Plan has been developed for further information.</li> </ul> <p>The Board has standard permit conditions that are typically used to mitigate the described impacts. These standard conditions include:<sup>9</sup></p> <ul style="list-style-type: none"> <li>• Repair Leaks</li> <li>• Fuel Storage Setback</li> <li>• Fuel Containment</li> <li>• Spill Contingency Plan</li> <li>• Spill Response</li> </ul>	Based on the described mitigations, it is staff opinion that the proposed activities will not have a significant adverse impact on the environment <b>OR</b> have a significant adverse impact on air, water, renewable resources, and will not be a cause of public concern.

<sup>8</sup> See the MLWB Policies and Resources webpage to access the MVLWB [Standard Land Use Permit Conditions Template](#).

<sup>9</sup> See the MLWB Policies and Resources webpage to access the MVLWB [Standard Land Use Permit Conditions Template](#).

		<ul style="list-style-type: none"> <li>• Drip Trays</li> <li>• Clean up Spills</li> <li>• Report Spills</li> </ul>	
Effects on health (toxins, metals, sediment, etc.)	Use of fuel	<p>Mitigation from the Application and Supporting Documents</p> <ul style="list-style-type: none"> <li>• Potential release of fuel into the environment through use of heavy equipment on site. A Spill Contingency Plan has been developed for further information.</li> </ul> <p>The Board has standard permit conditions that are typically used to mitigate the described impacts. These standard conditions include:<sup>10</sup></p> <ul style="list-style-type: none"> <li>• Repair Leaks</li> <li>• Fuel Storage Setback</li> <li>• Fuel Containment</li> <li>• Spill Contingency Plan</li> <li>• Spill Response</li> <li>• Drip Trays</li> <li>• Clean up Spills</li> <li>• Report Spills</li> </ul>	Based on the described mitigations, it is staff opinion that the proposed activities will not have a significant adverse impact on the environment <b>OR</b> have a significant adverse impact on air, water, renewable resources, and will not be a cause of public concern.
Increased human health hazard and risk	Onsite activities	<p>Mitigation from the Application and Supporting Documents</p> <ul style="list-style-type: none"> <li>• Temporary noise-related impacts may occur during use of equipment and may have the potential to cause hearing damage to those working in the immediate vicinity of the equipment. Hearing protection may be required for anyone working with and around equipment.</li> <li>• Workers may be working near deteriorating structures and buildings. Proper personal protective equipment such as hard hats, steel toed boots and high visibility vests will be required by all workers while completing work on site. Restrictions are in place to limit access to structures and buildings.</li> </ul>	Based on the described mitigations, it is staff opinion that the proposed activities will not have a significant adverse impact on the environment <b>OR</b> have a significant adverse impact on air, water, renewable resources, and will not be a cause of public concern.

<sup>10</sup> See the MLWB Policies and Resources webpage to access the MVLWB [Standard Land Use Permit Conditions Template](#).

#### 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 MVLWB [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 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 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. If the Board does not receive a notice of referral to environmental assessment by June 6, 2022, the Board can issue the Permit on June 7, 2022.

SIGNATURE



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**Mavis Cli-Michaud, Chair**  
**Mackenzie Valley Land and Water Board**

May 27, 2022

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**Date**