



7th Floor - 4922 48th Street
PO Box 2130, Yellowknife NT X1A 2P6

Tel: 867-669-0506 Fax: 867-873-6610
www.mvlwb.com

December 17, 2021

File: MV2020L1-0011

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: Canadian Natural Resources Limited – Notice of Preliminary Screening Determination – Application for Water Licence – Well Abandonment and Reclamation Program – Northeast of Fort Liard, NT

The Mackenzie Valley Land and Water Board (Board) met on December 17, 2021 and considered the Application from Canadian Natural Resources Limited for Water Licence MV2020L1-0011 for the Arrowhead and Netla 13-Well Abandonment and Reclamation Program (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 Water Licence MV2020L1-0011 on **Tuesday December 28, 2021**.

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: Dehcho Distribution List
Jessica Gysler, Canadian Natural Resources Limited

Attached: Preliminary Screening Determination and Reasons for Decision



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Preliminary Screening Determination and Reasons for Decision

Water Licence Application	
File Number	MV2020L1-0011
Company	Canadian Natural Resources Limited
Project	Arrowhead and Netla 13-Well Abandonment and Reclamation Program
Location	Northeast of Fort Liard, NT
Activity	Industrial
Date of Decision	December 17, 2021

1.0 Decision

In accordance with subsection 124(1) of the *Mackenzie Valley Resource Management Act* (MVRMA), the Mackenzie Valley Land and Water Board (MVLWB or Board) met on December 17, 2021 to make a preliminary screening determination on the Application from Canadian Natural Resources Limited (Canadian Natural or Applicant) for Water Licence MV2020L1-0011 (Licence)^{1,2,3} for the Arrowhead and Netla 13-Well Abandonment and Reclamation Program (Project).

The Board has determined that some Project activities and/or areas are exempt from preliminary screening, because they were previously screened. The Applicant has proposed new Project activities, however, and the Board has decided not to refer the proposed changes to the 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 changes to the Project will not have a significant adverse impact on the environment or be a cause of public concern.

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

¹ See MVLWB Online Registry www.mvlwb.com for Canadian Natural Resources Limited – [Licence Application – Nov 13 21](#).

² See MVLWB Online Registry www.mvlwb.com for Canadian Natural Resources Limited – [Licence Application – Oct 13 21](#).

³ See MVLWB Online Registry www.mvlwb.com for Canadian Natural Resources Limited – [Licence Application – Oct 29 21](#).

2.0 List of Defined Terms and Acronyms

Applicant	Canadian Natural Resources Limited
Application	The complete application package submitted by the Applicant for Water Licence MV2020L1-0011.
Board	Mackenzie Valley Land and Water Board
DCFN	Dehcho First Nations
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
Licence	Water Licence
MVLWB	Mackenzie Valley Land and Water Board
MVRMA	<i>Mackenzie Valley Resource Management Act</i>
NWTMN	Northwest Territory Métis Nation
ORS	Online Review System (www.new.onlinereviewssystem.ca)
Permit	Land Use Permit
Project	Arrowhead and Netla 13-Well Abandonment and Reclamation, which is the proposed development (as defined in Part 5 of the MVRMA). ⁴
Review Board	Mackenzie Valley Environmental Impact Review Board
Standard Licence Conditions	MVLWB Standard Water Licence Conditions Template

3.0 Background and Scope of Screening

On November 13, 2020, Canadian Natural submitted an Application for a Licence to accompany the associated Land Use Permit (Permit), MV2019X0014, to complete the Arrowhead and Netla 13-Well Abandonment and Reclamation Program. The overall program objective is for the abandonment and reclamation of the 13 wells. Activities will be tailored to each wellsite and may include:

- Mobilization of equipment to site;
- Improvements or clearing of access and/or wellsite, as required;
- Repairing bridges and/or culverts, as required;
- Conducting downhole abandonment;
- Cut and cap well at surface;
- Removal of scrap and debris;
- Pump out and backfill flare pits and campsite sumps;
- Fill in slumped areas around wellhead culverts;
- Pump out and backfill borrow pits;
- Backfill and re-contour rat holes;
- Maintain helipads;
- Remove or breakup and bury cement at well centre;
- Delineation and remediation of petroleum hydrocarbon impacted sumps;

⁴ “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.”

- Weed management;
- Add biodegradable erosion control matting to stabilize and prevent erosion;
- Removal of bridges, culverts and approaches, as required;
- Recontour and re-seed sites, as required, with an approved seed mix; and
- Demobilize equipment.

Water Source and Amount:

Purpose and Water Use	Name and Type of Water Source	Location	Proposed Water Use Volume/Rate, including units
Winter Road Construction and Well Abandonment	Muskeg River	H-29 (POD 281)	annual budget 13,707 m ³ max 20,000 m ³
	Rabbit Creek	E-72 (POD 284)	annual budget/max 99 m ³
	Netla River	O-42 (POD 285)	annual budget/max 99 m ³
	Unnamed Lake	D-21 (POD 282)	annual budget 4,797 m ³ max 7,000 m ³
	Unnamed Lake	O-06 (POD 283)	annual budget 18,025 m ³ max 26,300 m ³
	Unnamed Lake	N-47 (POD 286)	annual budget 8,224 m ³ max 12,000 m ³
	Unnamed Lake	F-31 (POD 287)	annual budget/max 99 m ³
	Unnamed Lake	B-49 (POD 288)	annual budget/max 99 m ³
	Liard River	B-66	annual max 45,149 m ³

The total maximum annual quantity from all sources will be 45,149 m³ at a maximum of up to 299 m³ per day. Potable water for camp use will be provided by a community in the Northwest Territories or British Columbia. Written permission will be obtained prior to use.

An Engagement Record and Engagement Plan were included in the Application. Canadian Natural noted they engaged with the following Parties:

Acho Dene Koe First Nation	Dene Tha' First Nation
ADK/Beaver River	Hamlet of Fort Liard
Acho Dene Koe Band Land Services	Nahanni Butte First Nation
Acho Dene Koe First Nation Corporate (ADK Holdings Ltd.)	Sambaa K'e First Nation
Dehcho First Nations	Sambaa K'e Development Corporation
Dene Nation	

Through a review of the Engagement Record, a combination of emails, phone calls, and virtual meetings were held with various rights holders on a number of occasions to discuss several topics, including those related to this Application.

The Application was deemed incomplete on November 23, 2020. On October 13, 2021, additional information was received, and was deemed incomplete on October 28, 2021. Additional information was received on October 29 and November 4, 2021 and the Application was subsequently deemed complete and circulated to the Distribution List for public review on the Online Review System on November 5, 2021. Comments and recommendations were due by November 26, 2021, with responses due from Canadian Natural by December 2, 2021.

The Application includes proposed changes to the Project. Under Part 1, Schedule 1, section 2.1 of the Exemption List Regulations to the MVRMA, project areas and activities that have already been subject to Part 5 of the MVRMA are exempt from preliminary screening. The new Project activities require screening by the Board in accordance with subsection 124(1) of the MVRMA.

In accordance with paragraph 125(1)(a) of the MVRMA, the Board must conduct a preliminary screening of the proposed changes to the Project to determine and report to the Review Board whether, in its opinion, the proposed changes to the 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:

Previously Screened or Assessed Areas and/or Activities:

History of Screening

The 13 wells that constitute the focus of activity for MV2019X0014 were also represented in Permit MV2015X0005. The latter Permit covered maintenance of the wellsites and access corridors but did not explicitly address Abandonment as an activity. A review of the 13 original wellsite authorizations indicated that most (but not all) had undergone preliminary screening (see below table). As a result, Permit MV2019X0014 was subject to a new screening as it covers a different range of activity.

Well	Previous Permit	Date Issued	Expiration Date	Screened?	Abandonment Considered as Activity?
A-68	MV2001A0092	1-Feb-02	31-Jan-07	Yes	Yes
A-77	MV2002A0067	10-Dec-02	9-Dec-07	Yes	Yes
K-77	N1998A0936	Nov-98	28-Dec-01	Yes	Indirectly – site restoration
C-07	N1998A0926	Feb-99	1-Dec-00	Yes	Indirectly – site restoration
F-56	MV2000A0032	Aug-00	4-Oct-06	Yes	Indirectly – site restoration
I-75	MV2002A0068	10-Dec-02	9-Dec-06	Yes	Yes
K-35	MV2002A0069	10-Dec-02	9-Dec-06	Yes	Yes
O-38	MV2002A0070	10-Dec-02	9-Dec-06	Yes	Yes
J-74	MV2002A0077	19-Dec-02	18-Dec-06	Yes	Yes
O-63	MV2002A0076	19-Dec-02	18-Dec-06	Yes	Yes
M-35	MV2002A0078	19-Dec-02	18-Dec-06	Yes	Yes
P-16	MV2002A0048	10-Oct-02	10-Sep-04	Yes	Yes
C-55	MV2006A0022	5-Oct-06	4-Oct-13	Yes	No

Well	Previous Permit	Date Issued	Expiration Date	Screened?	Abandonment Considered as Activity?
all	MV2015X0005	7-May-15	6-May-20	yes	No

MV2015X0005

Project Summary:

- Conduct site maintenance activities and to correct deficiencies at well sites and associated facilities;
- The use vehicles and equipment; and
- The establishment of fuel caches.

Scope:

- a) The use vehicles and equipment;
- b) The establishment of fuel caches; and
- c) Well-site and road maintenance.

MV2019X0014

Project Summary:

- Conduct abandonment and reclamation activities.

Scope:

- a) The use of vehicles and equipment;
- b) The construction and operation of a camp;
- c) Use and storage of fuel; and
- d) Clearing and maintenance of access corridors and/or well sites.

Activities that the Board understands to have been previously considered,⁵ and which therefore do not require preliminary screening at this time, are listed below.

Potential Impact	Associated Activity	Notes
Ground Water – Water Quality Changes	Use of Fuel, Use of Site	The Applicant has not requested a change to the proposed activities as previously applied for.
Land - Soil Contamination	Use of Fuel	The Applicant has not requested a change to the volume previously applied for.
Land - Soil Compaction	Camp, Access Road, Use of Site	The Applicant has not requested a change to the equipment required or the locations of the proposed activities as previously applied for.
Permafrost - Loss or change in extent	Camp, Access Road, Use of Site	The Applicant has not requested a change to the locations of the proposed activities as previously applied for.
Surface Water - Changes in water quality	Camp, Access Road, Well Abandonments	The Applicant has not requested a change to the proposed activities as previously applied for.
Surface Water – Drainage pattern changes	Camp, Access Road, Use of Site	The Applicant has not requested a change to the locations of the proposed activities as previously applied for.
Noise – Noise in/near water	Camp, Access Road, Use of Site	The Applicant has not requested a change to the proposed activities as previously applied for.
Noise – Noise increase	Camp, Access Road, Use of Site	The Applicant has not requested a change to the proposed activities as previously applied for.
Air/climate/atmosphere – Other	Camp, Access Road, Use of Site	The Applicant has not requested a change to the proposed activities as previously applied for.
Vegetation - Introduction of non-native (invasive) species	Camp, Access Road, Use of Site	The Applicant has not requested a change to the locations of the proposed activities as previously applied for.
Vegetation – other: Linear Migration routes, habitat fragmentation	Camp, Access Road, Use of Site	The Applicant has not requested a change to the locations of the proposed activities as previously applied for.
Wildlife and Fish – effects on rare, threatened or endangered species	Camp, Access Road, Use of Site	The Applicant has not requested a change to the locations of the proposed activities as previously applied for.
Wildlife and Fish – waterfowl population changes	Camp, Access Road, Use of Site	The Applicant has not requested a change to the locations of the proposed activities as previously applied for.

⁵ See MVLWB Online Registry for Canadian Natural Resources Limited – [Preliminary Screening and RFD – August 15, 2019](#).

Wildlife and Fish – behavioural changes	Camp, Access Road, Use of Site	The Applicant has not requested a change to the locations of the proposed activities as previously applied for.
Terrestrial Wildlife Habitat - Direct loss or removal of habitat, dens, or nests	Camp, Access Road, Use of Site	The Applicant has not requested a change to the locations of the proposed activities as previously applied for.
Terrestrial Wildlife Habitat - Disturbances to key lifecycle stages: breeding, feeding, nesting, staging	Camp, Access Road, Use of Site	The Applicant has not requested a change to the proposed activities as previously applied for.
Habitat and Communities – removal of wildlife corridor or buffer zone	Camp, Access Road, Use of Site	The Applicant has not requested a change to the proposed activities as previously applied for.
Cultural and Heritage – change to or loss of archaeological resources	Camp, Access Road, Use of Site	The Applicant has not requested a change to the proposed activities as previously applied for.
Cultural Components - Effects on traditional land use, subsistence, and harvesting rights	Camp, Access Road, Use of Site	The Applicant has continued engagement and has not requested a change to the proposed activities as previously applied for.
Cultural Components - Change to or loss of cultural integrity	Camp, Access Road, Use of Site	The Applicant has continued engagement and has not requested a change to the proposed activities as previously applied for.

New Activities:

Canadian Natural proposes to conduct downhole and surface abandonment and reclamation activities at the 13 wellsite (A-68, A-77, C-07, C-55, F-56, I-75, J-74, K-35, K-77, M-35, O-38, O-63, and P-16). In support of Permit MV2019X0014 to conduct these activities, a Licence was triggered as water is required to construct access roads and for well abandonments.

Scope:

- a) Withdrawal of Water

Any activities not previously screened require screening. The details of the Board’s analysis are set out in section [4.0](#) below.

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 Licence for public review on November 5, 2021, 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 November 26, 2021, with responses from the Applicant due December 2, 2021. The Board received comments and recommendations from Acho Dene Koe First Nation (ADKFN), Department of Fisheries and Oceans

Canada, NWT – Office of the Regulator of Oil and Gas Operations, GNWT – Environment and Natural Resources – Dehcho Region-Inspector (GNWT-Inspector), GNWT – Environment and Natural Resources – Environmental Assessment and Monitoring (GNWT-ENR), and MVLWB – staff (attached).⁶

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 section 27, paragraphs (a) and (b) of the Dehcho First Nations (DCFN) Interim Measures Agreement, the Board has determined that written notice was given to the DCFN, and that a reasonable period of time was allowed for DCFN to make representations with respect to the Application.

4.0 Potential Impacts and Proposed Mitigations

A draft Licence 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 changes to the 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.

⁶ See MVLWB Online Registry for Canadian Natural Resources Limited – [Review Comment Summary Table – Dec 1, 21](#).

Table 1: Potential Impacts and Proposed Mitigations for the Proposed Changes to the 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
Destabilization/ Erosion	Camp, Access Road, Use of Site	<p>The Applicant proposed the following mitigations in the Application:</p> <ul style="list-style-type: none"> ○ Only existing crossings will be utilized. ○ If ground disturbance does occur, it will be re-contoured and reseeded with an approved mix and inspected. ○ Where the potential for erosion exists, erosion protection materials (such as coconut matting, silt fencing, and/or rip-rap) will be installed. <p>The Board has Standard Licence Conditions that are typically used to mitigate the described impacts. These standard conditions are found in the sections identified below:⁷</p> <p>Licence Part F – Waste and Water Management</p>	Based on the described mitigations, it is the Board’s opinion that the proposed activities will not have a significant adverse impact on the environment or will not be a cause of public concern.
Inability to support vegetation	Camp, Access Road, Use of Site	<p>The Applicant proposed the following mitigations in the Application:</p> <ul style="list-style-type: none"> ○ Program activities are to take place on previously cleared areas. ○ To prevent risk of impacts to the ground, activities will occur during the winter (e.g. frozen ground and snow cover) or will be heli-portable during the summer. ○ Reclamation activities will occur following abandonment activities. <p>The Board has Standard Licence Conditions that are typically used to mitigate the described impacts. These standard conditions are found in the sections identified below:</p>	Based on the described mitigations, it is the Board’s opinion that the proposed activities will not have a significant adverse impact on the environment or will not be a cause of public concern.

⁷ See the MVLWB Policies and Resources webpage to access the MVLWB [Standard Water Licence Conditions Template](#) and MVLWB [Standard Land Use Permit Conditions Template](#).

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
		Licence Part F – Waste and Water Management Part I – Closure and Reclamation	
Water flow or level changes (permanent, temporary, seasonal)	Water Withdrawal, Access Road	<p>The Applicant proposed the following mitigations in the Application:</p> <ul style="list-style-type: none"> ○ Domestic water will be acquired from an approved supplier and drinking water will be purchased and transported to the Program site. ○ Water will be withdrawn from nearby sources. Amounts are expected to be small and will be spread over a larger area. ○ Maximum water withdrawal limits followed applicable guidelines. ○ All watercourse crossing construction and repair will adhere to applicable guidelines. <p>The Board has Standard Licence Conditions that are typically used to mitigate the described impacts. These standard conditions are found in the sections identified below:</p> <p>Licence Part D – Waste Use Part E – Construction Part J – Watercourse Crossings</p>	Based on the described mitigations, it is the Board’s opinion that the proposed activities will not have a significant adverse impact on the environment or will not be a cause of public concern.
Wetland impairment	Camp, Access Road, Use of Site	<p>The Applicant proposed the following mitigations in the Application:</p> <ul style="list-style-type: none"> ○ Effort to ensure activities avoid wetlands during summer operations. 	Based on the described mitigations, it is the Board’s opinion that the proposed activities will not have a significant adverse impact on the environment or will not be a cause of public concern.

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
Changes to aquatic habitat	Water Withdrawal	<p>The Applicant proposed the following mitigations in the Application:</p> <ul style="list-style-type: none"> ○ Effort to ensure activities avoid wetlands during summer operations. ○ Materials will not be stored on the ice surface of waterbodies or within 100m of the normal high-water mark. ○ Fuel caches will be set-back a minimum of 100m from the normal high-water mark of any water body or watercourse. ○ A Spill Contingency Plan and Waste Management Plan will be adhered to throughout the Program. ○ Program activities will be conducted during appropriate seasons to minimize activity during critical periods (fall spawning). ○ Water will be withdrawn from nearby sources. Amounts are expected to be small and will be spread over a larger area. ○ Maximum water withdrawal limits followed applicable guidelines. <p>The Board has Standard Licence Conditions that are typically used to mitigate the described impacts. These standard conditions are found in the sections identified below:</p> <p>Licence Part D – Waste Use Part E – Construction Part F – Waste and Water Management Part H – Spill Contingency Planning</p>	Based on the described mitigations, it is the Board’s opinion that the proposed activities will not have a significant adverse impact on the environment or will not be a cause of public concern.
Direct loss of vegetation	Camp, Access Road, Use of Site	<p>The Applicant proposed the following mitigations in the Application:</p> <ul style="list-style-type: none"> ○ Program activities are to take place on previously cleared areas. ○ If ground disturbance does occur, it will be re-contoured and reseeded with an approved mix and inspected. 	Based on the described mitigations, it is the Board’s opinion that the proposed activities will not have a significant adverse impact on the environment or will not be a cause of

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
		<ul style="list-style-type: none"> ○ To prevent risk of impacts to the ground, activities will occur during the winter (e.g. frozen ground and snow cover) or will be heli-portable during the summer. ○ Reclamation activities will occur following abandonment activities. <p>The Board has Standard Licence Conditions that are typically used to mitigate the described impacts. These standard conditions are found in the sections identified below:</p> <p>Licence Part F – Waste and Water Management Part I – Closure and Reclamation</p>	public concern.
Increased risk of fire	Camp, Access Road, Use of Site	<p>The Applicant proposed the following mitigation in the Applications:</p> <ul style="list-style-type: none"> ○ Firefighting equipment will be maintained at fuel storage locations. ○ Fire prevention methods will be in place (include designated smoking areas and fire bans as conditions warrant). 	Based on the described mitigations, it is the Board’s opinion that the proposed activities will not have a significant adverse impact on the environment or will not be a cause of public concern.
Compaction of vegetation	Camp, Access Road, Use of Site	<p>The Applicant proposed the following mitigations in the Application:</p> <ul style="list-style-type: none"> ○ To prevent risk of impacts to the ground, activities will occur during the winter (e.g. frozen ground and snow cover) or will be heli-portable during the summer. ○ Reclamation activities will occur following abandonment activities. <p>The Board has Standard Licence Conditions that are typically used to mitigate the described impacts. These standard conditions are found in</p>	Based on the described mitigations, it is the Board’s opinion that the proposed activities will not have a significant adverse impact on the environment or will not be a cause of public concern.

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
		<p>the sections identified below:</p> <p>Licence Part F – Waste and Water Management Part I – Closure and Reclamation</p>	
Direct injury or mortality	Camp, Access Road, Use of Site	<p>The Applicant proposed the following mitigation in the Applications:</p> <ul style="list-style-type: none"> ○ Keep distance from wildlife and adhere to speed limits. 	Based on the described mitigations, it is the Board’s opinion that the proposed activities will not have a significant adverse impact on the environment or will not be a cause of public concern.
Effects on wildlife health (toxins, metals, etc.)	Camp, Access Road, Use of Site	<p>The Applicant proposed the following mitigations in the Applications:</p> <ul style="list-style-type: none"> ○ Substances harmful to migratory birds will not be placed in waters or areas frequented by migratory birds or in a place from which the substance may enter such waters or such an area. ○ A Spill Contingency Plan and Waste Management Plan will be adhered to throughout the Program. <p>The Board has Standard Licence Conditions that are typically used to mitigate the described impacts. These standard conditions are found in the section(s) identified below:</p> <p>Licence Part F – Waste and Water Management Part H – Spill Contingency Planning</p>	Based on the described mitigations, it is the Board’s opinion that the proposed activities will not have a significant adverse impact on the environment or will not be a cause of public concern.
Human-wildlife conflicts	Camp, Access Road, Use of Site	<p>The Applicant proposed the following mitigations in the Applications:</p> <ul style="list-style-type: none"> ○ The Wildlife Monitor will observe and document wildlife and potential wildlife impacts to ensure that appropriate 	Based on the described mitigations, it is the Board’s opinion that the proposed activities will not have a significant adverse impact on

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
		<p>environmental protection measures are being implemented.</p> <ul style="list-style-type: none"> ○ Work crews will be encouraged to support the work of the Wildlife Monitors. ○ Wildlife will not be approached or fed by Program personnel and Program personnel will not be permitted to hunt on the worksites. ○ A Waste Management Plan will be adhered to throughout the Program. <p>The Board has Standard Licence Conditions that are typically used to mitigate the described impacts. These standard conditions are found in the section(s) identified below:</p> <p>Licence Part F – Waste and Water Management</p>	<p>the environment or will not be a cause of public concern.</p>
<p>Effects on health (toxins, metals, sediment, etc.)</p>	<p>Camp, Access Road, Use of Site, Water Withdrawal</p>	<p>The Applicant proposed the following mitigations in the Applications:</p> <ul style="list-style-type: none"> ○ Effort to ensure activities avoid wetlands during summer operations. ○ Operations will not be conducted within 30m of any waterbodies not being crossed. ○ Materials will not be stored on the ice surface of waterbodies or within 100m of the normal high-water mark. ○ Fuel caches will be set-back a minimum of 100m from the normal high-water mark of any water body or watercourse. ○ A Spill Contingency Plan and Waste Management Plan will be adhered to throughout the Program. ○ Program activities will be conducted during appropriate seasons to minimize activity during critical periods (fall spawning). 	<p>Based on the described mitigations, it is the Board's opinion that the proposed activities will not have a significant adverse impact on the environment or will not be a cause of public concern.</p>

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
		<ul style="list-style-type: none"> ○ Water withdrawal will occur during the winter and maximum water withdrawal limits followed applicable guidelines. ○ All watercourse crossing construction and repair will adhere to applicable guidelines. <p>The Board has Standard Licence Conditions that are typically used to mitigate the described impacts. These standard conditions are found in the section(s) identified below:</p> <p>Licence Part D – Water Use Part E – Construction Part F – Water and Water Management Part H – Spill Contingency Planning</p>	
Economic opportunities or losses (employment, training)	Camp, Access Road, Use of Site	<p>The Applicant proposed the following mitigations in the Applications:</p> <ul style="list-style-type: none"> ○ Local contractors to be used as much as possible. ○ The Program will create seasonal jobs, training opportunities and revenue for local contractors. 	Based on the described mitigations, it is the Board’s opinion that the proposed activities will not have a significant adverse impact on the environment or will not be a cause of public concern.
Impairment of the recreational or traditional uses of the land or water	Camp, Access Road, Use of Site, Water Withdrawal	<p>The Applicant proposed the following mitigations in the Applications:</p> <ul style="list-style-type: none"> ○ Up to date information on land use prior to starting activities to reduce the potential for conflicts and ensure community members are aware of planned activities and vice versa. <p>The Board has Standard Licence Conditions that are typically used to mitigate the described impacts. These standard conditions are found in the section(s) identified below:</p>	Based on the described mitigations, it is the Board’s opinion that the proposed activities will not have a significant adverse impact on the environment or will not be a cause of public concern.

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
		Licence Part B – General Conditions	
Changes to the use of the area by other non-Indigenous people (e.g., trappers, outfitters, residents, hunters, forest harvesters, other authorized projects)	Camp, Access Road, Use of Site, Water Withdrawal	<p>The Applicant proposed the following mitigations in the Applications:</p> <ul style="list-style-type: none"> ○ Canadian Natural will request current information on land use prior to abandonment and reclamation activities to reduce the potential for conflicts and ensure community members are aware of Canadian Natural’s planned activities and vice versa. <p>The Board has Standard Licence Conditions that are typically used to mitigate the described impacts. These standard conditions are found in the section(s) identified below:</p> <p>Licence Part B – General Conditions</p>	Based on the described mitigations, it is the Board’s opinion that the proposed activities will not have a significant adverse impact on the environment or will not be a cause of public concern.

4.1 Consideration of Potential Impacts

Based on the potential impacts and proposed mitigations identified above in Table 1, the Board considered whether the changes to the Project might have a significant adverse impact on the environment. In general, impacts of the changes to the Project on the environment can be mitigated through the use of standard licence 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 Licence 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 changes to the Project, the Board considered whether the changes to 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 changes to the Project. Based on the evidence, it is the Board's opinion that the proposed changes to the 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 changes to the Project to Environmental Assessment.

If the Board does not receive a notice of referral to environmental assessment by December 27, 2021, the Board can issue the Licence on December 28, 2021.

SIGNATURE



December 17, 2021

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

Date