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October 28, 2021

File: MV2020L1-0011

Jessica Gysler
Reclamation Coordinator
Canadian Natural Resources Limited
2500, 855 – 2 Street S.W.
Calgary, Alberta T2P 4J8

Sent by e-mail

Dear Jessica Gysler,

Re: Canadian Natural Resources Limited – Water Licence Application Incomplete – Arrowhead and Netla 13-Well Abandonment and Reclamation Program – Northeast of Fort Liard, NT

On October 13, 2021, the Mackenzie Valley Land and Water Board (Board) staff received the additional information to the Application for Water Licence (Licence) MV2020L1-0011¹ for the abandonment and reclamation program of the Arrowhead and Netla wells, Northeast of Fort Liard (Project) from Canadian Natural Resources Limited (CNRL).

The additional information to the Application has been reviewed and found to be lacking information required under section 5 of the Waters Regulations. For the Application to be considered complete, refer to the MVLWB *Guide To Completing Water Licence Applications to the Mackenzie Valley Land and Water Board*² (Guide) and submit the following information to the Board's office:

1. Engagement – Application Form Item 14

The MVLWB *Engagement Guidelines for Applicants and Holders of Water Licences and Land Use Permits*³ requires applicants to conduct pre-submission engagement with all potentially affected parties. CNRL identified the engagement log and Engagement Plan were updated to identify how they will engage with rights holders and affected parties throughout the authorization. Upon review, Board staff note that the table under section 4, Triggers for Engagement, in the submitted Engagement Plan lists the Rights Holders/Potentially Affected Party as:

- Acho Dene Koe First Nation
- Acho Dene Koe Band Land Services
- Nahanni Butte First Nation

¹ See MVLWB Online Registry for MV2020L1-0011.

² MVLWB (2020) [Guide to the Water Licensing Process](#).

³ MVLWB (2018) [Engagement Guidelines for Applicants and Holders of Water Licences and Land Use Permits](#).

- Smbaa K’e First Nation
- Hamlet of Fort Liard

The engagement log submitted with the additional information to the Application indicates Nahanni Butte First Nation, Smbaa K’e First Nation, and Hamlet of Fort Liard were engaged with on November 12, 2020; however, follow-up with Nahanni Butte First Nation, Smbaa K’e First Nation, and Hamlet of Fort Liard is not described. Follow-up with Nahanni Butte First Nation, Smbaa K’e First Nation, and Hamlet of Fort Liard and revise the engagement log accordingly.

2. Water Source Capacity – Application Form Item 7

Additional details on the withdrawal rates, showing they would be below 10% of the instantaneous flow, was requested in the November 23, 2020 incomplete letter as several water sources identified in the November 2020 Application were missing. In response, CNRL stated that the proposed water use volume was less than 100m³/source, which is below the threshold limit requiring a water licence and did not provide any further details. Board staff note that details on each water source is required whether or not the volume of the individual source is under threshold of triggering a standalone water licence. The trigger for a Water Licence is the cumulative volume being requested, not the individual water sources.

The total estimated available capacity and the total proposed water use for all uses (winter road construction, well abandonment, camp/domestic use, etc.) from each source should be clearly provided for easy comparison by reviewers. CNRL should update its Water Licence Application to clearly provide the following information for all water sources:

Water Source	Capacity of Water Source, including units	Other Users of the Water Source	Comparison of Total Proposed Water Use to Available Capacity
i.e. Muskeg River	[Calculated 10% of instantaneous flow.]	N/A	20,000 m ³
i.e. - Unnamed Lake D-21 (POD 282)	Estimated surface area: 225,000 m ² x 0.1 m = 22,500 m ³	N/A	7,000 m ³

As identified by CNRL, field determinations are required to determine instantaneous flow, and therefore, the total proposed water use volumes from the proposed rivers and creeks will be determined once crews are at the locations. Similarly, field verification is required to confirm water source depths for all sources from which water use may exceed 99m³/day. CNRL must provide its field verification plan(s) for collecting the outstanding information required. Results of field verification will be required prior to obtaining approval to use the affected sources. Field verification should occur prior to each season of use, avoiding freshet. For lakes, the depth verification must be measured in at least three locations >20 m from shore and approximately 20 m apart. Board staff recommend CNRL reference the Boards [Method for Determining Available Winter Water Use Capacity for Small-Scale Projects](#) for submission requirements.

3. Security Estimate – Application Form Item 14

An estimate for security using the RECLAIM model for oil and gas was requested in the November 23, 2020 incomplete letter. In response, CNRL provided an estimate using the RECLAIM model for oil and gas and noted that there was overlap with security provided for the Land Use Permit and provided to Office of the Regulator of Oil and Gas Operations (OROGO) for the downhole abandonments and that those amounts should be deducted from the total.

Board staff note that OROGO's requirement for Proof of Financial Responsibility (PFR) which they hold, may be used to pay claims made under section 63 of the *Oil and Gas Operations Act* (OGOA) for the actual loss or damages from or for cost associated with clean-up of debris, spills or authorized discharge, emission or escape of oil and gas, with terms defined as follows:

- "Actual loss or damage" as including loss of income, including future income and the loss of hunting, fishing and gathering opportunities by Aboriginal peoples;
- "Debris" as an installation or structure that has been abandoned without authorization or any material that has broken away or been jettisoned or displaced in the course of an approved work or activity; and
- "Spills" as a discharge, emission or escape of petroleum.

Board staff also note that the current security required under the associated Land Use Permit (Permit) [MV2019X0014](#) is in the amount of \$125,600.00 and recommend that any changes to the existing terms and conditions of this Permit should be applied for with an Amendment.

Upon receipt of this information, the Application will be reviewed as per the Waters Regulations. If this information is not provided within 90 days of the date of this letter, staff will return the Application.

Please contact [Angela Love](#) at (867) 766-7456 with any questions or concerns regarding this letter.

Yours sincerely,



Angela Love
Regulatory Specialist

BCC'd to: Margot Ferguson, Consultant to Canadian Natural Resources Limited
Kyle Christiansen, GNWT-ENR, Water Resource Officer, Dehcho Region
Jamie Chambers, GNWT-ENR, Regional Superintendent, Dehcho Region