



Water Resources Division
Resource Management Directorate
Nunavut Regional Office
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Your file - Votre référence
3AM-GRA1631
Our file - Notre référence
GCDOCS# 116512103

August 22, 2023

Robert Hunter
Licensing Administrator
Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU, X0B 1J0
sent via e-mail: licensing@nwb-oen.ca

Re: Crown-Indigenous Relations and Northern Affairs Canada's response to the Government of Nunavut's response to the 2022 Annual Report review comments for Water Licence 3AM-GRA1631 for the Hamlet of Rankin Inlet in the Kivalliq Region of Nunavut

Dear Mr. Hunter,

Thank you for the August 15, 2023 invitation to respond to the Government of Nunavut's responses regarding the referenced 2022 Annual Report review comments. The responses were submitted by the Government of Nunavut, Department of Community and Government Services on behalf of the Licensee. This annual review is for Rankin Inlet's Type A Water Licence No. 3AM-GRA1631.

Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) examined the application pursuant to its mandated responsibilities under the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* and the *Department of Crown-Indigenous Relations and Northern Affairs Act*. CIRNAC has **two unresolved comments** and one resolved comment.

If there are any questions or concerns, please contact me at michelle.blade@rcaanc-cirnac.gc.ca or Andrew Keim at 305-501-4047 or Andrew.Keim@canada.ca.

Sincerely,

Michelle Blade,
Regional Water Coordinator



Technical Review Memorandum

Date: August 22, 2023

To: Robert Hunter, Licensing Administrator, Nunavut Water Board

From: Michelle Blade, Regional Water Coordinator, CIRNAC

Subject: Crown-Indigenous Relations and Northern Affairs Canada's response to the Government of Nunavut's response to the 2022 Annual Report review comments for Water Licence 3AM-GRA1631 for the Hamlet of Rankin Inlet in the Kivalliq Region of Nunavut

Region: ☐ Kitikmeot ☒ Kivalliq ☐ Qikiqtani

A. BACKGROUND

The Hamlet of Rankin Inlet is located on the Kudlulik Peninsula in Nunavut, on the northwestern shores of Hudson Bay, between Chesterfield Inlet and Arviat. It is the largest hamlet and second-largest settlement in Nunavut. It is the regional centre for the Kivalliq Region with a population of 2842 (2016 census).

On July 8, 2021, existing Type "A" Water Licence No: 3AM-GRA1624 was amended to Type "A" Water Licence No: 3AM-GRA1631. Specific terms and conditions of note in the Amended Licence include the following:

- the term of the Licence is extended by 7 years, with the Licence set to expire in 2031;
- changing the authorized location and water source from Char River to Lower Landing Lake to authorize the Licensee's pumping of water from Lower Landing Lake during the open water season to replenish the community's drinking water source, Nippisar Lake;
- increasing the amount of water that can be pumped from the new source; Lower Landing Lake; and
- consequential amendments to various terms and conditions in the Licence necessary to reflect changes to monitoring and reporting requirements resulting from the changes to the Licence.

CIRNAC provides the following comments and recommendations pertaining to the 2022 annual report. A summary of the subjects of recommendations can be found in Table 1. Documents reviewed as part of this submission can be found in Table 2 of Section B. Detailed technical review comments can be found in Section C.



Table 1: Summary of Recommendations

Recommendation Number	Subject	Status
R-01	Quantity of water used	Unresolved
R-02	Water quality monitoring reporting	Unresolved
R-03	Station ID GRA-3 observed flow	Resolved

B. DOCUMENTS REVIEWED

The following table (Table 2) provides a summary of the documents reviewed under the submission.

Table 2: Documents Reviewed

Document Title	Author, File No., Rev., Date
3AM-GRA1631 2022 Annual Report	Government of Nunavut, Community and Government Services (GN-CGS) on behalf of the Hamlet of Rankin Inlet, 25 April 2023
TYPE "A" WATER LICENCE NO: 3AM-GRA1631	Nunavut Water Board, 08 July 2021
TYPE "A" WATER LICENCE NO: 3AM-GRA1631 Reasons for Decision	Nunavut Water Board, 08 July 2021
Water Licence Inspection Form	CIRNAC, 20 July 2022
Written Warning	CIRNAC, 12 December 2022
Government of Nunavut Response to Inquiries	Government of Nunavut, 15 August 2023
3AM-GRA1631 2022 Annual Report Final	Government of Nunavut, Community and Government Services (GN-CGS) on behalf of the Hamlet of Rankin Inlet, 15 August 2023



C. RESULTS OF REVIEW

1. Quantity of water used

Comment:

Water licence 3AM-GRA1631 allows for 10,000 cubic metres per day of water from Lower Landing Lake to Nipissar Lake during the open water season. Schedule B item b of the water licence states the daily, monthly and annual quantities in cubic metres of fresh Water withdrawn from Lower Landing Lake during annual resupply (spring freshet) at Monitoring Station No: GRA-7 be reported in the annual report. Table 2 of the 2022 Annual Report estimates 7,457,111 cubic metres of water was transferred from Lower Landing Lake to Nipissar Lake between July 07th, 2022 and October 6th, 2022, which exceeds 10,000 cubic metres per day. Table 2 reports the monthly and annual quantities but not the daily quantity of water withdrawn from Lower Landing Lake.

Recommendation:

(R-01) CIRNAC recommends the Government of Nunavut clarify the units of Table 2 of the 2022 Annual Report. CIRNAC recommends that the Government of Nunavut include the daily quantities of water withdrawn from Lower Landing Lake in the 2022 Annual Report, and specify if any daily rates exceeded 10,000 cubic metres.

Response to CIRNAC:

Error has been rectified and the daily logs have been included in the appendices.

Status of comment R-01: unresolved

CIRNAC acknowledges the updates to Table 2 of the 2022 Annual Report, and inclusion of daily water resupply log in Appendix C.

(R-01a) The text below updated Table 2 indicates pumping from Lower Landing Lake began on July 7, 2022. Appendix C states pumping began July 19, 2022. CIRNAC recommends the Government of Nunavut clarify the 2022 pumping start date from Lower Landing Lake in the 2022 Annual Report.

(R-01b) The reported daily flow meter readings in Appendix C are all in excess of 239,250 cubic metres per day. Water licence 3AM-GRA1631 allows for 10,000 cubic metres per day of water from Lower Landing Lake to Nipissar Lake during the open water season. CIRNAC recommends the Government of Nunavut clarify the daily flow meter reading units from Lower Landing Lake in the 2022 Annual Report, and specify if any daily rates exceeded 10,000 cubic metres.



2. Water quality monitoring reporting

Comment:

Water licence 3AM-GRA1631 requires water quality monitoring at active Station ID GRA-1, GRA-3, GRA-4, GRA-5, and GRA-7. The 2022 Annual Report provides analytical results for Station ID GRA-3 only.

Recommendation:

(R-02) CIRNAC recommends the Government of Nunavut submit the water quality monitoring flow and/or analytical results as per Schedule J Table 2 of the water licence for GRA-1, GRA-3, GRA-4, GRA-5, and GRA-7 with the 2022 Annual Report, or specify if none were collected in 2022. CIRNAC recommends the Government of Nunavut provide a summary table for Station ID GRA-1 and GRA-7 compared Canadian Council of Ministers of the Environment Water Quality Guidelines for the Protection of Freshwater Aquatic Life (as specified in Part J item 2 of the water licence) in the 2022 Annual Report, and specify if there were any exceedances. Failure to follow the terms and conditions of the water license, including conducting water quality monitoring, is an issue of non-compliance.

Response to CIRNAC:

No sampling was done in 2021 due to COVID apart from GRA-3 and in 2022 there was a bottle shortage at the lab. Correspondence of this shortage has been attached to the report.

Status of comment R-02: unresolved

CIRNAC acknowledges inclusion of email correspondence of bottle shortage in Appendix C. A bottle shortage at one laboratory service is an insufficient reason to be in non-compliance with Schedule J Table 2 of the water licence for GRA-1, GRA-3, GRA-4, GRA-5, and GRA-7 in 2022.

(R-02a) CIRNAC recommends the Government of Nunavut clarify in the 2022 Annual Report if the sample bottle shortage issue has been resolved, and if the Licensee is conducting sampling in compliance with Schedule J Table 2 of the water licence for GRA-1, GRA-3, GRA-4, GRA-5, and GRA-7 in 2023.

3. Station ID GRA-3 observed flow

Comment:

Water licence 3AM-GRA1631 requires water quality monitoring at Station ID GRA-3 when flow is observed. The 2022 Annual Report provides analytical results for three samples collected at Station ID GRA-3 on 9 February 2022, 27 April 2022, and 29 June 2022.



Recommendation:

(R-03) CIRNAC recommends the Government of Nunavut indicate the timeframe when flow was observed in 2022, and provide an explanation why sampling was not conducted or analytical results were not provided as per Schedule J Table 2 of the water licence.

Response to CIRNAC:

It is assumed the recommendation is referring to the single missed sampling event. As above there was a bottle shortage and therefore the fourth sampling event could not take place.

Status of comment R-03: resolved

CIRNAC considers comment R-03 resolved.