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NUNAVUT WATER BOARD
NUNAVUT IMALIRIYIN KATIMAYINGI
OFFICE DES EAUX DU NUNAVUT

File: 3AM-GRA1631/F1

April 03, 2025

Darren Flynn
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Municipality of Rankin Inlet
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Ramesh Ummat
Regional Director – Infrastructure Kivalliq Division
Department of Community and Government Services

Email: rummat@gov.nu.ca

Subject: Modifications to Water Supply Facilities; Type A Water Licence 3AM-GRA1631; Municipality of Rankin Inlet

Dear Darren Flynn and Ramesh Ummat,

On January 15, 2025, the Nunavut Water Board (NWB or Board) acknowledged receipt of a request from Community and Government Services, Government of Nunavut (Licensee) to approve planned modifications (Modifications) to the Water Supply Facilities as per Part F, Item 1 of Licence No. 3AM-GRA1631 (Licence).

The modification includes constructing a new water pumphouse at the current Nipissar Lake site and a new water treatment plant with storage tanks at the existing Williamson Lake site. Both structures will be larger than the current facilities to meet the increasing municipal water needs of Rankin Inlet. The new water treatment plant will not require any infilling of Williamson Lake.

The application included correspondence from the Nunavut Planning Commission (NPC) dated October 11, 2024, stating that the activities were previously reviewed by the NPC and that the conformity determination issued on July 29, 2020, still applies. Furthermore, the project is exempt from screening by the Nunavut Impact Review Board (NIRB).

On January 15, 2025, the NWB distributed the modification package for public review with a deadline to respond by February 14, 2025. Comments were received from Crown-Indigenous Relations and Northern Affairs (CIRNA) and Fisheries and Oceans Canada (DFO) on February 14, 2025. The Licensee responded to the comments on March 05, 2025, which was forwarded to the interveners. After multiple correspondences between the parties, the comments were mostly resolved. A summary of the comments and outcomes of the discussions between the interveners and the Licensee is presented below:

Crown-Indigenous Relations and Northern Affairs, February 14, 2025

1. CIRNA recommended that the applicant add a section on erosion control within the document labeled Erosion and Sedimentation Controls as well as a schedule of when the measure will be inspected and confirm that all materials used will be non-potentially – acid generating (NPAG).

2. CIRNA requested that the applicant provide
    a. a clear summary of what is being asked,
    b. confirmation of where the materials used in construction will be sourced from, confirmation that all materials,
    c. confirmation that the equipment and final buildings will be 31 metres from the water, and
    d. what will be done with the water that is currently being held in the old treated water storage tanks once they are decommissioned.

On March 05, 2025, the Licensee responded to CIRNA with clarifications and additional documents to address issues regarding sedimentation and erosion control. On March 15, 2025, CIRNA responded that all their comments, except 1c, are resolved.

Following CIRNA's response, on March 19, 2025, the Licensee responded that while the fuel tanks are more than 31 metres away from the lakes, the final buildings and water storage tank will be within 31 metres. On March 25, 2025, CIRNA replied that they do not support having buildings or storage tanks within 31 metres of the ordinary High-Water Mark of the lakes and looks to the NWB for direction.

On March 26, 2025, the NWB requested the Licensee provide clarification as to whether alternate locations have been considered for the proposed construction. On March 27, 2025, the Licensee responded that the new water supply facility was designed to meet existing regulations, including Part H, Item 2 of the Licence. The proposed alternate site for the new water treatment plant, located between Nipissar Lake and Williamson Lake, was deemed unsuitable due to several factors. The existing utilidor system consists of five loops that connect to the current Williamson Lake site. Placing the plant at the alternate location would require major redesign, construction, and integration efforts, leading to significant costs beyond the project's approved budget. Additionally, the alternate site, positioned north of the community, is more exposed to extreme weather conditions, including severe snow drifting and whiteouts, increasing the risk of service disruptions and personnel safety concerns.

Despite constraints at the existing site—such as its proximity to Williamson Lake and its location at the intersection of two major roads—the new water treatment plant and storage tanks were placed there, ensuring compatibility with the utilidor system. The setback distances are:

- Williamson Lake to the closest point of the water treatment plant: 15.64m
- Williamson Lake to the closest water storage tank: 17.57m

Since Nipissar Lake is the primary water source, the new pumphouse was constructed at the same site to maintain the connection to the existing water main loop leading to the Williamson Lake pumphouse. Altering this connection was beyond the project's scope and budget. Furthermore, a shorter intake line was designed to minimize system friction losses.

The NWB acknowledges that the Licensee considered alternate site locations during the planning phase, but due to concerns regarding personnel safety and practicability of alternate locations, the current location was selected. However, the NWB recommends that the Licensee update the Spill Contingency Plan to minimize the risks of adverse effects from the operation of the proposed upgraded infrastructure on lakes.

Fisheries and Oceans Canada (DFO), February 14, 2025

1. DFO recommended that the Licensee adhere to DFO's protective measures for fish and fish habitat, as well as standard codes of practice, to be in compliance with the *Fisheries Act* and utilize the provided resources to avoid impacting fish or their habitat.

Copies of all documents received during the review can be accessed through the NWB's Public Registry and FTP site using the following link:

https://public.nwb-oen.ca/registry/3%20MUNICIPAL/3A/3AM%20-%20Municipality/3AM-GRA1631/3%20TECH/F%20MODIF%20%26%20CONST/2025/

NWB's Review and Decision

The NWB, having fully reviewed the Licensee's request in the context of potential impact of the proposed activities on the freshwater environment, and consistency of the proposed activity in relation to the scope of the Licence, determined that the proposed works are consistent with the scope of activities considered under the Licence issued to this Project. The NWB approves the Modifications to the Water Supply Facilities as per Part F of the Licence.

Additionally, while the NWB has approved the Modifications, the NWB recommends that the Licensee update the following plans:

Table 1 Management Plans to be Updated/Submitted

SN	Plan	Deadline
1	Spill Contingency Plan	within 90 days after construction
2	Operations and Maintenance Plan for the Water Treatment Plant	within 90 days after construction
3	Closure and Reclamation Plan	6 months before decommissioning

Further, in keeping with Part F, Item 5 of the Licence's terms and conditions, the submission of post-construction information, including a Construction Summary Report, shall remain applicable to this approval.

The NWB acknowledges that the Modifications address the requirements of Part F, Item 1 of the Licence. The Licensee is advised that the Board's review of this document is a verification that the proposed activity is consistent with the existing terms and conditions of the Licence and more specifically with Part F, Item 1, and may proceed in accordance with the Modifications and submissions provided. It should be noted that the Board's acceptance is NOT intended or offered as any representation regarding the suitability of the plans nor third-party verification of the design, construction, planning or engineering discussed in the document.

Should you have any questions, please feel free to contact the undersigned at (867) 360-6338 (extension 32) or nidhi.singh@nwb-oen.ca at your earliest convenience.

Sincerely,



Nidhi Singh
Technical Advisor
Nunavut Water Board

ns/rqd

Cc: Distribution List – Kivalliq