Nunavut Water Board PO Box 119 Gjoa Haven, NU X0B 1J0

References:

 CIRNAC Permit
 N2021N0007

 NIRB File No.
 08DN056

 NPC File No.
 150823

Dear Representative,

## Re: Application for approval for the use of water or deposit of waste without a licence for the DRDC Northern Watch Technology Demonstration Project

Defence Research and Development Canada (DRDC) is requesting approval for the use of water or deposit of waste without a licence at the Gascoyne Inlet Camp site for the Northern Watch Technology Demonstration (NWTD) Project. The camp is a key element of the DRDC's arctic research capability in support of research and development needs of the Department of National Defence (DND) and the Canadian Armed Forces (CAF.)

The main research program presently supported by the Gascoyne Inlet Camp (camp) is the Defence of North America program. This program is a multi-year program, part of which is focused on surveillance in maritime Arctic locations. An approval (8WLC-NWT2425) was previously issued for the 2024 iteration of the NWTD Project on 30 April 2024, effective 13 June 2024. This application can therefore be considered a request for renewal if so permitted and appropriate.

The DRDC NWTD Project activities at the camp use less than 1 m<sup>3</sup> per day of water. All sewage is transported off-site to an approved sewage lagoon and greywater is screened and returned to the land via a loose gravel surface.

The DRDC NWTD Project will entail camp maintenance and camp-based research activities, as well as marine activities. Marine activities will be executed or supported by DRDC work boats and Canadian Coast Guard vessels as the scope requires.

The DRDC is attempting to transition to a reverse-osmosis-based freshwater supply for the camp. The water is sourced from the Inlet. Trial of a small, sailboat-style reverse-osmosis water treatment system at the camp yielded positive results. The DRDC plans to deploy a second unit in summer 2025 to fully meet the camp's water needs and reduce reliance on meltwater and the associated maintenance.

This system continues to include a small saltwater intake hose and a brine discharge hose near the shoreline. The camp is not anticipated to require an increase in water draw over the 1.0 m<sup>3</sup>/day limits prescribed in previous years. No significant impacts to the local environment because of the discharge of brine water are anticipated.

Should you require any additional information please do not hesitate to contact me.

Sincerely,

Patrick Sangster

Environment, Health and Safety Officer, Atlantic Research Centre Defence Research and Development Canada / Government of Canada Email: Patrick.Sangster2@forces.go.ca

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