National Defence
Défense nationale

North Warning System Office
MGen George R. Pearkes Building
101 Colonel By Drive
Ottawa, ON, K1A 0K2

17 February 2017

Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU, X0B 1J0
Attention: Cynthia Ene

WITHDRAWAL OF APPLICATION FOR WATER LICENCE AMENDMENT

References: A. Nunavut Water Licence 3BC-DYE0919, Type "B"
B. Application for Water Licence Amendment 3BC-DYE0919, Type "B", dated 09 Dec 2015

1. Thank you for your email dated 02 February 2017 regarding the proposed culvert work to be undertaken at the North Warning System Site known as DYE-M with Water Licence 3BC-DYE0919, Type "B".

2. In response to your email, the North Warning System Office formally withdraws the Application for Water Licence Amendment for DYE-M, Ref B, received by the Nunavut Water Board on 15 February 2016. In place of the Application for Amendment, the North Warning System Office proposes the modification of certain site activities to accommodate on-site culvert work. Full details of the Proposed Site Work at DYE-M are included in Annex A.

3. Your advice and guidance on these matters are appreciated. As always, the North Warning System Office will provide any documentation, such as construction drawings or reports, requested by the Nunavut Water Board.

4. Should you have any further questions, please do not hesitate to contact me.

I. Creighton

Major I. Creighton
North Warning System Facilities Manager
Department of National Defence

Annex A: Proposed Site Work at DYE-M

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Annex A
Withdrawal of Application for Water License Amendment
17 February 2017

PROPOSED SITE WORK AT DYE-M

1. The North Warning System (NWS) radar site known as DYE-M is located at the eastern edge of Baffin Island on the mountainous peninsula of Cape Dyer. The site consists of three areas: the summit, a lower site, and the beach. The summit accommodates the radar, several buildings, fuel tanks, and a helipad. The lower site consists of a hangar and a runway, while the beach holds numerous fuel tanks. The site is unmanned most of the year.

2. The main access road at DYE-M extends from the beach landing area to crossroads near the airport and then continues to the summit. This road is the only route from the beach or runway to the summit and is traversed by tanker trucks annually to transfer fuel. The road is plowed from the beach to summit every spring and ice dams are removed at many culvert road-crossings to reduce erosion and washouts.

3. Over many years, several culverts have been damaged from ice dam removal operations. Furthermore, erosion at the glacier/spring melt crossing has reduced the road to one lane. Annual roadway maintenance and repair activities have not been able to address the damage to these culverts. The following photos show several of the damaged culverts at DYE-M.

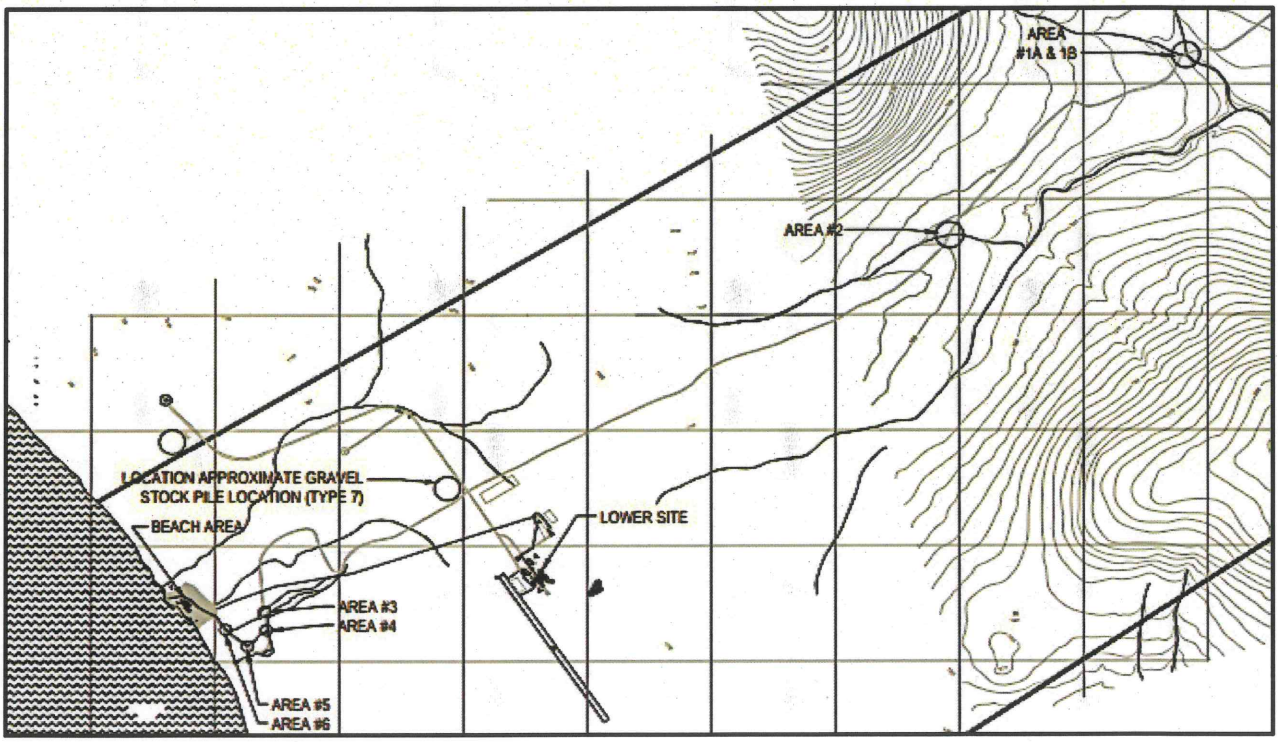
4. During the summer of 2018, the NWS Office proposes to address the current drainage deficiencies by replacing damaged culverts with larger ones and by installing additional culverts. The roadway at the glacier/spring melt crossing will be restored to a two lanes. The work will be completed through our principle contractor, Raytheon Canada Ltd (RCL). Table 1 summarizes the proposed culvert sizes as determined by civil engineers at RCL.

Table 1

Area	Existing Culverts	Culverts to be Installed	Increase in Cross Sectional Area
1A	Two oval culverts 2.0 m (78") wide and 1.75 m (69 inches) high. Six additional overflow culverts 90 cm (36") in diameter.	Five culverts 1.8 m (72") in diameter. (15 m long)	36 %
1B	Four culverts 90 cm (36") in diameter.	Three culverts 1.2 m (48") in diameter (17 m long).	33 %
2	Nine culverts 90 cm (36") in diameter.	Six culverts 1.2 m (48") in diameter. (17 m long)	18 %
3	No culverts currently.	Two culverts 90 cm (36") in diameter. (15 m long)	N/A
4	No culverts currently.	One culvert 90 cm (36") in diameter. (15 m long)	N/A
5	No culverts currently.	One culvert 90 cm (36") in diameter. (15 m long)	N/A
6	No culverts currently.	Two culverts 90 cm (36") in diameter. (15 m long)	N/A

5. The cross-sectional area of culverts at locations 1A, 1B and 2 will be increased. New culverts will be added to locations 3, 4, 5, and 6 where the roadway has been washed out in the past due to the spring melt. Work areas are shown in Figure 1.

Figure 1



6. In addition to culvert work, the existing slopes and ditches along the road will be re-graded to achieve proper drainage. Rip-rap and Gabion Baskets will be placed along the road embankments to stop erosion. No permanent diversion of water will occur. The water courses / runoff will be temporarily diverted during construction using a berm to re-direct the water past the work area. Check-dams and silt fencing will be installed to remove silt, sediment, and debris from the diverted water flow. Upon completion of the work, the temporary control measures will be removed in a manner that prevents the release of sediment or debris into nearby watercourses. More specifically, the area enclosed by check-dams will be cleaned of debris. Accumulated sediment will be removed prior to the removal of the silt fencing. No new roads will be created as part of this work.

7. The project is scheduled for implementation from mid-July to early September 2018, approximately six weeks. A crew of approximately fifteen people will be required on-site to complete this project. The necessary equipment includes a loader, an excavator, a bulldozer, a grader, a dump truck and a vibratory plate compactor. No camp will be required for this project as the crew will stay in the existing accommodations. Food will be prepared in existing kitchen facilities and the disposal of all waste, both hazardous and non-hazardous, will conform to Regulations as per standard NWS procedures. Non-hazardous waste will be taken to Iqaluit, NU, and hazardous waste will be prepared and shipped to a licensed waste-disposal facility outside of Nunavut.