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August 16, 2022

Mr. Lootie Toomasie Chairperson Nunavut Water Board

Re: City of Iqaluit August 2022 – Declaration - Local State of Emergency Water Shortage

Dear Chairman Toomasie,

The City of Iqaluit ("the City") obtains its potable water from Lake Geraldine, an engineered reservoir designed to contain the volume of water necessary to satisfy the drinking water needs of the City. The reservoir is refilled annually during spring and summer by natural inflows from snowmelt and precipitation. Draw down of the available water in the reservoir occurs during winter. In years when natural inflows or precipitation are low and the reservoir does not fill to full capacity, or, when seasonal demand has been high, there is a potential for a shortage of drinking water available to the City over the winter.

The City has approval to supplement the Lake Geraldine water supply annually from the nearby Apex River and began this year's annual supplementation on June 10; however, the Apex River is currently flowing at 40-year historical low water levels, and if flows remain low the City will not be able to fill the reservoir prior to freeze-up.

The situation arises because of unforeseen water usage over winter and spring (contamination of treated water and firefighting), and ongoing exceptionally dry conditions, including the lowest flows in the Apex River in its 42-year record since July 2022. As of August 10, 200,745 m3 had been transferred to the reservoir. **The City predicts it will not be able to fill the reservoir to fill level prior to freeze-up in accordance with its licence conditions if ongoing low river flows persist because there will not be enough flow in the river, even if the City takes all of the available flow at the pump site.**

An additional 425,828 m3 is needed to fill the reservoir.



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- 1) The estimated required pumped volume for the City's potable water needs for winter 2022-2023, calculated as follows:
 - a. Estimated Required Pumped Volume equals the estimated storage deficit from required volume for winter 2022-2023 (assuming a 4,000 m3/day usage rate from October 1, 2022 – June 15, 2023) plus the anticipated usage from August 1 to September 30, 2022 (3,368 m3/day, which is the 75th percentile usage value from June-July 2022) minus estimated natural inflows to fill the reservoir under historical minimum, 25th percentile, mean, median, 75th percentile, and maximum flows at WSC Station 10UH012 (Inflow to Lake Geraldine Near Iqaluit).
- 2) The estimated pumped volumes from the Apex River between August 15 and September 30, 2022 for various pumping rates (10% through 100%) under historical minimum, 25th percentile, mean, median, 75th percentile, and maximum flows were scaled to the pumping location using the historical record from WSC Station 10UH002 (Apex River at Apex).

In order to reach the spill point by the end of the open water season, Apex River flows would need to start exceeding the 25th percentile of historical flows. Flows are currently tracking below the 5th percentile.

Given the short time available in the season to complete supplementation, the City will apply to the Nunavut Water Board to amend its licence to take more than the currently allowable amount to be taken from the Apex River and also to use Unnamed Lake as a supplementary water supply.

Pursuant to section 152(1) of the *Nunavut Planning and Project Assessment Act*, the City's request for a permit to take water from Unnamed Lake is exempt from Nunavut Planning Commission and Nunavut Impact Review Board's screening process if it is in response to an emergency.

Non-application of Part 3:

152 (1) <u>This Part does not apply in respect of any project</u> that is carried out in response to

(a) a national emergency for which special temporary measures are taken under the Emergencies Act;

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(b) <u>an emergency if a federal or territorial minister</u> who is authorized under any other Act of Parliament or any territorial law to declare a state of emergency, to take measures to prevent an emergency or to remedy or minimize its effects is of the opinion that an emergency exists;

(Emphases added)

Part 3 of the of the *Nunavut Planning and Project Assessment Act*, S.C. 2013, c.14, s.2 (NuPPA), will not apply to projects carried out in response to an emergency <u>if a</u> <u>territorial minister</u> who is authorized under any territorial law to declare a state of emergency <u>is of the opinion that a state of emergency exists</u> (s.152(1)).

I am authorized to declare a state of emergency in any part of Nunavut pursuant to s.11(1) of the *Emergency Measures Act*, S.Nu. 2007, c.10, and I am of the opinion that the current water shortage in Lake Geraldine, combined with historic low water levels in the Apex River constitutes an emergency in the City of Iqaluit. Access to clean water is critical for human health, and it is in the interest of ensuring the health and safety of Iqalummiut that the project be carried out without delay.

Regards,

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A/Minister Joanna Quassa For Minister David Joanasie Community and Government Services

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Kenny Bell, Mayor, City of Iqaluit Kyle Seeley, Deputy Minister, Community & Government Services Blaine Heffernan, Acting Director, Nunavut Emergency Management Brad McFaul, Director of Policy, Community & Government Services