July 31, 2026

Robert Hunter
Licensing Administrator
Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU X0B 1J0

Re: Notification for Update to Water Withdrawal Volumes for Dust Control – Type 'A' Water Licence 2AM-MRY2540

Baffinland Iron Mines Corporation (Baffinland) provides this submission in response to comments received from the Qikiqtani Inuit Association on July 24, 2026, regarding Baffinland's July 3, 2026 notice to the Nunavut Water Board (NWB). Pursuant to Part E, Item 25 of Type A Water Licence 2AM-MRY2540, Baffinland requested approval to revise the water withdrawal limits for dust suppression and control along the Tote Road. This request is intended to provide additional operational flexibility for dust suppression activities by allowing increased withdrawal volumes on certain days while maintaining an overall average daily limit throughout the year.

Baffinland's responses to the QIA's comments are provided in Attachments 1 and 2.

Should you have any questions or require further information, please contact the undersigned.

Regards,

Elisabeth Luther

Senior Manager, Regulatory Affairs

cc. Lou Kamermans (Baffinland)

Attachments

Attachment 1. Response to Comments on the Notification for Update to Water Withdrawal Volumes for Dust Control

Attachment 2. Water Withdrawal Volumes - Response to QIA-2

Attachment 1

Response to Comments on the Notification for Update to Water Withdrawal Volumes for Dust Control

Table 1. Baffinland's Response to Comments on the Notification for Update to Water Withdrawal Volumes for Dust Control

#	Reference	Discussion	Recommendation	Baffinland Response
QIA-1 Clarification of equipment used	Notification for Update to Water Withdrawal Volumes for Dust Control – Type 'A' Water Licence 2AM-MRY2540, Page 1	Baffinland requests that the authorized withdrawal limits for dust suppression be administered as an average of 1,500 m3/day, rather than fixed maximum volumes applicable to each individual withdrawal location per day. The proposed request is intended to provide additional operational flexibility for dust suppression activities by allowing increased withdrawal volumes on certain days while maintaining the overall average daily limit throughout the year. Importantly, the proposed request does not alter the following: • The maximum annual withdrawal limit of 547,000 m3 • The purpose of the water use (for dust control) • The overall volume of water authorized for dust suppression under the Water Licence.	Baffinland has indicated the withdrawal limits for dust suppression should be an average value versus the current maximum value. Can Baffinland please confirm if the size or quantity of equipment will be altered at each pumping location to support potential increased pumping. Secondly, will the rate of water withdrawal change to support a potentially higher daily withdrawal volume?	Baffinland confirms that the size and quantity of equipment used for water withdrawal will remain unchanged. To support the proposed increase in daily withdrawal volumes, the existing equipment may be operated more frequently; however, the instantaneous withdrawal rate will not increase. Baffinland will continue to comply with DFO guidance for end-of-pipe fish screens and pumping rates.
QIA-2 Avoidance of adverse effects without short-term withdrawal limits	Notification for Update to Water Withdrawal Volumes for Dust Control – Type 'A' Water Licence 2AM-MRY2540, Page 1 Attachment 1 - Knight Piésold Ltd. (KP), Updated Review of 2022 Dust Suppression Water Withdrawals, Mary River Project, Page 4.	The notification letter states "that the authorized withdrawal limits for dust suppression be administered as an average of 1,500 m3/day, rather than fixed maximum volumes applicable to each individual withdrawal location per day. The proposed request is intended to provide additional operational flexibility for dust suppression activities by allowing increased withdrawal volumes on certain days while maintaining the overall average daily limit throughout the year" Attachment 1 is used as evidence that streamflow and fish habitat will not be adversely affected by increased daily withdrawal rates. The notification states, "The assessment concluded that the authorized sources could support the instantaneous withdrawal rates without adversely affecting streamflow and fish habitat." Additionally, Attachment 1 states that Type 'A' Water Licence limits were based on water requirements and not environmental thresholds. The report concludes "While daily limits specified in the Type A Water Licence occurred at five water stations over the 2022 open water period, these exceedances were not environmentally consequential [...] We advise Baffinland to request increases to the daily water withdrawal volumes at the stations that are used or	The threshold at which water withdrawals would result in adverse effects should be identified and discussed for each source. A maximum withdrawal threshold should be established for each source to protect streamflow and fish habitat under the proposed amendment. This threshold should represent an upper limit that cannot be exceeded, even if average daily withdrawals remain within the proposed annual allocation. This will prevent short-term impacts to aquatic resources that may occur if relying on annual averaging alone.	Baffinland acknowledges QIA's concern regarding the need for clear short-term protections for streamflow and fish habitat. In response, Baffinland has refined the proposed approach to retain its request to administer the water withdrawal limit for dust suppression at an average of 1,500 m^3/day, but apply a maximum withdrawal limit of 1,500 m^3/day to certain water sources that have sufficient capacity (see Table 1 attached). These limits are based on 10-year dry-condition flows, existing hydrological information, and the capacity of the pumps used at site, and remain well below the DFO 10% instantaneous-flow screening criterion. The supporting rationale, calculations, and treatment of lake withdrawal sources are provided in **Attachment 2:**

		request that monthly limits on water use be used to reflect the sporadic nature of water withdrawals." It is understood that the existing maximum daily water withdrawal limits were not established based on thresholds of potential effects. However, as no upper daily threshold has been set, it is unclear what withdrawal rates Baffinland is referring to when concluding that the proposed amendment will not adversely affect streamflow. While understood to be unlikely, under this model, there is nothing preventing the annual limit from being withdrawn during a short period of time. The KP Report recommends increasing the existing daily withdrawal limits or establishing monthly limits but does not recommend replacing these with average daily limits based on annual thresholds. Consequently, it remains unclear what withdrawal thresholds are considered protective for each source and how adverse effects on streamflow will be prevented if withdrawals are limited only by an annual volume.		**Water Withdrawal Volumes - QIA-2 Response**.
QIA-3 Winter withdrawals from ice-covered waterbodies	Notification for Update to Water Withdrawal Volumes for Dust Control – Type 'A' Water Licence 2AM-MRY2540 Attachment 1 - Knight Piésold Ltd. (KP), Updated Review of 2022 Dust Suppression Water Withdrawals, Mary River Project	The notification and attachment 1 do not discuss water withdrawals from ice-covered water bodies. For winter withdrawals, compliance with the DFO (2010) Protocol for Winter Water Withdrawal from Ice-covered Waterbodies in the Northwest Territories and Nunavut requires characterization of ice thickness, total water depth at the intake location, and calculation of available under-ice water volume to ensure that withdrawals do not exceed recommended limits (e.g., <10% of available under-ice volume), and do not remove oxygenated surface waters that are critical to over-wintering fish. It is unclear how these parameters will be measured, calculated, or validated at the proposed intake locations under a withdrawal regime that does not include maximum daily limits and instead relies on average daily withdrawals calculated from annual limits.	Please clarify if winter withdrawals will occur along the Tote Road. If so, please indicate how compliance with DFO recommendations for winter water withdrawals will be implemented under the average daily limit approach.	The notification sent on July 4 is specific to Water Licence 2AM- MRY2540 Table 4 – Water Use Authorized for Dust Suppression. Baffinland will not need to withdraw water under this table for dust suppression during winter months. Baffinland may withdraw water for industrial purposes (such as building ice bridges, etc.) from approved sources under Water Licence Table 3 and will ensure the referenced protocol is followed.

Attachment 2

Water Withdrawal Volumes - Response to QIA-2

From: Baffinland Iron Mines Corporation
Title: **Water Withdrawal Volumes - Response to QIA-2**
Date: July 31, 2026

WATER WITHDRAWAL VOLUMES - RESPONSE TO QIA-2

Baffinland acknowledges QIA's concern that administering the dust suppression authorization solely as an annual average could theoretically allow a disproportionate volume to be withdrawn over a short period. Baffinland reiterates its request that the authorized withdrawal limits for dust suppression be administered as an average of 1,500 m^3/day to be distributed among the active, authorized withdrawal sources according to operational need. To address QIA's concern, Baffinland proposes to also include daily maximum volumes per water source, as described below.

The annual authorization of 547,500 m^3, the purpose of the water use, and the approved withdrawal locations, would remain unchanged. This clarification directly addresses QIA's concern regarding concentration of the annual allocation: total dust suppression withdrawals per location would be limited to 1,500 m^3 on any individual day, as shown in Table 1 below. However, the total daily withdrawal across all water sources used would be an average of 1,500 m^3/day over the year.

Stream Withdrawal Sources

For stream sources, the principal short-term consideration is the combined instantaneous pumping rate relative to available streamflow. Fisheries and Oceans Canada's national ecological-flow framework identifies cumulative flow alterations of less than 10% of actual instantaneous flow as having a low probability of detectable effects on ecosystems supporting fisheries (DFO, 2013). Baffinland has used this value as a conservative screening criterion for CV-223 (Tom River), CV-128 (Phillips Creek Tributary), and BG50 (Ravn River tributary).

Baffinland uses trailer-mounted, 4-inch Gorman-Rupp diesel trash pumps to fill water trucks. The pumps currently available at site have manufacturer-rated capacities below 60 L/s, and operationally only one pump would be used at an individual withdrawal location at any time. Baffinland therefore proposes a maximum combined instantaneous withdrawal rate of 60 L/s at each of these three stream sources. This limit can be implemented through the existing equipment configuration and operating practice; flow restrictors or additional pumping controls are not required.

CV-223 - Tom River

The FEIS Baseline Hydrology Report (KP, 2012), supported by subsequent annual AEMP hydrology data, identifies a 10-year return-period dry-condition average flow of 1.785 m^3/s for the Tom River. Ten percent of this flow is 178.5 L/s. The proposed 60 L/s maximum pumping rate represents approximately 3.4% of the dry-condition screening flow and remains well below the DFO 10% criterion.

At 1.785 m^3/s, approximately 154,224 m^3 passes the withdrawal location over 24 hours. If the entire 1,500 m^3 project-wide daily allocation were obtained from CV-223, it would represent approximately 0.97% of the 24-hour stream volume.

Table 1. Proposed Revisions to Water Licence Table 4. Water Use Authorized for Dust Suppressions

Site	Source	Tote Road KM location	Annual Average Volume Per Day (m3/day)	Proposed Revisions - Maximum Volume Per Location Per Day (m3/day)	WL Restrictions
Tote Road	Philip's Creek	KM 2 or 23	212	1500	None
Tote Road	KM 32 Lake	KM 32	364	1500	
Tote Road	CV 128	KM 17	579.5	1500	
Tote Road	CV 099	KM 37	110	110	June-July only during low flow (less than mean flow) years
Tote Road	CV087	KM 45.8	90	90	
Tote Road	CV 078	KM 51	75	75	
Tote Road	Katiktok Lake	KM 53.5	318	1500	None
Tote Road	BG50	KM 62	150	1500	
Tote Road	BG32	KM 78.1	120	120	June-July only during low flow (less than mean flow) years
Tote Road	CV217	KM 80	130	130	None
Tote Road	Muriel Lake	KM 81 Bridge	212	1500	None
Tote Road	David Lake	KM 86.5	132	132	June-July only during low flow (less than mean flow) years
Tote Road	BG17	KM 90	75	75	
Tote Road	CV233 (Tom River)	KM 97.5	135	1500	None
Tote Road	Camp Lake	KM 100	86	1500	None

CV-128 - Phillips Creek Tributary

The FEIS hydrology assessment identifies a 10-year return-period dry-condition average flow of 1.64 m^3/s for CV-128. Ten percent of this flow is 164 L/s. The proposed 60 L/s maximum pumping rate represents approximately 3.7% of the dry-condition screening flow and remains well below the DFO 10% criterion.

At 1.64 m^3/s, approximately 141,696 m^3 passes the withdrawal location over 24 hours. If the entire 1,500 m^3 project-wide daily allocation were obtained from CV-128, it would represent approximately 1.06% of the 24-hour stream volume.

BG50 - Ravn River Tributary

BG50 is located on a headwater tributary of the Ravn River and has a catchment area of approximately 181.1 km². The Tom River catchment is approximately 246.8 km². In the absence of an equivalent long-term flow record at BG50, Baffinland conservatively estimated the 10-year dry-condition flow by prorating the Tom River value according to relative drainage area:

$$QBG50 = 1.785\ m^3/s \times (181.1\ km^2 \div 246.8\ km^2) = 1.31\ m^3/s$$

This drainage-area-ratio approach is consistent with a recognized hydrological regionalization method described by the U.S. Geological Survey for estimating low-flow statistics at ungaged sites. The method is based on the assumption of comparable unit-area runoff between nearby, hydrologically similar catchments. USGS notes that the approach is generally reliable where the drainage-area ratio is between 0.5 and 1.5; the BG50-to-Tom River drainage-area ratio is approximately 0.734. The result is used here as a conservative screening estimate.

Ten percent of the estimated 1.31 m³/s dry-condition flow is approximately 131 L/s. The proposed 60 L/s maximum pumping rate represents approximately 4.6% of the estimated flow and remains below the DFO 10% criterion.

At 1.31 m³/s, approximately 113,168 m³ passes the location over 24 hours. If the entire 1,500 m³ project-wide daily allocation were obtained from BG50, it would represent approximately 1.33% of the 24-hour stream volume.

A summary of the stream withdrawal sources assessment is provided in Table 2, and shows that all those water sources remain well below the DFO 10% criterion.

Table 2. Overview of Stream Withdrawal Sources

Source	10-Year Return-Period Dry-Condition Avg Flow Used for Screening (m³/s)	10% of Screening Flow (L/s)	Maximum Pumping Rate (L/s)	Pumping Rate as % of Screening Flow	1,500 m³ as % of 24-Hour Stream Volume
CV-223 Tom River	1.785	178.5	60	3.4%	0.97%
CV-128 Phillips Creek Tributary	1.64	164	60	3.7%	1.06%
BG50 Ravn River Tributary	1.31[1]	131	60	4.6%	1.33%

[1] Estimated from the CV-223 Tom River dry-condition flow using the drainage-area ratio 181.1 km² / 246.8 km².

Lake Withdrawal Sources

The hydrological considerations applicable to lake sources differ from those applicable to flowing streams. Short-duration withdrawals are moderated by lake storage and do not result in an equivalent instantaneous reduction in available streamflow.

The original KP hydrology assessment evaluated the proposed lake withdrawals assuming daily use and compared those withdrawals with lake outflow under mean and 10-year-low-flow conditions. The

assessment concluded that sufficient water was available under all assessed conditions at the five authorized lake sources.

The 2023 KP review further concluded that short-term withdrawals from the utilized lake sources over periods of hours or days would not typically result in measurable changes in lake level and therefore would not be expected to affect fish or fish habitat. KP also confirmed that the existing source-specific daily limits were developed based on anticipated operational requirements and the assumption that all authorized withdrawal locations would be used, rather than as thresholds of potential environmental effect.

On this basis, Baffinland considers that the requested operational flexibility can be applied to the existing authorized lake sources while maintaining a maximum daily withdrawal of 1,500 m^3/day at certain water sources identified in Table 1, and achieving the annual average daily maximum limit of 1,500 m^3/day from all combined sources. Additional lake-level monitoring, staff gauges, drawdown thresholds, or source-specific lake-level triggers are not considered necessary or proportionate to the nature and scale of the proposed amendment.

Scope of the Revised Request

The revised request retains the annual maximum of 547,500 m^3 (maintaining an annual average daily maximum withdrawal of 1,500 m^3 from all sources); proposes a maximum daily withdrawal of 1,500 m^3/day at certain water sources identified in Table 1; establishes a source-specific maximum pumping rate of 60 L/s for CV-223, CV-128, and BG50; relies on the previous hydrological assessment for the authorized lake sources; and does not change the authorized purpose or approved withdrawal locations.

It should be noted that Baffinland is not requesting revised withdrawal limits for CV-217 or for the currently inaccessible withdrawal locations highlighted in grey in the July 3, 2026 notification. Existing source-specific limits and seasonal restrictions will remain applicable at those locations.

Baffinland considers that these controls directly address QIA's concern regarding short-term effects while maintaining reasonable operational flexibility for Tote Road dust suppression.

References

1. Baffinland Iron Mines Corporation. 2026. Notification for Update to Water Withdrawal Volumes for Dust Control - Type A Water Licence 2AM-MRY2540. July 3, 2026.

2. Knight Piésold Ltd. 2012. Mary River Project FEIS Baseline Hydrology Report.

3. Baffinland Iron Mines Corporation. Annual AEMP Hydrology Reports and monitoring data, various years.

4. Knight Piésold Ltd. 2014. Hydrology Assessment of Water Sources for Dust Suppression along the Tote Road - Mary River Project - Early Revenue Phase. Ref. No. NB14-00376 (NB102-181/35).

5. Knight Piésold Ltd. 2023. Updated Review of 2022 Dust Suppression Water Withdrawals, Mary River Project. Ref. No. NB23-00348.

6. Fisheries and Oceans Canada. 2013. Framework for Assessing the Ecological Flow Requirements to Support Fisheries in Canada. Science Advisory Report 2013/017.

7. Risley, J., Stonewall, A.J., and Haluska, T. 2008. Estimating Flow-Duration and Low-Flow Frequency Statistics for Unregulated Streams in Oregon. U.S. Geological Survey Scientific Investigations Report 2008-5126.