

## APPENDIX E.13

### SNP Modification Application



March 31, 2021

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Nunavut Water Board  
P.O. Box 119  
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**Re: Mary River Project - Changes to Surveillance Network Program (SNP) Type 'A' Water Licence 2AM-MRY1325 - Amendment No. 1**

In accordance with Part I, Items 6 and 28 of Baffinland Iron Mines Corporation's (Baffinland) Type 'A' Water Licence – 2AM-MRY1325 - Amendment No. 1 (Type 'A' Water Licence) for the Mary River Project (Project), Baffinland is pleased to submit this request for approval for proposed changes to the Project's Surveillance Network Program (SNP), outlined in Schedule I of the Type 'A' Water Licence.

The SNP outlines the monitoring requirements for Project effluents discharged to the receiving environment and surface water drainage downstream of specific Project areas. The current and proposed SNP monitoring stations at the Milne Port and Mine Site, as presented in Schedule I of the Type 'A' Water Licence - Amendment No. 1 are presented in Figure 1 and Figure 2. Baffinland is proposing to decommission one (1) station and change one (1) station ID Milne Port as well as relocate one (1) station and introduce one (1) new station at Mine Site.

Baffinland is proposing the decommissioning of MP-C-C at Milne Port. Due to construction activities in previous years, the station is no longer capturing surface water discharge. Baffinland is also submitting a request for an ID change for MP-C-B01 to MP-C-K to eliminate confusion with a station that has a similar name.

Baffinland is proposing a change in location for SNP station MS-MRY-13A. A complete field investigation will be conducted in 2021 to determine an appropriate location when conditions are appropriate. The addition of a new station, MS-03B, to account for representing a second bulk fuel storage facility in Schedule I is also requested. A summary of the proposed changes to the SNP monitoring stations and associated justifications are presented in Table 1.

The 2019 Annual Report included an application to the NWB to discontinue and/or relocate some monitoring stations to reflect current Project infrastructure. The NWB accepted the proposed changes on September 11, 2020, re-issuing *Schedule I, Table 13 Monitoring Program: Milne Port Site and Table 14 Monitoring Program: Mary River Mine Site* of the water licence and these modifications are reflected in Table 2.

**Table 1: Proposed Changes to SNP Stations at the Mary River Project**

Station ID	Station Description	Current Location (NAD83, Zone 17W)		Proposed Change	Reason for Change
		Easting	Northing		
MS-03B	Second Bulk Fuel Storage Facility	-	-	New station to be located at: 71°18'55.73"N 79°17'29.47"W	With the addition of a second bulk fuel storage facility at the Mine Site, the creation of a new station to account for this water should be represented in Schedule I.
MS-MRY-13A	Mine Site Non-Hazardous Waste Landfill Facility (surface drainage/seepage)	560754	7912484	Move the station to a new location to be determined during 2021 field season.	The current location for MS-MRY-13A consistently dries up late summer every year. Baffinland will need to complete field investigation this summer to relocate the station to a permanently flowing location if possible. The exact location of MS-MRY-13A will be assessed during the summer of 2021.
MP-C-C	Surface water drainage downstream of Milne Port infrastructure.	503436	7975427	Decommission monitoring station and remove monitoring station from Table 13 (Schedule I).	This station no longer captures surface discharge downstream of construction area due to construction of laydowns. Thus, removal of the station is proposed.
MP-C-K	Surface water drainage downstream of Milne Port infrastructure.	502979	7975333	Station MP-C-B01 to be changed to MP-C-K.	When taking a duplicate water sample, the code is "01" following the station ID. There are two sites with similar IDs at Milne Port: MP-C-B and MP-C-B01. Changing station MP-C-B01 to MP-C-K will eliminate the confusion between the station and a duplicate sample.

We trust that this information meets the requirements under Part I of the Type 'A' Water Licence and look forward to the NWB's response. Please do not hesitate to contact the undersigned should you have any questions or comments

Regards,

A handwritten signature in black ink, appearing to read "Chris Murray", with a large, stylized loop at the end.

Christopher Murray,  
Environmental & Regulatory Compliance Manager

Cc: Karén Kharatyan (Nunavut Water Board)  
Jared Ottenhof (Qikiqtani Inuit Association)  
Bridget Campbell, Ian Parsons, Justin Hack, Jonathan Mesher (Crown-Indigenous Relations and Northern Affairs Canada)  
Megan-Lord Hoyle, Lou Kamermans, Timothy Ray Sewell, Connor Devereaux, Aaron MacDonell, and Amanda McKenzie (Baffinland)

*Attachments*

Figure 1 – Milne Port Water Licence Monitoring Locations –Pre and Post Change 2021

Figure 2 – Mine Site Water Licence Monitoring Locations – Pre and Post Change 2021

Table 2- Corrections Identified in Schedule I, Tables 13 and 14

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LEGEND

- Foreshore Lease Boundary
- Project Development Area
- Commercial Lease Boundary
- Borrow Area
- Quarry Area

Current Infrastructure

SNP Monitoring Station

- Active
- Inactive
- Proposed

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MARY RIVER PROJECT

Milne Port Water Licence Monitoring Locations  
Pre and Post Change 2021

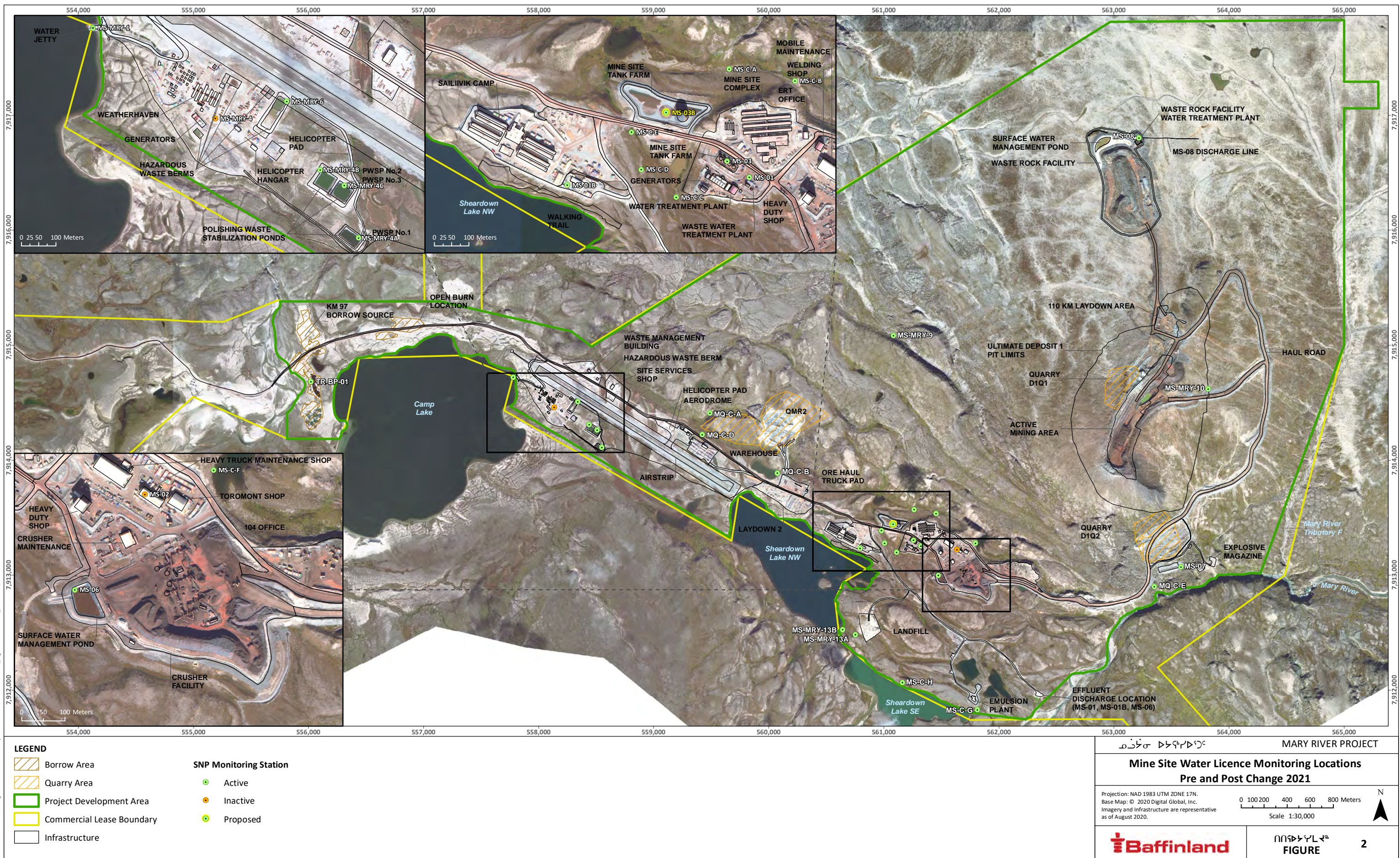
Projection: NAD 1983 UTM ZONE 17N.  
Base Map: © 2020 Digital Global, Inc.  
Imagery and Infrastructure are representative  
as of August 2020.

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FIGURE

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**Table 2: Corrections Identified in Schedule I - Conditions Applying to General and Aquatics Effects Monitoring**

**Modified Table 13: Monitoring Program - Milne Port Site**

Station	Description	Project Phases	Monitoring Parameters	Frequency	Baffinland Comment
MP-MRY-2	Freshwater Intake at Phillips Creek (Summer)	Construction Operations Closure	Group 1	Record Daily Report Monthly	
MP-MRY-3	Freshwater Intake from Km 32 Lake (Winter)	Construction Operations Closure	Group 1	Record Daily Report Monthly	
MP-01 MP-01B	Milne Port Sewage Treatment Facilities (discharge into ditch prior to ocean)	Construction Operations	Groups 1, 2	Monthly	
			Group 3	Annually	
MP-01A	Milne Port Polishing Waste Stabilization Pond (PWSP)	Construction Operations	Groups 1, 2	Once prior to discharge and Monthly	
			Group 3	Annually	
MP-02	Milne Port Maintenance Shop Oily water/ WWTF	Construction Operations	Groups 1 and 4	Monthly	
MP-03	Milne Port Bulk Fuel Storage Facility Stormwater	Construction Operations	Groups 1 and 4, 5	Daily Flow Monthly	
MP-04	Milne Port Landfarm Facility Stormwater	Construction Operations Closure	Group 1 Group 5 Plus TSS	Daily Flow Monthly	
MP-C-A	Surface discharge downstream of construction area at Milne Port	Construction	Groups 1 and 8	During periods of flow and following significant precipitation events, on a monthly basis	
MP-C-B					
MP-C-K					Change in station ID from MP-C-B01 to MP-C-K.

Station	Description	Project Phases	Monitoring Parameters	Frequency	Baffinland Comment
MP-C-C					To be decommissioned.
MP-C-D					
MP-C-E					
MP-C-F					
MP-C-H					
MP-C-J	Surface discharge south of Laydown LP3	Construction	Groups 1 and 8	During periods of flow and following significant precipitation events, on a monthly basis	
MP-05	Milne Port Ore Stockpile Sedimentation Pond (East)	Construction Operation ERP Closure	Groups 1 and 7	Monthly during summer	
			Group 3	Annually	
MP-06	Milne Port Ore Stockpile Sedimentation Pond (West)	Construction Operation ERP Closure	Groups 1 and 7	Monthly during summer	
			Group 3	Annually	

Modified Table 14: Monitoring Program - Mary River Mine Site

Station	Description	Project Phases	Monitoring Parameters	Frequency	Baffinland Comment
MS-MRY-1	Freshwater Intake from Camp Lake	Construction Operations Closure	Group 1	Record Daily	
MS-01 MS-01B	Mine Site Sewage Treatment Facilities	Construction Operations	Groups 1 and 2	Monthly	
			Group 3	Annually	
MS-01A	Mine Site Polishing/Waste Stabilization Pond (PWSP)	Construction Operations	Groups 1 and 2	Once prior to discharge and Monthly	
			Group 3	Annually	
MS-02	Mine Site Maintenance Shop Oily Water WWTF	Construction Operations	Groups 1 and 4	Monthly	
MS-MRY-04		Construction	Groups 1 and 2	Monthly	

Station	Description	Project Phases	Monitoring Parameters	Frequency	Baffinland Comment
	Exploration Camp Sewage Treatment Facility	Operations Closure	Group 3	Annually	
MS-MRY-04A	Exploration Camp Polishing Waste Stabilization Ponds (PWSP)	Construction Operations	Groups 1 and 2	Once prior to discharge and monthly hereafter	
			Group 3	Annually	
MS-03	Mine Site Bulk Fuel Storage Facility Stormwater	Construction Operations	Groups 1 and 5	Daily Flow Monthly	New station proposed.
MS-03B					
MS-04	Mine Site Fuel Unloading Station Stormwater	Construction Operations	Groups 1 and 5	Daily Flow Monthly	
MS-05	Mine Site Landfarm Facility Stormwater	Construction Operations	Groups 1 and 5 Plus TSS	Daily Flow Monthly	
MS-MRY-6	Exploration Camp Bulk Fuel Storage Facility (Bladder Farm) Stormwater	Construction Operations	Groups 1 and 5	Daily Flow Monthly	
MS-06	Ore Stockpile Pond Stormwater	Operations Closure	Groups 1 and 7	Monthly during summer	
			Group 3	Annually	
MS-07	Run of Mine Ore Stockpile Pond Stormwater	Operations Closure	Groups 1 and 7	Monthly during summer	
			Group 3	Annually	
MS-08	Waste Rock Stockpile West Pond	Operations Closure	Groups 1 and 7	Monthly during summer	
			Group 3	Annually	
MS-09	Waste Rock Stockpile East Pond	Operations Closure	Groups 1 and 7	Monthly during summer	
			Group 3	Annually	
MS-MRY-09	Deposit No. 1 surface water drainage (including the Bulk Sample Open Pit)	Construction Operations	Groups 1 and 7	Monthly (during summer)	
			Group 3	Annually	
MS-MRY-10	Deposit No. 1 surface water drainage	Construction Operations Closure	Groups 1 and 7	Monthly (during summer)	
			Group 3	Annually	

Station	Description	Project Phases	Monitoring Parameters	Frequency	Baffinland Comment
MS-MRY-13A & MS-MRY-13B	Non-Hazardous Waste Landfill – Downstream surface water drainage	Construction Operations Closure	Groups 1 and 6	Daily Monthly	
MS-C-A	Surface discharge downstream	Construction	Groups 1 and 8	During periods of flow and following significant precipitation events, on a monthly basis	
MS-C-B					
MS-C-C					
MS-C-D					
MS-C-E					
MS-C-F					
MS-C-G	Surface discharge downstream of construction area at Milne Site	Construction	Group 1 and 8	During period of flow and following precipitation events on a monthly basis	
MS-C-H					