

NUNAVUT WATER BOARD

WATER LICENCE NO: 2AM-BRP1831

REASONS FOR DECISION INCLUDING RECORD OF PROCEEDINGS



NUNAVUT WATER BOARD

In the Matter of:

Applicant: Sabina Gold & Silver Corp.

Subject: Application for a Type "A" Water Licence for Water Use

and the Deposit of Waste

Date: September 21, 2018

<u>Precedence:</u> Where there is any inconsistency or conflict between

the Agreement Between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in Right of Canada (Nunavut Agreement) and the Nunavut Waters and Nunavut Surface Rights Tribunal Act (NWNSRTA), the Nunavut Agreement prevails to the extent of the inconsistency or conflict. Where there is any inconsistency or conflict between the NWNSRTA and any other act of Parliament, except the Nunavut Land Claims Agreement Act, the NWNSRTA prevails

to the extent of the inconsistency or conflict.



RECORD OF PROCEEDINGS

Applicant: Sabina Gold & Silver Corp.

Address: #1800 – 555 Burrard Street. Box 220

Vancouver, BC V7X 1M9

Purpose: Application for a Type "A" Water

Licence for Water Use and the

Deposit of Waste

Application

Received on:

October 4, 2017

Application Matthew Pickard

Received from: Vice President, Environment and

Sustainability

Sabina Gold & Silver Corp.

Date of Public

Hearing:

August 8 and 9, 2018

Public Hearing

August 9, 2018

Record Closed:



ATTENDEES:

NWB Representatives:		
Nunavut Water Board Panel Members (Panel P19 Back River Panel):	Chair	L. Toomasie
	Member	R. Mrazek
	Member	D. Aglukark Sr.
Nunavut Water Board	Executive Director	S. Autut
Staff:	Director Technical Services	K. Kharatyan
	Director Board Administration and Communication/Interpreter	B. Kogvik
	Technical Advisor	D. Baines
	Administrative Coordinator	R. Ikkutisluk
	Legal Counsel to the Board	T. Meadows
Interpreters:	Nunavut Water Board	B. Kogvik
	Cambridge Bay	J. Panioyak
Court Reporter:	Dicta Court Reporting, Inc.	S. Anderson, CSR (A)
Sound Technician:	Kitikmeot Inuit Association	J. Evalik
Applicant:		
Sabina Gold & Silver	Vice President, Environment and Sustainability	M. Pickard
Corp.	Environmental Engineer	M. Keefe
	Project Engineer	C. Paul
	Community Liaison Officer	J. Kaiyogana
	Community Liaison Officer	J. Ohokannoak
	Community and Environmental Analyst	T. Starnes
SRK Consulting:	Principal Consultant	M. Rykaart
Golder:	Senior Regulatory Advisor/ Project Manager	D. Filiatrault
	Principal Geotechnical Engineer	K. Bocking
	Associate Senior Geochemist	K. Salzsauler
Lawson Lundell, LLP:	Legal Counsel	C. Kowbel
	Legal Counsel	T. Kruger



Interveners:		
Kitikmeot Inuit Association:	Senior Hope Bay Project Officer	J. Roesch
Crown-Indigenous Relations and Northern Affairs Canada	Manager of Water Resources	I. Parsons
	Water Resources Regional Coordinator	M. Blade
Environment and Climate Change Canada:	Team Lead, Water Quality	A. Wilson
	Senior Environmental Assessment Coordinator	G. Bernard-Lacaille
Fisheries and Oceans Canada	Senior Fisheries Protection Biologist	M. D'Aguiar
	Fisheries Protection Biologist	F. Larouche
Nunavut Tunngavik Incorporated		J. Ottenhof
Written Record of Sub	missions:	

ftp://ftp.nwb-oen.ca/registry/2%20MINING%20MILLING/2A/2AM%20-%20Mining/2AM-BRP----%20Sabina/2%20ADMIN/3%20SUBMISSIONS/

Hearing Record (including Hearing Transcript):

%20Sabina/2%20ADMIN/4%20HEARINGS/2%20HEARING/

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ABBREVIATIONS

Short Form	Long Form	
Sabina	Sabina Gold & Silver Corp.	
CIRNAC	Crown-Indigenous Relations and Norther Affairs Canada	
	(formerly INAC)	
CRP	Closure and Reclamation Plan	
DFO	Fisheries and Oceans Canada	
ECCC	Environment and Climate Change Canada	
EMPP	Environmental Management and Protection Plan	
ICRP	Interim Closure and Reclamation Plan	
IIBA	Inuit Impact and Benefit Agreement	
INAC	Indigenous and Northern Affairs Canada (now CIRNAC)	
IR	Information Request	
KIA	Kitikmeot Inuit Association	
km	Kilometer	
m ³ /day	Cubic metres per day	
MDMER	Metal and Diamond Mining Effluent Regulations	
MLA	Marine Laydown Area	
Mt	Million tonnes	
NIRB	Nunavut Impact Review Board	
NPC	Nunavut Planning Commission	
Nunavut Agreement	The Agreement Between the Inuit of the Nunavut Settlement Area	
	and Her Majesty the Queen in Right of Canada.	
NuPPAA	Nunavut Planning and Project Assessment Act	
NWB	Nunavut Water Board	
NWNSRTA	Nunavut Waters and Nunavut Surface Rights Tribunal Act	
NWR	Nunavut Waters Regulations	
NWT	Northwest Territories	
PHC	Pre-Hearing Conference	
PH	Public Hearing	
STP	Sewage Treatment Plant	
TF	Tailings Facility (tailings deposit in a mined out pit)	
TM	Technical Meeting	
TSF	Tailings Storage Facility (tailings deposit in an above ground	
	purpose build facility)	
TSS	Total Suspended Solids	
WRSA	Waste Rock Storage Area	
WTP	Water Treatment Plant	



REASONS FOR DECISION

Executive Summary

This decision is in relation to an application before the Nunavut Water Board (NWB or Board), filed by Sabina Gold & Silver Corp. (the Applicant, the Proponent or Sabina) for a Type "A" Water Licence seeking authorization for the use of Water and deposit of Waste associated with a new gold Mining undertaking (the Application) for the Back River Project (the Project). The Application requests the grant of a licence for a term of 14 years to construct and operate the Back River Project, including open-pit and underground gold mining at the Goose Property, a Marine Laydown Area (MLA), and an interconnecting Winter Ice Road. The Application was received by the NWB on October 4, 2017. The Goose Property is located approximately 400 kilometres (km) southwest of Cambridge Bay, 95 km southeast of the southern end of Bathurst Inlet, and 525 km northeast of Yellowknife, Northwest Territories (NWT), within the Kitikmeot Region of Nunavut.

As the Project falls outside an area with an approved Land Use Plan in effect, as set out in the Agreement between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in right of Canada (Nunavut Agreement) and the Nunavut Waters and Nunavut Surface Rights Tribunal Act, S.C. 2002, c. 10 (NWNSRTA) the Nunavut Planning Commission was not required to conduct a land use conformity assessment in 2012 when the Project Proposal was submitted. On July 11, 2012, the Nunavut Impact Review Board (NIRB) received the referral of the Back River Project Proposal for screening. Subsequently, the NIRB recommended (and the Minister agreed and referred the Project to the NIRB) for review by the NIRB under the Nunavut Agreement, Article 12, Part 5 (the Review). The NIRB's assessment of the potential ecosystemic and socio-economic effects of the Project, and subsequent reconsideration took place from late December 2012 through to December 2017 culminating in the NIRB's completion of their Review and subsequent reconsideration, ultimately recommending that the Project be allowed to proceed to the licensing stage and issuing NIRB Project Certificate [No. 007] to Sabina on December 19, 2017.

Key steps in processing the Application for the Type "A" Water Licence included conducting a completeness check, technical review, a Technical Meeting and Pre-Hearing Conference

Exploration or prospecting — including bulk sampling — for minerals other than petroleum or gas, the operation of a mine, the processing of minerals other than petroleum or gas, the restoration of the site of a mine and any other mining activity other than an industrial activity described in item 1, column 2.

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¹ As defined under Schedule 1, Item 2 of the *Nunavut Waters Regulations*, SOR/2013-69 to be an undertaking involving:



held in person in the nearest community, Cambridge Bay, Nunavut on May 1 and 2, 2018, which included a community session on the evening of May 1, 2018. The in-person Public Hearing for the file was held on August 8 and 9, 2018, in Cambridge Bay, with the Community Session hosted by the NWB taking place on the evening of August 8, 2016. Unfortunately, no members of the public attended the Community Session.²

At the conclusion of the Public Hearing on August 9, 2018, the Panel directed that the Public Hearing Record for the file should be closed, and the matter was remitted to the three-member panel of the Board, (Panel P19 or the Back River Panel), duly appointed by the Board under the *Nunavut Agreement* and the *NWNSRTA* to consider the Application. Unfortunately, due to travel limitations that arose after the Public Hearing, Panel Member, David Aglukark Sr., was unable to participate fully in the Panel's deliberations. Consequently, the Chairperson, Lootie Toomasie and Panel Member Ross Mrazek were the two Board Members responsible for acting as decision-makers for the Application. ³

On the basis of the information provided with the Application by Sabina, technical review of the Application by the Board, interveners and the public, commitments and responses to information requests from the parties during the technical review of the Application, comment submissions received throughout the Board's consideration of the Application, the final written submissions filed with the Board in advance of the Public Hearing and the information provided during the Public Hearing and Community Session, the Back River Panel has, on September 20, 2018 decided the following, by way of Motions #2018-11-P19-05 and #2018-11-P19-06:

- To grant Sabina's request for Water Licence No. 2AM-BRP1831 in accordance with the terms and conditions outlined in this Decision and in the attached Licence No.: 2AM-BRP1831 (the Licence);
- Specific terms and conditions of note in the Licence include the following:
 - o the term will be 14 years, expiring on December 31, 2031;
 - o the security required to be posted under the Licence reflects the submissions of the parties that security in the global amount of \$43,189,352 is required to reclaim the undertaking once all stages of infrastructure have been constructed, but only 68% of this amount or \$29,005,730 will ultimately be held under the Licence, with the remaining 32% or \$14,183,622 to be held by the Kitikmeot Inuit Association;
 - o as requested by the Proponent and agreed to by the interveners, the security required to be posted under Part C of the Licence is apportioned into nine

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² For a complete list of attendees at the Public Hearing and Community Session, see APPENDIX E – Sign-in Sheets – List of Participants in the Public Hearing.

³ As provided for under Article 13, Section 13.3.6 of the *Nunavut Agreement*, a Panel of the Board shall consist of two or more members.



segments that are linked to the increase in reclamation liability that would occur as key project infrastructure associated with the undertaking is constructed; each segment is also divided to reflect the extent of the infrastructure located on Crown and Inuit Owned Lands so that the total amount of reclamation security for each segment is split between the amount held under the Licence and the amount expected to be held by the Kitikmeot Inuit Association:

- o In addition, the reclamation security required to be held under Part C of the Licence may be reviewed by the Board (in the form of an amendment) if:
 - the Board is in receipt of an application requesting the review of security from Sabina, CIRNAC, or the KIA;
 - when there is a change in the phase of the undertaking from construction to commercial operation to abandonment and reclamation; or
 - upon any other type of material change to the Project that may have a material effect on the amount of security that should be held under the Licence;
- Part D of the Licence provides specific information regarding the effluent quality limits for construction related effluent that must not be exceeded during discharges to Goose Lake, or to the tundra, where appropriate;
- Part E of the Licence sets out the volume of water Sabina is authorized to use and specifies that the Licence authorizes Water use for domestic and industrial purposes of up to approximately five hundred and seventy-eight thousand cubic metres (578,000 m³) per year;
- Sabina is also authorized to use Water for the dewatering of Llama Lake and Umwelt Lake not to exceed one million four hundred thousand (1,400,000) cubic metres per year during Construction Phase;
- o In addition, Sabina is authorized to use Water for construction of the Winter Ice Road is six hundred and seventy-five (675) cubic metres per kilometer per year, (approximately 1.1 million cubic metres per year);
- O Part F of the Licence provides specific information regarding the effluent quality limits for waste related effluent that must not be exceeded during discharges to the Tailings Storage Facility, Tailings Facilities, or to the tundra, where appropriate; and
- O The monitoring requirements under the Licence are as set out in Part I and Schedule I. These include the regulatory monitoring requirements with respect to discharges directly to the receiving environment as well as general aquatics monitoring and verification monitoring requirements for reporting purposes.



<u>SECTION I</u> <u>FILE BACKGROUND AND REGULATORY HISTORY</u>

The Back River Project

The Application is in relation to water uses and waste deposits associated with Sabina's Back River Gold Project, a Mining undertaking⁴ involving the development of a gold mine at the site of the Goose Property along with a Marine Laydown Area and interconnecting Winter Ice Road. The Goose Property is located primarily on Inuit Owned Land approximately 400 kilometres (km) southwest of Cambridge Bay, 95 km southeast of the southern end of Bathurst Inlet, within the Kitikmeot Region of Nunavut, and 525 km northeast of Yellowknife, Northwest Territories (NWT). Four open pit mines and four associated underground mines are proposed to be developed at the Goose Property to access ore from the Llama, Umwelt, Echo, and Goose Main deposits. Construction of the Back River Project is proposed to take approximately four (4) years beginning in early 2018, with considerable infrastructure construction to take place in 2019-2021. Sabina anticipates commencing mining operations in late 2021 to continue for ten (10) years, from 2022 to 2031. The Project would then proceed into the closure phase over an approximately thirteen year period, consisting of eight (8) years of decommissioning activity and ending with five (5) years of post-closure monitoring.

Development of the Back River Project is intended to allow for access to an estimated 19.8 million tonnes (Mt) of ore, 59.0 Mt of waste rock, and 5.3 Mt of overburden. Approximately 19.8 Mt of tailings produced from the milling process would be stored within three tailings facilities within the Goose Property. An above ground Tailings Storage Facility would be built on Crown Land to handle tailings produced during the initial stage of project development. Later, tailings will be stored in mined out open pits in the Umwelt Tailings Facility and Goose Main Tailings Facility. The mine product, doré gold bars would be flown to market directly from the Goose Property.

The Application

An initial draft Type "A" Water Licence Application (the 2012 Application) associated with the Back River Project (the Project) was filed with the NWB by Sabina Gold & Silver Corp. (the Applicant, the Proponent or Sabina) on June 26, 2012. As the Project falls outside an area with an approved Land Use Plan in effect, as set out in the Agreement between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in right of Canada (Nunavut Agreement) and the Nunavut Waters and Nunavut Surface Rights Tribunal Act, S.C. 2002,

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⁴ Which is defined to include: "...the operation of a mine, the processing of minerals other than petroleum or gas, the restoration of the site of a mine and any other mining activity" under Schedule 1 of the *Nunavut Waters Regulations*, SOR/2013-69.



c. 10 (*NWNSRTA*) the Nunavut Planning Commission was not required to conduct a land use conformity assessment with respect to the 2012 Application.

Consequently, on July 11, 2012, the Nunavut Impact Review Board (NIRB) received the referral of the Back River Project Proposal (including the 2012 Application) for screening. The NIRB subsequently recommended (and the Minister agreed) that the Project should be subject to a review by the NIRB under the *Nunavut Agreement*, Article 12, Part 5 (the Review). At that time, Sabina requested that the NIRB's assessment of the potential ecosystemic and socio-economic effects of the Project under the Review be coordinated with the NWB's consideration of the Type "A" Water Licence Application. On January 13, 2014, when Sabina supplied the NIRB with the *Draft* Environmental Impact Statement (DEIS) for the Project, a revised draft Type "A" Water Licence Application was included as an Appendix to the DEIS and was filed with the NWB at that time (the 2014 Application).

Following the NIRB's Technical Meeting and Pre-Hearing Conference associated with the DEIS (which included participation by the NWB and issuance of guidance from the NWB regarding information deficiencies in the 2014 Application),⁵ Sabina withdrew the request for coordination of the NIRB Review and NWB water licensing processes, and proceeded with the NIRB Review process separately from the NWB's water licensing process. The NIRB's Review and subsequent reconsideration of the Project continued through to December 2017, culminating in the NIRB's completion of the Review and recommendation that the Project be allowed to proceed to the licensing stage.⁶ On December 5, 2017 the Minister of Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) accepted the NIRB's Revised Final Hearing Report for the Project, and the NIRB issued Project Certificate [No. 007] to Sabina on December 19, 2017.

When Sabina withdrew from the NIRB/NWB coordinated process in 2014, the NWB did not continue with processing the 2014 Application. Consequently, the Application being considered by the Board and that is the subject of these Reasons for Decision was filed with the Board by Sabina on October 4, 2017 for a new Type "A" Water Licence (the Application), which would authorize the use of water and deposit of waste associated with a Mining undertaking (as defined under the *Nunavut Waters Regulations*⁷) as proposed by Sabina for the Back River Gold Project. For the purpose of these Reasons for Decision, documents referred to from the public record in relation to the 2017 Type "A" Water Licence Application shall be referred to collectively as "the Application".

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⁵ See Appendix 3 in the Nunavut Impact Review Board's Pre-Hearing Conference Decision, Sabina Gold & Silver Corp.'s Back River Project, NIRB File No. 12MN036.

⁶ Nunavut Impact Review Board, Revised Final Hearing Report, Back River Gold Mine Project, Sabina Gold & Silver Corp., NIRB File No. 12MN036, July 18, 2017.
⁷ SOR/2013-69.



The documents filed in relation to the Application are set out in detail in <u>APPENDIX D</u> – <u>List of Submissions and Correspondence</u>, but in summary, the Application included the following key information:

- Main Application Document;
- Information on the proposed use of water, disposal of waste, and associated activities for the Mining undertaking, including information related to planning and design, construction, operation, and reclamation phases of the undertaking; and
- Information on the regulatory requirements, environmental setting, project description, water management, supporting management plans and summary information.

All documentation associated with the NWB's review of the Application, including the supporting documents referenced above is available on the NWB's FTP site and can be accessed using the following link:

ftp://ftp.nwb-oen.ca/registry/2%20MINING%20MILLING/2A/2AM%20-%20Mining/2AM-BRP----%20Sabina/1%20APPLICATION/2017/

The Project

The Project is located 400 kilometres (km) southwest of Cambridge Bay, 95 km southeast of the southern end of Bathurst Inlet, within the Kitikmeot Region of Nunavut, and 525 km northeast of Yellowknife, Northwest Territories (NWT). Situated in between the South end of Bathurst Inlet and the border between Nunavut and the Northwest Territories, the proposed Project site is located along the southwestern edge of Goose Lake (65°33′07″N 106°26′09″W), primarily on Inuit Owned Land. The above ground Tailings Storage Facility is the only major Project component located completely on Crown Land. The Project is located within the Goose Lake sub-watershed, within the Queen Maud Gulf Watershed boundaries.⁸

Licensing History

The original Water Licence NWB2GOO9801 related to the exploration activities at the Goose Lake property was issued by the Nunavut Water Board (NWB or Board) in 1997. This licence was subsequently renewed in 2001, 2004, 2010, and 2014.

There are four Water Licences currently held by Sabina covering exploration and predevelopment activities for the Back River Project. These are:

-

⁸ Nunavut Waters Regulations SOR/2013-69.



- **Licence No.: 2BE-GEO1520:** for the use of water and disposal of waste during camp operations and activities related to exploration that include prospecting, geological mapping, geophysical surveys, diamond drilling and trenching in the George Lake area (175 m³/day water use);
- **Licence No.: 2BE-GOO1520:** for the use of water and disposal of waste during camp operations and activities related to exploration that include prospecting, geological mapping, geophysical surveys, diamond drilling and trenching in the Goose Lake area (297 m³/day water use);
- **Licence No.: 2BE-MLL1722:** for the use of water and disposal of waste during camp operations and activities related to exploration that include prospecting, geological mapping, geophysical surveys, diamond drilling and trenching in the Wishbone-Malley area (200 m³/day water use);
- **Licence No.: 2BC-BRP1819:** for the use of water and disposal of waste during construction and predevelopment work for the Development Works, Back River Project, including activities at the Goose Property, the Marine Laydown Area, and the interconnecting Winter Ice Road (297 m³/day water use);

The scope of the Type "A" Water Licence includes some activities that are currently included within Licences 2BE-GOO1520 and 2BC-BRP1819. If the Minister approves the issuance of the Type "A" Water Licence, upon application by Sabina or upon the Board's own initiative, the Board may amend the scope or cancel the existing Licences to remove from the scope of activities under the existing Type "B" Licences those activities that are included under the scope of the new Type "A" Water Licence.

Procedural History of Sabina's Water Licence Applications

As referenced above, in Sabina's original June 26, 2012 application to the Nunavut Impact Review Board (NIRB), Sabina requested that should the project be referred to a Review under Article 12, Part 5 or 6 of the *Nunavut Agreement*, that the file should proceed as a NIRB-NWB coordinated process. On this basis, between 2012-2014 the NWB participated in the NIRB's Review as follows:

- NWB staff attending NIRB scoping meetings and contributing to the development of the Final Scope List for the NIRB's Assessment of the Back River Project in March, 2013;
- NWB staff contributing to the development of Section 1.4 and Appendix C: Nunavut Water Board Information Requirements for Type "A" Water Licence Application in the NIRB's *Guidelines for Preparation of an Environmental Impact Statement* in April 2013, which defined the information requirements related to water licensing; and

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NWB staff attending and providing technical advice to the NIRB, Sabina and interveners at the NIRB's November 2014 in-person Technical Meeting and Prehearing Conference.

The NWB's technical advice during the NIRB's Review at the DEIS stage in 2014 identified that there were significant additional information requirements associated with the 2014 *draft* Water Licence Application that would need to be addressed before the NWB could continue processing the *draft* Type "A" Water Licence Application for the Back River Project that had been attached as an Appendix to the DEIS. Subsequently, Sabina withdrew from the NIRB/NWB coordinated process at the end of 2014, and the NWB's processing of the Water Licence application for the Mining undertaking did not recommence until a new revised and updated Type "A" Water Licence was received by the NWB in October, 2017 (the Application).

The following listing summarizes only some of the key steps in the procedural history of the NWB's processing of the Application received by the Board in 2017. For a review of all process and procedure associated with the Application, interested parties should consult APPENDIX D – List of Submissions and Correspondence.

October 4, 2017

The Nunavut Water Board (NWB or Board) received a new Water Licence application (Application) for a Type "A" Water Licence and supporting documentation from Sabina Gold & Silver Corp. (the Applicant, Proponent or Sabina) for the proposed Back River Project. As outlined above, this Application and associated documents replaced the initial draft Water Licence application package for the Back River Project submitted to the NWB in 2012 as part of the NIRB's Review of the Back River Project and the *draft* Water Licence submitted to the NWB in January 2014 as an appendix to the DEIS received by the NIRB.

December 8, 2017

 NWB publicly distributed the Application for a completeness check and initial technical assessment.

January 22, 2018

NWB received comments related to the completeness/initial technical assessment of the Application from DFO (Fisheries and Oceans Canada), CIRNAC (Crown-Indigenous Relations and Norther Affairs Canada, previously INAC), ECCC (Environment and Climate Change Canada), and KIA (Kitikmeot Inuit Association).

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■ *February 8, 2018*

 NWB received Sabina's responses to the comments provided by Interveners in the context of their completeness review.

• *February 23, 2018*

 NWB determined that the Application could proceed to the next steps in the NWB's regulatory process and distributed the Back River Project Water Licence application for full technical review.

April 4, 2018

 NWB received technical review comments from the DFO, CIRNAC, ECCC, and KIA. The Board did not receive any indication that the application should not proceed to the next steps in the regulatory process.

April 11 and 27, 2018

o NWB received Sabina's responses to technical review comments.

■ May 1 and 2, 2018

o NWB held a Technical Meeting/Pre-Hearing Conference in Cambridge Bay.

■ May 29, 2018

 NWB released the Pre-Hearing Conference Decision. An in-person NWB Public Hearing was scheduled for the week of August 6, 2018.

■ *May 30, 2018*

o NWB issued a Notice of Public Hearing.

■ June 8 and 25, 2018

 NWB received Sabina's submissions to fulfill the commitments agreed to at the Technical Meeting /Pre-Hearing Conference.

• July 9 and 11, 2018

 NWB received final submissions in advance of the NWB's Public Hearing from DFO, CIRNAC, ECCC, and KIA.

■ July 23, 2018

 NWB received Sabina's final submission in advance of the NWB's Public Hearing.



■ July 25, 2018

 NWB distributed a Reminder of Public Hearing and Agendas for the Public Hearing and Community Session.

■ *July 31, 2018*

 NWB received copies of presentations to be relied on at the Public Hearing and Executive Summaries from Sabina, DFO, CIRNAC, ECCC, and KIA.

August 8-9, 2018

- The Board held the Public Hearing in consideration of Sabina's application for a Type "A" Water Licence for the development of the Back River Project, including hosting a Community Session on the evening of August 8, 2018.
- The Public Hearing Record was closed at the end of the Public Hearing on August 9, 2018. The Application was remitted to the Panel for decisionmaking.

Regulatory History of the Application

Pre-Licensing Processing of the Application

Nunavut Planning Commission Conformity Determination

As the Project falls outside an area with an approved Land Use Plan in effect, as set out in the Agreement between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in right of Canada (Nunavut Agreement) and the Nunavut Waters and Nunavut Surface Rights Tribunal Act, S.C. 2002, c. 10 (NWNSRTA) the Nunavut Planning Commission was not required to conduct a land use conformity assessment in 2012.

Nunavut Impact Review Board Review

On July 11, 2012, the Nunavut Impact Review Board (NIRB) received the referral of the Back River Project Proposal for screening. The NIRB subsequently recommended (and the Minister agreed and referred the Project to the NIRB) for review by the NIRB under the Nunavut Agreement, Article 12, Part 5 (the Review). The NIRB's assessment of the potential ecosystemic and socio-economic effects of the Project, and subsequent reconsideration took place from late December 2012 through to December 2017, culminating in the NIRB's completion of the Review, recommending that the Project be allowed to proceed to the licensing stage and issuing NIRB Project Certificate [No. 007] to Sabina on December 19, 2017.



Nunavut Water Board Licensing Process

As noted above, the NWB received the Application that is the subject of this Record of Proceedings and Reasons for Decision on October 4, 2017. Pursuant to Article 13, Clause 13.3.6 of the *Nunavut Agreement* and s. 29 of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*, S.C. 2002, c. 10 (*NWNSRTA*), the full Board delegated its power to dispose of all matters relating to this Application, including the conduct of the in-person Public Hearing in Cambridge Bay, to a three-member panel (P19 or the Back River Panel) of the NWB.

Following the internal and external preliminary review and comment period of the Application for scope and completeness, the NWB issued a formal notice of the Application on February 23, 2018, 10 and distributed the Application for a detailed thirty (30) day technical review period. The Notice also invited interveners and interested persons to make submissions to the NWB regarding the Application on or before March 26, 2018. This correspondence also included a notice of an NWB Technical Meeting and Pre-Hearing Conference (TM/PHC), in Cambridge Bay, Nunavut.

Prior to the TM/PHC, the Board provided interested parties with two opportunities for comment on the Application. The Board's first comment period (December 8, 2017 – January 22, 2018) requested parties to consider whether the application package was complete and to identify any outstanding issues that should prevent the Board from continuing to process the information. Although this comment period was set to close on January 16, 2018, the timeline was extended to January 22, 2018 as per the request of the KIA.

The second comment period (February 23, 2018 to April 4, 2018) requested parties to file substantive technical review comments in advance of the TM/PHC for the file. Although this comment period was originally set to close on March 26, 2018, the timeline was extended by the NWB to April 4, 2018 at the request of the KIA.

From May 2018 onward, the following Interveners or interested parties provided written technical review comments in respect of the Application:

- the Kitikmeot Inuit Association (KIA);
- Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC);

(1) The Board may establish panels of the Board and delegate any of its powers, duties and functions to them.

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⁹ Section 29 (1) of the *NWNSRTA* states:

¹⁰ As required under s. 55(1) of the *NWNSRTA*.



- Fisheries and Oceans Canada (DFO); and
- Environment and Climate Change Canada (ECCC).

On May 1-2, 2018 the NWB hosted an in person TM/PHC in the community most directly affected by the activities proposed in the Application, Cambridge Bay, Nunavut, including hosting a Community Session for the Application on the evening of May 1, 2018. The meeting was attended by the Board staff, the Applicant, Interveners and community members. The primary goal of the technical meeting was aimed at further defining the outstanding regulatory and technical issues related to the Application. The secondary goals of the meeting were to discuss the approach contemplated by the Applicant to address the outstanding major issues identified through Interveners' technical review submissions including any information requests.

It should also be noted that, as is the Board's normal practice, the Panel Members of the Board (Back River Panel, P19), the decision-makers for the Application, were not present at the TM/PHC or the Community Session, having delegated the conduct of these meetings to the Board's staff.

At the completion of the TM/PHC, the Applicant made a number of commitments to address the concerns or issues raised by the Interveners in their technical comments filed with the Board. (These commitments were summarized in the Commitment List which was attached as Appendix D to the Pre-Hearing Conference Decision Report). All participants at the TM/PHC also confirmed that there were no outstanding issues that would prevent the Board from moving forward to the next step of the licensing process in respect of the Application.

On May 29, 2018, the NWB issued the Pre-Hearing Conference Decision Report (PHC Decision Report) with respect to the Application. On July 25, 2018, the NWB confirmed the dates for the Public Hearing in respect of this Application as August 8-9, 2018 in Cambridge Bay, Nunavut. As summarized in the PHC Decision Report, the NWB and the parties agreed that the following issues would be discussed at the Public Hearing:

- Scope of the Licence
 - o Inclusion of scope of short term construction Type "B"; and
 - o Addressing issues of overlapping scope with existing Type "B" exploration licences
- Term of the Licence

¹¹ NWB, Pre- Hearing Conference Decision Regarding An Application for a Type "A" Water Licence by Sabina Gold &Silver Corp., 2AM-BRP----, May 29, 2018.

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- Water Management
 - Water Management Plan
 - Saline Water Management
- Water Use (Quantity and Sources)
 - Quantity of water requested (by phase); and
 - Water sources
- Water User Compensation
 - Confirmation of no outstanding issues (including Inuit Water Rights)
- Waste Management
 - Landfill and Landfarms
 - Incinerators
 - o Hazardous Waste Management
 - Waste Rock Storage Areas; and
 - Tailings Storage Facility
- Management Plans, Reports, Operations and Maintenance Manuals, etc.
 - Review and approval of plans, reports and manuals submitted with the Application; and
 - Timing of submission of updated plans if a Licence is issued by the NWB and approved by the Minister (e.g. prior to construction of specific project infrastructure, within 60 days of approval of the Licence)
- Monitoring Programs
 - Program and Updates (general) and Aquatic Effects Monitoring Program (specifically)
- Closure and Reclamation Planning
 - o Interim Closure and Reclamation Plan
- Security
 - Updated Closure Cost Estimate
 - Security to be held under the Water Licence
 - o Security arrangements to address potential for over bonding; and
 - o Phased security to reflect stages of activity



The NWB issued formal notice of the NWB's Public Hearing on May 30, 2018 by circulating the notice to the Board's distribution list and publishing the notice in Nunatsiaq News. ¹² The Notice also advised any parties who wished to seek compensation for significant adverse effects caused by the use of waters or deposit of waste associated with the Application of their rights to file notice with the NWB of their request for compensation. Further, the Notice communicated that failure to respond to the notice and advise the NWB of the intention to make representations about compensation at least 10 days before the Public Hearing may result in a loss of a parties' rights to subsequently seek compensation. ¹³

From May 2018, the following Interveners or interested parties provided written technical review comments in respect of the Application:

- the Kitikmeot Inuit Association (KIA);
- Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC);
- Fisheries and Oceans Canada (DFO); and
- Environment and Climate Change Canada (ECCC).

On July 23, 2018, Sabina filed their final written submission responding to the Interveners' written submissions.

The Public Hearing was conducted in person on August 8 and 9, 2018 in Cambridge Bay, Nunavut. The Board's decision to hold an in-person Public Hearing in respect of this Application is consistent with the Board's obligation to give due regard and weight to Inuit culture, customs and knowledge, pursuant to Article 13, Clause 13.3.13(b) of the *Nunavut Agreement* and s. 33 of the *NWNSRTA*. The Agendas for the Public Hearing are attached to this Report in <u>APPENDIX A – Agendas of Public Hearing and Community Session</u>. The sign-in sheets, providing a list of attendees at the Public Hearing are provided in <u>APPENDIX E – Sign-in Sheets – List of Participants in the Public Hearing.</u>

A complete list of submissions and correspondence in support of this Application is provided in <u>APPENDIX D – List of Submissions and Correspondence</u>. A list of documentation filed as Exhibits during the Public Hearing is provided in <u>APPENDIX B – Exhibit List</u>. All listed submissions, correspondence, exhibits and transcripts of the Public Hearing have been placed on the Board's public registry and are available from the NWB's ftp site at the following link:

ftp://ftp.nwb-oen.ca/registry/2%20MINING%20MILLING/2A/2AM%20-%20Mining/2AM-BRP----%20Sabina/

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¹² Notice of the Public Hearing was given in accordance with s. 55(2) of the *NWNSRTA*.

¹³ As established by ss. 13, 55, 58 and 59 of the *NWNSRTA*



NWB Timeline for Processing the Application

As set out under the NWNSRTA, s. 55.2, the NWB is required to process an Application for a Type "A" Water Licence within 9 months from the receipt of a complete application. This time period does not commence until the NIRB completed its review of the Project (December 19, 2017), ¹⁴ and, as expressly noted in s. 55.4 of the NWNSRTA, the NWB's 9month period for processing the Application excludes the time that elapses while the NWB is awaiting receipt of information requested from the Applicant.¹⁵ In this case, and as illustrated by the key procedural steps listed above and outlined in the detailed list of submissions included in APPENDIX D - List of Submissions and Correspondence, the Board's timeline for processing the Application commenced in December 2017, and during 2018 there were three points in time where the Board awaited receipt of additional information from the Applicant. By the Board's calculation, the time that elapsed while the Board awaited information submissions from the Applicant amounted to approximately 8-10 weeks (2 to 2 and ½ months). When the time spent by the NWB waiting for submissions from the Applicant is excluded from this timeline, the NWB has rendered this Decision well within the 9-month timeline for the NWB's processing of the Application required under s. 55.2 of the *NWNSRTA*.

SECTION II SUMMARY OF FINAL HEARING SUBMISSIONS OF THE PARTIES

The Kitikmeot Inuit Association (KIA)

The Kitikmeot Inuit Association (KIA) is a Designated Inuit Organization under the Agreement Between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in Right of Canada (Nunavut Agreement), representing the rights and values of the Inuit within the Kitikmeot Region of Nunavut. The specific focus of the KIA's representation relates to rights to water and wildlife compensation, landowner rights and negotiation of an Inuit Impact and Benefit Agreement (IIBA).

If the Board requires an applicant or a licensee to provide information or studies, the period that, in the Board's opinion, is taken by the applicant or licensee to comply with that requirement is not included in the calculation of the time limit under section 55.2 or its extension.

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¹⁴ See s. 55.31 of the *NWNSRTA*.

¹⁵ As stated in s. 55.4:



During the technical review of the Application, ¹⁶ the KIA raised concerns related to the following issues:

- Licence Term;
- Water and Load Balance Model;
- Water Management;
- Waste Management;
- Waste Rock and Overburden Management;
- Risk Management & Emergency Response Planning;
- Environmental Monitoring;
- Marine Environment and Spill Management; and
- Closure and Reclamation.

In their final written submission, the KIA summarized their discussions and agreement with Sabina and CIRNAC regarding all issues, including project security and stated:

As indicated in the May 2018 Technical Meeting, the KIA has resolved all technical issues with Sabina Gold & Silver Corp. for the Back River Project. ¹⁷

In its closing remarks at the Public Hearing, KIA submitted to the Board as follows:

We do have a framework agreement IIBA water licence, water usage compensation agreement, and we believe and look forward to a strong working relationship with Sabina in the future, and we strongly support this project.¹⁸

Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC)

CIRNAC (previously Indigenous and Northern Affairs Canada or INAC) has a broad mandate for the co-management of water resources and the management of Crown Land in Nunavut under the following applicable law and policy:

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¹⁶ The KIA, KIA's Technical Review of Back River Project Type "A" Water License Application, April 4, 2018.

¹⁷ The KIA, KIA's Final Submission on the Back River Project Type "A" Water Licence Application, July 11, 2018.

¹⁸ J. Roesch, KIA, NWB Public Hearing, File No. 2AM-BRP----, Transcript, August 9, 2018, Volume 2, lines 22-26, p. 171.



- the Department of Indian Affairs and Northern Development Act; 19
- the Agreement Between the Inuit of the Nunavut Settlement Area and Her Majesty the Oueen in Right of Canada and the Nunavut Land Claims Agreement Act;²⁰
- the *Territorial Lands Act*²¹ and applicable Regulations;²²
- the Nunavut Waters and Nunavut Surface Rights Tribunal Act;²³
- the *Nunavut Waters Regulations*;²⁴ and
- the Mine Site Reclamation Policy for Nunavut. 25

During the technical review of the Application,²⁶ CIRNAC raised concerns related to the following issues:

- Water Management;
- Waste Management;
- Tailings Management;
- Waste Rock and Overburden Management;
- Winter Ice Roads;
- Risk Management & Emergency Response Planning;
- Marine Environment and Spill Management; and
- Closure and Reclamation.

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¹⁹ R.S.C. 1985, c. I-6.

²⁰ S.C. 1993, c. 29.

²¹ R.S.C. 1985, c. T-7.

²² See for example *Territorial Land Use Regulations*, C.R.C. c. 1524 and the *Northwest Territories and Nunavut Mining Regulations*, C.R.C. c. 1516.

²³ S.C. 2002, c. 10.

²⁴ S.O.R./2013-69.

²⁵ Minister of Indian Affairs and Northern Development (now CIRNAC), (Ottawa: Minister of Public Works and Government Services Canada, 2002) available on-line: http://www.aadnc-aandc.gc.ca/DAM/DAM-INTER-HO/STAGING/texte-text/recpolnuna 1100100036043 eng.pdf.

²⁶ INAC, "Indigenous and Northern Affairs Canada's Technical Review of Sabina's Type A Water Licence application for water licence #2AM-BRP----Back River Project", April 4, 2018



In their final written submission,²⁷ CIRNAC summarized their remaining concerns including:

- Tailings Storage Facility and Tailings Storage Facility/Waste Rock Storage Area runoff design and management; and
- Primary Water Pond and Saline Water Pond capacity and design.

CIRNAC had three concerns related to TSF/TSF WRSA design. The first concern wass related to the potential for eroded tailings to decrease the storage capacity of the contact pond. The second concern was related to the placement of waste rock and how the new surface will, as it gets higher, split the runoff flow and direct some to the north rather than toward the contact pond. The third concern was about the potential for the mobilization of tailings after closure and establishment of flow through and beyond the facility.

Sabina committed to addressing the concerns in the detailed design of the facilities and to providing information about how these concerns have been addressed with the preconstruction submission to be submitted to the NWB.

CIRNAC's concerns about the Primary Water Pond and the Saline Water Pond were related to the pond capacity and the ability of the ponds to hold runoff from foreseeable precipitation events and snowmelt. In addition, CIRNAC requested that Sabina consider appropriate spillways if the ponds could not contain a particular event.

Sabina noted that the Saline Water Pond is not an event pond and confirmed that CIRNAC had identified an error in Table 6.1-4 that falsely gave the impression that the Saline Water Pond was an event pond.

Sabina acknowledged that the Primary Water Pond design aligns with:

...accepted best practice, including the Canadian Dam Association Dam Safety Guidelines which expressly stipulate inflow design flood criteria in accordance with selected dam hazard classifications for each pond or dam in question. These guidelines will inform the final selected inflow design flood, including the need for additional spillways.²⁸

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²⁷CIRNAC, "Crown - Indigenous Relations and Northern Affairs Canada's (CIRNAC) Final Technical Submission of Sabina's Type A Water application for water licence #2AM-BRP---- Back River Project", July 11, 2018.

²⁸ Sabina Gold & Silver Corp., "Type A Water Licence Final Submission Responses", July 23, 2018.



In CIRNAC's closing remarks at the Public Hearing, CIRNAC submitted to the Board as follows:

Sabina, during the course of the water licence process, has been both engaging and open to the numerous discussions in order to resolve our water quality quantity concerns. These discussions and engagements, as well as submissions and commitments from Sabina has resulted in all 27 of our original issues and concerns being resolved.²⁹

Environment and Climate Change Canada (ECCC)

ECCC provided comments reflective of their roles and obligations under the *Canadian Environmental Protection Act, 1999*,³⁰ the "pollution prevention provisions" within the *Fisheries Act*,³¹ the *Migratory Birds Convention Act*,³² and the *Species at Risk Act*.³³ ECCC has general responsibility for environmental management and protection; preservation and enhancement of water, air and soil quality; conservation and protection of migratory birds, species and risk, flora and fauna; the gathering and provision of meteorological information; and coordination of various specific environmental policies and programs.

During the technical review of the Application,³⁴ ECCC raised concerns related to the following issues:

- Water and Load Balance Model:
- Water Management;
- Environmental Monitoring; and
- Closure and Reclamation.

In their final written submission, ³⁵ ECCC identified the following unresolved issues:

Closure Objectives and Criteria: Receiving Water Quality;

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²⁹ I. Parsons, CIRNAC, NWB Public Hearing, File No. 2AM-BRP----, Transcript, August 9, 2018, Volume 2, lines 22-26 and lines 1-2, pp. 172-173.

³⁰ S.C. 1999, c. 33.

³¹ R.S.C. 1985, c. F-14.

³² S.C. 1994, c. 22.

³³ S.C. 2002, c. 29.

³⁴ ECCC, "Environment and Climate Change Canada's Technical Review Comments to the Nunavut Water Board Respecting the Back River Gold Mine Project Proposed by Sabina Gold and Silver Corporation", April 4, 2018

³⁵ECCC, "Environment and Climate Change Canada's Final Written Submission to the Nunavut Water Board Respecting the Type A Water Licence Application for the Back River Gold Mine Project Proposed by Sabina Gold and Silver Corporation", July 9, 2018.



- Saline Water Pond Closure Site Specific Water Quality Objective;
- Nitrite; and
- Aquatic Effects Management Plan.

ECCC's first recommendation was that:

the Proponent, in future iterations of the [Interim Reclamation and Closure Plan (IRCP)], include explicit statements on receiving water quality objectives, as well as clarify discharge points and where objectives are to be met.³⁶

In response to this recommendation, Sabina stated:

Sabina agrees with this recommendation. Sabina confirms that it will, in future iterations of the Interim Reclamation and Closure Plan (ICRP) include explicit statements on receiving water quality objectives, clarify discharge points and objectives.³⁷

ECCC's second recommendation was that:

the Proponent include in their Saline Water Management Plan provisions for tracking sediment and pore water chloride concentrations for the [Saline Water Pond] in order to ensure appropriate water quality for the reconnection of Umwelt Lake to surface waters.³⁸

In response to this recommendation, Sabina stated:

Sabina agrees with this recommendation. Sabina agrees to update the Saline Water Management Plan to include the above information requested by ECCC. The update will incorporate agreed upon technical clarification and

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³⁶ ECCC, "Environment and Climate Change Canada's Final Written Submission to the Nunavut Water Board Respecting the Type A Water Licence Application for the Back River Gold Mine Project Proposed by Sabina Gold and Silver Corporation", July 9, 2018.

³⁷ Sabina, "Type A Water Licence Final Submission Responses", July 23, 2018.

³⁸ ECCC, "Environment and Climate Change Canada's Final Written Submission to the Nunavut Water Board Respecting the Type A Water Licence Application for the Back River Gold Mine Project Proposed by Sabina Gold and Silver Corporation", July 9, 2018.



commitments made during the Type A Water Licence review process. ³⁹

ECCC's third recommendation was that:

...the Proponent clarify nitrite inputs for rock sources and identify the reasons for reductions in predicted nitrite concentrations.⁴⁰

In response to this recommendation, Sabina provided a discussion of nitrite inputs and where in previous submissions that information can be found. In closing Sabina stated:

The reduction in maximum nitrite concentrations in the model was only due to the correction of sewage treatment plant effluent input concentrations.⁴¹

ECCC's fourth recommendation was that:

ECCC recommends that an updated version of the AEMP be submitted for approval following the issuance of a water licence and looks forward to further ongoing work on the AEMP.⁴²

In response to this recommendation, Sabina stated:

Sabina agrees with this recommendation. Sabina is committed to updating the Aquatics Effects Management Plan (AEMP) following approval of the Type A Water Licence. The update will incorporate agreed upon technical clarification and commitments made during the Type A Water Licence review process. Sabina re-iterates our commitment to work with ECCC as the Aquatic Effects Monitoring program moves through implementation of this plan.⁴³

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³⁹ Sabina, "Type A Water Licence Final Submission Responses", July 23, 2018.

⁴⁰ ECCC, "Environment and Climate Change Canada's Final Written Submission to the Nunavut Water Board Respecting the Type A Water Licence Application for the Back River Gold Mine Project Proposed by Sabina Gold and Silver Corporation", July 9, 2018.

⁴¹ Sabina, "Type A Water Licence Final Submission Responses", July 23, 2018.

⁴² ECCC, "Environment and Climate Change Canada's Final Written Submission to the Nunavut Water Board Respecting the Type A Water Licence Application for the Back River Gold Mine Project Proposed by Sabina Gold and Silver Corporation", July 9, 2018.

⁴³ Sabina, "Type A Water Licence Final Submission Responses", July 23, 2018.



In its closing remarks at the Public Hearing, ECCC submitted to the Board as follows:

Environment and Climate Change is confident that our remaining outstanding issues can be resolved, and we look forward to working on these with Sabina.⁴⁴

ECCC's closing remarks were paused and the hearing suspended while Sabina and ECCC held a sidebar meeting to resolve the remaining outstanding issues. When the Hearing resumed, Sabina presented adjustments to the Draft Licence Framework to resolve the issues. ECCC stated to the Board that the remaining issues had been resolved as follows:

Thank you for considering our additional comments here, and we agree with what Sabina's just presented.⁴⁵

Fisheries and Oceans Canada (DFO)

DFO provided comments reflective of their roles and obligations under the *Fisheries Act*,⁴⁶ the *Species at Risk Act*⁴⁷ and Article 12 of the *Nunavut Agreement*.⁴⁸ DFO has general responsibility for activities that impact or relate to fish and fish habitat.

During the technical review of the Application,⁴⁹ DFO raised concerns related to the following issues:

- Borrow Pits and Quarry Management Plan;
- Conceptual Fish Offsetting Plan;
- Final Environmental Impact Statement;
- Main Application Document;
- Nunavut Impact Review Board, Project Certificate (No.: 007);
- Water Management Plan; and
- Winter Ice Road Withdrawal Evaluation.

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⁴⁴ G. Bernard-Lacaille, ECCC, NWB Public Hearing, File No. 2AM-BRP----, Transcript, August 9, 2018, Volume 2, lines 24-26, p. 174.

⁴⁵ G. Bernard-Lacaille, ECCC, NWB Public Hearing, File No. 2AM-BRP----, Transcript, August 9, 2018, Volume 2, lines 14-15, p. 184.

⁴⁶ R.S.C. 1985, c. F-14.

⁴⁷ S.C. 2002, c. 29.

⁴⁸ S.C. 1993, c. 29.

⁴⁹ DFO, "Technical Review Comments Application for Type 'A' Water Licence, File No. 2AM-BRP---, Back River Project; Sabina Gold & Silver Corp.", March 26, 2018



In their final written submission, DFO identified several issues to be addressed under DFO processes, but no unresolved issues related to the Water Licence:

DFO-FPP has no further outstanding issues or recommendations to bring forward to the NWB as part of the water licence process. DFO-FPP will await Sabina's 'Request for Review' or 'Application for Fisheries Act Authorization', to move forward with DFO's Regulatory Review Phase.⁵⁰

In DFO's closing remarks at the Public Hearing, DFO stated the following:

Fisheries and Oceans Canada and Sabina have come to an agreement on all of our recommendations.⁵¹

SECTION III SUBMISSIONS BY OTHER INTERVENING PARTIES OR MEMBERS OF THE PUBLIC

At the Pre-Hearing Conference held by the NWB in Cambridge Bay, the Board's staff were advised that although Cambridge Bay was the most appropriate place to hold the Public Hearing, the communities of Kingaok (Bathurst Inlet) and Omingmaktok (Bay Chimo) should be invited to participate at the Public Hearing as these communities could potentially be affected by the activities and facilities included in the Application. On June 1, 2018, the Board issued a notice of Public Hearing (including Community Session) that was published in the Nunatsiaq News newspaper advising interested parties and affected communities about the Application and the opportunity for community members to attend the Public Hearing in Cambridge Bay and also extended an invitation to the Public Hearing to representatives from the Burnside Hunters and Trappers Organization (the HTO for the area surrounding Omingmaktok (Bay Chimo)).

At the Public Hearing, time was put aside for members of the public and community representatives to ask questions of the Applicant and the interveners and to provide the Board with their views, identify issues, express concerns and provide any other comments relevant to the Application. Only one member of the public attended during the Public Hearing and they did not ask any questions of the Applicant, Board or interveners. During the in-person Technical Meeting and Pre-Hearing Conference (TM/PHC), in May 2018 a few members of the public attended the TM/PHC to listen to the presentations provided by the Applicant and

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⁵⁰DFO, "Final Submission Application for Type 'A' Water Licence, File No. 2AM-BRP---, Back River Project; Sabina Gold & Silver Corp.", July 9, 2018.

⁵¹ M. D'Aguiar, DFO, NWB Public Hearing, File No. 2AM-BRP----, Transcript, August 9, 2018, Volume 2, line 26 and line 1, pp. 187-188.



intervenors, but no specific questions, concerns or other feedback was provided by the attendees.

SECTION IV JURISDICTION OF THE NWB

Under Division 2 of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*⁵² (*NWNSRTA*) the NWB has jurisdiction to issue a licence,⁵³ amend a licence,⁵⁴ or in certain circumstances, cancel a licence.⁵⁵ In exercising the Board's statutory functions under *the Agreement Between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in Right of Canada (<i>Nunavut Agreement*) and the statutory regime governing the Board (the *NWNSRTA* and the *Nunavut Waters Regulations*), the NWB must be guided by the following objects:

... to provide for the conservation and utilization of waters in Nunavut, except in a national park, in a manner that will provide the optimum benefit from those waters for the residents of Nunavut in particular and Canadians in general.⁵⁶

In setting the terms and conditions of a licence, the NWB is guided by these objects and the NWB's statutory duty to make *all* reasonable efforts to minimize *any* adverse effects on aquatic ecosystems. Reading several of the Articles of the *Nunavut Agreement* together,⁵⁷ the NWB relies on the broad definition of "ecosystemic" found in Article 12, Section 12.1.1 of the *Nunavut Agreement*, requiring not only the NIRB but also the NWB to ensure that all components of the ecosystem, such as fish and fish habitat, are protected within the parameters of s. 71 of the *NWNSRTA*.

As with any applications considered by the NWB, the burden of proof for this Application rests with the Applicant, Sabina, to demonstrate that the request for a new Type "A" Water Licence should be granted. In addition, the NWB's governing *Rules of Practice and Procedure for Public Hearings* state: "[a] ny party offering evidence before the NWB shall have the burden of introducing sufficient and appropriate evidence to support its position." ⁵⁸

⁵² Sections 42-81 of the NWNSRTA.

⁵³ See ss. 42, 48, 55, 56, and 70 of the NWNSRTA.

⁵⁴ See s. 43(1)(b) of the NWNSRTA.

⁵⁵ See s. 43(1)(c) of the NWNSRTA.

⁵⁶ See s. 35 of the *NWNSRTA*.

⁵⁷ This approach is consistent with the direction provided in Article 2, section 2.9.1 of the NLCA.

⁵⁸ Section 23.1 of the Nunavut Water Board's "Rules of Practice and Procedure for Public Hearings", dated May 11, 2005.



Where intervening parties, community representatives and the public present no evidence supporting or rejecting the Applicant's evidence, the NWB will base its decision on its own assessment of the information supplied by the Applicant to support the application.

SECTION V REQUIREMENTS OF THE NWNSRTA AND THE NUNAVUT AGREEMENT

Objects of the NWB and its Relationship to other Bodies

Land Use Planning

As noted in the discussion of the regulatory history in the previous sections, in 2012 a land use conformity assessment from the Nunavut Planning Commission (NPC) was not required as the Project falls outside an area with an approved Land Use Plan in effect.

Environmental Assessment

As noted in the discussion of the regulatory history, in December 2017 the Nunavut Impact Review Board (NIRB) completed the NIRB's Review of the potential eco-systemic and socio-economic effects of the Project and recommended that the Project be allowed to proceed subject to various terms and conditions. In December 2017, the Minister approved NIRB's recommendation that the Project be allowed to proceed. As required by the decision, the NIRB issued Project Certificate [No. 007] to Sabina on December 19, 2017.

Inuit Water Rights

The KIA and Sabina chose to address compensation for the potential impacts of the Back River Project on Inuit water rights under the Inuit Impact Benefit Agreement (IIBA). Accordingly, the NWB sought confirmation from the KIA that all issues of water user compensation had been dealt with pursuant to Article 20 of the *Nunavut Agreement* and s. 63 of the *NWNSRTA*. At the Public Hearing the NWB specifically asked the KIA to confirm that there are no outstanding issues related to water usage compensation, to which the KIA confirmed: "Yes, we have [a] water compensation agreement with Sabina." 59

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⁵⁹ J. Roesch, KIA, NWB Public Hearing, File No. 2AM-BRP----, Transcript, August 8, 2018, Volume 1, lines 9-10, p. 102.



Recommendations on Marine Areas

Section 41 of the *NWNSRTA* permits the Board to advise and make recommendations with respect to any marine matters that may arise to any department or agency of the Government of Canada or the Government of Nunavut.⁶⁰ No issues related to marine matters were raised during the course of the Public Hearing and the Board has made no recommendations on marine areas in relation to this Application.

SECTION VI DECISION TO ISSUE

Following the Public Hearing and for reasons elaborated further below, the Board has decided to issue Water Licence 2AM-BRP1831 (the Licence) subject to the conditions set out therein. The Licence contains terms and conditions necessary to protect the environment, conserve the water resources, and provide appropriate safeguards in respect of the Licensee's use of waters and deposit of waste.

Conditions for Issuance of a Licence

Section 57 of the *NWNSRTA* provides several key legislative requirements that must be satisfied before the NWB may issue a licence.

The Board may not issue a licence unless the applicant satisfies the Board that

- (a) any waste produced by the appurtenant undertaking will be treated and disposed of in a manner that is appropriate for the maintenance of the water quality standards and effluent standards that are prescribed by the regulations or, in the absence of such regulations, that the Board considers acceptable; and
 - (b) the financial responsibility of the applicant, taking into account the applicant's past performance, is adequate for
 - (i) the completion of the appurtenant undertaking,

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⁶⁰ Section 41 of the NWNSRTA states:

The Board may, either jointly with the Nunavut Planning Commission, the Nunavut Impact Review Board and the Nunavut Wildlife Management Board, as established by the Agreement, acting as the Nunavut Marine Council referred to in section 15.4.1 of the Agreement, or on its own, advise and make recommendations respecting any marine area to any department or agency of the Government of Canada or the Government of Nunavut, and those governments shall consider that advice and those recommendations when making any decision that may affect that marine area.



(ii) such measures as may be required in mitigation of any adverse impact, and (iii) the satisfactory maintenance and restoration of the site in the event of any future closing or abandonment of that undertaking.

Financial Responsibility of the Applicant

As outlined under the *NWNSRTA*, s. 57(b), the NWB considers three aspects of financial responsibility when considering whether to issue a Type "A" Water Licence to a given applicant:

- the financial ability of the Applicant to complete the appurtenant undertaking;
- the ability of the Applicant to undertake measures to adequately monitor for impacts and implement measures to mitigate any impacts; and
- the Applicant's ability to maintain and restore the site during care and maintenance, closure and abandonment.

This third aspect of financial responsibility will be specifically addressed in the section of this decision discussing Part C of the Licence, reclamation security.

Section 57 also makes it clear that the NWB's assessment of the Applicant's financial responsibility is a contextual analysis that considers not only the undertaking which is the subject matter of the Licence, but also the Applicant, with particular regard to the Applicant's past performance.

With respect to considering Sabina's past performance to assess their financial capacity to carry out the Undertaking, the Board notes that, since 2009 the Applicant has had two Type "B" Licences in place to authorize various water uses and waste deposits associated with exploration activities for the George Lake and Goose areas, including effluent discharges from the camps. Similarly, the Applicant has been using water and depositing waste as authorized under the Type "B" Licence for the Malley-Wishbone area since 2012. There was no evidence before the Board of any substantial outstanding issues of non-compliance with the existing type "B" Licences that would suggest the Applicant is unable to fulfill the financial responsibilities associated with the Back River Project.

Further, the Board notes that the consolidated financial statements for 2015 and 2016 submitted to the Board as an attachment to the October 2017 Application demonstrate that Sabina has remained solvent and has been able to conduct advanced exploration activities in preparation for the development of the mine at the Goose Property. The submission also



noted that Sabina sought and obtained additional financing in 2017 to increase their capacity as follows:

Subsequent to the year, on February 28, 2017, the Company completed a bought deal private placement flow-through financing of 3,150,000 flow-through common shares at a price of \$1.75 per share and an additional 320,000 flow-through common shares at the offering price for total gross proceeds of approximately \$6.1 million.⁶¹

The Board also notes that with respect to the consideration of the Applicant's financial responsibility, none of the parties presented evidence that would call into question the Applicant's ability to discharge its financial responsibility as required by s. 57(b) of the *NWNSRTA*. The Board has therefore concluded that the Applicant has established that Sabina has the financial resources to meet the obligations imposed under a Type "A" Water Licence for the Back River Project.

Compensation of Existing or Other Users

The *NWNSRTA* requires that the NWB be satisfied that compensation of existing or other water users affected by the Application has been or will be paid.⁶² To ensure that all parties with the potential to bring a water user compensation claim have been notified of their rights under the *NWNSRTA*, the NWB provided, in the Notice of Application, an invitation to parties with water user compensation issues to advise the NWB regarding such issues. On February 23, 2018, the NWB issued Notice of the Application in accordance with s. 55 of the *NWNSRTA*, and the NWB confirms that no representations regarding compensation of other water users were made to NWB at any time during the Board's consideration of the Application.

Issuance of a Licence

As stated above and pursuant to s. 42(1) of the *NWNSRTA*, the NWB has decided to issue Water Licence 2AM-BRP1831 subject to the terms and conditions set out in this decision and in the attached Type "A" Licence. In issuing the Licence, the NWB is satisfied that the

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⁶¹ Appendix C-4 to Water Licence Application AM-BRP, Sabina Gold & Silver Corp., Consolidated Financial Statements 2015 and 2016, at p. 25.

⁶² See ss. 58-60 of the *NWNSRTA*.



Application contained the required information and is in the proper form having regard to the requirements of the *NWNSRTA*⁶³ and associated *Regulations*.⁶⁴

Assumptions

When faced with choices regarding monitoring requirements such as standards or parameters to be imposed under the Licence, the Board has opted to impose stringent monitoring requirements in an effort to ensure that the Applicant meets their on-going environmental protection obligations.

Applications in Relation to the Licences

Overall, the NWB is satisfied that the requirements of s. 48 of the NWNSRTA have been met. Sabina filed the Application, which complied with the NWB's Guide No. 4 (Guideline for Completing and Submitting an Application for a New Water Licence) and associated Supplemental Information Guideline (MM3) for Mine Development, accompanied by the fees required by the Nunavut Waters Regulations, including the application fee. In addition, throughout the NWB's regulatory process, Sabina has provided the necessary application and supplementary information requests by intervening parties and as required by the NWB to decide whether the Licence should be granted as requested.

Application to Amend or Application for Future Modifications

In relation to future proposals to amend or modify the Back River Project and associated water uses and waste deposits as proposed by Sabina in the Application, the NWB reminds Sabina that it must comply with all applicable requirements of the *Nunavut Agreement*, ⁶⁵ the *Nunavut Planning and Project Assessment Act*, ⁶⁶ and *NWNSRTA*. ⁶⁷

Assignment of a Licence

In future, should Sabina wish to assign the Licence, it should be aware that a Water Licence is <u>only assignable</u> if the requirements of s. 44 of the *NWNSRTA* have been met. This section states:

A sale or other disposition by a licensee of any right, title or interest in an appurtenant undertaking constitutes, subject to

⁶³ See s. 48 of the *NWNSRTA*.

⁶⁴ Nunavut Waters Regulations, SOR/2013-69.

⁶⁵ See Article 12, Clause 12.4.3 (b) of the NLCA.

⁶⁶ S.C. 2013, c. 14, s. 2 (*NuPPAA*).

⁶⁷ See s. 43 of the NWNSRTA.



the authorization of the Board, an assignment of the licence to the person to whom the sale or other disposition is made.

All necessary forms for filing an application for assignment can be obtained from the NWB FTP site or Licensing Department.

Cancellation or Expiry of the Licence

The NWB notes that s. 46 of the NWNSRTA states: "[t] he expiry or cancellation of a licence does not relieve the holder from any obligations imposed by the licence."

In addition, based on the NWB's authority under s. 43(1)(c)(iii) of the *NWNSRTA*, the NWB may, on application by a licensee, or on its own motion, cancel a licence at any time when the NWB considers the cancellation to be in the public interest. For the NWB to consider cancellation of a licence, the NWB requires evidence from the licensee and CIRNAC Inspector, establishing that an undertaking has been abandoned, fully reclaimed and there are no outstanding obligations under the licence.

Term of Licence

Section 45 of the *NWNSRTA* provides that the term of a Licence or any renewal shall not exceed twenty-five years or the "duration of the appurtenant undertaking".

The Applicant has applied for a term of 14 years to construct and operate the Project, with the decommissioning, reclamation and closure phases of the Project to be conducted under a second term following a Licence renewal. The proposed development schedule consists of 4 years of construction, 10 years of active mining, 8 years of closure, and 5 years of post-closure. Pre-construction and specific initial construction activities began in 2018 under Type "B" Water Licence 2BC-BRP1819, and as such, the Board has considered 2018 to be "year one" in terms of the activities proposed under the 14 year term of the Licence. Consequently, while the Board has granted the Licence for the term requested by Sabina in the Application, when 2018 is included, the Licence expires at the end of 2031.

The Board notes that there were no issues raised by the parties with regard to the Applicant's proposed term of the Licence. The Board agrees that is reasonable in the circumstances (ongoing exploration in the area and the potential for future development of the adjacent George property) to grant this Licence for a term that would only cover construction and operation of the Project. Closure and Post-Closure phases of the project will not be covered by this Licence and would be subject to a future Licence renewal application process. The NWB is satisfied that a 14-year term for the Licence is appropriate to meet the objective of providing certainty for the Applicant and accountabi(lity for interested parties. Therefore, the Board



accepts Sabina's request and recommends (as outlined above) that the Licence be issued for a term of 14 years (including 2018), and unless renewed, the Licence will expire in 2031.

SECTION VII WATER LICENCE TERMS AND CONDITIONS

The Licence does not take effect until approval of the Minister is given or deemed to have been given pursuant to s. 56 of the *NWNSRTA*. As indicated in Section VI, the Panel has decided to issue a Type "A" Water Licence, subject to the conditions contained in the attached Licence.

To provide context and clarity, the NWB has provided discussion and commentary about only specific terms and conditions of the recommended Licence in the text that follows. The Board has not included discussion or commentary with respect to those licence terms and conditions that are clear in their wording and intent on the face of the Licence.

Part A: Scope, Definitions and Enforcement

The undertaking, for which the new Licence is issued, is classified as a Mining Undertaking in accordance with Schedule 1, Item 2 of the *Nunavut Waters Regulations*. ⁶⁹ The general scope of the Licence includes the following activities and/or facilities [note capitalized terms are defined terms under the Licence]:

For the Goose Property:

- Withdrawal and use of water from Big Lake and Goose Lake for camp, mining, construction, and associated activities;
- Dewatering of Llama Lake and Umwelt Lake;
- Quarrying of materials from specified locations;
- Operation of a camp;
- Construction, operation, maintenance of the following project components/activities:
 - Open pit mines at Llama, Umwelt, Echo, and Goose Main;

The issuance, amendment, renewal and cancellation of a type A licence, and if a public hearing is held, a Type B licence are subject to the approval of the Minister.

⁶⁸ Section 56 of the NWNSRTA states:

s. 56(2.2) if the Minister does not issue a decision within 45 days of receiving the Licence from the Board, (or within 90 days if the Minister has extended the decision-making period by an additional 45 days) the Minister is deemed to have approved the Licence.

⁶⁹ SOR/2013-69.



- o Underground mines at Llama, Umwelt, Echo, and Goose Main;
- o Mill;
- o Administration, warehousing, and equipment maintenance;
- o Camp;
- o Pads;
- Quarry and borrow sites at specified locations;
- All-weather roads and watercourse crossings;
- Site specific Winter Ice Roads;
- o Rascal Stream Connectivity (culverts and/or channel realignment);
- o All-weather airstrip (including extension);
- Ice airstrip.
- Construction, operation, maintenance of the following Water Use and Management components/activities:
 - Goose Property Water Supply Facilities;
 - Tailings Storage Facility and/or Tailings Facilities;
 - Watercourse crossings including pipelines, channel and bank alterations, culverts, spurs, and erosion control;
 - Flood control, diversion, alteration of flow, or storage by means of dykes or dams;
 - o Runoff management for the Ore Stockpile, Waste Rock Storage Areas, laydown areas, bulk fuel storage, and other mine infrastructure;
 - Goose Property Water Treatment Facilities;
 - Saline Water Storage.
- Construction, operation, maintenance of the following Waste Disposal and Management components/activities:
 - Goose Property Waste Management Facilities;
 - Sewage Treatment Plant;
 - Landfarm;
 - Landfills;
 - Waste Rock Storage Areas;
 - Tailings Storage Facility and/or Tailings Facilities; and
 - o Effluent discharge.



- Construction, operation, maintenance of the following Materials Handling and Management components/activities:
 - Laydown areas;
 - o Petroleum, oils, and lubricants (including bulk fuel storage);
 - Hazardous waste;
 - o Explosive storage/management.

For the Marine Laydown Area (MLA):

- Withdrawal and use of water from MLA Pond S1, Pond S2, Lake 3, and Lake 4 for camp, construction, and associated activities;
- Quarrying of materials from specified locations;
- Operation of a camp;
- Construction, operation, maintenance of the following project components/activities:
 - o Administration, warehousing, and equipment maintenance;
 - o Camp;
 - Pads;
 - Ouarry and borrow sites at specified locations;
 - o All-weather roads;
 - Site specific Winter Ice Roads; and
 - o Ice airstrip.
- Construction, operation, maintenance of the following Water Use and Management components/activities:
 - MLA Water Supply Facilities;
 - Watercourse crossings including pipelines, channel and bank alterations, culverts, spurs, and erosion control;
 - Flood control, diversion, alteration of flow, or storage by means of dykes or dams;
 - O Runoff management for the Ore Stockpile, Waste Rock Storage Areas, laydown areas, bulk fuel storage, and other mine infrastructure;
 - MLA Water Treatment Facilities.
- Construction, operation, maintenance of the following Waste Disposal and Management components/activities:
 - o MLA Waste Management Facilities;



- MLA Wastewater Treatment Facilities;
- o Landfarm;
- o Effluent discharge.
- Construction, operation, maintenance of the following Materials Handling and Management components/activities:
 - Floating barge terminal;
 - Laydown areas;
 - o Petroleum, oils, and lubricants (including bulk fuel storage);
 - Hazardous waste;
 - o Explosive storage/management.

For the Interconnection Winter Ice Road (IWIR):

Withdrawal and use of water from source locations proximal to the Interconnection
 Winter Ice Road for Ice Road construction and maintenance.

During the Board's review of the Application, Sabina indicated that some aspects of the scope of Water Licences 2BC-BRP1819 and 2BE-GOO1520 would be subsumed under the scope of the Type "A" Water Licence if issued.

In particular, the Board expects that the entire scope of Water Licence No.: 8BC-BRP1819 (Development Works, Back River Project) would be included under the Type "A" Water Licence. On this basis, if the Minister approves the issuance of the Type "A" Licence, upon receipt of an application by Sabina and an Inspection Report from CIRNAC Field Operations, the Board may cancel Water Licence No.: 8BC-BRP1819 in its entirety. In 2019, the 2018 Annual Report under the Type "A" Water Licence will include all reporting requirements from Water Licence No.: 2BC-BRP1819.

For Type "B" Water Licence No.: 2BE-GOO1520 it is the Board's understanding that only a few items under the scope of that Licence would be included under the new Type "A" Licence. Accordingly, the NWB expects that if the Minister approves the issuance of the Type "A" Licence, Sabina would bring an application to amend the scope of Water Licence 2BE-GOO1520 to reflect the activities that have been included in the scope of the Type "A" Water Licence.

It should be noted that Sabina continues to be accountable for the condition of the site for the duration of the Licence, and is responsible to undertake any reclamation, remediation or other impact mitigation activities that may be required, if monitoring identifies impacts or potential



for environmental impacts resulting from the former mine or associated infrastructure. ⁷⁰ If monitoring or inspection activities identify potential for impacts or actual impacts, the Board may require the Licensee to undertake additional activities at the site. Depending on the nature of the reclamation, remediation or other impact mitigation measures required, the Licensee or the Board may revisit the scope of the Licence to include any specific water use or waste deposits associated with these activities.

Definitions

As addressed more specifically in the discussion of Part C: Conditions Applying to Security that follows, as the NWB has recommended that the requirements for posting security under the Licence be tied to the construction of key project infrastructure, the Licence includes the following definitions of project infrastructure that are unique to this Licence:

- Initial Infrastructure
- Umwelt Open Pit
- Tailings Storage Facility
- Llama Open Pit
- Llama Underground
- Umwelt Underground
- Goose Maine Open Pit
- Goose Main Underground
- Echo Open Pit and Underground

The Licensee shall refer to Schedule A of the Licence for definitions of all key terms used by the Board in this Licence.

Enforcement and Compliance

For the purpose of ensuring compliance with the Licence, an Inspector designated by the Minister of Crown-Indigenous Relations may inspect or examine works, waters or waste and exercise other powers according to the *NWNSRTA*. The *NWNSRTA* also includes provisions authorizing the NWB to require a licensee to furnish and maintain security and

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⁷⁰ Mine Site Reclamation Policy for Nunavut, 2002, Minister of Indian Affairs and Northern Development, (Ottawa: Minister of Public Works and Government Services Canada, 2002) available on-line: http://www.aadnc-aandc.gc.ca/DAM/DAM-INTER-HQ/STAGING/texte-text/recpolnuna 1100100036043 eng.pdf.

⁷¹ Sections 85-94 of the *NWNSRTA*.



prescribing serious penalties for breach of the licence.⁷² Investigations or inspections to support enforcement and compliance are carried out by persons designated and empowered by the Minister.⁷³

The Board also points out to Sabina that the Licence states that "Compliance with the terms and conditions of this Licence does not absolve the licensee from responsibility for compliance with all applicable legislation, guidelines and directives."

Part B: General Conditions

Reports and/or Plans Filed with the NWB

The following Plans have been filed with the Board by the Applicant during the water licensing process and is considered to be reviewed and approved by the Board with the issuance of the Licence:

- Road Management Plan (October 2017) (SD-02);
- *Borrow Pits and Quarry Management Plan (October 2017) (SD-03);*
- Water Management Plan (October 2017) (SD-05);
- *Ore Storage Management Plan (October 2017) (SD-07);*
- Mine Waste Rock Management Plan (October 2017) (SD-08);
- Tailings Management Plan (October 2017) (SD-09);
- Landfill and Waste Management Plan (October 2017) (SD-10);
- *Incineration Management Plan (October 2017) (SD-11);*
- *Landfarm Management Plan (October 2017) (SD-12);*
- Hazardous Materials Management Plan (October 2017) (SD-13);
- Risk Management and Emergency Response Plan (October 2017) (SD-15);
- Fuel Management Plan (October 2017) (SD-16);
- *Spill Contingency Plan (October 2017) (SD-17);*
- Environmental Management and Protection Plan (October 2017) (SD-20);
- Aquatic Effects Management Plan (October 2017) (SD-21); and
- Interim Closure and Reclamation Plan (including Interim Closure Cost Estimate) (October 2017) (SD-26).

The following Plan has been filed with the Board by the Applicant during the water licensing process and is considered to be accepted by the Board with the issuance of the Licence:

Quality Assurance / Quality Control Plan (October 2017) (SD-24).

The Board acknowledges receipt of the following additional Plans, which were submitted to the Board during the water licensing process, but are Plans for which the Board does not

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⁷² Section 90 of the *NWNSRTA*.

⁷³ Section 85-88 of the *NWNSRTA*.



exercise jurisdiction to approve or accept, as these Plans remain to be considered by other agencies such as Transport Canada or Fisheries and Oceans Canada:

- *Oil Pollution Emergency Plan (October 2017) (SD-18);*
- Conceptual Fish Offsetting Plan (October 2017) (SD-22); and
- Marine Monitoring Plan (October 2017) (SD-23).

The NWB highlights for Sabina that the Licence includes a listing of management plans that must be accepted or approved by the NWB in writing in order to comply with the requirements of the Licence. However, the Board notes that not all elements of the plans submitted will involve activities within the NWB's jurisdiction; consequently the Board's approval or acceptance of a specific plan, does not mean that the NWB is exercising jurisdiction to approve or accept elements of the plan that are outside the NWB's jurisdiction or that are otherwise outside of the NWB's mandate (e.g. wildlife management components of a spill contingency plan, etc.).

The NWB may alter or modify a plan, if necessary, to achieve the legislative objectives and will notify the licensee promptly in writing of the Board's acceptance, rejection, or alteration of any plan. The plan must then be carried out in a manner and timeframe consistent with the NWB's direction. Every plan to be carried out pursuant to the terms and conditions of the Licence shall become a part of the Licence, and any additional terms and conditions imposed upon approval of a plan by the NWB also become part of the Licence.

Part C: Conditions Applying to Security

Requirement of Security

The *NWNSRTA* allows the Board to require the Licensee to furnish and maintain security with the Minister in a form determined by the regulations or satisfactory to the Minister. Specifically, subsection 76(1) of the *NWNSRTA* states:

The Board may require an applicant, a licensee or a prospective assignee to furnish and maintain security with the Minister in the form, of the nature, subject to such terms and conditions and in an amount prescribed by, or determined in accordance with, the regulations or that is satisfactory to the Minister.

Further, as referred to previously in the discussion included under the subheading Financial Responsibility of the Applicant, the Board may not issue a Licence unless the Board is



satisfied regarding the financial responsibility of the Applicant, including reviewing any costs associated with the closing or abandonment of the undertaking.⁷⁴

In addition, the *Nunavut Waters Regulations*⁷⁵ impose the following limits on the Board's jurisdiction to fix the amount of security:

- 10. (1) For the purposes of subsection 76(1) of the Act, the Board may fix the amount of security required to be furnished by an applicant for a licence, a licensee or a prospective assignee in an amount not exceeding the aggregate of
- (a) the costs of the abandonment of the undertaking;
- (b) the costs of the restoration of the site of the undertaking;
- (c) the costs of any ongoing measures that may remain to be taken after the abandonment of the undertaking; and
- (d) the compensation that a person, including the designated Inuit organization, who is adversely affected by the use of waters or deposit of waste may be entitled to under section 13 of the Act.

The Board's Jurisdiction over Land and Water Security

In accordance with its duties and authority under the *Nunavut Agreement*, the *NWNSRTA*, and *Nunavut Waters Regulations* the Board has a broad and widely recognized mandate to assess and order both land and water related security, to ensure that the overall reclamation of the licensed undertaking is secured.⁷⁶

As a result of its statutory authority and obligations, the Board has established a practical and holistic approach to the assessment of the security required to be held by the applicants under a Water Licence. This holistic and practical approach was first described in the Board's 2001 decision in the BHP Boston Licence renewal, as cited in the Board's decision for the Doris North Project.⁷⁷ The holistic approach means that the NWB does not attempt to draw arbitrary distinctions between land and water based reclamation security when fixing security under s. 76 of the *NWNSRTA*. As indicated by the Board in prior decisions, such distinctions are artificial and do not reflect that reclamation must be planned for and undertaken in a holistic manner:

⁷⁶ Nunavut Water Board, Reasons for Decision for 2AM-DOH0713, September 19, 2007 at p. 25.

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⁷⁴ Subsection 57(b) of the *NWNSRTA*.

⁷⁵ SOR/2013-69.

⁷⁷ From the Board's 2001 renewal of the Boston Licence, as cited in the Hope Bay decision, see Nunavut Water Board, Reasons for Decision for 2AM-DOH0713, September 19, 2007 at p. 23.



The NWB takes a holistic but also practical approach to reclamation: on the one hand, the NWB believes that the elements of the environment, including land and water, are interconnected: what affects one part of the environment can ultimately have an impact on other environmental elements (water and vegetation, for example). By altering the natural elements of the environment, traditional Inuit culture and use of the water can be directly affected; on the other hand, the NWB believes, where possible, that a proponent should be required to submit one single reclamation plan, without segregating land-related reclamation and water-related reclamation because reclamation activities abandonment will likely be more efficient and undoubtedly less onerous if conducted at the same time by the same person.⁷⁸

In respect of this Application, Sabina, CIRNAC and the KIA raised no issue with the Board's approach to assessing security on the basis of ensuring the total reclamation security proposed is sufficient to reclaim all sites affected and impacts created by the licensed undertaking. This approach is also consistent with the principles of reclamation set out in the *Mine Site Reclamation Policy for Nunavut*, 2002, which provides:

- The total financial security for final reclamation required at any time during the life of the mine should be equal to the total outstanding reclamation liability for land and water combined (calculated at the beginning of the work year, to be sufficient to cover the highest liability over that time period).
- Financial security requirements related to reclamation should be clearly set out in water licences, land leases and other regulatory instruments, though there may be circumstances where security requirements may be more appropriately dealt with through an agreement.⁷⁹

The Board's Approach to "Overbonding"

As expressed in prior security decisions by the Board, in fixing the reclamation security amount to be held under the Water Licence, the Board not only takes a holistic approach, but

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⁷⁸ From the Board's 2001 renewal of the Boston Licence, as cited in the Hope Bay decision, see Nunavut Water Board, Reasons for Decision for 2AM-DOH0713, September 19, 2007 at p. 23.

⁷⁹ Mine Site Reclamation Policy for Nunavut, 2002, at http://www.aadnc-aandc.gc.ca/DAM/DAM-INTER-HQ/STAGING/texte-text/recpolnuna_1100100036043_eng.pdf.



must also be cognizant of any security amounts that will be held by the Designated Inuit Organization for those components of the Undertaking that will be taking place on Inuit Owned Lands (IOL). As noted by Sabina, ⁸⁰ if the Board required all of the outstanding reclamation security to be posted under the Water Licence without regard to the equivalent reclamation security that may be held by the KIA as landowner for several components of the Undertaking, the result would be that Sabina would be "overbonded", i.e. required to post duplicate reclamation security, at least in part, with both the Minister and the KIA.

As noted above, the amount of security that is permissible to be required under the Licence is limited by s. 10(1) of the *Regulations* and should not exceed the costs set out in s. 10(1)(a)-(d). Reflecting these concerns of overbonding, and as set out in the Board's previous decisions, the NWB has developed an approach to allowing the Board to factor security held under land based instruments by Designated Inuit Organizations into the Board's fixing of security under Water Licences as follows:

... the Board's focus in assessing security is that the Applicant must have posted sufficient security, through all means, when taken together, to ensure that the overall reclamation of the site (land and water) has been adequately addressed. Consequently, the Board's starting point to assess security remains considering the security requirements holistically and then deducting from the aggregate land and water reclamation totals any security held under other instruments, with the remainder being secured under the water licence. 81

In fixing the security under the Water Licence as set out in Part C of the Licence, the Board has therefore taken into account the reclamation security that Sabina has proposed to be posted with the KIA throughout the term of the Licence. Sabina's approach was summarized as follows at the Public Hearing:

And perhaps the most important thing to remember, of course, is that -- that's designed to be the highest exposure for the project. It's not necessarily right at the end. But making sure that the parties -- both the Federal Government and the KIA are covered at any point in time during the project.

Subsequent to an agreement on the overarching number, we started discussing the split. So Sabina's always been concerned and has expressed concern around overbonding or double

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⁸⁰ See the comments of M. Pickard, Sabina, NWB Public Hearing, File No. 2AM-BRP----, Transcript, August 8, 2018, Volume 1, pp. 68-69.

⁸¹ Nunavut Water Board, Reasons for Decision for 2AM-JER1119, December 21, 2012 at p. 47.



bonding. Both parties went away and did their estimate of what the split -- they felt the split should be. In this case, they actually came out with almost exactly the same split which, after subsequent discussion, was quite easy to resolve, but, it essentially, as recommended by both parties, is -- overall for the security amount, the 32 percent amount would go towards the Kitikmeot Inuit Association, and 68 percent towards the Federal Government.⁸²

As noted by the KIA, the proposed staged posting of security means that the precise split between the reclamation security to be held under the Licence and the reclamation security proposed to be held by the KIA in their capacity as land and resource owner varies to reflect the changes in reclamation liability associated with each stage of infrastructure construction:

Given that Sabina's mine site construction phases start on IOL [Inuit Owned Lands] in the first and second phases, which are initial infrastructure in Umwelt OP, the KIA is exposed to considerable risk and liability immediately. For this reason, the KIA proposed receiving a higher percentage of security at the start of construction from each mine site components in infrastructure being built on IOL.

As construction phases progress, the KIA's proportion of allotted staged security is reduced. By the time Llama OP phase, KIA will have received 87 percent of our required security. By the time Goose Main Op. phase, both KIA and CIRNA will have received 94 percent of the required reclamation security for the project.

The KIA believes that this proposed staged security is equitable in meeting both KIA's and CIRNA's requirements given the relative risk exposure in each of the construction phases.⁸³

On this basis, in addition to considering the split between reclamation security amounts proposed to be held by the KIA and reclamation security amounts proposed to be held by the Minister under the Licence, the Board also considered the "staging" of security as proposed by Sabina and agreed to by the KIA and CIRNAC.

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⁸² M. Pickard, Sabina, NWB Public Hearing, File No. 2AM-BRP----, Transcript, August 8, 2018, Volume 1, lines 14-26 and lines1-6, pp. 93-94.

⁸³ J. Roesch, KIA, NWB Public Hearing, File No. 2AM-BRP----, Transcript, August 8, 2018, Volume 1, lines 19-26 and lines 1-10, pp. 68-69.



Staged Security

Under the *NWNSRTA* the Board may include conditions of a licence where it considers this appropriate. Most specifically, s. 76(1) of the *NWNSRTA* gives the Board the authority to establish terms or conditions relating to the furnishing or maintaining of security. As always, the Board's authority must be exercised in light of its objects, stipulated under s. 35 of the *NWNSRTA*.⁸⁴

As canvassed in the Board's previous extensive discussions of security associated with the Baffinland Iron Mines Corporation's Mary River Project, the Board recognizes that it is not reasonable to require an Applicant to post the total amount of reclamation security necessary to reclaim an entire Undertaking prior to the commencement of construction of any of the infrastructure associated with that Undertaking. The Board recognizes the reality that capital financing governing most mining projects is only advanced in phases. As a result, generally projects will be constructed in stages that involve an initial period of limited construction and operation being staged first so that operating revenue generated by the initial phase(s) can be used to support the construction of subsequent phases. As noted by the Board in the circumstances of the Mary River Project:

The phased approach adopted by the Board under Part C and Schedule C of the Existing Licence [the terms and conditions related to security] and brought forward under the Amended Licence ensures that the amount of reclamation security posted by BIMC [the Licensee] at any given time over the course of the project life cycle will not only be adequate for the level of activities, risk, and scope of potential reclamation work required, but also ensures that the required amount does not exceed the aggregate costs set out in s. 10(a)-(d) of the Regulations while a project is being developed and before the full scope of the undertaking and associated reclamation liability exists[underlining added for emphasis].

In the Board's view, this phased approach is entirely consistent with the Principles set out in the Mine Site Reclamation Policy for Nunavut, 2002 [footnote in the original omitted] and reflects, in particular, the requirement that the:

The objects of the Board are to provide for the conservation and utilization of waters in Nunavut, except in a national park, in a manner that will provide the optimum benefit from those waters or the residents of Nunavut in particular and Canadians in general.

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⁸⁴ Section 35 of the *NWNSRTA* states:



...total financial security for final reclamation required at any time during the life of the mine should be equal to the outstanding reclamation liability for land and water combined (calculated at the beginning of the work year, to be sufficient to cover the highest liability over that time period) 85

As indicated by Sabina in the Public Hearing, ⁸⁶ the Kitikmeot Inuit Association (KIA), Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) and Sabina had, after extensive discussions, reached agreement that it was appropriate for the amounts of reclamation security required to be provided to the Minister under the Licence and to be held by the KIA as landowner to be linked to nine (9) specific stages of infrastructure construction. Although the Board questioned Sabina about whether the security could be linked to specific timelines such as Year 1, Year 5 or Year 10 of the Licence rather than stages of infrastructure construction, recognizing that Sabina's construction of specific infrastructure is dependent upon mine/deposit-specific development plans that are not yet finalized, there remains a question as to the timeline and possible sequencing of the stages of infrastructure construction as development unfolds at the Goose Property. As described by Sabina at the Public Hearing:

So we're not trying to go back and revisit these numbers. We're trying to allow for the stage[d] development. Because we have four open pits, because we have multiple areas and being a junior mining company, we want to make sure that we have the flexibility to pay for those before we go in but not put everything up ahead.⁸⁷

Rather than having to readjust the timing and amounts of security prescribed under the Licence if there are changes to the project infrastructure construction sequencing and schedules during the 14-year term of the Licence, the parties have proposed tying increases in reclamation security to be secured under the Licence to the construction of specific infrastructure. The parties have concluded that the proposed approach balances the operational flexibility required by Sabina to develop the mine in the sequence and timing they consider to be appropriate, while ensuring that there is certainty that the full amount of reclamation liability is secured before activities increasing the reclamation liability

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⁸⁵ Nunavut Water Board, Water Licence No.: 2AM-MRY1325 – Amendment No. 1, Baffinland Iron Mines Corporation, Reasons for Decision Including Record of Proceedings, July 31, 2015 at pp. 55-56.

⁸⁶ Sabina, NWB Public Hearing, Exhibit 5, File No. 2AM-BRP---- Hard Copy "Proposed Back River Project Type "A" Water Licence Framework Update of version filed on July 23, 2018" (English).

⁸⁷ M. Pickard, Sabina, NWB Public Hearing, File No. 2AM-BRP----, Transcript, August 8, 2018, Volume 1, lines 2-8, p. 70.



associated with the Undertaking proceed. As confirmed by the Kitikmeot Inuit Association at the Public Hearing:

The KIA is open to the receipt of staged security from Sabina subject to particular water licence conditions. The KIA has provided both Sabina and CIRNA with a proposed staged split of security for the Back River Project. The KIA has had discussions with both Sabina and CIRNA on the staged security, and we have an agreement.⁸⁸

CIRNAC also confirmed that the Department agreed with the proposed staged approach to the posting of security under the Licence:

The security of 43 million, approximately, will be furnished at nine different stages throughout the life of the mine. This approach has been agreed to by the department [CIRNAC], the Kitikmeot Inuit Association, and Sabina.⁸⁹

Although the Board has reservations that having nine (9) stages of infrastructure construction over the course of the 14-year term of the Licence may be somewhat cumbersome from an administrative perspective, especially during periods of intense construction, the Board also respects that the approach was agreed to by the KIA and CIRNAC, the parties responsible for administering the security. On this basis, the Board has accepted the staged approach to security as proposed by Sabina and supported by the KIA and CIRNAC in Part C of the Licence. As noted in the previous discussion of the Definitions section of the Licence under Schedule A, the Board has also adopted the definitions as proposed by Sabina and agreed to by the KIA and CIRNAC of the nine (9) stages of infrastructure construction that will trigger the requirements to file additional security under Part C.

The table included under Part C, Item 1 of the Licence sets out the specific amounts of security that must be filed with the Minister in advance of construction of the specified infrastructure. The amounts are cumulative so that once security has been posted in advance of construction of the specified infrastructure, it will be required to be maintained until such time as the infrastructure is decommissioned and the reclamation required for that infrastructure has been confirmed. In the event that Sabina wishes to reduce the security required for specified infrastructure to reflect decommissioning or reclamation activities that take place during the term of the Licence, Sabina may apply under Part C, Item 13 for a reduction.

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⁸⁸ J. Roesch, KIA, NWB Public Hearing, File No. 2AM-BRP----, Transcript, August 8, 2018, Volume 1, lines 6-12, p. 93.

⁸⁹ I. Parsons, CIRNAC, NWB Public Hearing, File No. 2AM-BRP----, Transcript, August 8, 2018, Volume 1, lines 17-21, p. 111.



The tables in Part C, Items 1 and 2 are based on the stages and amounts set out in Part C, Item 1 of the Water Licence Framework in Exhibits 5 and 9.90 As required by s. 10 of the *Nunavut Waters Regulations*, the Board has determined that the amounts agreed to by the parties in these Exhibits, as broken out for each stage of infrastructure construction adequately reflect the aggregate of: the costs of the decommissioning /abandonment) of the undertaking; restoration of the site; costs of on-going reclamation after decommissioning/abandonment and compensation to the KIA for potential adverse effects. Further, although the Board notes that in the past, financial and performance bonding institutions have indicated that amounts rounded to the hundreds or thousands of dollars are easier to work with than to the dollar, recognizing the considerable efforts expended by Sabina, the KIA and CIRNAC to arrive at the precise dollar amounts included in Exhibits 5 and 9, the Board has accepted the amounts as stated in the Exhibits, which are to the nearest dollar.

On this basis, the Board has accepted that the total amount of reclamation security (held by the Minister under the Licence and to be held by the KIA as land and resource owner) when all infrastructure has been constructed should be **forty three million one hundred eighty-nine thousand three hundred and fifty-two** dollars (\$43,189,352), and this is the amount fixed by the Board under Part C, Item 1.

Although the Board does not have jurisdiction to prescribe the amount of security that the KIA chooses to hold as land and resource owner for some components of the Back River Project, under Part C, Item 2 the Board has recognized that under the security arrangements proposed by Sabina and agreed to by the KIA and CIRNAC, that a specific portion of the total outstanding security liability associated with various stages of infrastructure development is expected to be held by the KIA. Consequently, the Board requires confirmation from Sabina under Part C, Item 7 of the Licence that the proposed security to be held by the KIA has in fact been provided to the KIA. As set out in the provisions of Part C, Item 8 if the NWB does not receive such confirmation, Sabina is required within 30 days to file additional security with the Minister under the Licence in order to ensure that when the security furnished to the Minister under the Licence is combined with the reclamation security held by the Kitikmeot Inuit Association the total amount of reclamation security furnished by Sabina is sufficient to meet the total reclamation security amount applicable to the stage(s) of infrastructure constructed at the site.

With respect to adjustments to security that may be required if the Project goes into Care and Maintenance during the term of the Licence or begins decommissioning and reclamation of

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⁹⁰ Sabina, NWB Public Hearing, Exhibit 5, File No. 2AM-BRP----, Hard Copy "Proposed Back River Project Type "A" Water Licence Framework Update of version filed on July 23, 2018" (English) and Exhibit 9, Sabina, Electronic Copy Only File No. 2AM-BRP----, Electronic Copy, RECLAIM 7.0 Project: Back River Project (Updated to reflect addition of Exhibit 8) (English).



some components during the term of the Licence, the Board has included provisions in Part C: Conditions Applying to Security that are linked to Part J: Conditions Applying to Abandonment, Reclamation and Closure to ensure that if changes to the reclamation liability for the Undertaking are triggered by changes to the status of the project infrastructure, the Board is notified, Sabina provides updated information regarding changes to reclamation liability and the Board can adjust the security requirements under the Licence accordingly.

Form of Security

Pursuant to s. 76(1) of the *NWNSRTA* and s. 10(3) of the *Nunavut Waters Regulations* S.O.R./2013-69:

10(3) Security must be in the form of

- (a) a promissory note guaranteed by a bank listed in Schedule I or II to the <u>Bank Act</u> and made payable to the Receiver General;
- (b) a certified cheque drawn on a bank listed in Schedule I or II to the Bank Act and made payable to the Receiver General; (c) a performance bond approved by the Treasury Board for the purposes of paragraph (c) of the definition "security deposit" in section 2 of the Government Contracts Regulations;
- (d) an irrevocable letter of credit from a bank listed in Schedule I or II to the Bank Act; or (e) a cash payment.

The Board's Conclusions Regarding Reclamation Security to be Posted by Stages of Infrastructure Construction

The Board notes, that as required, the reclamation cost estimate for the Type "A" Water Licence provided in the Application and set out in Exhibits 5 and 9, 91 was prepared using the RECLAIM method, which is in accordance with the *Mine Site Reclamation Policy for*

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⁹¹ Sabina, NWB Public Hearing, Exhibit 5, File No. 2AM-BRP----, Hard Copy "Proposed Back River Project Type "A" Water Licence Framework Update of version filed on July 23, 2018" (English) and Exhibit 9, Sabina, Electronic Copy Only File No. 2AM-BRP----, Electronic Copy, RECLAIM 7.0 Project: Back River Project (Updated to reflect addition of Exhibit 8) (English).



Nunavut. 92 As set out in Exhibit 9,93 after extensive technical review and discussions amongst the Kitikmeot Inuit Association and Crown Indigenous Relations and Northern Affairs Canada (CIRNAC, formerly INAC), the parties have agreed that \$43,189,352 is required to reclaim the undertaking once all stages of infrastructure have been constructed. Also as agreed to by the parties 68% of this amount or \$29,005,730 will ultimately be held under the Licence, with the remaining 32% or \$14,183,622 to be held by the Kitikmeot Inuit Association.

Also, as requested by the Proponent and agreed to by the interveners, the security required to be posted under Part C of the Licence is apportioned into nine segments that are linked to the increase in reclamation liability that would occur as key project infrastructure associated with the undertaking is constructed. In addition, with the agreed upon timelines for posting the security being in advance of construction, the Board is confident that adequate security will be in place before activities are undertaken that will increase the reclamation liability of the Undertaking. On this basis, the tables set out below Part C, Items 1 and 2 establish the following staged reclamation security requirements:

- a. Within thirty (30) days following the cancellation of Type "B" Water Licence No.: 2BC-BRP1819, total reclamation security in the amount of \$1,485,666 shall be posted, to be held entirely by the Kitikmeot Inuit Association;⁹⁴
- b. Sixty (60) days prior to construction of the **Initial Infrastructure**, an additional total reclamation security amount of \$3,576,939 shall be posted, consisting of \$2,400,005 to be held by the Minister under the Licence and \$1,176,934 to be held by the Kitikmeot Inuit Association;
- c. Sixty (60) days prior to construction of the Umwelt Open Pit, an additional total reclamation security amount of \$7,498,853 shall be posted, consisting of \$3,969,014 to be held by the Minister under the Licence and \$3,529,839 to be held by the Kitikmeot Inuit Association;
- d. Sixty (60) days prior to construction of the Tailings Storage Facility, an additional total reclamation security amount of \$16,813,080 shall be posted, consisting of \$14,223,495 to be held by the Minister under the Licence and \$1,176,934 to be held by the Kitikmeot Inuit Association;
- Sixty (60) days prior to construction of the Llama Open Pit, an additional total reclamation security amount of \$6,296,575 shall be posted, consisting of \$3,060,090 to be held by the Minister under the Licence and \$3,235,585 to be held by the Kitikmeot Inuit

⁹² According to the *Policy*:

The recognized methodology for calculating reclamation costs, for the purposes of financial security, should be the RECLAIM or some other appropriate model. Consideration should be given to alternate or innovative forms of security, such as mine reclamation trusts, provided they meet certain criteria that protect the government's interests and objectives.

⁹³ Exhibit 9, Sabina, Electronic Copy Only File No. 2AM-BRP----, Electronic Copy, RECLAIM 7.0 Project: Back River Project (Updated to reflect addition of Exhibit 8) (English).

⁹⁴ This security is the amount that was previously posted with the Kitikmeot Inuit Association under the Type "B" Water Licence No.: 2BC-BRP1819 and as indicated by Sabina and the KIA at the Public Hearing, will be transitioned to security posted under the Licence once issued.



Association;

- f. Sixty (60) days prior to construction of the **Llama Underground**, an additional total reclamation security amount of \$549,425 shall be posted, consisting of \$93,198 to be held by the Minister under the Licence and \$456,227 to be held by the Kitikmeot Inuit Association;
- g. Sixty (60) days prior to construction of the **Umwelt Underground**, an additional total reclamation security amount of \$2,140,925 shall be posted, consisting of \$1,786,555 to be held by the Minister under the Licence and \$354,370 to be held by the Kitikmeot Inuit Association:
- h. Sixty (60) days prior to construction of the **Goose Main Open Pit**, an additional total reclamation security amount of \$2,216,886 shall be posted, consisting of \$1,696,673 to be held by the Minister under the Licence and \$520,213 to be held by the Kitikmeot Inuit Association;
- i. Sixty (60) days prior to construction of the **Goose Main Underground**, an additional total reclamation security amount of **\$881,832** shall be posted, consisting of **\$720,096** to be held by the Minister under the Licence and **\$161,736** to be held by the Kitikmeot Inuit Association; and
- j. Sixty (60) days prior to construction of the **Echo Open Pit and Underground**, an additional total reclamation security amount of \$1,729,171 shall be posted, consisting of an amount of \$1,055,704 to be held by the Minister under the Licence and \$673,467 to be held by the Kitikmeot Inuit Association.

Part D: Conditions Applying to Construction and Operation

The scope of the Application includes the construction of facilities and infrastructure at the Goose Property and the Marine Laydown Area to support the Project. Proposed facilities and infrastructure under the scope of the Application include the following: mill, four underground mines, four open pits, offices, warehouses, accommodation facilities, explosives production and storage facility, access roads including the Interconnection Winter Ice Road between the Goose Property and the Marine Laydown Area on the Bathurst Inlet, water management facilities (freshwater intake, channels or ditches, collection ponds, retention dikes and berms, sewage treatment plant, water treatment plants), waste management facilities (landfill, landfarm, incinerator), ore and waste rock storage facilities, tailings storage facility, bulk fuel storage facilities at the Goose Property and at the Marine Laydown Area, borrow pit and quarry sites and more. Sabina has indicated that prior to the construction of any facility or infrastructure under the scope of the Licence, it will submit to the Board for review, for-construction drawings in advance and as-built drawings after construction.

Based on the information provided in the Application, the representations made by various intervening parties and the NWB's review, the Board has included conditions requiring the Proponent to submit to the Board for review, at least sixty (60) days prior to the construction of project infrastructure, for-construction drawings, stamped and signed by a qualified professional Engineer, for all relevant facilities/infrastructure designed to contain, withhold,

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divert or retain waters. These shall be accompanied with detailed report(s) to include design rational, requirements, criteria, parameters, construction methods, and monitoring summary and more.

Subsequent to the construction phase of the project, within ninety (90) days of the completion of each structure designed to contain, withhold, divert or retain waters, the Proponent is required under the terms and conditions in the Licence to submit a Construction Summary Report including as-built drawings and designs as well as documentation of field decisions that deviated from original plans.

The Board has included conditions requiring the Proponent to undertake geotechnical inspections of facilities/infrastructure designed and constructed to withhold, divert or retain waters in accordance with set intervals as well as adherence to the Canadian *Dam Association Safety Guidelines* for relevant infrastructure/facilities.

The Board has included Effluent quality limits for runoff and/or discharge from drainage management systems, during Construction/Operation of any facilities and infrastructure associated with this project, including laydown areas, where flow may directly or indirectly enter a Water body.

Effluent quality limits are also included for water to be released into Goose Lake during dewatering of two lakes.

Part E: Conditions Applying to Water Use and Management

Section 11 of the NWNSRTA states "... no person shall use, or permit the use of water in Nunavut except in accordance with the conditions of a licence."

Under the Licence the Board approves the Applicant's request to obtain fresh water from Goose Lake and Big Lake using fresh water intakes and associated structures for camp, construction, operation and associated uses at the Goose Property and from MLA Pond S1, Pond S2, Lake 3, and Lake 4 at the MLA for camp, construction, operation and associated uses.

The total volume of water for camp, construction, operation and associated purposes obtained from these sources shall not exceed 574,198 cubic metres *per* year as follows:

- 388,725 cubic metres *per* year from Goose Lake;
- 77,068 cubic metres *per* year from Big Lake; and
- 108,405 cubic metres *per* year combined from MLA Pond S1, Pond S2, Lake 3, and Lake 4.

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The Licence prescribes that the volume of water used during dewatering of Llama Lake and Umwelt Lake shall not exceed 1,400,000 cubic metres *per* year.

Water use for construction, maintenance and operation of the Interconnection Winter Ice Road shall not exceed six hundred and seventy-five (675) cubic metres *per* year *per* kilometre of road (approximately 1.1 million cubic metres *per* year).

The Board requires Sabina to provide an update to the approved Water Management Plan within 60 days of approval of the Licence to address commitments made during the review of the Application including updating the Saline Water Management Plan (which is included as a component of the Water Management Plan) and providing further detail respecting potential management and treatment options related to water quality in the effluent discharged from flooded pits and the downstream receiving environment.

The requirement to update the Water Management Plan was discussed during the Technical Meeting on May 1 and 2, 2018, where it was recorded as Commitment #6.95

The Board requires Sabina to provide, at least 60 days prior to construction, an annual memorandum related to the planned routing, Water use, and water source details in relation to the Interconnection Winter Ice Road.

The Board requires Sabina to provide, in conjunction with the 2018 Annual Report, an updated Water and Load Balance Model that includes an update to baseline data and the hydrodynamic model. This requirement to update the Water and Load Balance Model initially and then periodically as required throughout the term of the Licence was discussed during the Technical Meeting on May 1 and 2, 2018 where it was recorded as Commitment #7.96

Consistent with the requirements of the Federal *Fisheries Act*,⁹⁷ the Board requires Sabina to equip all water intake hoses with a screen of an appropriate mesh size to ensure that fish are not entrained, and withdraw water at a rate such that fish do not become impinged on the screen.

Part F: Conditions Applying to Waste Disposal and Management

The Board has included conditions in the Licence to ensure that the main types of waste and/or effluent generated by the Project do not negatively impact the receiving fresh water

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⁹⁵ NWB, Pre- Hearing Conference Decision Regarding an Application for a Type "A" Water Licence by Sabina Gold &Silver Corp., 2AM-BRP----, May 29, 2018, Appendix D: List of Commitments.

⁹⁶ NWB, Pre- Hearing Conference Decision Regarding an Application for a Type "A" Water Licence by Sabina Gold &Silver Corp., 2AM-BRP----, May 29, 2018, Appendix D: List of Commitments.
⁹⁷ R.S.C. 1985, c. F-14.



environment. The following lists the wastes, facilities and/or activities that are within the NWB's mandate and are included within the scope of the Licence:

- Tailings Storage Facility/Tailings Facilities (TSF/TF);
- Waste Rock Storage Areas (WRSA);
- Landfarms;
- Landfills:
- Fuel Storage and Containment Facilities;
- Hazardous Waste Storage Areas;
- Sewage Treatment and Disposal; and
- Saline Water Treatment and Disposal.

Tailings Storage Facility (TSF) and Tailings Facilities (TF)

Tailings will be stored as conventional slurry tailings with a solids content of 49%. Early in the Project, tailings will be stored in a purpose-built above ground Tailings Storage Facility (TSF) located, at the KIA's request, on Crown Land. When mined out pits become available, the mined out pits will be used to store tailings and the pits will become the Umwelt Tailings Facility and the Goose Main Tailings Facility.

Supernatant liquid from the settled tailings, and runoff from precipitation and snowmelt collected in the TSF or TFs will be combined with other water sources for use in the Mill as Reclaim Water. There are no planned releases of tailings contact water to the environment under normal operating conditions.

In the draft *Licence Framework*⁹⁸, Sabina proposed that in the situation where a discharge of effluent from the TSF or TF was required that:

> The discharge of effluent from the Tailings Storage Facility and/or Tailings Facilities at Umwelt or Goose Main during Operations is acceptable for discharge if Effluent criteria included in the approved Water Management Plan is met.

In the Public Hearing, Environment and Climate Change Canada (ECCC) expressed concern that discharge criteria would not be prescribed in the Water Licence and would be left only

⁹⁸ Sabina, Commitment 18, Draft Water Licence Framework dated July 23, 2018.



to be set out in the Water Management Plan. The ECCC queried Sabina: "I'm just wondering if there was objection to keeping those in the main body of the licence as is typically done." ⁹⁹

The Board's understanding of the Project is that there will be no planned released from the TSF or TF during normal operations. Releases are planned, and discharge criteria will be required:

Later on in the mine life¹⁰⁰

The Term of this Licence only includes the construction and operation phases of the Project. The Licence includes discharge criteria relevant to the activities planned during those Project phases. The Board has not included discharge criteria for the TSF and/or TF in this Licence, as this issue will be revisited when operations move into the closure and reclamation stage.

The Board has included within this Licence a process for the Licensee to apply and get Board's approval for a temporary discharge from the TSF and/or TF at least 120 days prior to anticipated release by providing:

- a. Justification for temporary discharge;
- b. Volume, rate, and quality of discharge;
- c. Final discharge point and characteristics of the receiving environment;
- d. Proposed Effluent quality limits; and
- e. Mitigation options to avoid future discharges.

Prior to the end of the Term of this Licence, the Licensee, is required to propose, in consultation with stakeholders, appropriate discharge criteria for the Licence Renewal Application to address the next phases of the Project, including potential discharge criteria for releases from the TSF and/or TF.

Tailings geochemical characterization confirms that the tailings are Potentially Acid Generating (PAG), with very slow reaction rates and a potential for metal leaching, with the exception of some samples from the Goose Main deposit. Therefore, the NWB requires that water cap and freeze back of tailings be managed to prevent acid rock drainage and manage metal leaching.

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⁹⁹ A. Wilson, ECCC, NWB Public Hearing, File No. 2AM-BRP----, Transcript, August 8, 2018, Volume 1, lines 14-15, p. 80.

¹⁰⁰ M. Pickard, Sabina, NWB Public Hearing, File No. 2AM-BRP----, Transcript, August 8, 2018, Volume 1, lines 1-2, p. 81.



Waste Rock Storage Areas

Waste rock and overburden produced during mining will be stored in engineered Waste Rock Storage Areas (WRSAs) located close to each of the open pits: Umwelt WRSA, Llama WRSA, TSF WRSA (to be developed after deposit of tailings at the TSF has ceased), and Echo WRSA.

Seepage and runoff from the WRSAs will be collected in perimeter ditches/berms and directed to collection ponds. During Operations, runoff from the WRSAs will be pumped to the active tailings management facility for eventual use as Reclaim Water. During the term of this Licence, there are no planned releases of WRSA contact water to the environment under normal operating conditions.

In addition, the approved Management Plans for the Project include Plans applicable to the assessment, monitoring, and management of Potentially Acid Generating Waste Rock.

Landfarms

The Licence authorizes the use of two landfarms for the storage and remediation of soils, rock, snow, and ice contaminated with light petroleum hydrocarbons such as diesel or gasoline. The landfarm at the Goose Property will be located adjacent to the plant site. The landfarm at the MLA will be located on the laydown pad. The Licence requires that seepage and runoff from the landfarms will be collected in perimeter ditches/berms, passed through an oil/water separator, used for the management of the landfarm, or, if it meets release criteria, this water can be released to the environment.

Landfills

The Licence authorizes Sabina to construct and operate two onsite landfills for the disposal of non-salvageable, non-hazardous, non-putrescible solid wastes. The landfills will be located within the Umwelt WRSA and within the TSF WRSA. Prior to the WRSAs being constructed, and during closure, all waste will be backhauled for disposal off-site.

As the landfills are located within WRSAs, all seepage and runoff from the landfills will be managed in conjunction with the WRSA seepage and runoff, and will be transferred to the active tailings management facility for eventual use as Reclaim Water. There are no planned releases of landfill contact water to the environment under normal operating conditions.



Fuel Storage and Containment Facilities

This section of the Licence applies to Fuel Storage and Containment Facilities at the Goose Property and the MLA. If water from secondary containment meets release criteria, the Licence authorizes its release to the environment.

Hazardous Waste Management Areas

The Licence authorizes Hazardous Waste Management Areas being constructed and operated at the Goose Property and the MLA. If water from secondary containment at these Areas meets release criteria, the Licence authorizes its release to the environment. The Licence requires that Hazardous Waste be appropriately managed on-site prior to these wastes being back-hauled to an approved third-party Hazardous Waste disposal site.

<u>Sewage</u>

The Licence authorizes the construction and operation of a Sewage Treatment Plant (STP) at the Goose Property. During Construction and Closure stages, the Licence authorizes the discharge of treated effluent from the STP into the receiving environment if it meets release criteria. During operations, the Licence authorizes the transfer of treated effluent to the active tailings management facility for eventual use as Reclaim Water, or, alternatively discharge into the receiving environment if the treated effluent meets release criteria.

At the MLA, Pacto Toilets will be used and the release of greywater. The Licence requires that the greywater at the MLA be settled and separated of oils and grease and then permits the release of the settled greywater into the environment if it meets the release criteria specified in the Licence.

Saline Water

During mine development, it is expected that Saline Water (groundwater) will be encountered in the underground facilities, as well as Llama Pit, which is in a Talik. The Licence authorizes the storage of Saline Water in the Saline Water Pond before being subsequently pumped back into mined out underground caverns or into the bottom of the Llama Reservoir. There are no planned releases of Saline Water to the environment anticipated under normal operating conditions and so the Board has not included criteria applicable to such discharges in the Licence.

Mine Contact Water

During operations Sabina proposes to manage all contact water from the major mine infrastructure by diverting and/or collecting mine contact water into ponds and then pumping

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the collected contact water into the active Tailings Management Facility for eventual use as Reclaim Water. During the term of this Licence, there are no planned releases of Mine Contact Water to the environment under normal operating conditions and so the Board has not included criteria applicable to such discharges in the Licence.

Desalinization Brine

The Project intends to utilize a desalinization plant to provide potable water at the MLA. Waste from this process, concentrated seawater (desalinization brine), will be released to the marine environment. As there are no planned releases of desalinization brine to the terrestrial or freshwater environment under normal operating conditions, and the NWB's jurisdiction does not extend to releases into the marine environment, the Board has not included criteria applicable to such discharges in the Licence.

Dewatering

The Project intends to dewater Llama Lake and Umwelt Lake and release that water, should it meet release criteria, to Goose Lake. A Water Treatment Plant (WTP) located at the Goose Property will be utilized, when necessary, to treat a portion of that water for Total Suspended Solids (TSS) and possibly Arsenic prior to discharge. The Dewatering water will be, should it meet release criteria, be released to Goose Lake.

During the Public Hearing, ECCC requested additions to the dewatering discharge criteria in Table 7.5-2: "we would like to see two additional criteria added to this table: turbidity and aluminum." In response, Sabina stated: "After review, Sabina agrees to the dewatering provision to make -- to recommend the turbidity and total aluminum be added to the discharge criteria." 102

The Board has included TSS, Turbidity, Aluminum, and pH as release criteria for the dewatering water at the levels agreed to by ECCC and Sabina at the Public Hearing.

Wastewater and Sewage Treatment Plant Requirements

In addition, the Board requires Sabina to submit to the Board for approval, at least ninety (90) days prior to the construction/installation of facilities, an Operation and Maintenance Manual(s) for the Wastewater Treatment Plant and the Sewage Treatment Plant that shall be prepared in accordance with the *Guidelines for the Preparation of an Operating and*

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¹⁰¹ A. Wilson, ECCC, NWB Public Hearing, File No. 2AM-BRP----, Transcript, August 9, 2018, Volume 2, lines 6-7, p. 175.

¹⁰² M. Pickard, Sabina, NWB Public Hearing, File No. 2AM-BRP----, Transcript, August 9, 2018, Volume 2, lines 12-15, p. 183.



Maintenance Manual for Sewage and Solid Waste Disposal Facilities in the Northwest Territories (1996).

Part G: Conditions Applying to Modifications

Although the provisions of Part G, Item 1 do allow the Applicant to carry out certain types of "modifications" (as defined in the Licence) without consent from the Board, it should be noted that pursuant to Articles 11, 12 and 13 of the *Nunavut Agreement* and as set out in Part G of the Licence, a proposed modification submitted under the Licence may require land use planning conformity assessment by the Nunavut Planning Commission (NPC) and impact assessment by the Nunavut Impact Review Board (NIRB). It is the responsibility of the Licensee to notify and consult with the NPC and the NIRB to ensure that the requirements of the *Nunavut Agreement* and, if applicable, the *Nunavut Planning and Project Assessment Act* are met prior to submitting a notification of modification to the NWB under the Licence.

Further, modifications that do not meet the criteria of Part G, Item 1 may require written permission from the NWB. Without written consent from the NWB, the Applicant is not authorized to carry out such modifications. Changes that do not meet the definition of modification under the Licence or the requirements of Part G would be considered to be amendments to the Licence. The Board requires that such changes are subject to the requirements of the Type "A" Water Licence amendment process, including potentially requiring a Public Hearing as part of the Board's consideration of the amendment under the *NWNSRTA* and the *Nunavut Waters Regulations*.

Part H: Conditions Applying to Emergency Response and Contingency Planning

The development and implementation of measures to respond to spills and other emergencies are fundamental to ensuring that any potential undesired effects that Project activities might have on the receiving environment are prevented and/or minimized.

Accordingly, the Applicant has submitted an Emergency Response Management Program as part of the Application that includes:

- the Risk Management and Emergency Response Plan;
- the Fuel Management Plan;
- the Spill Contingency Plan; and
- the Oil Pollution Emergency Plan.



As reviewed and approved by the Board upon issuance of the Licence, the *Risk Management* and *Emergency Response Plan* describes the roles and responsibilities of site personnel along with contact information. This plan also specifies Sabina's approach to risk assessment and management and identified risk mitigation strategies, natural hazards, and accidents and malfunctions. The Plan describes Sabina's emergency response system, including emergency equipment, communication systems, surveillance procedures, addressing multiple emergency events and follow-up measures. Finally, the document discusses plan evaluation and adaptation, record keeping, and loss prevention.

As reviewed and approved by the Board upon issuance of the Licence, the *Fuel Management Plan* describes the implementation of the plan, applicable legislation and guidelines, and the roles and responsibilities of site personnel with respect to the transportation, storage and management of fuel on-site. It also describes the relevant facilities and fuel delivery as well as any environmental protection measures associated with these activities (i.e., design requirements, storage, operations and training, and fuel inventory management). This plan also includes a description of the monitoring programs, and the mitigation and adaptive management planning required to manage fuel. Finally, the document discusses record keeping and reporting, and evaluation of plan effectiveness.

As reviewed and approved by the Board upon issuance of the Licence, the *Spill Contingency Plan* discusses spill prevention planning and procedures. Personnel roles and responsibilities are also included within the Plan, as well as spill response equipment, procedures, and reporting. This plan also covers training and emergency response exercises and, the document concludes with requirements for Plan evaluation and adaptation.

As submitted with the Application, the *Oil Pollution Emergency Plan* describes the oil handling facilities and activities, general spill procedures (including coordination with governmental agencies and reporting requirements), responses to marine spill emergencies at the MLA, and personnel roles and responsibilities. This plan also describes spill scenarios and response strategies, particularly for large spills. Finally, this plan describes preventative measures including training, equipment auditing, and plan updates.

The Board is satisfied with the Plans submitted by Sabina and Sabina's commitment to update the plans within the Emergency Response Management Program regularly to reflect any changes to Project-specific protocols, teams, and management contact information.



Part I: Conditions Applying to General and Aquatic Effects Monitoring

As previously noted, s. 73 of the *NWNSRTA*¹⁰³ requires the NWB to set conditions at least as stringent as conditions prescribed by regulation pursuant to ss. 36(5) of the *Fisheries Act.*¹⁰⁴ For the purpose of ensuring compliance with the Licence or the *Regulations*, an Inspector designated by the Minister may inspect or examine works, waters or waste and exercise other powers according to the *NWNSRTA*.¹⁰⁵ In addition, the NWB may include terms and conditions in the Licence regarding monitoring programs to be undertaken.¹⁰⁶

Accordingly, Sabina has submitted a General and Aquatic Effects Monitoring Program as part of the Application that includes:

- the *Environmental Management and Protection Plan*;
- the *Aquatic Effects Management Plan*;
- the *Conceptual Fish Offsetting Plan*;
- the *Marine Monitoring Plan*; and
- the *Quality Assurance / Quality Control Plan*.

The Board has approved the *Environmental Management and Protection Plan* (EMPP) and the *Aquatic Effects Management Plan* (AEMP) under this Licence.

As described by Sabina:

The Environmental Management and Protection Plan describes how a range of environmental monitoring and management measures will be implemented through the life of the Project. This plan outlines the core elements of Sabina's Environmental Management System (EMS) and describes Sabina's sustainable development policy. This plan describes the key planning elements, such as precautionary approaches, Traditional Knowledge, Project design considerations, objectives and targets, and daily task control. This plan summarizes the management organization and resources

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¹⁰³ Section 73 of the *NWNSRTA* states:

Where the Board issues a licence in respect of any waters to which regulations made under subsection 36(5) of the Fisheries Act apply, any conditions in the licence relating to the deposit of waste in those waters shall be at least as stringent as the conditions prescribed by those regulations.

¹⁰⁴ R.S.C. 1985, c. F-14.

¹⁰⁵ See ss. 85-94 of the *NWNSRTA*.

¹⁰⁶ See s. 70(1)(c) of the *NWNSTRA*.



including roles and responsibilities, environmental awareness training, internal and external communication processes, and contractor management. This plan also describes the risk management process, regulatory requirements, implementation, performance monitoring and measurement procedures, emergency and crisis management, and auditing. Regarding protection planning, this plan provides operational standards for a variety of specific activities anticipated to occur during the Project.

The Aquatic Effects Management Plan provides a review of the plan including a description of a site conceptual model (including stressors of concern, transport pathways, exposure media, and ecological receptors), a list of key objectives and questions, the design overview, and the incorporation of Traditional Knowledge and IQ. This plan provides design details related to water and sediment quality, the benthic invertebrate community, and fish. This is followed by a summary of the response framework and corrective actions. Finally, this plan describes the required environment reporting. 107

Sabina also proposed that environmental monitoring, for the purposes of the EMPP, will consist of the following three types of monitoring:

- Regulated discharge monitoring which occurs at monitoring points specified in licenses or regulations. It includes discharge limits that must be achieved to maintain compliance with an authorization (i.e., Type "A" Water Licence or Site-specific Water Quality Objectives) or regulation (i.e. *Metal and Diamond Mining Effluent Regulations (MDMER)*¹⁰⁸ or Canadian Council of Ministers of the Environment (CCME) Water Quality Guidelines). Enforcement action may be taken if discharge limits are exceeded for a parameter.
- Verification monitoring is carried out for operational and management purposes by Sabina. This type of monitoring provides data for decision-making and builds confidence in the success of processes being used. There is no obligation to report verification monitoring results, although some monitoring locations and these results

¹⁰⁸ SOR/2002-222.

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¹⁰⁷ Sabina, "Type A Water Licence Final Submission Responses", July 23, 2018.



can be mentioned in environmental management plans (i.e. sampling to verify soil remediation in the landfarm, pit water quality testing).

• General monitoring is commonly included in the Water Licence specifying what is to be monitored according to a schedule. This type of monitoring covers all types of monitoring (i.e., geotechnical, lake levels, etc.). This monitoring is subject to compliance assessment to confirm sampling was carried out using established protocols, included quality assurance/quality control provisions, and addresses identified issues. General monitoring is subject to change as directed by an Inspector, or by the Licensee and is subject to approval by the NWB.

In terms of specific terms and conditions applicable to project and effects monitoring, the Board notes that during construction and normal operations, there are no planned discharges from the Back River Project of any effluent that has come into contact with active mining, ore, or waste rock. As such, the *MDMER* requirements associated with effluent discharge would not apply until site decommissioning and closure, including eventual reconnection of tailings and other contact water management facilities to the receiving environment.

During the Public Hearing, ECCC requested that the timing for the update of the *Aquatic Effects Management Plan* be tied to a specific date in the Licence rather than the more general wording proposed by Sabina in the draft *Licence Framework*. ¹⁰⁹ ECCC stated:

The current wording in the licence framework states that [the updated *Aquatic Effects Management Plan*] would be submitted when monitoring is triggered, and I don't know what would be considered triggering the monitoring and would be probably more comfortable having a hard date put in there, something early enough that the fieldwork could be planned for, so probably in the first quarter of 2019 prior to discharge.¹¹⁰

Sabina responded that: "...[the] agreed-upon date is fine with us." 111

The Board agreed with the submissions of ECCC and has specified in the Licence that Sabina is required to submit an updated *Aquatic Effects Management Plan* prior to March 31, 2019.

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¹⁰⁹ Sabina, NWB Public Hearing, Exhibit 5, File No. 2AM-BRP----, Hard Copy, Proposed Back River Project Type "A" Water Licence Framework Update of version filed on July 23, 2018 (English).

¹¹⁰ A. Wilson, ECCC, NWB Public Hearing, File No. 2AM-BRP----, Transcript, August 8, 2018, Volume 1, lines 13-20, p. 81.

¹¹¹ M. Pickard, Sabina, NWB Public Hearing, File No. 2AM-BRP----, Transcript, August 8, 2018, Volume 1, lines 7-8, p. 82.



Also during the Public Hearing, ECCC requested that two parameters be added to the monitoring programs under the EMPP. They requested phosphate be added to the list of total and dissolved metals evaluated in the Group D parameters (General Chemistry) and that laboratory pH be assessed for Group J (Discharge to Marine). In response, Sabina stated:

Sabina's comfortable adding... ...phosphate to the general chemistry and -- in addition adding pH to Group J, which is the discharge to marine environment. ¹¹²

The Board agrees with the rationale expressed by ECCC for including these additional parameters in the monitoring criteria for the Licence. Consequently, the Board has added phosphate and laboratory pH to the monitoring criteria for the Licence as requested by ECCC and agreed to by Sabina.

Part J: Conditions Applying to Abandonment, Reclamation and Closure

The Board requires all Type "A" Water Licence applicants to prepare an *Interim*, and eventually a *Final Closure and Reclamation Plan* in accordance with the *Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the NWT (2013)* (2013 Guidelines)¹¹³ and consistent with the INAC *Mine Site Reclamation Policy for Nunavut*, 2002¹¹⁴ (Policy).

The Board's approach to the terms and conditions in this part of the Licence is, as set out in the Type "A" Water Licence Renewal for the Jericho Diamond Mine Project as follows: 115

The Board's approach to reclamation reflects the four main objectives outlined in the Policy:

The Mine Site Reclamation Policy for Nunavut serves four main objectives:

• Ensure the impact of mining on the environment and human health and safety is minimized;

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¹¹² M. Pickard, Sabina, NWB Public Hearing, File No. 2AM-BRP----, Transcript, August 9, 2018, Volume 2, line 26 and lines 3-5, pp. 183-184.

¹¹³ Mackenzie Valley Land and Water Board, (Yellowknife: Mackenzie Valley Land and Water Board, 2013) available on-line:

https://mvlwb.com/sites/default/files/documents/wg/WLWB 5363 Guidelines Closure Reclamation WR.pd f

¹¹⁴ Minister of Indian Affairs and Northern Development (now CIRNAC), (Ottawa: Minister of Public Works and Government Services Canada, 2002) *Mine Site Reclamation Policy for Nunavut*, available on-line: https://www.aadnc-aandc.gc.ca/DAM/DAM-INTER-HQ/STAGING/texte-text/recpolnuna 1100100036043 eng.pdf.

¹¹⁵ Nunavut Water Board, Reasons for Decision: 2AM-JER1119 Type "A" Water Licence Renewal at pp. 66-68.



- Reduce the environmental liability that falls to government to the greatest extent possible;
- Provide industry and the public with a clear signal of the government's expectations; and
- Build positive and supportive relationships with the new regulatory authorities coming into operation in the North. 116

With respect to the specific components of the required plans, the Board adopts the approach put forward in the 2013 Guidelines that recognizes that there are three stages in the development of a Closure and Reclamation Plan (CRP). The first stage involves the preparation of a Preliminary Closure and Reclamation Plan that is typically prepared as part of the environmental assessment of a given project that demonstrates "how the mine site is proposed to be reclaimed and describes the likely residual risks to human health and the environment". The second stage involves the development of one or more Interim Closure and Reclamation Plans through the operating life of the mine, which builds on the Preliminary CRP, and is updated to reflect significant changes to the mine plan or key milestones in terms of the mine life.

As stated in the 2013 Guidelines:

The general purpose of the Interim CRP is to update preceding plans according to the current mine operating plan, updated or renewed community values, or advances in mine reclamation technology. Interim Reclamation Plans provide conceptual detail on the reclamation of mine components which will not be closed until near the end of the mining operations, and operational detail for components which are to be progressively reclaimed earlier in the mine life. The Interim CRP should include increased detail and more specific closure criteria regarding reclamation components as these become available and as those areas of the mine are developed (e.g. rock piles that are completed or reclamation test studies that have been conducted).

The third stage involves the preparation of a Final CRP that should be provided and approved before a scheduled permanent closure or as soon as is practical after an unplanned closure. According to the Guidelines "the general purpose of the Final CRP is to provide complete

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¹¹⁶ Minister of Indian Affairs and Northern Development (now CIRNAC), (Ottawa: Minister of Public Works and Government Services Canada, 2002), Mine Site Reclamation Policy for Nunavut, p. 2.



details, usually for regulatory approval, regarding the proposed reclamation activities such that they can be subsequently implemented."

The Board has reviewed and approved the *Interim Closure and Reclamation Plan* dated October 2017 that Sabina included as part of the Application.

The Board has also included in the Licence a requirement to notify the Board in writing, as soon as practically possible, or at the least sixty (60) days prior to, of any intent to, or entering into a Care and Maintenance Phase. A Care and Maintenance Plan shall also be submitted to the Board within thirty (30) days of providing this notification to the Board, and the Plan is required to provide details regarding the Licensee's plans for maintaining compliance with the terms and conditions of the Licence while in Care and Maintenance. As noted in the discussion of Part C of the Licence (Conditions Applying to Security), if the Care and Maintenance Phase could result in material changes to the outstanding reclamation liability associated with the Undertaking, the Board may revisit and adjust the security requirements under the Licence.

While the Board recognizes that the mine decommissioning, closure and post-closure monitoring of the site have been proposed to take place outside the scope of the 14-year term of the Licence, the Board urges Sabina to be mindful of the suggested closure and reclamation planning and reporting requirements through the life of the mine as outlined in the *Mine Site Reclamation Guidelines for the Northwest Territories* (2007) ¹¹⁷ or the *Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the NWT (2013).* ¹¹⁸ As set out in these Guidelines, after the permanent closure of a mine and when reclamation activities are finalized, a post-closure monitoring period is recommended. Following this initial post-closure monitoring period, the post-closure monitoring may be extended at the discretion of regulators. The Guidelines note that this longer-term post-closure monitoring will likely be required for projects where some individual components may remain at site in perpetuity, such as mine tailings, underground structures, etc., which must be further monitored to ensure stability and full reclamation.

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¹¹⁷Minister of Indian Affairs and Northern Development (now CIRNAC), (Ottawa: Minister of Public Works and Government Services Canada, 2002) *Mine Site Reclamation Policy for Nunavut*, available on-line: https://www.aadnc-aandc.gc.ca/DAM/DAM-INTER-HQ/STAGING/texte-text/recpolnuna 1100100036043 eng.pdf.

¹¹⁸Mackenzie Valley Land and Water Board, (Yellowknife: Mackenzie Valley Land and Water Board, 2013) available on-line:

 $[\]frac{https://mvlwb.com/sites/default/files/documents/wg/WLWB~5363~Guidelines~Closure~Reclamation~WR.pd~\underline{f}.$



Schedules A through J

Schedules providing instructive detail to the terms and conditions appearing in more general terms in the main body of the Licence and are spelled out in greater detail in the Schedules for greater clarity and as an aid to interpretation for the Licensee. Except for Schedule A, the Schedules provide, if needed, specific requirements for plans or reports to be submitted to the Board.

If the Board subsequently determines that an item in any of the Schedules requires revision in order to better reflect the intent and objectives of the Licence, the Board may at its discretion, and upon consulting and providing written notice to the Licensee and intervening parties, revise the Schedule. Unless the Board directs otherwise, such revision may not necessarily be considered as an "amendment" to the Licence.



APPENDIX A - Agendas for Public Hearing and Community Session

AGENDA

PUBLIC HEARING

TYPE "A" WATER LICENCE APPLICATION NO. 2AM-BRP----

August 8, 2017, 9:00 am – 5:00 pm, MST, KIA Office in Cambridge Bay August 9, 2017, 9:00 am – 5:00 pm, MST, KIA Office in Cambridge Bay

- 1. Opening Prayer
- 2. Opening Remarks by the Chairperson, which shall include the purpose of the Hearing and the scope of matters which will be considered by the Board
- 3. Introduction of the Board Members and staff
 - a. Application History
- 4. Identification and introduction of the Parties
- 5. Introduction of the Elders and their role in the Hearing
- 6. Introduction and identification of the persons, associations, agencies, etc., who have not submitted interventions but who have expressed a desire to speak at the Hearing
- 7. Identification of any Motions or any objections
- 8. Presentation by the Applicant
- 9. Questioning of the Applicant by Parties respecting the Applicant's presentation
- 10. Questioning by the Board staff and Panel Members
- 11. Presentation by Interveners
- 12. Questioning of Interveners by Parties
- 13. Questioning by the Board staff and Panel Members
- 14. Presentation by any other persons, associations, agencies, etc. who have advised the Chairperson that they wish to speak
- 15. Questioning of other persons, associations, agencies, etc. by Parties

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- 16. Questions by the Board staff and Panel Members
- 17. Upon completion of presentations by all Parties, the Board will give the Applicant the opportunity to reply. Then all Parties will have the opportunity to make final closing statements taking into account matters raised at the Hearing
- 18. Closing Remarks by the Chairperson; and
- 19. Closing Prayer



AGENDA

COMMUNITY SESSION

TYPE "A" WATER LICENCE APPLICATION NO. 2AM-BRP----

August 8, 2017, 7:00 pm -10:00 pm, MST, KIA Office in Cambridge Bay

- 1. Opening Prayer
- 2. Opening Remarks by the Chair
- 3. Presentation by the Nunavut Water Board (NWB) Type "A" water licensing process for the Application (15 minutes)
- 4. Questions and/or comments from community members and other participants
- 5. Presentation by Sabina Gold and Silver Corporation on the Application before the Board for Type "A" Water Licence 2AM-BRP---- (20 Minutes)
- 6. Questions and/or comments from community members and other participants
- 7. Presentation from each intervening party pertaining to its mandate and role(s) in the water licensing process as well as an overview of their findings during their technical review (15 Minutes/Intervener)
- 8. Questions and/or comments from community members and other participants
- 9. Closing Remarks
- 10. Closing Prayer



APPENDIX B - Exhibit List

Exhibit	Exhibit Description	Date	From
1	Hard Copy PowerPoint Presentation Back River Project NWB Final Hearing: August 8-9, 2018 (English)	August 8, 2018	Sabina Gold & Silver Corp.
2	Hard Copy PowerPoint Presentation Back River Project NWB Final Hearing: August 8-9, 2018 (Inuinnaqtun)	August 8, 2018	Sabina Gold & Silver Corp.
3	Hard Copy PowerPoint Presentation PowerPoint Presentation Back River Project NWB Final Hearing: August 8-9, 2018 (Inuktitut)	August 8, 2018	Sabina Gold & Silver Corp.
4	Hard Copy PowerPoint Presentation PowerPoint Presentation Back River Project NWB Final Hearing: August 8-9, 2018 (French)	August 8, 2018	Sabina Gold & Silver Corp.
5	Hard Copy Proposed Back River Project Type "A" Water Licence Framework Update of version filed on July 23, 2018 (English)	August 8, 2018	Sabina Gold & Silver Corp.
6	Hard Copy Attachment to Proposed Back River Project Type "A" Water Licence Framework Sabina Proposed Definitions (English)	August 8, 2018	Sabina Gold & Silver Corp.



Exhibit	Exhibit Description	Date	From
7	Hard Copy Attachment to Proposed Back River Project Type "A" Water Licence Framework Table B-01: Proposed Water Quality Monitoring for the Project during Construction, Operations, and Closure in Goose Property Area (English)	August 8, 2018	Sabina Gold & Silver Corp.
8	Hard Copy Attachment to Proposed Back River Project Type "A" Water Licence Framework RECLAIM 7.0 Project: Back River Project Breakdown by Proposed Staging of Water Licence (English)	August 8, 2018	Sabina Gold & Silver Corp.
9	Electronic Copy Only RECLAIM 7.0 Project: Back River Project (Updated to reflect addition of Exhibit 8) (English)	August 8, 2018	Sabina Gold & Silver Corp.
10	Electronic Copy Only Resume for Mauritz Rykaart SRK Consulting (English)	August 8, 2018	Sabina Gold & Silver Corp.
11	Electronic Copy Only Resume for Dionne Filiatrault Golder Associates Ltd. (English)	August 8, 2018	Sabina Gold & Silver Corp.
12	Electronic Copy Only Resume for Ken Bocking Golder Associates Ltd. (English)	August 8, 2018	Sabina Gold & Silver Corp.
13	Electronic Copy Only Resume for Kristin Salzsauler Golder Associates Ltd. (English)	August 8, 2018	Sabina Gold & Silver Corp.



Exhibit	Exhibit Description	Date	From
14	Hard Copy PowerPoint Presentation Back River Project KIA Final Submission on Back River Project Type A Water Licence Application (English)	August 8, 2018	Kitikmeot Inuit Association
15	Hard Copy PowerPoint Presentation Back River Project KIA Final Submission on Back River Project Type A Water Licence Application (Inuinnaqtun)	August 8, 2018	Kitikmeot Inuit Association
16	Hard Copy PowerPoint Presentation Back River Project KIA Final Submission on Back River Project Type A Water Licence Application (Inuktitut)	August 8, 2018	Kitikmeot Inuit Association
17	Hard Copy PowerPoint Presentation Sabina's Type A Water Licence Application 2AM-BRP – Back River Project Government of Canada (English)	August 8, 2018	Crown-Indigenous Relations and Northern Affairs Canada
18	Hard Copy Table Regarding Reclamation Security— Mobilization and Construction Split between IOL, CIRNA Land and CIRNA Water (English)	August 8, 2018	Crown-Indigenous Relations and Northern Affairs Canada
19	Hard Copy PowerPoint Presentation Environment and Climate Change Canada's Presentation to the Nunavut Water Board Concerning the Sabina Gold & Silver Corp. Back River Gold Mine Project Type A Water Licence Final Hearing (English/Inuinnaqtun)	August 8, 2018	Environment and Climate Change Canada



Exhibit	Exhibit Description	Date	From
20	Hard Copy PowerPoint Presentation Environment and Climate Change Canada's Presentation to the Nunavut Water Board Concerning the Sabina Gold & Silver Corp. Back River Gold Mine Project Type A Water Licence Final Hearing (English/Inuktitut)	August 8, 2018	Environment and Climate Change Canada
21	Hard Copy Executive Summary Application for Type "A" Water Licence, File No. 2AM-BR, Back River Project; Sabina Gold & Silver Corp. (English, Inuktitut and Inuinnaqtun)	August 8, 2018	Fisheries and Oceans Canada
22	Hard Copy PowerPoint Presentation Fisheries and Oceans Canada Back River Project Presentation to the Nunavut Water Board Final Hearing Conference (English)	August 8, 2018	Fisheries and Oceans Canada
23	Electronic Copy Only PowerPoint Presentation Fisheries and Oceans Canada Back River Project Presentation to the Nunavut Water Board Final Hearing Conference (Inuinnaqtun)	August 8, 2018	Fisheries and Oceans Canada
24	Electronic Copy Only PowerPoint Presentation Fisheries and Oceans Canada Back River Project Presentation to the Nunavut Water Board Final Hearing Conference (Inuktitut)	August 8, 2018	Fisheries and Oceans Canada
25	Electronic Copy Only Executive Summary of the Submissions of Indigenous-Crown Relations and Northern Affairs Canada (Inuinnaqtun)	August 9, 2018	Indigenous-Crown Relations and Northern Affairs Canada
26	Electronic Copy Only PowerPoint Presentation Sabina's Type A Water Licence Application 2AM-BRP – Back River Project Government of Canada (Inuinnaqtun)	August 9, 2018	Indigenous-Crown Relations and Northern Affairs Canada



Exhibit	Exhibit Description	Date	From
27	Hard Copy Proposed Back River Project Type "A" Water Licence Framework Final Update of version filed on July 23, 2018 (English)	August 9, 2018	Sabina Gold & Silver Corp.
28	Electronic Copy Only Hard Copy Attachment to Proposed Back River Project Updated Type "A" Water Licence Framework (Exhibit 27) Sabina Proposed Definitions (English)	August 9, 2018	Sabina Gold & Silver Corp.
29	Hard Copy Attachment to Proposed Back River Project Updated Type "A" Water Licence Framework (Exhibit 27) Table B-01: Proposed Water Quality Monitoring for the Project during Construction, Operations, and Closure in Goose Property Area (English)	August 9, 2018	Sabina Gold & Silver Corp.
30	Hard Copy Goose Property Area Closure Cost Estimate Staging Map (English)	August 9, 2018	Sabina Gold & Silver Corp.



APPENDIX C - List of Acronyms

NEW LIST PENDING WITH INUINNAQTUN TRANSLATIONS (WAITING ON BEN)



APPENDIX D - List of Submissions and Correspondence

Application:

1. Submitted **October 4, 2017** by Sabina Gold & Silver Corp. (Sabina), Cover letter and initial submission of an application for a new Type "A" Water Licence in relation to the Back River Gold Project.

Application Submissions:

- 1. Submitted **October 2, 2017** by Sabina Gold & Silver Corp., Additional Information (maps) part 2 to 4.
- 2. Submitted **October 2, 2017** by Sabina Gold & Silver Corp., Executive Summary General and Aquatic Effects Monitoring Program (English, Inuinnaqtun, and Inuktitut).
- 3. Submitted **October 5, 2017** by Sabina Gold & Silver Corp., Executive Summary Infrastructure and Access Management Program (English, Inuinnaqtun, and Inuktitut).
- 4. Submitted **October 5, 2017** by Sabina Gold & Silver Corp., Back River Project Road Management Plan (October 2017).
- 5. Submitted **October 5, 2017** by Sabina Gold & Silver Corp., Back River Project Borrow Pits and Quarry Management Plan October 2017.
- 6. Submitted **October 5, 2017** by Sabina Gold & Silver Corp., Executive Summary Water Management Program.
- 7. Submitted **October 5, 2017** by Sabina Gold and Silver Corp., Back River Project Water Management Plan (October 2017) parts 1-6.
- 8. Submitted **October 5, 2017** by Sabina Gold & Silver Corp., Executive Summary Waste Management Program (English, Inuinnaqtun, and Inuktitut)
- 9. Submitted **October 5, 2017** by Sabina Gold & Silver Corp., Back River Project Ore Storage Management Plan (October 2017).
- 10. Submitted **October 5, 2017** by Sabina Gold & Silver Corp., Back River Project Mine Waste Rock Management Plan (October 2017).
- 11. Submitted **October 5, 2017** by Sabina Gold & Silver Corp., Back River Project Tailings Management Plan (October 2017).
- 12. Submitted **October 5, 2017** by Sabina Gold & Silver Corp., Back River Project Landfill and Waste Management Plan (October 2017).
- 13. Submitted **October 5, 2017** by Sabina Gold & Silver Corp., Back River Project Incineration Management Plan (October 2017).

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- 14. Submitted **October 5, 2017** by Sabina Gold & Silver Corp., Back River Project Landfarm Management Plan (October 2017).
- 15. Submitted **October 5, 2017** by Sabina Gold & Silver Corp., Back River Project Hazardous Materials Management Plan (October 2017).
- 16. Submitted **October 5, 2017** by Sabina Gold & Silver Corp., Executive Summary Emergency Response Management Program (English, Inuinnaqtun, and Inuktitut).
- 17. Submitted **October 5, 2017** by Sabina Gold & Silver Corp., Back River Project Risk Management and Emergency Response Plan (October 2017).
- 18. Submitted **October 5, 2017** by Sabina Gold & Silver Corp., Back River Project Fuel Management Plan (October 2017).
- 19. Submitted **October 5, 2017** by Sabina Gold & Silver Corp., Back River Project Spill Contingency Plan (October 2017).
- 20. Submitted **October 5, 2017** by Sabina Gold & Silver Corp., Back River Project Oil Pollution Emergency Plan (October 2017).
- 21. Submitted **October 5, 2017** by Sabina Gold & Silver Corp., Executive Summary General and Aquatic Effects Monitoring Program (English Inuinnaqtun, Inuktitut).
- 22. Submitted **October 5, 2017** by Sabina Gold & Silver Corp., Back River Project Environmental Management and Protection Plan (October 2017).
- 23. Submitted **October 5, 2017** by Sabina Gold & Silver Corp., Back River Project Aquatic Effects Management Plan (October 2017).
- 24. Submitted **October 5, 2017** by Sabina Gold & Silver Corp., Conceptual Fish Offsetting Plan (October 2017) part 1-4.
- 25. Submitted **October 5, 2017** by Sabina Gold & Silver Corp., Back River Project Marine Monitoring Plan (October 2017).
- 26. Submitted **October 5, 2017** by Sabina Gold & Silver Corp., Back River Project Quality Assurance/Quality Control Plan (October 2017).
- 27. Submitted **October 5, 2017** by Sabina Gold & Silver Corp., Executive Summary Interim Closure and Reclamation Program (English, Inuinnaqtun, Inuktitut).
- 28. Submitted **October 5, 2017** by Sabina Gold & Silver Corp., Interim Closure and Reclamation Program Cost Estimate (Summary of Cost).
- 29. Submitted **October 5, 2017** by Sabina Gold & Silver Corp., Back River Project Interim Closure and Reclamation Plan (October 2017) part 1-7.



- 30. Submitted **October 5, 2017** by Sabina Gold & Silver Corp., Appendix A to Appendix F (Main Application Document and all Appendices of MAD).
- 31. Submitted **November 23, 2017** by Sabina Gold & Silver Corp. Concordance Assessment Mining and Milling Supplemental Information Guideline.
- 32. Submitted **November 23, 2017** by Sabina Gold & Silver Corp., SBB Response Table 1 NWB Comments and Recommendations.
- 33. Submitted **November 23, 2017** by Sabina Gold & Silver Corp., Appendix B-1 Concordance Version (excel).
- Submitted December 8, 2017 by Sabina Gold & Silver Corp., Concordance Assessment
 Mining and Milling Supplemental Information Guideline for Mine Development (MM3) Back River Project.
- 35. Submitted **December 11, 2017** by John Roesch, P.Eng., Kitikmeot Inuit Association, Request for Extension of one week for review and comment on Back River submission.
- 36. Submitted **December 19, 2017** by Nunavut Impact Review Board, NIRB Project Certificate [NO.: 007] Companion Doc.
- 37. Submitted **December 19, 2017** by Nunavut Impact Review Board, NIRB Project Certificate [NO.: 007].
- 38. Submitted **December 19, 2017** by Nunavut Impact Review Board, NIRB's Project Certificate No. 007 for Sabina Gold and Silver's Gold & Silver Corp.'s Back River Gold Mine Project.
- 39. Submitted **December 21, 2017** by Sabina Gold & Silver Corporation, Bruce McLeod, President & CEO, Memo of Development in the Company.
- 40. Submitted **January 16, 2018** by Bev Ross, Regional Manager, Regulatory Review, Department of Fisheries and Oceans Canada, Subject: Application for Type "A" Water Licence, File No. 2AM-BRP---- Back River Project; Sabina Gold & Silver Corp.
- 41. Submitted **January 16, 2018** by John Roesch, P.Eng., Kitikmeot Inuit Association, Re: Sabina Gold & Silver Corp. Back River Project Information Requests for Type A Water License.
- 42. Submitted **January 19, 2018** by Peter Scholz, Senior Planner, Nunavut Planning Commission, RE: NPC File #148691 [Back River Project] to Karen Kharatyan, Manager of Licensing, Nunavut Water Board.
- 43. Submitted **January 22, 2018** by Susanne Forbrich, Regional Director, EPOD-PNR, Environment and Climate Change Canada, RE: 2AM-BRP---- Sabina Gold & Silver Corp. Back River Project Type A Water Licence Application Completeness Check.
- 44. Submitted **January 22, 2018** by Ian Parsons, Regional Coordinator, Indigenous and Northern Affairs Canada, Re: Indigenous and Northern Affairs Canada's Completeness

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- Review of Sabina's Type A Water Licence application for Water Licence #2AM-BRP---Back River Project.
- 45. Submitted **February 5, 2018** by Matthew Pickard, Vice President, Environment and Sustainability, Sabina Gold & Silver Corp. RE: Responses to comments for Type A Water Licence related to the Back River Project. (Attachments: A-Application Responses and A.1 to A.10).
- 46. Submitted **February 16, 2018** by Laura Watkinson, Fisheries Protection Biologist, Fisheries Protection Program, Fisheries and Oceans Canada, Government of Canada, Re: 2AM-BRP---- Sabina Gold & Silver Corp. Information Request Responses.
- 47. Submitted **February 16, 2018** by Gabriel Bernard-Lacaille, Environmental Assessment Coordinator, Environment and Climate Change Canada, Re: 2AM-BRP---- Sabina Gold & Silver Corp. Back River Project Type "A" Water Licence Application Sabina's Information Request responses.
- 48. Submitted **February 19, 2018** by ECCC, Type A Information Request Response Package 2.
- 49. Submitted **March 21, 2018** by John Roesch, Kitikmeot Inuit Association, Sabina's Type A Water License Review for the Back River Project (Request for Extension).
- 50. Submitted **April 4, 2018** by C. Thomas Hoggarth, Regional Director, Ecosystems Management, Central & Arctic Region, Department of Fisheries and Oceans Canada, Subject: Type "A" Water Licence Application 2AM-BRP---- Fisheries and Oceans Canada (DFO) Technical Review Comments.
- 51. Submitted **April 4, 2018** by Department of Fisheries and Oceans Canada, Technical Review Comments, Application for Type "A" Water Licence, File No. 2AM-BRP----, Back River Project; Sabina Gold & Silver Corp.
- 52. Submitted **April 4, 2018** by Ian Parsons, Regional Coordinator, Indigenous and Northern Affairs Canada, Re: Indigenous and Northern Affairs Canada's Technical Review of Sabina's Type "A" Water Licence Application for Water Licence #2AM-BRP---- Back River Project.
- 53. Submitted **April 4, 2018** by John, P.Eng., Senior hope Bay Project Officer, Department of Lands and Environment, Kitikmeot Inuit Association, Re: KIA's Technical Review of Back River Project Type A Water License Application.
- 54. Submitted **April 4, 2018** by Margaret Fairbairn, A/Regional Director, Environment and Climate Change Canada, RE: 2AM-BRP---- Sabina Gold & Silver Corp. Back River Project Type A Water Licence Application Technical Review.
- 55. Submitted **April 4, 2018** by Environment and Climate Change Canada, ECCC Technical Comments Submission to the Nunavut Water Board.



- 56. Submitted **April 11, 2018** by Matthew Pickard, Vice President, Environment and Sustainability, Sabina Gold & Silver Corp., RE: Response to Back River Project Type A Water Licence Technical Comments (2AM-BRP----).
- 57. Submitted **April 7, 2018** by Sabina Gold & Silver Corp., Back River Aquatic Monitoring Workshop Meeting Notes March 14th, 2018.
- 58. Submitted **April 20, 2018** by Department of Fisheries and Oceans Canada, Technical Meeting Type "A" WL DFO Presentation (Inuinnaqtun).
- 59. Submitted **April 20, 2018** by Department of Fisheries and Oceans Canada, Technical Meeting Type "A" WL DFO Presentation (Inuktitut).
- 60. Submitted **April 20, 2018** by Department of Fisheries and Oceans Canada, Technical Meeting Type "A" WL DFO Presentation (English).
- 61. Submitted **April 20, 2018** by Environment and Climate Change Canada, Re: 2AM-BRP---- Technical Meeting Type A WL ECCC Presentation-Community Session.
- 62. Submitted **April 20, 2018** by Environment and Climate Change Canada, Re: 2AM-BRP---- Technical Meeting Type A WL ECCC Presentation.
- 63. Submitted **April 20, 2018** by Kitikmeot Inuit Association, Re: 2AM-BRP---- Technical Meeting Type A WL KIA Presentation-Community Session.
- 64. Submitted **April 20, 2018** by Kitikmeot Inuit Association, Re: 2AM-BRP---- Technical Meeting Type A WL KIA Presentation.
- 65. Submitted **April 20, 2018** by Sabina Gold & Silver Corp., Re: 2AM-BRP---- Technical Meeting Type A WL Sabina Community Session.
- 66. Submitted **April 20, 2018** by Sabina Gold & Silver Corp., Re: 2AM-BRP---- Technical Meeting Type A WL Sabina Presentation.
- 67. Submitted **April 26, 2018** by John Roesch, Senior Hope Bay Project Office, Kitikmeot Inuit Association, Re: Back River Project Type A Water Licence PHC Attendance Confirmation.
- 68. Submitted **April 26, 2018** by Indigenous and Northern Affairs Canada, Re: 2AM-BRP---- Technical Meeting Type A WL INAC Presentation.
- 69. Submitted **April 26, 2018** by Sabina Gold & Silver Corp., Technical Meeting Type A WL Sabina French Community Session.
- 70. Submitted **April 26, 2018** by Sabina Gold & Silver Corp., Technical Meeting Type A WL Sabina French Presentation.
- 71. Submitted **April 26, 2018** by Sabina Gold & Silver Corp., Technical Meeting Type A WL Sabina Inuinnaqtun Community Session.

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- 72. Submitted **April 26, 2018** by Sabina Gold & Silver Corp., Technical Meeting Type A WL Sabina Inuinnaqtun Presentation.
- 73. Submitted **April 26, 2018** by Sabina Gold & Silver Corp., Technical Meeting Type A WL Sabina Inuktitut Community Session.
- 74. Submitted **April 26, 2018** by Sabina Gold & Silver Corp., Technical Meeting Type A WL Sabina Inuktitut Presentation.
- 75. Submitted **April 27, 2018** by Nunavut Water Board, NWB Community Session Presentation.
- 76. Submitted **April 27, 2018** by Sabina Gold & Silver Corp., 2AM-BRP---- Additional Response Package Sabina Technical Comments Responses.
- 77. Submitted **April 27, 2018** by Sabina Gold & Silver Corp., 2AM-BRP---- Sabina Supplemental Technical Comments Responses.
- 78. Submitted **May 1, 2018** by Indigenous and Northern Affairs Canada, 2AM-BRP---- Technical Meeting Type A WL INAC Updated Presentation.
- 79. Submitted **May 2, 2018** by Nunavut Water Board, DRAFT List of Commitments Resulting from Technical Meeting for Water Licence No. 2AM-BRP---- Application.
- 80. Submitted May 2, 2018 by Nunavut Water Board, TM-PHC List of Issues v2.
- 81. Submitted **May 17, 218**, by Nunavut Water Board, 2AM-BRP---- Technical Meeting Pre-Hearing Registration Form.
- 82. Submitted **May 29, 2018** by Sabina Gold and Silver Corp., Subject: Back River Project: Saline Water Pond Perimeter Seepage Analysis (SRK Consulting).
- 83. Submitted **July 9, 2018** by Department of Fisheries and Oceans Canada, Final Submission; Application for Type "A" Water Licence, File No. 2AM-BRP----, Back River Project; Sabina Gold & Silver Corp.
- 85. Submitted **July 9, 2018** by Environment and Climate Change Canada, Type A WL Final Submission ECCC.
- 86. Submitted **July 11, 2018** by Crown-Indigenous Relations and Northern Affairs Canada, Re: Crown Indigenous Relations and Northern Affairs Canada's (CIRNAC) Final Technical Submission of Sabina's Type A Water Licence Application for Water Licence # 2AM-BRP---- **Back** River Project.
- 87. Submitted **July 11, 2018** by Kitikmeot Inuit Association, Re: KIA's Final Submission on the Back River Type "A" Water Licence Application.



- 88. Submitted **July 12, 2018** by Crown-Indigenous Relations and Northern Affairs Canada, CIRNAC ICRP Cost Estimate.
- 89. Submitted by Sabina Gold & Silver Corp.; Commitment 18 Draft Water Licence Framework dated **July 23, 2018**.
- 90. Submitted by Matthew Pickard, Vice President, Environment and Sustainability, Sabina Gold & Silver Corp., Re: Sabina Gold & Silver Corp Final Submission for Back River Project Type A Water Licence Public Hearing dated **July 23, 2018**.
- 91. Submitted by Nunavut Water Board; 2AM-BRP---- NWB-PH Community Session dated **July 25, 2018**.
- 92. Submitted by Nunavut Water Board; 2AM-BRP---- PH Agenda Community Session dated **July 25, 2018**.
- 93. Submitted by Nunavut Water Board; 2AM-BRP---- PH Agendas dated **July 25, 2018**.
- 94. Submitted by Nunavut Water Board; 2AM-BRP---- PH Agendas Inuinnaqtun dated **July 25, 2018**.
- 95. Submitted by Department of Fisheries and Oceans Canada, 2AM-BRP---- PH Presentation DFO (English) dated **July 30, 2018**.
- 96. Submitted by Department of Fisheries and Oceans Canada, 2AM-BRP---- PH Presentation DFO (Inuktitut) dated **July 30, 2018**.
- 97. Submitted by Department of Fisheries and Oceans Canada, 2AM-BRP---- PH Presentation DFO (Inuinnaqtun) dated **July 30, 2018**.
- 98. Submitted by Environment and Climate Change Canada, 2AM-BRP---- PH Presentation dated **July 31, 2018**.
- 99. Submitted by Sabina Gold & Silver Corp., PH Presentation Sabina Community Session dated **July 31, 2018**.
- 100. Submitted by Sabina Gold & Silver Corp., PH Presentation dated **July 31, 2018**.
- 101. Submitted by Nunavut Water Board; 2AM-BRP---- NWB-PH/Community Session Confirmation and Agendas dated **August 2, 2018**.
- 102. Submitted by Crown-Indigenous Relations and Northern Affairs Canada, 2AM-BRP---- PH Presentation CIRNAC Executive Summary dated **August 2, 2018**.
- 103. Submitted by Crown-Indigenous Relations and Northern Affairs Canada, 2AM-BRP---- PH Presentation dated **August 2, 2018**.
- 104. Submitted by Environment and Climate Change Canada, 2AM-BRP---- PH Presentation ECCC Executive Summary (Inuinnagtun) dated **August 2, 2018**.



- 105. Submitted by Environment and Climate Change Canada, 2AM-BRP---- PH Presentation ECCC Executive Summary (Inuktitut) dated **August 2, 2018**.
- 106. Submitted by Environment and Climate Change Canada, 2AM-BRP---- PH Presentation ECCC (Inuktitut) dated **August 2, 2018**.
- 107. Submitted by Environment and Climate Change Canada, 2AM-BRP---- PH Presentation ECCC (Inuinnaqtun) dated **August 2, 2018**.
- 108. Submitted by Kitikmeot Inuit Association, Re: KIA Final Submission for Back River Type A Water Licence (Inuinnagtun) dated **August 3, 2018**.
- 109. Submitted by Kitikmeot Inuit Association, 2AM-BRP---- PH Community Presentation KIA (Inuinnaqtun) dated **August 3, 2018**.
- 110. Submitted by Kitikmeot Inuit Association, 2AM-BRP---- PH Community Presentation KIA (English) dated **August 3, 2018**.
- 111. Submitted by Kitikmeot Inuit Association, 2AM-BRP---- PHC Community Presentation KIA (Inuktitut) dated **August 7, 2018**.
- 112. Submitted by Kitikmeot Inuit Association, 2AM-BRP---- PH Presentation KIA Inuktitut dated **August 7, 2018**.
- 113. Submitted **August 22, 2018** by Dicta Court Reporting, 2AM-BRP----, PH Transcripts Volume 1, dated **August 8, 2018**.
- 114. Submitted **August 22, 2018** by Dicta Court Reporting, 2AM-BRP----, PH Transcripts Volume 2, dated **August 9, 2018**.
- 115. Submitted by Nunavut Water Board, 2AM-BRP---- PH Sign In Sheets dated **August 15**, **2018**.



Correspondence:

- 1. Nunavut Water Board Acknowledgement Letter to Matthew Pickard, Vice President, Re: File No. 2AM-BRP----, Type "A"; New Application by Sabina Gold and Silver Corp. for the Back River Project dated **November 16, 2017.**
- 2. Nunavut Water Board; Table 1 NWB Comments and recommendations regarding Type "A" Water Licence dated **November 16, 2017**.
- 3. Letter to Matthew Pickard, Vice President, Sabina Gold & Silver Corp., Subject: Application for Type "A" Water Licence, File No. 2AM-BRP----, Back River Project; Sabina Gold & Silver Corp., Application Completeness Review from Karen Kharatyan, A/Manager of Licensing, Nunavut Water Board dated **December 8, 2017**.
- 4. Nunavut Water Board; Local Public Notice distributed to Kitikmeot Region from Ida Porter, License Administrator dated **December 8, 2017**.
- 5. Nunavut Water Board; Public Notice of a New Water Licence Application, Sabina Gold & Silver Corp. (English and Inuinnaqtun) dated **December 8, 2017.**
- 6. Cover Email: 2AM-BRP---- Application Completeness Review New Application Sabina Gold & Silver Corp. Extension to Completeness Review to Matthew Pickard from Ida Porter, Licence Administrator, Nunavut Water Board dated **December 14, 2017**.
- 7. Letter to Matthew Pickard, Vice-President, Environment & Sustainability, Sabina Gold & Silver Corp., Re: Invitation to Industrial Type "A" Water Licence Holders to Meet NWB New Technical Staff on January 17, 2018 from Stephanie Autut, Executive Director, Nunavut Water Board, dated **January 3, 2018**.
- 8. Email Letter to Matthew Pickard, Sabina Gold & Silver Corp., Re: Application for Type "A" Water Licence, File No. 2AM-BRP----, Back River Project; Sabina Gold & Silver Corp. Completeness Review (Response to Comments Request) from Richard Dwyer, License Administrator, Nunavut Water Board dated January 22, 2018.
- 9. Email Letter to Karen Kharatyan, NWB, Re: Type A and Type B INAC Response Timeline, from Matthew Pickard, Sabina Gold & Silver Corp., dated **January 31, 2018**.
- 10. Email Letter to Matthew Pickard, Sabina Gold & Silver Corp. Re: 2AM-BRP---- Sabina Gold & Silver Corp. Information Request Responses from Richard Dwyer, License Administrator dated **February**, **8**, **2018**.
- 11. Email Letter to Karen Kharatyan, NWB, Re: ECCC Responses to Sabina's IR Responses for Type A Water Licence 2AM-BRP----, From Merle Keefe, EIT, Sabina Gold & Silver Corp. dated **February 19, 2018.**
- 12. Email Letter to Merle Keefe, Sabina Gold & Silver Corp., Re: 2AM-BRP---- Response to ECCC Type A Information Request from Richard Dwyer, License Administrator, Nunavut Water Board dated **February 20, 2018**.



- 13. Email Letter to Matthew Pickard, Sabina gold & Silver Corp., Re: 2AM-BRP----, Application for a Type "A" Water Licence, Back River Project; Sabina Gold & Silver Corp. Notice of Application and Technical Review from Richard Dwyer, License Administrator, Nunavut Water Board dated **February 23, 2018**.
- 14. Nunavut Water Board; Local Public Notice distributed to Kitikmeot Region by Richard Dwyer, License Administrator, Nunavut Water Board dated **February 23, 2018**.
- 15. Nunavut Water Board; Public Notice New Application for a Type "A" Water Licence 2AM-BRP---- By Sabina Gold & Silver Corp. (English & Inuinnaqtun) dated **February 23, 2018**.
- 16. Email Letter to Matthew Pickard, Sabina Gold & Silver Corp., Re: 2AM-BRP---- Application for a Type "A" Water Licence, Back River Project; Sabina Gold & Silver Corp. Notice of Application and Technical Review dated **February 23, 2018**.
- 17. Letter to Matthew Pickard, Vice President, Environment and Sustainability, Sabina Gold & silver Corp., Re: Application for a Type "A" Water Licence, File No. 2AM-BRP----, Back River Project; Sabina Gold & Silver Corp. from Stephanie Autut, Executive Director, Nunavut Water Board dated February 23, 2018.
- 18. Email Letter to Matthew Pickard, Sabina Gold & Silver Corp., 2AM-BRP----, Application for a Type "A" Water Licence, Back River Project; Sabina Gold & Silver Corp. Notice of Application and Technical Review dated **February 23, 2018**.
- 19. Email Letter to Matthew Pickard, Sabina Gold & Silver Corp., Re: 2AM-BRP----, Application for a Type "A" Water Licence, Back River Project; Sabina Gold & Silver Corp. Notice of Application and Technical Review from Richard Dwyer, License Administrator, Nunavut Water Board dated March 21, 2018.
- 20. Email Letter to Matthew Pickard, Sabina Gold & Silver Corp., Re: 2AM-BRP---- Technical Review Extended to April 4, 2018 Sabina Gold & Silver Corp Back River Project from Ida Porter, License Administrator, Nunavut Water Board dated **March 21, 2018**.
- 21. Email Letter to Ida Porter, Licensing Administrator, Nunavut Water Board, Fw: Sabina's Type A Water License Review for the Back River Project from John Roesch, Sabina Gold & Silver Corp. dated **March 21, 2018**.
- 22. Email Letter to Matthew Pickard, Sabina Gold & Silver Corp., 2AM-BRP---- Sabina Gold & Silver Responses to Technical Comments dated **April 12, 2018**.
- 23. Email Letter to Matthew Pickard, Sabina Gold & Silver Corp. 2AM-BRP---- Technical Meeting and Pre-Hearing Conference Agenda, from Richard Dwyer, License Administrator, Nunavut Water Board dated **April 16, 2018**.
- 24. Nunavut Water Board; Letter to Matthew Pickard, Vice President, Environment and Sustainability, Sabina Gold and Silver Corp., Subject: Application for the Water Licence No. 2AM-BRP----, Back River Project, Sabina Gold & Silver.: Confirmation of Technical Meeting and Pre-Hearing Conference dated **April 16, 2018**.



- 25. Email Letter to Richard Dwyer, Nunavut Water Board, Re: ECCC Attendance for Sabina's 2AM-BRP---- Technical Meeting from Gabriel Bernard-Lacaille dated **April 18, 2018**.
- 26. Email Letter to Karen Kharatyan, Nunavut Water Board, Re: Sabina Participation in the Technical Meeting & Pre-Hearing from Matthew Pickard B.Sc., MBA, P.Geo, CRSP, EP, Vice President, Environment & Sustainability, Sabina Gold & Silver Corp. dated **April 19**, **2018**.
- 27. Email Letter to Richard Dwyer, Nunavut Water Board, Re: DFO Attendance for Sabina's 2AM-BRP---- Technical Meeting & Pre-Hearing Conference from Laura Watkinson, Fisheries Protection Biologist, Fisheries Protection Program. Fisheries and Oceans Canada, Government of Canada dated **April 20, 2018**.
- 28. Email Letter to Richard Dwyer, Nunavut Water Board, Re: 2AM-BRP---- Confirmation of Technical Meeting and Agenda from Ian Parsons, INAC dated **April 20, 2018**.
- 29. Email Letter to Richard Dwyer, Nunavut Water Board, Re: translations for 2AM-BRP----from Ian Parsons, INAC dated **April 20, 2018**.
- 30. Email Letter to Matthew Pickard, Sabina Gold & Silver Corp., Re: 2AM-BRP---- Technical Meeting and Pre-Hearing Conference Agenda from Richard Dwyer. License Administrator, Nunavut Water Board dated **April 26, 2018**.
- 31. Email Letter to Matthew Pickard, Sabina Gold & Silver Corp., Re: 2AM-BRP---- Pre-Hearing Conference Decision from Richard Dwyer, Manager of Licensing, Nunavut Water Board dated **May 29, 2018**.
- 32. Letter to Back River Distribution List from Stephanie Autut, Executive Director, Nunavut Water Board, Re: Type "A" Water Licence 2AM-BRP----: Pre- Hearing Conference Decision Regarding an Application for a new Type "A" Water Licence dated **May 29, 2018**.
- 33. Nunavut Water Board; Local Public Notice distributed to Kitikmeot Region from Richard, Dwyer, Manager of Licensing, Nunavut Water Board dated **June 1, 2018**.
- 34. Nunavut Water Board; Notice of Public Hearing (English & Inuinnaqtun) dated **June 1**, **2018**.
- 35. Email Letter to Matthew Pickard, Sabina Gold & Silver Corp. Re: 2AM-BRP---- Notice of Public Hearing from Richard Dywer, Manager of Licensing, Nunavut Water Board dated **June 4, 2018**.
- 36. Letter to Karen Kharatyan, A/Manager of Licensing, Nunavut Water Board, Re: Response to Back River Project Type A Water Licence Nunavut Water Board (NWB) Technical Commitment Appendix D to the Prehearing Conference Decision regarding Application for New Type A Water Licence 2AM-BRP---- dated **June 8, 2018**.
- 37. Email Letter to Matthew Pickard, Sabina Gold & Silver Corp. Re: 2AM-BRP---- Sabina Responses to Commitments List from Richard Dwyer, License Administrator, Nunavut Water Board dated **June 11, 2018**.



- 38. Letter to Karen Kharatyan, Director of Technical Services, Nunavut Water Board, Re: Submission of Technical Meeting/Prehearing Conference Commitment 1 & 2 Responses from Matthew Pickard, Vice President, Environment & Sustainability, Sabina Gold & Silver Corp. dated **June 25, 2018**.
- 39. Email Letter to Matthew Pickard, Sabina Gold & Silver Corp. Re: 2AM-BRP---- Final Written Submission from Richard Dwyer, Nunavut Water Board dated **July 12, 2018**.
- 40. Email Letter to Matthew Pickard, Sabina Gold & Silver Corp., Re: 2AM-BRP---- Sabina Gold & Silver Final Written Submission from Richard Dwyer, Manager of Licensing, Nunavut Water Board, dated **July 24, 2018**.
- 41. Email Letter to Matthew Pickard, Sabina Gold & Silver Corp., Re: 2AM-BRP---- Public Hearing Update & Agendas from Richard Dwyer, Manager of Licensing, Nunavut Water Board dated **July 25, 2018**.
- 42. Letter to Matthew Pickard, Vice President, Environment and Sustainability, Sabina Gold & Silver Corp., Re: Application for the Water Licence No. 2AM-BRP----, Back River Project, Sabina Gold & Silver Corporation; Public Hearing Update and Hearing Agenda from Wilfrid Bagley, Acting Executive Director, Nunavut Water Board dated **July 25, 2018**.
- 43. Email Letter to Nunavut Water Board, Licensing Department, Re: CIRNAC Extension Presentation for Back River 2AM-BRP---- from Ian Parsons, Manager, Water Resources, CIRNAC, Nunavut Regional Office dated **July 31, 2018**.



APPENDIX E - Sign-in Sheets - List of Participants in the Public Hearing

PUBLIC HEARING BACK RIVER PROJECT CAMBRIDGE BAY, Nunavut August 8-9, 2018

No.

First Name

Last Name

Organization/

Phone

Fax

E-mail

Registration Form Day One

Aug. 8,2018

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PUBLIC HEARING BACK RIVER PROJECT CAMBRIDGE BAY, Nunavut August 8-9, 2018

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