File No.: **2BE-GOO2028**

February 17, 2020

Merle Keefe Manager – Environmental Permitting Sabina Gold & Silver Corp. Suite 1800 – 555 Burrard Street Box 220 Vancouver, BC V7X 1M7

Email: mkeefe@sabinagoldsilver.com

RE: NWB Amended Renewal Water Licence No. 2BE-GOO2028

Dear Mr. Keefe:

Please find attached Licence No. 2BE-GOO2028 (Licence) issued to Sabina Gold & Silver Corp. by the Nunavut Water Board (NWB or Board) pursuant to its authority under Article 13 of the Agreement between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in Right of Canada (Nunavut Land Claims Agreement or Nunavut Agreement). The terms and conditions of the attached Licence related to Water use and Waste disposal are an integral part of this approval.

If the Licensee contemplates the renewal of this Licence, it is the responsibility of the Licensee to apply to the NWB for its renewal. The past performance of the Licensee, new documentation and information, and issues raised during a public hearing, if the NWB is required to hold one, will be used to determine the terms and conditions of the Licence renewal. Note that if the Licence expires before the NWB issues a new one, then the use of Water and deposit of Waste must cease, or the Licensee may be in contravention of the *Nunavut Land Claims Agreement* and the *Nunavut Waters and Nunavut Surface Rights Tribunal Act (NWNSRTA)*. However, the expiry or cancellation of a licence does not relieve the holder from any obligations imposed by the licence. The NWB recommends that an application for the renewal of this Licence be filed at least three (3) months prior to the Licence expiry date. It should be noted that in accordance with Section 75(1)(a) of the *Nunavut Planning and Project Assessment Act (NuPPAA)*, the Board is not allowed to issue a permit or authorization for any project proposal that has not been submitted to the Nunavut Planning Commission (NPC) in accordance with Section 76 of *NuPPAA*.

If the Licensee contemplates or requires an amendment to this Licence, the NWB may decide, in the public's interest, to hold a public hearing. The Licensee should submit applications for amendment as soon as possible to give the NWB sufficient time to go through the amendment process. The process and timing may vary depending on the scope of the amendment; however, a minimum of <u>sixty (60) days</u> is required from time of acceptance by the NWB. It is the responsibility of the Licensee to ensure that all application materials have been received and are acknowledged by the Manager of Licensing.

Sincerely,	
Lootie Toomasie	
Nunavut Water Board	
Chair	

LT/sk/kc

Enclosure: Licence No. 2BE-GOO2028

Cc: Distribution List – Kitikmeot

TABLE OF CONTENTS

DECISIO	V	ii
I.	PROJECT OVERVIEW	iii
II.	FILE PROCEDURAL HISTORY	iv
III.	RENEWAL APPLICATION	
IV.	GENERAL CONSIDERATIONS	
	Licence	
Annual I	Reporting	vi
Water U	se	vi
	isposal	
Quarry	ing	vii
	ntingency Planning	
	nment and Restoration Planning	
Monitori	ng	vii
AMENDE	D RENEWAL WATER LICENCE	1
PART A:		
1.	Scope	
2.	Definitions	
3.	Enforcement	4
PART B:	GENERAL CONDITIONS	4
PART C:	CONDITIONS APPLYING TO WATER USE	
PART D:	CONDITIONS APPLYING TO WASTE DISPOSAL	
PART E:	CONDITIONS FOR CAMPS, ACCESS INFRASTRUCTURES AND	
	OPERATIONS	9
PART F:	CONDITIONS APPLYING TO DRILLING OPERATIONS	
PART G:	CONDITIONS APPLYING TO MODIFICATIONS	
PART H:	CONDITIONS APPLYING TO SPILL CONTINGENCY PLANNING	
PART I:	CONDITIONS APPLYING TO ABANDONMENT AND RESTORATION	
	OR TEMPORARY CLOSING	
PART J:	CONDITIONS APPLYING TO THE MONITORING PROGRAM	14

DECISION

LICENCE No. 2BE-GOO2028

This is the decision of the Nunavut Water Board (NWB) with respect to an application dated October 8, 2019 for the amendment – renewal of a Water Licence made by:

SABINA GOLD & SILVER CORP.

to allow for the use of Water and deposit of Waste during camp operations and activities related to exploration that include prospecting, geological mapping, geophysical survey, drilling, etc. at the Goose Lake, Back River Project located within the Kitikmeot Region, Nunavut generally located at the following geographical coordinates:

Project Extents: NW: Latitude: 65° 47'00" N Longitude: 107° 07'00" W

NE: Latitude: 65° 47'00" N Longitude: 106° 15'00" W SE: Latitude: 65° 24'00" N Longitude: 106° 15'00" W Longitude: 107° 07'00" W

Camp Location: Latitude: 65° 32' 40" N Longitude: 106° 25' 35" W

Temporary Camp Locations:

Del Lake: Latitude: 65°27'48.7" N Longitude: 106°36'45.5" W Boot Property: Latitude: 65°41'16.9" N Longitude: 106°26'35.8" W

DECISION

After having received confirmation from the Nunavut Planning Commission (NPC)¹ that the Application is for a project proposal that falls outside of an area with an approved land use plan, and, as such, a conformity determination is not required, and is exempt from the requirements for screening by the Nunavut Impact Review Board (NIRB)¹ as described within Section 12.4.3/ Schedule 12-1 of the *Nunavut Agreement*, subject to the terms and conditions recommended in the NIRB's March 16, 2012 Screening Decision Report No. 08EA084, the NWB decided that the application could proceed through the regulatory process. In accordance with Section 55.1 of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* (NWNSRTA or *Act*) and Article 13 of the *Nunavut Agreement*, public notice of the Application was given and interested persons were invited to make representations to the NWB.

After reviewing the submission of the Applicant and considering the representations made by interested persons, the NWB, having given due regard to the facts and circumstances, the merits of the submissions made to it and to the purpose, scope and intent of the *Nunavut Agreement* and of the *Act*, waived the requirement to hold a public hearing, and determined that:

Licence No. 2BE-GOO1520 be renewed as Licence No. 2BE-GOO2028 subject to the terms and conditions contained therein. (Motion #: 2019-B1-030)

Signed this 17th day of FEBRUARY, 2020 at Gjoa Haven, NU.

Lootie Toomasie Nunavut Water Board, Chair LT/sk/kc

¹ Nunavut Planning Commission (NPC) Conformity Determination, December 5, 2019.

I. PROJECT OVERVIEW

The Goose Lake Property explored by Sabina Gold & Silver Corp. (Sabina) is located approximately 525 km northeast of Yellowknife, NWT and 160 km south of Bathurst Inlet, Nunavut, near the headwaters of the Ellice River. The Goose Lake Property consists of seven mineral claims staked in 1987. Gold mineralization at the Goose Property is situated within folded silicified and sulphidized oxide iron formations and locally in the underlying greywacke located beneath iron antiform structures. Gold is associated with sulphide concentrations (pyrite, pyrrhotite and arsenopyrite) in the iron formation and is commonly accompanied by increased quartz veining, silicification and attendant chlorite and amphibole alteration of magnetite.

The lands in the exploration area are Crown Lands and Inuit Owned Lands (IOL). Land use for the exploration activities has been authorized by the Crown-Indigenous Relations and Northern Affairs (CIRNA) and Kitikmeot Inuit Association (KIA) as the regional Inuit Association who holds the title to IOL in the Kitikmeot Region of Nunavut.

The Goose Camp is located on the slope of the western shore of Goose Lake. It has the capacity to support up to 120 people and is accessible by air only using Goose Lake (ice and open water), a gravel airstrip north of Goose Lake and an all-weather airstrip and road west of the camp. The lakeshore is approximately 50 m toward the north and the regional topographical gradient surrounding the camp ranges from 2% to 6% towards the north. The camp is approximately 300 m in length from east to west and 100 m wide from north to south, covering an area of 30,000 m². The camp facilities are located on natural tundra underlain by a 10 cm organic layer overlying silt-sand parent material.

The current scope of activities authorized under the existing NWB Water Licence No. 2BE-GOO1520 includes the following:

- Activities related to exploration that include prospecting, geological mapping, geophysical survey, drilling, etc.;
- Operation of the 120 person camp at Goose Lake, as well as additional temporary camps and associated Water use and Waste management facilities;
- Construction and operation of an all-weather Airstrip;
- Airstrip Quarry operation;
- Operation of winter trails from Bathurst Inlet and between the Back River camps for resupplying materials;
- · Temporary fuel cache storage; and
- Environmental monitoring.

In current Application, Sabina notes that the scope of activities will remain the same with the exception of the activities related to the Goose land-based Airstrip, Airstrip Quarry and Ice Road connecting the camp to the Airstrip Quarry, which will now be included under Water Licence No. 2AM-BRP1831, as committed in Sabina's Back River Project Type "A" Water Licence Technical Meeting Commitment Responses; WTM-COMMITMENT 5 (NWB-5).

II. FILE PROCEDURAL HISTORY

The Goose Lake Property has been explored by a number of companies under different Licences, as outlined in Table 1.

Table 1. Project Licensing History

Licence No.	Date Issued	Comments
NWB1GOO9801	September 1, 1998	Industrial Water Licence for Water (100m³/day) and Waste disposal during exploration activities issued to Kit Resources Limited later renamed to Wheaton River Nunavut Ltd. (Wheaton)
NWB1GOO0104	September 1, 2001	Renewal Licence without any changes to the original scope issued to Kinross Gold Corporation (Kinross) who became an operator of the Goose Lake joint venture with Wheaton
NWB2GOO0510	March 11, 2005	Water use of 100m³/day during exploration activities issued to Miramar Bathurst Resources Ltd. who entered into a joint venture partnership with Kinross
2BE-GOO0510	February 3, 2006	Licence No. NWB2GOO0510 was renamed and assigned to Dundee Precious Metals Inc. (Dundee)
2BE-GOO0510 Amendment No. 1	April 25, 2006	Water use for domestic, exploration drilling and trenching purposes up to a combined maximum of 130 m ³ / day
2BE-GOO0510 Amendment No. 2	May 11, 2009	Increase of quantity of Water use to a combined maximum of 155 m ³ / day
2BE-GOO0510	September 9, 2009	Licence assigned from Dundee to Sabina Silver Corporation that later became Sabina Gold & Silver Corporation (Sabina)
2BE-GOO1015	March 26, 2010	Approval for the use of Water (155 m³/ day) and disposal of Waste during camp operations and activities related to exploration
2BE-GOO1015 Amendment No. 1	October 18, 2010	Establishment of four additional small seasonal camps
2BE-GOO1015 Amendment No. 2	January 31, 2011	Increase of quantity of Water use to 297 m ³ / day
2BE-GOO1015 Amendment No. 3	May 20, 2012	Construction and operation of an all-weather airstrip and all-weather camp-airstrip road, quarrying for the above-referenced construction activities, and the Licence boundary reduction
2BE-GOO1520	February 19, 2015	Renewal Licence without any changes to the scope

III. RENEWAL APPLICATION

On November 14, 2019, Sabina Gold & Silver Corporation (Sabina) submitted to the NWB an Application requesting to renew the Water Licence No. 2BE-GOO1520. The following documents were included within the Application package:

- Water Licence Application Cover Letter;
- Water Licence Renewal Application Form;
- Project Map;
- NIRB Screening Decision, dated May 15, 2006;
- NIRB Exemption Letter, dated August 5, 2010;
- Comprehensive Non-Hazardous Waste Management Plan, dated October 2019;
- Comprehensive Hazardous Materials Management Plan, dated October 2019;
- Comprehensive Spill Contingency Plan, dated June 2018;
- Abandonment and Restoration Plan Goose Camp and Exploration Project, dated January 2019;
- Non-technical Summaries in English and Inuinnaqtun;
- Table of Leases and Authorizations
- Certificate of Amendment of Registration; and
- NPC Determination, dated December 8, 2019.

On December 6, 2019, following a preliminary internal technical review, the NWB concluded that the Application met the requirements of section 48(1) of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act (NWNSRTA or Act)* and forwarded Notice of the Application to regulators and other interested parties. All parties were invited to make representations to the NWB by January 17, 2020.

On January 22, 2020, the NWB received a submission from Crown-Indigenous and Northern Affairs (CIRNA)² requesting the Applicant to attain the NPC Conformity and NIRB screening prior to Licence Renewal. The NWB forwarded the NPC determination to CIRNA, which resolved CIRNA's concern as stated in the correspondence³, dated January 23, 2020.

Based on the results of the detailed assessment of the Application, including consideration of any potential accidents, malfunctions, or impacts to Water that the overall project might have in the area, the Board has approved the Application and has issued Water Licence 2BE-GOO2028.

² CIRNA Letter, Re: Crown-Indigenous Relations and Northern Affairs Comments on Sabina Gold and Silver Corp. Renewal and Extension Application for the Goose Bay Property, Back River Project, Licence No. 2BE-GOO1520, dated January 22, 2019

³ Email from B. Campbell, CIRNA, to S. Kuflevskiy, NWB, Re: Sabina's 2BE-GOO NPC determination, January 23, 2020

IV. GENERAL CONSIDERATIONS

The issuance of this Licence (No. **2BE-GOO2028**) will replace Licence No. 2BE-GOO1520. Since the project activities have remained essentially the same as with the previous Licence, all terms and condition in the renewal Licence will remain the same.

Term of Licence

The Licensee has requested a fifteen (15) year term for the Renewal Licence. In accordance with Section 45 of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*, the NWB may issue a Licence for a term not exceeding twenty-five (25) years. However, the general term for the Type "B" licences associated with exploration activities issued by the Board to date do not generally exceed five (5) years due to the nature of exploration projects.

Given the Licensee's compliance history and no concerns regarding the term requested from the interveners, the Board has decided to issue the Licence for eight (8) years. This term will provide the Licensee with a sufficient time for continuation of exploration work and planning of future project activities.

Annual Reporting

As a requirement of section 14(1) of the *Nunavut Waters Regulations* and similar to the terms and conditions generally included in all licences issued by the NWB, the Board has included under Part B, Item 2 of this Licence, requirements to submit Annual Reports for the purpose of ensuring that the NWB has an accurate annual update of the activities related to Water use and Waste disposal during each calendar year. This information is maintained on the Public Registry and is available to interested parties upon request. A "Standardized Form for Annual Reporting" is to be used by the Licensee and could be supplemented by additional monitoring documentation and Licensee's annual reporting forms. The NWB Standardized Form is available from the NWB file transfer protocol (FTP) site under the following Public Registry link at the NWB Website:

ftp://ftp.nwb-oen.ca/other documents/Standardized Forms/

Water Use

The previous Water Licence permitted the Licensee to use a total of two-hundred and ninety seven (297) cubic metres of freshwater *per* day. The Licensee has not requested any changes to total allowable Water volume as part of the Renewal Application. No concerns were expressed by the interveners with respect to the requested freshwater amount, or to the manner in which it is obtained or used. Therefore, the Water use condition imposed by previous Water Licence has been carried forward into current Licence under Part C, Item 1.

Waste Disposal

The following Waste Management Plans submitted as part of the Application Package are approved by the NWB with the issuance of this Water Licence:

- "Back River Project Comprehensive Non-Hazardous Waste Management Plan", dated October 2019; and
- "Back River Project Comprehensive Hazardous Materials Management Plan", dated October 2019.

Quarrying

As noted in the Application, quarrying related to construction of an all-weather airstrip and single-lane road connecting the airstrip to the Goose Lake Camp will now become a part of Water Licence 2AM-BRP1831. However, as discussed in correspondence⁴ dated February 7, 2020, the condition pertaining to quarrying will remain under Part E, Item 7 of present Licence in case quarrying is needed for exploration purposes in the future.

Spill Contingency Planning

The Plan entitled "Comprehensive Spill Contingency Plan", dated June 2018, is approved by the Board with the issuance of this Water Licence.

Abandonment and Restoration Planning

The Plan entitled "Back River Project Abandonment and Restoration Plan Goose Camp and Exploration Project", dated January 2019, is approved by the NWB with the issuance of this Water Licence.

Monitoring

All Monitoring requirements imposed by previous Water Licence have been carried forward into current Licence under Part J.

⁴ Email from M. Keefe, Sabina, to S. Kuflevskiy, NWB, Re: 2BE-GOO1520 Amendment Status, February 7, 2020



NUNAVUT WATER BOARD AMENDED RENEWAL WATER LICENCE

Licence No. 2BE-GOO2028

Pursuant to the Nunavut Waters and Nunavut Surface Rights Tribunal Act and the Agreement Between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in right of Canada, the Nunavut Water Board, hereinafter referred to as the Board, hereby grants to

SABINA GOLD & SILVER CORP.

(Licensee)

555 BURRARD STREET, SUITE 1800, VANCOUVER, BC, V7X 1M7,

(Mailing Address)

hereinafter called the Licensee, the right to alter, divert or otherwise use Water or dispose of Waste for a period subject to restrictions and conditions contained within this Licence Renewal:

Licence Number/Type: 2BE-GOO2028 / TYPE "B"

Water Management Area: QUEEN MAUD GULF WATERSHED (30)

Location: GOOSE LAKE, BACK RIVER PROJECT

KITIKMEOT REGION, NUNAVUT

Classification: MINING UNDERTAKING

Purpose: DIRECT WATER USE AND DEPOSIT OF WASTE

Quantity of Water use not

to Exceed: TWO HUNDRED AND NINETY SEVEN (297) CUBIC

METRES PER DAY

Effective Date: **FEBRUARY 19, 2020**

Expiry of Licence: **FEBRUARY 18, 2028**

This Licence amendment and renewal, issued and recorded at Gjoa Haven, Nunavut, includes and is subject to the annexed conditions.

Lootie Toomasie, Nunavut Water Board, Chair

PART A: SCOPE, DEFINITIONS AND ENFORCEMENT

1. Scope

This Licence allows for the use of Water and the disposal of Waste for a Mining undertaking classified as per Schedule 1 of the *Regulations* based at the Goose Lake Camp as part of the Back River Project, located approximately 160 km south of Bathurst Inlet and 525 km northeast of Yellowknife, with exploration drilling occurring within the property described as Goose Lake, within the Kitikmeot Region, Nunavut.

- a. This Licence is issued subject to the conditions contained herein with respect to the taking of Water and the depositing of Waste of any type in any Waters or in any place under any conditions where such Waste or any other Waste that results from the deposits of such Waste may enter any Waters. Whenever new Regulations are made or existing *Regulations* are amended by the Governor in Council under the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*, or other statutes imposing more stringent conditions relating to the quantity or type of Waste that may be so deposited or under which any such Waste may be so deposited, this Licence shall be deemed, upon promulgation of such Regulations, to be subject to such requirements; and
- b. Compliance with the terms and conditions of this Licence does not absolve the Licensee from responsibility for compliance with the requirements of all applicable Federal, Territorial and Municipal legislation.

2. Definitions

"Act" means the Nunavut Waters and Nunavut Surface Rights Tribunal Act;

"Addendum" means the supplemental text that is added to a full plan or report usually included at the end of the document and is not intended to require a full resubmission of the revised report;

"<u>All-Weather Airstrip</u>" engineered facility designed to permit landing and taking off of aircrafts without regard to operational weather limits, which will now fall under Water Licence No. 2AM-BRP1831;

"<u>Amendment</u>" means a change to original terms and conditions of this Licence requiring correction, addition or deletion of specific terms and conditions of the Licence; modifications inconsistent with the terms of the set terms and conditions of the Licence;

"Appurtenant Undertaking" means an undertaking in relation to which a use of Water or a deposit of Waste is permitted by a licence issued by the Board;

"Board" means the Nunavut Water Board established under the *Nunavut Land Claims Agreement* and the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*;

- "Bulk Fuel Storage Facility" means the fuel storage facility as described in the Application and supporting documents submitted on October 20, 2014;
- "<u>Effluent</u>" means treated or untreated liquid Waste material that is discharged into the environment from a structure such as a settling pond, landfarm or a treatment plant;
- "Engineer" means a professional engineer registered to practice in Nunavut in accordance with the Consolidation of Engineers and Geoscientists Act S. Nu 2008, c.2 and the Engineering and Geoscience Professions Act S.N.W.T. 2006, c.16 Amended by S.N.W.T. 2009, c.12;
- "Greywater" means all liquid Wastes from showers, baths, sinks, kitchens and domestic washing facilities, but does not include toilet Wastes;
- "<u>Hazardous Waste</u>" means Waste classified as "hazardous" by Nunavut Territorial or Federal Legislation, or as "dangerous goods" under the Transportation of Dangerous Goods Act at the time of clean-up;
- "<u>High Water Mark</u>" means the usual or average level to which a body of water rises at its highest point and remains for sufficient time so as to change the characteristics of the land (ref. Department of Fisheries and Oceans Canada, Operational Statement: Mineral Exploration Activities);
- "<u>ICP Scan</u>" means the laboratory method for determining trace metals in water through Emission Spectroscopy using inductively coupled plasma (including from approximately 22 to 32 elements, depending on the laboratory performing the analysis);
- "Inspector" means an Inspector designated by the Minister under Section 85 (1) of the *Act*;
- "Licensee" means the holder of this Licence;
- "Modification" means an alteration to a physical work that introduces a new structure or eliminates an existing structure and does not alter the purpose or function of the work, but does not include an expansion;
- "Monitoring Program" means a program established to collect data on surface Water, groundwater, and soil quality to assess impacts to the environment of an appurtenant undertaking;
- "Nunavut Agreement" means the "Agreement Between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in right of Canada", including its preamble and schedules, and any amendments to that agreement made pursuant to it;

"Quarry" means the areas of surface excavation for extracting rock material for use as construction materials in the development of infrastructure and facilities for the project;

"Regulations" means the Nunavut Waters Regulations SOR/2013-69 18th April, 2013;

"Sewage" means all toilet Wastes and greywater;

"Spill Contingency Plan" means a Plan developed to deal with unforeseen petroleum and hazardous materials events that may occur during the operations conducted under the Licence;

"Sump" means a structure or depression that collects, controls, and filters liquid Waste before it is released to the environment. This structure should be designed to prevent erosion while allowing percolation of liquid Waste;

"<u>Toilet Wastes</u>" means all human excreta and associated products, but does not include greywater;

"Waste" means, as defined in S.4 of the *Act*, any substance that, by itself or in combination with other substances found in Water, would have the effect of altering the quality of any Water to which the substance is added to an extent that is detrimental to its use by people or by any animal, fish or plant, or any Water that would have that effect because of the quantity or concentration of the substances contained in it or because it has been treated or changed, by heat or other means;

"Water" or "Waters" means Waters as defined in section 4 of the Act.

3. Enforcement

- a. Failure to comply with this Licence will be a violation of the *Act*, subjecting the Licensee to the enforcement measures and the penalties provided for in the *Act*;
- b. All inspection and enforcement services regarding this Licence will be provided by Inspectors appointed under the *Act*; and
- c. For the purpose of enforcing this Licence and with respect to the use of Water and deposit or discharge of Waste by the Licensee, Inspectors appointed under the *Act*, hold all powers, privileges and protections that are conferred upon them by the *Act* or by other applicable law.

PART B: GENERAL CONDITIONS

1. The Water use fees for the right to the use of Water shall be paid annually in accordance with Section 12 of the *Regulations*.

- 2. The Licensee shall file an Annual Report on the Appurtenant Undertaking with the Board no later than March 31st of the year following the calendar year being reported, containing the following information:
 - a. summary report of Water use and Waste disposal activities;
 - b. list of unauthorized discharges and a summary of follow-up actions taken;
 - c. any revisions to the Spill Contingency Plan, Abandonment and Restoration Plan and any other Plans, submitted in the form of an Addendum, including record of revisions, as required by *Part B*, *Item 7*;
 - d. description of all progressive and / or final reclamation work undertaken, including photographic records of site conditions before, during and after completion of operations;
 - e. report all artesian flow occurrences as required under *Part F*, *Item 3*;
 - f. summary of all information requested and results of the Monitoring Program; and
 - g. any other details on Water use or Waste disposal requested by the Board by November 1 of the year being reported.
- 3. The Licensee shall notify the NWB of any changes in operating plans or conditions associated with this project at least thirty (30) days prior to any such change.
- 4. The Licensee shall install flow meters or other such devices, or implement suitable methods required for the measuring of Water volumes as required under *Part J, Item 1*.
- 5. The Licensee shall, for all Plans submitted under this Licence, include a proposed timetable for implementation. Plans submitted, cannot be undertaken without subsequent written Board approval and direction. The Board may alter or modify a Plan if necessary to achieve the legislative objectives and will notify the Licensee in writing of acceptance, rejection or alteration of the Plan.
- 6. The Licensee shall, for all Plans submitted under this Licence, implement the Plan as approved by the Board.
- 7. The Licensee shall review the Plans referred to in this Licence, as required by changes in operation and/or technology, and modify the Plans accordingly. Revisions to the Plans shall be submitted in the form of an Addendum to be included with the Annual Report.
- 8. Every Plan to be carried out pursuant to the terms and conditions of this Licence shall become a part of this Licence, and any additional terms and conditions imposed upon approval of a Plan by the Board become part of this Licence. All terms and conditions of the Licence should be contemplated in the development of a Plan where appropriate.
- 9. The Licensee shall ensure a copy of this Licence is maintained at the site of operations at all times. Any communication with respect to this Licence shall be made in writing to the attention of:

(a) Manager of Licensing:

Nunavut Water Board

P.O. Box 119

Gjoa Haven, NU X0B 1J0

Telephone: (867) 360-6338 Fax: (867) 360-6369

Email: <u>licensing@nwb-oen.ca</u>

(b) Inspector Contact:

Manager of Field Operations, CIRNA Nunavut District, Nunavut Region P.O. Box 100 Igaluit, NU X0A 0H0

Telephone: (867) 975-4295 Fax: (867) 979-6445

- 10. The Licensee shall submit an electronic copy of all reports, studies, and plans to the Board. Reports or studies submitted to the Board by the Licensee shall include a detailed executive summary in English, Inuktitut and Inuinnaqtun.
- 11. The Licensee shall ensure that any document(s) or correspondence submitted by the Licensee to the NWB is received and acknowledged by the Manager of Licensing.
- 12. This Licence is assignable as provided for in Section 44 of the Act.

PART C: CONDITIONS APPLYING TO WATER USE

- 1. The Licensee shall obtain all Water for domestic camp use from Goose Lake and local lakes in area of temporary camps. Total camp Water use shall not exceed thirty (30) cubic metres *per* day. Drill Water (including for miscellaneous industrial use) shall be obtained from Goose Lake and Llama Lake in winter and from Goose Lake, Llama Lake and Umwelt Lake in summer as outlined in the Application, including proximal sources to drilling targets, and shall not exceed two hundred and sixty seven (267) cubic metres *per* day. The total volume of Water for the purposes of this Licence shall not exceed two hundred and ninety seven (297) cubic metres *per* day.
- 2. The use of Water from streams or any Water bodies not identified in Part C, Item 1, is prohibited unless authorized and approved by the Board in writing.
- 3. The withdrawal of Water from any stream shall not exceed ten (10) per cent of the low flow of that stream unless approved by the Board in writing
- 4. The Licensee shall submit to the Board for approval, at least thirty (30) days prior to the use of Water of a sufficient volume that the source Water body may be drawn down, the following: volume required, hydrological overview of the Water body, details of impacts, and proposed mitigation measures.

- 5. The Licensee shall equip all Water intake hoses with a screen of an appropriate mesh size to ensure that fish are not entrained and shall withdraw Water at a rate such that fish do not become impinged on the screen.
- 6. The Licensee shall not remove any material from below the ordinary high Water mark of any Water body unless authorized.
- 7. The Licensee shall not cause erosion to the banks of any body of Water and shall provide necessary controls to prevent such erosion.
- 8. Sediment and erosion control measures shall be implemented prior to and maintained during the undertaking to prevent entry of sediment into Water.

PART D: CONDITIONS APPLYING TO WASTE DISPOSAL

- 1. The Licensee shall locate areas designated for Waste disposal at a minimum distance of thirty one (31) metres from the ordinary high Water mark of any Water body such that the quality, quantity or flow of Water is not impaired, unless otherwise approved by the Board in writing.
- 2. The Board has approved with the issuance of this Licence the Plan entitled "Back River Project Comprehensive Non-Hazardous Waste Management Plan", dated October 2019, submitted to the Board as part of the Application package. The Licensee shall implement this Plan and update it annually.
- 3. The Board has approved with the issuance of this Licence the Plan entitled "Back River Project Comprehensive Hazardous Materials Management Plan", dated October 2019, submitted to the Board as part of the Application package. The Licensee shall implement this Plan and update it annually.
- 4. The Licensee shall not practice on-site land filling of domestic Waste, unless otherwise approved by the Board in writing.
- 5. The Licensee is authorized to dispose of all acceptable food Waste, paper Waste and untreated wood products in an incinerator.
- 6. The Licensee shall not open burn plastics, wood treated with preservatives, electric wire, styrofoam, asbestos or painted wood to prevent the deposition of Waste materials of incomplete combustion and/or leachate from contaminated ash residual, from impacting any surrounding Waters, unless otherwise approved by the Board in writing.
- 7. The Licensee shall provide to the Board documented authorization from all communities in Nunavut receiving Wastes from the Goose Lake, Back River Project prior to any backhauling and disposal of Wastes to those communities.

- 8. The Licensee shall backhaul and dispose of all hazardous Wastes, waste oil and non-combustible Waste generated through the course of the operation at a licensed Waste disposal site.
- 9. The Licensee shall maintain records of all Waste backhauled and records of confirmation of proper disposal of backhauled Waste. These records shall be made available to an Inspector upon request.
- 10. The Licensee shall contain all greywater in a sump located at a distance of at least thirty one (31) metres above the ordinary high Water mark of any Water body, at a site where direct flow into a Water body is not possible and no additional impacts are created, or discharge it to a wetland area located at a distance of at least thirty one (31) metres above the ordinary high Water mark of any Water body, at a site where direct flow into a Water body is not possible and no additional impacts are created, unless otherwise approved by the Board in writing.
- 11. The Licensee shall dispose of all toilet Wastes through incineration, chemical or composting toilets. Any remaining residue generated through the course of the operation shall be backhauled and disposed of in an approved Waste disposal site.
- 12. All Effluent discharge from the Bulk Fuel Storage Facility at Monitoring Program Station GOO-2 shall not exceed the following effluent quality limits:

Parameter	Maximum Concentration of any Grab Sample (μg/L)
Benzene	370
Toluene	2
Ethylbenzene	90
Phenols	20
Oil and Grease	5000
рН	6 to 9 (pH units)

- 13. In the event that Effluent at the Bulk Fuel Storage Facility under *Part D, Item 12* does not meet the required discharge criteria, it shall be considered hazardous Waste and be backhauled for proper disposal.
- 14. The Licensee shall, at least ten (10) days prior to initiating any release of effluent, notify an Inspector. The notice shall include Water quality results, an estimate of volume and the proposed receiving location.

PART E: CONDITIONS FOR CAMPS, ACCESS INFRASTRUCTURES AND OPERATIONS

- 1. The Licensee shall not erect camps or store material on the surface of frozen streams or lakes including the immediate banks except what is for immediate use. Camps shall be located such as to minimize impacts on surface drainage.
- 2. The Licensee shall conduct all activities in such a way as to minimize impacts on surface drainage and the Licensee shall immediately undertake corrective measures in the event of any impacts on surface drainage.
- 3. The Licensee shall construct all winter lake and stream crossings, including ice bridges, entirely of Water, ice or snow. The Licensee shall minimize disturbance by locating ice bridges in an area that requires the minimum approach grading and the shortest crossing route. Stream crossings shall be removed or the ice notched prior to spring break-up.
- 4. With respect to access road, pad construction or other earthworks, the deposition of debris or sediment into or onto any Water body is prohibited. These materials shall be disposed of distance of at least thirty one (31) metres from the ordinary high Water mark in such a fashion that they do not enter the Water.
- 5. The Licensee shall not mobilize heavy equipment or vehicles for trenching or other activities unless the ground surface is capable of fully supporting the equipment or vehicles without rutting or gouging. Overland travel of equipment or vehicles shall be suspended if rutting occurs.
- 6. The Licensee shall, within ninety (90) days of completion of construction of facilities and/or infrastructure associated with the project, submit to the Board a Construction Summary Report along with stamped as-built plans and drawings, providing explanation to reflect any deviations from construction drawings taking into account construction and field decisions and how they may affect the performance of engineered facilities.
- 7. The Licensee shall maintain a minimum of thirty-one (31) metres buffer zone between the periphery of quarry sites and the high Water mark of any Water body. The Licensee shall not excavate and/or remove material from the quarry beyond a depth of one (1) metre above the high water mark or above the groundwater table so as to prevent the contamination of groundwater sources. Further the Licensee is advised that quarrying shall be carried out in accordance with all applicable legislation and industry standards including the *Northern Land Use Guidelines*, *Pits and Quarries* (INAC, 2010).
- 8. Sediment and erosion control measures shall be implemented prior to and maintained during the construction and operation where necessary to prevent entry of sediment into Water.
- 9. The Licensee shall ensure that all containment and runoff control structures are constructed and maintained to prevent escape of Wastes to the surface or groundwater systems.

- 10. The Licensee shall limit any in-stream activity including crossing/fording to low Water period. Machinery fording the watercourse to bring equipment required for construction to the opposite side is limited to a one-time event (over and back) and should occur only if an existing crossing at another location is not available or practical to use. In-stream activity is prohibited during fish migration.
- 11. The Licensee shall ensure that all fill material used during the construction is from an approved potentially non-acid generating and non-metal leaching source and is free of contaminants.
- 12. The Licensee shall, for the purposes of clear span bridge installation, ensure that all activities remain outside of the natural channel width by the placement of abutments, footings or armoring above the ordinary high Water mark, so that there is no restriction to the natural channel processes.
- 13. All surface runoff during the construction of any facilities, where flow may directly or indirectly enter a Water body, shall meet the following Effluent quality limits:

Parameter	Maximum Average Concentration (mg/L)	Maximum Concentration of any Grab Sample (mg/L)
Total Suspended Solids	50.0	100.0

14. The Licensee shall ensure that all construction of engineered structures is supervised and field checked by an appropriately qualified and experienced Engineer in such a manner that the project specification can be enforced and, where required, the quality control measures can be followed. The Licensee shall maintain and make available at the request of the Board and/or an Inspector, all construction records of all engineered structures.

PART F: CONDITIONS APPLYING TO DRILLING OPERATIONS

- 1. The Licensee shall not conduct any land based drilling within thirty one (31) metres of the ordinary high Water mark of any Water body, unless otherwise approved by the Board in writing.
- 2. The Licensee shall dispose of all drill Waste, including Water, chips, muds and salts (CaCl₂) in any quantity or concentration, from land-based and on-ice drilling, in a properly constructed sump or an appropriate natural depression located at a distance of at least thirty one (31) metres from the ordinary high Water mark of any adjacent Water body, where direct flow into a Water body is not possible and no additional impacts are created.
- 3. If artesian flow is encountered, drill holes shall be immediately sealed and permanently capped to prevent induced contamination of groundwater or salinization of surface

- Waters. The Licensee shall report all artesian flow occurrences within the Annual Report, including the location (GPS coordinates) and dates.
- 4. Drilling additives or mud shall not be used in connection with holes drilled through lake ice unless they are re-circulated or contained such that they do not enter the Water, or are demonstrated to be non-toxic.
- 5. For "on-ice" drilling where drill additives are not being used, return Water released must be nontoxic, and not result in an increase in total suspended solids in the immediate receiving Waters, above the *Canadian Council of Ministers for the Environment, Guidelines for the Protection of Freshwater Aquatic Life* (i.e. 10 mg/L for lakes with background levels under 100 mg/L, or 10% for those above 100 mg/L).
- 6. The Licensee shall establish Water quality conditions prior to and upon completion of any drilling program through lake ice.
- 7. The Licensee shall provide to the Board for approval at least sixty (60) days prior to the beginning of any trenching operations, a proposed Trenching Plan which shall include the following:
 - a. size and location of trenches including GPS coordinates;
 - b. approximate dimensions (length, width and depth) of each trench;
 - c. proposed mitigation measures for the prevention of the transport of sediments, blasting residues, fly rock and other materials, from the trench area to nearby Water bodies;
 - d. projected volume and quality of Water discharged from each trench with potential treatment required; and
 - e. proposed monitoring program to be carried out on trench Waste Water prior to discharge.

PART G: CONDITIONS APPLYING TO MODIFICATIONS

- 1. The Licensee may, without written consent from the Board, carry out Modifications to the Water Supply Facilities and Waste Disposal Facilities provided that such Modifications are consistent with the terms of this Licence and the following requirements are met:
 - a. the Licensee has notified the Board in writing of such proposed Modifications at least sixty (60) days prior to beginning the Modifications;
 - b. such Modifications do not place the Licensee in contravention of the Licence or the *Act*;
 - c. such Modifications are consistent with the NIRB Screening Decision;
 - d. the Board has not, during the sixty (60) days following notification of the proposed Modifications, informed the Licensee that review of the proposal will require more than sixty (60) days; and
 - e. the Board has not rejected the proposed Modifications.

- 2. Modifications for which all of the conditions referred to in *Part G, Item 1* have not been met can be carried out only with written approval from the Board.
- 3. The Licensee shall provide as-built plans and drawings of the Modifications referred to in this Licence within ninety (90) days of completion of the Modification. These plans and drawings shall be stamped by an Engineer.

PART H: CONDITIONS APPLYING TO SPILL CONTINGENCY PLANNING

- 1. The Board has approved with the issuance of this Licence the Plan entitled "Comprehensive Spill Contingency Plan", dated June 2018, submitted to the Board as part of the Application package. The Licensee shall implement this Plan and update it on an as-needed basis.
- 2. The Licensee shall prevent any chemicals, petroleum products or Wastes associated with the project from entering Water. All sumps and fuel caches shall be located at a distance of at least thirty one (31) metres from the ordinary high Water mark of any adjacent Water body and inspected on a regular basis.
- 3. The Licensee shall conduct any equipment maintenance and servicing in designated areas and shall implement special procedures (such as the use of drip pans) to manage motor fluids and other Waste and contain potential spills.
- 4. If during the term of this Licence, an unauthorized discharge of Waste occurs, or if such a discharge is foreseeable, the Licensee shall:
 - a. Employ the approved Spill Contingency Plan;
 - b. Report the spill immediately to the 24-Hour NWT/NU Spill Line at (867) 920-8130 and to the Inspector at (867) 975-4295; and
 - c. For each spill occurrence, submit to the Inspector, no later than thirty (30) days after initially reporting the event, a detailed report that will include the amount and type of spilled product, the GPS location of the spill, and the measures taken to contain and clean up the spill site.
- 5. The Licensee shall, in addition to *Part H, Item 4*, regardless of the quantity of releases of harmful substances, report to the 24-Hour NWT/NU Spill Line if the release is near or into a Water body.

PART I: CONDITIONS APPLYING TO ABANDONMENT AND RESTORATION OR TEMPORARY CLOSING

1. The Board has approved with the issuance of this Licence the Plan entitled "Back River Project Abandonment and Restoration Plan Goose Camp and Exploration Project",

- dated January 2019, submitted to the Board as part of the Application package. The Licensee shall implement this Plan and update it on an as-needed basis.
- 2. The Licensee shall complete all restoration work prior to the expiry of this Licence.
- 3. The Licensee shall carry out progressive reclamation of any components of the project no longer required for the Licensee's operations.
- 4. The Licensee shall backfill and restore all sumps to the pre-existing natural contours of the land.
- 5. The Licensee shall remove from the site, all infrastructure and site materials, including all fuel caches, drums, barrels, buildings and contents, docks, Water pumps and lines, material and equipment prior to the expiry of this Licence.
- 6. All roads and airstrip, if any, shall be re-graded to match natural contours to reduce erosion.
- 7. The Licensee shall remove any culverts and restore the drainage to match the natural channel. Measures shall be implemented to minimize erosion and sedimentation.
- 8. In order to promote growth of vegetation and the needed microclimate for seed deposition, all disturbed surfaces shall be prepared by ripping, grading, or scarifying the surface to conform to the natural topography.
- 9. Areas that have been contaminated by hydrocarbons from normal fuel transfer procedures shall be reclaimed to meet objectives as outlined in the *Government of Nunavut's Environmental Guideline for Site Remediation*, 2010. The use of reclaimed soils for the purpose of back fill or general site grading may be carried out only upon consultation and approval by the Government of Nunavut, Department of Environment and an Inspector.
- 10. The Licensee shall restore all drill holes and disturbed areas to natural conditions immediately upon completion of the drilling. The restoration of drill holes must include the removal of any drill casing materials and if having encountered artesian flow, the capping of holes with a permanent seal. Where drill casings cannot be removed the Licensee shall cut off the casings at ground level and identify with signage.
- 11. The Licensee may leave the casings on site, if it intends to continue drilling in existing casings, but shall add signaling to keep the area safe for the other territory users. The drill casings left cannot stay on the field for more than 2 years after the drilling.
- 12. Licensee may store drill cores produced by the appurtenant undertaking in an appropriate manner and location at least thirty one (31) metres above the ordinary high Water mark of any adjacent Water body, where any direct flow into a Water body is not possible and no additional impacts are created.

- 13. The Licensee shall restore all trenches prior to the closure of seasonal exploration programs and removal of equipment from site. Trenches are to be in-filled and covered with stockpiled overburden materials and re-contoured to the natural terrain, providing drainage away from nearby watercourses.
- 14. The Licensee shall contour and stabilize all disturbed areas to a pre-disturbed state upon completion of work.

PART J: CONDITIONS APPLYING TO THE MONITORING PROGRAM

1. The Licensee shall maintain Monitoring Program Stations at the following locations:

Monitoring Program Station	Description	Status
GOO-1	Raw Water supply intake	Active
	at Goose Lake.	(Volume)
GOO-2	Final discharge point	Active
	from Bulk Fuel Storage Facility	(Volume / Water quality)
GOO-3	Raw Water supply intake	Active
	at Llama Lake	(Volume)
GOO-4	Raw Water supply intake	Active
	at Umwelt Lake	(Volume)

- 2. The Licensee shall measure and record, in cubic metres, the daily quantities of Water utilized for camp, drilling and other purposes.
- 3. The Licensee shall provide the GPS co-ordinates (in degrees, minutes and seconds of latitude and longitude) of all locations where sources of Water are utilized for all purposes.
- 4. The Licensee shall determine the GPS co-ordinates (in degrees, minutes and seconds of latitude and longitude) of all locations where Wastes associated with camp operations and drilling operations are deposited.
- 5. The Licensee shall obtain representative samples of the Water column below any ice where required under *Part F*, *Item 5 and 6*. Monitoring shall include but not be limited to the following:

Total Suspended Solids

pН

Electrical Conductivity,

Total Trace Metals as determined by a standard ICP Scan (to include at a minimum, the following elements: Al, Sb, Ba, Be, Cd, Cr, Co, Cu, Fe, Pb, Li, Mn, Mo, Ni, Se, Sn, Sr, Tl, Ti, U, V, Zn), and

Trace Arsenic and Mercury

- 6. All sampling, sample preservation and analyses shall be conducted in accordance with methods prescribed in the current edition of *Standard Methods for the Examination of Water and Wastewater*, or by such other methods approved by the Board in writing.
- 7. All analyses shall be performed in a laboratory accredited according to ISO/IEC Standard 17025. The accreditation shall be current and in good standing.
- 8. The Licensee shall, during periods of flow and just after a major rainfall event, conduct Water quality testing immediately upstream and downstream of the Water crossings, any significant Water seeps in contact with the road and any flows originating from borrow pits or rock quarries on a monthly basis prior to construction, during the construction and upon completion, while testing for criteria listed under *Part J*, *Item 5*.
- 9. The Licensee shall implement a Water crossing's visual inspection and maintenance program prior to, during spring freshet and after heavy rainfall events to identify issues related to watercourse crossings structural integrity and hydraulic function.
- 10. The Licensee shall obtain a digital photographic record of all Water crossings before, during and after construction has been completed.
- 11. The Licensee shall include in the Construction Summary Report required under *Part E*, *Item 6* all data, monitoring results and information required by this Part.
- 12. Additional monitoring requirements may be requested by the Inspector.
- 13. The Licensee shall include in the Annual Report required under *Part B, Item 2* all data, monitoring results and information required by this Part.