



Karén Kharatyan
Nunavut Water Board
PO Box 119
Gjoa Haven, NU X0B 1J0

January 21, 2011

RE: 2BE-GOO1015 response to comments regarding amendment 2 request

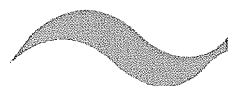
Dear Mr. Kharatyan

Thank you for the opportunity to address comments arising from the review of the 2BEGOO1015 amendment 2 application received by NWB Dec 7, 2010. We have reviewed all of the submissions and provide the following specific to the INAC letter dated January 7, 2011.

The first request is for a water balance for the water sources affected by the requested increase. For the 2011 program, Sabina is planning to operate Goose camp to support exploration programs including drill programs around the Goose, Umwelt and Llama mineralized areas and the water source lakes are principally Goose Lake (for both domestic and drilling use) and Umwelt and Llama Lakes for drilling use. The current exploration program includes operation of the Goose camp from February 1 to October 1, 2010 with drilling to start March 1st with 1-2 drill rigs at Llama and 1-2 drill rigs at Umwelt. The drilling program in these areas will continue throughout the summer and be completed later in the season. An additional 2 drill rigs will be added to the program in April to drill in the area of Goose and George.

In its response of January 7th, INAC has recommended an assessment to address concerns regarding water drawdown from the water sources. To assist with this assessment, Rescan Environmental Services Inc. has provided an assessment of the potential impacts of the drawdown for these three lakes (attached).

Based on the assumptions used in their assessment, Llama and Goose lakes can accommodate water supply for 8 drill rigs each using up to 30m³/day/rig under winter conditions and be in compliance with DFO Protocols (DFO 2010) limiting volume changes of to up to 10% of the total available lake water volume. We would note that the calculation of 30m³/day is based on the assumption that no recirculation is occurring; this is typically not that case under field conditions. With recirculation it is estimated that each drill rig would use in the range of 6 to 10 m³/day/drill rig so the actual withdrawal rate would be lower.



Bathymetry information for Umwelt Lake shows that at its maximum it is 2.7m deep; this is too shallow for winter withdrawal based on the DFO Protocols. Sabina is planning exploration activities to accommodate this limitation and will source water from lakes in the area that can accommodate the withdrawal.

All three lakes can accommodate the summer drill program and be in compliance with DFO Protocols.

Also included in the INAC comments is a revision of section 6 of the application. This section has been revised and is attached for your review.

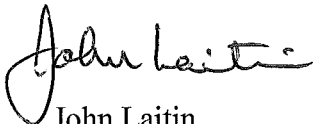
With respect to INAC's comments regarding open burning, Sabina acknowledges that a separate request and approval is required as indicated in NWB correspondence. We are currently preparing this request. We will outline the reasons for the request and the incorporation of best management practices for this component of the waste management plan.

Sabina is committed to operating its camps and exploration programs in an environmentally and fiscally responsible manner. Every effort is taken to minimize impacts to water quality and quantity using diversion and collection systems in and around the camp and drill locations. However, we do have exploration activities (e.g. exploration trenches, tank farm) where water accumulates. As part of operational activities (in the case of the tank farm) and in order to complete restoration activities these waters would need to be discharged. During the 2009 and 2010 exploration seasons we advised INAC and KIA inspectors prior to completing the discharge. With their guidance we conducted this discharge in a manner that minimizes local environmental impacts and implemented mitigation measures as needed. We also completed water sampling of the water to be discharged and the surrounding area to establish water quality conditions. These discharges are reported as part of the NWB annual reports.

INAC Lands Administration Unit has been contacted (January 11, 2011) to ask if amendments are needed to the current land use permit. We will act accordingly once we receive their advice.

If you have any questions regarding this request please call me at (604) 998-4175.

Yours truly,



John Laitin
Manager Technical and Logistical Services



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NUNAVUT WATER BOARD
NUNAVUT IMALIRIYIN KATIMAYINGI
OFFICE DES EAUX DU NUNAVUT

APPLICATION FOR WATER LICENCE AMENDMENT

The applicant is referred to the NWB's Guide 7: Licensee Requirements Following the Issuance of a Water Licence for more information about this application form.

EXISTING LICENCE NO: 2BEGOO1015 amendment 1

Revised Section 6 (January 2011) to accompany Nov 2010 application

6. NATURE OF INTEREST IN THE LAND

Does the proposed amendment change the nature of the interest in the land?

☐ Yes ☒ No

If Yes, indicate changes. _____

Check any of the following that are applicable to the proposed undertaking (at least one box under the 'Surface' header must be checked).

The proposed amendment does not affect the subsurface tenure held by Sabina. Surface tenure may be affected and Sabina will work with the appropriate authorities to adjust tenure to reflect amendment. The current list of surface and subsurface tenure is included in Appendix A

Sub-surface

☐ Mineral Lease from Nunavut Tunngavik Incorporated (NTI)

Date (expected date) of issuance: _____ Date of expiry: _____

☒ Mineral Lease from Indian and Northern Affairs Canada (INAC)

Date (expected date) of issuance: _____ Date of expiry: _____

Property	Lease #	NTS Map sheet	Date of issuance	Expiry Date
Goose Lake	3694	076G10	1998-05-15	2018-10-16
Goose Lake	3695	076G10	1998-05-15	2018-10-16
Goose Lake	3696	076G10	1998-05-15	2018-10-16
Goose Lake	3697	076G10	1998-05-15	2018-10-16
Goose Lake	3698	076G09	1998-05-15	2018-10-16
Goose Lake	3699	076G09	1998-05-15	2018-10-16
Goose Lake	3700	076G09	1998-05-15	2018-10-16
Boulder Pond	3466	076G10	1996-08-09	2015-11-18
Boulder Pond	3557	076G10	1997-06-23	2017-12-30
Boulder Pond	3558	076G10	1997-06-23	2017-12-30
Boulder Pond	3559	076G10	1997-06-23	2017-12-30

Boulder Pond	3560	076G10	1997-06-23	2017-12-30
Boulder Pond	3691	076G10	1998-05-15	2018-10-16
Boulder Pond	3692	076G10	1998-05-15	2018-10-16
Boulder Pond	3693	076G10	1998-05-15	2018-10-16
Boot Lake	3552	076G09	1997-06-23	2017-12-30
Boot Lake	3553	076G09	1997-06-23	2017-12-30
Boot Lake	3554	076G09	1997-06-23	2017-12-30
Boot Lake	3555	076G09	1997-08-06	2017-12-30
Boot Lake	3609	076G09	1997-09-29	2017-12-30
Boot Lake	3612	076G09	1997-09-29	2017-12-30
Boot Lake	3613	076G09	1997-09-29	2017-12-30
Boot Lake	3678	076G10	1998-03-23	2018-10-16
Boot Lake	3679	076G10	1998-03-23	2018-10-16
Boot Lake	3724	076G15	1998-08-31	2018-10-16
Bath	F64622	076J12		Lease application in progress
Needle Lake	3701	076G03	1998-05-15	2018-10-16

Surface

☒ Crown Land Use Authorization from Indian and Northern Affairs Canada (INAC)

Date (expected date) of issuance: _____ Date of expiry: _____

Permit No.	Permit Name	Type	Issued	Expiry	Description
N2006C0008	Mineral Exploration	Class A			Closed Nov 1, 2010
N2010C0016	Mineral Exploration	Class A	2010-11-01	2012-10-31	Mineral Exploration Beechy Lake Area

☒ Inuit Owned Land (IOL) Authorization from Kitikmeot Inuit Association (KIA)

Date (expected date) of issuance: _____ Date of expiry: _____

Permit No.	Permit Name	Type	Issued	Expiry	Description
KTL304C017 -Amended	Goose Lake Camp	Level 3		2011-03-13*	Staking/prospecting, exploration (ground/air geophysics), drilling, bulk sampling, bulk fuel storage, camp, winter road
KTL204C012 - Amended	Boulder Lake	Level 2		2011-03-14*	Staking/prospecting, exploration (ground/air geophysics), geophysical survey, gridding and drilling
KTL304C018 - Amended	George Lake Camp	Level 3		2011-03-13*	Staking/prospecting, exploration (ground/air geophysics), drilling, bulk sampling, bulk fuel storage, camp, winter road
KTL204C020 - Amended	Boot Lake	Level 2		2011-03-12*	Exploration (air/ground geophysics), staking, prospecting, fly/survival camp and drilling

*extension requested December 7, 2010 and decision is pending

☐ IOL Authorization from Kivalliq Inuit Association (KivIA) **Not applicable**

Date (expected date) of issuance: _____ Date of expiry: _____

☐ IOL Authorization from Qikiqtani Inuit Association (QIA) **Not applicable**

Date (expected date) of issuance: _____ Date of expiry: _____

☐ Commissioner's Land Use Authorization **Not applicable**

Date (expected date) of issuance: _____ Date of expiry: _____

Other Subsurface mineral claims

Date (expected date) of issuance:

Date of expiry:

<i>Property</i>	<i>Claim #</i>	<i>Claim Name</i>	<i>NTS Map</i>	<i>Record Date (issued date)</i>	<i>Next Anniversary</i>
Goose Lake	K12025	Sic 1	076G07/076G10	2010-05-19	2012-05-19
Goose Lake	K12026	Sic 2	076G07	2010-05-19	2012-05-19
Del	K10862	Del 1	076G07/076G10	2008-09-10	2011-09-10
Del	K10863	Del 2	076G07	2008-09-10	2011-09-10
Del	K10864	Del 3	076G07/076G10	2008-09-10	2011-09-10
Del	K10865	Del 4	076G07	2008-09-10	2011-09-10
Del	K10866	Del 5	076G07	2008-09-10	2011-09-10
Del	K10867	Del 6	076G07	2008-09-10	2011-09-10
Del	K10868	Del 7	076G07	2008-09-10	2011-09-10
Del	K10869	Del 8	076G07	2008-09-10	2011-09-10
Del	K10870	Del 9	076G07	2008-09-10	2011-09-10
Del	K11841	Del 10	076G07	2008-09-10	2011-09-10
Del	K11842	Del 11	076G07	2008-09-10	2011-09-10
Del	K11843	Del 12	076G07	2008-09-10	2011-09-10
Wishbone	F98444	MALLEY 1	076G03	2008-07-25	2011-07-25
Wishbone	F98445	MALLEY 2	076G03	2008-07-25	2011-07-25
Wishbone	F98446	MALLEY 3	076G03	2008-07-25	2011-07-25
Wishbone	K10831	MALLEY 5	076G03	2008-07-25	2011-07-25
Wishbone	K10832	MALLEY 4	076G03	2008-07-25	2011-07-25
Wishbone	K10833	MALLEY 6	076G03	2008-07-25	2011-07-25
Wishbone	K10834	MALLEY 7	076G03	2008-07-25	2011-07-25
Wishbone	K10835	MALLEY 8	076G03	2008-07-25	2011-07-25
Wishbone	K10836	MALLEY 9	076G03	2008-07-25	2011-07-25
Wishbone	K10837	MALLEY 10	076G03	2008-07-25	2011-07-25
Wishbone	K10838	MALLEY 11	076G03	2008-07-25	2011-07-25
Wishbone	K10839	MALLEY 12	076G03	2008-07-25	2011-07-25
Wishbone	K10840	MALLEY 13	076G03	2008-07-25	2011-07-25
Wishbone	K10841	MALLEY 14	076G03	2008-07-25	2011-07-25
Wishbone	K10842	MALLEY 15	076G03	2008-07-25	2011-07-25
Wishbone	K10843	MALLEY 16	076G03	2008-07-25	2011-07-25
Wishbone	K10844	MALLEY 17	076G03	2008-07-25	2011-07-25
Wishbone	K10845	MALLEY 18	076G03	2008-07-25	2011-07-25
Wishbone	K10846	MALLEY 19	076G03	2008-07-25	2011-07-25
Wishbone	K10847	MALLEY 20	076G03	2008-07-25	2011-07-25
Wishbone	K10848	MALLEY 21	076G03	2008-07-25	2011-07-25
Wishbone	K10849	MALLEY 22	076G03	2008-07-25	2011-07-25
Wishbone	K10850	MALLEY 23	076G03	2008-07-25	2011-07-25
Wishbone	K10851	MALLEY 24	076G03	2008-07-25	2011-07-25
Wishbone	K10852	MALLEY 25	076G03	2008-07-25	2011-07-25
Wishbone	K10858	MALLEY 26	076G03	2008-09-09	2011-09-10
Wishbone	K10859	MALLEY 27	076G03	2008-09-09	2011-09-10
Wishbone	K10860	MALLEY 28	076G03	2008-09-09	2011-09-10
Wishbone	K10861	MALLEY 29	076G03	2008-09-09	2011-09-10
Wishbone	K12008	MALLEY 30	076G03	2008-09-09	2011-09-10

Is the name of the entity(s) holding authorizations the same as that considered in the existing water licence?

☒ Yes ☐ No

If No, a licence assignment must be completed and approved by the NWB.

Name of entity(s) holding authorizations: **Sabina Gold & Silver Corp.**

Memorandum



DATE: January 20, 2011
TO: Elizabeth Sherlock (M.Sc.), Environmental Permitting Coordinator
FROM: Greg Norton (M.Sc.), Jennifer Foster (B.A.Sc., E.I.T.), and Deborah Muggli (Ph.D., M.Sc., R.P.Bio.)
SUBJECT: Comparison of Proposed Water Use to Current Lake Levels and Outflow for Goose, Llama and Umwelt Lakes

Introduction

The purpose of this memorandum is to assess the potential effects of a proposed increase in water withdrawal rates from Goose, Llama and Umwelt Lakes, which are the three primary water sources for 2011. This memorandum has been prepared in response to the Indian and Northern Affairs Canada (INCA) request for a water balance of the water sources from which the increased water volume will be taken. Sufficient site-specific information is not available for the area to produce a robust water balance for each of the primary water sources, thus an alternative analysis is presented that allows for the same conclusions on potential effects to the source water bodies that a water balance would have provided.

Sabina Gold and Silver Corp. (Sabina) would like to amend their Type B Water Licence to include additional water for camp use and for drilling programs. The current licence 2BEGOO1015 allows for the withdrawal of an average of 15 m³/day for camp use and 140 m³/day for drilling use (4 rigs) from the Goose Lake area. Sabina requests that the permit be amended to allow for the withdrawal of an additional 15 m³/day for camp use, 100 m³/day for drilling use (4 additional rigs), 15 m³/day for temporary camp use, and 12 m³/day for other water use (including uses associated with exploration activities, infrastructure and/or reclamation). The proposed water withdrawal from Goose, Llama and Umwelt Lakes would amount to a maximum of 297 m³/day, calculated as follows:

Camp Use (from Goose Lake):	30 m ³ /day
Drilling Use (from Goose, Umwelt, Llama lakes):	240 m ³ /day
Temporary Camp Use (from other regional source lakes):	15 m ³ /day
Other Water Use (from Goose Lake):	<u>12 m³/day</u>
Total:	297 m ³ /day

Goose, Llama and Umwelt lakes will be used as a water source for the drill rigs. Goose Lake will be also be used as a water source for the camp and other water uses. The water required for the temporary camp will be drawn from other regional source lakes. In the project area all lake outlets are expected to freeze and stop flowing over the winter. Thus, the increased water withdrawal was considered for both the open-water period, assumed to be from June 1 to October 15, and the winter period. For drilling use, 30 m³/day per rig is a conservative estimate, and typical operations will utilize approximately 10 m³/day per rig. Therefore, a drilling requirement of 10 m³/day per rig was also evaluated.

Predicted Effects of Increased Water Withdrawal in Goose, Llama and Umwelt Lakes

Currently, licence 2BEG001015 allows for the withdrawal of 155 m³/day combined from Goose, Llama and Umwelt Lakes. The following sections evaluate the effect of a total withdrawal rate of 297 m³/day. For drilling purposes, it was assumed that up to four rigs could be withdrawing water from any one source at a time. Thus, the effect of withdrawing water for four drill rigs (40 m³/day to 120 m³/day) was evaluated for each lake. Table 1 provides a summary of the proposed withdrawal rates from Goose, Llama and Umwelt Lakes.

Table 1. Water Withdrawal Assumptions for Evaluation

Proposed Water Use ^A	Goose Lake Water Use (m ³ /day)	Llama Lake Water Use (m ³ /day)	Umwelt Lake Water Use (m ³ /day)
Domestic Camp	30	0	0
Drilling ^B (4 rigs on each lake)	40 to 120	40 to 120	40 to 120
Other Water Requirements	12	0	0
Total Water Withdrawal (m ³ /day)	82 to 162	40 to 120	40 to 120

^A Nunavut Water Board Application for Water Licence 2BEG001015 Amendment Request, November 2010.

^B Includes range of drilling water requirement (10 m³/day to 30 m³/day).

Evaluation of Water Withdrawal during the Open-Water Season

During the open-water season (assumed to be June 1 to October 15), the proposed lake withdrawal rate was evaluated as a percentage of the total lake outflow for Goose, Llama and Umwelt Lakes. The total lake outflow was estimated using an expected normal runoff for the Back River Project area of approximately 100 mm/year (Natural Resources Canada, 1978). The watershed areas for each lake were developed using ArcGIS by Rescan Environmental Services Ltd. (Rescan). The estimated Goose and Llama Lake outflows were compared to observed lake outflow data compiled during baseline studies. The estimated average outflows over the open-water season for Goose and Llama Lakes fell within the ranges of observed outflows (Table 2). No observed data has been collected for Umwelt Lake.

For all three lakes, the proposed water withdrawal rate is less than or equal to 10% of the total estimated lake outflow (Table 2). The proposed water withdrawal rate is 10% of the total estimated outflow in Llama Lake with a drill water requirement of 120 m³/day, but annual runoff fluctuations of greater than 10% due to natural variability are expected for the project area. Additionally, typical drill water requirements are likely to be closer to 10 m³/day. At the lower drill water requirement of 40 m³/day, the proposed water withdrawal from Llama Lake is 3% of the total estimated outflow.

Evaluation of Water Withdrawal during the Winter Season

During the winter season (October 15 to May 31), it was assumed that each drill rig would operate for up to 2 months. The camp and other water requirements were assumed to be used from February 15 to October 15 (106 days during the winter season). The Department of Fisheries and Oceans (DFO) Protocol for Winter Water Withdrawal from Ice-covered Waterbodies in the Northwest Territories and Nunavut requires that the withdrawal water volume not exceed 10% of the total lake volume throughout the winter season, assuming a 2 m ice depth for lakes above treeline (DFO, 2010). This applies to all water withdrawals exceeding 100 m³ in one ice-covered season. Additionally, no lakes with a depth of less than 3.5 m may be used for winter withdrawal. Umwelt Lake has a maximum depth of 2.7 m and is therefore too shallow for winter water withdrawal. The

protocol, allowing for up to 10% withdrawal of lake volume is not applicable to lakes with a maximum depth of less than 3.5 m. Therefore Umwelt Lake can be used for a maximum withdrawal volume of 100 m³ per ice-covered season. As a result, Llama Lake and Goose Lake were evaluated as potential water sources for all eight drill rigs for 2 months during the winter.

Table 2. Evaluation of Proposed Open-Water Season Water Withdrawal Rates from Goose, Llama and Umwelt Lakes

Lake	Proposed Total Withdrawal (m ³ /day)	Lake Watershed Area (km ²)	Estimated Average Lake Outflow ^A (m ³ /day)	Observed Lake Outflow		Percent of Outflow (%)
				Maximum (m ³ /day)	Minimum (m ³ /day)	
Goose	82 to 162	173	126,598	447,552 ^B	15,552 ^B	0.06 to 0.13
Llama	40 to 120	1.71	1,249	4,925 ^C	259 ^C	3 to 10
Umwelt	40 to 120	3.52	2,567	n/a	n/a	2 to 5

Notes:

^A Calculated based on the expected normal runoff for Nunavut of 100 mm/year (Natural Resources Canada, 1978).

^B Maximum observed outflow occurred on June 29, 2007 and minimum observed outflow occurred on August 15, 2007 (based on baseline data collected in 2007).

^C Maximum observed outflow occurred on July 4, 2010 and minimum observed outflow occurred on September 13, 2010 (Rescan, 2010).

n/a = Not Available.

The total proposed withdrawal volume from Goose and Llama Lakes during winter months will be below 10% of the total lake volumes, taking into consideration a 2 m ice thickness (Table 3). This indicates that these two lakes are in compliance with the DFO Protocol.

Table 3. Evaluation of Proposed Winter Withdrawal Volumes from Goose, Llama and Umwelt Lakes

Lake	Proposed Water Withdrawal (m ³)				Lake Volume (m ³)	Lake Volume - 2 m Ice Thickness (m ³)	Proposed Withdrawal (% of lake volume)
	Drills ^A	Domestic Camp ^A	Other Water Use ^A	Total Withdrawal Volume			
Goose	4,800 to 14,400 ^B	3,180	1,272	9252 to 18,852	32,300,000 ^C	25,840,000	0.04 to 0.07
Llama	4,800 to 14,400 ^B	0	0	4,800 to 14,400	1,130,613 ^D	571,265 ^D	0.84 to 2.52
Umwelt	2,400 to 7,200	0	0	4,800 to 7,200	240,134 ^D	Too Shallow ^E	n/a

Notes:

^A Calculated based on the Nunavut Water Board Application for Water Licence 2BEGOO1015 Amendment Request, November 2010.

^B Assumes 8 drill rigs are withdrawing water from Goose and Llama Lake for 2 months.

^C Calculated based on average depth of 10 m and lake surface area of 323 ha (based on baseline data collected in 2006).

^D Volumes developed from bathymetry by Rescan.

^E Umwelt Lake depth of 2.7 m is too shallow for winter withdrawal volumes of more than 100 m³ per ice-covered season (DFO, 2010).

n/a = Not Applicable.

Evaluation of the Effects of Water Withdrawal on Lake Level

The potential decrease in lake level due to the increased water withdrawal was evaluated. The total annual water withdrawal requirements for the three lakes are summarized in Table 4. The drills are assumed to operate for up to 2 months with up to 4 rigs operating per lake during the summer for the purposes of this evaluation. During the winter, the drills are assumed to operate

for two months, with 8 drills per lake for both Goose and Llama Lakes. The camp and other water uses are assumed to be active from February 15 to October 15 (243 days).

The potential change in water level of Goose, Llama and Umwelt Lakes is shown in Table 5. The surface areas of the lakes were calculated using ArcGIS by Rescan.

The changes in water levels of Goose, Llama and Umwelt Lakes are very low (<0.12 m for all three lakes), and will likely not result in adverse effects to shoreline fish habitat. The expected changes in lake water levels are within the range of natural water level fluctuations due to wind-induced waves.

Table 4. Total Annual Proposed Water Withdrawal Requirements from Goose, Llama and Umwelt Lakes

Lake	Water Withdrawal Requirements (m ³ /year)			
	Drills	Domestic Camp	Other Water Use	Total Withdrawal Volume
Goose	7,200 to 21,600	7,290	2,916	17,406 to 31,806
Llama	7,200 to 21,600	0	0	7,200 to 21,600
Umwelt	4,800 to 14,400	0	0	4,800 to 14,400

Table 5. Estimated Decrease in Lake Water Level due to Proposed Water Withdrawal

Lake	Total Withdrawal Volume (m ³)	Lake Surface Area (m ²)	Change in Water Level (m)
Goose	17,406 to 31,806	3,230,000	0.005 to 0.010
Llama	7,200 to 21,600	365,933	0.039 to 0.118
Umwelt	4,800 to 14,400	193,603	0.025 to 0.074

Conclusions

Based on the information available, the requested increase in water withdrawal under Licence No. 2BEGOO1015 from 155 m³/day to 297 m³/day meets the DFO winter water withdrawal protocol in Goose and Llama Lakes. The proposed volumes of water to be withdrawn from Goose and Llama Lakes during the winter are a maximum of 0.07% and 2.52% of the total available lake water volumes, respectively. This is well below the allowable amount of 10% of the available lake water volume described in the DFO Protocol. Umwelt Lake is too shallow for winter withdrawal, as the DFO requires a minimum depth of 3.5 m for water withdrawal above 100 m³ during the winter. Therefore, Goose and Llama Lakes were evaluated as a winter water withdrawal source for 8 drill rigs over a two month period.

The annual estimated decreases in lake water level and average lake outflow rates due to the proposed water withdrawal are comparable to expected inter-annual variation in those values due to natural variability. Thus, the proposed water withdrawal from the lakes during the open-water season is in agreement with the Fisheries and Oceans Canada's Nunavut Operations Statement for Mineral Exploration Activities; Water Withdrawal, section 11.2:

11.2. Ensure water withdrawal volumes do not impact fish or fish habitat. Withdrawals from fish-bearing waters should not result in any noticeable change in water level or downstream flows, particularly during sensitive life stages (e.g., by dewatering spawning or egg incubation areas).

Recommendations

The calculations undertaken in this memorandum are specific to 2011 water withdrawal requirements from Goose, Llama and Umwelt as source lakes. Water withdrawal under the same water licence in future years should follow the same protocols. Water intakes should be installed in deep areas (>2 m below the ice surface) and have proper screen sizing (fine mesh of 2.54 mm) as outline in the *Freshwater Intake End-of-Pipe Fish Screen Size Guideline* (DFO, 1995).

References

Sabina Gold and Silver Corp., Nunavut Water Board Application for Water Licence Amendment: Request 2BEGOO1015. Submitted November, 2010.

Rescan Environmental Services Ltd. 2010. *Back River Project 2010 Hydrology Baseline Report*. Prepared by Rescan Environmental Services Ltd. for Sabine Gold and Silver Corp. December 2010.

Natural Resources Canada. 1978. Plate 24 Annual Runoff in *Hydrology Atlas of Canada*. Natural Resources Canada. Ottawa.

Department of Fisheries and Oceans. 2010. *DFO Protocol for Winter Water Withdrawal from Ice-covered Waterbodies in the Northwest Territories and Nunavut*.

Department of Fisheries and Oceans. 1995. *Freshwater Intake End-of-Pipe Fish Screen Guideline*.