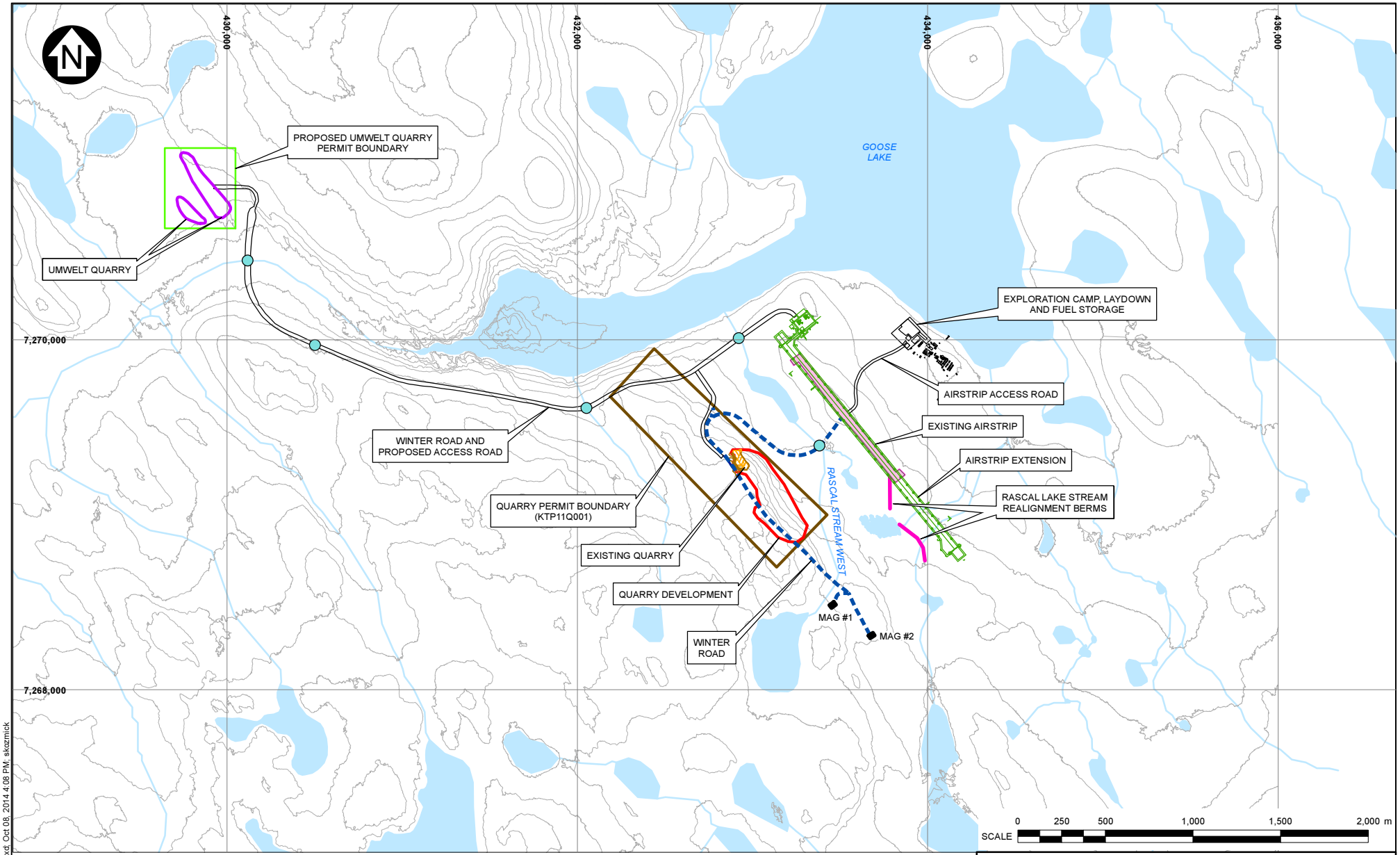
1.1.3 Scope of Site Preparation Work

SPW will involve access to Crown and Inuit-Owned Land (IOL) under land use permits and water use under Type B licences for the following activities:

- Seasonal operation of the existing exploration camps at Goose and George
- Continued exploration, environmental, and engineering data collection
- Sealift delivery of equipment, 600,000 L of fuel, and various consumables to the MLA, and temporary storage within a 1 ha area
- Airlift delivery of additional fuel and consumables to the Goose Property as required, utilizing the existing airstrip and/or ice-based airstrips
- Establishment of one to two rock quarries at the Goose Property to produce a total of 550,000 m^3 of aggregate for construction purposes
- Construction of a 5 km all-weather road between the existing Goose camp and Umwelt exploration area within the Goose Property
- Lengthening the existing all-weather airstrip at the Goose property to 1,524 m

Figure 1.2 shows the Goose site layout as a result of the SPW. The Goose and George exploration camps will be utilized as-is to support SPW; no upgrades or expansion to the existing facilities will be required. Minimal disturbance will occur at the MLA as rig mats will be used to move and store equipment and materials to a designated laydown area. No permanent accommodations will be required at the MLA as activities will be short-term and personnel will be transported to the MLA daily from the other camps.

The transportation and storage of equipment, fuel, and materials during SPW is essential to the development the Project as it will allow Sabina to progress into timely construction of the Project. These temporary and/or seasonal components would also support advanced exploration and environmental baseline activities in the area and improve safety and environmental protection.



LEGEND:

- PROPOSED CULVERT CROSSING
- INFRASTRUCTURE / ACCESS ROAD
- WINTER ROAD
- REALIGNMENT BERM
- CONTOUR
- RIVER/STREAM/DRAINAGE
- WATER
- QUARRY PERMIT BOUNDARY (KTP11Q001)
- EXISTING AIRSTRIP
- EXTENDED AIRSTRIP
- EXISTING QUARRY
- UMWELT QUARRY
- PROPOSED UMWELT QUARRY PERMIT BOUNDARY
- QUARRY DEVELOPMENT

NOTES:

1. COORDINATE GRID IS UTM (NAD83) ZONE 13.
2. LIDAR / TOPOGRAPHY BASED ON INFORMATION PROVIDED BY SABINA GOLD AND SILVER CORP., DATED NOVEMBER 9, 2012.
3. CONTOUR INTERVAL IS 5 METRES.
4. APPROXIMATE WATERBODIES FROM NTS MAPPING.

REV	DATE	DESCRIPTION	DESIGNED	DRAWN	CHK'D	APP'D
0	06OCT'14	ISSUED WITH REPORT	RAC	SWK	RAC	RAC

SABINA GOLD & SILVER CORP.

BACK RIVER PROJECT

GOOSE PROPERTY SITE PREPARATION PLAN

Knight Piésold CONSULTING

P/A NO. NB101-517/6

REF NO. 2

FIGURE 1.2

REV 0

SAVED: I:\1\101\00517\06A\GIS\Figs\A01_r0.mxd, Oct 08, 2014 4:08 PM, skozmick

1.2 PROPONENT INFORMATION

1.2.1 Sabina's Contact Information

Sabina's corporate office is located at the following:

Sabina Gold & Silver Corporation
#202 - 930 West 1st Street
North Vancouver, BC Canada V7P 3N4
Tel: (604) 998-4175
Fax: (604) 998-1051
Toll Free: (888) 648-4218

1.2.2 Sabina's Environmental Policy

The following is Sabina's Environmental Policy (Sabina, 2013):

"Sabina takes its responsibility to act as a steward of the environment seriously.

To fulfill this responsibility, Sabina strives to:

- *Ensure that we design our activities and operate in compliance with all environmental regulations to minimize our impact on the environment.*
- *Promote responsibility and accountability of managers, employees and contractors to protect the environment and make environmental performance an essential part of the management/contractor review process.*
- *Provide resources, personnel and training to enable management, employees and contractors to implement programs and policies to protect the environment.*
- *Communicate openly with employees, contractors, local stakeholders and government on our environmental protection and sustainability programs and performance. We will also address any concerns pertaining to potential hazards and impacts.*
- *Promote the development and implementation of systems and technologies to reduce environmental risks.*
- *Establish and maintain appropriate emergency response plans for all activities and facilities.*
- *Maintain a self-monitoring program at each facility to ensure compliance and to proactively address plans to correct potential deficiencies.*
- Work cooperatively with government agencies, local communities and contractors to develop and enhance systems and technologies to improve environmental and sustainability practices.
- Encourage all employees, contractors or stakeholders to report to management any known or suspected departures from this policy or its related procedures."

1.3 HISTORY OF THE SITE

The Project comprises 45 Federal Mineral Leases and 16 Federal Mining Claims covering approximately 52,014 ha. The Property is divided into two projects: Goose and George, and four exploration prospects: Boot, Boulder, Del, and Bath.

There have been a number of owners from the start of exploration activities in 1982. Most recently, Dundee Precious Metals (Dundee) owned the Project from 2005 until it was purchased by Sabina in 2009. Periods of intensive exploration were undertaken from 1987 to 1992 by Homestake Mineral Development (Homestake), in 1997 by AuRico Gold Inc. (AuRico), and almost continuously from 1999 to the present by Kinross Gold Corp. (Kinross), Miramar Mining Corp. (Miramar; since acquired by Newmont Mining Corp., Newmont), and Dundee. There has been no production from any of the deposits associated with the Project.

1.4 SITE CONDITION CONSIDERATIONS

1.4.1 Social Conditions

The Project is located in a remote area in Nunavut with virtually no development and very little human disturbance, aside from various mineral exploration campaigns conducted since 1982. These campaigns are discussed in Section 1.3.

1.4.2 Permafrost

The Project is located in an area of continuous permafrost that extends to a depth of between 400 and 500 mbgs (SRK, 2012). Beneath the permafrost, the regional groundwater is suspected to be saline.

1.4.3 Geochemical Characterization of Construction Materials

The SPW will involve the quarrying of rock from two quarries to produce aggregate for construction of roads, airstrips, etc. Geochemical evaluations were conducted to assess the suitability of the proposed quarry materials for construction.

Quarry A

Geochemical and physical characterization for the Goose property quarry was conducted by Rescan Environmental Services Ltd. (Rescan) in 2011. The results of the 2011 ARD/ML characterization program indicated that the gabbro material is predominately nPAG and can be used as construction material. The greywacke unit had two samples (out of 22 samples) that indicated not-acid potentially generating (nPAG) potential with the mean SNPR for all the samples being 15.8. The greywacke would be suitable to use as construction material in conjunction with the gabbro as incidental ARD generated by the greywacke could be neutralized by the gabbro.

Umwelt Quarry

A geochemistry evaluation was conducted by SRK in 2014 to identify waste rock within the Umwelt deposit with minimal acid rock generation / metal leaching (ARD/ML) potential that would be suitable to quarry and use as construction material.

Drawing from previous and recent geochemical work, SRK utilized geological modelling and visualization software to identify areas within the footprint of the future open pit that were predominantly greywacke and gabbro and set back from the banded iron formation (BIF) which hosts the gold within sulphide mineralization (including arsenopyrite, pyrite and pyrrhotite). The greywacke material removed from the gold mineralization is expected to have the lowest ARD/ML potential. Two areas were identified, geochemical samples from or representative of these areas were reviewed.

Review of the representative geochemical testing results indicated that material from parts of the upper greywacke in the Umwelt pit were classified as nPAG, as having an uncertain potential for ARD,

or as low sulphur material with a limited potential for ARD. Based on the relatively low sulphide content, it is unlikely that any of these materials would be unlikely to generate appreciable amounts of acidity. Based on low solid phase arsenic concentrations, metal leaching is unlikely to be an issue. For these reasons, the identified materials were considered suitable for use in construction. Sabina will limit quarrying operations within these areas.

1.5 REGULATORY CONTEXT

1.5.1 Current Permits and Approvals

Table 1.1 lists the current permits and approvals that govern activities at the Project. Surface rights for IOL are vested in the Kitikmeot Inuit Association (KIA) which administers the access and management of the lands for the benefit of the Inuit of that region. Access to and use of surface lands requires an Inuit Land Use permit, licence, or commercial lease issued by the KIA. The Goose and George properties are mostly located on surface and subsurface IOL.

Table 1.1 Summary of Current Exploration Permits

Permit No.	Expiry	Agency	Description
N2011F0029	2013-12-13	AANDC	Winter Road connecting Goose-George-Wishbone
N2010F0017	2013-09-16	AANDC	Winter Road Bathurst Inlet - Back River Project
N2009F0015	2013-03-01	AANDC	Winter road connecting Hackett and George Camps
KTL304F049 - Amended	2013-12-13	KIA	Winter Road Bathurst Inlet - Back River Project
KTL304F012	2013-12-13	KIA	Winter road connecting Hackett and George Camps
N2010C0016	2013-10-31	AANDC	Exploration activities
KTL304C017 - Amended	2013-12-13	KIA	Staking/prospecting, exploration (ground/air geophysics), drilling, bulk sampling, bulk fuel storage, camp, winter road, all-weather airstrip and road (Goose)
KTL204C012 - Amended	2013-12-13	KIA	Staking/prospecting, exploration (ground/air geophysics), geophysical survey, gridding and drilling (Boulder)
KTL304C018 - Amended	2013-12-13	KIA	Staking/prospecting, exploration (ground/air geophysics), drilling, bulk sampling, bulk fuel storage, camp, winter road (George)
KTL204C020 - Amended	2013-12-13	KIA	Exploration (air/ground geophysics), staking, prospecting, fly/survival camp and drilling (Boot)
2BE-GEO1015	2015-06-15	NWB	Water use and waste disposal for exploration and clean-up activities (175 m^3/d max)
2BE-GOO1015	2015-03-31	NWB	Industrial water use and waste disposal, bulk sample and exploration (297 m^3/d max)
KTP11Q001	2013-12-13	KIA	Goose rock quarry
KTP12Q001	2013-12-13	KIA	Goose airstrip borrow quarry
KTP12Q002	2013-12-13	KIA	George borrow quarry

As of March 31, 2013.

Surface rights on Crown Land are vested in the federal government and in the Aboriginal Affairs and Northern Development Canada (AANDC; formerly Indian and Northern Affairs Canada, INAC). Access to and use of these surface lands requires a land use permit, license or commercial lease issued by the AANDC.

Use of water resources as well as waste disposal in Nunavut is regulated by the Nunavut Water Board (NWB). Sabina's A&R Plan for SPW will require approval under a new Type B Water Licence, pursuant to the *Nunavut Waters Act*.

1.5.2 Legislation Applicable to Abandonment and Restoration

The following legislation is applicable to abandonment and restoration of projects in Nunavut.

Federal Legislation

- *Nunavut Land Claim Agreement* (NLCA; Canada, 1993);
- *Territorial Lands Act* (Canada, 1985c) and Regulations (Canada, n.d.);
- *Nunavut Waters and Nunavut Surface Rights Tribunal Act* (Canada, 2002) and Regulations (Canada, 2002);
- *Fisheries Act* (Canada, 1985b) and applicable regulations;

- *Arctic Waters Pollution Prevention Act* (Canada, 1985a) and Regulations (Canada, n.d.); and
- *Transportation of Dangerous Goods Act* (Canada, 1992) and Regulations (Canada, 2001).

Territorial (Nunavut) Legislation

- *Environmental Protection Act* (Nunavut, 1988a) and Regulations*;*
- *Environmental Rights Act* (Nunavut, 1988b) and Regulations*; and*
- *Mine Health and Safety Act* (Nunavut, 1994) and Regulations (Nunavut, 1995).

An important element of closure planning in Nunavut is the establishment of closure costs, or an assessment of the potential liabilities on the properties. For projects of sufficient size with considerable environmental risk, financial security may be required. When required, financial security may be posted to the AANDC for water-related closure costs and to the landowner(s) for land-based reclamation activities.

The majority of the Project, including the MLA, Goose and George sites, is located on either surface rights or surface and subsurface rights IOL administered by the KIA. A portion of the connecting winter road is located on Crown Land.

1.5.3 Permits and Approvals Required for Site Preparation Activities

Similar to the exploration, a number of permits and authorizations will be required for SPW. These permits are identified in Table 1.2.

Table 1.2 Permits and Approvals Required for Site Preparation Activities

Permit / Approval Legislation	Administering Agency
FEDERAL	
Positive Screening Decision under Part 4 of Article 4; no review required Nunavut Land Claims Agreement (Article 12)	Nunavut Impact Review Board
Water Licence Nunavut Land Claims Agreement (Article 13) *Nunavut Waters and Nunavut Surface Rights Tribunal Act* Northwest Territories Water Regulations	Nunavut Water Board
Inuit Owned Land - Commercial Land Use Lease Nunavut Land Claims Agreement	Kitikmeot Inuit Association
Inuit Owned Land - Quarry Permit Agreements Nunavut Land Claims Agreement	Kitikmeot Inuit Association
Crown Land - Class A Land Use Permit(s) *Territorial Lands Act* Territorial Land Use Regulations	Aboriginal Affairs and Northern Development Canada
Approval and/or Exemption *Navigable Waters Protection Act*	Transport Canada
Fisheries Authorization for Harmful Alteration Disruption or Destruction (HADD) of Fish or Fish Habitat *Fisheries Act*, Section 35(2)	Department of Fisheries and Oceans
License for a Factory and Magazine *Explosives Act* and Regulations	Natural Resources Canada
TERRITORIAL	
Permit to Store Detonators *Explosives Use Act*	Mine Health and Safety, Workers

Permit / Approval Legislation	Administering Agency
Mine Health and Safety Act and Regulations	Compensation Board
Explosive Use Permit *Explosives Use Act* *Mine Health and Safety Act and Regulations*	Mine Health and Safety, Workers Compensation Board
Spill Contingency Plan Approval *Environmental Protection Act* *Spill Contingency Planning and Reporting Regulations*	Department of Environment

1.5.4 Applicable Guidelines

This Abandonment & Restoration Plan adopts the guidance available for mine closure in Nunavut, as follows:

- Mine Site Reclamation Policy for Nunavut (AANDC, 2002); and
- Mine Site Reclamation Guidelines for the Northwest Territories (AANDC, 2007).

1.5.5 Environmental Assessment Requirements

This Abandonment & Restoration Plan for SPW accompanies a permitting package for the SPW Project. The SPW is expected to undergo an environmental screening by NIRB, seeking an exemption or exception from review.

Following successful environmental screening, Sabina will seek the necessary permits (new permits and/or amendments) to be able to execute the program.

1.6 CLOSURE SCENARIOS FOR SITE PREPARATION WORK

Scenario 1: SPW Progresses Directly Into Mine Development

Sabina`s intent is to progresses directly into mine development shortly following the SPW. This means that the overall Project permitting process is completed during the SPW and there is no or a known, finite, negligible/insignificant period of time between the SPW and mine development. Under this scenario, no closure and reclamation activities related to SPW are required; this scenario would null and void this Plan, and all closure and reclamation activities will be completed as per a future MCRP approved under Sabina`s Type A Water Licence.

Scenario 2: Delay Between SPW and Mine Development

This scenario assumes an unspecified period of time between completion of the SPW and mine development. Under normal circumstances, Sabina would continue to operate its camp seasonally with shut-down periods. The scale of the camp is such that full-time presence on-site is not required. Under this scenario, Sabina would have to relinquish control of the site. The landowner would need to conduct an initial site visit with a contractor to confirm site conditions and that there are no unnecessary risks to be addressed between the time of receivership and implementation of the abandonment and restoration measures the following summer (for example, unsecure explosives or fuel storage; an open camp exposed to the elements, etc.). The cost for such an initial visit has been included as an interim care and maintenance cost.

Scenario 3: No Mine Development

This scenario assumes that the Project will not progress into mine development as the Project is proposed by the end of the SPW. Under this scenario, there will be no mine development and the abandonment and restoration measures described in this document will be implemented.

1.7 CLOSURE OBJECTIVES AND CRITERIA

Closure Objectives

This A&R Plan is based on the objectives that follow.

Objective 1: Design for Closure

This involves identifying the processes and forces that may act upon the Project after closure and reclamation so that they can be factored into the Work. This includes adoption of the objectives outlined by AANDC (2007) as follows:

- Design and construct in such a way that they achieve, or can readily be modified to achieve, the reclamation objectives and closure criteria;
- Determine reclamation costs as part of the closure planning and provide adequate security to cover the cost of reclamation over the life of the mine to ensure the closure criteria can be met;
- Include reclamation planning in execution of the SPW. This planning will ensure that activities do not unnecessarily increase the amount of reclamation work or effectively compromise what might otherwise be promising reclamation activities, or that this A&R Plan is updated to reflect changed conditions on-site; and
- Incorporate progressive reclamation activities into SPW.

Objective 2: Achieve Physical Stability

Components that will remain after closure of SPW will be constructed or modified at closure to be physically stable so as to not erode, subside, or move from its intended location under natural extreme events or disruptive forces to which it may be subjected after closure. The objective of physical stability is to not pose a hazard to humans, wildlife, or environment health and safety.

Achieving physical stability includes establishing the conditions post-closure that allow for natural revegetation so that the land returns to productive use by wildlife. Active revegetation of the site as part of closure is not planned given the cold climate setting of the Project as well as the precedent established for closure in Nunavut.

Objective 3: Achieve Chemical Stability

The Project site, including wastes remaining after closure, will be chemically stable. Chemical constituents released from components should not endanger public, wildlife, or impact environmental health and safety. These constituents should not result in the inability to achieve the water quality objectives in the receiving environment and should not adversely affect long-term soil or air quality. If necessary, appropriate long-term management of ARD/ML materials and any affected waters will be considered.

Objective 4: Consider Future Use and Aesthetics

The site will be compatible with the surrounding lands once reclamation activities have been completed. Consideration of future use and aesthetics involves the following elements:

- Naturally occurring biophysical conditions, including any physical hazards of the area;
- Characteristics of the surrounding landscape;
- Level of ecological productivity and diversity prior to mine development and intended level of ecological productivity and diversity for post-closure;
- Local community values and culturally significant or unique attributes of the land; and
- Level and scale of environmental impact.

Criteria

Thresholds will be identified in the environmental screening document and relevant management plans prepared for the SPW. Where these thresholds conflict with any discharge limits specified in the applicable water licences, the latter will govern.

1.8 FUTURE ITERATIONS OF THIS PLAN

The SPW is a short-term program and therefore future iterations of this plan are unlikely, unless activities that occur on site differ substantially from the activities contemplated in this plan. Future updates to the Plan will reflect project modifications, provide additional details and closure costs, and account for potential changes in technology, standards or legislation.

1.9 APPROACH TO INCLUSION OF COMMUNITY VALUES

Sabina will consider incorporating feedback from the communities or the regional Inuit association on this A&R Plan during the public comment period associated with the environmental screening by the NIRB.

2. Progressive Reclamation

2.1 DEFINITION OF PROGRESSIVE RECLAMATION

Progressive reclamation is defined as the opportunistic reclamation activities completed during the operational phase of a project (AANDC, 2007). Progressive reclamation can increase efficiencies by utilizing available resources to conduct reclamation activities during the SPW. Progressive reclamation typically reduces the final closure costs as well as the duration of closure and reclamation activities.

2.2 CANDIDATE FACILITIES/AREAS AND RECLAMATION ACTIVITIES

Progressive reclamation efforts will be focused on any final earthworks opportunities that present themselves, including:

Quarries

- Establish partial or full safety berms or boulder fences around excavation areas;
- Install proper signage around excavation areas; and

- Stockpiling overburden and blasted rock in final locations with stable side slopes.

Buildings and Infrastructure

- As buildings and infrastructure become unnecessary, they can be removed and the sites will be reclaimed as much as practicable.

Contaminated Materials and Waste Disposal

- Materials (soil, snow, ice) that may become contaminated during SPW due to fuel or other spills can be cleaned up and even backhauled off-site immediately following the spill;
- Hazardous wastes will be shipped off-site periodically to minimize the amount of waste requiring removal at closure; and
- Any remaining explosives will be safely detonated on-site or removed from site at the conclusion of the program.

2.3 PROGRESSIVE RECLAMATION SCHEDULE

Progressive reclamation activities at the quarries can be completed as material becomes available to construct boulder fences and spillways.

Progressive reclamation measures will be considered successful if they are completed as described in this section and monitoring confirms that the completed work is physically and chemically stable (i.e., there are no signs of erosion or settlement, and downstream water quality meets criteria).

3. Permanent Closure and Reclamation

3.1 DECISION TO CLOSE

As stated in Section 1.6, closure will occur under the scenario where the mine will not progress into development as it is proposed at the end of the SPW. Whatever the conditions, the mine would not be expected to be economic or operate for the foreseeable future.

3.2 OVERVIEW AND SCHEDULE

Abandonment and restoration activities are expected to take two summer months to complete. Winter closure activities are not contemplated. This will be followed by two years of post-closure monitoring (two annual site visits during the summer period).

Industry standard reclamation methods will be employed to close out the sites. Hazardous materials will be collected for off-site disposal including hazardous components of vehicles and equipment (i.e., fuel tanks, gear boxes and hydraulic oil). Equipment stripped of hazardous components will be stored in quarry. Buildings will be demolished and disposed of in the same quarry. Culverts will be removed from roads and the natural drainage restored, but the roads will otherwise remain intact. The airstrip will remain functional with a gravel surface to support closure, post-closure monitoring, and future mineral exploration activities.

Equipment and materials will only be stored at the MLA and no site development will be undertaken. As such, the only closure required will be to re-load the equipment and materials on another southbound sealift.

3.3 QUARRIES AND BORROW AREAS

One or two quarries will be developed as part of the SPW. Up to 550,000 m^3 of rock will be excavated from either the existing airport quarry ("Quarry A") and/or a quarry developed within the footprint of the future Umwelt open pit (the "Umwelt Quarry"). The total volume quarried will be 550,000 m^3. A Quarry Management Plan has been developed describing how the quarries will be developed and closed.

Closure measures common to both quarries includes:

- Placement of safety berms or boulder fencing around the excavation perimeters (mostly completed during operations as progressive reclamation); and
- Removal of equipment and materials from within the excavation areas.

The existing airport quarry ("Quarry A") is a hillside excavation developed to be free-draining. The Umwelt quarry, if developed, will eventually flood to form a pond. The site-specific closure measures are described for each below.

Quarry A

The design of the quarry incorporates closure considerations. Sloping of the quarry floor will prevent the ponding of water. A safety berm was established along the highwall during quarrying activities in 2013. This safety berm will be extended as required during quarry expansion as a progressive reclamation measure or during final closure.

Any equipment, fuel and wastes will be removed. The quarry will be used for landfilling bulky, non-hazardous wastes at the conclusion of the program. In this instances, stockpiled rock and/or till overburden will be used to place a 1 m cover over landfilled materials. Overburden generated from development of Quarry A may be supplemented with overburden from the Umwelt Quarry.

Any remaining stockpiles will be inspected and re-contoured to ensure slopes are stable in the long term.

Umwelt Quarry

Once the desired volume of rock has been extracted from the quarry, it will be allowed to passively flood. Runoff from the stockpile located upgradient the quarry will be directed to the quarry. The overburden stockpile will be re-contoured as necessary to shed water. If necessary, a spillway on the low side of the quarry will be armoured with rip rap to reduce potential erosion. It is expected that the access ramp into the quarry will provide a suitable means of egress for any wildlife that may inadvertently enter the quarry.

The earthen diversion berm used to divert clean runoff away from the quarry and stockpile during operation will remain at closure to provide the necessary barrier to physical entry. This will be supplemented by a safety berm constructed around the perimeter of the quarry.

Borrow Area

A borrow pit is permitted under the exploration program for the extraction of minor volumes of sand and gravel. Limited extraction has occurred to date, and no meaningful extraction of sand and gravel is contemplated as part of the SPW. Closure of the borrow area will consist of re-grading as necessary so

that the area is free draining, slopes are stable and resistant to erosion, and the extraction area fits with the surrounding landscape.

3.4 OVERBURDEN STOCKPILES

Overburden stockpiles will be generated at each of the quarries. Abandonment and restoration measures are described in Section 3.3 as part of quarry closure.

3.5 BUILDINGS AND EQUIPMENT

3.5.1 Buildings

The current inventory of buildings at the Goose Property are a mix of canvas tents, Weatherhaven™ tents, larger fabric Quonsets, and wood buildings, as listed in Table 3.1. This building inventory will remain unchanged through the SPW.

Table 3.1 Building Inventory

Qty	Item	Area (m^2)
11	Sleeping tents	228.9
29	Sleeping tents (wood sides)	517.3
2	Sleeping cabin (emergency shack)	41.6
1	Sleeping complex/medic (bunkhouse)	148.6
2	TV tents (wood sides)	41.6
1	Emergency response tents (Fire and airport emergency response)	26.4
1	Core processing facility (core shack, saw room, sample dispatch)	423.6
1	Kitchen/dining hall/cold storage	74.3
1	Dry (men's/women's/water storage & treatment)	142.3
1	Driller's dry	69.7
1	Office complex	303.2
2	Generator shacks (main and auxiliary power)	41.6
1	Drillers' office (old)	29.7
1	Shop building (Helicopter contractor)	17.8
1	Tool crib and storage	78.0
1	Drill Contractor' s Shop Building (old)	35.7
1	Drill Contractor' s Shop Building (new)	163.5
1	Oil storage shed	11.1
2	Quonsets (2 lined shops with dirt floor)	334.5
1	Warehouse	353.0
1	Exercise building	41.6
1	Sauna	15.6
1	Environment Building (1 office and 1 storage)	72.8
1	Incinerator Building	44.6
1	Potable Water Pump Shack	0.8

All buildings will be disposed of in an on-site landfill created in Quarry A. The developed area of the camp will be re-graded and contoured to remove uneven ground for public safety, minimize the potential for erosion, and to blend with the surrounding landscape.

3.5.2 Fuel Storage

Up to thirteen (13) 75,000 L capacity fuel tanks and 6 portable tidy tanks currently at site will be used for the SPW with no additional fuel capacity added. The tanks are shown in the photo below (Figure 3.1).

Figure 3.1 Fuel Storage Facilities

Fuel tanks will be emptied of all residual fuel. An excavator will pierce and open a side of each tank so that any residual fuel can be carefully removed and the empty tank conditions documented. The tanks will be crushed and disposed of in the landfill. Absorbent materials used to collect residual fuel will be disposed of in the camp incinerator.

3.5.3 Equipment

An inventory of equipment to be at the Goose Property during the SPW is provided in Table 3.2.

Table 3.2 Equipment Inventory

Heavy Equipment Summary	No. Units	Heavy Equipment Summary (Cont'd)	No. Units
Loader (Cat 966H)	1	Grader (Cat 140M)	1
Dozer (Cat D6N)	1	Packer (Cat C563)	1
Mobile Crusher	1	Water Truck	1
Mobile Screener	1	Drill (Cat MD5075)	2
Crusher Jaw	1	Primary generator (500kW)	2
Fuel Truck	1	Auxiliary generator (400kW)	1
Skid-steers (Cat 289)	2	**Light Equipment Summary**	
Loader (Cat IT28)	1	Snowmobiles	31
Tele-handler	1	ATVs	2
Low bed trailers	2	Kubota skid-steer	1
Challenger (Cat 755B)	1	Aluminum boats and motors	8
Tractor / Trailer	1	Waste incinerator	1
Ford Pick-ups	3	**Other Items**	
Dozer (Cat D7)	2	Bermed fuel storage area	1
Excavator (Cat 320E)		Lined containment area (drums, salt)	1
Articulated Trucks (Cat 730C)	3	Jetty and floating dock (14' x 20')	1

Equipment will be disposed of in an on-site landfill after any hazardous material has been removed. This will involve draining engines, gear boxes and fuel tanks. Waste oil and fuel will be incinerated using a waste oil burner, or will be removed from site to an approved disposal facility.

3.5.4 Equipment and Materials at MLA

The MLA is currently undeveloped. As part of the SPW, equipment, fuel and consumables will be delivered by sealift and moved to a storage location. Minimal to no ground preparation will be carried out. The proposed equipment and materials to be delivered to the MLA as part of the SPW is listed in Table 3.3.

Table 3.3 Inventory of Equipment and Materials at MLA

Item	No. Units	Item	No. Units
Excavator (Cat 349F)	1	Water Truck	1
Articulated Trucks (Cat 740B)	2	Tractor / Trailer	1
Dozer (Cat D6T)	1	Truck (1-ton)	2
Grader (Cat 140M)	1	Generator (125 kW)	2
Drill (Cat MD5075)	1	Camp Modules	15
IT Loader (Cat 930K)	1	Double Wall Fuel Tanks (100,000 L)	6
Packer (Cat CS56B)	1	Fuel Berms (136,000 L capacity)	6
Crane (65RT)	1	Explosive Magazine (40ft)	1
Mobile Crusher	1	Explosive Magazine (20ft)	1

Mobile Screener	1	Steel for 10 ML Fuel Tank	1
Fuel Truck	1	Swamp Mats (8'x14')	300
Mechanic Truck	1	Portable Shop	1

Abandonment and restoration activities at the MLA involve a sealift going to the MLA to demobilize all equipment and materials.

3.6 ROADS AND AIRSTRIPS

Since the Back River Project is a promising project in the advanced exploration phase, it is expected that the Project will be developed at some point in the future if not in the near term as proposed by Sabina. As such, roads and an intact airstrip are important assets that can support future exploration or mine development at the Back River Project or nearby projects, provided that these features will be physically stable in the long-term.

Culverts will be removed from the access road and the natural drainage restored. The access road will otherwise remain intact to facilitate long-term site access. The airstrip at the Goose Property will remain intact. All equipment and materials will be removed.

3.7 PIPELINES AND POWER DISTRIBUTION LINES

Pipelines at the Goose Property will consist of the freshwater intake and grey water pipelines, and electrical wiring that is on surface or shallow buried. These features dismantled and disposed of in a landfill. There will be no overhead power lines or transformers.

3.8 WATER MANAGEMENT SYSTEMS

Ditches and berms related to the quarries will remain in place to continue to direct runoff to the identified receiving environment during the post-closure period (see Section 3.3). There will be no water management ponds associated with the SPW.

An important element of the SPW is construction of the Rascal Lake Outflow Stream Realignment. One of the Rascal Lake outflows currently intersects the extended airstrip footprint, and a realignment of the natural watercourse will be completed to divert the water to Gander Pond (Figure 1.1). The realignment will involve the construction of two berms at the locations shown on Figure 1.1. The realignment will remain into closure.

3.9 CHEMICALS AND EXPLOSIVES

Hazardous material will include: unused chemical reagents, unused explosives, unused fuel, used oil, used glycol, and the hazardous components of vehicles and related equipment (i.e., fuel tanks, gear boxes and hydraulic oil). All hazardous materials will be removed from the site and transported to a licensed facility for disposal.

3.10 CONTAMINATED SOIL

Soil found to exceed applicable Nunavut Site Remediation criteria will be excavated, placed into tote bags, and transported off-site for disposal at a licensed disposal facility.

3.11 ABANDONMENT AND RESTORATION SCHEDULE

The schedule for active closure of the SPW is expected to take up to two months, with the work completed during the summer months. A close-out inspection will be conducted with land and water

inspectors at the conclusion of the reclamation program, and summer site visits will be conducted for two years following, to confirm that reclamation objectives have been met.

3.12 EXPECTED CONDITIONS POST-CLOSURE

The final landscape at the Goose Property and MLA is expected to consist of a disturbed Project footprint that is physically and chemically stable in the long term.

At the Goose Property, the airstrip and access road will remain intact, and the Rascal Lake outflow stream realignment will also remain. There will be evidence of a previous camp where the ground surface has been disturbed. Quarry A will have been partially backfilled with equipment and materials as a landfill, with an earthen cover, and the Umwelt Quarry will consist of a partially filled to filled pond. Runoff from the adjacent overburden stockpile will be reporting to the quarry pond.

At the MLA, there will likely be some evidence of ground disturbance where materials and equipment were stored and transported between the barge and the laydown area.

3.13 POST-RECLAMATION RISKS TO HUMAN AND ENVIRONMENTAL HEALTH

The activities associated with the SPW are limited mainly to earthworks. No chemically reactive rock is expected to be exposed and physical hazards will have bene mitigated through the use of safety berms and covers. As such, the post-reclamation risks to human and environmental health are expected to be minimal.

4. Monitoring

Monitoring will be carried out during abandonment and restoration activities to confirm that:

- Abandonment and restoration activities are being undertaken as identified in the Plan;
- Embankments, stockpiles, and other structures are physically stable; and
- Water quality being discharged from quarries all meet water quality objectives.

Post-closure monitoring is expected to be required for two years after departure from site. A site visit will be conducted by a geotechnical engineer and qualified environmental professional once each summer, likely accompanied by the land and/or water inspector if available. The geotechnical engineer will inspect the physical stability of embankments, stockpiles, excavation walls, and other areas. The environmental professional will collect water quality samples at water licence monitoring locations. A site inspection report will present the results of inspections and sampling, and supported by a detailed photographic log, will document site conditions. The report will be filed with the landowners and the Nunavut Water Board.

4.1 ADAPTIVE MANAGEMENT

Adaptive management will be undertaken as appropriate. This may include:

- Modifying the content of this A&R Plan to reflect unexpected conditions, or proposed changes in the closure approach based on new information. Prior to implementing the A&R Plan, such changes would appear in an updated document. During abandonment and restoration activities, any changes would be discussed with the land owner and water inspector, with follow up in writing; and

- Conducting additional post-closure monitoring or implementing further mitigation measures, if required.

5. Estimated Closure and Reclamation Costs

The estimated liability of the SPW, inclusive of all current liabilities at the Goose Property, is $2,354,950. Table 5.1 provides a breakdown of the costs, with a detailed cost breakdown provided in Appendix A.

AANDC's RECLAIM model, Version 7 (dated March 26, 2014) was used to establish the costs to execute this A&R Plan. Where available, Sabina's actual costs based on operation of its exploration camps or contractor quotes for the SPW program were used and adjusted to represent third-party costs. Where site-specific costs were not available, the unit rates in the RECLAIM model were applied.

The assumptions upon which the cost estimate was prepared are listed below.

- All work will be completed by a third-party contractor
- All reclamation work will occur during the summer months; it is estimated that 2 months will be sufficient time to complete all the works.
- The camp will not require continuous attendance by care and maintenance staff, since the camp is currently fully shut down in the off-seasons. An allowance has been made for the third-party to visit and inspect the site to ensure that the camp is found in a secure state in advance of an upcoming summer reclamation program.
- The existing camp will be in usable condition to house the reclamation crew
- The heavy equipment on-site will be unusable, and will be decontaminated and landfilled at site
- The following equipment will be mobilized to site to complete reclamation work:
    - CAT 320 excavator (1)
    - Tandem dump truck (3)
    - CAT D6 Dozer (1)
    - CAT 930 Loader (1)
    - Pickup Truck (2)
    - Minor tools and equipment and truck tires
- Equipment will be mobilized and demobilized from site using 5 trips each way with a Hercules aircraft
- An estimated 100,000 L of fuel (combined diesel and Jet A fuel) will be left at site and will be unusable, requiring disposal. Fuel will be removed from site by Hercules aircraft (5 flights) and will require paid disposal in Yellowknife.
- A total of 75,000 L of fuel required to operate mobile equipment and the camp during the 2-month summer will be airlifted to site from Yellowknife (4 flights)

- Since explosives will be delivered to site by air approximately every 5 days, one delivery of explosives is the maximum on-site requiring disposal;
- Both quarries are fully developed and require closure;
- The extended airstrip is capable of landing Hercules aircraft;
- All bulky non-hazardous wastes to be landfilled in a quarry, and only hazardous waste is removed from site (including used engine oil, hydraulic oil, gear oil, and antifreeze) for disposal in a licenced facility;
- The airstrip will be left intact to facilitate closure, post-closure monitoring, and future exploration and mine development activities;
- The access road will be left intact but culverts will be removed; and
- Two years of post-closure monitoring will be completed, with a site inspection conducted by a Geotechnical Engineer and an Environmental Technician/Scientist each summer.