Schedule A

KSM PROJECT

CERTIFIED PROJECT DESCRIPTION

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ACRONYMS, ABBREVIATIONS AND DEFINITIONS

Application	Seabridge Gold Inc.'s Application for an Environmental Assessment Certificate
AEMP	Aquatic Effects Monitoring Plan
BC	British Columbia
CCAR	Coulter Creek access road
CCME	Canadian Council of Ministers of the Environment
CIL	Carbon-in-leach
Closure	The decommissioning and reclamation of Project components that are no longer required
Construction	Tree clearing or ground disturbance related to the building of new Project components
COPC	Contaminents/ chemicals of Potential Concern
EAC	Environmental Assessment Certificate
EAC Holder	The owner of the KSM Project
EPA	Environmental Protection Agency
FLNR	Ministry of Forests, Lands and Natural Resource Operations
GMMP	Groundwater Monitoring and Mitigation Plan
HDS	High Density Sludge
HHMP	Human Health Monitoring Plan
km	Kilometre(s)
m^3	Cubic metre
m^3/s	Cubic metre per second
MDT	Mitchell Diversion Tunnels
MEM	Ministry of Energy and Mines
MOE	Ministry of Environment
MTDT	McTagg Twinned Diversion Tunnels
MTT	Mitchell-Treaty Twinned Tunnels
OPC	Ore Preparation Complex

Operation	Mining and processing of ore to produce concentrate for sale
Post-closure	The shutdown of the Project
Project	The KSM Project
PTMA	Processing and Tailing Management Area
QA/QC	Quality Assurance/ Quality Control
RSF	Rock Storage Facility
Se	Selenium
SeMP	Selenium Management Plan
SMP	Salmon Monitoring Plan
TCAR	Treaty Creek Access Road
TMF	Tailings Management Facility
VC	Valued Component
WEMP	Wildlife Effects Monitoring Plan
WMP	Water Management Plan
WSD	Water Storage Dam
WSF	Water Storage Facility
WTP	Mine Site Water Treatment Plant

1 Project Location

The Project is located 65 kilometres (km) northwest of Stewart, BC, and 30 km northeast of the BC/Alaska border (Figure 1), at 56.52 degrees north latitude and 130.25 degrees west longitude.

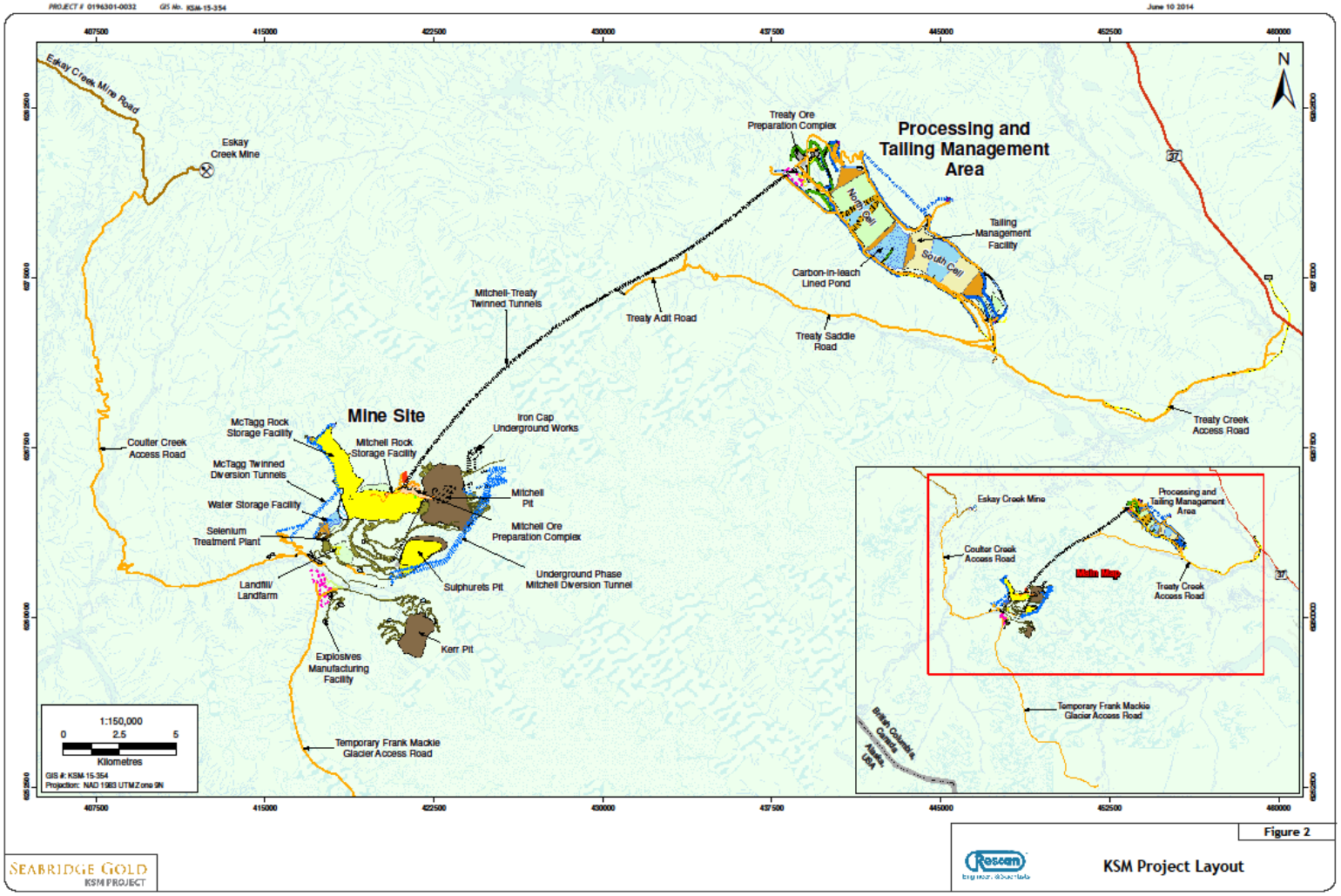
Figure 1. Location of the KSM Project

KSM-16-072



Figure 2. KSM Project Layout

KSM-0028-020



2 Mine Plan

The Project is a gold/copper/silver/molybdenum mine. The Project will produce up to 130,000 tonnes of ore per day over a mine life of no more than 52 years.

The mine site is located in the Sulphurets watershed and the Processing and Tailing Management Area (PTMA) is located in the Treaty and Teigen creek watersheds. A maximum of four deposits will be mined: Mitchell, Sulphurets, Kerr and Iron Cap. Ore will be crushed at the mine site and conveyed through the Mitchell-Treaty Twinned Tunnels (MTT) to the PTMA for processing.

Figure 2 shows the layout of the Project.

3 Mine Site Facilities

3.1 Mitchell Pit and Underground Mine

The Mitchell Pit will be located in the Mitchell Creek Valley, downstream of the Mitchell Glacier. The Mitchell deposit will be mined by open pit and underground block cave mining methods.

3.2 Sulphurets Pit

The Sulphurets Pit will be located between the Mitchell and Sulphurets Creek valleys. The Sulphurets Pit will be mined by open pit methods.

3.3 Kerr Pit

The Kerr Pit will be located south of Sulphurets Lake and west of Sulphurets Glacier. The Kerr deposit will be mined by open pit methods.

3.4 Iron Cap Underground Mine

The Iron Cap deposit will be located north of the Mitchell Pit. The Iron Cap deposit will be mined using underground block cave mining methods.

3.5 Mitchell and McTagg Rock Storage Facilities

Waste rock that is generated from mining the Mitchell, Sulphurets and Iron Cap deposits will be stored in the Mitchell and McTagg rock storage facilities (RSF). Waste rock from the Kerr Pit will be backfilled into the mined-out Sulphurets Pit.

3.6 Mitchell Ore Preparation Complex

The Mitchell Ore Preparation Complex (OPC) will include facilities for rock crushing, coarse ore storage, fuel storage, as well as an electrical substation (Substation 2) and distribution network and support infrastructure. The portals of the Mitchell Treaty

Twinned Tunnels (MTT) and Mitchell underground access and conveyor adits will also be located at the OPC.

3.7 Explosives Manufacturing Facility

The explosives manufacturing facility will be located in the Ted Morris Creek Valley.

3.8 Mitchell Diversion Tunnels

The Mitchell Diversion Tunnels (MDT) and related inlet structures will divert non-contact flows from the Mitchell Glacier and surrounding areas located upstream of the Mitchell Pit and underground mine to the Sulphurets Creek drainage.

3.9 McTagg Twinned Diversion Tunnels

The McTagg Twinned Diversion Tunnels (MTDT) will divert non-contact water from the McTagg Creek Valley away from the McTagg RSF and other mine site facilities.

3.10 Mitchell-Treaty Twinned Tunnels

The MTT will consist of two parallel interconnected tunnels. The tunnels will be used to convey crushed ore, distribute power from the Treaty OPC (Substation 1) to the mine site (Substation 2), house communications infrastructure and transport fuel, bulk materials and personnel.

The MTT will slope downwards from the Treaty portal to the Mitchell portal, to allow tunnel seepage water to drain to the mine site.

3.11 Mitchell Pit Pipeline

Mitchell Pit drainage (water piped from dewatering wells, water pumped from the base of the pit and water routed off the benches of the pit) reports to the portal of the Mitchell Valley Drainage Tunnel located on the western rim of Mitchell Pit. Drainage from this tunnel reports directly to the Water Storage Facility (WSF).

3.12 Kerr Pit Pipeline

The Kerr Pit dewatering pipeline will be installed to convey the pit drainage from the Kerr Pit to the WSF or Selenium Treatment Plant. The Kerr Pit pipeline will have a leak detection system.

3.13 Iron Cap Pipeline

Drainage from Iron Cap will report via raise bores, to a series of tunnels and short connecting pipelines and ultimately discharges to the WSF.

3.14 Sulphurets Pit Pipeline

Initially Sulphurets Pit dewatering will be via pipeline to the Sulphurets ditch and WSF. When backfilling commences, drainage will be routed via pipeline to the Selenium

Treatment Plant. The Sulphurets Pit pipeline and ditch will have a leak detection system.

3.15 Water Storage Facility

The WSF will store the mine site contact water to attenuate seasonal flows and regulate the flow of water to the Water Treatment Plant (WTP) prior to release.

Non-contact runoff from the northwest valley slope above the WSF will be intercepted by the WSF bypass buried pipeline. Runoff from the southeast valley slope will be intercepted by the southeast WSF diversion. Both diversions will discharge to Mitchell Creek below the Water Storage Dam (WSD).

The WSD will be designed to resist the maximum credible earthquake and will include a freeboard allowance to manage any wave action caused by avalanches without overtopping. Seepage from the WSD will be collected by seepage interception tunnels and in a seepage recovery pond, impounded by a seepage dam located downstream of the WSD.

During the Project's operation, closure and post-closure phases, the WSF will store for treatment in the WTP all contact water received from upstream mine site facilities, including the RSFs, the ore stockpiles, the open pit and underground mine workings and the drainage from the MTT. The WSF will continue collecting contact water during the closure and post-closure phases.

3.16 Water Treatment Plant

The WTP will treat contact water discharged from the WSF, using a high density sludge (HDS) lime water treatment process. Contact water from both the dewatering of the Mitchell underground block cave mine and the WSD seepage pond will also be treated at the WTP. The WTP will be designed with the capacity to treat up to 7.5 m^3/second.

3.17 Selenium Treatment Plant

Concentrated seepage from the Mitchell and McTagg RSFs will be collected and pumped to the Selenium Treatment Plant. Runoff from Kerr Pit waste rock that has been backfilled into the Sulphurets Pit, and drainage from the Kerr Pit, if elevated with selenium, will also be treated. Effluent from the Selenium Treatment Plant will report to the WSF for final treatment through the HDS WTP.

3.18 Ore Stockpiles

A temporary ore stockpile will be located between the Mitchell Pit and the Mitchell OPC to receive run-of-mine Mitchell Pit ore and a long-term run-of-mine ore stockpile will be located along the northern margin of the Mitchell RSF.

3.19 Substation 2

Substation 2, located at the Mitchell OPC, will be supplied with power from cables routed through the MTT from Substation 1 (located at the PTMA). At Substation 2, power will be stepped down for local distribution to mine site facilities.

3.20 Small-Scale Hydroelectric Power Facilities

Up to three small-scale hydroelectric projects will generate supplementary power for the Project via diversion of water through the MDT, the MTDT, and discharge of water from the WSF to the WTP.

3.21 Sludge Storage

During construction, sludge will be stored in a secure sludge landfill area and a winter sludge storage building during construction. During the operation phase, sludge from the mine site WTP will be dewatered, trucked to the Mitchell OPC, and transported via the MTT to the Process Plant, and eventually stored in the Tailing Management Facility (TMF). At closure, the sludge will be stored in a secure landfill facility located on top of the McTagg and Mitchell RSFs.

3.22 Other Mine Site Facilities

Permanent avalanche mitigation structures will be constructed in locations around the mine site to protect infrastructure as detailed in the Avalanche Management Plan. There will also be areas for snow storage. Borrow areas and quarries for construction materials at the mine site will be located within the WSF footprint, adjacent to the WSD. Stockpiled soils for future reclamation purposes will be maintained south of Sulphurets Creek and east of Ted Morris Creek.

A landfarm/landfill complex will be located adjacent to the Mitchell Operating Camp east of the Truck Shop to manage non-hazardous waste at the mine site. The landfarm will accept contaminated soils from spill clean-ups and leaks, while the landfill will be used to dispose of inert, dry industrial, and forestry waste. The landfarm will also include an area for storage of contaminated snow from mine site winter snow removal activities. Non-contact water will be diverted around the landfill site. Runoff from the landfill will be managed with other contact water.

4 Processing and Tailing Management Area Facilities

4.1 Treaty Ore Preparation Complex

The Treaty OPC will process mill feed at an annual average production rate of 130,000 tonnes per day.

Water supply for the Treaty OPC will be provided by a fresh water system, a process water reclaim system for grinding/flotation circuits, and a process water system for carbon-in-leach (CIL)/gold recovery circuits. Fresh and potable water for the Treaty OPC will be supplied from nearby wells and local drainage runoff areas to an elevated storage tank. Water for the grinding/flotation circuits and the CIL leaching/gold recovery will be sourced from water reclaimed primarily from flotation.

4.2 Tailing Management Facility

The TMF will be designed to store 2.3 billion tonnes of tailing.

The TMF water management system will include three tailing cells and four containment dams, as well as seepage dams and ponds and surrounding non-contact water diversions, reclaim water barge and pipeline, and excess water pipeline to Treaty Creek. The TMF tailing cells and containment dams are described below:

- the initial North Cell will be contained by the North and Splitter dams;
- the CIL Residue Cell (also known as the Centre Cell) will be contained by the Splitter and Saddle dams; and
- the South Cell will be contained by the Saddle and Southeast dams.

The North and South cells will store desulphurdized or not potentially acid-generating rougher flotation tailing. The Centre Cell will store treated sulphide-rich cleaner or potentially acid generating tailing, and will be lined with a geomembrane liner.

During operation, the cleaner tailing in the Centre Cell will be kept flooded with supernatant to prevent oxidation of sulphide minerals. Surplus water from the Centre Cell will be routed through the Treaty OPC prior to discharge into either the North or South Cell. Management of surplus water during operation of both the North and South cells will use a combination of storage and pumped discharge via a pipeline to Treaty Creek. The TMF discharge to Treaty Creek will be staged to mimic stream flows in Treaty Creek in order to meet condition 8. The in stream discharge will be released through a diffuser.

The TMF cells will be designed with enough freeboard to store all water inputs during the Probable Maximum Flood as defined in the Application without discharge to the receiving environment. Seepage and runoff water from the tailing dams that does not

meet *Environmental Management Act* permit discharge requirements will be collected by downstream seepage collection dams and pumped back to the TMF. The seepage ponds located upstream of the main seepage collection dam will be used as sumps during the construction of the TMF such that turbid water is directed to these facilities and allowed to settle prior to discharge to the environment. Water discharge from these sumps must meet the Ministry of Environment (MOE) requirements for turbidity.

4.3 Non-contact Water Diversions

The Northeast Diversion and the South Diversion channels will be constructed around the TMF North Cell to channel non-contact runoff from surrounding valley slopes to South Teigen Creek.

Once the South Cell is in operation, non-contact water from TMF valley slopes will be diverted by the Southeast Diversion Channel, which will route non-contact flows around the east side of the South Cell to Treaty Creek.

Two diversion inlet dams will be installed in the East Catchment to divert flows into South Teigen Creek.

4.4 Small-Scale Hydroelectric Power Facilities

Electrical energy will be generated from the tailing flow from the Process Plant to the North Cell and/or South Cell.

4.5 Other Process and Tailing Management Area Facilities

A second landfarm/landfill complex will be located at the PTMA. The landfarm will accept contaminated soils and materials from the Project. Rock quarries to source construction material may also be located in the vicinity of the PTMA.

5 Access Roads

5.1.1 Coulter Creek Access Road (CCAR)

The mine site will be accessed by a new resource road, the CCAR, which will extend from the existing Eskay Creek Mine Road southwards to the mine site. The CCAR will commence at kilometre 55 of the Eskay Creek Mine Road.

5.1.2 Treaty Creek Access Road (TCAR)

The PTMA will be accessed by a new resource road, the TCAR. The TCAR will leave Highway 37, cross over the Bell Irving River and will run along the Treaty Creek Valley to the PTMA.

5.1.3 Other Roads

The North Treaty lower and upper roads will be built to the same standards as the TCAR. The Southwest Diversion maintenance, Treaty Saddle and Treaty Spur roads will be single-lane roads.

5.1.4 Temporary Frank Mackie Glacier Access Route

During construction, the Frank Mackie Glacier access route will provide temporary, winter-only access to the mine site. The route will run northwards from a point close to the abandoned Granduc Mine mill site, access the Frank Mackie Glacier from the Berendon Glacier, and then proceed up and over into the Ted Morris Creek Valley. The route will be decommissioned by the end of the construction phase.

6 Electrical Power Supply and Distribution

The main supply of power for the Project will come from a switching station located near the junction of the TCAR and Highway 37. The switching station would be constructed, owned and operated by BC Hydro. A 28.5 km transmission line will parallel the TCAR from the switching station to the PTMA.

Power cables routed through the MTT from the PTMA will provide power to the mine site.

Until the transmission line along the TCAR is operational, mobile diesel generators will supply construction power for tunnel driving and other construction activities.

7 Project Construction

Early construction activities will focus on the CCAR, TCAR, MTT and water management, as well as prestripping of the Mitchell and Sulphurets pits, and establishing waste rock and ore storage areas.

Early construction water management activities at the mine site will include construction of the WSD, WTP (first phase), and related sludge management facilities, temporary water treatment facilities at tunnel portals and other key locations, fresh and contact water diversions, and the MDT and MTDT. Diversion structures will be constructed around the Treaty OPC and key TMF construction areas. Once diversions are in place, the Mitchell and Teigen starter dams would be established and tailing distribution and reclaim water pipelines would be installed.

Avalanche control systems will be established early during construction and will operate as required for the life of the Project.

Work on the PTMA will include construction of the Treaty Process Plant and related support infrastructure, including but not limited to administration buildings, camp and

fuel storage. Once diversions are in place, the starter dams for the North, Saddle, and Splitter dams will commence. Seepage control dams will be established and tailing distribution and reclaim water pipelines will be installed.

8 Project Operation

8.1 Water Management

Water management facilities will be constructed and maintained at the mine site throughout the life of the Project to divert fresh (non-contact) water around and away from disturbed areas, and to collect water that has been in contact with disturbed areas (contact water) for treatment (where required by the *Environmental Management Act* permit) prior to release into the receiving environment (as described in section 10.8, Water Management Plan).

Non-contact water management infrastructure will include:

- diversions around TMF;
- East Creek Diversion;
- Mitchell-McTagg RSF diversions;
- MDT;
- MDTD;
- Mitchell Pit diversions and dewatering adits; and
- Sulphurets Pit diversions.

Contact water management infrastructure will include:

- discharge pipeline from TMF to Treaty Creek;
- discharge pipeline from the WSF WTP to Sulphurets Creek;
- seepage collection dams for North and South cells;
- WSF and seepage collection dam;
- Sulphurets backfill collection sumps, pipelines and ditches;
- Kerr pit pipeline; and
- Iron Cap collection sump.

8.2 Transportation

8.2.1 Concentrate

Copper-gold concentrate will be covered and trucked to the Stewart Bulk Terminals port facility in Stewart, BC and molybdenum concentrate will be covered and trucked to the Prince Rupert port. Transportation will be carried out using highway-approved trucks, operating up to 24 hours per day. Trucks will be capable of carrying 30 to 50 tonne loads or as otherwise regulated by the Ministry of Transportation and Infrastructure.

9 Closure and Post-Closure

9.1 Mitchell Pit and Underground Mine

When Mitchell underground mining ceases, the closure dam will be completed on the west side of the pit to allow for controlled pit lake discharge. The crest of the closure dam will be constructed with sufficient freeboard allowance to manage wave action caused by avalanches.

9.2 Sulphurets Pit

Following completion of Sulphurets Pit mining, the mined out Sulphurets Pit will be backfilled with waste rock from the Kerr Pit. The backfill will be constructed from the bottom up with the outer edge of each bench lined with a synthetic liner to provide a barrier to downward movement of water within the backfill once the backfilling operation is complete. All drainage in contact with the Kerr Pit waste rock will be collected and routed via a pipeline to the Selenium Treatment Plant and WTP.

9.3 Kerr Pit

Water management infrastructure for the Kerr Pit will be sized to accommodate and route the 200 year flood event from the initiation of mining at the Kerr Pit.

9.4 Iron Cap Underground Mine

Drainage from surface inflow and the Iron Cap underground works will drain into the Mitchell Pit north wall dewatering adit. This water will flow to the Mitchell Valley Drainage Tunnel and into the WSF.

9.5 Mitchell and McTagg Rock Storage Facilities

The tops of the Mitchell and McTagg RSFs will be used to construct secure landfills to store sludge from the WTP.

9.6 Water Storage Facility and Water Treatment Plant

The WSF and the WTP will remain in service after mine closure to continue collecting and treating contact water during the post-closure phase.

During the closure and post-closure phases, the sludge generated by water treatment will be placed (during the summer months) on the top of the Mitchell and McTagg RSFs in a secured engineered landfill. During winter, the sludge will be temporarily stored in a sludge storage building located near the WTP until it can be placed in the permanent secure landfill during the following summer. A run-off collection channel will collect and route contact water from the landfills to the WSF.

9.7 Mitchell-Treaty Twinned Tunnel

During the closure and post-closure phases, the MTT will remain in operation to provide access to the mine site. All supplies for monitoring, and the maintenance and operation of the WTP (including lime) will be transported from the PTMA through the MTT to the mine site.

9.8 Tailing Management Facility

Once mining ceases, tailing in the Centre Cell will be sealed by a cover of rougher flotation tailing and flooded and remain flooded at all times thereafter. The TMF will be reclaimed to provide wildlife and wetland habitat as per the Closure and Reclamation Plan (section 10.12).

9.9 Coulter Creek Access Road

The CCAR will be decommissioned post-closure in accordance with applicable law and/or provincial guidelines in effect at the time of decommissioning.

9.10 Treaty Creek Access Road

The TCAR will remain gated and access will be limited to personnel involved in post-closure activities or where approved under the Traffic and Access Management Plan (section 10.6).

9.11 Small-Scale Hydroelectric Power Stations

With the exception of the energy recovery stations installed in the tailing lines at the TMF, the small-scale hydro-electric power stations will continue to supply electricity to the Project site during the closure and post-closure stages.

10 Environmental Management Plan Frameworks

The Project's Environmental Management System will include Environmental Management Plans, environmental monitoring and follow-up programs. Unless stated otherwise, all Environmental Management Plans described in section 10 will be developed to the satisfaction of the Environmental Assessment Office and listed provincial government agencies, and will be submitted before the start of Project construction or operation as required.

Environmental Management Plans, environmental monitoring and follow-up programs will be based on the principles of prevention and adaptive management whereby monitoring and corrective action will occur to address concerns or issues that emerge in the course of construction, operation, closure, and post-closure activities.

10.1 Wildlife Effects Monitoring Plan

The Environmental Assessment Certificate (EAC) Holder must develop a Wildlife Effects Monitoring Plan (WEMP) which will investigate and detect potential environmental effects on wildlife Valued Components (VC) due to Project activities. The WEMP will describe monitoring related to the following wildlife VC species: moose, mountain goats, grizzly and black bears, furbearers, marmots, bats, birds, and western toads.

The WEMP will include, at a minimum:

- a species monitoring program which will describe monitoring plans for VC wildlife species (e.g., moose, mountain goat, grizzly bear, furbearer, and marmots) in order to determine Project related effects and evaluate the health of the regional population;
- a Project infrastructure monitoring program which will evaluate the efficacy of mitigation activities and allow for adaptive management (e.g., camp waste management);
- a standard operating procedure to address potential impacts to wildlife from the use of Highway 37 by company-owned vehicles and subcontractors managed by the EAC Holder; and
- a standard operating procedure for monitoring and reporting wildlife collisions and mortalities with company-owned vehicles and subcontractors managed by the EAC Holder along provincial Highways 37 and 37A.

10.1.1 Plan Objectives

The objectives of the species monitoring program under the WEMP will be to:

- monitor for changes in wildlife VC species distribution and behaviour, and manage adaptively; and
- monitor habitat loss to track the as-built size of the Project footprint and compare this to the area identified in the Application.

The objectives of the Project infrastructure monitoring program under the WEMP will be to:

- verify the predictions of the environmental effects assessment as described in the Application;
- address uncertainties, and determine if mitigation measures are working as intended;
- monitor interactions of VCs with Project infrastructure (e.g., TMF) and the effectiveness of mitigation measures (e.g., tunnels, building skirting); and
- provide information to guide adaptive management (e.g., deterrents).

10.1.2 Monitoring Locations and Sampling Methods and Frequency

The WEMP Adaptive Management Program design will include, at a minimum:

- species monitoring will occur by surveying treatment and control sites;
- a selection of the sites and survey units used during baseline studies for the environmental assessment will continue to be monitored;
- pre-development and reference sites will be included in the monitoring program to allow for “before-after-control-impact” design of monitoring programs in relation to the effects assessment;
- monitoring locations will be specific to Project components in the case of Project infrastructure monitoring (e.g., pits, TMF, access roads, buildings). Sampling methodologies will be described in the WEMP and will be consistent with the current version of the BC Resource Inventory Standards Committee. Statistical analyses methods and power analyses will also be described in the WEMP;
- Project infrastructure monitoring will occur once per year; and
- monitoring of moose, grizzly bear, mountain goats, furbearers and marmots will occur every five years, commencing with construction and ceasing with the commencement of closure. Where a survey for moose, mountain goat, grizzly bear, furbearer, or marmots to be carried out by a person other than the EAC Holder has been approved by the Ministry of Forests, Lands and Natural Resource Operations (FLNR) and such survey meets some or all of the objectives of this WEMP to the satisfaction of FLNR, the EAC Holder will be relieved of the requirement to meet the terms of the WEMP that the survey satisfied.

10.1.3 Management Response

An adaptive management approach will be implemented under the WEMP. If long term monitoring reveals important new information then adaptive management actions would be implemented to mitigate site-specific risks. The WEMP will identify management and/or monitoring strategies.

10.1.4 Reporting

A summary of the data collected under the WEMP will be provided in a report. The report will summarize:

- wildlife encounters and identify any adaptive management strategies that were employed to address wildlife issues;
- analysis of the results with comparisons to findings from earlier years (i.e., baseline and previous monitoring years); and
- recommendations (if any) for changes to wildlife monitoring and management practices.

The report will also detail reporting requirements, including:

- reporting frequency; and
- report distribution.

Reporting frequency will vary between the species and infrastructure monitoring programs. Baseline data collected during the pre-construction phases (e.g., historical data, baseline data, and pre-construction monitoring) will be summarized in the WEMP to establish the foundation for comparison of future monitoring data to baseline conditions. Reports will be provided to the Nisga'a Lisims Government, Gitanyow Nation, Tahltan Nation, and *wilp* Skii km Lax Ha.

10.2 Aquatic Effects Monitoring Plan

The EAC Holder must develop an Aquatic Effects Monitoring Plan (AEMP), in consultation with the Ministry of Environment (MOE), to satisfy *Environmental Management Act* permit requirements. The primary goal of the AEMP is to investigate and detect potential environmental effects in the aquatic receiving environment due to Project activities. The monitoring program will be designed to take into account discharge points and proximity to Project infrastructure to allow both local and regional scale effects to be identified. Monitoring to meet both federal and provincial legislative requirements will be integrated into the AEMP.

10.2.1 Plan Objectives

The objectives of the AEMP are to:

- verify the predictions of the environmental effects assessment presented in the Application, address uncertainties, and determine if mitigation measures are working as intended;
- detect any unforeseen effects or emerging environmental trends as measured against baseline conditions;
- assist in identifying the potential cause-effect relationship between Project activities and any environmental effects;
- provide data for the development of adaptive management and mitigation strategies if effects are detected; and

- ensure regulatory compliance with respect to discharge and receiving environment criteria and permitting conditions to be established at the permitting stage.

10.2.2 Plan Components

The AEMP will include a conceptual site model to aid in the identification of potential sources, environmental fate or exposure pathways, and potential receptors for Contaminants of Potential Concern (COPC) in the aquatic receiving environment.

The AEMP will contain, at a minimum:

- a summary of the effects to fish and aquatic habitat that were identified in the environmental assessment for the Project; and
- a summary of mitigation measures that were identified to avoid or reduce the effects identified in the environmental assessment for the Project.

The AEMP will describe monitoring related to:

- surface water quantity;
- surface water chemistry;
- water toxicity;
- sediment chemistry;
- primary producers;
- benthic invertebrates (secondary producers);
- fish; and
- water temperature (Teigen and Treaty creeks).

10.2.3 Adaptive Management Program Design, Sampling Methods, and Analysis

Monitoring locations will be selected in consultation with MOE, Environment Canada, Fisheries and Oceans Canada and Nisga'a Lisims Government. The AEMP will contain at a minimum the following information:

- adaptive management program design, including:
  - identification of specific monitoring locations on Sulphurets Creek, Unuk River, Treaty Creek, and Teigen Creek;
  - sampling frequency;
  - list of parameters or variables to be measured;
  - laboratory analytical methods; and
  - acceptable detection limits for laboratory analyses;
- sampling methodologies (including equipment, sample collection, handling, and transport), and Quality Assurance/Quality Control (QA/QC) methods, consistent with the current version of the:
  - British Columbia Field Sampling Manual;

  - BC Water and Air Baseline Monitoring Guidance Document for Mine Proponents;
  - Environmental Data Quality Assurance Regulation (BC Reg. 301/90);
  - Metal Mining Technical Guidance for Environmental Effects Monitoring; or
  - other equivalent guidance documents, as acceptable to MOE or Environment Canada;
- statistical analysis to be used (e.g., before-after-control-impact, trend analysis); and
- identification of triggers for additional mitigative action.

10.2.4 Management Response

An adaptive management approach will be implemented under the AEMP. This will facilitate the implementation of early mitigation strategies before concentrations in the aquatic receiving environment approach levels where potential effects may occur. The AEMP will identify monitoring or management strategies, and will be informed by the following documents, as updated periodically:

- BC Ambient Water Quality Guidelines (approved and working guidelines);
- Guideline for the Derivation and Application of Water Quality Objectives in British Columbia (2013);
- Canadian Council of Ministers of the Environment (CCME) Water Quality Guidelines for the Protection of Aquatic Life (1987); or
- other equivalent guidance documents as acceptable to MOE or Environment Canada.

10.2.5 Reporting Summary

Baseline data collected during the pre-construction phases (e.g., historical data, data to support environmental assessment, and ongoing pre-construction monitoring) will be summarized into the AEMP to establish the foundation for comparison of future monitoring data to baseline conditions. Raw baseline data will be provided in appendices of the AEMP.

The AEMP will detail reporting and notification requirements, including a description of report contents, recommendations, reporting frequency, and report distribution. Reports will be provided to the Nisga'a Lisims Government, Gitanyow Nation, Tahltan Nation, and *wilp* Skii km Lax Ha.

10.3 Salmon Monitoring Plan

The EAC Holder must develop a Salmon Monitoring Plan (SMP) in consultation with FLNR, MOE and Fisheries and Oceans Canada. The scope of the SMP includes Teigen and Treaty creeks. The purpose of the SMP is to monitor salmon and their habitat in relation to Project related effects and implement mitigation to avoid or reduce these effects.

10.3.1 Plan Objectives

The objectives of the SMP are to:

- verify the predictions of the environmental effects assessment presented in the Application, address uncertainties, and determine if mitigation measures are working as intended;
- detect any unforeseen effects or emerging environmental trends as measured against baseline conditions;
- assist in identifying the potential cause-effect relationship between Project activities and environmental effects;
- provide data for the development of adaptive management and mitigation strategies if effects are detected;
- support the AEMP and Selenium Management Plan; and
- incorporate information from Aboriginal salmon monitoring programs on the Nass River.

10.3.2 Plan Components

The SMP will contain, at a minimum:

- a summary of the effects to salmon and salmon habitat that were identified in the environmental assessment for the Project; and
- a summary of mitigation measures that were identified to avoid or reduce the effects identified in the environmental assessment for the Project.

The SMP will describe monitoring related to:

- surface water quantity;
- surface water temperature;
- salmon habitat; and
- juvenile and adult salmon abundance.

10.3.3 Program Design, Sampling Methods, and Analysis

The SMP will contain the following information, at a minimum:

- program design, including:
  - sampling locations, timing and frequency;
  - key performance criteria/metrics to be evaluated and monitored;
  - target salmon habitats and life history stages to be evaluated and monitored; and
  - list of biological and abiotic parameters or variables to be measured.
- sampling methodologies (including equipment, sample collection and processing) and QA/QC methods; and
- statistical analysis to be used (e.g., before-after-control-impact, trend analysis).

10.3.4 Management Response

An adaptive management approach will be implemented under the SMP. This will facilitate the implementation of early mitigation strategies before any significant effects were to occur on salmon and their habitat. The results of the SMP will assist in identifying additional monitoring or management strategies, if required.

10.3.5 Reporting Summary

Baseline data collected during the pre-construction phases (e.g., historical data, data to support the environmental assessment, and ongoing pre-construction monitoring) will be summarized into the SMP to establish the foundation for comparison with future monitoring data to baseline conditions. Raw baseline data will be provided in appendices of the SMP.

The SMP will detail reporting and notification requirements, including a description of report contents, recommendations, reporting frequency, and report distribution. Reports will be provided to relevant government agencies, Nisga'a Lisims Government, Gitanyow Nation, Tahltan Nation and *wilp* Skii km Lax Ha.

10.4 Selenium Management Plan

The EAC Holder must develop a Selenium (Se) Management Plan (SeMP), in conjunction with MOE and the Ministry of Energy and Mines (MEM), to satisfy *Environmental Management Act* and *Mines Act* permit requirements. The primary goal of the SeMP is to ensure the protection of the aquatic receiving environment. Selenium monitoring activities and data collection will form a sub-component of the AEMP and the WMP, and the SeMP will be based on four components (i.e., prediction, prevention, mitigation, and monitoring). The SeMP will include a conceptual site model to aid in the identification of potential sources, environmental fate or exposure pathways, and potential receptors for Se in the aquatic receiving environment.

10.4.1 Plan Objectives

The objectives of the SeMP are to:

- consolidate relevant information for the adaptive management of Se into one document;
- provide a framework for Se management that meets best practices for environmental and technical objectives of the Project, in addition to ensuring regulatory requirements are considered and addressed;
- identify actions that will be taken during various phases of the Project to avoid, prevent, and mitigate potential effects of Se on the aquatic receiving environment; and
- define a monitoring program to characterize the potential risks of Se for the aquatic receiving environment.

10.4.2 Plan Components

The SeMP will describe, at a minimum, monitoring related to selenium concentrations in:

- surface water;
- sediment;
- primary producers;
- benthic invertebrates (secondary producers);
- fish tissue or eggs; and
- bird eggs.

10.4.3 Monitoring Program Design, Sampling Methods, and Analysis

Monitoring locations will be selected in consultation with MOE and MEM. The SeMP will contain or describe the following information at a minimum:

- monitoring program design, including:
  - types of media or biota to be monitored;
  - identification of specific monitoring locations on Sulphurets Creek, Unuk River, Treaty Creek, and Teigen Creek;
  - sampling frequency;
  - list of parameters or variables to be measured;
  - laboratory analytical methods; and
  - acceptable detection limits for laboratory analyses.
- sampling methodologies (including equipment, sample collection, handling, and transport), and QA/QC methods, consistent with the current version of the:
  - *British Columbia Field Sampling Manual*;
  - *BC Water and Air Baseline Monitoring Guidance Document for Mine Proponents*;
  - Environmental Data Quality Assurance Regulation (BC Reg. 301/90);
  - *Metal Mining Technical Guidance for Environmental Effects Monitoring*; or
  - other equivalent guidance documents, as acceptable to MOE or Environment Canada;
- statistical analysis to be used (e.g., before-after-control-impact, trend analysis); and
- development of a Se bioaccumulation model.

10.4.4 Management Response

An adaptive management approach will be implemented under the SeMP. This will facilitate the implementation of early mitigation strategies before concentrations in the aquatic receiving environment approach levels where potential effects may occur. The SeMP will identify monitoring or management strategies, and will be informed by the following documents, as updated periodically:

- BC Ambient Water Quality Guidelines for Selenium (2001);

- Guideline for the Derivation and Application of Water Quality Objectives in British Columbia (2013);
- CCME Water Quality Guidelines for the Protection of Aquatic Life (1987);
- State of Alaska Department of Environmental Conservation Water Quality Standards for Selenium (amended as of April 8, 2012);
- US EPA (Environmental Protection Agency) Guidelines Draft Water Quality Criteria for Aquatic Life for Selenium (2004); or
- other documents as acceptable to MOE.

10.4.5 Reporting Summary

Baseline data collected during the pre-construction phases (e.g., historical data, data to support environmental assessment, and ongoing pre-construction monitoring) will be summarized (e.g., water quality, aquatic resources, fish, etc.) in the SeMP to establish the foundation for comparison of future monitoring data to baseline conditions. Raw baseline data will be provided in appendices of the SeMP.

The SeMP will detail reporting and notification requirements, including a description of the report contents, recommendations, reporting frequency, and report distribution. Reports will be provided to the Nisga'a Lisims Government, Gitanyow Nation, Tahltan Nation, and *wilp* Skii km Lax Ha.

10.5 Groundwater Monitoring and Mitigation Plan

The EAC Holder must develop a Groundwater Monitoring and Mitigation Plan (GMMP), in conjunction with MOE and MEM. The primary goal of the GMMP is to monitor and mitigate Project effects on groundwater quality and quantity. Monitoring results from the GMMP will inform the AEMP.

10.5.1 Plan Objectives

The objectives of the GMMP are to:

- monitor groundwater quality from seepage of contact water from mine components;
- monitor the changes in groundwater levels arising from mine components; and
- provide data for the development of adaptive management and mitigation strategies if effects are detected.

10.5.2 Plan Components

The GMMP will include a description of baseline conditions including groundwater flow, groundwater quality, groundwater recharge and discharge, and groundwater surface water interaction. The GMMP will describe monitoring related to groundwater quality from seepage of contact water from mine components. The GMMP will also describe mine components and activities that could adversely affect groundwater quality and quantity. The GMMP will also include contingency plans for the interception and treatment of mine affected groundwater between Sulphurets and Kerr Pits and

Sulphurets Creek. The GMMP will include triggers for implementing the contingency plans.

10.5.3 Monitoring Program Design, Sampling Methods, and Analysis

The GMMP will provide the following information, at a minimum:

- groundwater monitoring locations at the mine site and PTMA;
- sample collection methods, QA/QC, sampling frequency, well design and analysis methods; and
- water quality parameters or variables to be measured.

10.5.4 Management Response

An adaptive management approach will be implemented under the GMMP. This will facilitate the implementation of early mitigation measures before concentrations in the aquatic receiving environment approach levels of concern. The GMMP will be informed by the BC Water Quality Guidelines (BC MOE 2010d), as updated periodically.

10.5.5 Reporting Summary

Groundwater baseline data collected during the pre-construction phase will be summarized in the GMMP to establish the foundation for comparison of future monitoring data to baseline conditions. Raw baseline data will be provided in appendices.

The GMMP will detail reporting and notification requirements, including a description of the report contents, recommendations, reporting frequency, and report distribution. Reports will be provided to the Nisga'a Lisims Government, Gitanyow Nation, Tahltan Nation, and *wilp* Skii km Lax Ha.

10.6 Traffic and Access Management Plan

The EAC Holder must develop a Traffic and Access Management Plan.

10.6.1 Plan Objectives

The objectives of the Traffic and Access Management Plan are to ensure Project access roads are:

- designed and maintained in a manner that assures the safety of road users and minimizes adverse effects on the environment and wildlife; and
- used in a manner that avoids adverse worker and public health and safety effects and minimizes adverse social and environmental effects.

10.6.2 Plan Components

The Traffic and Access Management Plan will include, at a minimum:

- Coulter Creek access road; and
- Treaty Creek access road.

10.6.3 Monitoring

The Traffic and Access Management Plan will identify monitoring requirements including:

- observation of ungulate use of access roads during periods of deep snow to assess the effectiveness of refuge areas and escape routes;
- observation of wildlife use of road verges to assess effectiveness of browse management and visibility;
- monitoring of sediment release from construction and operation of stream crossings to identify any additional remedial measures required;
- tracking of unauthorized use of access roads and transmission line corridors; monitoring of unauthorized fish, wildlife, and plant harvesting by Project employees and contractors;
- enforcement of access road speed limits;
- tracking of wildlife observations and incidents to identify wildlife sensitive areas; and
- inspection of access gates for signs of effectiveness or forced entry.

10.6.4 Management Response

An adaptive management approach will be implemented under the Traffic and Access Management Plan.

10.6.5 Reporting Summary

The Traffic and Access Management Plan will detail reporting requirements, reporting frequency, and report distribution. Reports will be provided to the Nisga'a Lisims Government, Gitanyow Nation, Tahltan Nation, and *wilp* Skii km Lax Ha.

10.7 Wetlands Management Plan

The EAC Holder must develop a Wetlands Management Plan to ensure protection of wetlands during construction, operation, and monitoring of wetland compensation sites.

10.7.1 Plan Objectives

The objective of the Wetlands Management Plan is to maintain affected wetlands to levels of functionality similar to baseline conditions.

10.7.2 Plan Components

The Wetlands Management Plan will include, at a minimum, monitoring of wetlands potentially affected by the construction and operation of the CCAR, TCAR and TMF and wetland compensation sites.

10.7.3 Monitoring

The Wetlands Management Plan will identify monitoring requirements including, at a minimum:

- vegetation sampling for biomass and tissue metal concentrations (at select sites);

- photo point monitoring to evaluate changes in vegetation and site characteristics (at select sites);
- wetland function; and
- wetland compensation sites to be conducted contemporaneously with fish compensation sites.

Wetland buffers will be established in accordance with the Riparian Area Management Guidebook (Ministry of Forest and MOE, 2005).

10.7.4 Management Response

An adaptive management approach will be implemented under the Wetlands Management Plan.

10.7.5 Reporting Summary

Wetland baseline data collected during the pre-construction phase will be summarized to establish the foundation for comparison of future monitoring data to baseline conditions in the Wetlands Management Plan. Raw baseline data will be provided in appendices of the Wetlands Management Plan.

The Wetlands Management Plan will detail reporting and notification requirements, including a description of the report contents, recommendations, reporting frequency, and report distribution. Reports will be provided to the Nisga'a Lisims Government, Gitanyow Nation, Tahltan Nation, and *wilp* Skii km Lax Ha.

10.8 Water Management Plan

The EAC Holder must develop a Water Management Plan (WMP) for the mine site and PTMA, in conjunction with MOE and MEM to satisfy *Environmental Management Act* and *Mines Act* permit requirements. The AEMP will incorporate the water quality and quantity aspects of the WMP.

10.8.1 Plan Objectives

The objectives of the WMP are to provide a basis for management of surface water at the mine site and PTMA including:

- diverting non-contact water around the mine site and PTMA; and
- collecting and treating contact water from the mine site to meet discharge requirements prior to release to the receiving environment.

10.8.2 Plan Components

The WMP will include, at a minimum:

- a description of water management structures at the mine site and PTMA;
- a list of water sources, including a description of water management structures;
- mine site water balance; and

- monitoring program including sample points downstream from major water retention structures (e.g., TMF, WSF) and discharge points during operations (e.g., Treaty Creek and WTP).

10.8.3 Monitoring

The WMP will identify monitoring requirements including:

- sampling stations or areas, including a site map identifying sampling locations;
- sampling frequency, methods and replication protocols;
- analysis including field sampling methods, field and lab QA/QC, variables to be measured for each sample location, sample collection, handling, preparation and transport procedures; and
- lab analytical methods.

10.8.4 Management Response

An adaptive management approach will be implemented under the WMP. Surface water quantity and quality modelling will be updated in the WMP, based on the results of the monitoring program.

10.8.5 Reporting

The WMP will detail reporting and notification requirements, including a description of the report contents, recommendations, reporting frequency, and report distribution. Reports will be provided to the Nisga'a Lisims Government, Gitanyow Nation, Tahltan Nation, and *wilp* Skii km Lax Ha.

10.9 Spill Prevention and Emergency Response Plan

The EAC Holder must develop a Spill Prevention and Emergency Response Plan, in conjunction with MEM and MOE, to respond to un-intentional releases and intentional emergency releases from Project facilities and along Project infrastructure.

10.9.1 Plan Objectives and Components

The Spill Prevention and Emergency Response Plan objectives are to outline a pre-determined course of action to:

- implement during an emergency situation related to a spill;
- provide a practical plan on how to safely assess an incident;
- implement actions to minimize incident; and
- complete the follow-up and any corrective action in a safe and effective manner.

The Spill Prevention and Emergency Response Plan will include, at a minimum:

- a strategy for the management of the handling, transportation, and storage of solid and liquid materials to reduce the risk of spills that might adversely affect people and the environment; and
- a conceptual plan for the emergency response to such spills.

10.9.2 Management Response

An adaptive management approach will be implemented under the Spill Prevention and Emergency Response Plan.

10.9.3 Reporting

The Spill Prevention and Emergency Response Plan will identify reporting requirements, including report distribution. Reports will be provided to the Nisga'a Lisims Government, Gitanyow Nation, Tahltan Nation, and *wilp* Skii km Lax Ha.

10.10 Human Health Monitoring Plan

The EAC Holder must implement a Human Health Monitoring Plan (HHMP) to monitor ambient air quality and metal levels in soils and plant tissues, in conjunction with MOE and MEM, to satisfy *Environmental Management Act* and *Mines Act* permit requirements for the mine site.

10.10.1 Plan Objectives

The objectives of the HHMP are to:

- assess data for potential impacts on human health;
- ensure there is an understanding of metals in soils, plants and animals which have the potential to affect human health;
- establish measures to monitor effects on key valued components during construction and operation of the Project;
- detect potential soil contaminant accumulations and metal deposition/mobility patterns during construction and operation of the Project; and
- assess potential changes in terrestrial plant tissue metal concentrations as a result of Project activities during construction, operation, closure and post-closure phases.

10.10.2 Plan Components

HHMP components will include, at a minimum:

- modelling predicted concentrations of COPC including, but not limited to dioxins and furans in airshed and determining the likely paths of such COPCs;
- waste segregation and incineration policies aimed at reducing COPC in the airshed;
- a contaminated soil prevention strategy;
- a terrestrial plant monitoring strategy; and
- a human health risk assessment framework to identify thresholds. The assessment will include, but not be limited to, the sampling of small mammal tissues, metals in fish and wild game (e.g., grouse and moose) consumed, and a characterization of traditional food quality.

10.10.3 Monitoring

The HHMP will identify monitoring requirements including:

- locations of sampling points and sites;
- sampling methods including QA/QC, sampling frequency, modelling studies; and
- the parameters or variables to be monitored.

10.10.4 Management Response

An adaptive management approach will be implemented under the HHMP. The HHMP will identify monitoring or management strategies, and will be informed by the following documents, as updated periodically:

- Provincial Air Quality Objectives;
- Pollution Control Objectives for the Mining, Smelting and Related Industries of British Columbia (BC MOE 1979);
- National Ambient Quality Objectives;
- Canadian Ambient Air Quality Standards; and
- CCME Soil Quality Guidelines for the Protection of Environmental and Human Health.

10.10.5 Reporting

Baseline data collected during the pre-construction phase will be summarized in the HHMP to establish the foundation for comparison of future monitoring data to baseline conditions. Ongoing screening level risk assessments will be completed under the HHMP in order to identify changes in measured concentrations to identify potential exposures and risks. Raw baseline data will be provided in appendices of the HHMP. The HHMP will detail reporting requirements, reporting frequency, and report distribution. Reports will be provided to the Nisga'a Lisims Government, Gitanyow Nation, Tahltan Nation, and *wilp* Skii km Lax Ha.

10.11 Terrestrial Ecosystems Management and Monitoring Plan

The EAC Holder must develop a Terrestrial Ecosystems Management and Monitoring Plan with the overall goal of minimizing effects of the Project on vegetation and terrestrial ecosystems. The Plan will include, at a minimum, four individual Environmental Management Plans:

- Vegetation Clearing Management Plan;
- Invasive Plant Management Plan;
- Transmission Line Management Plan; and
- Terrestrial Plant Tissue Metal Concentrations Monitoring Plan.

10.11.1 Plan Objectives and Components

The objectives of the Terrestrial Ecosystems Management and Monitoring Plan are to:

- minimize vegetation loss and disturbance of ecosystems (with emphasis on identified sensitive ecosystems) resulting from land clearing and vegetation maintenance activities;
- avoid the introduction and subsequent spread of invasive plant species (with emphasis on regionally-important plant species); and

- monitor metal concentrations in terrestrial plant tissues to minimize potential risk to human and wildlife health.

A site map will be developed under the Terrestrial Ecosystems Management and Monitoring Plan to identify sensitive ecosystems within the area of proposed construction, and provided to FLNR and Nisga'a Lisims Government. Reports will be provided to the Nisga'a Lisims Government, Gitanyow Nation, Tahltan Nation, and *wilp* Skii km Lax Ha.

10.11.2 Monitoring

The Terrestrial Ecosystems Management and Monitoring Plan will contain or describe the following information:

- monitoring program design, including:
  - identification of sampling areas, and sampling frequency; and
  - sampling methodologies (including equipment, sample collection, handling, and transport), and QA/QC methods, consistent with guidance documents, as acceptable to FLNR.

10.11.3 Management Response

An adaptive management approach will be implemented under the Terrestrial Ecosystems Management and Monitoring Plan. The Terrestrial Ecosystems Management and Monitoring Plan will identify monitoring or management strategies, and will be informed by the following documents, as updated periodically:

- British Columbia Timber Sales Windthrow Manual: A Compendium of Information and Tools for Understanding, Predicting and Managing Windthrow on the BC Coast;
- Pest Management Plan for Invasive Alien Plants on Provincial Crown Lands in Central and Northern BC;
- Invasive Alien Plant Program: Reference Guide; and
- Integrated Vegetation Management Plan for Transmission Rights-of-Way.

10.11.4 Reporting

The Terrestrial Ecosystems Management and Monitoring Plan will detail reporting requirements, reporting frequency, and report distribution. Reports will be provided to the Nisga'a Lisims Government, Gitanyow Nation, Tahltan Nation, and *wilp* Skii km Lax Ha.

10.12 Closure and Reclamation Plan

The EAC Holder must develop a Closure and Reclamation Plan to satisfy *Mines Act* permit requirements. The goal of the Closure and Reclamation Plan is to define the requirements for closure and reclamation of the site, develop approaches to address these requirements, and incorporate into the mine plan and schedule. The Closure and

Reclamation Plan will be updated during the life of the mine, and submitted to MEM for review, in accordance with the Health, Safety and Reclamation Code for Mines in BC.

The Closure and Reclamation Plan will include the following, at a minimum:

- definition of end land use objectives, including a discussion of the proposed objectives for the site;
- description of the overall reclamation approach as it pertains to the end land use objectives;
- conceptual plan for implementing the reclamation approach over the life of mine and into closure based on the most recent Mine Plan;
- identification of growth medium;
- plans for soil salvage, handling, and stockpile treatment;
- plans for soil replacement;
- plans for long-term stability, erosion control, and landform design, including drainage control and watercourse protection;
- identification of opportunities and plans for progressive reclamation;
- plan for revegetation that includes identification of vegetation species to be used (with a preference to use of native species), planting methodologies/ prescriptions, and expected fertilization requirements. Maps indicating areas that will be addressed by different prescriptions to meet site-specific end land use objectives and/or diverse environmental conditions will be provided;
- plans for reclamation research, including vegetation trials, summary or reference to previous research and how it is being used to guide future closure and reclamation;
- outline a proposed program to assess trace element uptake in soils and vegetation at mine closure, and where possible, during the mine life;
- identification of requirements for disposal of chemicals and reagents;
- outline investigations required as per the BC Contaminated Sites regulations, and provide anticipated remedial action plans for mitigating potential contamination;
- outline plans for decommissioning of groundwater wells as per the BC *Water Act* and the BC *Groundwater Protection Act*;
- description of plans for removal of structures and equipment including foundation materials and identification of disposal locations for non-salvageable materials;
- plans for reclamation of permanent site components including waste rock dump, open pit, TMF, low grade ore stockpile location and shop areas;
- plan for TMF spillway design;
- water quality monitoring including monitoring stations, frequency, parameters and a map identifying monitoring locations across the site;
- updates regarding water treatment requirement, including discussion of any changes to proposed water treatment technologies;
- plans for monitoring reclamation activities to assess the effectiveness of all reclamation strategies and prescriptions, including revegetation, surface preparation, soil replacement, erosion control, landform design and drainage control; and

- updated reclamation liability cost estimates based on level of disturbance on site and proposed reclamation activities, and including costs related to water treatment and long term monitoring and maintenance.