

Executive Summary

Sabina Silver Corporation (Sabina) has prepared a Project Proposal and permit applications for the development of the Hackett River Project (the “Project”). The Project is located in the West Kitikmeot Region of Nunavut about 75 km south of the southern portion of Bathurst Inlet. The mineral potential of the Project has been explored since the 1960’s and recent work by Sabina has found three economical deposits of zinc, silver, copper, lead and gold.

Project Description

The proposed Project includes the development of two open pits (Main Zone deposit and East Cleaver deposit) and one underground mine (Boot Lake deposit). Ore would be mined and trucked to a conventional grinding and flotation plant on site to produce zinc, copper, and lead concentrates. Waste material from the mine would be placed on the land in certain areas and tailings would be deposited under water in a nearby impoundment. The mine and mineral processing plant would operate for about 14 years and employ a total of 225 to 350 people. Only about half of the employees would be on site at any one time because of the fly in/fly out rotational schedule.

The concentrate produced at the Project would be trucked to a port located at Bathurst Inlet using the proposed Bathurst Inlet Port and Road (BIPR). A 23 km all-weather access road would be constructed to connect the mine with the proposed BIPR road, and approximately 80 km of the northern portion of the BIPR road would be used to haul concentrate to the port and consumables back to the mine site. From the port, the concentrate would be shipped to overseas markets by using the shipping route to the east.

The Project would also include a camp, mineral processing plant, storage areas, maintenance and mechanical repair warehouses, fuel tanks, tailings impoundment, waste rock piles, airstrip, and local site roads. Sabina would also construct a concentrate storage and loading facility at the port site. Most of these facilities would be removed at the end of the mine life. Roads, the airstrip, the tailings impoundment and waste rock piles cannot be removed and would be returned to the land use agreed to at that time. This is determined with regulators and relevant communities.

Sabina is developing a mine plan that uses scientific information, public input and traditional knowledge. Location of the access road, the tailings impoundment, waste rock piles, mineral processing plant and camp will be finalized based on this input. Sabina is committed to construct, operate, close and reclaim the mine site in such a way that meets regulatory requirements, minimizes environmental and social impacts and provides opportunities for economic and social development in Nunavut.

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A summary of the proposed Project is provided in the table below.

	Open Pit Mining	Underground Mining
Location	Main Zone (East and West) and East Cleaver Zone.	Boot Lake Zone and Main Zone and East Cleaver Zone below the pit.
Mining Method	Conventional truck and shovel.	Sub-level open stoping with backfill and/or sub-level caving.
Mine Life		13.6 years
Production Rate (Ore)		10,000 t/d
Production Rate (Waste)		33,400 t/d LOM average
Millfeed Source	60%	40%
Mill Processing Rate		10,000 t/d
Mill Processing Method		Standard grinding and flotation circuits
Products		Copper, Lead, Zinc concentrate
Transportation and Logistics	A 105 km all-season road construction to Bathurst Inlet Port (23 km mine site to BIPR route connection and 82 km to Bathurst Inlet Port along BIPR road). Concentrate haul will be operated by Sabina. Backhaul supplies and fuel to the mine site.	
Infrastructure and Site	Port Facilities at Bathurst Inlet – Loading/unloading facilities, fuel storage, consumables storage and concentrate storage facilities. Mine Site – Airstrip, power generation, mill and maintenance shop, camp, tailings management facility, waste rock piles, limited fuel, concentrate and consumables storage.	
Markets and Smelter	Mainly European and North American Smelters. Potential East Asian Market for Copper and Lead Concentrate.	

Public Consultation

Public participation is one of the five guiding principles that the Nunavut Impact Review Board (NIRB) uses to fulfill its mandate. Public participation is therefore fundamental to NIRB's environmental assessment process and to the project life cycle.

Sabina has initiated a phased consultation and public participation program. The initial phase, which is presented in this report, focuses on the period prior to the submission of the Project Proposal. Subsequent phases to fulfill consultation and participation needs across the project life (environmental assessment and review; construction; operations, closure and decommissioning) will be developed as the project proceeds.

The key objective of Sabina's consultation program is to ensure that all potentially-affected and interested groups are offered the opportunity to learn about, question, and comment on the development plans of the proposed Project.

Traditional Knowledge

The Hackett River Project lies in the traditional territory of the Copper Inuit of the West Kitikmeot. There are two major regional traditional knowledge projects in existence that cover this area, the Naonaiyaotit Traditional Knowledge Project (NTKP) and the Tuktu Nogak Project (TNP). These projects belong to the Inuit, as represented by the KIA (Kitikmeot Inuit Association).

There are two phases planned for the assessment of traditional knowledge for the Hackett River Project. The first phase is a compilation report of the existing traditional knowledge, from the NTKP, Tuktuk Nogak and other sources. The second phase will be the application and integration of this knowledge with that collected by biologists and scientists within the environmental assessment.

At the time of writing this report, Phase 1 of the planned program is being conducted without utilizing the NTKP and TNP databases. Sabina has requested permission to the KIA to access the databases several times in 2007, but has not been granted access. Hence, Phase 1 of the program will likely consist of obtaining information from personnel interviews, and utilizing any other traditional knowledge that is publically available.

Description of the Existing Environment

Comprehensive baseline environmental studies were conducted in the Project area in 2007, and are planned to continue in 2008. The following components were monitored as part of the 2007 environmental baseline studies:

- Meteorology and Permafrost;
- Hydrology;
- Freshwater Water Quality, Sediment Quality and Aquatic Biology;
- Freshwater Fish and Fish Habitat;
- Marine Water Quality, Sediment Quality and Aquatic Biology;
- Marine Fish Habitat;
- Wildlife, including Caribou, Muskox, Birds, Waterfowl, Raptors, Dens, Small Mammals;
- Mapping, Vegetation and Soils;
- Archaeology;
- Minesite Drainage Chemistry;
- Public Consultation;
- Traditional Knowledge;
- Socio-Economic; and
- Land Use.

Results from the 2007 baseline studies are currently being written as a series of baseline reports.

In this report, the existing physical, biological, and socio-economic environments relevant to the proposed Project are described. Site-specific information along with literature and available historical sources were used to describe the existing environment. Species of concern that could interact with the project are also identified. The report also includes a description of potential Valuable Ecosystem Components (VECs) and Valuable Socio-Economic Components (VSECs) that could be used for the preparation of a draft Environmental Impact Statement (draft EIS).

Identification of Potential Environmental Effects and Proposed Mitigation

Potential effects on the physical, biological, and socio-economic environments were identified based on the proposed Project development. Potential effects and proposed mitigation were described for the following environmental components:

- Physical Environment: Air Quality, Noise, Ground Stability and Permafrost, Groundwater, Hydrology and Limnology, Freshwater Water Quality, Freshwater Sediment Quality, Climate Conditions, Unique or Fragile Landscapes, Soil Quality;
- Biological Environment: Vegetation, Terrestrial Wildlife, Migratory Songbirds and Shorebirds, Raptors, Waterfowl, Freshwater Aquatic Organisms, Freshwater Fish and Habitat;
- Marine Environment: Air Quality, Noise, Marine Water Quality, Marine Sediment Quality, Marine Aquatic Organisms, Marine Fish and Habitat, Marine Wildlife, Marine Birds and Waterfowl;
- Socio-Economic Environment: Archaeology, Land and Resource Use, Socio-Economic (including Employment and Training).

Proposed mitigation measures to either avoid or minimize the potential effects are described for each environmental component.

The potential for transboundary effects are also described in this report. There are several animal species that potentially migrate through the Project area as well as areas outside of Nunavut, including grizzly bears, migratory birds, and caribou. There are also marine mammals that can occur along the shipping route and migrate to areas outside of the Nunavut portions of the Canadian high Arctic.

Potential cumulative effects are also described in this report. As requested in NIRB's Part 2 Screening Form, a discussion of how the potential effects of this Project interact with the potential effects of relevant past, present, and reasonably foreseeable projects in a regional context is included.

It should be noted that all potential effects discussed in this report, including potential transboundary effects and potential cumulative effects, are conservative in that only potential effects are identified, not residual effects. A detailed environmental assessment that includes the nature and significance of residual effects (those effects remaining after mitigation measures are considered) will be conducted as part of a draft EIS.

Environmental Plans

As part of protecting the environment and minimizing environmental effects from the Project to the extent possible, many environmental plans will be developed both before and during the operation of the mine. Many plans will be required before various permits and authorizations will be granted, while others will help Sabina to educate and train employees, and provide feedback on how its operations are influencing the physical, biological, and socio-economic

environments. At this early phase of the Project, only a few environmental plans are discussed in this report, including:

- An overall Environmental Management Plan
- An Environmental Awareness Program
- An overall Environmental Monitoring Program, of which there would be many specific monitoring programs for various environmental components; and
- A general Closure and Reclamation Plan.

These plans, among others, will be more fully developed for inclusion in a draft EIS in the future.