# SECTION 1.0

# INTRODUCTION

# TABLE OF CONTENTS

**Page**



## LIST OF TABLES



## LIST OF FIGURES

# LIST OF APPENDICES

# 1.0 INTRODUCTION

This Environmental Impact Statement (EIS) describes the Environmental Impact Assessment (EIA) completed by Shore Gold Inc. (Shore) for the Star-Orion South Diamond Project (the Project). In accordance with the Canada Saskatchewan Agreement on Environmental Assessment Cooperation (Government of Saskatchewan 2007), this EIS is submitted to the Saskatchewan Ministry of Environment (SMOE) and Government of Canada for technical review and comment in application for environmental approval to develop the Project. This EIS has been compiled following the completion of an EIA of the Project.

The EIA has been completed using the guidance outlined in the project-specific guidelines (PSGs; SMOE 2009) and the Comprehensive Study Scoping Document prepared by Canadian Environmental Assessment Agency (CEAA), Fisheries and Oceans Canada (DFO), Natural Resources Canada (NRCAN) and Transport Canada (TC) (CEAA 2010).

## 1.1 OVERVIEW

The Project includes the excavation of two open pits: one to mine the Star Kimberlite deposit and the other to mine the Orion South Kimberlite deposit. Collectively, the construction and operation of these two open pit mines, the processing facilities, and the associated infrastructure to commercially extract diamonds from these kimberlites form the Project.

The EIS contains a description of the Project, proposed monitoring programs and conceptual plans for closure along with an environmental effects assessment study. A base case is presented that describes the existing environment and the effects assessment component. The application case superimposes the Project onto the base case and determines any incremental effects of the Project on the environment. A Cumulative Effects Assessment (CEA) includes the base case, application case, and overlapping reasonably foreseeable and hypothetical future developments.

Monitoring programs have been developed as part of the EIA process to monitor predictions made in this EIS, environmental and social effects and provide additional information as part of the adaptive management process. A conceptual closure plan has also been developed, based on a target end land use of self-sustaining forest.

The EIS is organized into the following sections:

- Executive Summary
- Section 1.0 – Introduction
- Section 2.0 – Project Description
- Section 3.0 – Evaluation of Project Options
- Section 4.0 – Public and Aboriginal Engagement
- Section 5.0 – Project Setting and Baseline Characterization
- Section 6.0 – Effects Assessment
- Section 7.0 – Environmental Management System
- Section 8.0 – Residual Effects Summary
- Section 9.0 – Cumulative Effects Assessment
- Section 10.0 –Commitments and Conclusions
- Appendices

Section 1.0 (this Section) provides a background and context for the EIS, and includes tables of concordance cross-referencing the sections of this EIS with the PSGs (SMOE 2009) and with the federal scoping document (CEAA 2010). Section 2.0 describes the Project facilities and also provides a description of closure concepts for the Project. Section 3.0 describes the project options including some alternatives to the facilities that were considered during the planning processes and other aspects related to construction and operation. Section 4.0 describes the public and Aboriginal engagement process and results carried out by Shore as part of the EIA. Section 5.0 describes the Project setting, detailing where the Project is located, and the current environmental and socio-economic conditions in the region, thus providing the basis for making the environmental effects assessments which are covered in Section 6.0. Section 6.0 provides a detailed description of how environmental effects will be managed and / or mitigated and how benefits resulting from the development will be enhanced. Section 7.0 provides a description of the environmental management systems that will be employed by Shore during construction, operation and closure of the Project. Section 8.0 summarizes the residual effects of the Project after all mitigation and management measures have been implemented. Section 9.0 provides an assessment of cumulative effects and considers other existing and potential future projects in the region. Section 10.0 summarizes the commitments and highlights the main conclusions reached as a result of the work completed. Appendices for all sections of the EIS are included as the final Section of this Statement, and include a glossary of terms and a table of acronyms (Appendix 1-A and Appendix 1-B).

## 1.2 THE PROPONENT

The key participants in the Project are Shore and the participants of the Fort à la Corne Joint Venture (FalC-JV), a joint venture between Kensington Resources Ltd. (a wholly owned subsidiary of Shore) with 67% and Newmont Mining Corporation of Canada Limited (Newmont; a subsidiary of Newmont Mining Corporation) with 33%. The Star Kimberlite deposit straddles the boundary of a mineral disposition that is held 100% by Shore (Star Property), and a disposition that is held by the FalC-JV. The portion of the Star Kimberlite that lies within the FalC-JV disposition is referred to as Star West. The Orion South Kimberlite deposit is held by the FalC-JV.

For communication purposes, Shore is the Proponent of the Project, on its own behalf and on behalf of the FalC-JV.

### *Shore Gold Inc.*

Shore is a Canadian based, publicly-traded corporation engaged in the acquisition, exploration, and potential development of mineral properties. Shore has been active in diamond exploration in Saskatchewan since 1995. Its corporate head office address is located at:

300, 224-4th Ave. S
Saskatoon, Saskatchewan
Canada, S7K 5M5

Directors of Shore are:

Brian H. Menell - Chair
Kenneth E. MacNeill
Harvey J. Bay
Arnie E. Hillier
A. Neil McMillan

Officers of Shore are:

Kenneth E. MacNeill - President & Chief Executive Officer
Harvey J. Bay - Chief Financial Officer
George H. Read - Sr. Vice President of Exploration and Development

### *Newmont Mining Corporation of Canada Limited*

Newmont Mining Corporation of Canada Limited is a subsidiary of Newmont Mining Corporation, headquartered in Denver, Colorado. Founded in 1921 and publicly traded

since 1925, Newmont Mining Corporation is one of the largest gold companies in the world and employs approximately 15,000 people.

## 1.3 APPLICATION BACKGROUND

The EIA process was initiated on November 3, 2008 with the submission to the SMOE of an environmental Project Proposal (now referred to by the SMOE as an initial environmental evaluation). In response to this proposal, the Province, in conjunction with the federal government, developed PSGs to outline the requirements of the EIA. These draft guidelines were released for comment on July 11, 2009 and final PSGs were issued by SMOE in November 2009 (Appendix 1-D). The federal government developed a scoping document for the Project (CEAA 2010; Appendix 1-C). Review comments were received in 2011 on the draft EIS, and revisions were made accordingly.

## 1.4 STUDY STRATEGY

The EIS has been completed to obtain approvals needed to construct and operate two open pit mines at the Project site in the Fort à la Corne Provincial Forest (FalC Forest). The main approach was to complete an EIS according to standard EIA objectives and accepted environmental assessment practices for Saskatchewan and Canada to provide information that responds to the PSGs and comprehensive study scoping documents.

### *Overview of Process*

The Project Proposal (Shore 2008) was developed based on baseline surveys and was designed to describe the overall Project and to scope potential environmental concerns. The provincial and federal regulators reviewed the Project Proposal, and based on this information found that the proposed project was a development under *The Environmental Assessment Act* of Saskatchewan and that it also triggered the *Canadian Environmental Assessment Act*. Based on a review of the Project Proposal the provincial regulators developed the PSGs (SMOE 2009). While the federal regulators provided input into the PSGs, as part of the federal environmental assessment process they also produced a draft federal comprehensive study scoping document. The Canadian Environmental Assessment Agency (CEAA) released the draft comprehensive study scoping document for a 30-day public review in May 2010 and comment period after which time it was finalized (CEAA 2010). Together, these two documents clarified the scope of the environmental assessment and have been used to guide the completion of the EIS.

Field studies have been completed to document the baseline environmental conditions in the Project area. These data complement other information garnered from literature reviews and informed sources. Impacts and effects on valued environmental and social components have been assessed. For the purposes of the effects assessment, the spatial boundaries of the assessment were determined in terms of:

- a local study area (LSA);
- a regional study area (RSA); and
- a cumulative effects study area (CESA).

For the human environment, effects were assessed for a socio-economic study area that encompasses a broader region, a socio-economic regional study area (SRSA). The spatial boundaries for these geographic areas were based on experience with similar projects and/or discussions with informed sources, including reasonable expectations of where effects might occur.

Monitoring programs have been developed as part of the EIA process to evaluate predictions made in the EIS, provide additional information as part of the adaptive management process, and monitor Project effects. A conceptual closure plan has been developed and is based on a target end land use of self-sustaining forest. Site closure will have the following goals:

- create stable, self-sustaining landforms;
- re-contour facilities to blend into the surrounding topography as practical (this includes the demolition of all buildings and the removal and / or burying of all building materials);
- re-establish an acceptable end land use;
- re-establish appropriate vegetation on site, as dictated by the target end land use; and
- reduce any long-term safety concerns.

***Consultants***

The environmental assessment was led and coordinated by Shore with support from AMEC Earth & Environmental (AMEC). Environmental consultants completing sections of the EIS included:

- AMEC;
- Canada North Environmental Services (CanNorth); and
- Golder Associates Ltd. (Golder).

In addition, several other firms conducted portions of the environmental baseline studies for this Project. These additional firms include: Clifton Associates Ltd. (geology, geotechnical and hydrogeology), SRK Consulting Inc. (geotechnical and hydrogeology), Ecodynamics Consultants Inc. (terrestrial resources), Teco Natural Resource Group (Visual Resources) and Saskatchewan Research Council (hydrogeology). The information from these studies has been used by the authors of the EIS. Proper reference has been given to the authors of these baseline studies, where appropriate. Table 1.4-1 is a summary of companies with primary responsibility for the sections of this EIS.

***Table 1.4-1: Companies Responsible for the EIS***

| Discipline | Company Responsible |
|---|---|
| Evaluation of Project Options | Shore |
| Project Description and Engineering | Shore<br>P&E Mining Consultants Inc. (P&E)<br>Clifton Associates Ltd. (Clifton)<br>SRK Consulting (SRK) |
| Geology | Shore |
| Soils and Terrain | AMEC |
| Metal Leaching/Acid Rock Drainage Geochemistry | AMEC |
| Climate and Air Quality | AMEC |
| Noise | AMEC |
| Surface Water Hydrology | CanNorth<br>AMEC |
| Groundwater Resources | AMEC (using SRK groundwater model) |
| Surface Water Quality and Sediment Quality | AMEC |
| Fisheries and Aquatic Resources | CanNorth |
| Vegetation and Plant Communities | AMEC |
| Wildlife and Habitat | AMEC |
| Biodiversity | AMEC |
| First Nations and Métis Engagement | Shore |
| Traditional Knowledge and Traditional Land Use | Shore and AMEC |
| Archaeology and Cultural Heritage Resources | Golder |
| Socio-Economics | AMEC |
| Non-Traditional Land Use | AMEC |
| Visual and Aesthetic Resources | Shore |
| Environmental Health | AMEC |
| Human Health | AMEC |
| Navigable Waters | CanNorth |
| Effects of the Environment on the Project | AMEC |
| Sustainability | AMEC |
| Environmental Management System | Shore |
| Cumulative Effects Assessment | AMEC |

In terms of environmental baseline field work, several other companies were involved. EcoDynamics Consulting completed vegetation and wildlife field work from 2007 to 2009,

which was supplemented with field work by AMEC in 2009 and 2010. Golder completed surface water monitoring from 2005 to 2007, and completed the archaeological and heritage resource fieldwork from 2007 to 2010. CanNorth completed baseline fisheries field work.

P&E Mining Consultants Inc. (P&E) acted as the main engineering consultant and was the main author of the "Technical Report and Updated Preliminary Feasibility Study on the Star-Orion South Diamond Project, Fort à la Corne, Saskatchewan" (PFS) (P&E 2010). In addition, A.C.A. Howe International Ltd. (Howe), Clifton Associates Ltd. (Clifton), and SRK Consulting (SRK), were retained to prepare or contribute to sections of that report. Clifton and SRK completed geotechnical investigations; SRK did the groundwater flow model and Howe undertook the QA/QC aspects of the sample data used to derive the Mineral Reserve Estimate.

There were also several other firms that contributed information to this report from their work on the on-going studies. P&E continues to be retained for ongoing studies with assistance from SRK, Clifton, and AECOM.

## 1.5 PROJECT OVERVIEW

The Project consists of the following major components:

1. Star Kimberlite open pit (Star pit);
2. Orion South Kimberlite open pit (Orion South pit);
3. overburden and rock storage pile;
4. coarse processed kimberlite pile (Coarse PK pile);
5. Fine PK facility (PKCF);
6. process plant; and
7. other infrastructure.

These components are described in more detail in Section 2.0 (Project Description) and summarized below.

Overburden from the Star and Orion South open pits will be excavated with an in-pit crush and convey system (IPCC) using hydraulic shovels to place material into a mobile crusher, which will feed a conveyor system for transport of material to a stacker at the overburden and rock storage pile. Kimberlite will be excavated using a separate system, in which hydraulic shovels will load heavy haul trucks that will dump ore using a short haul into a semi-mobile sizer, which will feed an ore conveyor for transport of kimberlite to the plant.

The process plant will liberate diamonds from the host rock using autogenous grinding (AG) mills. Fine material from the AG mills will then be pumped in two separate pipes via slurry to

the processed kimberlite containment facility (PKCF). A starter berm for this facility will be built from surficial sand and built up in lifts, as needed, from cycloned fine processed kimberlite (Fine PK).

Coarse material will be sent to Dense Media Separation (DMS). The DMS sorts material by density; the lighter minerals (or floats) will then be transported to the Coarse PK pile, and the heavy material will be sent to diamond recovery. Using X-ray sorting, grease belts, and other recovery methods, diamonds will be separated from the other heavy minerals. All process water required in the plant will be supplied by pit dewatering or from shallow groundwater, and recycled through the PKCF Excess groundwater would be ultimately discharged to the Saskatchewan River.

The Project economics are based on the National Instrument (NI) 43-101 reserve estimate (Read *et al.* 2011) in which 165.9 Mt of probable reserve at Star and 113.1 Mt of probable reserve at Orion South were identified. At Star, an additional 26 Mt of kimberlite in the inferred category is contained within the Star pit but is considered waste material according to the NI 43-101 definitions. Since this material will be mined in the first 10 years of the project, it is likely that this material may be processed as part of the Project. For the purposes of presenting the maximum likely impact in the EIS, it was included in the PKCF design, but is not included in the financial analysis.

At Orion South, an additional 54 Mt of inferred kimberlite lies within the Orion South pit but is considered waste material according to NI 43-101 definitions. Since this material is not mined until later in the Project, it was considered too speculative to include the possible processing of this material in the EIS. Should this material be considered economic in the future, separate applications will be filed for its processing and handling. In addition, there is the potential to expand the pit to include all inferred resources. Should this pit expansion be considered economic in the future, Shore will determine what applicable applications will need to be made at that time, in communication with the appropriate regulators.

### 1.5.1 Location

The Project is located in the FalC forest, situated approximately 60 km east of Prince Albert, Saskatchewan (Figure 1.5-1). Access is provided by paved highways, a gravel grid road system, and an extensive network of forestry roads. The Project is situated on the north side of the Saskatchewan River.

### 1.5.2 Land Ownership and Development Rights

The Star Kimberlite deposit and associated infrastructure are located within mineral disposition S-132039 in Section 18 of Township 49, Range 19, west of the 2nd Meridian. Township 49 is located within the Rural Municipality of Torch River. This mineral disposition is part of a larger group of 23 contiguous mineral dispositions totalling 9,280 ha. Shore owns 100% interest in these dispositions.

Shore holds a 100% interest in an additional 96 dispositions in the immediate area, for a total of 119 claims covering 40,197 ha as of January 31, 2010. Shore also holds an interest in the FalC-JV, which is partially contiguous with the Star Kimberlite dispositions. Two of the mineral dispositions within the FalC-JV are considered to be part of the Project, namely S-127109 and S-127186. The Project is situated entirely within Shore and FalC-JV claims.

The Crown retains surface rights in the area of the Project; Shore is able to access the property through the exploration permits granted to it. Nine site-specific surface leases have been granted to Shore and the FalC-JV covering a total area of approximately 92 ha. Shore will apply for appropriate surface leases during the permitting phase pending approval of the EIS.

### 1.5.3 Capital and Operating Costs

Construction of the Project is estimated to cost $1,538 million (2010$). Equipment purchases for the period from Year -3 to Year 0 (construction period) will amount to $454 million, or 30% of total costs. Construction of the processing plant will cost $410 million and account for 27% of total costs. Mining and pre-production development will account for another 16% of costs. The cost estimate includes construction of a road to the mine, utilities and other infrastructure; these costs total $202 million, or 13% of total costs. Indirect costs, which include engineering, procurement, construction management and freight costs, will total $188 million, or 12% of total costs. Additional capital costs will be incurred during operations, and such costs are factored into the estimates of operating costs. Figure 1.5-2 summarizes the breakdown of the capital costs.

Based on the PFS (P&E 2010) the annual operating costs are estimated to be $131.8 M. As shown in Table 1.5-1, nearly half of the annual costs (47%) will be associated with mining activities, with ore processing accounting for 36% of costs. The balance of the costs (18%) is associated with general and administration functions.

***Table 1.5-1: Summary of Annual Operating Costs by Activity***

| Activity | Labour | Goods & Services | Total | Percent of Total |
|---|---|---|---|---|
| | Millions 2010$ | | | |
| Mining | 19.1 | 42.4 | 61.5 | 46.7% |
| Processing | 14.4 | 32.5 | 46.9 | 35.6% |
| General & Administration | 10.7 | 12.7 | 23.4 | 17.8% |
| TOTAL | 44.2 | 87.6 | 131.8 | 100.0% |

### 1.5.4 Labour Force Requirements for Construction and Operation

An average of 372 workers per year will be required for the four year construction period, although the number of people working on the project at any one time could vary from 100 to 1,000 workers. Total labour effort over the four years will be 1,490 person-years.

About 20% of the construction workforce will consist of general labourers. Another 30% will be trades people including industrial mechanics, electricians, heavy duty mechanics, and welders. Specialty truck and equipment operators will account for 30% of the workforce. Approximately 10% of the construction workforce will be professionals such as engineers, geologists, metallurgists, and health and safety specialists. Another 5% of the construction workforce will consist of construction managers and supervisors, and office staff. The remaining 5% will be engaged in various other occupations, including security.

On average, the mine will employ about 436 people annually when in production. Although costs will vary based on the volume of material being moved and processed each year, the workforce is estimated to remain fairly constant. Operations will occur year-round. For most staff this will involve 12-hour shifts on a rotational basis. Office staff will work a 40-hour work week.

### 1.5.5 Mine Life

The schedule was developed taking into consideration the time to procure equipment and carry out pre-production works. This potential schedule is summarized below:

- Construction and Commissioning – Year 1 to Year 4;
- Operation – Year 4 to Year 23; and
- Closure and Decommissioning – Year 23 to Year 25.

The life of the plant and associated infrastructure may be extended beyond 20 years in order to either process other inferred and probable reserves in the Star and Orion South Kimberlites and / or mine other kimberlites in the area.

### 1.5.6 Key Project Changes

Since filing the Project Proposal in November 2008 with the SMOE, some of the development options have changed consistent with Shore's commitment to develop the Project in an economic and environmentally sound manner. Major options that were considered in the 2008 Project Proposal that have changed include the following:

- Initially, all Orion South material was to be disposed of in either the overburden and rock storage pile or in the PKCF. Orion South Fine PK is now proposed as being co-disposed in the Star pit with limited overburden and rock from both the Star and Orion South pits. The advantages of this backfilling are:

  - reducing/eliminating concerns with using Orion South Fine PK for berm construction;
  - reducing/eliminating concerns regarding total suspended solids (TSS) in the discharge water from Orion South Fine PK, as they can contain higher proportions of clay minerals than Star Fine PK;
  - improving the long term stability of the pit slopes; and
  - potentially improving the water quality in the end pit lake at Star by raising the elevation of the bottom of the pit lake.
- the Project located the water management reservoir has been removed to reduce direct impacts to aquatic habitat. Process water is now recycled through the PKCF and not directly discharged;;
- a change occurred in the proposed alignment of the access road to avoid stream crossings in the FalC forest; and
- changes have occurred in the position and configuration of the Coarse PK pile and the PKCF to avoid direct impacts to aquatic habitat.

## 1.6 NEED FOR AND PURPOSE OF THE PROJECT

Based on the NI 43-101 compliant reserve estimates at Star and Orion South, Project economics have proven to be robust. As such, construction and operation of the Project is expected to create economic activity in the region (Section 6.4.1, Socio-Economic), generate revenue for the provincial economy, and return value on investment. The Project will also increase Canada's importance in world diamond markets. The Project will bring much needed economic development and diversification to the area, result in employment and development of job skills that will outlast the mine, provide tax and royalty revenues to government, and provide business opportunities for local businesses.

Successful approval, permitting, construction, and operation of the Project will encourage further exploration and development of diamond business ventures in Saskatchewan, and investment in other diamond mining projects in Saskatchewan, including potential expansion within the FalC forest as described in the cumulative effects assessment (Section 9.0).

## 1.7 LEGAL AND REGULATORY FRAMEWORK

The provincial and federal regulatory frameworks that pertain to the Project and this EIS are described in this Section. This includes the provincial and federal environmental assessment legislation, the *Canada Saskatchewan Agreement on EA Cooperation*, relationships to the regional land and resource management planning process, other legislation, and a list of permits and approvals required for the Project.

In Saskatchewan, the EIA occurs under the terms of the Canada-Saskatchewan Agreement in EA Cooperation (Government of Saskatchewan 2007). Under this agreement, projects

that require an environmental assessment by both the federal and provincial governments undergo a single assessment, administered cooperatively by both governments.

### 1.7.1 Saskatchewan's Environmental Assessment Act

*The Environmental Assessment Act*, 1980 (Government of Saskatchewan 1980) in Saskatchewan provides a practical means to ensure that development proceeds with adequate environmental safeguards and in a manner broadly understood by, and acceptable to, the public through the integrated assessment of environmental effects. This act has been amended by Statutes of Saskatchewan in 1983, 1988-89, 1996 and 2002. Further amendments were provisioned by *The Environmental Assessment Amendment Act*, 2010 (Government of Saskatchewan 2010).

*The Saskatchewan Environmental Assessment Act*, 1980, *The Environmental Assessment Amendment Act*, 2010 and accompanying regulations establish the framework for proposing, completing and reviewing environmental assessments. *The Environmental Assessment Act*, 1980 requires that a proponent receive the approval of the Minister of Environment before proceeding with a development that is likely to have significant environmental implications (Government of Saskatchewan 2007). SMOE defines a project requiring an EA as a "development".

Section 11 of *The Environmental Assessment Act*, 1980 requires the provincial government to undertake a review of each EIS it receives. The Environmental Assessment program guarantees public access to information about proposed developments and the right to make one's views known respecting these proposed developments (Government of Saskatchewan 2007).

In its review, the Province must consider Aboriginal interests in relation to an environmental assessment. The EIA process must consider First Nations whose interests may be affected by a proposed project to ensure First Nation issues and concerns are identified and adequate efforts are made to address those issues and concerns. The Province also has a duty to consult with the First Nations and Métis people whose rights may be potentially affected by the Project. The Project proponent is required to undertake a program of public involvement, including the potentially affected First Nations and Métis people.

*The Environmental Assessment Act*, 1980 includes provisions for public notification, access to information, and involvement. In general, each assessment includes public notice, access to information, public comment periods, and consideration of, and reporting on, public issues. This involvement needs to be well documented and occur in a structured environment so that all of the concerns can be captured and subsequently addressed.

Provincial permitting, licensing, and approval processes (statutory permit processes) for activities that were previously approved or were determined not to require an EIS may

proceed concurrently with the EIA and EIS review (e.g., drilling permits may still be issued during the EIS for a proposed mine). However, statutory permit approvals for construction related activities cannot be issued before project approval has been obtained.

### 1.7.2 Canadian Environmental Assessment Act

*The Canadian Environmental Assessment Act* (CEA Act) provides a legal basis for federal environmental assessment and came into force on January 19, 1992. This act was amended in 2003 by Bill C-9 following extensive cross-Canada public consultations.

The CEA Act ensures that the environmental effects of projects are carefully reviewed before federal authorities take action in connection with them so that projects do not cause significant adverse environmental effects. The CEA Act applies when a federal department or agency is required to make a decision on a proposed project. Under the CEA Act's "triggering" provisions, an assessment is required if a federal authority exercises or performs one or more of the following powers, duties, or functions relating to a project:

- proposing the project (known as the "proponent trigger");
- granting money or any other form of financial assistance to the proponent (the "funding trigger");
- granting an interest on land to enable a project to be carried out (e.g., sell, lease, or otherwise transfer control of land) (the "land trigger"); and
- exercising a regulatory duty in relation to a project, such as issuing a permit of license, that is included in the Law List prescribed in the CEA Act's regulations (the "Law list trigger").

The latter includes such items as Section 5.1 of the *Navigable Waters Protection Act* (NWPA) and Canada Fisheries and Oceans' (DFO) involvement through the *Fisheries Act.*

If the CEA Act is triggered, projects receive a level of environmental assessment review commensurate with their effect potential. There are four environmental assessment options under the CEA Act – screening, comprehensive study, mediation, and panel review.

The key steps in the CEA Act process are similar to the provincial process. There are six main steps in the federal EA process:

- determine if an environmental assessment is required (i.e., review of project notification);
- identify which government entities will be involved;
- plan the environmental assessment (i.e., develop project-specific guidelines);
- conduct the analyses and prepare the environmental assessment report (preparation by proponent of an environmental impact study);

- review of the environmental assessment report (by federal entities previously identified as responsible parties); and
- make the environmental assessment decision (federal decision step as to whether the project should proceed).

### 1.7.3 Canada-Saskatchewan Agreement on EA Cooperation

On November 30, 1999 the governments of Canada and Saskatchewan signed an agreement to improve federal-provincial cooperation in the environmental assessment of projects subject to both the CEA Act and *The Environmental Assessment Act*, 1980 (Saskatchewan). This agreement established administrative processes to implement the Sub-agreement on Environmental Assessment, along with the Canada-wide Accord on Environmental Harmonization signed in January 1998. A renewed bilateral agreement was signed in 2005 and continues in effect today (Government of Saskatchewan 2007).

### 1.7.4 Relationships to Regional Land and Resource Management Planning Process

Environmental assessment (EA) is one component of Saskatchewan's overall land and resource management system. Other components include land use planning, land and resource tenuring, permitting and other review/approval mechanisms, and operations management. Each component, and its applicable laws, regulations, policies and technical guidelines, are intended to support provincial goals for economic development, environmental protection, and community stability.

Provincial land use plans provide the framework and context for setting environmental, land use and resource management goals for provincial Crown land. EA is conducted within the context of existing land use plans. While EA examines the effects of a project on adjacent land uses, it is a project-specific review mechanism and has no authority to act as a land use planning mechanism or to re-open previously approved land use plans.

Tenure granting processes dispense some form of use or ownership rights to the public and private parties with respect to land and resources. Tenure rights to Crown land and resources that are required for a project to proceed may be in place when a proponent applies for environmental approvals, or options to grant the necessary tenures may be reserved for the proponent subject to satisfactory completion of the EA.

### 1.7.5 Other Legislation

Other legislation that may be relevant to the project includes but is not necessarily limited to the following:

*The All Terrain Vehicles Act, 1988-89*

- an act respecting the safe operation and permitted operation of ATVs (Operation of ATVs on Crown Land Prohibition Regulations).

*The Clean Air Act, 1989*

- protects air quality by regulating emission of air contaminants that originate in the province.

*The Crown Minerals Act, 1985*

- an act respecting crown minerals and crown mineral lands (includes The Subsurface Mineral Regulations 1960, The Quarrying Regulations 1957, Tailings Disposal Area Regulations, The Mineral Disposition Regulations 1987).

*The Dangerous Goods Transportation Act, 1985*

- governs the transportation of dangerous goods (e.g., explosives, chemicals).

*The Ecological Reserves Act, 1980*

- protects unique, natural ecosystems and landscape features through the designation of Crown Land as ecological reserves (includes the Representative Area Ecological Reserve regulations).

*The Environmental Management and Protection Act, 2002*

- protects the air, land and water resources through regulating and controlling potentially harmful activities and substances (includes the Environmental Spill Control Regulations, The Reservoir Development Area Regulations, The Hazardous Substances and Waste Dangerous Goods Regulations, The Municipal Refuse Management Regulations, The Water Regulations 2002, and The Mineral Industry Environmental Protection Regulations).

*The Fisheries Act, 1994*

- enables sustainable management of fisheries resources by affirming provincial ownership of fish, creating a provincial licensing system, and regulating allocation of fish resources, fish marketing, aquaculture, sport fishing and commercial fishing.

*The Forest Resources Management Act, 1999*

- allows the province to implement a framework for sustainable management of crown forest resources.

*The Highways and Transportation Act, 1997*

- governs highways, public improvements, transportation and transportation systems, including erection of signage, controlled access, vehicle weights and dimensions, security of loads and trip inspection regulations.

*The Human Resources, Labour and Employment Act, 1978*

- governs programs and services related to manpower, employment opportunities and trade unions.

*The Hunting, Fishing and Trapping Heritage Act, 2010*

- recognizes the rights of resource users to hunt, fish and trap in accordance with *The Wildlife Act* 1998, *The Fisheries Act* (Saskatchewan) 1994, *The Fisheries Act* (Canada) 1985, *The Migratory Birds Convention Act* 1994 (Canada), and the regulations pursuant to those acts.

*The Labour Standards Act, 1978*

- governs the annual holidays, hours of work, minimum wage and other employment standards of workers.

*The Land Surveys Act, 2000*

- governs the surveying of land and the approval of plans for land development and use.

*The Mineral Resources Act, 1985*

- governs the exploration, development, conservation and management of mineral resources.

*The Natural Resources Act, 1993* (subject to OC 208/96)

- establishes the province's mandate to manage, protect, conserve and develop renewable resources in a sustainable manner.

*The Noxious Weeds Act, 1984*

- governs the management and eradication of noxious weeds to control their spread.

*The Occupational Health and Safety Act, 1993*

- governs the health and safety of workers.

*The Pest Control Act, 1978*

- governs the management of designated pest species on lands owned, occupied or controlled, including destruction of pests to protect property.

*The Planning and Development Act, 2007*

- governs planning and development in municipalities.

*The Prairie and Forest Fires Act, 1982*

- provides for the prevention, detection, suppression of prairie and forest fires originating in provincial forests, parks and on unoccupied Crown lands. It also governs compensation for conscripted fire fighters and authorizes establishment and regulation of fire bans and burning permit areas.

*The Provincial Lands Act, 1978*

- creates authority for the management and transfer of Crown lands.

*The Public Health Act, 1994*

- creates authority for the management of public health including accommodation standards, safety, health hazards, disease control, food safety and shoreland pollution control.

*The Reclaimed Industrial Sites Act, 2007*

- governs the monitoring and maintenance of industrial sites after reclamation.

*The Sale or Lease of Certain Lands Act, 1978*

- enables Cabinet to place conditions on the transfer or lease of lands listed in a schedule to the act.

*The Saskatchewan Natural Resources Transfer Agreement (Treaty Land Entitlement) Act, 1993*

- transfers authority from the federal to the provincial government to manage and control disposition of natural resources. It allows the Province to select provincial lands to enable the federal government to fulfill its obligations under Treaties with Indians in the Province.

*The Saskatchewan Water Corporation Act, 2002*

- empowers the Saskatchewan Water Corporation regarding construction, management or operation of works, supply of water, and provision of services

respecting treatment, storage, transmission or distribution of water, as well as the collection, treatment and disposal of sewage.

*The Saskatchewan Watershed Authority Act, 2005*

- governs water rights including drainage control, reservoir development, ground water, water allocation and recreational use.

*The Surface Rights Acquisition and Compensation Act, 1979*

- governs the acquisition of surface rights to land and the determination and payment of compensation, and to provide for the maintenance and reclamation in connection with the surface rights acquired.

*The Traffic Safety Act, 2006*

- governs traffic safety, vehicles and drivers, owners and operators with regard to safety, commercial use, inspections, operation, identification and vehicle classification.

*The Water Appeal Board Act, 1984*

- establishes the Water Appeal Board and enables the board to hear appeals regarding water, sewage and drainage issues.

*The Watershed Associations Act, 1979*

- empowers watershed associations to plan, undertake, manage projects related to water development, conservation, storage of water resources for uses (that are not related to water control works under direction or control of the federal government, province or crown corporation) to conserve, control, protect or develop land, forest, recreation, fish or wildlife.

*The Wildlife Act, 1998*

- provides for the management, conservation and protection of wildlife, and wildlife species at risk, through the issuance and revocation of licenses, the prosecution of wildlife offences and the establishment of annual hunting seasons.

*The Wildlife Habitat Protection Act, 1984*

- provides for the designation, management, conservation and protection of wildlife lands and wildlife by preventing the sale and alteration of certain crown lands (including treaty land entitlement withdrawals).

### 1.7.6 List of Permits and Approvals

Permits and approvals pursuant to provincial, federal and municipal legislative, regulatory and other requirements will be needed prior to construction and operation of the Project. Permits and approvals that may be relevant to the project include, but are not necessarily limited to, the following:

- business license: (City of Saskatoon; other locations as required);
- provincial and federal environmental approval*: Environmental Assessment Act* (Sask.); *Canadian Environmental Assessment Act* (Canada);
- mineral lease: *Crown Minerals Act*, *Mineral Disposition Regulations*, 1986 (Sask.);
- surface lease: *Provincial Lands Act*, *Crown Resource Land Regulations* (Sask.);
- permit(s) to construct and operate plant and facilities: *Environmental Management and Protection Act*, 2000, *Mineral Industry Environmental Protection Regulations*, 1996, *Hazardous Substances and Waste Dangerous Goods Regulations*, 2000 (Sask.);
- building/development permit: (Rural Municipality of Torch River bylaws);
- compliance with municipal zoning rules: (City of Saskatoon bylaws; Rural Municipality of Torch River bylaws; other locations as required);
- waste disposal permit: *Clean Air Act*, *Environmental Management and Protection Act*, 2000, *Municipal Refuse Management Regulations* (Sask.);
- sewage disposal permit: *Environmental Management and Protection Act*, 2000 (Sask.);
- permit to use/store hazardous substances and waste dangerous goods: *Environmental Management and Protection Act*, 2000, *Hazardous Substances and Waste Dangerous Goods Regulations*, 2000 (Sask.);
- permit for fuel and / or chemical storage for construction and operation: *Environmental Management and Protection Act,* 2000 (Sask.);
- permit for use of fueled power generation: *Clean Air Act*, *Environmental Management and Protection Act*, 2000, *Mineral Industry Environmental Regulations*, 1996 (Sask.);
- permit for on-site distribution of electrical power: *Power Corporation Act* (Sask.);
- permit to remove timber: *Forest Resources Management Act*, *Forest Resources Management Regulations* (Sask.);
- permit to operate water drilling machine, permit to operate waterworks, water rights license: *Saskatchewan Watershed Authority Act*, *Saskatchewan Water Corporation Act*, *Environmental Management and Protection Act*, 2000, *Water Regulations*, 2002 (Sask.);
- aquatic habitat protection permit: *Environmental Management and Protection Act*, 2000, *Water Regulations*, 2002 (Sask.);
- authorization for harmful alteration, disruption or destruction of fish habitat: *Fisheries Act*, *Fisheries Regulations* (Canada);

- authorization for interference with navigable waterways: *Navigable Waters Protection Act* (Canada);
- archaeological resource investigation permit: *Heritage Property Act* (Sask.);
- averaging of hours permit to allow for shifts in excess of eight hours where required: *Labour Standards Act* (Sask.);
- blasting certificate, authorization for vehicular transportation of explosives, certification of blasters, explosives magazine license (provincial), provincial explosives permit: *Occupational Health and Safety Act*, *Mines Regulations* (Sask.);
- explosives factory license, explosives magazine license (federal): *Explosives Act*, *Explosives Regulations*, *Storage Standards for Industrial Explosives*, 2001 Edition (Canada);
- permit for company use, storage and handling of firearms and ammunition: Firearms Act (Canada);
- food service permit: Public Health Act, Food Safety Regulations (Sask.);
- permit to construct plumbing and sewage system: *Public Health Act*, *Plumbing and Drainage Regulations*, 1996 (Sask.);
- compliance with fire control requirements: *Prairie and Forest Fires Act* (Sask.);
- compliance with boilers and pressure vessels requirements: *Boiler and Pressure Vessels Act* (Sask.);
- heavy equipment operator certification: *Occupational Health and Safety Act*, *Occupational Health and Safety Regulations*, 1996 (Sask.);
- authorization of gravel removal: *Provincial Lands Act*, *Crown Resource Land Regulations* (Sask.);
- permit to create overburden and other piles: *Occupational Health and Safety Act*, *Mines Regulations* (Sask.);
- compliance with first aid equipment, and staffing requirements: *Occupational Health and Safety Act*, *Occupational Health and Safety Regulations* (Sask.);
- permit to operate x-ray equipment, certification of operators, compliance with staffing requirements: *Radiation Health and Safety Act* (Sask.);
- acquisition of business number to import equipment and avoid penalties: *Export and Import Permits Act*, *Customs Act* (Canada);
- compliance with tax holdback for foreign workers/installers of equipment: *Income Tax Act* (Canada);
- compliance with Canadian Kimberley Process for export of diamonds: *Export and Import of Rough Diamonds Act* (Canada); and
- compliance with legislative requirements at end of mine life: *Reclaimed Industrial Sites Act* (Sask.).

## 1.8 COMPANY POLICIES

Shore has developed company policies in regards to human resources and procurement. These policies are listed below. Additional management policies (Security, Health and Safety and Environment) are described in Section 2.0 (Project Description).

### 1.8.1.1 Human Resources

Summaries of Shore's policies on human resources are provided below.

***Code of Conduct***

All employees are expected to maintain a level of work performance that is consistent with the values, goals and objectives of Shore.

***Safety Footwear, Clothing & Eyewear***

At Shore, we seek to maintain a safe and healthy workplace for all employees, which includes ensuring the appropriate personal protective equipment (PPE) is used by all employees. Employees who are required to wear CSA approved safety footwear and eyewear shall receive an allowance from Shore for purchase of the required PPE.

***Travel***

Shore will provide reimbursement of travel and accommodation expenses for employees where required for work related matters.

***Conference & Conventions***

Shore will provide support to employees requesting to attend a convention / conference if it is related to their position and is mutually beneficial to the employee and Shore.

***Bereavement Leave***

Shore will provide bereavement leave for employees who suffer a personal loss in their immediate family or are requested as active pallbearers.

***Jury Duty or Subpoenaed***

Shore will provide time off in the event an employee is required for jury duty or has been subpoenaed as a witness.

***Recruitment***

Shore is committed to building and developing a skilled and dedicated workforce. Hiring new employees or promoting from within is an investment in the success of the projects at

Shore. The recruitment process is integral in this commitment in ensuring that the right people are hired for the right positions.

### *Relocation*

The relocation policy details relocation assistance to new employees of Shore who are required to relocate to the Saskatoon or FaLC areas as a condition of their employment with Shore.

### *Vacation*

Shore believes in the importance of a healthy and safe workplace, which includes ensuring employees have an appropriate balance between their work and personal lives. Vacation is one area which helps provide that balance in providing employees periods of rest and relaxation outside their regular time off. Employees will be granted annual vacation based on the calendar year.

### *Personal Leave*

Personal leave may be approved by Shore for employees on a case-by-case basis for situations outside of established policy.

### *Overtime*

Overtime is payable for approved hours worked outside an employee's regular schedule.

### *Professional, Technical & Trades Membership*

Shore will compensate for employees who, through the course of their employment, are registered with professional, technical or trades organizations which support their field of work.

### *Respect in the Workplace*

Shore is committed to providing a work environment that is free of discrimination, including harassment that is based on any legally protected status. Respectful, professional conduct furthers Shore's mission, promotes productivity, minimizes disputes and enhances Shore's reputation. Accordingly, this policy forbids any unwelcome conduct that is based on an individual's race, creed, religion, colour, sex, sexual orientation, marital status, family status, disability, physical size or weight, age, nationality, ancestry or place of origin or any other protected status of an individual or that individual's associates or relatives.

### *Corrective Action*

Shore is committed to establishing and maintaining a respectful, productive and efficient work environment. Policies and practices will be established and maintained which are

consistent with acceptable performance & safety standards. When acceptable standards are not being met, corrective action may be used to provide direction and correct behaviour which is not consistent with that desired by Shore.

### *Maternity & Parental Leave*

Shore will provide maternity, adoption or parental leave to employees following the birth or adoption of a child.

### *Termination*

When an employee is terminated, either voluntarily or involuntarily, a process (where practical) shall be used to receive feedback from the employee regarding their employment with Shore and provide a summary of the employee's performance with Shore.

### *Probation*

New employees will serve a probation period commencing upon their date of hire to determine suitability for permanent employment. Existing employees who move into a new position will serve a probation period to determine suitability for employment in the new position.

### *Observed Holidays*

Shore observes selected days as paid holidays. Employees who work observed holidays will receive observed holiday pay for all hours worked on the observed holiday.

### *Extension of Benefits to Disabled Employees*

Shore will pay the benefit premiums for a specific period for employees who qualify for Long Term Disability (LTD) or Worker's Compensation benefits.

### *Handheld & Personal Listening Devices*

Handheld communication devices registered to Shore, its contractors and / or consultants, should be used only when it is safe to do so. Personal handheld communication devices should not be used during working hours. Personal listening devices may be used provided they do not distract others or interfere with the user's performance or ability to work safely.

### *Personal Health Care Time*

Employees will be granted Personal Health Care time for emergencies related to personal or dependent matters.

### *Attendance Management*

Attendance in the work place is integral to successful job performance. Work schedules are set and developed to allow employees to plan and balance their personal and professional lives. While absence from the work place may occur from time to time, employees are expected to maintain a level of attendance which is acceptable to Shore.

### *Personal Protective Equipment*

All personnel are required to wear personal protective equipment (PPE) at required locations and must follow Shore procedures for the selection, use and care of personal protective equipment.

### *Shore Vehicle Use*

At Shore, we seek to maintain a safe and healthy workplace for all employees; this includes a commitment to safe driving practices. Any employee or consultant who drives a vehicle that is property of Shore (including leased and rented vehicles) or a personal vehicle as part of their duties is responsible for its safe operation and condition.

The following policies are currently in draft.

### *Drug, Alcohol & Impairing Substance*

Shore seeks to maintain a safe, healthy and secure work environment which includes a zero-tolerance approach to drug, alcohol or any other impairing substance abuse in the workplace. The presence of any drugs, alcohol or impairing substances in the workplace poses a risk to the health, safety and security of Shore's employees, the integrity of its processes, the assets of Shore and Shore itself. It is to the benefit of all Shore employees, officers, directors, subsidiaries, consultants, contractors and any other persons associated with Shore, that any risks associated with drugs, alcohol and impairing substances in the workplace be mitigated.

### *Security Clearance*

Shore seeks to maintain a healthy, safe and secure work environment to ensure the safety, security and integrity of its people, processes and final product. This involves ensuring that the backgrounds of employees of Shore, its subsidiaries, and any consultants and long-term contractors as identified by Shore, are appropriate for our business operations and do not pose any risk to the health, safety and security of Shore, its assets or its employees.

### *Acting Supervisor*

Acting supervisors are to fulfill supervisory duties when regular supervisors are away from the job or work site. Acting supervisors will receive the necessary training to ensure they can competently perform in a supervisory role when required.

### *Compassionate Leave*

Shore will provide compassionate leave to employees who have to be away from work temporarily to provide care or support to a family member who is gravely ill.

### *Callout*

Employees who are off-shift who are requested to come to the workplace will receive call-out pay based on the amount of time spent on the call-out.

### *Orientation*

Shore seeks to maintain a safe, healthy and secure work environment which includes ensuring all employees are familiar with the policies, rules, regulations and practices of the workplace. All new employees will receive an orientation which focuses on health & safety, security, the environment and human resources to familiarize them with the key policies and practices of each respective area. Current employees moving into new positions will receive orientation as required, depending on their previous level of training.

### *Total Rewards (Compensation & Benefits)*

At Shore we seek to recruit and develop a dedicated and skilled workforce committed to the advancement of our projects. It is Shore's goal to ensure that our total rewards program, which includes compensation and benefits, is an effective tool in attracting and retaining a dedicated workforce.

### *Performance Management*

At Shore we seek to recruit and develop a dedicated and skilled workforce committed to the advancement of our projects. As part of the development of our workforce, annual performance reviews will be held with all employees to review past performance and set objectives for future performance.

#### 1.8.1.2 Procurement

Summaries of Shore's policies on procurement are provided below.

### *Purchasing Policy*

Shore procurement employees must conduct business ethically and professionally when procuring materials, equipment and services for Shore.

### *Vendor Relationships*

Vendor relationships are built on performance criteria based on service, delivery, price, quality, safety and environment.

### *Service Providers*

Service providers are expected to follow Shore policy and procedures when working on site. A company safety manual, current insurance certificate and a letter of good standing from WCB will be required from a service provider before they are allowed to conduct work on site.

### *Vendor Classifications*

Vendors are classified into three following categories:

| | |
|---|---|
| Preferred: | Vendors which have been awarded long term contracts with Shore. |
| Approved: | Vendors that have been selected to receive purchase orders for items required to run the daily operations of Shore. |
| Rejected: | Vendors that have not met the qualification criteria as they relate to quality, delivery, safety, environment, service or price. |

### *Vendor Selection*

Vendors are selected based on their technical abilities, ability to meet Shore's product requirements, service, safety and environmental initiatives, experience and references

### *Tendering Policy*

All items over $15k in value are to follow Shore's formal tendering process.

### *Competitive Bidding*

Shore is committed to working with vendors and providing them with the appropriate amount of information in order to receive competitive prices.

### *Vendor Negotiations*

All vendors are to be treated fairly and ethically, with Shore's best interests taken into consideration throughout the negotiations.

### *Vendor Contracts*

Vendor contracts are implemented with vendors that have a preferred status.

### *Vendor Evaluation*

Vendors are evaluated for their performance related to quality, delivery, service, safety, environment and price.

### *Conflict of Interest*

All employees, consultants and subcontractors are to avoid conflicts of interests that may influence their procurement decisions for Shore.

### *Vendor Price Increases*

All vendor price increases are to be brought to the attention of the Supply Chain Manager for review and approval. No vendor price increases will be accepted without the approval of the Supply Chain Manager.

### *Confidentiality Agreements*

Confidentiality agreements will be signed with vendors when information is deemed to be confidential in nature and is not to be shared with competitors or the vendor's customers.

## 1.9 SCOPE OF THE ASSESSMENT AND STUDY AREAS

The EIA scope includes concerns and interests identified in the PSGs and the federal scoping document, and focuses concerns and interests that were identified through a scoping exercise.

The scope includes all Project components and activities, including physical works and monetary expenditures, being proposed by Shore for the Project. Project characteristics most relevant to the EIA are described in detail in Section 2.0 (Project Description), which also addresses PSG requirements to describe the objectives, costs and benefits of the Project as well as Project options and alternatives (Section 3.0). It should be noted that the power line and related right of way, facilities and activities are not included in the Project scope as these will be covered under a separate EIS to be submitted by SaskPower. The power line is considered an ancillary development to the Project.

Separate study areas have been developed for the natural (biophysical) environment and the human environment and are described in Section 5.0 (Project Setting and Baseline Characterization). The precise boundaries of these areas may vary slightly depending on the discipline or subject matter under discussion and will be described in each Section of the assessment.

For the biophysical assessment, the following three general study area boundaries were established:

- a local study area (LSA), which includes the Project footprint plus a buffer zone encompassing direct project-specific effects (e.g. 500 meters);
- a regional study area (RSA), which includes the Project and surrounding region encompassing the maximum potential zone of influence for project-specific effects that can be reasonably predicted or measured; and

- a cumulative effects study area (CESA) was established as the area within which spatial and temporal overlaps with past, present and reasonably foreseeable and hypothetical future human activities likely to result in residual effects or impacts on each valued component (VC) can be reasonably assessed.

For the human environment, effects were assessed for a socio-economic study area that encompasses a broader region. The Socio-Economic Regional Study Area (SRSA) is defined in Section 6.4.1 (Socio-Economic) and includes permanent communities which are expected to be directly affected by the Project. Some disciplines required a different study area to provide more appropriate context.

Temporal boundaries are selected to encompass Project-related activities and include exploration through construction and operations to Project closure and decommissioning. Baseline biophysical and human environment data from 2000 through 2010 have been used to characterize the Project setting. In terms of the effects assessment, the following schedule has been used:

- Construction and Commissioning – Year 1 to Year 4;
- Operation – Year 4 to Year 23; and
- Closure and Decommissioning – Year 23 to Year 25.

The life of the process plant and associated infrastructure may be extended beyond 20 years in order to either process other inferred and probable reserves in the Star and Orion South Kimberlites and / or mine other kimberlites in the area.

## 1.10 PUBLIC ENGAGEMENT AND INFORMATION DISTRIBUTION

Shore maintains an active communication strategy to inform communities, and in particular, local community members, of its activities and plans. Proponent-led public involvement activities are intended to provide information to a broad array of individuals, groups and organizations in Saskatchewan, but focus primarily on people resident in the communities that are closest to the project. Two primary public engagement activities (related to the EIA) for proximate community members are the Diamond Development Advisory Committee (DDAC) and public Open Houses.

The target audiences are the individuals living within urban and rural communities that could be directly or indirectly affected by mine construction or operation; that is, individuals living in communities that are most likely to provide the workers, goods and services needed to construct and operate the mine. Further information is provided in Section 4.0 (Public and Aboriginal Engagement).

## 1.11 ABORIGINAL CONSIDERATIONS

Owing to the special status of Aboriginal people and their unique relationship with the Crown and resource developers, Shore maintains frequent and regular communications and community engagement activities involving First Nations and Métis groups through meetings, exchanges of letters, e-mails, telephone calls and faxes. Written correspondence includes topics such as Shore activity updates, invitations, meeting arrangements, business contract information, employment and training initiatives, Information Gathering Agreements (IGAs), Memoranda of Understanding (MOU), and potential Impact Benefit Agreements (IBAs). Telephone calls are used to follow-up on correspondence and arrange logistics pertaining to meetings, consultants, payments and other business proceedings.

Shore has maintained regular contact with James Smith Cree Nation, Chakastaypasin Band of the Cree, Peter Chapman First Nation, Muskoday First Nation, Métis Nation – Saskatchewan Eastern Region II and Métis Nation – Saskatchewan Western Region II since early 2007, Sturgeon Lake First Nation since the summer of 2008, Red Earth Cree Nation since late 2009 and Wahpeton Dakota Nation since late 2010. Shore is focused on continuing to build strong relationships and, where possible, reach appropriate agreements with Métis and First Nations people.

The DDAC is a key community stakeholder group. It serves as an effective and trusted liaison between Shore and urban, rural and Aboriginal communities. DDAC members are selected to represent their community by the community's leadership. The DDAC includes elected Métis Nation representation (Métis Nation – Saskatchewan Eastern Region II and Métis Nation – Saskatchewan Western Region II). All neighbouring First Nations communities are invited to be members and / or attend and there is also a member from the Fort à la Corne Employment Development Inc., the economic development arm of the James Smith Cree Nation. Red Earth Cree Nation and Sturgeon Lake First Nation joined the DDAC in 2010, with Wahpeton Dakota Nation in 2011.

Further information is provided in Section 4.0 (Public and Aboriginal Engagement).

## 1.12 TABLE OF CONCORDANCE

Table 1.12-1 cross references the sections provided in this EIS to requirements laid out in the Final Project Specific Guidelines for the Preparation of an Environmental Impact Statement (PSGs) (SMOE 2009) prepared by SMOE.

***Table 1.12-1: Table of Concordance for Project Specific Guidelines***

| PSG Section | | Section |
|---|---|---|
| 2.2 | **EIS Executive Summary** | |
| | • purpose of carrying out the development | 1.6 |
| | • description of the preferred option and alternative means for development | 3.0 |
| | • the benefits and costs of the preferred option and the alternatives | 2.4.5, 3.0 |
| | • potential for environmental effects of the development, including the potential for spills/malfunctions/accidents | 2.8, 7.2, 6.0, 8.0 |
| | • potential cumulative environmental effects that are likely to result from the development in combination with other local/adjacent projects and activities in the short and long term | 9.0 |
| | • significance of the identified potential environmental impacts | 6.0, 8.0 |
| | • mitigation measures including their environmental outcome and technical and economical feasibility | 7.4, 6.0 |
| | • decommissioning and reclamation | 7.5 |
| | • monitoring programs for the development at all phases | 7.4 |
| | • involvement activities and comments received along with Shore's responses | 4.0 |
| 2.3 | **Project Description** | |
| 2.3.1 | General Requirements | |
| | • Project ownership | 1.2, 2.2 |
| | • Project location, including map(s) showing exact location of proposed development | 1.5.1, 2.4 |
| | • status and map of current and proposed surface lease(s) and active mineral disposition relative to the Project | 2.4 |
| | • the purpose and need for the Project | 1.6 |
| | • description of proposed Project up to and including closure | 2.0 |
| | • alternative means of accomplishing the Project | 2.4.2, 3.0 |
| | • types and quantities of materials, energy, power and water required | 2.5, 2.6 |
| | • construction materials and power supply requirements | 2.5 |
| | • sourcing of construction/operation supplies and servicing | 2.0, 7.3 |
| | • explosives to be manufactured or stored on-site | 2.5.5 |
| | • anticipated schedule for all phases | 2.5.1, 2.6.1 |
| | • estimated employment opportunities for local communities, First Nations and Métis people | 2.5.9, 2.6.14, 7.3 |
| | • occupational health and safety considerations | 2.5.8, 2.6.13 |
| | • security considerations | 2.5.8, 2.6.13 |

| PSG Section | | Section |
|---|---|---|
| | • assessments of risk of failure at all phases and contingency plans, emergency measures and procedures | 2.8,7.2 |
| | • a plan for managing wildfire risks at the mine and ancillary developments | 7.2 |
| | • technical issues and new technologies specific to the Project | 2.4.3 |
| | • a description of traditional land use, traditional knowledge, and current use of the study area by First Nations and Métis people | 5.4.2 |
| | • a description of the potentially affected environment | 5.0 |
| | • identification and description of all water diversions and channel re-alignments including the rationale for proposing the diversion | 2.5.2 |
| | • contaminant releases and their impact on the environment | 2.5.7, 2.6.12, 6.0 |
| | • proposed monitoring and mitigation measures | 7.4 |
| 2.3.2 | Site Plan and Operations | |
| | • proposed production and mine life | 1.5.5 |
| | • mining scenarios | 2.6, 3.0 |
| | • mine infrastructure and locations at each kimberlite | 2.5, 2.6 |
| | • operational procedures for all aspects of the Project with the potential to impact the environment | 2.6 |
| | • operational procedures for all aspects of the Project with the potential to impact on traditional uses | 2.6 |
| | • characterization and management of kimberlites and overburden | 2.5, 2.6 |
| | • water management issues at each kimberlite | 2.6.9 |
| | • potential contaminates in the waste water (e.g., suspended solids, major and minor ions, total dissolved solids) | 2.5.7, 2.6.12, 6.2.8 |
| | • an estimate of the anticipated air emissions | 2.5.7, 2.6.12 5.2.4, 6.2.2 |
| | • present and potential long-term effect of leaching and any other environmental effects as a result of storing tailings | 5.2.3 |
| | • on site works at each kimberlite, storage/treatment of any dewatering waters, sedimentation ponds, effluent and discharge treatment systems | 2.5, 2.6 |
| | • residual explosives and potential environmental effects | 2.5.5, 2.6.2 |
| | • detailed descriptions and plans of all physical works including requirements such as new access roads, road upgrades, water crossings, borrow pits, waste disposal sites, electrical, gas line and telecommunications options, etc | 2.5 |

| PSG Section | | Section |
|---|---|---|
| | • for ancillary features owned by third parties (e.g., transmission lines, gas pipe lines, water pipe lines) a minimum of high level screening information to identify potential impacts is required | 2.5 |
| | • anticipated type, size and frequency of traffic loads that public road and rail infrastructure will be subjected to and including proposed mitigation for access and safety concerns | 5.4.1 |
| 2.3.3 | Objectives/Costs and Benefits | |
| | • outline need for Project and describe associated benefits in contrast to any potential costs | 1.6, 1.5 |
| 2.3.4 | Project Options/Alternatives | |
| | • the criteria used by Shore to evaluate alternative means, locations and / or designs for the Project | 3.0 |
| | • justify the preferred option on environmental considerations | 3.0 |
| | • describe anticipated quality and quantity of waste water, alternate methods for treatment/handling and the recommended option | 3.5, 2.6.9, 6.2.7 |
| | • routing analysis to include consideration of access, existing corridors, disturbed land, linear disturbance of wildlife, options for reducing wildlife-human interactions | 3.6, 3.7, 3.8 |
| 2.4 | **Description of Existing Environment** | |
| 2.4.1 | Climate | |
| | • climate and meteorological information must be provided in the EIS | 5.2 |
| 2.4.2 | Geology, Hydrogeology and Soils | |
| | • a description of the soils, geology and hydrogeology within the proposed development area, alternative sites and any adjacent areas that may be influenced | 5.2.1, 5.2.2, 5.2.6, 5.2.7 |
| | • describe the groundwater flow paths that may connect to surface waterbodies potentially affected by contaminated groundwater | 5.2.7 |
| | • characterization of hydraulic parameters and ground water chemistries of all hydrostratigraphic units | 5.2.6 |
| | • identify the water bodies/watercourses that would be potentially affected by changes to ground water quantity and quality | 5.2.6 |
| | • All groundwater wells used for domestic purposes located within the radius of influence of the mining development and potential for impacts on water quality and quantity discussed | 5.2.7, 6.2.6 |
| 2.4.3 | Surface Hydrology and Water Quality | |
| | • watershed characteristics, local drainage patterns, water uses/users and current and historical water quality data for significant water bodies | 5.2.6 |

| PSG Section | | Section |
|---|---|---|
| | • Drainage area: delineation of the upstream and downstream watersheds affected by the proposed construction including road/rail/power corridors; | 5.2.6 |
| | • detailed hydrology for stream crossings including an explanation of the role this hydrology played in the design of road/rail/power corridors | 5.2.6 |
| | • selection criteria used to determine the study area, including information sources and assessment methods (water quality); | 5.2.6 |
| | • describe the baseline water quality data | 5.2.8 |
| | • describe the baseline sediment quality | 5.2.6, 5.2.8, 5.3.1 |
| 2.4.4 | Navigable Waterways | |
| | • describe known waterway users, on potentially affected waterways | 6.2.5 |
| | • maps depicting where the existing waterways and in-water works are located | 5.2.6 |
| | • physical characteristics of the waterway | 6.2.5 |
| | • photographs of the proposed work locations | 6.2.5 |
| | • conceptual drawings and proposed construction schedules and methods of the proposed in-water works, both permanent and temporary | 2.5 |
| 2.4.5 | Air Quality | |
| | • characterization of background air quality conditions for the local study area and current emissions | 5.2.4 |
| 2.4.6 | Noise | |
| | • characterization of background sound levels for both daytime ($L_d$) and night time ($L_n$) | 5.2.5 |
| | • identify all potential noise-sensitive receptors and their locations and distances relative to the Project area | 5.2.5 |
| 2.4.7 | Aquatic and Terrestrial Resources | |
| | • plant or animal species considered rare, endangered or threatened either federally or provincially | 5.3.1, 5.3.2 |
| | • protected areas and designated wildlife habitat | 5.3.2, 5.3.3 |
| | • presence and nature of wetlands | 5.3.2 |
| | • vegetation on and adjacent to the site, especially any areas of native vegetation | 5.3.2 |
| | • aquatic resources including species at risk, fisheries and fish habitat that may occur at the site or in adjacent areas and access corridors that could be impacted as a result of development | 5.3.1 |
| | • Lake Sturgeon present in the Saskatchewan River | 5.3.1 |

| PSG Section | | Section |
|---|---|---|
| 2.4.8 | Heritage Resources | |
| | • Heritage Resources Impact Assessment | 6.4.6 |
| | • approved mitigation plan | App. 6.4.6-A |
| 2.5 | **Socio-Economic and Land Use Issues** | |
| | • a description of the existing land uses, community characteristics and infrastructure | 5.4.1 |
| | • consider integrated forest land use plan | 5.4.1, 5.4.3 |
| 2.5.1 | Traditional Land Use | |
| | • the current and historical use of lands and resources within the study area for traditional purposes by First Nations and Métis peoples | 5.4.2 |
| 2.6 | **Occupational Health and Safety** | |
| | • description of existing occupational health and safety programs | 2.5.8, 2.6.13, 7.3 |
| | • identify whether the development (e.g., influx of workers during construction phase) would require changes to these programs | 2.5.8, 2.6.13, 7.3 |
| | • document the type(s) of equipment and construction and operational activities involved with the Project and the measures employed to ensure compliance | 2.5 |
| | • demonstrate that safety distances required by the Explosive Regulatory Division of NRCAN and requirements of Saskatchewan's Occupational Health and Safety Act and Regulations there under have been considered and met | 2.5.5 |
| 2.7 | **Involvement Activities** | |
| | • concise description of the scale and extent of Shore's consultation activities and describe the program for involvement with residents regarding the Project | 4.0 |
| | • issues or concerns raised during the involvement programs should be documented and their significance evaluated | 4.0 |
| 2.8 | **Conceptual Decommissioning and Reclamation Plan** | |
| | • decommissioning objectives | 2.7, 7.5 |
| | • environmental impacts which can be mitigated by decommissioning, reclamation or post-decommissioning procedures | 6.0, 7.5 |
| | • impacts which cannot be mitigated - these impacts constituting irretrievable environmental losses | 8.0 |
| | • any potential opportunities for environmental enhancement | 7.5 |
| | • an approximate time frame for decommissioning and reclamation | 7.5 |

| PSG Section | | Section |
|---|---|---|
| | • alternative methods for decommissioning and reclamation<br>• discussion of why the proponent's preferred decommissioning and reclamation plan was chosen must be included | 7.5 |
| | • post-decommissioning monitoring and contingency planning | 7.4, 7.5 |
| | • record keeping or archiving that fully describes past operations, decommissioning plans/assessments and final configurations | 7.3 |
| | • the need for passive site management | 7.5 |
| | • estimated costs for decommissioning, reclaiming and monitoring | 7.5.6 |
| | • a proposed estimate for the assurance fund | 7.5.6 |
| | • land controls | 2.4 |
| 2.9 | **Impact Assessment and Mitigation** | |
| | • methods and assumptions used to estimate the severity of impacts should be clearly documented | 6.1 |
| 2.9.1 | Project Specific Impacts | |
| 2.9.1.1 | Geology, Hydrogeology and Soils | |
| | • identify and describe potential impacts of groundwater use and disposal | 6.2.6, 6.2.7 |
| | • describe the potential impact of removal of the estimated volume of ground water on the local and regional ground water and surface water regimes | 6.2.4, 6.2.6 |
| | • use a three-dimensional numerical ground water flow model to assess Project impacts on local and regional ground water flow systems | 5.2.7, App.5.2.7-A |
| | • quality and quantity of leachate from tailings (unprocessed ores, processed ores and associated wastes and overburden), proposed measures to contain, and treat, if required, leachate to minimize potential effects on local and regional ground water and human and environmental health | 5.2.3, 6.2.4, 6.2.7 |
| 2.9.1.2 | Surface Hydrology and Water Quality | |
| | • identify Project activities that may influence water quality and place them in context with natural forces that affect water quality | 2.0, 6.2.7 |
| | • calculate probability distributions for concentrations in any surface water receiving site drainage, discharges, or ground water influenced by proposed activities | 6.2.7 |
| | • assess the loading for each contaminant of concern and assess the fate and transport of those contaminates in the surface water including the Saskatchewan River and local and regional ground water regimes | 6.2.6, 6.2.7, |

| PSG Section | | Section |
|---|---|---|
| | • any impacts to surface water drainage, including the proposed alterations to water courses, should be described (effect on vegetation, in-stream fish habitat) and mitigation identified | 6.2.4, 7.0 |
| | • contamination of surface water bodies from surface flow or breakthrough from ground water sources and effects on potential water users, aquatic life, recreation, agriculture etc. | 6.2.6, 6.3.1, 6.4.5 |
| | • failures, spills, malfunctions, accidents or inadvertent waste releases including contingency plans addressing the potential worst case scenario at all phases of the development including post reclamation | 7.2 |
| | • the probability and anticipated effects of major flood events on the roadway including emergency response plans for crossing and embankment failure | 7.2 |
| | • installation methods of proposed road/rail and power corridors, including road and rail crossing structure design option for watercourses that contain large bodied migratory fish | 2.5.3, 6.2.5 |
| | • possible disturbance to stream crossings of roads/railway/power corridor | 2.5.3, 6.2.4, 6.3.1 |
| | • alterations of water courses and stream crossings associated with the construction of the mine could result in the harmful alteration, disruption, or destruction of fish habitat, including increased sediment loading in streams and impediments to fish movement and navigation on navigable waterways | 2.5.3, 6.2.4, 6.2.5, 6.3.1 |
| | • outline the potential impacts to fish and fish habitat that may result from water diversions, as well as identify any potential changes to seasonal and long-term water quantity and quality and channel morphology in those and surrounding watercourses | 6.3.1, 6.2.4, 6.2.7 |
| 2.9.1.3 | Navigable Waterways | |
| | • predicted direct and indirect effects of proposed works on navigation, including a description of proposed mitigation measures and effectiveness of these measures for ensuring navigability during construction, operation and completion of the proposed works | 6.2.5 |
| | • all waterways affected by proposed works. This would also include any temporary works that may impede vessel passage and safety | 6.2.5 |
| 2.9.1.4 | Air Quality | |
| | • characteristics of the operation that could affect air quality must be described. The descriptions should include information about the frequency and duration of these elevated emission events | 2.5.7, 2.6.12, 6.2.2 |

| PSG Section | | Section |
|---|---|---|
| | • the effect of any expected emissions on environment and human health must be described in enough detail to determine if there will be adverse environmental impacts | 6.2.2, 6.2.8, 6.4.5 |
| | • all emission sources (stationary, mobile, fugitive) with estimated emissions of criteria air contaminants should be listed | 6.2.2 |
| | • provide air quality modelling to predict how emissions will disperse from the development on a local and regional scale. | 6.2.2 |
| | • describe how predicted air quality compares to the appropriate available air quality guidelines | 6.2.2 |
| | • estimates of greenhouse gas emissions associated with each major phase of the mine operation | 6.2.2 |
| | • discussion of how greenhouse gases (GHG) emission considerations have been addressed, and how emission reduction offset measures have been incorporated in the proposed development | 3.0, 6.2.2 |
| 2.9.1.5 | Noise | |
| | • identification of all potential noise sources during construction, operation and decommissioning; and identification of any tonal, impulsive, and highly impulsive types of noise | 6.2.2, 6.2.3 |
| | • comparison of baseline noise levels with predicted noise levels at sensitive receptor locations during construction, operation and / or decommissioning | 6.2.3 |
| | • the incorporation of noise management and noise monitoring plans, including complaint resolution | 6.2.3, 7.4.2 |
| | • the incorporation of the Saskatchewan Conservation Data Centre recommended setback distances for use when a sensitive species is present | 6.2.3, 6.3 |
| 2.9.1.6 | Aquatic and Terrestrial Resources | |
| | • destruction or disturbance of rare, threatened or endangered species or their habitat should be identified as well as proposed mitigation measures | 6.3 |
| | • damage or destruction of sensitive ecosystems such as wetlands should be identified as well as proposed mitigation measures | 6.3.2, 6.3.4 |
| | • disturbance to habitat and wildlife including a discussion of potential for affect on incidence of wildlife diseases, and depredation of agricultural crops by displaced wildlife | 6.3.3 |
| | • describe the extent of the “no hunting” area proposed for safety reasons and plans to handle wildlife | 6.3.3 |
| | • discussion of the issue of access (decreased or increased) to harvesting of wildlife resources should be discussed from a number of sources (e.g. interviews, studies and surveys) | 6.3.3 |
| | • discussion of potential for human / wildlife predator interaction | 6.3.3 |

| PSG Section | | Section |
|---|---|---|
| | • an "Alternatives Analysis" and "Conceptual Fish Habitat Compensation Plan" is required for projects likely to cause a harmful alteration, disruption or destruction (HADD) of fish habitat | 6.3.1 |
| | • predict and describe water and sediment quality conditions and suitability for aquatic biota in constructed water bodies, such as end pit lakes | 6.3.1, 6.2.7 |
| | • describe the potential effect and mitigation of the clearing and taking out of production of land for the development on the local timber harvesters | 6.3.2 |
| 2.9.1.7 | Explosives | |
| | • fuel and ammonium nitrate storage plans, in conformance with Natural Resources Canada's guidelines | 2.5.5, 2.6.2 |
| | • liquid effluent disposal plans | 2.0 |
| | • spill contingency plans | 7.3 |
| | • evaluation of worst-case scenario (e.g., accidental explosion) | 7.2 |
| 2.9.1.8 | Heritage Resources | |
| | • the approved mitigation plan must be included. Potential changes to the approved mitigation must be described along with rationale for the proposed changes | 6.4.6, App.6.4.6-A, -B |
| 2.9.1.9 | Socio-Economic and Land Use Issues | |
| | • impacts on forest vegetation, wildlife, and aquatic resources | 6.3, 6.4 |
| | • potential and effects of increased on and off-road traffic in the FalC | 6.4.3 |
| | • effects on hunting, trapping, fishing and gathering activities, waterway users, domestic and livestock water supplies, transportation, business, recreation, employment and contractor opportunities | 6.4.1, 6.4.3 |
| | • effects of noise or air quality issues on the environment, residents, communities, First Nations and Métis people | 6.4.5 |
| | • potential and effects of increased traffic on the main transportation routes (e.g., Highway 55) | 6.4.1, 6.4.5 |
| | • any other issues identified by potentially affected residents, communities, First Nations or Métis people | 6.4 |
| | • describe any employment targets and strategies for achieving those targets with respect to women in management and non-traditional occupations, Aboriginal people (Indian, Métis and Inuit), persons with physical/mental disabilities and members of visible minority groups. | 6.4.1, 7.3 |
| | • discuss any anticipated or planned enhancement of regional business and employment opportunities, including those for First Nations and Métis peoples and contractors. | 6.4.1 |

| PSG Section | | Section |
|---|---|---|
| 2.9.1.9.1 | Traditional Land Use | |
| | • the Project and cumulative impact of development on Traditional Land uses | 6.4.3, 9.0 |
| | • possible mitigation strategies to avoid or reduce Traditional Land impacts | 6.3, 7.4 |
| | • describe the nature and extent of restrictions on use of specific areas for cultural or spiritual activities | 2.0, 6.4.3 |
| 2.9.1.10 | Decommissioning, Reclamation and Closure | |
| | • describe potential impacts on ground water flow systems and probable quality of the infiltrated water in the pit(s) | 6.2.6 |
| | • describe the anticipated long-term water level and quality of the water in the pit and how these will impact the proposed end-use | 6.2.6, 7.5 |
| | • describe any potential effect the proposed in-filled pit will have on the stability of the Saskatchewan River bank | 2.8, 7.2 |
| | • upon decommissioning, consideration should be given to the re-establishment of the natural drainages for the benefit of fish | 7.5 |
| | • the impacts on sediments and compare data with the Canadian Interim Sediment Quality Guidelines | 6.2.7 |
| | • the potential effects of Project and cumulative acidic deposition on water quality, aquatic biota and habitat conditions of surface water bodies. | 6.3.1, 9.0 |
| | • the potential for seasonal variation in acid input to water bodies (spring acid pulse) | 6.2.7 |
| | • any other activities in the watersheds affected by the Project that, together with the proposed development, have potential to influence water quality | 9.0 |
| | • discuss the potential changes in water quality anticipated from other proposed activities during the life cycle of the proposed development | 9.0 |
| 2.9.2 | Regional/Cumulative Impacts | |
| | • identify and discuss the any potential downstream effects on the Saskatchewan River system (aquatic resources (e.g. lake sturgeon), uses, flow) in the short or long term | 6.2.7, 6.3.1 |
| | • Explain the approach used to identify and assess cumulative impacts, including cooperative opportunities and initiatives undertaken to further the collective understanding of cumulative impacts | 9.0 |
| | • Provide a record of assumptions, including statistical or other quantitative confidence in data and analysis to support conclusions | 9.0 |

| PSG Section | | Section |
|---|---|---|
| | • Describe deficiencies or limitations in the existing database on environmental components and propose measures to deal with resultant uncertainties | 6.0, 9.0 |
| 2.10 | **Monitoring** | |
| | • describe any current baseline and operational monitoring programs for the development | 5.0, 7.4 |
| | • a description of proposed future monitoring | 7.4, 7.5 |
| | • total loading, fate, transport and potential impact of water discharge to the Saskatchewan River on the water quality, quantity and on aquatic and adjacent terrestrial ecosystems | 6.2.7, 7.4 |
| | • monitoring programs, including post-decommissioning, for surface water, ground water and sediment for metals and other relevant substances | 7.4 |
| | • affects which may be associated with the potential loss and/or enhancement of rare and endangered species identified and their habitats | 7.4, 8.0 |
| | • potential impacts of the decommissioning alternatives to the current and future use of the FalC, local and regional ground water regime and the Saskatchewan River | 6.2.6, 6.2.7 |
| | • commitments for operational response procedures should monitoring identify unforeseen/unacceptable environmental impacts during the life of the Project and post-Project | 2.8, 7.0 |
| 2.11 | **Ancillary Developments** | |
| | • provide a description of ancillary developments anticipated as a result of the proposed development. | 2.5.4 |
| 2.12 | **Commitments Register** | |
| | • a summary table of the avoidance, mitigation and monitoring commitments | 7.4 |

Table 1.12-2 cross references the sections provided in this Environmental Impact Statement to requirements laid out in the Comprehensive Study Scoping Document (CEAA et al. 2010) prepared by the Ministry of Environment.

***Table 1.12-2: Table of Concordance for Comprehensive Study Scoping Document***

| Scoping Document | | Section |
|---|---|---|
| 5.3 | **Biophysical Environment** | |
| | Effects of the Project on: | |
| | • surface and groundwater quality and quantity (emphasis on in-stream flow needs, controlled and uncontrolled site releases, and waste rock handling | 5.2.6, 5.2.7, 5.2.8, 6.2.4, 6.2.6, 6.2.7 |
| | • process water and tailings quality and quantity | 5.2.3, 6.2.7 |
| | • slope stability and sediment | 2.6 |
| | • soils and soil productivity | 5.2.2, 6.2.1 |
| | • fish, wildlife and plants listed under the *Species at Risk Act*, including their critical habitat or residences | 5.3, 6.3 |
| | • fish (including lake sturgeon) and fish habitat | 5.3.1, 6.3.1 |
| | • vegetation | 5.3.2, 6.3.2 |
| | • noise and vibration | 5.2.5, 6.2.3 |
| | • air quality including odours, mineral and process particulates, vapours and exhausts | 5.2.4, 6.2.2 |
| | • greenhouse gas emissions | 5.2.4, 6.2.2 |
| | • climate | 5.2.7, 5.2.6 |
| | • other components that the responsible authorities determine should be considered | 5.0, 6.0 |
| | **Socio-Economic and Cultural Environments** | |
| | Effects of any change to any biophysical component listed above on: | |
| | • potable water (quality and quantity) from surface and groundwater sources | 5.2.8, 6.2.7 |
| | • current use of lands and resources for traditional purposes by Aboriginal persons | 5.4.2, 6.4.2 |
| | • physical and cultural heritage | 5.4.5, 6.4.6 |
| | • socio-economic conditions, including worker and public health | 5.4.1, 6.4.1 |
| | • any structure, site or thing that is of historical, archaeological, paleontological or architectural significance | 5.4.5, 6.4.6 |
| | • other land and resource use | 2.6, 6.4.2, 6.4.3 |
| | • potable water availability from groundwater sources | 5.2.6, 5.2.7, 5 2.8 |

| Scoping Document | | Section |
|---|---|---|
| | • recreational use (fishing, hunting, snowmobiling, aesthetics etc) | 5.4.3, 6.4.3 |
| | • agricultural use | 5.4.3, 6.4.3 |
| | • forestry | 5.4.3, 6.4.3 |
| | • mining | n/a |
| | • effects on navigation | 6.2.5 |
| | • impacts to country foods due to effects of the Project | 6.3.2, 6.4.5 |
| | **Spatial and temporal boundaries** | |
| | • Impacts to consider timing/scheduling of Project; natural variations of a component; the time necessary for an effect to become evident; time required for recovery; cumulative effects; comments from the public; and traditional knowledge | 6.0, 9.0 |
| | • Rationale | 6.1, 9.0 |
| | **Need for and purpose of the Project** | |
| | • Need for and purpose of the Project | 1.6 |
| | **Alternative Means of Carrying out the Project** | |
| | • Alternative Means of Carrying out the Project | 2.4.2, 3.0 |
| | **Effects of the Environmental on the Project** | |
| | • Effects from natural hazards such as extreme weather events, seismic event, slope instability and climate change | 2.8, 6.5, 7.2 |
| | • Proposed mitigation will be considered and the determination of their significance | 6.5, 7.2 |
| | **Sustainability of Renewable Resources** | |
| | • Capacity of renewable resources that are likely to be significantly affected by the Project to meet the needs of the present and those of the future | 6.0 |
| | • Groundwater availability to local and regional users needs to be evaluated for sustainable use | 5.2.7, 6.2.6 |
| | **Accidents and Malfunctions** | |
| | • Potential accidents and malfunctions, and the environmental effects that may result for such events if contingency plans are not fully effective. | 2.8, 7.2 |
| | **Cumulative Environmental Effects** | |
| | • Cumulative environmental effects may include additional resource extraction in FalC forest and potential hydroelectricity development on the Saskatchewan River | 9.0 |
| | • Residual environmental effects | 8.0, 9.0 |
| | **Follow-up Program** | |
| | • Designed to verify the accuracy of the environmental assessment and determine the effectiveness of mitigation measures | 7.4 |

## 1.13 REFERENCES

CEAA, DFO, NRCAN, TC. 2010. Comprehensive Study Scoping Document pursuant to Subsection 21(1) of the *Canadian Environmental Assessment Act* for the proposed Star-Orion South Diamond Project. Shore Gold Inc. CEA Registry Reference Number: 09-03-46277. April 21, 2010.

Government of Canada. 1992. *Canadian Environmental Assessment Act*. 1992, c.37. C-15.2. Assented to June 23, 1992.The Queen's Printer. Accessed December 3, 2010 from http://www.canlii.org/en/ca/laws/stat/sc-1992-c-37/latest/sc-1992-c-37.html

Government of Saskatchewan. 1980. *The Environmental Assessment Act*, Being Section E-10.1 of the Statutes of Saskatchewan 1979-80 (effective August 25, 1980) as amended by the Statutes of Saskatchewan, 1983 c.77; 1988-89 c.42 and c.55; 1996 c.F-19.1.

Government of Saskatchewan. 2010. *The Environmental Assessment Amendment Act*, Section 11 An Act to amend *The Environmental Assessment Act* and to make a consequential amendment to *The Forest Resources Management Act* (Assented to May 20, 2010). The Queen's Printer, Regina, Saskatchewan. Accessed September 1, 2010 from http://www.qp.gov.sk.ca/documents/english/Sections/2010/Chap-11.pdf

Government of Saskatchewan. 2007. Agreement on Environmental Assessment (EA) Cooperation. Accessed November 10, 2010 from http://www.environment.gov.sk.ca/

P&E. 2010. Technical Report and Updated Preliminary Feasibility Study on the Star-Orion South Diamond Project, Fort á la Corne, Saskatchewan Canada. N.I. 43-101F1. Technical Report No. 176. P&E Mining Consultants Inc.

Read *et al*. 2011. Feasibility Study on the Star-Orion South Diamond Project Fort à La Corne, Saskatchewan, Canada Effective Date: July 14, 2011

Shore. 2008. Project Proposal. Star-Orion South Diamond Project, Saskatchewan. Prepared by Shore Gold Inc. with assistance from AMEC Earth and Environmental, for submission to the Saskatchewan Ministry of Environment. Shore Gold.

SMOE. 2009. Final Project Specific Guidelines for the Preparation of an Environmental Impact Statement. Star-Orion South Diamond Project. Fort à la Corne Provincial Forest, Saskatchewan. Shore Gold Inc. Province of Saskatchewan, Ministry of Environment, November 2009.