

Summary of the
Draft AIR/Environmental Impact Statement Guidelines

for the

FEDERAL PUBLIC COMMENT PERIOD
January 11, 2012 to March 12, 2012

on the

Comprehensive Study pursuant to the
Canadian Environmental Assessment Act

Proposed Project:
Ajax (Copper-Gold) Mine Project
partially located in the City of Kamloops,
British Columbia

Proponent:
KGHM Ajax Mining Inc.

Federal Summary Prepared by:
Canadian Environmental Assessment Agency

Canadian Environmental Assessment Registry Reference Number:
11-03-62225

FREQUENTLY USED TERMS

Advisory Working Group	A review team comprised of federal, provincial, potentially affected Aboriginal groups, local and regional government representatives
AIR	Application Information Requirements (also known as the Environmental Impact Statement Guidelines for the federal comprehensive study by the CEA Agency)
Application	Application for a provincial Environmental Assessment Certificate from the EAO (also known as the Environmental Impact Statement for the federal comprehensive study by the CEA Agency)
CEA Agency	Canadian Environmental Assessment Agency
EA	environmental assessment
EAO	(British Columbia) Environmental Assessment Office
EIS	Environmental Impact Statement for the federal comprehensive study by the CEA Agency (also known as the Application for the provincial environmental assessment certificate from the EAO)
EIS Guidelines	Environmental Impact Statement Guidelines for the federal comprehensive study by the CEA Agency (also known as the Application Information Requirements for the provincial environmental assessment certificate from the EAO)
proponent	KGHM Ajax Mining Inc.
proposed Project	Ajax (Copper-Gold) Mine Project

INTRODUCTION

The proposed Ajax Mine Project (the proposed Project) is subject to review under both the *Canadian Environmental Assessment Act* and the *British Columbia Environmental Assessment Act* and is undergoing a cooperative environmental assessment (EA) process. The Canadian Environmental Assessment Agency (the CEA Agency) and the British Columbia Environmental Assessment Office (the EAO) are conducting a joint public comment period on the draft Environmental Impact Statement (EIS) Guidelines, also known as the draft Application Information Requirements (AIR) for the cooperative EA. The purpose of this federal summary is to provide the public with an opportunity to review and comment on an overview of the draft EIS Guidelines document. The draft EIS Guidelines document has been prepared by Ajax KGHM Ltd. (the proponent) with guidance from the CEA Agency, the EAO, and the EA Advisory Working Group (a review team comprised of federal, provincial, potentially affected Aboriginal groups, local and regional government representatives).

The public is invited to provide written comments between **January 11 and March 12, 2012** to either the CEA Agency or the EAO:

- By Online Form: www.eao.gov.bc.ca/pcp/forms/Ajax.html
- By Email: Ajax@ceaa-acee.gc.ca
- By Fax: 250-356-6448
- By Mail:

Colleen Hanlan
Project Manager
Canadian Environmental Assessment Agency
410-701 West Georgia Street
Vancouver BC V7Y 1C6

OR

Chris Hamilton
Project Assessment Director
Environmental Assessment Office
PO Box 9426 Stn Prov Govt
Victoria BC V8W 9V1

The full draft EIS Guidelines document for the proposed Project and additional information on the EA of the proposed Project are available on the CEA Agency's website at www.ceaa-acee.gc.ca and on the EAO's website at www.eao.gov.bc.ca. This document can also be reviewed at public libraries including the Kamloops Library 100-465 Victoria St and the North Kamloops Library 693 Tranquille Rd; the City of Kamloops offices located at 7 Victoria St. West and 955 Concordia Way; and the proponent's Kamloops office located at 330 Seymour St.

The draft EIS Guidelines document outlines the proposed studies, methods and information requirements that will be included in the proponent's future Environmental Impact Statement (EIS). The CEA Agency is seeking input from the public on whether the draft EIS Guidelines document's proposed studies, methodologies and information requirements satisfy the public's interests and concerns. After considering the written public comments received during this public comment period, the CEA Agency may direct the proponent to revise the draft EIS Guidelines as appropriate. The CEA Agency will approve a final EIS Guidelines document when the CEA Agency is satisfied that issues and concerns have been considered appropriately according to the *Canadian Environmental Assessment Act*. Once the final EIS Guidelines document is approved by the CEA Agency, the proponent must collect the information required by the EIS Guidelines and prepare and submit an EIS to the CEA Agency for review.

This federal summary includes an overview of:

- the proposed project;
- the federal EA process;
- what is the EIS Guidelines document;
- what is included in the EIS Guidelines document; and,
- next steps in the federal EA process.

☒ Please keep these three questions in mind when providing your written comments during this public comment period:

1. Does the draft EIS Guidelines' proposed studies, methods and information requirements satisfy your interests and concerns?
2. Are there additional interests and concerns you would like to see included for study or consideration?
3. Are there any other environmental considerations in relation to the proposed Project?

1. THE PROPOSED PROJECT

The proposed Project is an open pit copper and gold mine located partially within the City of Kamloops and the Thompson Nicola Regional District in British Columbia (see Figure1). The proposed Project is located southwest of the junction of the Trans Canada Highway and the Coquihalla Highway. The expected life of the mine is 23 years. The average annual production of the proposed mine is estimated to be 106 million pounds of copper and 99 400 ounces of gold-in-concentrate. Based on the proponent's conceptual mine plan, the mill will process 60 000 tonnes of ore per day. The proposed Project is anticipated to have a footprint of approximately 2500 hectares. The proponent intends to utilize the existing transportation corridors and existing infrastructure to the fullest extent possible. Approximately 15 to 20 concentrate transport trucks are proposed to be transported to the Port of Vancouver daily from the mine site for transport to Asian smelters for final processing.

The proposed Project being assessed has the following key components:

- an open-pit mine that would supply 21.9 million tonnes of ore to the processing plant annually over a 23-year mine life;
- a 60 000-tonne-per-day conventional flotation processing plant;
- a thickened tailings plant;
- a tailings storage facility;
- waste rock management facilities;
- water management facilities;
- road and bridge upgrades;
- a new access and haul road;
- a transmission line and transformer upgrades;
- an explosives storage facility;
- a process and potable water system;
- a concentrate storage and shipping area; and,
- concentrate transport to Port of Vancouver.

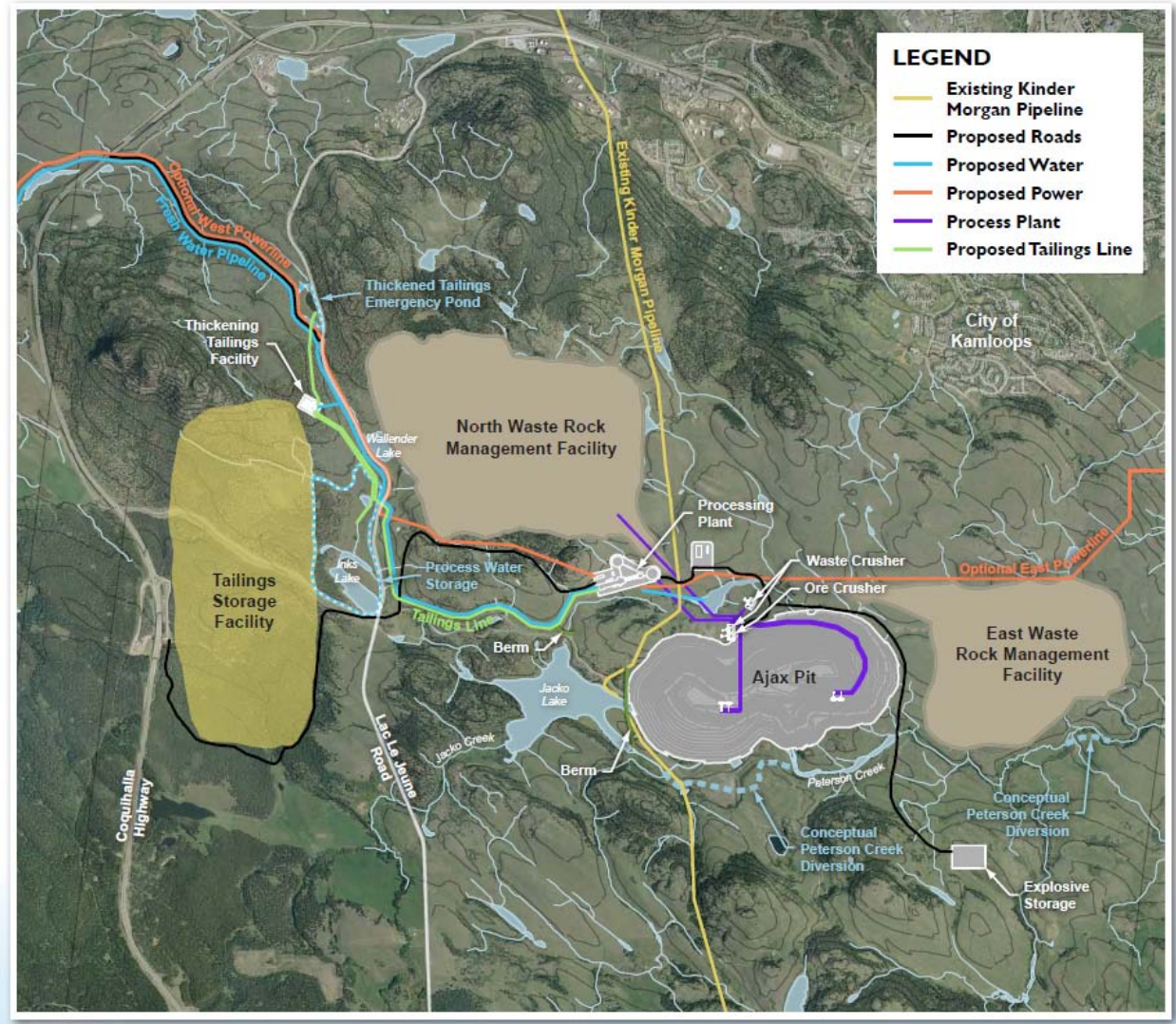


Figure 1 - Proposed Project and Location

The project description document for the proposed Project is available on the EAO's website at www.eao.gov.bc.ca.

2. THE FEDERAL EA PROCESS

An EA is required under the *Canadian Environmental Assessment Act* before federal authorities may take certain decisions which would enable a project to be carried out. An EA is required for this proposed Project because:

- Fisheries and Oceans Canada may issue an authorization under section 35(2) of the *Fisheries Act* for the harmful alteration, disruption or destruction of fish habitat; and,
- Natural Resources Canada may issue a license pursuant section 7(1)(a) of the *Explosives Act* for the manufacture and/or storage of explosives.

The federal EA is being conducted as a comprehensive study because the proposed copper-gold ore production rate exceeds the threshold in the *Comprehensive Study List Regulations*. Specifically, the

proposed Project is expected have an ore production capacity of 60 000 tonnes per day, exceeding the section 16(c) threshold for the proposed construction, decommissioning, or abandonment of a metal mine, other than a gold mine, with an ore production capacity of 3000 tonnes per day or more.

Under federal legislation, proponents have the right to submit a project proposal for review. When a proponent seeks to develop a proposed project that triggers an EA under the *Canadian Environmental Assessment Act*, that project is subject to the processes and procedures established by that legislation. Due process and fairness requires that government consider and assess the proposed project before making a determination. Accordingly, the proposed Ajax Copper-Gold Mine Project will be subject to a careful examination of the Project's potential effects on the environment and the best ways to reduce any significant adverse environmental effects through mitigation. The CEA Agency is responsible for ensuring a fair and transparent EA process and for submitting a Comprehensive Study Report to the Minister of the Environment for an EA decision.

The *Canadian Environmental Assessment Act*, section 16, requires that the following factors be taken into consideration in a federal comprehensive study EA:

- the purpose of the Project;
- alternative means of carrying out the Project that are technically and economically feasible and the environmental effects of any such alternatives;
- the environmental effects (as defined below) of the Project, including the environmental effects of malfunctions or accidents that may occur in connection with the Project and any cumulative environmental effects that are likely to result from the Project in combination with other projects or activities that have been or will be carried out;
- measures that are technically and economically feasible and that would mitigate any significant adverse environmental effects of the Project;
- the significance of the environmental effects;
- the need for, and the requirements of, any follow-up program in respect of the Project;
- comments from the public obtained in accordance with *the Canadian Environmental Assessment Act*;
- the 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; and,
- any other matter relevant to the comprehensive study, such as the need for the Project and alternatives to the Project, that the CEA Agency may require to be considered.

The *Canadian Environmental Assessment Act*, section 2, defines an environmental effect as:

“(a) any change that the project may cause in the environment, including any change it may cause to a listed wildlife species, its critical habitat or the residences of individuals of that species, as those terms are defined in subsection 2(1) of the *Species at Risk Act*,

“(b) any effect of any change referred to in paragraph (a) on

i) health and socio-economic conditions,

ii) physical and cultural heritage,

iii) the current use of lands and resources for traditional purposes by aboriginal persons, or

iv) any structure, site or thing that is of historical, archaeological, paleontological or architectural significance, or

“(c) any change to the project that may be caused by the environment, whether any such change or effect occurs within or outside Canada.”

Generally speaking, there are six steps in the federal comprehensive study process, outlined below.

Step 1 – Project Description

A federal comprehensive study begins when a proponent submits a project description that includes all necessary information about the proposed Project as required by the CEA Agency.

June 8 – July 11, 2011: the CEA Agency and EAO conducted a joint public comment period on the proposed cooperative EA process and the proposed Project. A background document prepared by the CEA Agency was posted on the Canadian Environmental Assessment Registry website for public comment.

Step 2 – EIS Guidelines

The proponent prepares a draft EIS Guidelines document with guidance from the CEA Agency, the EAO and the EA Advisory Working Group. The CEA Agency will approve a final EIS Guidelines document when the CEA Agency is satisfied that all issues and concerns have been considered appropriately according to the *Canadian Environmental Assessment Act*.

January 11 - March 12, 2012: the CEA Agency and EAO are conducting a joint public comment period on the draft EIS Guidelines document.

Step 3 – EIS

Once the EIS Guidelines document is approved by the CEA Agency, the proponent must collect the information required by the EIS Guidelines and prepare and submit an EIS to the CEA Agency for review. The EIS will include the results of studies; an assessment of potential environmental effects; any proposed measures to avoid, mitigate or compensate for potential adverse environmental effects; any required environmental management plans; and, any other information as required by the EIS Guidelines document.

In the Future: when the EIS is submitted by the proponent and determined to be accepted for review, the CEA Agency and EAO anticipate conducting a joint public comment period on the EIS document.

Step 4 – Comprehensive Study Report

The CEA Agency will prepare a Comprehensive Study Report to summarize the outcome of EA, including written public comments received up to this stage in the EA. This report will be used to recommend to the Minister of Environment whether, taking into account the implementation of any mitigation measures, the proposed Project is or is not likely to cause significant adverse environmental effects.

In the Future: when the CEA Agency has prepared a Comprehensive Study Report, the CEA Agency will conduct a federal public comment period on the Comprehensive Study Report. The written public comments received during this public comment period will be summarized to the federal Minister of Environment for consideration in making an EA Decision Statement.

Step 5 – EA Decision Statement

For a comprehensive study type EA, the federal Minister of the Environment will issue an EA Decision Statement which considers the Comprehensive Study Report and written public comments received during the public comment period on the Comprehensive Study Report. The EA Decision Statement includes:

- the Minister's opinion as to whether, taking into account the implementation of any mitigation measures the Minister considers appropriate, the project is, or is not, likely to cause significant adverse environmental effects; and,

- any mitigation measures or follow-up program that the Minister considers appropriate.
- Before issuing an EA Decision Statement, the Minister may request additional information or require that public concerns be further investigated.

Step 6 – Mitigation and Follow-up

Following the EA decision statement, the Minister will refer the proposed Project back to the responsible federal departments, in this case Fisheries and Oceans Canada and Natural Resources Canada, to take the appropriate course of action decisions. If it is determined that the proposed Project should proceed and the proposed Project is constructed, the mitigation measures identified in the Comprehensive Study Report are incorporated into the design plans and implemented with the Project. Where required by federal authorities, a follow-up program is also designed and implemented to verify that the EA was accurate and the mitigation measures were effective.

Please Note: The proposed Project is also subject to the *British Columbia Environmental Assessment Act* which is administered by the EAO. The EA is being conducted in accordance with the principles of the *Canada-British Columbia Agreement for Environmental Assessment Cooperation (2004)*. Under this Agreement, both the Government of Canada and the Government of British Columbia conduct a single, cooperative assessment, where possible, to meet the EA requirements of both levels of government while allowing for independent decision-making on matters within their own legislative authority. Further details the provincial environmental assessment requirements are available from the EAO website at: <http://www.eao.gov.bc.ca/>

3. WHAT IS THE EIS GUIDELINES DOCUMENT

The EIS Guidelines document outlines the studies, methods and information the proponent will be required to include in its future EIS document. The proponent has developed the draft EIS Guidelines document with guidance from the CEA Agency, the EAO and the EA Advisory Working Group. The requirements outlined in both the *Canadian Environmental Assessment Act* and the B.C. *Environmental Assessment Act* must be satisfied in the draft EIS Guidelines document.

The draft EIS Guidelines document does not contain:

- the results of the studies
- an assessment of potential project effects
- environmental management plans
- proposed mitigation

It is important to the CEA Agency to seek public input on the draft EIS Guidelines document because this document sets out the information requirements for the proponent's future EIS document. The EIS Guidelines document is a set of directions and questions for which the proponent is required to provide results and answers in its future EIS document. The CEA Agency will use the future EIS document to determine if the proposed Project is, or is not, likely to cause significant adverse environmental effects or if more information is required. In reviewing the future EIS document, the CEA Agency will evaluate how the proponent has completed the directions and the quality of its answers based on the EIS Guidelines document.

4. WHAT IS INCLUDED IN THE DRAFT EIS GUIDELINES DOCUMENT

The purpose of this federal summary is to provide the public with an opportunity to review and comment on an overview of the draft EIS Guidelines document. The following lists each section of the draft EIS Guidelines document, elaborating on the issues and concerns that are required by the federal EA process and have been of considerable public interest to date. For more information, please refer to the full draft EIS Guidelines document.

The draft EIS Guidelines document is divided into five parts: Part A to Part E. Under each Part, there are Sections, as appropriate. For ease of reference, this federal summary will make reference to the Part and Section number used in the full draft EIS Guidelines.

Please remember to reference the 'Section Number' when submitting your written comments, it helps us to better understand your concerns and interests and provides us with your direction on how to best consider your comments.

Part A - Introduction and Background

Sections 1.0 to 4.0 of the draft EIS Guidelines document require the proponent's future EIS document (also known as the Application for the EAO) to include the following information.

Section 1.0 – Purpose of the Application

The proponent will provide a summary of the purpose of the EIS/Application, as well as a statement that the EIS/Application fulfils the federal (*Canadian Environmental Assessment Act*) and provincial (*British Columbia Environmental Assessment Act*) requirements.

Section 2.0 – Project Overview

The proponent will provide an overview of the proposed Project. In this section of the EIS, the proponent will also include:

- information on the proponent, the consultants and other professionals engaged by the proponent including identification and summary of their expertise;
- an overview of the project description and proposed project including but not limited to location, components, activities, and schedule;
- a description of the scope of the proposed Project being assessed under both the provincial and federal EA processes;
- information on alternative means that are technically and economically feasible for carrying out the proposed Project, and a rationale for selecting the preferred alternative means;
- a description of the land ownership and land use regimes that would be potentially affected by the proposed Project including the Kamloops Land and Resource Management Plan, City of Kamloops Official Community Plan, City of Kamloops Sustainable Kamloops Plan, and other future developments; and,
- a list of all applicable provincial and federal licenses, permits and or approvals required for the construction, operation and decommissioning of the proposed Project.

Section 3 – Detailed Project Description

The proponent will include a detailed project description supported with maps and figures to demonstrate the proposed Project location, design and layout. In this section of the EIS, the proponent will also include:

- a description of the open pit development, its design and structures, its phases, management structures and methods, monitoring structures and methods, and ore waste control;
- a mine production schedule, mining plan, ore and waste production schedule, and the annual metal production in concentrate;
- a description of the process plant operations and the tailing storage facility, waste rock storage and ore stockpiles, and overburden and topsoil stockpiles;
- a list of the mining equipment used during construction and operations;
- a description of the storage and use of explosives;
- a description of the water supply use and sources, as well as mine water management facilities, structures and methods;
- a description of the power line and power line route;
- a description of the access and transport corridors, including public roads, as well as the frequency and approximate timing of the trips and the type and quantities of goods to be moved;
- a description of all proposed site ancillary infrastructure; and,
- a description of the closure and reclamation plan.

Section 4 – Assessment Process

The proponent will describe both the federal and provincial EA process. In this section of the EIS, the proponent will also include:

- a list of all federal and provincial organizations involved in the EA;
- issues tracking tables to document issues and concerns raised and the degree to which issues and concerns are considered to be resolved or addressed - one tracking table will be developed for each of the public, First Nations and Government (local, provincial and federal);
- a summary of the First Nations' consultation activities undertaken with potentially affected First Nations by the proponent and a summary of the issues and concerns raised and identification of any outstanding issues;
- a summary of the public consultation activities undertaken by the proponent, a summary of the issues, concerns and interests identified and how these matters were addressed; and,
- a description of any future public consultation planned during and after the EIS review by the EA Advisory Working Group.

Part B – Assessment of Potential Effects, Mitigation Measures, and Significance of Residual Effects

Sections 5.0 to 11.0 of the proponent's future EIS document (also known as the Application for the EAO) will include the following information.

Section 5.0 – Effects Assessment

The proponent will provide an initial assessment of what it believes to be the potential effects of the proposed Project. In this section of the EIS, the proponent will also include:

- a description of the selected valued components, the spatial and temporal boundaries for each valued component, and an explanation of how significance of potential adverse effects was assessed; and,
- a description of the cumulative effects assessment methodology as required by relevant federal and provincial guidance, including other projects being considered as part of the cumulative effects assessment.

The table below lists the valued components the proponent is proposing to assess for the proposed Project. Does this preliminary list of valued components satisfy your concerns and interests?

Preliminary List of Valued Components for the proposed Project
(Table 5.1 – 1 in the full draft EIS Guidelines)

Assessment Category	Proposed Valued Component
Environment Valued Components	<ol style="list-style-type: none"> 1. Climate 2. Geology, Landforms and Soils 3. Surface water quality 4. Surface water quantity 5. Groundwater quality 6. Groundwater quantity 7. Fish populations and fish habitat 8. Rare plants 9. Rare and Sensitive Ecological Communities 10. Terrestrial Invertebrate 11. Amphibian 12. Reptile 13. Migratory Bird 14. Raptor 15. Non-migratory Gamebird 16. Bat 17. Mammal
Economic Valued Components	<ol style="list-style-type: none"> 1. Labour force 2. Education and training 3. Income 4. Employment 5. Business 6. Cost of living 7. Housing 8. Infrastructure 9. Economic Diversification
Social Valued Components	<ol style="list-style-type: none"> 1. Culture 2. Community health and well-being 3. Public facilities and services, including transportation 4. Dark sky / Shading 5. Land and Resource Use 6. Jacko Lake 7. Visual Impact / Aesthetic Features 8. Aboriginal community interests
Heritage Valued Components	<ol style="list-style-type: none"> 1. Heritage objects 2. Heritage sites
Health Valued Components	<ol style="list-style-type: none"> 1. Air quality (Dustfall, PM₁₀ and PM_{2.5}) 2. Water quality 3. Noise and vibration 4. Health education 5. Healthy living

Section 6.0 – Assessment of Potential Environmental Effects

The proponent will present its initial assessment of the potential environmental effects of the proposed Project on each valued component identified in the EIS Guidelines. In this section of the EIS, the proponent will also include:

- the rationale for choosing and assessing each valued component, whether it was based on federal or provincial listing or regulation, First Nations' interest, public and stakeholder input, scientific and professional knowledge, and/or relevant legislation or policy;

- the potential environmental effects of the proposed Project on each valued component, to be assessed through every phase of the proposed Project: construction, operations and reclamation, decommission and closure, and post-closure; and,
- the assessment of each valued component according to the following sequential methodology:
 - The proponent will identify potential effect of the proposed Project on each valued component.
 - The proponent will propose measures to mitigate (eliminate, reduce or control) potential effects (e.g., potentially through a mine design change or environmental controls and can include developing monitoring and follow-up programs).
 - If a potential effect cannot be completely eliminated through mitigation, the proponent will identify the residual effect that remains and determine the significance of the residual effect.
 - For any residual effect, the proponent will assess the residual effects of the proposed Project with the potential interactions with other past, present and reasonably foreseeable future projects or activities, and determine the potential cumulative effects.
 - The proponent will proposed measures to mitigate (eliminate, reduce or control) the potential cumulative effects.
 - If a potential cumulative effect cannot be completely eliminated through mitigation, the proponent will determine the significance of any remaining residual cumulative effects.

This federal summary document elaborates on the following four topics in Section 6.0 that have been of considerable public interest to date:

- wildlife and their habitat;
- fish and fish habitat;
- grasslands; and,
- water.

“Wildlife and Their Habitat”

Related to Sections 6.10 Terrestrial Invertebrate; 6.11 Amphibian; 6.12 Reptile; 6.13 Migratory Bird; 6.14 Raptor; 6.15 Non-Migratory Gamebird; 6.16 Bat; 6.17 Mammal

The proponent is required to assess, as outlined in the draft EIS Guidelines document, the potential direct and indirect effects of the proposed Project on wildlife and their habitat at both a local study area scale and regional study area scale throughout all phases of the proposed Project. The proponent will collect baseline information from field studies, surveys and sampling, ecosystem map truthing, and existing map resources. All field studies conducted by the proponent will be completed to applicable provincial and federal standards. Typical examples of field studies include visual and audio observation, documenting movement patterns, air photos, and vegetation mapping. Traditional knowledge shared by potentially affected Aboriginal groups may be included. Potential effects of the proposed Project on wildlife and wildlife habitat during all project phases from pre-construction to post-closure will be considered.

The proponent is also required to describe all mitigation measures it will commit to undertaking to mitigate for the potential adverse effects identified and discuss the anticipated effectiveness for each mitigation measure. Mitigation measures could include proven methods, best management practices, legislative requirements, and species specific recovery strategies where available. For example, the proponent could adjust certain components of the proposed Project footprint to avoid sensitive wildlife habitat, make specific plans for garbage management, noxious weed control and dust management. The proponent must commit

to exploring opportunities for site restoration and enhancement to offset potential losses and improve biodiversity in the proposed Project area.

“Fish and Fish Habitat”

Related to Sections 6.7 Fish Populations and Fish Habitat; 6.3 Surface Water Quality; 6.4 Surface Water Quantity; 6.5 Groundwater Quality; 6.6 Groundwater Quantity

The proponent is required to assess both the potential direct and indirect effects of the proposed Project on fish and fish habitat throughout all phases of the proposed Project. This requirement includes documenting the presence or absence, abundance and distribution of various species of fish in the proposed Project area. In addition, the proponent is required to quantify available fish habitat, and establish baseline metal loadings in fish tissue. The proponent will conduct sampling to study the overall health of benthic invertebrates (organisms that live in or on the bottom sediments of rivers, streams and lakes). Information will be collected by the proponent through field observation and aquatic studies that were initiated in the proposed project area in 2007.

The proponent is also required to describe all measures it will commit to undertaking to mitigate for the potential adverse effects identified and discuss the anticipated effectiveness for each mitigation measure. Mitigation measures could include proven methods, best management practices, legislative requirements, and fish habitat compensation when appropriate.

“Grasslands”

Related to Sections 6.8 Rare Plants; 6.9 Rare and Sensitive Ecological Communities

The proponent is required to assess the potential effects of the proposed Project on rare and sensitive ecological communities, including grasslands and wetlands throughout all phases of the proposed Project. The proponent is required to conduct baseline studies to document and assess existing grasslands and wetlands to federal and provincial guidelines and standards. Field surveys will be used to document the presence of rare plants and rare and sensitive ecological communities within the footprint of the proposed Project.

The proponent will identify if there is an adverse effect and propose mitigation measures to minimize potential adverse effects on grasslands. The proponent will explore opportunities for site restoration and enhancement to help offset potential losses and improve biodiversity.

“Water (Surface and Ground Water)”

Related to Sections 6.1 Climate; 6.2 Geology, Landforms and Soils; 6.3 Surface Water Quality; 6.4 Surface Water Quantity; 6.5 Groundwater Quality; 6.6 Groundwater Quantity; 6.7 Fish Populations and Fish Habitat

The proponent is required to assess the potential effects of the proposed Project on surface water and groundwater resources throughout all phases of the proposed Project. The proponent will use a surface and groundwater model to integrate results of metal leaching/acid rock drainage prediction work, baseline water quality, hydrology, and water balance information to develop water quality predictions for the effects assessment. The proponent will describe expected changes in surface hydrology resulting from infrastructure development and freshwater withdrawal requirements for the proposed Project. A site water balance will characterize surface and ground water levels. Predictive seepage models will identify potential project areas that could leak chemicals into water resources.

The proponent will collect information from ongoing surface water and groundwater sampling and monitoring programs. Hydrological assessments will be based on a compilation of site hydrology data from stations installed in 2008, as well as climate data and long-term regional data. The proponent will also utilize the City of Kamloops well-water data, drill logs, and other relevant groundwater data.

The proponent will identify mitigation measures to minimize the potential adverse effects of the proposed Project on surface and ground water quality and quantity. The proponent will also provide specific information on the chemicals used in ore processing, as well as mitigation and monitoring measures to prevent adverse effects on water resources. The results of the effects assessment will also be used to prescribe materials handling procedures and management requirements for the proposed Project. A cumulative effects assessment will identify any residual effects of the proposed Project on surface and ground water that could potentially interact with the adverse effects of other projects or activities in the area.

Section 7.0 - Assessment of Potential Economic Effects

The proponent will include a baseline economic profile of the Kamloops region based on information from socio-economic studies and conduct an assessment of the potential effects of the proposed Project on the local economy. In this section of the EIS, the proponent will also include the following.

- The potential effects on jobs and businesses in the construction and operations phases of the proposed Project and government tax contributions will be considered.
- How the proposed Project would interact with other economic activities in the region, including forestry, tourism, recreation and Thompson River University will be considered (including property values).
- A cumulative effects assessment will be conducted to consider residual effects of the proposed Project on economic valued components that could potentially interact with residual effects of other projects, activities (industrial, commercial and residential) and land use in the region, and whether such interaction would significantly impact the local economy and employment.
- Socio-cultural implications arising from the loss of agricultural activities will be examined, in part through interviews with potentially affected land owners.

Section 8.0 – Assessment of Potential Social Effects

The proponent will consider the number and frequency of concentrate trucks leaving and arriving at the proposed Project site and any other shipment of material, including waste. Baseline studies of current traffic patterns on roads at or adjacent to the proposed Project site and concentrate shipping corridor will be used. In this section of the EIS, the proponent will also include the following.

- The frequency and volume of commuter traffic to and from the proposed Project site will be assessed, with consideration of increased traffic within nearby residential areas.
- Potential implications of health service requirements will be assessed.
- A baseline of the use and capacity of current and proposed Project healthcare facilities will be presented.
- A description of the regional and study area geology with respect to terrain and soil stability and the rate and direction of groundwater flow will be included.
- Health care baseline will be used to assess implications of proposed Project-related health care service requirements, and if required, mitigation measures will be proposed.
- A cumulative effects assessment will be conducted to identify potential residual effects of the proposed Project that could potentially interact with residual effects of other projects or activities, and whether this would result in a significant impact to infrastructure.

- Aesthetics of the proposed Project and its impacts to tourism, recreation and the local economy will be considered.
- A baseline program will collect climate related information for the proposed Project area, including a summary of existing light levels and shading effects in the neighbourhoods surrounding the proposed Project and at the Stake Lake Observatory.

Section 9.0 - Assessment of Potential Heritage Effects

The proponent will identify and analyze potential adverse effects on heritage objects resulting from the proposed Project, including effects from all phases of the operation, and describe measures to be undertaken to mitigate any potential adverse effects. This may involve project redesign or archaeological excavation and follow-up analysis of any recovered artefacts or recorded features.

- The proponent will provide a description of the local and regional extent of the potential heritage effects assessment and maps outlining the regional and local study areas.
- Information for the effects assessment will be obtained from an archeological assessment and traditional ecological or community knowledge, where available.
- The archaeological assessment will include an Archaeological Overview Assessment (AOA) to predict the potential for the presence of archaeological resources within a specific area, and an Archaeological Impact Assessment (AIA) including surface and subsurface testing conducted under the Authority of a *Heritage Conservation Act* Inspection Permit, as well as descriptions of any anticipated proposed Project impacts and management measures.

Section 10.0 – Assessment of Potential Health Effects

In this Section of the EIS, the proponent will also identify and evaluate the potential effects of the proposed Project on air quality, noise and vibration levels, and their potential effects on human health. The proponent will describe measures that it will commit to implement to mitigate for any potential adverse effects.

This federal summary document elaborates on the topics in Section 10.0 that have been of considerable public interest to date:

- air quality impacts on human health; and,
- noise and vibration impacts on human health.

“Air Quality Impacts on Human Health”

The proponent will identify and analyze proposed Project components and activities that could affect air quality and human health including emissions from machinery and equipment, from site and access road operation and use, from the tailings storage facility, from waste rock management facilities, from drilling and blasting, and from the in-pit conveyors. The proponent will measure air quality in terms of dustfall as well as particulate matter that can be inhaled. The effects assessment will describe the composition of particulate matter in terms of the potential toxic substances and potential to pollute the environment. The proponent will use existing standards and benchmarks as guiding principles in its assessment of air quality (standards are listed in the full draft EIS Guidelines). The proponent will model and predict the ambient air quality during the proposed Project operation phase. The EIS will clearly define the Local Study Area and the criteria used to determine its boundaries.

The proponent is required to identify if there is an adverse effect to human health from air quality impacts.

The proponent will discuss mitigation measures to minimize the release of dustfall and particulate matter during all phases of the proposed Project and discuss the anticipated effectiveness for each mitigation measure.

“Noise and Vibration Impacts on Human Health”

The proponent will identify and evaluate the potential effects of the proposed Project on noise and vibration levels, using methodologies referenced in the Health Canada document, *“Guidance for Evaluating Human Health Impacts in Environmental Assessment: Noise. DRAFT” (January 2011)*. Baseline daytime and night time sound levels will be continuously monitored. A noise and vibration model will be developed to predict noise increase and potential vibration during all project phases. The proponent will use existing guidelines to determine the significance of modelled noise and predicted vibration levels, as well as to define the Local Study Area and the Regional Study Area.

The proponent is required to identify if there is an adverse effect on human health from noise and vibration. The proponent will describe mitigation measures to minimize or noise and vibration impacts during all phases of the proposed Project and discuss the anticipated effectiveness for each mitigation measure.

Section 11.0 – Summary of Proposed Environmental and Operational Management Plans

The proponent will develop an Environmental Management System to ensure that mitigation measures and controls are in place to minimise the potential for adverse environmental effects during all project phases. This will include a number of environmental monitoring and environmental management plans. The proponent will present the reporting structure and frequency of reports to be submitted to the appropriate government agencies, as identified by each monitoring or management plan.

Part C- First Nations Information Requirements

The proponent will be required to provide the following information described in Sections 12.0 to 16.0 in its future EIS document.

Section 12.0 – Background Information

The proponent will identify all First Nations groups that could be potentially affected by the proposed Project. In this section of the EIS, the proponent will also include:

- each First Nations group’s traditional territory, including maps if available; and,
- background information for each First Nations group including but not limited to ethnography, language, land use setting and planning, governance, economy and reserves.

Section 13.0 – Aboriginal Rights

The proponent will identify how the proposed Project may adversely impact asserted Aboriginal rights and describe mitigation measures to avoid or reduce potential impacts. In this section of the EIS, the proponent will also include:

- past, present and anticipated future uses of the are proposed Project area; and,
- asserted Aboriginal rights about which the proponent receives information from potentially affected Aboriginal groups or other sources.

Section 14.0 – Other Aboriginal Interests

The proponent will identify First Nations’ interests with respect to potential impacts of the proposed Project on social, economic, environmental, heritage and health effects that are not already identified as an

asserted Aboriginal right in Section 13.0. The proponent will provide a description of the First Nations' interests and how these interests have been addressed by the proponent.

Section 15.0 – Aboriginal Consultation

The proponent will summarize its past and planned consultation activities with potentially affected First Nations groups.

Section 16.0 – Summary

The proponent will identify accommodation measures including mitigation measures, project design considerations and specific commitments, which address potential impacts on asserted Aboriginal rights and interests raised by First Nations groups. A table will be included in the EIS to summarize the potential effects on asserted Aboriginal rights and First Nations interests and the proponent's accommodation measures.

Part D – Federal Information Requirements

The proponent will be required to provide the following information described in Section 17.0 in its future EIS document.

Section 17.0 – Federal Environmental Assessment Requirements

In addition to the information required in Sections 1.0 – 16.0, the *Canadian Environmental Assessment Act* also requires the following information:

- the purpose of the project;
- alternative means of carrying out the project;
- species at risk;
- the effects of the environment on the project;
- need for a follow-up program; and,
- the capacity of renewable resources that are likely to be significantly affected by the project.

To satisfy this requirement, the proponent is required to provide a thorough description of the purpose of the proposed Project and any alternative means of carrying out the proposed Project. In this section of the EIS, the proponent will also:

- describe the need for the proposed Project and the purpose of the proposed Project;
- describe alternative means of carrying out the proposed Project that are technically and economically feasible;
- provide reasons for selecting the preferred option including the analysis and selection criteria used for selecting the preferred option; and,
- discuss the potential environmental effects of any alternative means discussed.

The proponent is required to identify any species at risk (listed under Schedule 1 of the *Species at Risk Act*) that could be potentially affected by the proposed Project. In this section of the EIS, the proponent will also:

- describe any change that the proposed Project may cause to a species at risk, its critical habitat, or the residences of individuals of that species; and,
- identify any recovery strategies and the recovery objectives for the species at risk, identify if the proposed Project is aligned with the established objectives.

The proponent is required to identify and analyze the environmental factors that could affect the proposed Project. In this section of the EIS, the proponent will also:

- consider the potential effects of extreme weather events, natural events such as subsidence or floods, fires, and slope stability and mass wasting events on the proposed Project; and,
- identify mitigation measures to avoid or mitigate for those potential effects on the proposed Project.

The proponent is required to commit to develop follow-up programs in the future, as required based on direction from federal agencies. Follow-up programs can verify the accuracy of the EA of the proposed Project and determine the effectiveness of any measures taken to mitigate for potential adverse environmental effects of the proposed Project.

- Follow-up program design, as required, will be completed and implemented based on guidance from federal agencies, existing federal guidance and operational policy statements.
- Follow-up programs, if required, will include a description of the type, frequency, duration and location of programs and monitoring, including who is responsible for the programs.
- The proponent will provide the planned approach to data management, analysis and reporting as well as contingency plans and reporting if it is detected that the project will not effectively mitigate a potential adverse environmental effect.

The proponent will include an analysis of the capacity of renewable resources to meet the needs of the present and those of the future where these resources are likely to be significantly affected by the proposed Project.

Part E – Conclusions

The proponent will be required to provide the following information described in Sections 18.0 to 20.0 in its future EIS document.

Section 18.0 – Summary of Residual Effects

The proponent will provide a table summarizing information for each environmental, economic, social, heritage or health effect that cannot be completely avoided or mitigated by the proponent. For each potential residual effect, the proponent will summarize the project phase, project activity, potential effect, mitigation measure, and the significance of the residual effect.

Section 19.0 – Summary of Commitments

The proponent will provide a summary of their commitments to minimize the potential effects of the proposed Project on environmental, economic, social, heritage and health effects. In this section of the EIS, the proponent will also include:

- a table of commitments; and,
- for each commitment, the commitment number, a description of the commitment, the project phase/timing for implementation, the source of commitment, the responsible agency and the status of the commitment.

Section 20.0 – Conclusion

The proponent will summarize its understanding of the objectives of the provincial and federal EA process and provide a description of how the proposed Project aligns with the goals of both. In this section of the EIS, the proponent will also include:

- a request for an EA Decision Statement from the federal government; and,
- a request for an EA Certificate from the provincial government.

5. NEXT STEPS IN THE FEDERAL EA PROCESS

The CEA Agency will take into consideration written comments received during this public comment period and will require the proponent to track the issues and concerns identified and provide responses that relate to the information requirements of the federal EA. After considering the draft EIS Guidelines and written public comments received during this public comment period, the CEA Agency may direct the proponent to revise the document as appropriate. The CEA Agency will approve a final EIS Guidelines document when the CEA Agency is satisfied that issues and concerns have been considered appropriately according to the *Canadian Environmental Assessment Act*. Once the final EIS Guidelines document is approved by the CEA Agency, the proponent must collect the information required by the EIS Guidelines and prepare and submit an EIS to the CEA Agency for review.

The CEA Agency plans to provide two future opportunities for the public to participate in the federal EA process: an opportunity related to the proponent's EIS, and an opportunity to comment on the federal Comprehensive Study Report.

The Agency and EAO websites provide information on the status of the proposed Project and the EA process, including opportunities for public participation, and can be found at www.eao.gov.bc and www.ceaa.gc.ca.