

**BACKGROUND INFORMATION**

**for the**

**INITIAL FEDERAL PUBLIC COMMENT PERIOD**

**on the**

**Comprehensive Study pursuant to the  
*Canadian Environmental Assessment Act*  
of the**

**Ajax Mine Project  
Kamloops, British Columbia**

**Proposed by:  
KGHM Ajax Mining Inc.**

**Prepared by:  
Canadian Environmental Assessment Agency**

***Canadian Environmental Assessment Registry Reference Number: 11-03-62225  
File Number: 4302-0072***

**June, 2011  
(Revised August, 2011)**

---

## Table of Contents

1.0	INTRODUCTION AND PURPOSE .....	1
3.0	REQUIREMENT FOR A FEDERAL ENVIRONMENTAL ASSESSMENT .....	4
3.1	<i>The Canadian Environmental Assessment Act</i> .....	4
3.2	<i>Comprehensive Study List Regulations</i> .....	4
3.3	<i>Role of Federal Authorities</i> .....	5
3.4	Role of the Minister of the Environment .....	5
4.0	JOINT CANADA–BRITISH COLUMBIA ENVIRONMENTAL ASSESSMENT PROCESS.....	5
6.0	FACTORS TO BE CONSIDERED IN THE COMPREHENSIVE STUDY .....	6
6.1	Factors to be considered in a federal comprehensive study .....	6
6.2	Scope of the Potential Environmental Effects .....	7
6.3	Spatial and Temporal Boundaries of Environmental Components.....	8
6.4	Additional matters to be considered .....	8
7.0	PUBLIC PARTICIPATION.....	10
7.1	Public comments at this time .....	11
7.2	Participant Funding .....	- 11 -
7.3	Canadian Environmental Assessment Registry .....	- 2 -
8.0	ABORIGINAL CONSULTATION .....	- 2 -
9.0	FURTHER INFORMATION .....	- 2 -

---

## List of Tables

Table 1	Scope of Factors .....	7
---------	------------------------	---

---

## List of Figures

Figure 1	Regional Setting for the Proposed Ajax Mine Project (from the project description submitted by KGHM Ajax Mining Inc.).....	2
----------	-------------------------------------------------------------------------------------------------------------------------------	---

## **List of Abbreviations**

the Act	<i>Canadian Environmental Assessment Act</i>
the Agency	<i>Canadian Environmental Assessment Agency</i>
cm	centimetres
DFO	Fisheries and Oceans Canada
EAO	British Columbia Environmental Assessment Office
EIS	Environmental Impact Statement
ha	hectares
km	kilometre(s)
Mt	Million tonnes

## 1.0 INTRODUCTION AND PURPOSE

The Canadian Environmental Assessment Agency (the Agency) has received and accepted a Project Description for the Ajax Mine Project (the Project) proposed by KGHM Ajax Mining Inc. which is located partially within the City of Kamloops, British Columbia. KGHM Ajax Mining Inc. proposes to construct and operate a copper/gold mine. Based on a review of the project description, the Agency has determined that the Project likely has triggers under Section 5 of the *Canadian Environmental Assessment Act* (the *Act*). Due to the likely requirement for an authorization under the *Fisheries Act* related to potential impacts on fish and fish habitat, Fisheries and Oceans Canada is the potential Responsible Authority under the Act. Therefore, a federal environmental assessment of the Project is required. In addition, the Agency has determined that the Project is listed on the *Comprehensive Study List Regulations* and therefore, a comprehensive study will be required.

The Project is also subject to an environmental assessment under the British Columbia Environmental Assessment Act. In accordance with the Cabinet Directive on Improving the Performance of the Regulatory System for Major Resource Projects, the proposed Project has also been identified as a “major resource project” and will be subject to the Major Projects Management Office procedures (see [www.mpmo-bggp.gc.ca](http://www.mpmo-bggp.gc.ca)).

The primary objective of the federal environmental assessment process is to minimize or avoid the adverse environmental effects of a project before they occur and to incorporate environmental factors into decision making. The federal environmental assessment process aims to promote sustainable development and, thereby, achieve or maintain a healthy environment and economy. The environmental assessment process also promotes communication and cooperation among federal and provincial agencies and Aboriginal groups, and provides opportunities for timely and meaningful public participation.

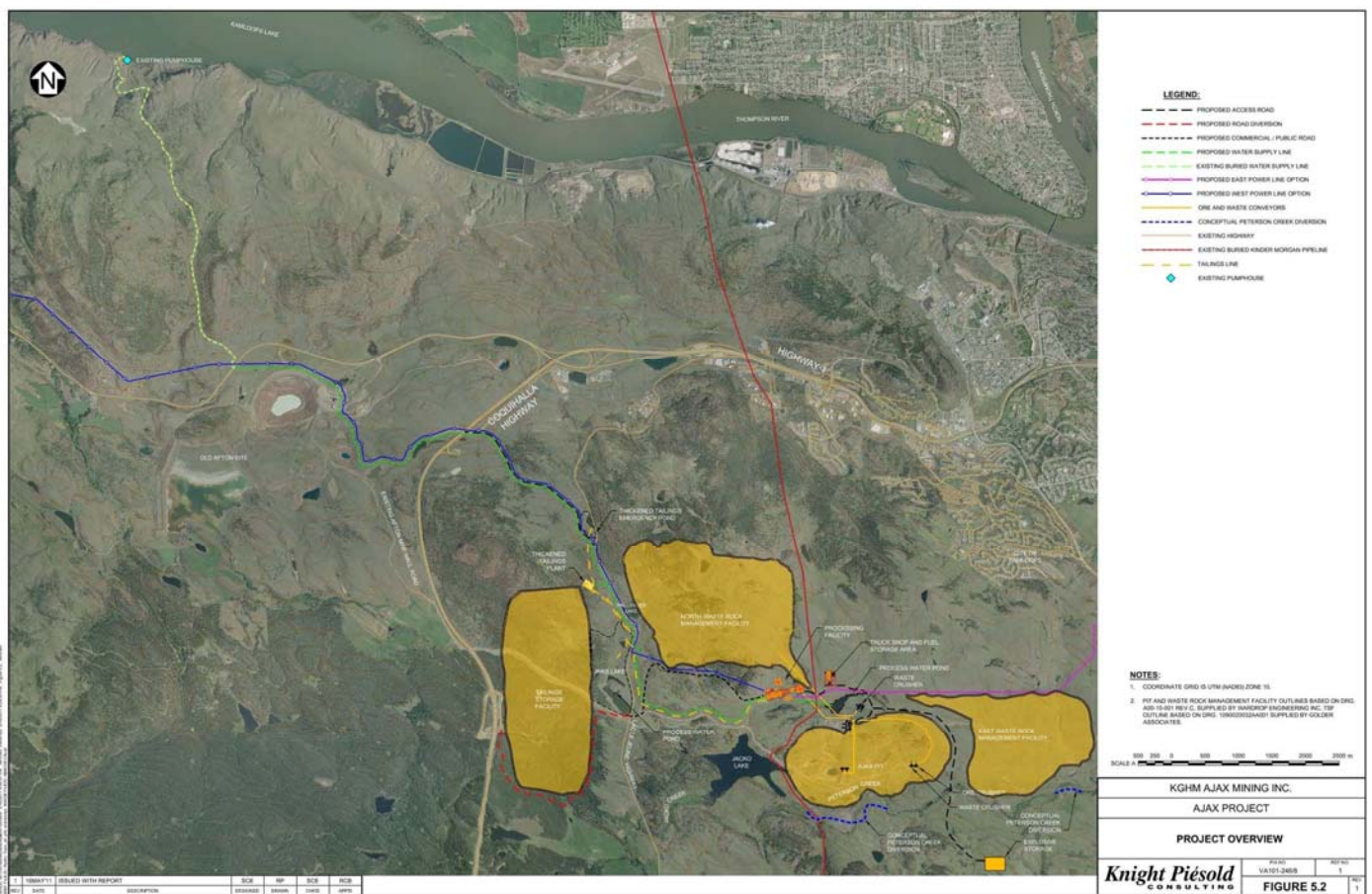
The Agency is required to provide the public with an opportunity to comment on the Project and the conduct of the comprehensive study. While the Agency is identifying the potential environmental effects of the Project that will be examined during the conduct of the comprehensive study, public comments are invited in order to help to shape the process from the beginning. The purpose of this document is to facilitate the first public comment period by providing information about the Project and the environmental assessment process that will be followed, and to solicit public comment.

A notice of this public comment opportunity has been posted on the Agency’s website and comments will be accepted until July 11, 2011. Additional detail on this comment period is included in Section 7.1.

## 2.0 PROJECT SUMMARY

KGHM Ajax Mining Inc. is a Joint Venture between Abacus Mining and Exploration Corporation, a mineral exploration and development company, and KGHM Polska Miedź S.A, a global copper and silver producer. The Project is a proposed open pit copper and gold mine located partially within the City of Kamloops in British Columbia (see Figure 1). Coordinates for the centre of the Project area are approximately 50°38' N latitude and 120°28' W longitude.

**Figure 1 – Regional Setting for the Proposed Ajax Mine Project (from the project description submitted by KGHM Ajax Mining Inc.)**



The expected life of the mine is 23 years, and 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 a conceptual mine plan, the mill will process 21.9 Mt of ore per year (60,000 tonnes per day). The Project is anticipated to have a footprint of approximately 2,500 ha. Restored and expanded mine components from previous operations are expected to be utilized to the fullest extent possible.

Project components are expected to include the following:

- Open pit mine (maximum extent of 261 ha at the end of the 23 year mine life)
- Processing plant
- Thickened tailings plant
- Tailings storage facility
- Waste rock management facilities
- Water management facilities
- Road and bridge upgrades
- New access and haul road
- Borrow sources
- Transmission line and transformer upgrades
- Explosives storage facility
- Process and potable water system
- Concentrate storage and shipping area, and
- Concentrate transport via truck to Port of Metro Vancouver.

The processing facility will be designed to process 60,000 t/d of ore and will operate 24 hours per day, 365 days per year. Copper and gold will be recovered in concentrate through a conventional flotation circuit.

Fresh water from Kamloops Lake and a section of the Thompson River will be supplied to the facilities using the existing infrastructure as much as possible, with some modifications and replacement of existing pumps, piping, and electrical systems. A new pumphouse will be built on the shore of Kamloops Lake, adjacent to the existing lake pump station. No modifications to the existing intake filter structure on the lake bed are anticipated.

Two options for a 138 kV overhead power line are currently being considered by KGHM Ajax Mining Inc. to increase power supply reliability: one from the west with interconnection at the substation in Savona (SVA) located approximately 40 km from the Project, and one from the east that will tap into the BC Hydro line 2L265 near Knutsford. Potential environmental effects from both options will be considered during the environmental assessment.

Waste rock would be stored in two waste rock management facilities located to the north and east of the pit. The east and north waste rock management facilities will have areas of 260 ha and, 403 ha, respectively.

The tailings storage facility (TSF) will be a single impoundment adjacent to the Coquihalla Highway with raised embankments to create a zero discharge facility with process water reclamation and pump-back capture of any seepage. The TSF will have an area of 283 ha after five years of operation, and a maximum footprint of 376 ha at the end of mine life.

Concentrate will be transported by truck from the mine site along the Lac Le Jeune Highway to the Coquihalla Highway (Highway 5) to Hope, then along the Trans-Canada

Highway (Highway 1) to the Port of Metro Vancouver. No modifications to Port of Metro Vancouver infrastructure will be required to ship Project concentrate from the port. It is anticipated that at peak production, fourteen 40 t highway trucks per day would haul wet concentrate to the Port of Metro Vancouver.

### **3.0 REQUIREMENT FOR A FEDERAL ENVIRONMENTAL ASSESSMENT**

#### **3.1 The *Canadian Environmental Assessment Act***

Under section 5 of the *Act*, a federal environmental assessment may be required when, in respect of a project, a federal authority:

- is the proponent;
- makes or authorizes payment or any other form of financial assistance to the proponent;
- sells, leases, or otherwise disposes of lands; or
- issues a permit, license, or other form of approval pursuant to a statutory or regulatory provision referred to in the *Law List Regulations*.

Based on a review of the Project description and discussion with federal authorities, the Agency has concluded that an environmental assessment under the *Act* is required because certain components of the Project are likely to require action under a regulatory provision listed on the *Law List Regulations*. Specifically:

- Fisheries and Oceans Canada may issue an authorization pursuant to subsection 35(2) of the *Fisheries Act* for the harmful alteration, disruption or destruction of fish habitat.

As such, Fisheries and Oceans Canada will be a responsible authority under the *Act*. In addition, the *Act* specifies that the Agency is required to perform the powers, duties, and functions of a responsible authority until a comprehensive study report is submitted to the Minister of the Environment. As such, both the Agency and Fisheries and Oceans Canada will be Responsible Authorities for the environmental assessment.

#### **3.2 *Comprehensive Study List Regulations***

The Agency has determined that the Project, as described by KGHM Ajax Mining Inc., is subject to a comprehensive study pursuant to Section 16(c) of the *Comprehensive Study List Regulations* of the *Act*:

- The proposed construction, decommissioning, or abandonment of a metal mine, other than a gold mine, with an ore production capacity of 3,000 t/d or more.

An overview of the comprehensive study process is provided in Section 5, and the factors to be considered in a comprehensive study are discussed in Section 6 (below).

### **3.3 Role of Federal Authorities**

A “responsible authority” in relation to a project, is a federal authority that is required to ensure that an environmental assessment of the Project is conducted as per the requirements of the Act, prior to taking a course of action decision. As such, Fisheries and Oceans Canada and the Agency are responsible authorities for the Project. Natural Resources Canada, Transport Canada, Environment Canada and Health Canada will provide specialist or expert advice on specific aspects of the potential environmental effects of the proposed Project as they relate to their respective mandates.

In addition to its role as responsible authority, the Agency will act as the Federal Environmental Assessment Coordinator, and perform the duties of the Crown Consultation Coordinator. The Agency must also exercise the powers and perform the duties and functions of a responsible authority under subsection 79(1) and 79(2) of the *Species at Risk Act* (SARA). This includes identifying the adverse effects of the Project on a listed wildlife species and its critical habitat.

### **3.4 Role of the Minister of the Environment**

The Minister of the Environment makes a decision under section 23 of the Act based on an evaluation of the significance of adverse environmental effects as presented in the comprehensive study report along with any public comments submitted on that report. The Minister may request additional information or require that public concerns be further investigated before issuing the environmental assessment decision statement.

## **4.0 JOINT CANADA–BRITISH COLUMBIA ENVIRONMENTAL ASSESSMENT PROCESS**

The Project is also subject to the British Columbia Environmental Assessment Act which is administered by the BC Environmental Assessment Office (BC EAO). The environmental assessment will therefore be 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 environmental assessment requirements of both levels of government while allowing for independent decision-making on matters within their own legislative authority.

Further details on the proposed Project and the provincial environmental assessment requirements are available from the BC EAO website at: <http://www.eao.gov.bc.ca/>

## **5.0 OVERVIEW OF THE COMPREHENSIVE STUDY ENVIRONMENTAL ASSESSMENT PROCESS**

The comprehensive study process begins when a proponent submits a project description that includes all necessary information about the Project as required by the Agency. Within 90 calendar days following receipt of the project description, the Agency must determine whether the Project is likely to trigger a federal environmental assessment at the comprehensive study level, and, if so, post a Notice of Commencement. This begins the technical review and analysis of the Project that will culminate in completion of the comprehensive study report within 365 calendar days.

The comprehensive study report summarizes the outcome of the comprehensive study and is made available by the Agency for a 30 day public comment period. The responsible authority will take any public comments into consideration and submit a final report to the federal Minister of the Environment for a final decision on the environmental assessment.

The environmental assessment decision statement sets out the Minister's opinion as to whether the Project is or is not likely to cause significant adverse environmental effects, taking into account the implementation of any mitigation measures and follow-up programs that the Minister considers appropriate. Once the Minister has issued the environmental assessment decision statement, the Project will be referred back to Fisheries and Oceans Canada to take a course of action decision whether to permit the Project to proceed (i.e. issue an authorization under the *Fisheries Act*).

## **6.0 FACTORS TO BE CONSIDERED IN THE COMPREHENSIVE STUDY**

In a federal environmental assessment the term 'scope of assessment' refers to the boundaries of the environmental assessment study. It consists of the factors listed in section 16 of the Act, the scope of those factors, the scope of the Project and the scope of potential environmental effects to be included in the environmental assessment.

### **6.1 Factors to be considered in a federal comprehensive study**

The following factors must be considered in a comprehensive study:

- 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 *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 Agency may require to be considered.

For greater clarity, according to the *Act*, “environmental effect” means, in respect of a project,

- 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.

## 6.2 Scope of the Potential Environmental Effects

The scope of potential environmental effects describes the aspects of the environment that will be considered in the environmental assessment, including terrestrial, aquatic and human environments. After taking into consideration the proposed Project and the factors described in section 6.1 above, the Agency proposes that the following potential environmental effects be addressed in the comprehensive study review for the Project.

**Table 1 Scope of Factors**

<b>Environment</b>	<b>Environmental Component</b>
Terrestrial Environment	<ul style="list-style-type: none"> <li>• Air quality</li> <li>• Climate and meteorology</li> <li>• Terrain, soils and geology</li> <li>• Natural hazards</li> <li>• Light and Noise Emissions</li> </ul>

	<ul style="list-style-type: none"> <li>• Vegetation and plant communities</li> <li>• Wetlands</li> <li>• Wildlife and wildlife habitat</li> <li>• Ecologically sensitive or significant areas, species of conservation concern, including species at risk and their habitats</li> <li>• Migratory birds and their habitats</li> </ul>
Aquatic Environment	<ul style="list-style-type: none"> <li>• Hydrology</li> <li>• Hydrogeology</li> <li>• Water quality</li> <li>• Fish and fish habitat</li> <li>• Ecologically sensitive or significant areas, species of conservation concern, including species at risk and their habitats</li> </ul>
Human Environment (i.e. indirect effects resulting from a direct change in the environment)	<ul style="list-style-type: none"> <li>• Current use of lands and resources for traditional purposes by Aboriginal persons</li> <li>• Navigable waters/ Navigation</li> <li>• Human health (e.g. noise, drinking water quality, country foods)</li> <li>• Physical and cultural heritage</li> <li>• Structures/sites of historical, archaeological, paleontological, or architectural significance</li> <li>• Light and Noise Emissions</li> <li>• Social and economic issues</li> </ul>

### 6.3 Spatial and Temporal Boundaries of Environmental Components

The spatial boundary of each environmental component will reflect the range of geographic areas and seasonal/annual fluctuations within which effects may be experienced, specific to each component. These will be based on the zone of influence of the Project beyond which the effects of the Project are expected to be undetectable.

The temporal boundaries will encompass the entire lifespan of the Project (approximately 23 years) until decommissioning.

### 6.4 Additional matters to be considered

As outlined in section 6.1 above, the factors and the proposed scope of those factors that must be considered in the environmental assessment of the Project also includes the following:

#### a) Need for and Purpose of the Project

“Need for” the Project is defined as the problem or opportunity that the proposed Project is intending to solve or satisfy. The “purpose of” the Project is defined as what is to be achieved by carrying out the Project. The “need for” and “purpose of” the Project will be established from the perspective of the Proponent.

- b) Alternative Means of Carrying out the Project**  
Alternative means of carrying out the Project that are technically and economically feasible, the environmental effects of any such alternative means, and a rationale for the preferred alternative are to be included.
- c) Potential Accidents and Malfunctions**  
Potential accidents, malfunctions and unplanned events that could occur in any phase of the Project, the likelihood and circumstances under which these events could occur, and the environmental effects that may result from such events, should contingency plans not be fully effective will be considered.
- d) Cumulative Environmental Effects**  
The evaluation of potential cumulative environmental effects will focus on the interaction between the residual environmental effects of the Project, after mitigation measures are applied, and the environmental effects of other past, present or reasonably foreseeable future projects or activities. The cumulative environmental effects assessment will include, but not be limited to: existing industrial projects, other proposed developments, other land and resource use activities (forestry, hunting, trapping, fishing), tourism and recreation activities.
- e) Effects of the Environment on the Project**  
Changes to the Project that may arise as a result of the environment will also be considered. This analysis will include consideration of natural hazards such as: extreme weather events (lightning, extreme precipitation, flooding, wind, avalanches and icing); seismic events; fire; slope stability; and climate change. Proposed mitigation, including design strategies, will be considered in the evaluation of the effects of the environment on the project and the determination of their significance.
- f) Comments from the Public**  
Comments from the public will be considered by the responsible authorities and the Minister of the Environment. A record of how comments have been considered and incorporated into the environmental assessment will be prepared
- g) Mitigation Measures**  
In the context of the Act, mitigation means elimination, reduction or control of adverse environmental effects of the Project. The environmental assessment will be used to identify mitigation measures that are technically and economically feasible and would mitigate identified adverse environmental effects arising from the proposed Project.
- h) Significance of Adverse Environmental Effects**  
An evaluation of the nature and extent of the residual adverse environmental effects after applying mitigation and whether the residual adverse environmental effects are likely to be significant will be conducted.

**i) Follow-up Program**

The environmental assessment will describe the follow-up program and its associated monitoring requirements. The purpose of a follow-up program is to verify the accuracy of the environmental assessment and determine the effectiveness of mitigation measures.

**j) Sustainability of Renewable Resources**

A consideration of 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 will also be included.

## **7.0 PUBLIC PARTICIPATION**

The Agency will provide at least three opportunities for the public to participate in the federal comprehensive study process:

**Public Comment Period #1: [The current public comment period]**

Public comments on the proposed Project and the conduct of the environmental assessment will be considered by the Agency and other Responsible Authorities, in this case, DFO. Taking these comments into account, KGHM Ajax Mining Inc. will develop the Environmental Impact Statement (EIS) guidelines for the Project, as required by the Agency and DFO. The EIS guidelines will guide KGHM Ajax Mining Inc.'s preparation of an EIS (Application).

**Public Comment Period #2:**

The public will be provided an opportunity to participate in the comprehensive study by reviewing, analyzing and commenting on KGHM Ajax Mining Inc.'s Environmental Impact Statement (EIS). This opportunity for public participation will be facilitated through participant funding (see section 7 below). As responsible authorities, the Agency and DFO will then prepare a comprehensive study report that summarizes the analysis of the EIS and provides the outcome of the comprehensive study.

**Public Comment Period #3:**

The comprehensive study report will be made available for public comment. Following this final public comment period, the Agency will submit the comprehensive study report to the Minister of the Environment along with a summary of how public comments have been considered.

Funding to support public participation in the environmental assessment review process is made available through the Participant Funding Program. Notices of public participation opportunities will be posted on the Canadian Environmental Assessment Registry at <http://www.ceaa-acee.gc.ca>. See Section 7.2 of this document for more information about the Agency's Participant Funding Program.

As the project is also subject to an environmental assessment under the BC Environmental Assessment Act, the Province will provide additional public comment opportunities. The public may find information about the provincial process at <http://www.eao.gov.bc.ca/>

### **7.1 Public comments at this time**

At this time, the Agency is seeking public comments on the Project and its potential environmental effects to ensure that these issues are identified for consideration during the conduct of the environmental assessment.

Persons wishing to submit comments may do so in writing to the Canadian Environmental Assessment Agency. To be considered, comments must be received by close of business day **July 11, 2011**.

Comments should be sent to:

Ajax Mine Project  
Canadian Environmental Assessment Agency  
805-1550 Alberni Street  
Vancouver BC V6G 1A5  
Telephone: 604-666-2431  
Fax: 604-666-3493  
Email: [Ajax@ceaa-acee.gc.ca](mailto:Ajax@ceaa-acee.gc.ca)

Please be as detailed as possible and clearly reference the Ajax Mine Project and the Canadian Environmental Assessment Registry file number 11-03-62225 in your submission. Please note that all comments received are considered public and will become part of the public registry.

### **7.2 Participant Funding**

The Government of Canada, through the Agency, will provide funding to support public participation in the review of this Project. This funding will be made available whether the environmental assessment proceeds by means of a comprehensive study, mediation or review panel. Information on the participant funding program, including the Participant Funding Program Guide and the application form are available at: [www.ceaa-acee.gc.ca](http://www.ceaa-acee.gc.ca).

To receive funding, successful applicants must demonstrate that they will participate in the environmental assessment by reviewing and commenting on documents, preparing technical analyses, attending meetings or contributing by other means.

Notices regarding the availability of participant funding will be posted on the Canadian Environmental Assessment Registry internet site at [www.ceaa.gc.ca](http://www.ceaa.gc.ca) under reference number 11-03-62225.

### **7.3 Canadian Environmental Assessment Registry**

Pursuant to section 55 of the Act, the Canadian Environmental Assessment Registry has been established to provide notice about the environmental assessment and to facilitate public access to records related to the environmental assessment. The public registry consists of a project file and an internet site. The internet component of the Canadian Environmental Assessment Registry can be accessed at [www.ceaa-acee.gc.ca](http://www.ceaa-acee.gc.ca) under reference number 11-03-62225. The project file consists of all records, and can be accessed through a public registry request.

### **8.0 ABORIGINAL CONSULTATION**

The federal Crown has a legal duty to consult with, and where appropriate, accommodate Aboriginal groups' concerns. This duty arises when the Crown contemplates conduct that might adversely impact potential or established Aboriginal or treaty rights. Aboriginal consultations that occur through the environmental assessment process will be used to assist the federal Crown understand Aboriginal groups' concerns and, where appropriate, to address their concerns.

The Agency is the federal Crown consultation coordinator for this environmental assessment and, as such, will work closely with federal authorities, the BC EAO, KGHM Ajax Mining Inc. and potentially affected Aboriginal groups, to coordinate consultation activities as much as possible.

At this time, thirty-two (32) First Nation communities constituting the Secwepemc and Nlaka'pamux Nations, four (4) Tribal Councils, and the Métis Nation BC have been contacted with respect to the federal environmental assessment of the proposed Project.

### **9.0 FURTHER INFORMATION**

More information about KGHM Ajax Mining Inc. and the proposed Project is available on the British Columbia Environmental Assessment Office's website at:

[http://a100.gov.bc.ca/appsdata/epic/html/deploy/epic\\_project\\_home\\_362.html](http://a100.gov.bc.ca/appsdata/epic/html/deploy/epic_project_home_362.html)