

Memo

Date: 6 December 2016

To: KGHM Ajax Mining Inc.

From: Amec Foster Wheeler Environment & Infrastructure

Ref: KGHM Ajax Project
Environmental Assessment Application/Environmental Impact Statement

Re: Round 2 Federal Information Requests – Response to CEAA-050.1

1.0 INTRODUCTION

The KGHM Ajax Project Environmental Assessment Application/Environmental Impact Statement (Application/EIS) for a Comprehensive Study was formally submitted for review to the BC Environmental Assessment Office and the Canadian Environmental Assessment Agency (CEAA) on January 18, 2016. CEAA provided KGHM Ajax Mining Inc. (KAM) with Information Request (IRs). Amec Foster Wheeler has prepared this memorandum in response to IR number CEAA-050.1.

2.0 INFORMATION REQUEST

There are two IRs submitted by CEAA on the topic of restoring the land to an acceptable long-term use, as described below.

CEAA-050

“State what project components will remain permanent elements of the landscape in those areas that are currently used for fishing, hunting, and plant gathering by the SSN.

Describe what the goal of ‘restoring the land to an acceptable long-term use’ means in relation to the practice of fishing, hunting, and plant gathering by the SSN.

Describe what restoration efforts (e.g., mitigation measures) will be made to achieve the goal of ‘acceptable long-term use’, and the effectiveness of those efforts, taking into account permanent project components.”

The supplementary memo 0707_KAM_Response to CEAA IR 050 was submitted in response to IR CEAA-050.

CEAA-50.1

“Per the original IR, describe what the goal of “restoring the land to an acceptable long-term use” means in relation to the practice of fishing, hunting, and plant gathering by the SSN.

Also, describe the effectiveness of restoration efforts to achieve the goal of “acceptable long-term use”, taking into account permanent project components.”

3.0 RESPONSE

The following information has been prepared to address IR CEAA-050.1 presented above.

CEAA-50.1 Response:

The statement “restoring the land to an acceptable long-term use” presented in page 13-57 of the Application/EIS means that that land affected by the Project will be restored to achieve the objectives of the Reclamation and Closure Plan for the Project. These long-term objectives are particularly relevant for activities such as hunting, trapping and plant gathering, because it refers to the restoration of land or terrestrial habitat that is required by plants and animals that support these activities. The fish habitat mitigation and offsetting activities will be implemented during the Construction Phase; therefore, residual effects on fishing will have a much shorter duration.

The Application/EIS states on page 13-57 that losses in availability of (terrestrial) resources will be mitigated by revegetation activities during the Operation, Decommissioning and Closure phases, but it also acknowledges that there is the potential that, during the Post-Closure Phase, some areas of the Project may not be restored to a condition that would be suitable for activities such as hunting, trapping and plant harvesting; therefore, the potential for losses in availability of resources could extend during the Post-Closure Phase and become permanent.

Specific long-term land-use objectives in relation to hunting, trapping and plant harvesting have not been agreed upon between KAM and the Stk'emlupsemc te Secwepemc Nation (SSN), but KAM has committed to engaging with the SSN on reclamation and closure-related topics and looks forward to do so. To date, the SSN have not outlined a clear set of desired long-term land-use objectives for the site. However, Chapter 7 of the Pípsell Infringement Report presents some of the specific concerns raised by members of the SSN in relation to long-term land use, including the following:

- Preservation of Jacko Lack, Pípsell and its animal population;
- The viability of reclamation of Project-affected areas to support traditional land use; and
- Protection of the Project area on behalf of future generations.

KAM has noted that they are committed to reviewing the SSN's desired land-use objectives once they are available and to engaging with the SSN to determine how these objectives can best be incorporated into the Reclamation and Closure Plan for the Project. As stated in the Application/EIS, KAM has also proposed establishing a committee with the SSN to facilitate implementation of mitigation and monitoring. The committee will foster the SSN's participation in evaluating the effectiveness of the mitigation proposed on an ongoing basis. This committee will also review and discuss the proposed mitigation strategies to achieve the long-term land-use objectives for the Project.

In response to the SSN Panel report *Mine Closure Planning with First Nations Communities: The Stk'emlupsemc te Secwepemc and the New Afton Mine* by Benjamin Collins regarding development of the Project Reclamation and Closure Plan, the closure objectives in the next version of the closure plan, which will be submitted with the *Mines Act* permit application, are proposed to be expanded to also include the following:

- Incorporate SSN traditional knowledge into reclamation and restoration planning;
- Maintain safe access to the site for SSN traditional activities;
- Maintain compliance with MEM financial assurance requirements;
- Establish reclaimed landforms that are in a stable and safe condition;
- Provide for post-closure management of the site to the benefit of communities, government and the Proponent; and
- Utilize available proven technology in a manner consistent with sustainable development.

All of these objectives would be implemented in a manner that is consistent with KAM's corporate values and policies related to the environment, sustainable development, and corporate social responsibility (<http://kgm.com/en/sustainable-development>)" (KAM, 2016).

In relation to the the effectiveness of restoration efforts to achieve the goal of "acceptable long-term use," taking into account permanent Project components, the Application/EIS in Section 8.5.5.4 discusses the potential to return affected areas to pre-disturbance conditions as follows:

"The Project will disturb land in order to develop necessary project components including the open pit, processing facilities, tailings and ore rock storage facilities, roads, a transmission line, and a water supply system. Not all disturbed areas in the Mine Site will be suitable for returning the land to pre-disturbance conditions. Specifically, during Post-Closure the open pit will not be safe for use by the public. Therefore, access will be restricted and the land will not be returned to a condition similar to pre-disturbance conditions. Table 8.5-20 summarizes the areas with potential to be returned to pre-disturbance conditions.

Table 8.5-20. Potential Areas for Return to Pre-Disturbance Conditions

Project Component	Size (ha)	Percentage (%)
<i>Without Potential (i.e., Open Pit)</i>	293	17
<i>With Potential</i>	1,412	83
<i>Total Mine Footprint</i>	1,705	100

Section 3.17 (Mine Closure and Reclamation Plan) describes the objectives and methods that will be applied at Closure in order to return affected areas to pre-disturbance conditions. Closure planning has guided Project design with the end land use objective of returning the site to pre-disturbance conditions to support the same land uses in place today. Although the post-mining landscape will not be identical to the pre-mining landscape, the reclamation plan aims to replicate pre-mining

ecosystems by re-establishing the original ecological diversity of landforms (slope, aspect and elevation), soil thickness/moisture regimes and vegetation communities.”

Revegetation has been successfully applied in numerous mine sites in Canada and around the world. When proper planning and testing is conducted and post-closure care and maintenance is applied, habitats develop to a condition that allows wildlife to return progressively and re-populate the areas occupied by mine facilities.

Specific revegetation objectives will be determined once long-term land-use objectives are agreed upon for the mine site. KAM has noted that they are committed to meaningful consultation with the SSN to continue developing the Reclamation and Closure Plan. The criteria to determine revegetation effectiveness will be strongly dependent on the agreed revegetation goal. Often, the goal is a diverse plant community of native species including grasses, forbs, shrubs and trees. For example, for woody species (trees and shrubs), a survival rate of at least 80% a year after planting is considered good short-term success. After 5 years, a 75% survival is considered good. In the case of grasses planted for erosion cover, 95% ground cover is normally the target during the first season. As another example, for re-establishment of grasslands, a 65% revegetation goal would be sufficient to support sharp-tailed grouse nesting.

Controlling access to the closed mine site is also important to favour wildlife returning and using the mine site. Because of the new landforms that the Project creates, there is also potential for new species of fauna to be attracted, given the potential existence of artificially developed, suitable habitat. This does not necessarily mean that hunting, trapping and plant harvesting activities would return to pre-development levels, because of different factors such as the following:

- Existence of other preferable areas for hunting, trapping and plant harvesting in the region; and
- Perception that resources in an artificially revegetated site would not be of the same quality.

KAM has expressed that they are committed to working with the SSN to develop a Decommissioning and Closure Plan that addresses the SSN's concerns and supports traditional use of the land and resources in the long term.

4.0 CONCLUSION

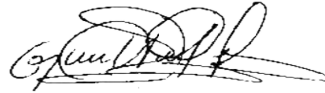
We trust that the information provided in this letter addresses the IR noted in Section 2.

Respectfully submitted,

**Amec Foster Wheeler Environment & Infrastructure,
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5.0 REFERENCES

KGHM Ajax Mining Inc. (KAM). (2016). *Memorandum: Response to Ajax Project Application/EIS Panel Report: MINE CLOSURE PLANNING WITH FIRST NATIONS COMMUNITIES: THE STK'EMLUPSEMC TE SECWEPEMC NATION AND THE NEW AFTON MINE* by Benjamin Collins. From KAM to the SSN, 7 November 2016.