MEMORANDUM

To:	Grasslands Conservation Council of British Columbia	**Date:**	March 31, 2017
From:	KGHM Ajax Mining Inc.		
CC:	B.C. Environmental Assessment Office, Canadian Environmental Assessment Agency		
Subject:	Response to Ajax Project Application/EIS Public Comment Period Submissions		

To the members of the Grasslands Conservation Council:

Thank you for your comments provided on the Ajax Project Environmental Application/ Environmental Impact Statement (Application/EIS). This memo provides information as to how the concerns raised in your submittals are being addressed.

1. INTRODUCTION

As part of the environmental assessment review process for the Ajax Project (the Project), the BC Environmental Assessment Office and the Canadian Environmental Assessment Agency held a 75-day public comment period from January 26 to April 11, 2016. A letter dated April 11, 2016 entitled "Observations, Comments and Questions on Ajax Mine Proposal" was received from the Grasslands Conservation Council (GCC).

KGHM Ajax Mining (KAM) appreciates the level of effort the GCC has put into review of the Project, and is pleased to provide this letter response, which outlines our understanding of GCC's key issues and summarizes how we are addressing them.

2. KEY ISSUES AND ACCESS TO INFORMATION

Consistent with the direction provided by the EAO, KAM has taken the time to review all of the 3,845 public submissions received, has analyzed and sorted them into 177 issues (see attached Document Map), and then developed responses to these issues. These responses will be posted on the EAO ePIC website, where they will be publically available for review. As GCC has also been engaged in earlier stages of the environmental assessment directly with KAM and also through the Ajax Community Advisory Group, KAM would like to take this opportunity to directly respond to your submission. KAM's direct response to your submission is consistent with commitments made

in the Community Consultation Plan (Appendix 4.7-A of the Application/EIS) and guidance provided by the EAO. Through our consultation efforts, KAM intends to build long-lasting and productive relationships with Kamloops residents and key stakeholders to ultimately reach mutually beneficial levels of understanding of everyone's needs and aspirations.

KAM reviewed your letter and considered if your comments were raised by other parties in the public comment period or whether the issues in your letter may have been unique. Specific to your submission, we have identified that the comments were related to the following key issues:

- Closure and Reclamation Plan details and commitments related to grasslands
- Cumulative effects on grasslands
- Offsets for loss of grasslands
- Application/EIS sections related to grasslands
  - level of detail
  - effects significance determinations
- Invasive plant management

In reviewing the responses to issues, you will find that KAM has provided a substantial set of supplementary material to EAO and the Agency in response to comments received by technical reviewers on behalf of the City, SSN, provincial and federal governments. Within those supplemental documents, there are a number of key updates to Project design, and new commitments to mitigation that KAM has made in response to the comments received. Some of the key areas include:

- Project Design:
  - Updated Peterson Creek Diversion System;
  - Updated Fish Habitat and Fishery Offsetting Plan;
- Mitigation Measures and Commitments:
  - Fugitive Dust Management Plan;
  - Updated Wildlife Management and Monitoring Plan;
  - Grassland restoration and enhancement (>2,000 ha on Sugarloaf Ranch);
  - Ephemeral wetlands included in compensation calculation;
- Additional Analysis and Assessment:
  - Air quality modelling;
  - Groundwater, water balance, and water quality modelling;
  - Cumulative effects of water quality in Lower Peterson Creek;
  - Critical habitat for SARA listed and other wildlife species;

Recognizing that these supplemental submissions add to what is already a large volume of material, KAM has also developed a few tools to support technical reviewers, including a directory of technical memos, and a set of integrated summary memos, which summarize, from KAM's perspective, the key technical responses and their implications for the review process. While these tools were developed for technical reviewers, we anticipate that they may also help facilitate your review.

KAM has provided the following technical submissions to EAO/CEAA that are relevant to the concerns you have included in your letter:

- 0707_KAM_Ephemeral Wetlands: includes quantification of ephemeral wetlands that will be lost as a result of the Project
- 0708_KAM_Critical Habitat: includes quantification of the amount of draft critical habitat lost for multiple species
- 0720_KAM_Mitigation Hierarchy and Offsetting: includes additional grassland offsetting measures and mitigation for species of conservation concern
- 0725_KAM_Combined Stantec Responses to EAO 001-006: includes dust mitigation details and effectiveness and model sensitivities to reduced mitigation effectiveness

In addition to these technical submissions to EAO/CEAA, KAM has provided additional submissions to public comments relevant to the concerns you have included in your letter:

- Public Response Report: Section 4.6.3 Effects to Grassland Ecosystems
- Public Response Report: Section 4.6.5 Invasive Plants
- Public Response Report: Section 7.3.5 Dust control/management measures
- Public Response Report: Section 7.4.2 Critique of air quality modelling and calculations

3. RESPONSE

3.1 Cumulative Effects on Grasslands

Your letter states: *"Section 6.10.6.1 [of the Application/EIS] claims no cumulative effects to grasslands habitat which is incorrect and is contrary to the finding in table 6.10-11"*. We respectfully disagree with this assertion. Rather, Section 6.10.7 concludes that grasslands were assessed as a Valued Component to determine likely interactions with specific Project activities and how these interactions could result in an adverse effect. All potential effects, habitat loss and habitat alteration arising from each Project activity were identified and evaluated. After the implementation of mitigation measures, **habitat loss was found to have a potential residual effect** and was assessed for potential interactions with other projects/activities, past, present, and future, occurring within the region. Grasslands in the Thompson region are important for a variety of reasons. They make up 13 per cent of all of B.C.'s grasslands, supplying valuable grazing opportunities for livestock as well as foraging opportunities for wildlife. Grasslands provide habitat for over 30 per cent of B.C.'s species at risk, and they are used by Aboriginal groups for both food and medicinal plants (BC Ministry of Water, Land and Air Protection and Grasslands Conservation Council of BC 2004).

Much of the LSA has been included in Priority Grasslands Conservation Areas delineated by the Grasslands Conservation Council of BC (2009), and are listed as ecological communities at risk. Approximately 30 per cent of grassland habitat within the LSA, including at-risk ecological communities, and 27 per cent of terrestrial priority grasslands in the LSA, will be lost as a result of Project construction. Habitat loss will only occur sporadically as a result of clearing and grubbing activities during Project construction, and will be localized to the Project IDA.

The duration of this loss will be long-term, as reclamation of grasslands will occur during the closure and post closure phases of the Project. The effect is considered reversible in the long-term since areas once grasslands temporarily used for mining purposes will be reclaimed at closure. Reclamation will emulate the surrounding terrain and post-mine landscape features will be used to replicate pre-disturbance diversity. Grasslands should be able to "adapt" to this habitat loss with time due to reclamation and restoration efforts made by KAM. Section 6.10.4.3 of the Application/EIS provides additional detail with respect to grassland reclamation. Regionally, cumulative residual effects to grasslands is not considered to be significant as less than three per cent of the priority grassland areas within the RSA will be lost, and suitable habitat will continue to exist within the region.

Regarding mitigation measures such as grazing planning to reduce effects on grasslands due to ranching, we apologize for confusion caused by statements at the 2016 Community Advisory Group meeting that may have been inconsistent with the Application/EIS as stated in your letter. In Section 6.10.4.3 of the Application/EIS, we commit to implementing measures described in the Grassland Monitoring Manual. These will be used to improve the function of grasslands outside the Project Infrastructure Footprint during operation and include lighter stocking, longer and more effective rest periods, and improved rotational grazing.

3.2 Compensation for Grassland Area Loss

Your letter questions where, what and how much grassland compensation will KAM provide. As described in the Section 6.10.4.2 of the Application/EIS – Effects on Grasslands, between 1,002 ha and 1,777 ha of grassland habitat will be lost as a result of Project infrastructure footprints and disturbance area. A range is provided because some grassland areas that are disturbed may not be lost. KAM used a conservative method to estimate effects to grasslands. For the purposes of the assessment habitat loss is defined as the process by which suitable habitat is rendered functionally unable to support vegetative structure or community. Habitat loss will occur during the construction phase of the Project, specifically during vegetation clearing, land excavation, dams for water management and any other changes to the physical landscape. Permanent loss results from the replacement of habitat by Project infrastructure footprints and is considered the minimum effect and the low end of the range. Habitat occurring within the Project infrastructure footprints is assumed to be permanently lost. Habitat outside, but in close proximity to the Project infrastructure footprints, may not be permanently lost but is functionally compromised due to interactions with the Project infrastructure footprints. The IDA defines this area and is considered the maximum potential effect for habitat lost during Project construction and operation (range maximum). Additional Project effects will not be considered for the Project infrastructure footprints where habitat has been permanently removed (i.e., habitat cannot be altered that has already been permanently lost).

In the Application/EIS, KAM has committed to on-site restoration as part of closure and reclamation planning for the Project, with the objectives of having the end land uses of agriculture, wildlife habitat and recreation (Section 11.26.2.1). It is important to note that closure and reclamation objectives are draft at this time and subject to change throughout the Project life through consultation with stakeholders and government agencies to ensure the goals and objectives recognize all stakeholder interests. Restoration would occur progressively over the mine life. A total of 1,325 ha of restoration is anticipated based on the infrastructure footprint for the EA. Of the total area that is restored, 69 per cent will be grassland and herbaceous/sagebrush grassland.

In response to comments received from GCC and from reviewers on the government's technical working group, KAM has acknowledged the time lag between grassland loss associated with Construction/Operation, and the planned reclamation. To address this, additional grassland restoration treatments are proposed on KAM owned lands to improve grassland extent and condition.

A review of KAM owned lands that support native grassland was conducted to identify potential grassland restoration treatments. The review consisted of field reconnaissance of potential issues and treatment sites and follow-up delineation of treatment types using aerial imagery. Restoration treatment areas might involve one or all of the following treatment types, depending on site history and the particular restoration measures required for the site. The treatment types include:

- reduction of forest encroachment on grasslands,
- treatment of invasive plant species,
- fencing of riparian areas to exclude use by livestock, and
- thinning sagebrush dominated areas.

A key component of the closure plan is the targeted restoration of 1,125 hectares of grasslands. In addition, in response to comments received from technical reviewers and from the public, KAM has committed to restoring and enhancing grasslands in an area greater than 2,000 hectares in other adjacent land parcels during Construction and Operation (see supplemental information provided in 0720_KAM_Mitigation Hierarchy and Offsetting).

The closure and reclamation plan for the Project is summarized and described in Sections 3.17 and 11.28 of the Application/EIS respectively; additional information is also included in the Landscape Design and Restoration Plan (Section 11.26). The closure objectives have been developed to meet the standards for mine closure as specified in the BC Mines Code (Part 10) relating to land use, land capability and long-term stability, including the current land-use designation under the Agricultural Land Reserve.

We understand that grassland restoration takes time to provide the same habitat characteristics as current native grasslands. The Closure and Reclamation Plan (Section 11.28) and Landscape Design and Restoration Plan (Section 11.26) describe progressive reclamation efforts that will begin as early as possible during operations once areas are no longer required for the Project. Grassland restoration efforts will begin during Project operations to provide high functioning grassland habitat as soon as

possible. These efforts will reduce the time lag between grassland losses and functional, self-sustaining restored areas. For further information regarding enhancement and reclamation of grasslands, refer to the Public Response Report section entitled 'Restoration of Grasslands'.

KAM recognizes that in order to make the grassland restoration, enhancement and reclamation efforts successful, research programs and partnerships with Aboriginal Groups and local groups like TRU and the Grasslands Conservation Council will be necessary. Section 11.26 of the Application/EIS provides some key areas of reclamation research proposed for the Project.

KAM has already initiated these efforts through support of reclamation research at TRU, and the company looks forward to opportunities to advance these types of programs to help ensure that restoration and reclamation efforts will be successful. We look forward to working with GCC in the near future if and when the Project is approved to understand how our Closure and Reclamation plan can be improved.

3.3 Application/EIS

3.3.1 Level of Detail and Inadequacies

Your letter provides a critique concluding that the Application/EIS includes a lack of detail for revegetation efforts, finds the grasslands effects assessment to be inadequate, confusing and in some areas to be misleading or inaccurate. In addition, your letter states "the zero harm definition is not reflected in the commitment to environmental protection and restoration outcomes for grasslands."

Regarding your comments related to lack of detail and effects assessment inadequacies, KAM and its consultants completed the assessment of potential effects on grasslands using proven, reproducible and defensible methods. The methods used for the assessment meet the requirements of the Application Information Requirements / Environmental Impact Statement Guidelines (AIR/EIS Guidelines) approved by the BC Environmental Assessment Office and the Canadian Environmental Assessment Agency and issued as final on July 23, 2015. The conclusions of the assessment were made by Professional Biologists registered in British Columbia by the College of Applied Biology (RPBio) hired by KAM. We have a high degree of confidence in the conclusions regarding potential effects to grasslands presented in the Application/EIS.

Regarding comments related to zero-harm, KGHM's five corporate core values include Zero Harm. This value is essential to KGHM and expresses an important principle, one that governs all aspects of the company's activities, including with staff, contractors, stakeholders and the community, as well as its environmental, business and social practices. The company, in every instance, strives to do no harm as it goes about the business of operating mines around the world.

Zero Harm is not the same as no impact; they are different concepts. Zero Harm is not a target, it's an ideal. The proponent thoroughly understands the practical realities of mining and the short- and long-term impacts this industrial activity has on the landscapes and environments where it works. The practise of mining requires that significant amounts of rock be blasted and moved and tremendous amounts of ore processed and removed. Such activity has impact. There is the possibility for accidents, malfunctions or mishaps. Mistakes have real-world costs and environmental

implications. This is challenging and at times difficult work that requires tremendous expertise. It is not undertaken lightly.

It is for that reason the proponent has set its sights on the highest standard it can — Zero Harm — to impress on everyone that KAM intends to do all it can to ensure that the work of mining is done properly, at every stage, with no shortcuts to be considered or taken. The impacts and effects of mining can be extensively mitigated, and those mitigations will be implemented more effectively if planners, managers and mine workers keep Zero Harm as their guide.

To demonstrate our values, KAM has strengthened its commitment to grassland restoration. A review of KAM owned lands that support native grassland was conducted to identify potential grassland restoration treatments, and an area of 2,093 ha was identified. Our objective to restore grasslands outside of the Project footprint to provide offset for lost grasslands exceeds regulatory requirements and will provide a net gain of grassland habitat. We believe that these actions embody our core value of zero harm where grasslands are concerned.

Additional concerns in your letter pertain to the lack of offset for aquatic and grassland habitat. KAM has gone to great lengths to alter the Project design to avoid and reduce impacts to aquatic and grassland habitat by way of changes to the Project layout, the Peterson Creek Diversion System and the Fish Habitat and Fishery Offsetting Plan. In 2014 KAM made major changes to the Project layout from Ajax North to Ajax South, which reduced or avoided impacts on many valued components including a smaller overall infrastructure disturbance footprint. In 2016 we made major changes to the proposed Peterson Creek Diversion System to address concerns from stakeholders regarding aquatic habitat impacts. Please see technical memo 0706_KAM_Peterson Creek Diversion System Update for details. Regarding aquatic habitat compensation, in the Application/EIS, KAM proposed a plan to modify the size and depth of Inks Lake to allow for fish and fishing. However, government agencies and the SSN raised concerns regarding the feasibility of the Inks Lake concept to support recreational and Aboriginal spring trout fisheries. The new Fish Habitat and Fishery Offsetting Plan, which will would see improvements made at Jacko Lake instead, was developed to address that feedback. Details of the plan can be found in 0706_KAM_Revised Conceptual Fish Habitat and Fishery Offsetting Plan.

Regarding wetlands, KAM recognizes the importance of wetlands and grassland ecosystems. The Application/EIS considers the effects on grasslands that are likely to result from the residual environmental effects of the Project in combination with the effects of other projects and activities (past, present or future). We also understand how vital ephemeral wetlands are to grasslands in the region and as such have provided supplementary information to quantify these wetlands in the Project area. Please see 0707_KAM_Ephemeral Wetlands that include quantification of ephemeral wetlands that will be lost as a result of the Project. For compensation planning, the conceptual Wetland Compensation Plan (Appendix 11.27-A of the Application/EIS) identifies 25.2 ha of wetlands as the compensation target to which 3.5 ha of ephemeral wetlands will be added as stated in the 0707_KAM_Ephemeral Wetlands memo.

3.3.2 Significance Ratings

In your letter it is stated that the impact ratings in the Application/EIS and definitions of minor and moderate impact and the conclusion of "not significant" category misrepresents the impacts and outcomes on rare species and habitats in grasslands. KAM understands that grasslands are endangered in B.C. and appreciates GCC's role in advocating for their protection. It is important to note that the assessment of 'not significant' vs 'significant' is terminology that is specific to the environmental assessment process, and does not reflect whether or not grasslands are important. By recognizing grasslands as a 'Valued Component', they are inherently viewed as important features on the landscape. The assessment of significance then considers the project-specific residual effects, which are those that remain after mitigation and compensation measures are applied, and also how those residual effects cumulatively interact with other projects/activities in the region. As described in Section 6.10.5, habitat loss of grasslands is identified as a residual effect, and it is anticipated to have a not significant (moderate) effect on grasslands locally and a not significant (minor) effect regionally.

These significance conclusions are primarily based upon that effects to grasslands are temporary and restoration of grasslands throughout the Project life and full reclamation post mine closure will negate negative effects. In the short and medium term incorporating monitoring and management methods from the Grasslands Monitoring Manual will improve grassland function in the LSA and RSA for multiple end uses, while progressive reclamation will provide grassland habitat within the IDA during operations. Furthermore, the end land use and capability objective of the reclamation plan is based on the principle of ecological replacement, where landscapes are designed to have similar functional characteristics. Reclamation will include planned grazing systems which will exclude cattle from key wildlife areas. Reclamation of reference condition grasslands in the IDA will be an improvement from baseline conditions. A more fulsome discussion of the conclusions reached by the grasslands effects assessment can be found in Section 6.10.5.4 of the Application/EIS.

Furthermore we are confident that reclamation and restoration efforts described in the Application/EIS and supplementary memo 0720_KAM_Mitigation Hierarchy and Offsetting will effectively compensate for lost grassland habitat and provide for a net gain. We and our consultants believe that the significance ratings provided in the Application/EIS are appropriate and defensible.

3.4 Invasive Plant Management

Your letter states that there is a lack of detail on prevention, control and monitoring of invasive plants. Chapter 11 of the Application/EIS describes the Environmental Management System (EMS) that KAM will use to support undertaking the Project in a sustainable manner conforming to recognized practices and standards for environmental management. As stated in Section 11.1.1, the EMS guides environmental management across the entire lifecycle of the Project and is progressively developed as the Project moves through the Application/EIS, permitting, construction, operations, closure and post-closure stages. The first stage of EMS development begins with preparation of the Environmental Management Plans (EMPs) as part of the Application/EIS. The EMPs are commitment-based and broad in their level of detail. As the Project progresses to the permitting stage, the level of detail of the EMPs are expanded upon as more Project details are known.

The Invasive Plant Management plan provided in Section 11.17 of the Application/EIS provides an appropriate level of detail for standard practice of the Environmental Assessment stage of a major project. The plan includes details such as performance objectives, general prevention measures, treatment and control measures, a monitoring program and reporting requirements. In addition, Section 6.10.4.3 includes a summary of mitigation measures to reduce the spread of invasive species. Finally the supplementary memo 0720_KAM_Mitigation Hierarchy and Offsetting includes additional invasive plant species management measures specific to grassland areas (Section 4.1 of the memo).

Specific treatments will be developed using recommendations from the Ministry of Forest Lands and Natural Resources and the Invasive Species Council of BC based on site conditions and the invasive species that require treatment. The Invasive Plants Management Plan (see Section 11.17 of the Application/EIS), will guide development and implementation of treatments, monitoring, implementation of follow-up measures for treated areas, and reporting. The plan presented in the Application/EIS is conceptual and will be used as the foundation for the more detailed Vegetation Management Plan required for permit applications.

4. QUESTIONS AND ANSWERS

Your letter provides a list of questions requesting response from KAM. We have restated each question to KAM below followed by a specific answer to the best of our ability. Please note that some answers are dependent upon ongoing feedback with government agencies and other stakeholders during environmental assessment and permitting processes. Answers to questions posed to government are not provided here.

2-1) **Question:** The closure period is estimated to occur over a five year period while restoration of grasslands is acknowledged to take 25 years or more. After five years the proposal is to move to the monitoring phase. What happens if growing conditions change in year 7 and the reclamation fails?

Answer: if the Project receives an Environmental Assessment Certificate and applicable permits to construct and operate, KAM will be required to post financial security most often in the form of a reclamation surety bond under the *Mines Act*. The amount of the reclamation security provided by KAM will be determined by the Chief Inspector of Mines to ensure that there will be money necessary to perform and carry out properly all the conditions of the *Mines Act* permit which will include achievement of reclamation performance objectives. If a mining proponent fails to perform and complete the program for reclamation or comply with the conditions of the permit to the satisfaction of the chief inspector, he/she may apply all or part of the security toward payment of the cost of the work required to meet the reclamation performance objective. Reclamation security will not be released to the mining proponent until all reclamation performance objectives are satisfactorily achieved as deemed by the Chief Inspector.

The proposed Closure and Reclamation objectives for the Project include:

- Re-establish land capability such that the targeted end land use of seasonal cattle grazing and valuable wildlife habitat are met;
- Return land to the Agricultural Land Reserve (ALR);

- Maximize progressive reclamation of MRSFs and TSF embankments during operation;
- Re-establish the Peterson Creek flow path from Jacko Lake;
- Establish vegetative covers that meet the targeted end land use and provide long-term stability and minimize seepage through MRSFs and TSF; and
- Establish a pit lake, which will be a sink for management of water that cannot be immediately released to the receiving environment.

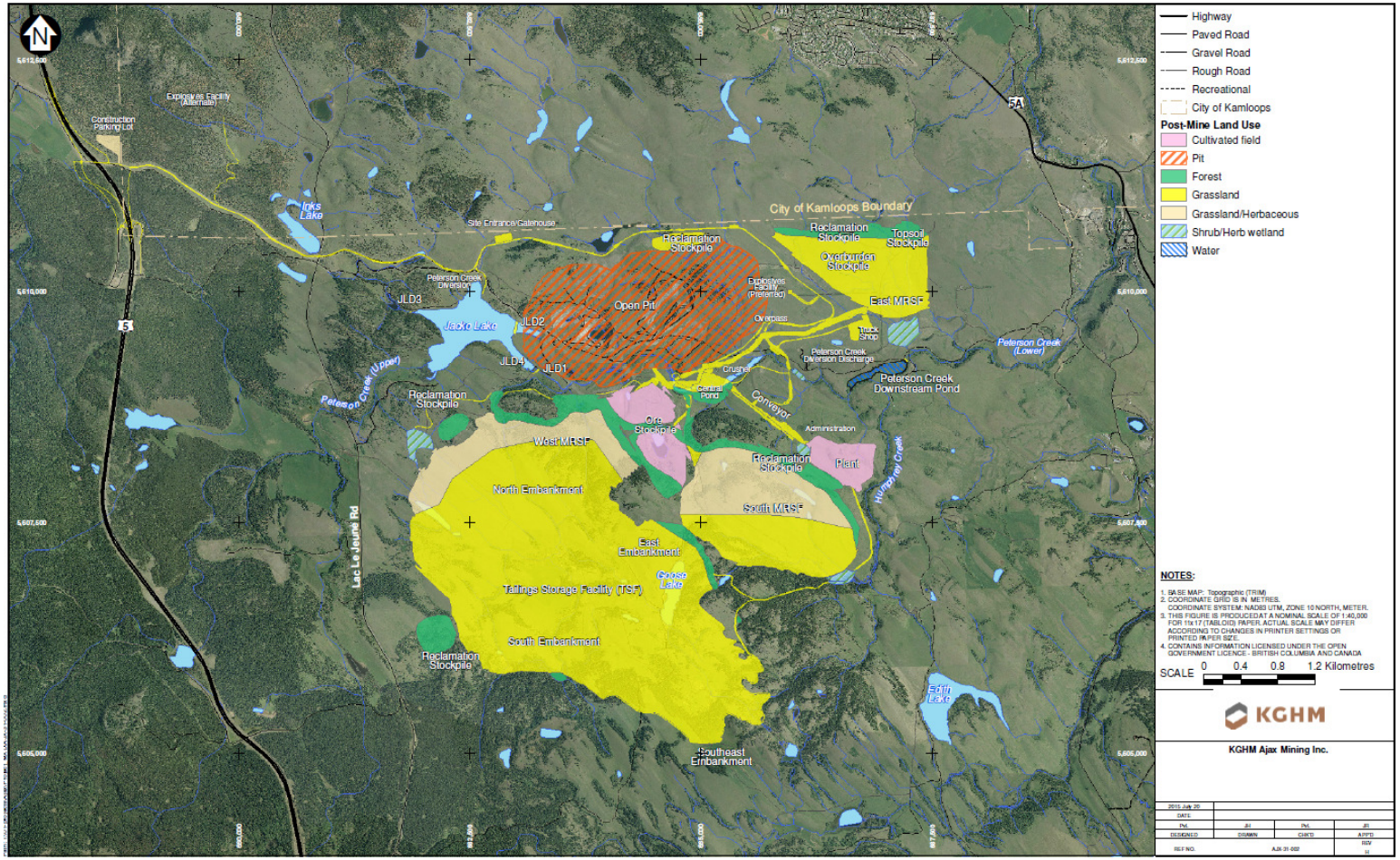
The conceptual Closure and Reclamation Plan submitted as part of the Application/EIS is at a conceptual level and will be used to initiate planning discussions with stakeholders, including regulators and the SSN, to confirm that end land use and final reclamation configurations are addressing SSN and stakeholder interests and concerns.

Land use and capability objectives have been informed by pre-mining land use, which, for the Project, includes agriculture, wildlife, cultural and recreational values. 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. Reclamation strategies will focus on providing equivalent grazing capacity compared to pre-mining conditions. Planning for ecological diversity will enhance wildlife habitat. The conceptual Closure and Reclamation Plan includes the provision of habitat types such as Douglas fir and Ponderosa pine forests; aspen groves with associated shrubs and herbaceous communities; grasslands with shrubs; streamside riparian ecosystems, wetlands and pastures. For more detailed descriptions of target habitat types, please see Chapter 11.28 (Conceptual Restoration Plan). Figure 3.17-1 in the Application/EIS shows the conceptual plan for post-mining land-use (inserted below).

North-facing lower slopes of the MRSFs are targeted for forest with higher elevations targeted for herbaceous / grassland species. Grassland is planned for the southern slopes of the MRSFs and the TSF where drier conditions will prevail. Flatter areas such as the reclaimed process plant site and low-grade ore stockpile will be used for hay and pasture. Water management ponds will include shrub / herb wetlands. Roads and other linear infrastructure areas will largely be reclaimed as grassland.

Therefore, because grassland restoration is part of the conceptual closure and reclamation objectives and growing conditions change such that restoration takes longer than originally anticipated, KAM will either take measures to ensure restoration is successful or the Chief Inspector will be required to utilize the reclamation security posted by KAM for further action to meet the performance objectives of the reclamation plan. It is in KAM's best interest to meet the performance objectives of the plan.

Figure 3.17-1 of Application/EIS: Post Mining Land Use
GIS# AJX-31-002_T



2-2) **Question:** Will the proponent commit to actively managing the grassland reclamation areas for the 25 or more years there (sic) are expected to recover?

Answer: As stated in the above answer, reclamation security will not be released by the Chief Inspector to KAM until all reclamation performance objectives are satisfactorily achieved as deemed by the Chief Inspector. If restoration of grasslands is a performance objective of the final and approved Closure and Reclamation Plan, the security bond will not be released until restoration is successful. Restoration success will be determined by measureable parameters defined in the detailed Closure and Reclamation plan submitted as part of the *Mines Act* permit application. It will be in KAM's best interest to meet the performance objectives of the plan.

3-1) **Question:** Will the proponent commit to use native seed stock and plugs in mitigation activities for reclaiming native grassland areas?

Answer: Yes, recommendations provided by the BC Ministry of Energy Mines include that "*the reclamation program be aimed at ecological restoration of naturally occurring grassland communities. We recommend consideration of an approach including the collection and possibly cultivation of native grass seed for reclamation purposes*." KAM accepts and supports this recommendation. Further, the Environmental Code of Practice for Metal Mines (Environment Canada 2012) states that "*Species used in revegetation and the resulting plant community should be consistent with the goals of mine closure and the intended Post-Closure use of the site. Species native to the area around the mine site should be used for this purpose, and invasive species should never be used.*"

Native vegetation is a major component of the existing landscape within the proposed Ajax Mine footprint and therefore native vegetation will be replanted as part of mine reclamation. In the conceptual Closure and Reclamation Plan (Section 11.27 of the Application/EIS) it is estimated that native grassland ecosystems and associated forb species are targeted for approximately 72 per cent of the post-mine landscape; shrub and woody species account for approximately 10 per cent of the area; and the remaining 18 per cent is associated with a lake that will be developed in the Ajax pit. Preliminary seed mixes to meet these targets are listed in the Landscape Design and Restoration Plan (Section 11.26 of the Application/EIS. Specific seed mixes listed are subject to change based on feedback from government, the SSN and other stakeholders.

4-1) **Question:** Where is the offset for the loss of Goose Lake considered?

Answer: Offsets are required for the loss of fish habitat under the *Fisheries Act*. Offsets for the loss of Goose Lake are not expected to be required given that it is not considered to be fish habitat under the federal *Fisheries Act* and is not considered a wetland. Wetlands are defined by the National Wetlands Working Group as "*land that is saturated with water long enough to promote wetland or aquatic processes as indicated by poorly drained soils, hydrophytic vegetation and various kinds of biological activities which are adapted to a wet environment*". Lakes and ponds without aquatic vegetation such as Goose Lake are not considered to be wetlands. This is described as part of the wetland mapping provided in Appendix 11.27-A Wetland Compensation Plan that was drafted because KAM understands the importance of wetland habitat to ecological function. The plan provides a list of the types of wetlands that will be impacted by the Project and potential compensation to meet the guidance of the Federal

Policy on Wetland Conservation.. Impacts to migratory birds from the loss of Goose Lake and has not been directly quantified in the Application/EIS because it is not considered a wetland. Offsetting measures for fish and fish habitat and for wetlands will indirectly replace the habitat for migratory birds. That said, the revised fish habitat and fishery offsetting plan includes the expansion of the West Arm of Jacko Lake which will provide additional open water habitat for migratory birds.

5-1) **Question:** What is the impact of the increased dust fall deposition on native species in the identified uninhabited areas over the life of the project?

Answer: As stated in Section 6.10.4.2 of the Application/EIS – Effects on Grasslands, dust is not expected to alter grassland habitat. The area already experiences a high level of dust deposition, including dust storms. The additional fugitive dust created as a result of Project construction would not measurably alter or remove additional habitat outside of the Project footprints. The maximum dust fall (see Air Quality - section 10.1) is not expected to exceed the MoE guideline of 1.75 $mg/dm^3/day$ (British Columbia Ministry of Environment 2014). As such, habitat alteration resulting from dust fall is not expected to occur.

5-2) **Questions:** The predicted impacts from fugitive dust are based on a control regime of 90 per cent mitigation effectiveness. - At what level of effectiveness control does human and health become at risk (i.e. is human health effected at 80 per cent mitigation)? - What redundancies are in the dust control mitigation systems to prevent levels reaching harmful levels for humans and other species?

Answers: One misconception of the air quality modelling is that 90 per cent mitigation efficiency was applied to all sources of dust at the Project. In actuality, this factor has only been applied to the road dust calculations and not to the entire mine property. Additional details regarding mitigation measures that will be applied to manage dust may be found in the Fugitive Dust Management Plan (refer to technical memo 1207_KAM_Fugitive Dust Management Plan).

KAM remains committed to implementing an effective and rigourous monitoring and mitigation program for air quality and believes that a well-designed dust management program that incorporates proper haul road construction and maintenance, selection and application of water and chemical dust suppressants, monitoring of road dust levels and continuous improvement, can reasonably be expected to regularly and consistently achieve effective dust control that will meet permitting requirements and ambient air quality objectives.

Through the Application/EIS review process, technical reviewers requested that additional sensitivity analysis be completed in the air quality model in order to ensure that modelling specialists understand and have reasonable confidence in the model behaviour and reliability. This analysis included evaluating the effectiveness of mitigation for road sources (90 per cent versus 80 per cent versus 70 per cent effectiveness). The analysis was done to demonstrate that the model is reliable and giving reasonable results when changing model inputs. Scenarios of lower effectiveness (e.g., 70 per cent or 80 per cent) are considered failure modes that would be infrequent and short duration episodes, especially when tracked through an effective monitoring and adaptive management system. The results of the additional sensitivity analyses are documented in technical memo 0725_KAM_Combined Stantec Responses to EAO 001-006 and 1207_KAM_AQ Mitigation Effectiveness. Additional details on how

KAM will achieve its dust management goals have been provided to the Technical Working Group in technical memo 1207_KAM_Fugitive Dust Mitigation Plan.

The additional sensitivity analyses show that effective mitigation of dust on the haul roads will be key to successfully minimizing emissions from the operating mine. This is consistent with KAM's earlier conclusions, which are what drove the proactive commitment to design for a high degree of mitigation (e.g., 90 per cent effective on haul roads) as part of the original Application/EIS submission. Please refer to the public response titled 'Dust control/management measures' for discussion on how KAM will achieve dust control mitigation commitments. For more detailed information about the air quality modelling and associated assumptions and uncertainties, please refer to the Public Response Report section entitled 'Critique of air quality modelling and calculations'.

5. CONCLUSION

We value the feedback received to date regarding the Project and the conclusions of the environmental assessment. As a result of your comments, we have committed to additional mitigation measures, which together will help to minimize the environmental effects of the Project. We hope that the information provided in this letter and in other public responses, continues to show you our commitment to being an accountable and transparent operator of an environmentally responsible mining operation.

We believe that the Project can be developed and implemented in a manner that maintains grasslands and that the Kamloops region will continue to support ecological diversity and economic opportunity.

We appreciate the comments received from the GCC and look forward to continued collaboration. Thank you for taking the time to contribute to the Application/EIS process and providing input to support our goal of continual improvement.

6. USEFUL LINKS

The responses provided in this document make reference to a range of other related materials. For ease of reference, links to the following materials are provided. Specific cross-references are also provided in the text.

KGHM Ajax Mining Inc.
http://ajaxmine.ca

EAO e-PIC site for the Ajax Mine Project
https://projects.eao.gov.bc.ca/p/ajax-mine/detail

Ajax Project Application/EIS
https://projects.eao.gov.bc.ca/p/ajax-mine/docs?folder=161

Plain Language Summaries of the Application/EIS
http://application.ajaxmine.ca/Home.aspx

Responses, including supplemental technical memorandum, provided to the Technical Working Group
https://projects.eao.gov.bc.ca/p/ajax-mine/docs?folder=220

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