

Appendix 4.7-L

Open Houses Informational Material

AJAX PROJECT

**Environmental Assessment Certificate Application / Environmental Impact Statement
for a Comprehensive Study**

SUMMARY OF KEY CHANGES TO THE AJAX PROJECT

What Has Changed In The Ajax Project Plans?

The key changes to the Ajax Project plans are:

- Rearrangement of proposed Project facilities, including movement of the tailings storage facility, rock stockpiles, and mill to the south
- Change in tailings management strategy
- Updated mine access plan along the existing haul road

What Has Changed In The AIR/EIS Guidelines?

The key changes to the Ajax Project AIR/EIS Guidelines are:

- Adjustments in local and regional study areas to reflect the change in Project footprint
- Reorganization of the Health pillar and addition of a Human Health VC to better present the health-related studies to be conducted
- Update to Accidents and Malfunctions assessment to reflect change in tailings technology
- Updates to applicable legislation and guidance document references to ensure current standards and guidelines are considered

PILLARS FOR EFFECTS ASSESSMENT

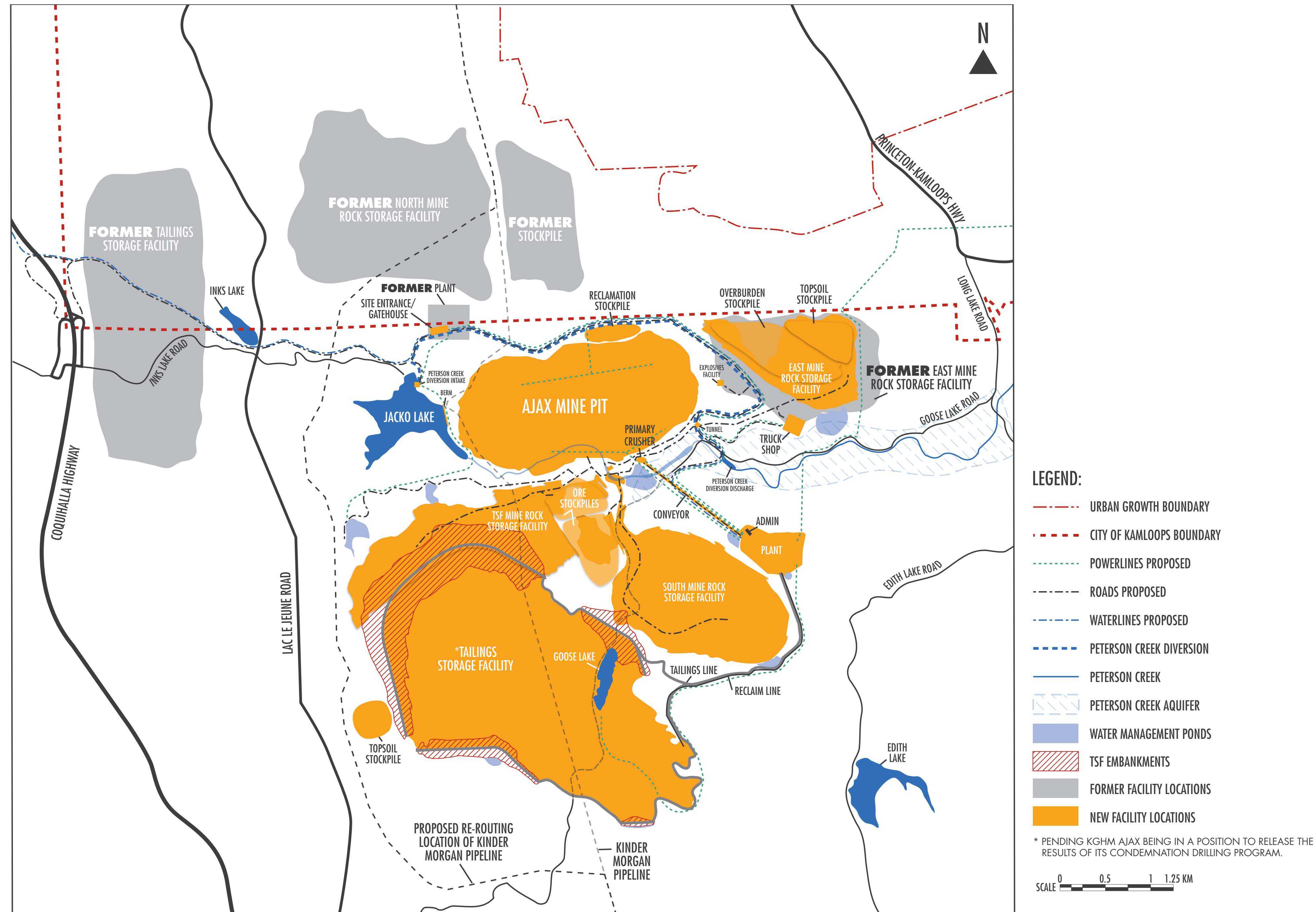
Environment (Section 6 of AIR/EIS Guidelines)	Economic (Section 7 of AIR/EIS Guidelines)	Social (Section 8 of AIR/EIS Guidelines)	Heritage (Section 9 of AIR/EIS Guidelines)	Health (Section 10 of AIR/EIS Guidelines)
<ol style="list-style-type: none"> 1. Greenhouse Gas Management 2. Geology, Landforms 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. Grasslands 11. Terrestrial Invertebrates 12. Amphibians 13. Reptiles 14. Migratory Birds 15. Raptors 16. Non-migratory Gamebirds 17. Mammals 	<ol style="list-style-type: none"> 1. Economic Growth 2. Labour Force, Employment and Training 3. Income 4. Business 5. Property Values 6. Economic Diversification 	<ol style="list-style-type: none"> 1. Community Health and Well-being 2. Infrastructure, Public Facilities and Services 3. Dark Sky 4. Visual Impact/Aesthetic Features (including Shading) 5. Land and Resource Use 6. Outdoor Recreation 7. Jacko Lake 	<ol style="list-style-type: none"> 1. Heritage Objects 2. Heritage Sites 	<ol style="list-style-type: none"> 1. Air Quality 2. Domestic Water Quality 3. Country Foods 4. Human Health 5. Noise and Vibration 6. Healthy Living and Health Education

VALUED COMPONENTS (VCS) are components of the natural and human environment that are considered by the Proponent (KAM and its consultants), the public, Aboriginal groups, and government agencies involved in the EA process to have scientific, ecological, economic, social, cultural, archaeological, historical, or other importance.

Aboriginal Interests, Rights and Title

(Part C: Sections 11-15 of AIR/EIS Guidelines)

PROJECT DESCRIPTION

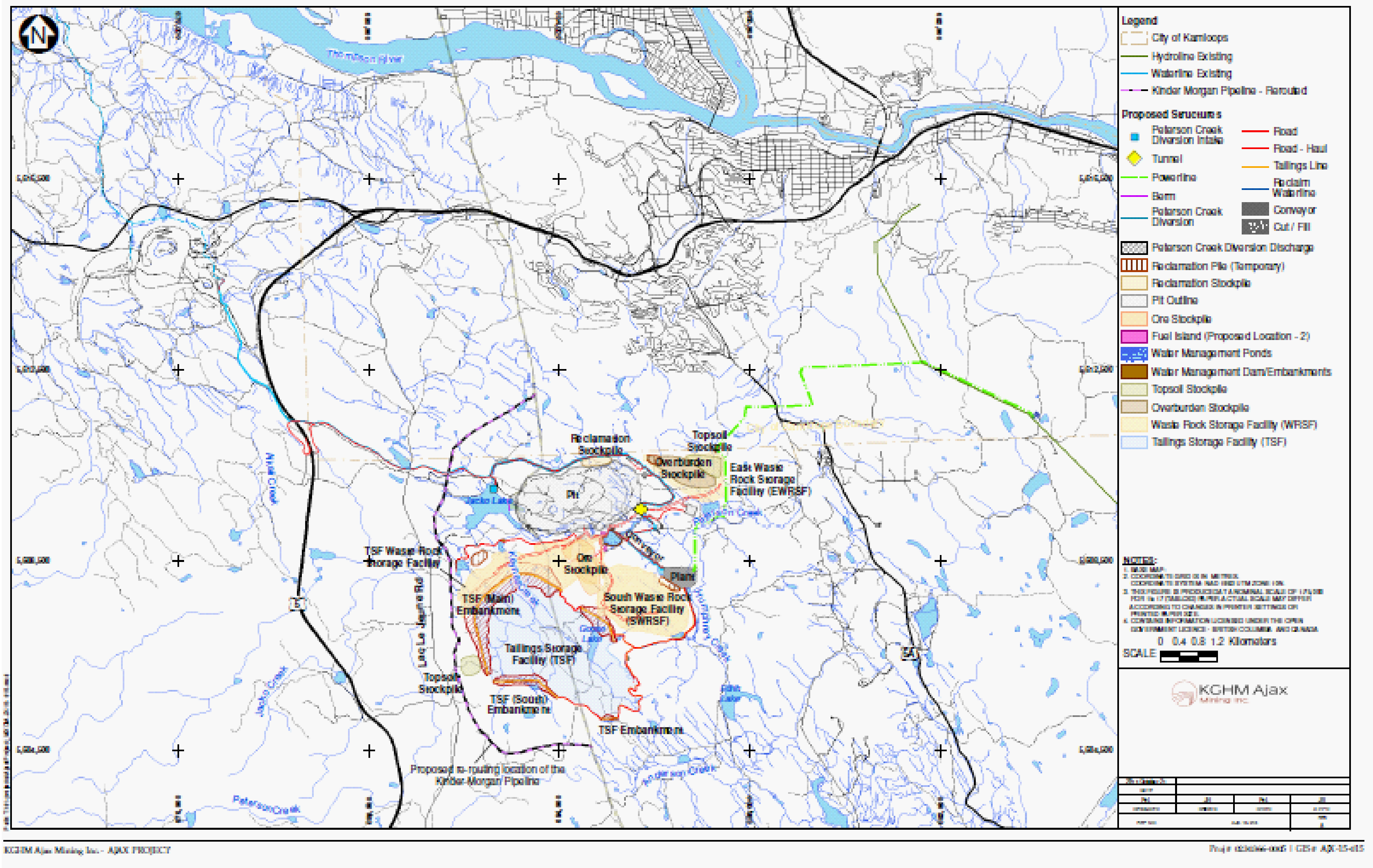


What Has Changed In The AIR/EIS Guidelines?

Updated description of Project layout and major infrastructure (Sections 2 and 3)

- Change in tailings management (Section 3.7)
- Change in location of waste rock storage (Section 3.8)
- Updated site water management (Section 3.12)
- Updated site access (Section 3.16)
- Updated closure and reclamation (Section 3.18)

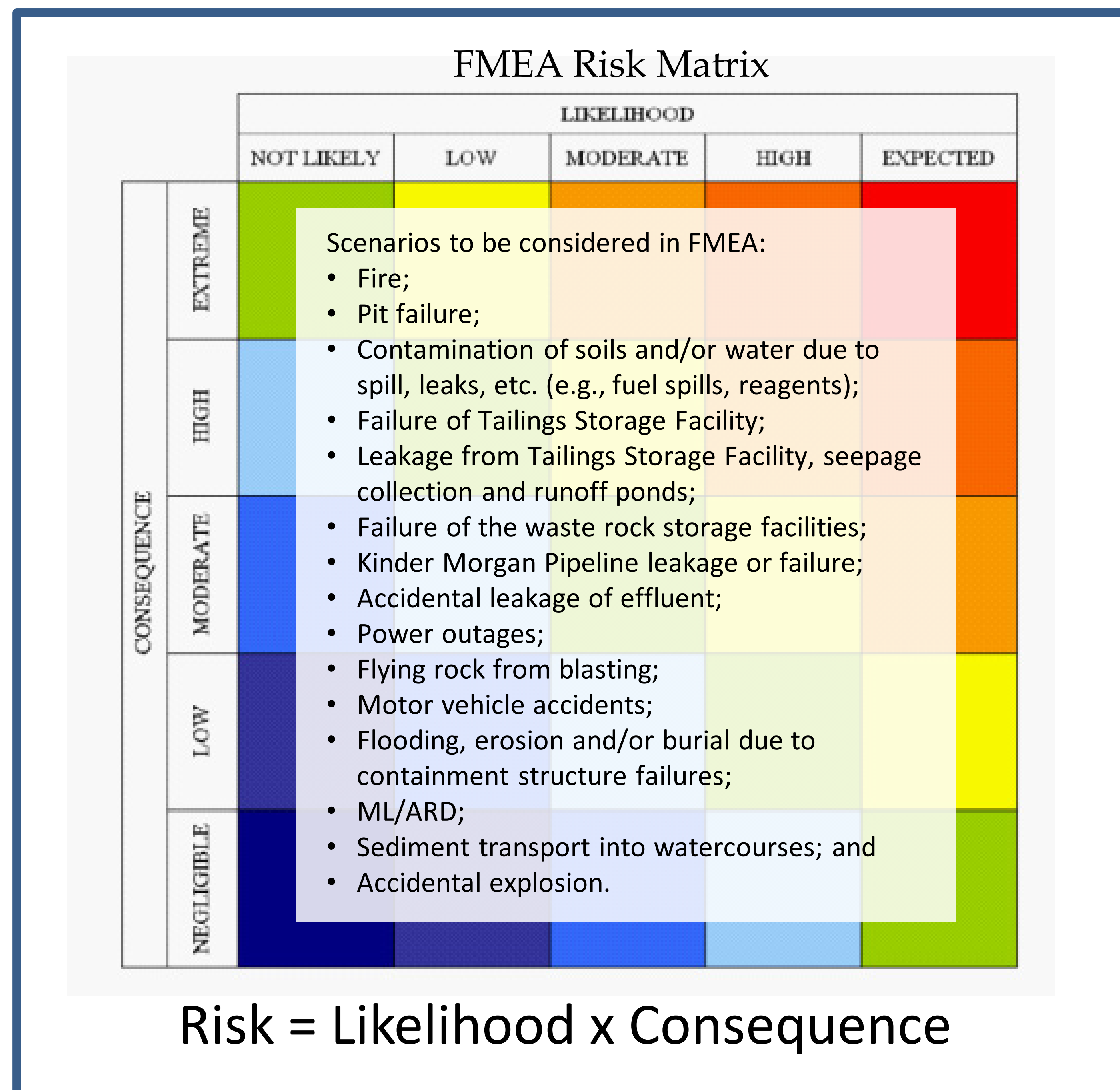
REVISED PROJECT PLAN



Why Have The Project Plans Changed?

Project plans have been changed to reflect input received from the public, First Nations and government agencies over the past several years. People raised concerns about the proximity of mine facilities to the community, particularly about the potential for dust, visual effects and noise. Revised Project plans have focused on shifting proposed major facilities further away from the city.

ACCIDENTS AND MALFUNCTIONS ASSESSMENT



What Has Changed In The AIR/EIS Guidelines?

- Updated requirements for Accidents and Malfunctions assessment (Section 17.6)
- Clarified requirements for Failure Modes Effects Assessment (FMEA)
- Included requirement for assessment of downstream effects of tailings storage facility failure

TAILINGS MANAGEMENT

What has changed?

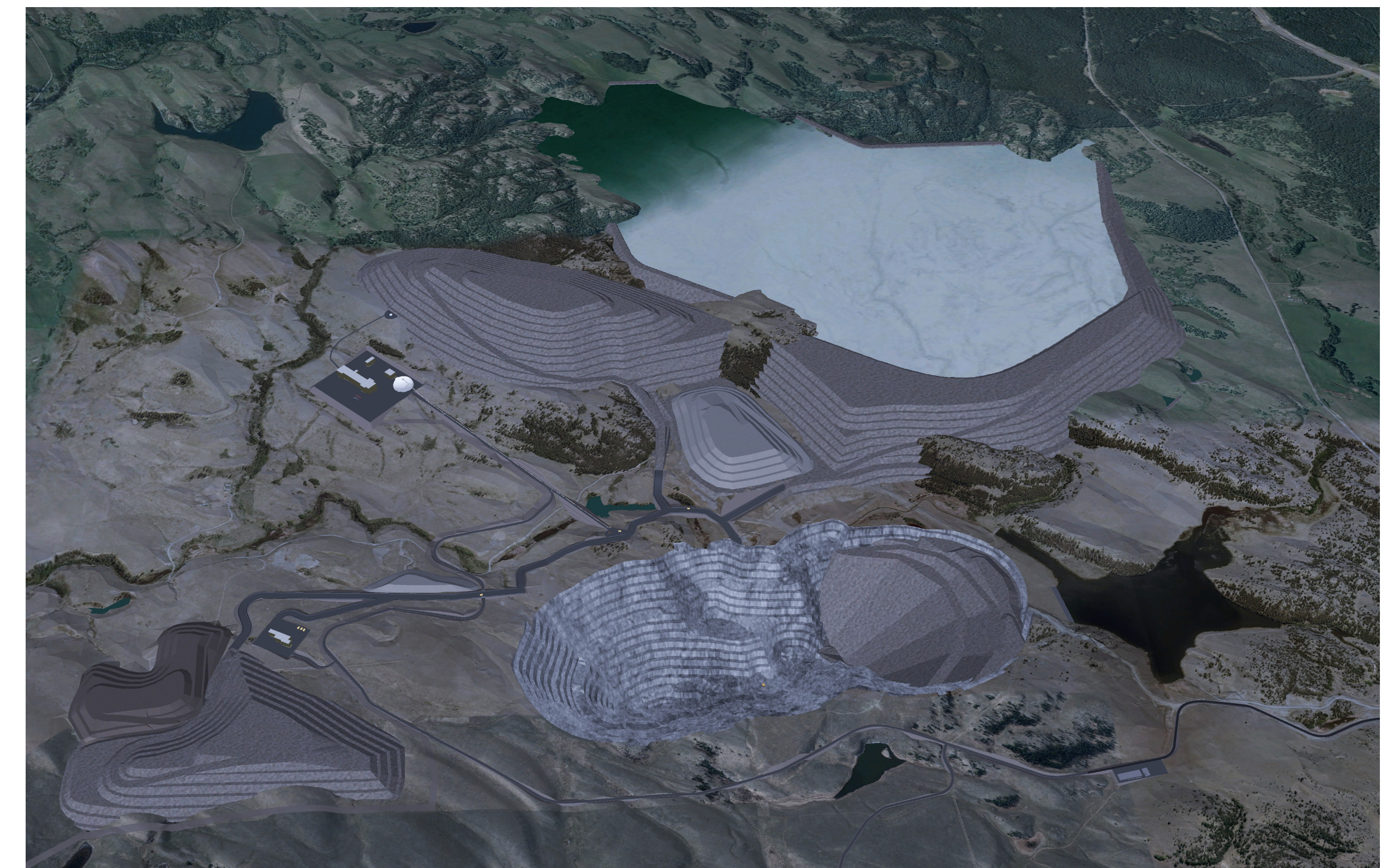
The Project has revised the proposed location for the Tailings Storage Facility (TSF) and changed the proposed design from a modified dry-stack storage facility to a conventional wet slurry storage facility.

Former Dry Stack Tailings Management Concept



- Tailings dry stack constructed by discharging thickened tailings in layers.
- Separate system required for water management/storage
- Proximity to the Coquihalla Hwy and Lac Le Jeune Road.

Conventional (Wet) Tailings Management Concept



- Tailings Storage Facility includes construction of engineered rock fill embankments.
- Integrated tailings and water management facility.
- Located to the south of the open pit and to the east of Lac Le Jeune Road.

ENVIRONMENT

Environment

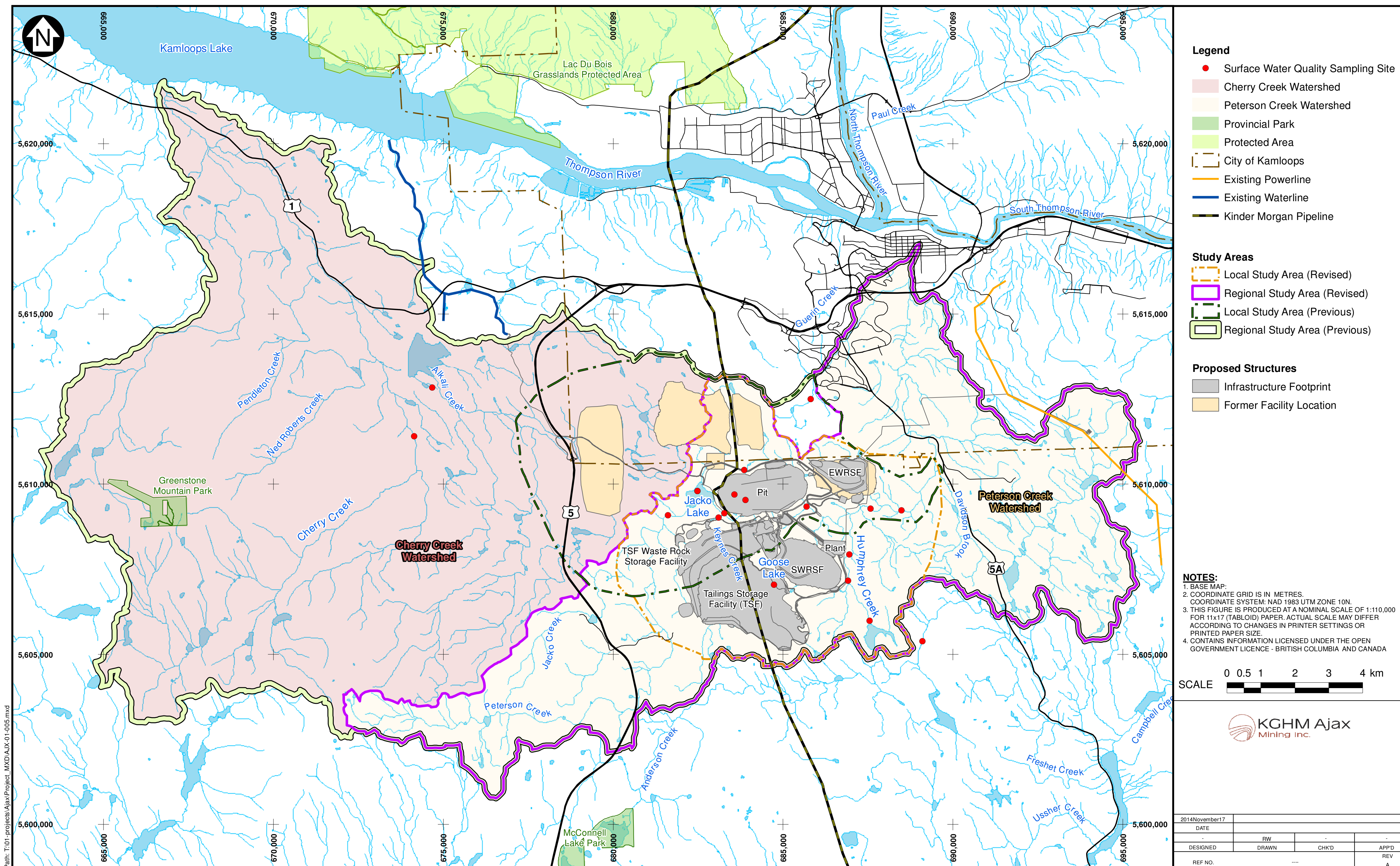
(Section 6 of AIR/EIS Guidelines)

1. Greenhouse Gas Management
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. Grasslands
11. Terrestrial Invertebrates
12. Amphibians
13. Reptiles
14. Migratory Birds
15. Raptors
16. Non-migratory Gamebirds
17. Mammals

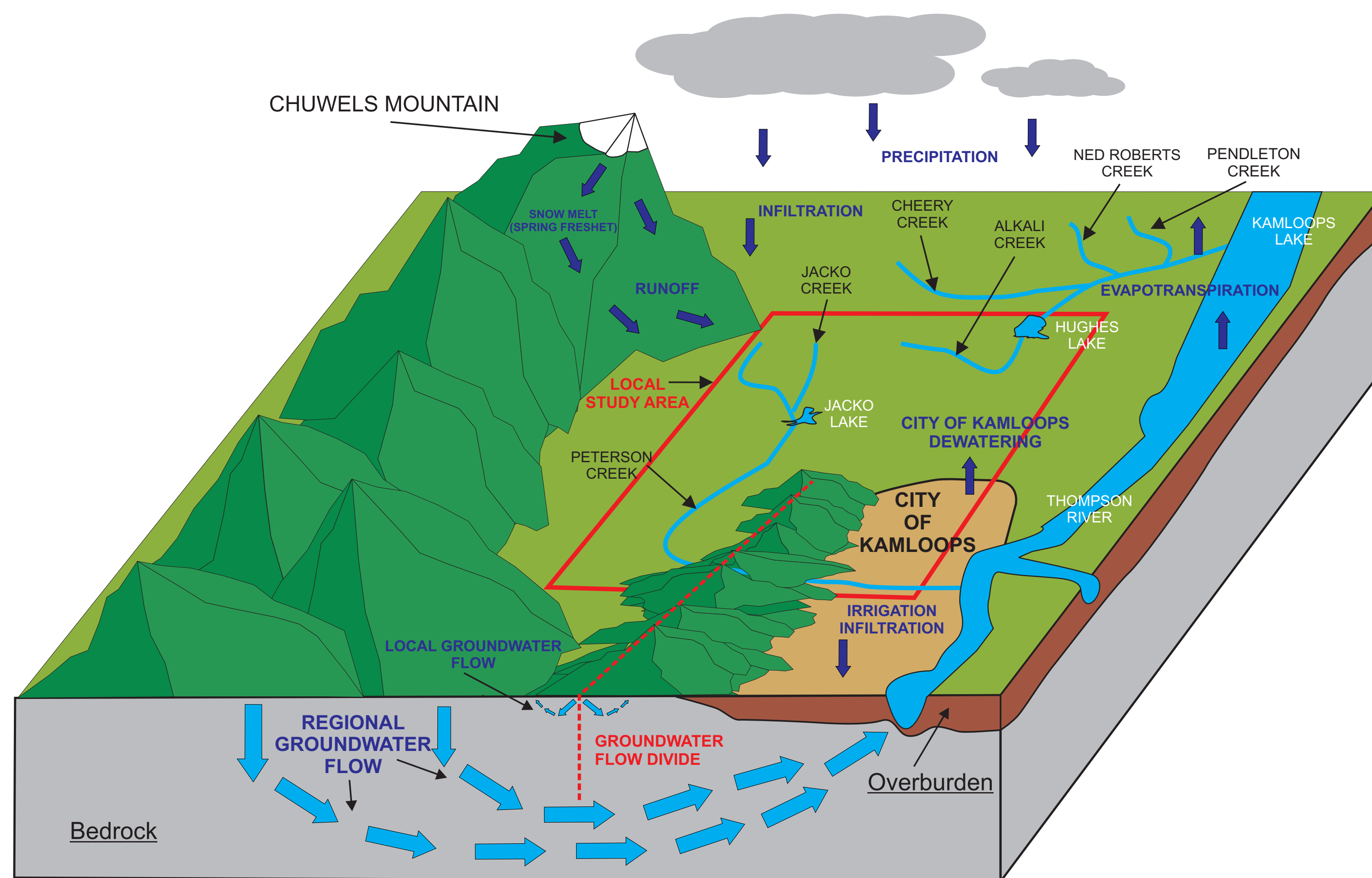
What Has Changed In The AIR/EIS Guidelines?

- Local and Regional study areas (LSA and RSA) have been updated to reflect the new Project layout
- Major infrastructure (e.g., tailings and waste rock) has moved out of Cherry Creek watershed (Inks Lake, Alkali Creek)
- Addition of Keynes Creek, Humphreys Creek, Goose Lake to the LSA
- Updated description of approach to groundwater modelling (Section 6.6)
- Clarified potential effects to be assessed for wildlife VCs (Sections 6.11 to 6.17)
- Integrated ecological health component into applicable VCs

SURFACE WATER STUDY AREAS



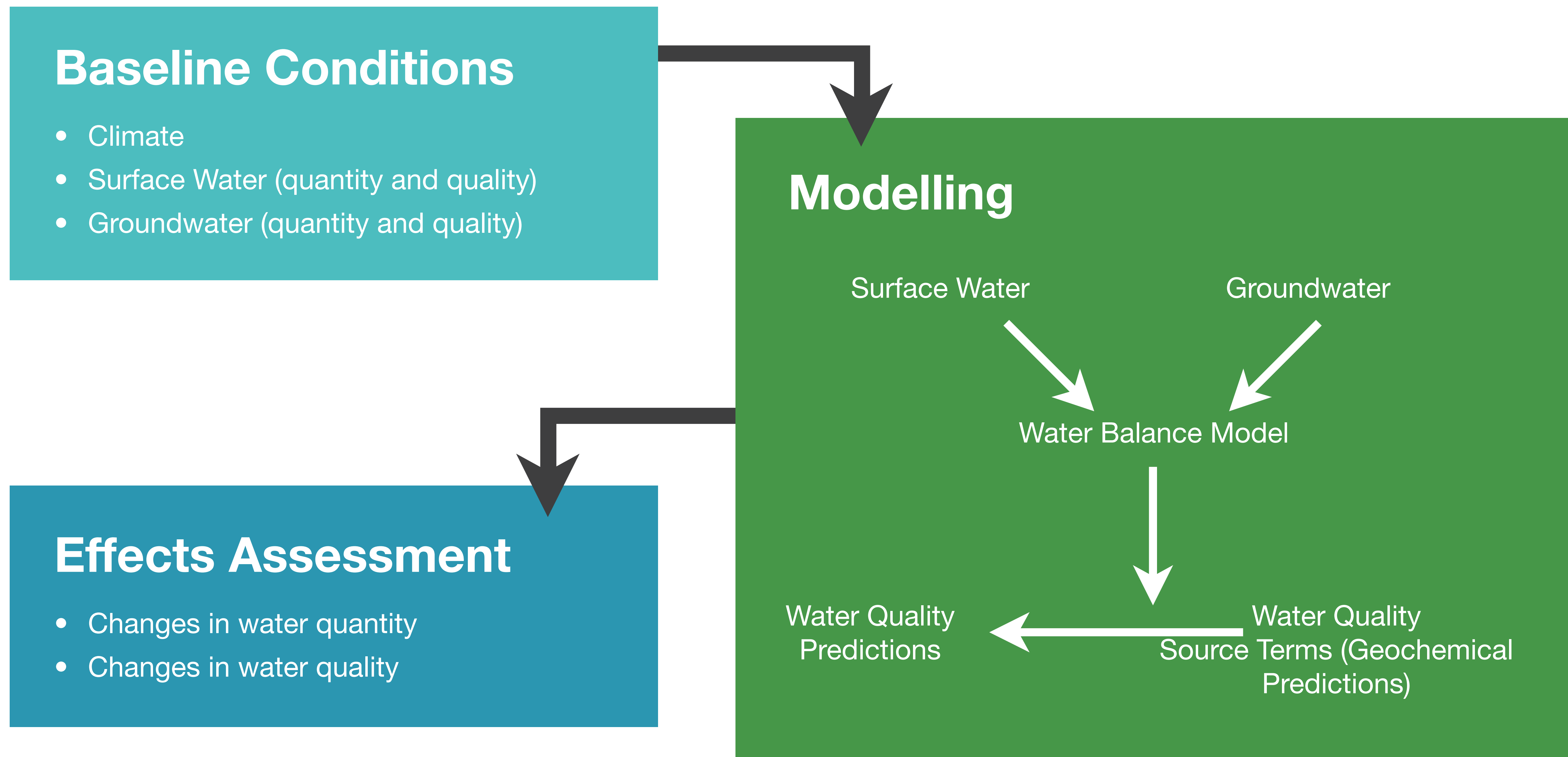
COMPONENTS OF REGIONAL WATER BALANCE



- 1 Precipitation, Evaporation & Evapotranspiration
- 2 Runoff and Surface Water Flow
- 3 Infiltration & Groundwater Recharge
- 4 Groundwater Flow
- 5 Groundwater Discharge & Dewatering

INTEGRATION OF SURFACE WATER AND GROUNDWATER

Information to Assess Project Effects



SOCIAL AND ECONOMIC

Economic

(Section 7 of AIR/EIS Guidelines)

1. Economic Growth
2. Labour Force, Employment and Training
3. Income
4. Business
5. Property Values
6. Economic Diversification

Social

(Section 8 of AIR/EIS Guidelines)

1. Community Health and Well-being
2. Infrastructure, Public Facilities and Services
3. Dark Sky
4. Visual Impact/Aesthetic Features (including Shading)
5. Land and Resource Use
6. Outdoor Recreation
7. Jacko Lake

What Has Changed In The AIR/EIS Guidelines?

- Local and Regional study areas (LSA and RSA) have been updated for Dark Sky and Visual Impact/Aesthetics Valued Components
- Updates to include Sahali for Property Value (Section 7.5) and Dark Sky (Section 8.3) assessments

JACKO LAKE

Supporting Topic



Jacko Lake

Jacko Lake represents many important local values. This section of the Application/Environmental Impact Statement will pull together information to summarize the assessment of effects to Jacko Lake from multiple VCs, including:

- Groundwater Quantity
- Surface Water (Quantity and Quality)
- Fish and Fish Habitat
- Outdoor Recreation
- Land and Resource Use
- Community Health and Well-being
- Visual Impacts/Aesthetics
- Economic Diversification
- Heritage Sites/Objects
- Country Foods

HERITAGE AND ABORIGINAL GROUPS

Heritage

(Section 9 of AIR/EIS Guidelines)

1. Heritage Sites
2. Heritage Objects

Aboriginal Interests, Rights and Title

(Part C: Sections 11-15 of AIR/EIS Guidelines)

1. Background and Aboriginal Group Settings
2. Aboriginal Interests (Rights and Title)
3. Other Potential Effects on Aboriginal Interests
4. Procedural Aspects of Aboriginal Consultation

What Has Changed In The AIR/EIS Guidelines?

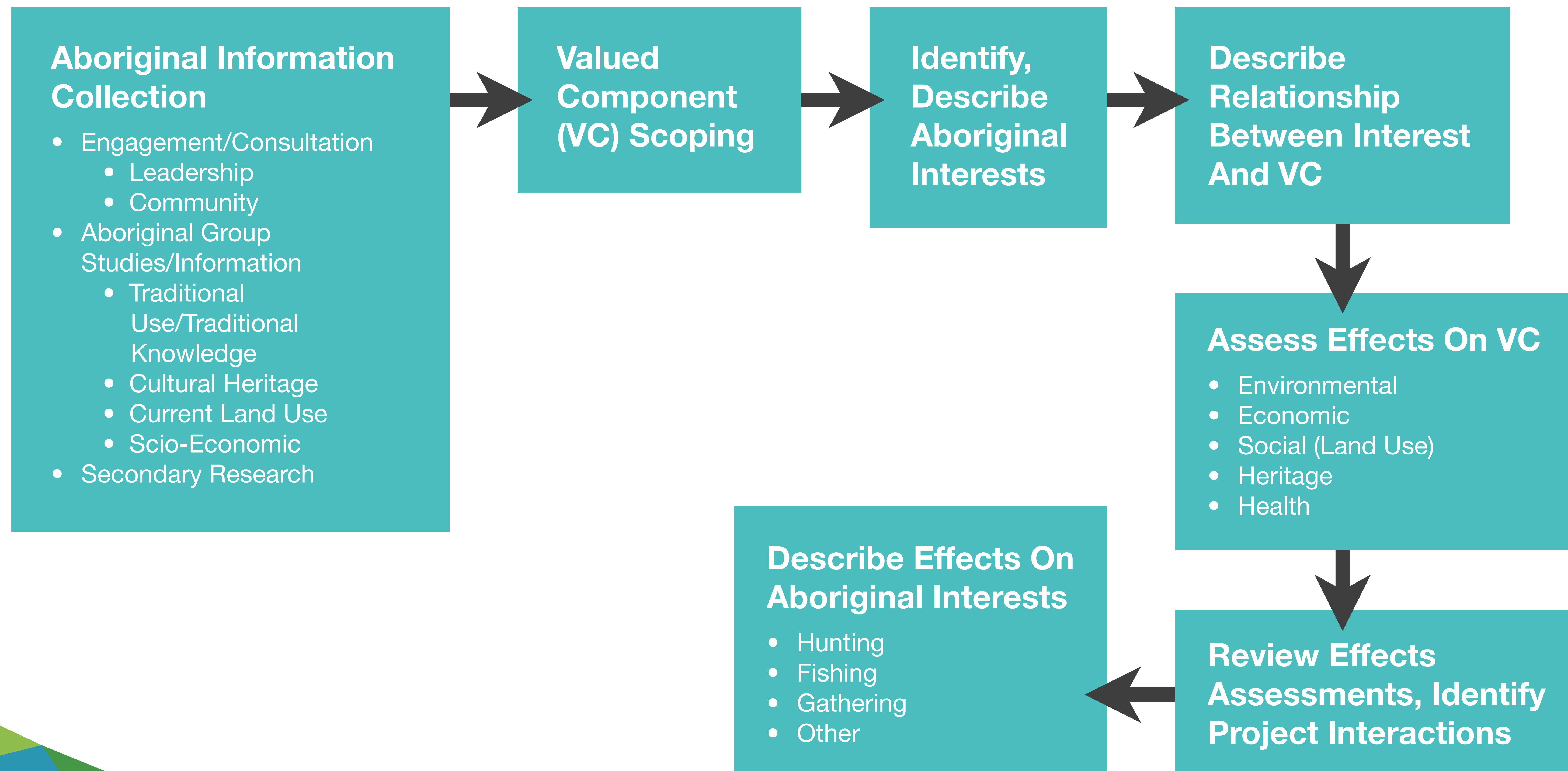
- No changes were made to the Heritage section.

What Has Changed In The AIR/EIS Guidelines?

- No changes to requirements for St'kemplupsemc of the Secwepemc Nation, Nlaka'pamux Nation bands, and Métis Nation BC
- Whispering Pines Clinton Indian Band was added as an additional Aboriginal group identified by the Canadian Environmental Assessment Agency

HERITAGE AND FIRST NATIONS

Approach to Integration of Aboriginal Interests into the Application/Environmental Impact Statement



HEALTH

Health

(Section 10 of AIR/EIS Guidelines)

1. Air Quality
2. Domestic Water Quality
3. Country Foods
4. Human Health
5. Noise and Vibration
6. Healthy Living and Health Education

Several aspects of health will be studied in the Environmental Assessment. Section 10 (Health) largely focuses on physical aspects of human health (e.g., exposure pathways, toxicological effects, healthy lifestyle). Social aspects of human health are assessed in Section 8 (e.g., Community Health and Well-being, Infrastructure, Public Facilities and Services). Ecological health is included in Section 6.

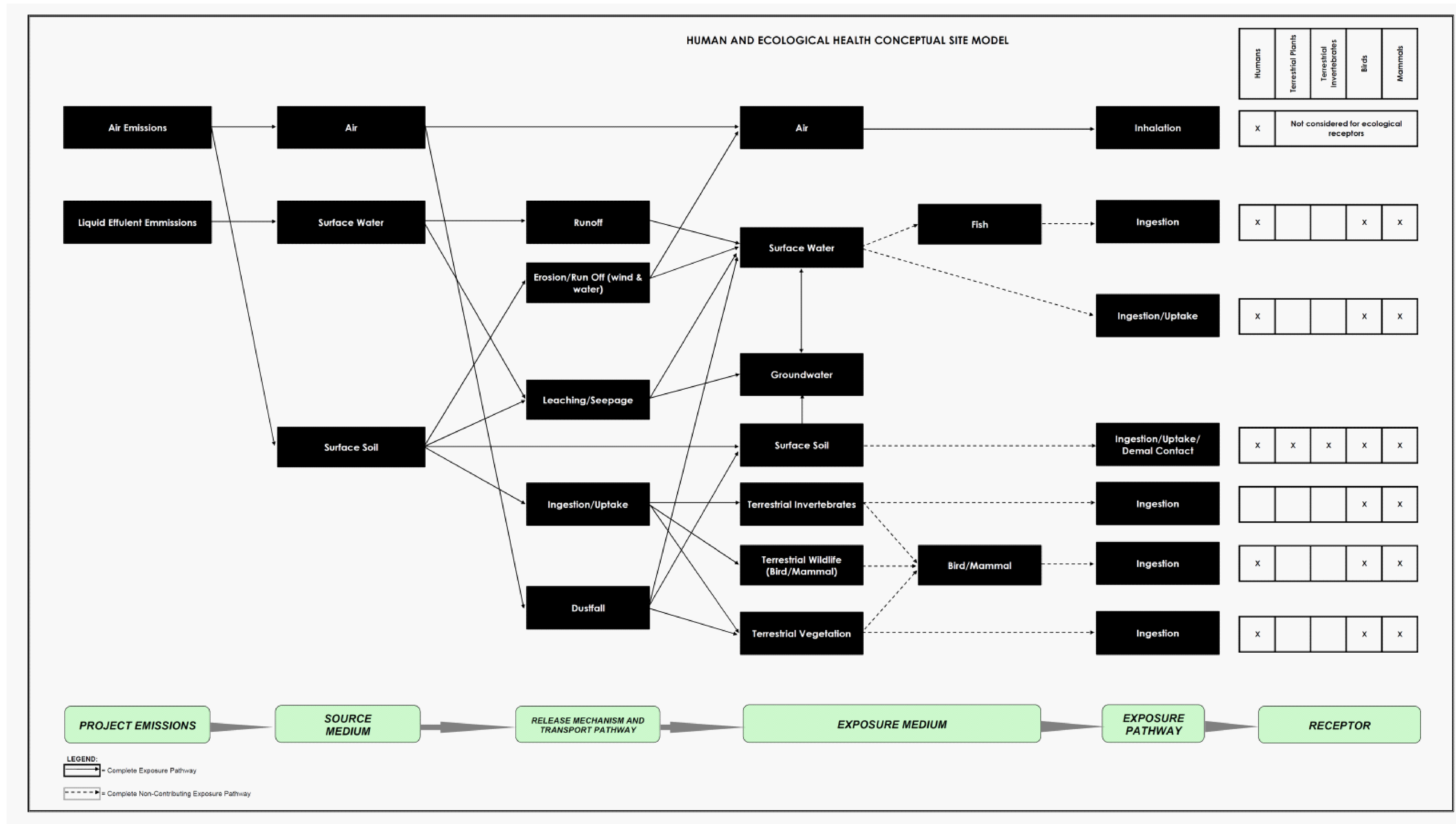
What Has Changed In The AIR/EIS Guidelines?

- Local and Regional study areas (LSA and RSA) have been updated to reflect the new Project layout
 - Air quality modelling boundary has been increased
 - Noise modelling boundary adjusted
- Updated relevant guidance documents for Air Quality, Human Health Risk Assessment and Noise
- Updated description of approach to air quality modelling (Section 10.1)
- Added new “Human Health” VC, which will assess potential toxicological effects to human health from multiple exposure pathways (Section 10.4)
- Updated description of approach to Human Health and Ecological Risk Assessment (HHERA) (Section 10.4)
- Updated description of approach to noise and vibration modelling and assessment (Section 10.5)

HEALTH

Components of the Human Health and Ecological Risk Assessment

Flow Diagram of Human and Ecological Risk Assessment Process and Interactions



OVERVIEW OF INFORMATION SESSION

Purpose Of Information Session

The purpose of today's information session is to obtain your comments on KGHM Ajax Mining Inc.'s proposed revisions to the Application Information Requirements / Environmental Impact Statement Guidelines (AIR / EIS Guidelines) document. The original AIR / EIS Guidelines were issued in June 2013. Current revisions have been proposed in response to the recent changes to the layout and design of the Ajax Mine Project.

Objectives

The objectives of the Canadian Environmental Assessment Agency and the BC Environmental Assessment Office for this information session are to:

- provide information on the purpose and content of the Revised AIR / EIS Guidelines
- seek written input from the public on whether the proposed studies, methods and information specified in the Revised AIR / EIS Guidelines document satisfy public interests and concerns

Information representing the changes to the project and the Revised AIR / EIS Guidelines are available around the room for viewing. Please look over the display boards, ask questions of the environmental assessment representatives and technical experts present, and submit any comments you may have in writing.



HOW CAN I PARTICIPATE?

Make Sure Your Interests Are Considered

As you walk around the room, please:

- look over the information on the display boards
- ask questions of the environmental assessment representatives and technical experts present
- submit any comments in writing

YOU ARE INVITED TO PROVIDE WRITTEN COMMENTS UNTIL DECEMBER 18, 2014:

WEB FORM: www.eao.gov.bc.ca

EMAIL: Ajax@ceaa-acee.gc.ca

Considering Your Comments

The Canadian Environmental Assessment Agency and BC Environmental Assessment Office will consider all comments relating to changes to the AIR / EIS Guidelines resulting from changes to the layout and design of the Project.

The Canadian Environmental Assessment Agency and BC Environmental Assessment Office will require the proponent to respond to these comments and to incorporate responses in the Revised AIR / EIS Guidelines where appropriate.

Once satisfied with the revisions, the Canadian Environmental Assessment Agency and BC Environmental Assessment Office will approve and issue the Revised AIR / EIS Guidelines to the proponent.



ENVIRONMENTAL ASSESSMENT

Environmental Assessment Is A Process To Predict Environmental Effects Of Proposed Projects Before They Are Carried Out.

The federal and BC provincial governments require proponents to assess a project's potential impacts on a range of environmental, economic, social, health and heritage values before determining whether or not the proposed project may proceed.

The Canadian Environmental Assessment Agency and the BC Environmental Assessment Office are conducting the environmental assessment of the proposed Ajax Mine Project. The environmental assessment will:

- identify potential impacts
- provide opportunities for public participation and consultation with Aboriginal groups
- propose mitigation measures to eliminate, reduce or control potential adverse impacts
- predict whether there will be significant adverse environmental effects, after mitigation measures are implemented
- inform the decision whether or not the proposed project may be carried out



WHAT ARE THE AIR / EIS GUIDELINES?

Application Information Requirements / Environmental Impact Statement Guidelines

The AIR / EIS Guidelines are a document that:

- is issued to the proponent by the federal and BC provincial governments
- describes the information that needs to be collected by the proponent as part of the environmental assessment
- specifies the studies, methods and information needed
- requires the development of measures to avoid or mitigate negative impacts

Why Are The AIR / EIS Guidelines Being Revised?

The original AIR / EIS Guidelines were issued in June 2013, following public input. The proponent announced changes to the proposed project design in May 2014. As a result:

- the AIR / EIS Guidelines must be updated to ensure the information required is complete and accurate
- the Canadian Environmental Assessment Agency and BC Environmental Assessment Office are seeking public feedback on the revisions related to project changes



NEXT STEPS

1. Finalize Revised AIR / EIS Guidelines

After the public comment period, the Canadian Environmental Assessment Agency and BC Environmental Assessment Office will consider all comments received, then finalize and issue the Revised AIR / EIS Guidelines.

The proponent will then complete the studies required by the Revised AIR / EIS Guidelines and submit their Application for an Environmental Assessment Certificate / Environmental Impact Statement (Application / EIS).

The Canadian Environmental Assessment Agency and BC Environmental Assessment Office will then:

2. Review Application / EIS

- ensure that the Application / EIS includes all the required information
- undertake a technical review of the document
- consult with the public, technical experts, local governments and Aboriginal groups

3. Prepare Reports And Recommendations

- summarize the findings of the assessment, based on an analysis of all collected information
- prepare recommendations to federal and provincial ministers, respectively, for an environmental assessment decision

Comments received from a future public comment period on the federal Comprehensive Study Report will be included with the report's submission to the federal Minister of the Environment.



ENVIRONMENTAL ASSESSMENT 101

Public Workshops

The B.C. Environmental Assessment Office and the Canadian Environmental Assessment Agency are inviting the public to participate in workshops on the environmental assessment process on November 25 and 26, 2014 in Kamloops. The workshops will be a great opportunity to learn more about the environmental assessment process in B.C.

The workshops will answer questions like:

- What happens in an environmental assessment?
- How can the public participate?
- What happens after an environmental assessment?

At the workshops, participants will be able to speak directly with staff from both the B.C. Environmental Assessment Office and the Canadian Environmental Assessment Agency. There will also be opportunities to listen to presentations and ask questions.

There will be three workshops held each day and participation will be on a first-come first-served basis.

Where are the workshops being held?

- Kamloops Coast Hotel and Conference Centre
- 1250 Rogers Way in Kamloops, B.C.

When are the workshops happening?

- Tuesday, November 25, 2014 and
Wednesday, November 26, 2014
- 3:00–4:00 pm
- 4:30–5:30 pm
- 6:00–7:00 pm

This is a great opportunity for anyone interested in learning more about environmental assessments. While the workshops will focus on the general environmental assessment process, anyone interested in getting information or asking questions about the proposed Ajax Project will be welcome to go down the hall to the Ballroom, where additional government staff and KGHM Ajax Inc. representatives will be happy to discuss the details of that particular project and its environmental assessment. For more information, please see www.eao.gov.bc.ca

The B.C. Environmental Assessment Office and the Canadian Environmental Assessment Agency encourage anyone interested in the environmental assessment process to stop by, speak with staff, and get answers to their questions. See you there!

Google Earth 3D Digital Model

www.Ajaxmine3D.ca

By entering the above web address in your browser, you will be able to view, tour and navigate through our interactive 3D Google Earth map of the proposed Ajax Mine Project. You will be directed to the below home screen; simply follow the instructions to load the model and begin the interactive experience.

KGHM
INTERNATIONAL
AJAX PROJECT

Start Here

Step 1
Download and install Google Earth

Step 2
Find out how Google Earth works and what it can show


Step 3
Read answers to some questions that may arise when viewing the models


Step 4
Select a Stage of Development and view a 3D representation of it in Google Earth


The Proposed Ajax Mine Project in 3D

Click [HERE](#) For More Information About the Project and to provide feedback

Step 1
Click the image below to navigate to the Google Earth download page. Follow the instructions there. Please note that Google Earth does not support these kinds of models on mobile platforms. PC and Mac are supported at this time.

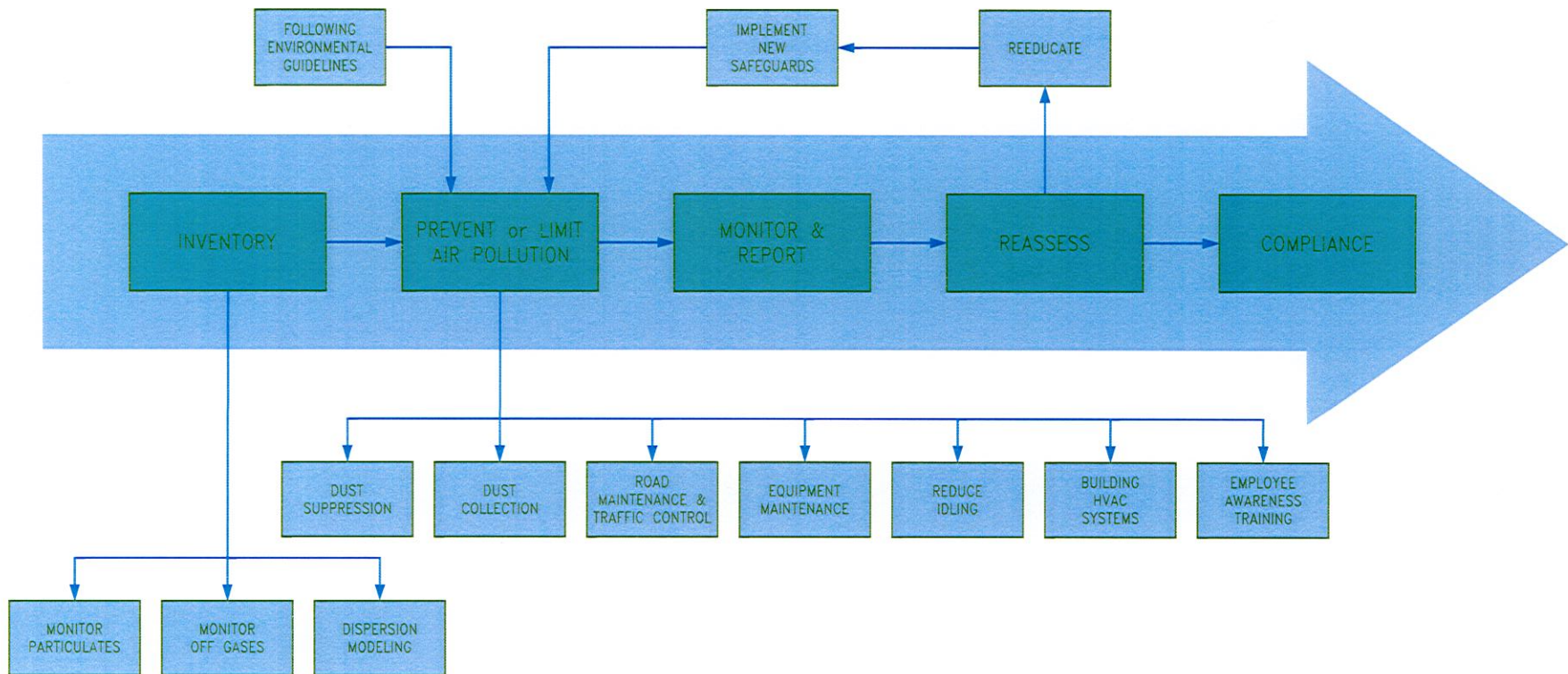


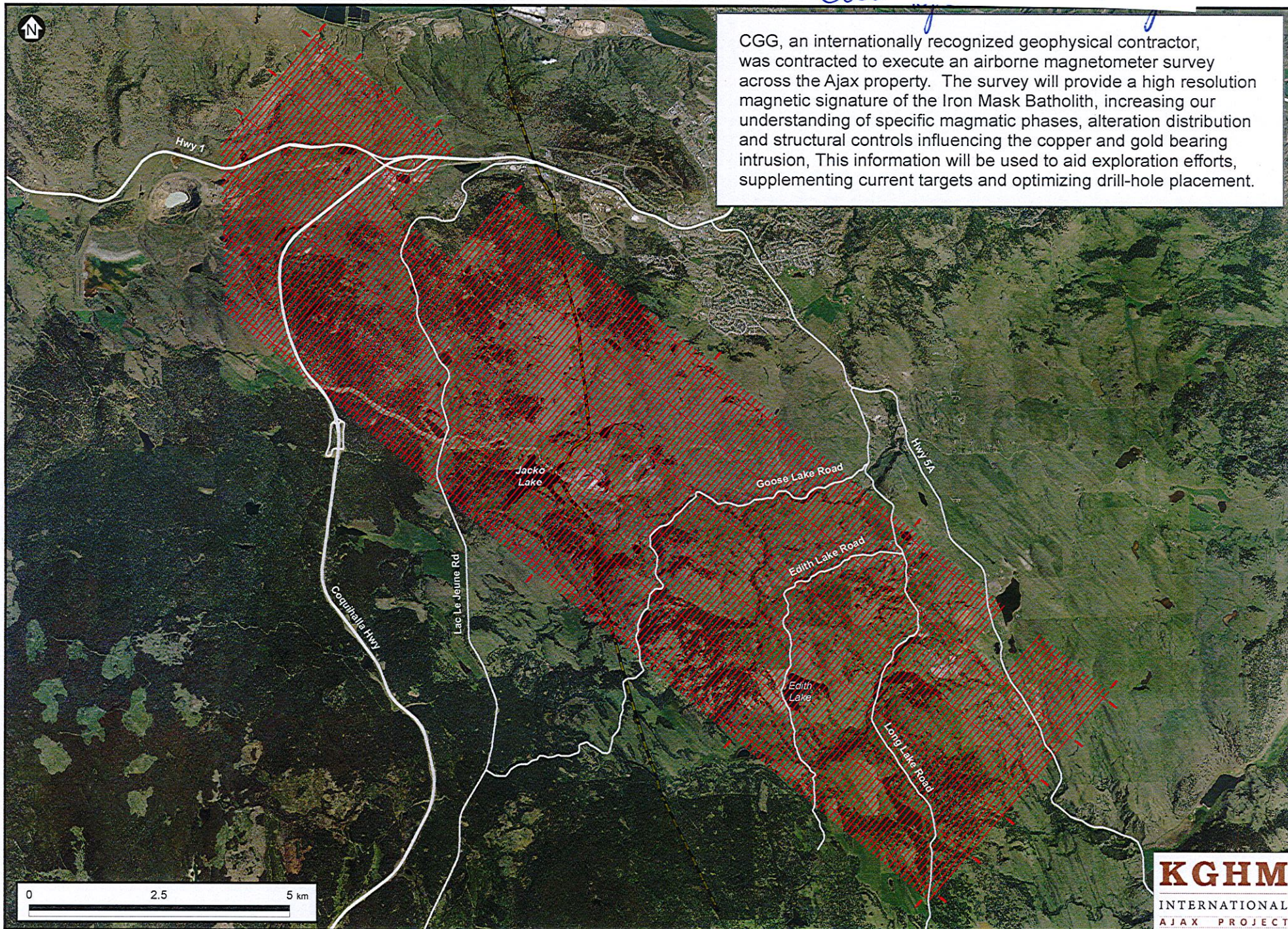
Pre-Construction	Year 5	Year 10	Year 15	Year 20	Year 25	Year 50
 <p>Pre-Construction No construction has taken place. Vantage points are provided in the model so comparisons can be made to the same vantage points in subsequent years of operation.</p> <p style="text-align: center;">Download the Pre-Construction Model</p>						<p>Model Information Date: May 23, 2013</p> <p>Changes since last update: - New vantage points for Kenna Cartwright Park and Pacific Way Elementary School - - Updated imagery in parts of Aberdeen -</p>

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Don't have access to a computer? Stop by our office at 124 Seymour Street for assistance in viewing the digital model.

ASSESSING and PROTECTING AIR QUALITY RESOURCES at MINING OPERATIONS



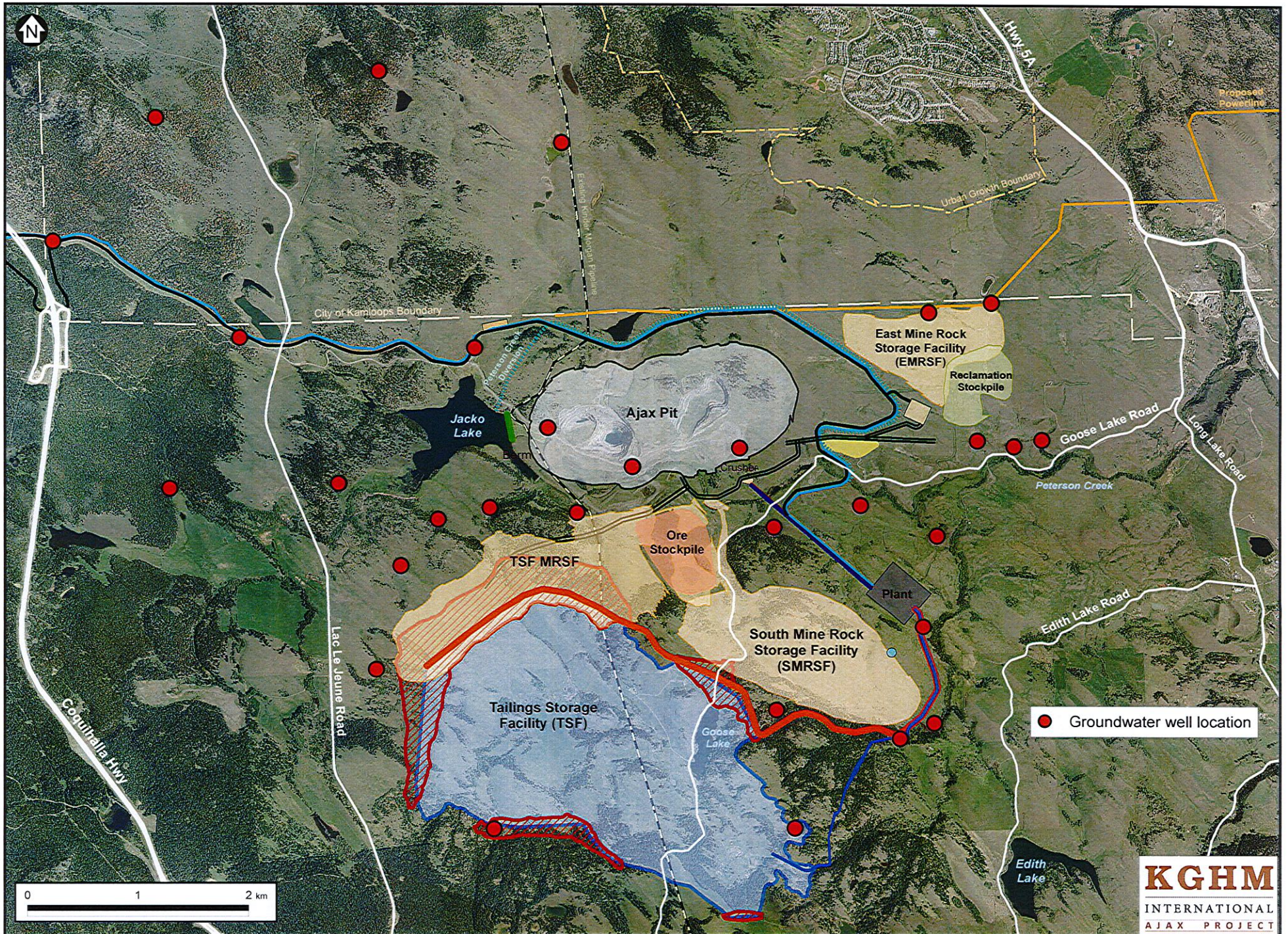


AIRBORNE GEOPHYSICAL SURVEY

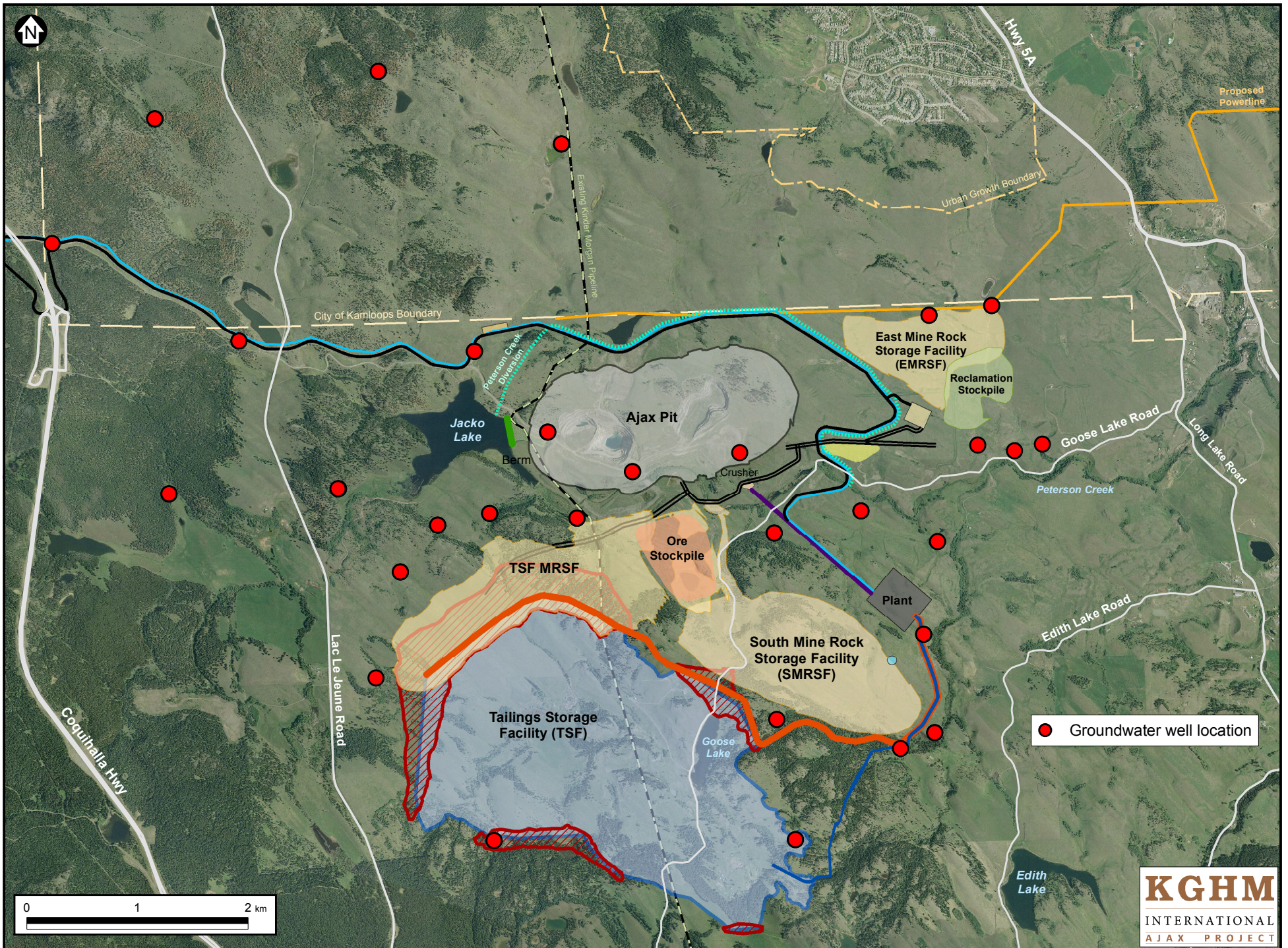
**KGHM International Ajax Project is A Member of the
Mining Association of Canada
What does this mean?**

- Members of the Mining Association of Canada (MAC) are required to participate in the Towards Sustainable Mining (TSM) initiative. The TSM allows mining companies to turn high-level environmental and social commitments into action on the ground. At the same time, it provides communities with valuable information on how operations are faring in important areas, such as community outreach, tailings management and biodiversity.
- While regulating mining activity is primarily the responsibility of the provinces, there are many aspects that require approval from several federal government departments. From the proposal, development and operational phases through to closure, mining companies must adhere to a number of federal acts and regulations. To deal with the complexity of the federal regulatory environment, MAC will monitor and assist the Ajax Project with legislation including:
 - *Canadian Environmental Protection Act*
 - *Canadian Environmental Assessment Act*
 - *Fisheries Act, including the Metal Mining Effluent Regulations*
 - *Navigable Waters Protection Act/Navigation Protection Act*
 - *Species at Risk Act*
 - *Migratory Birds Convention Act*
- Companies, including the Ajax Project once operational, are measured and publicly report their performance for several community-focused TSM protocols, including Aboriginal and community outreach, crisis management planning, and safety and health. Along with the environment, the health and safety of our people and surrounding communities is paramount. Through decades of effort in close collaboration with governments and organized labour, mining is now one of the safest industrial sectors in the country today. In addition to its own company actions, the Ajax Project will follow best practices in community engagement through our involvement in the Towards Sustainable Mining (TSM) program.

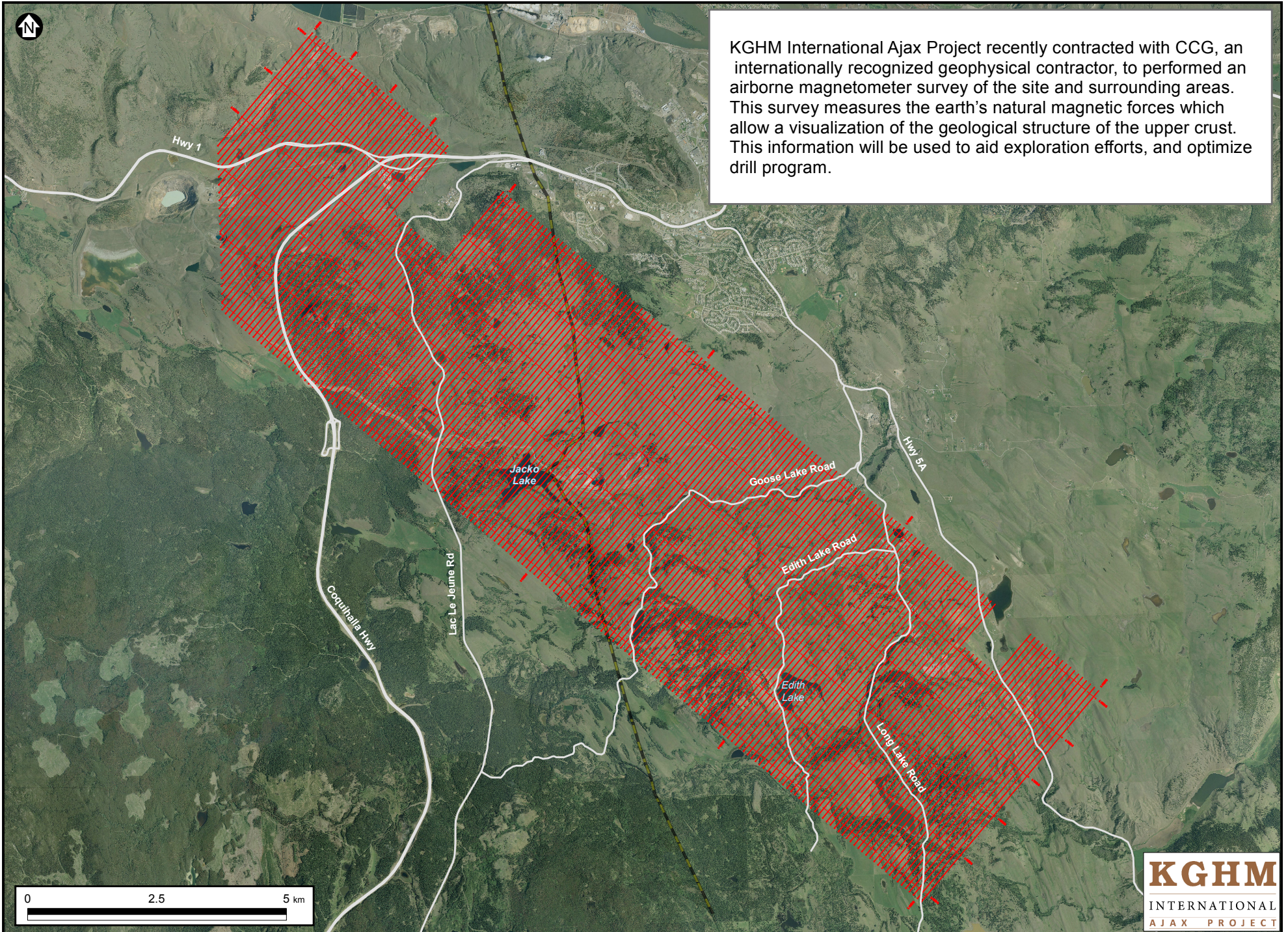
For more information on the Mining Association of Canada, visit its site at www.mining.ca.



CURRENT GROUNDWATER MONITORING



CURRENT GROUNDWATER MONITORING

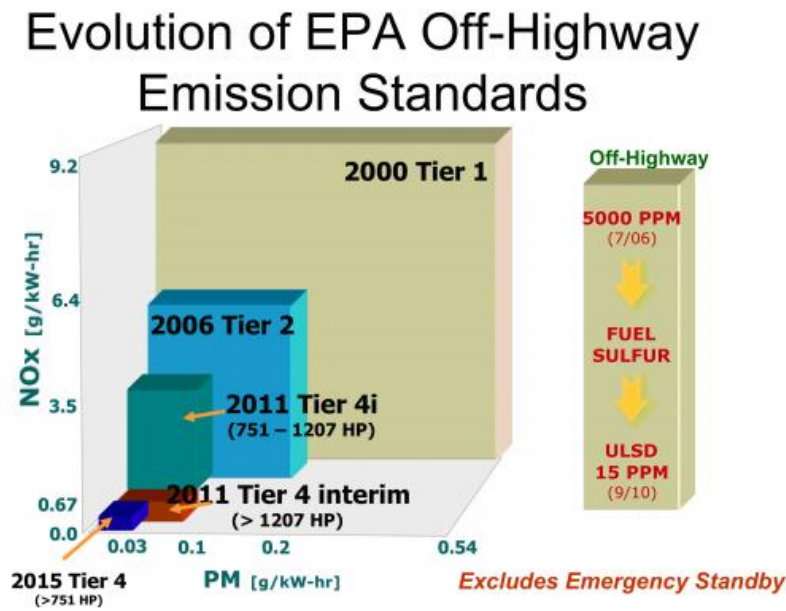


AIRBORNE GEOPHYSICAL SURVEY

KGHM International Ajax Project Meeting Emissions Standards

U.S. Environmental Protection Agency (EPA) has continually tightened emissions regulations with Tier 4 taking effect in North America in 2015. The regulations govern every engine over 751 hp (560 kW) operating in non-road applications.

Emissions to be reduced with these regulations include Particulate Matter (PM), oxides of nitrogen (NOx) and Hydrocarbons (HC), to levels 90 percent lower than those of engines produced before the year 2000.



Cummins is currently developing a product that not only meets the regulation for Tier 4 but addressed improvements to productivity and performance including fuel efficiency.

KGHM International Ajax Project will work with Cummins and other companies to ensure we have the best, most up-to-date equipment to meet the highest standards for emissions.

Information Guide

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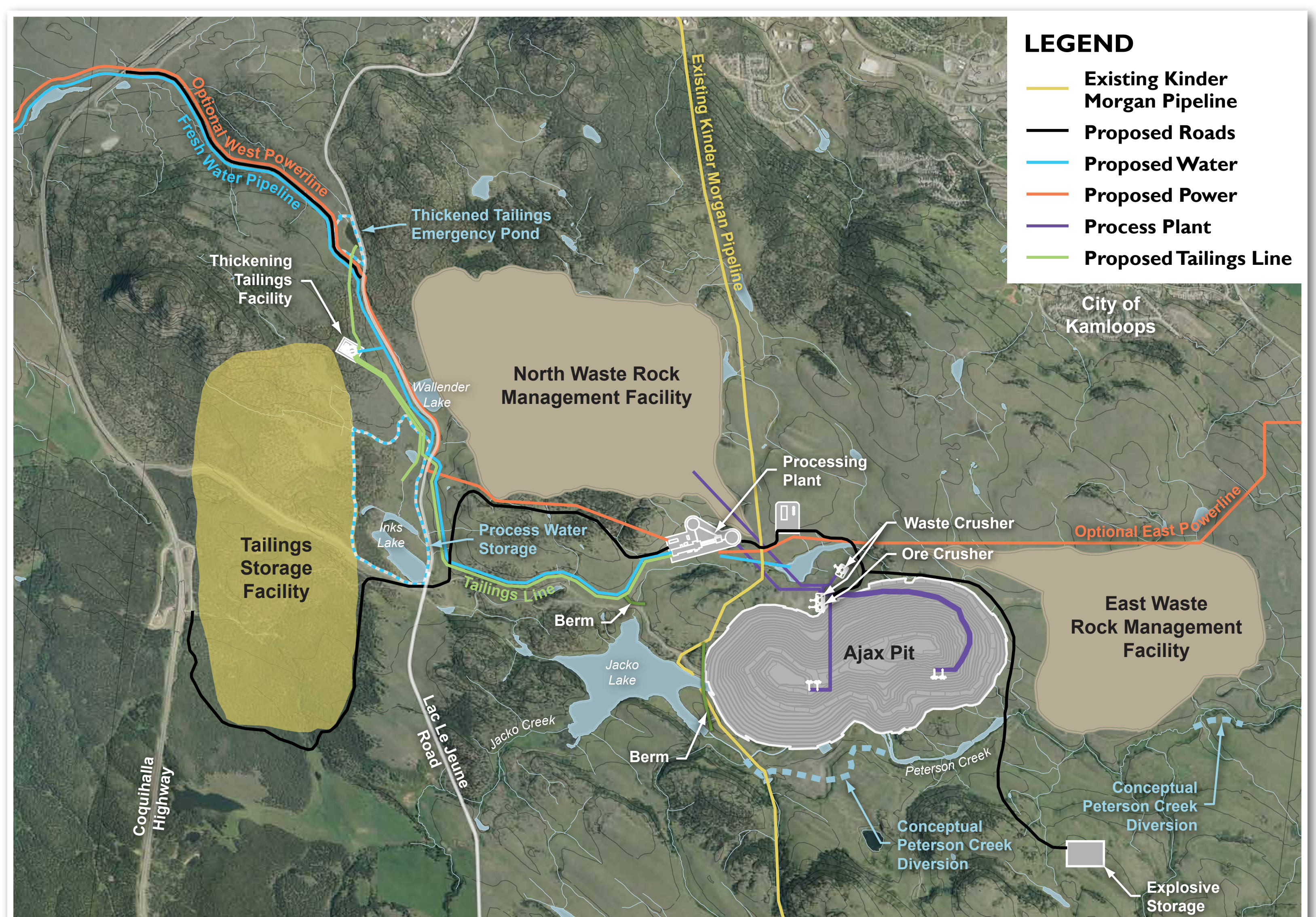
Welcome

The purpose of today's information session is to obtain your comments on KGHM Ajax Mining Inc.'s (the Proponent's) draft Application Information Requirement/Environmental Impact Statement Guidelines (AIR/EIS Guidelines) document.

This draft AIR/EIS Guidelines document has been prepared by the Proponent and submitted to the EAO and CEA Agency as part of the cooperative EA process. The draft AIR/EIS Guidelines represents the Proponent's outline of the proposed studies, methods and information requirements it will be required to conduct and provide information for in its future submission of the Application/EIS. The EAO and CEA Agency are asking for written public comments on:

- Do the proposed studies, methods and information requirements outlined in the draft AIR/EIS Guidelines satisfy your interests and concerns? If not, what information requirements are missing?
- Are there additional interests and concerns you would like to see included for study or consideration?
- Are there any other environmental considerations in relation to the proposed project (for example, information or research) the Proponent could undertake?

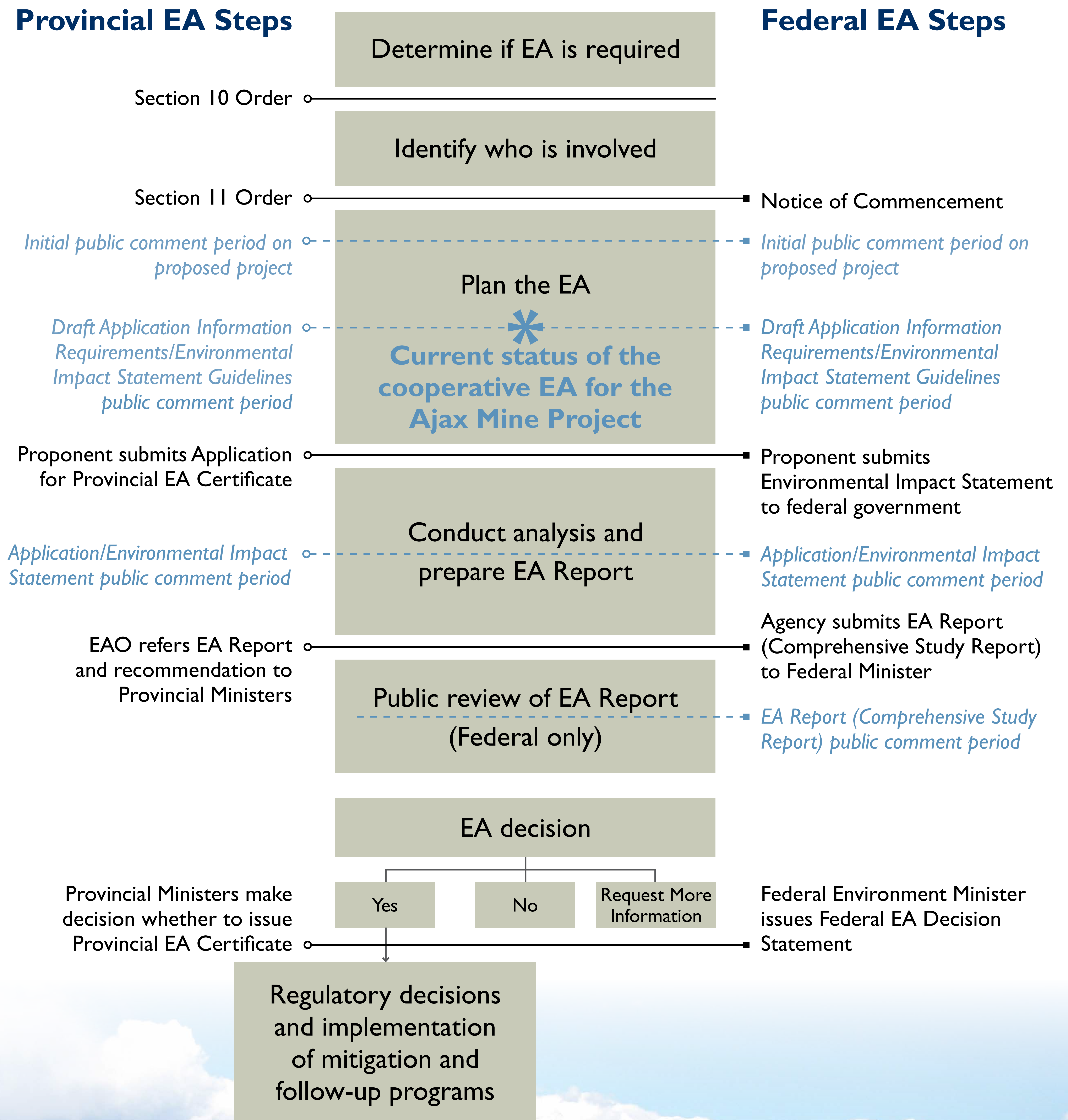
The EAO and CEA Agency will approve a final AIR/EIS Guidelines document when they are satisfied that all issues and concerns related to the document have been appropriately considered. Once the final AIR/EIS Guidelines has been approved, the Proponent must collect the information required and prepare and submit an Application/EIS to the EAO and CEA Agency for review.



Please review the displays, ask questions and use the public comment forms to provide your written comments on the information requirements of the draft AIR/EIS Guidelines document.



Coordinated EA Steps



Make sure your interests are considered

The displays in the room **represent** the content of the draft AIR/EIS Guidelines document that the Proponent has prepared and submitted to the EAO and the CEA Agency as part of the cooperative EA process.

As you review the displays, please remember the draft AIR/EIS Guidelines document outlines the proposed studies, methods and information requirements that the Proponent will be required to include in its future Application/Environmental Impact Statement for a provincial Environmental Assessment Certificate and federal Environmental Decision Statement.

As you walk around the room, please:

- Review the displays
- Consult the draft AIR/EIS Guidelines document, if required
- Ask questions
- Provide your written comments on the Comment Form

The EAO and CEA Agency will consider all written comments received during the public comment period. The EAO and CEA Agency are requiring the Proponent to track the issues and concerns identified in all written comments and provide responses to the EAO and CEA Agency on how the Proponent has considered the issues and concerns. After considering the written public comments received during this public comment period, the EAO and CEA Agency may direct the Proponent to revise the draft AIR/EIS Guidelines document. The EAO and CEA Agency will approve a final AIR/EIS Guidelines when the EAO and CEA Agency are satisfied that issues and concerns related to the document have been appropriately considered.

There are many copies of the draft AIR/EIS Guidelines document in the room today and it can be reviewed at public libraries and city offices located in the Kamloops area.

The draft AIR/EIS Guidelines document is also available to be viewed online at www.ajaxmine.ca, www.eao.gov.bc.ca and www.ceaa-acee.gc.ca.

Does the draft AIR/EIS Guidelines document satisfy your interests and concerns or would you like to see additional interests and concerns included for study?

Please be sure to fill out a Comment Form today, or submit your written comments:

- by Online Form:*
www.eao.gov.bc.ca/pcpl/forms/Ajax.html
- by Email: Ajax@ceaa-acee.gc.ca*
- by Fax: 250-356-6448*
- by Mail: to either the EAO or CEA Agency*

You will be able to view all written submissions that are submitted by Online Form or by Email on the EAO's website at www.eao.gov.bc.ca.



What is included in the Draft AIR/EIS Guidelines document?

The draft AIR/EIS Guidelines document identifies the valued components that will be assessed in the proposed Ajax Mine Project's coordinated federal and provincial environmental assessment. The draft AIR/EIS Guidelines document outlines the proposed studies, methods and information requirements that are required to be included in the future Application/EIS. These valued components of the proposed project have been included because they are considered important by the Proponent, Aboriginal groups, scientists, the public, provincial and federal government agencies, and local governments involved in the environmental assessment process.

Proposed valued components for the proposed Ajax Mine Project are organized into five categories that include, but are not limited to, the environment, economic, social, heritage resources and health.

ENVIRONMENT VALUED COMPONENTS

- Climate
- Geology, Landforms and Soils
- Surface water quality
- Surface water quantity
- Groundwater quality
- Groundwater quantity
- Fish populations and fish habitat
- Rare plants
- Rare and Sensitive Ecological Communities
- Terrestrial Invertebrate
- Amphibian
- Reptile
- Migratory Bird
- Raptor
- Non-migratory Gamebird
- Bat
- Mammal

ECONOMIC VALUED COMPONENTS

- Labour force
- Education and training
- Income
- Employment
- Business
- Cost of living
- Housing
- Infrastructure
- Economic Diversification

SOCIAL VALUED COMPONENTS

- Culture
- Community health and well-being
- Public facilities and services including transportation
- Dark sky / Shading
- Land and Resource Use
- Jacko Lake
- Visual Impact / Aesthetic Features
- Aboriginal community interests

HERITAGE VALUED COMPONENTS

- Heritage objects
- Heritage sites

HEALTH VALUED COMPONENTS

- Air quality (Dustfall, PM10 and PM2.5)
- Water quality
- Noise and vibration
- Health education
- Healthy living

THE DRAFT AIR/EIS GUIDELINES DOCUMENT DOES NOT INCLUDE

- The results of the environmental assessment studies
- An assessment of potential project effects
- Environmental management plans
- Proposed mitigation measures

This type of information will be included in the Proponent's future Application/EIS. The requirements outlined in both the *Canadian Environmental Assessment Act* and the *BC Environmental Assessment Act* must be satisfied in the AIR/EIS Guidelines document. Once the AIR/EIS Guidelines document is approved by the EAO and CEA Agency, the proponent must collect the information required by the AIR/EIS Guidelines document and include it in the Application/EIS for review.

View the other displays throughout the room to learn more about each of the valued components that are included in the draft AIR/EIS Guidelines document.

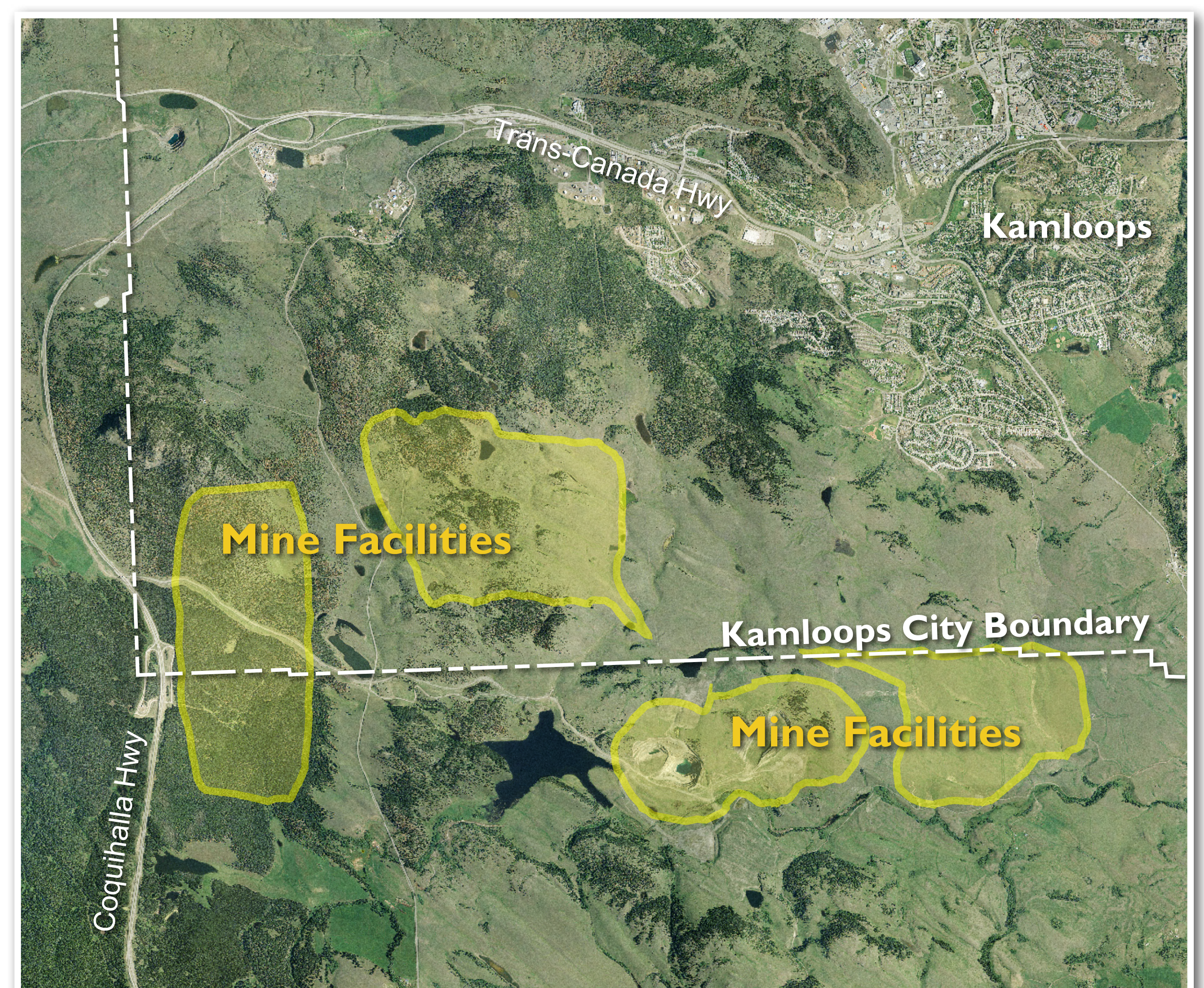
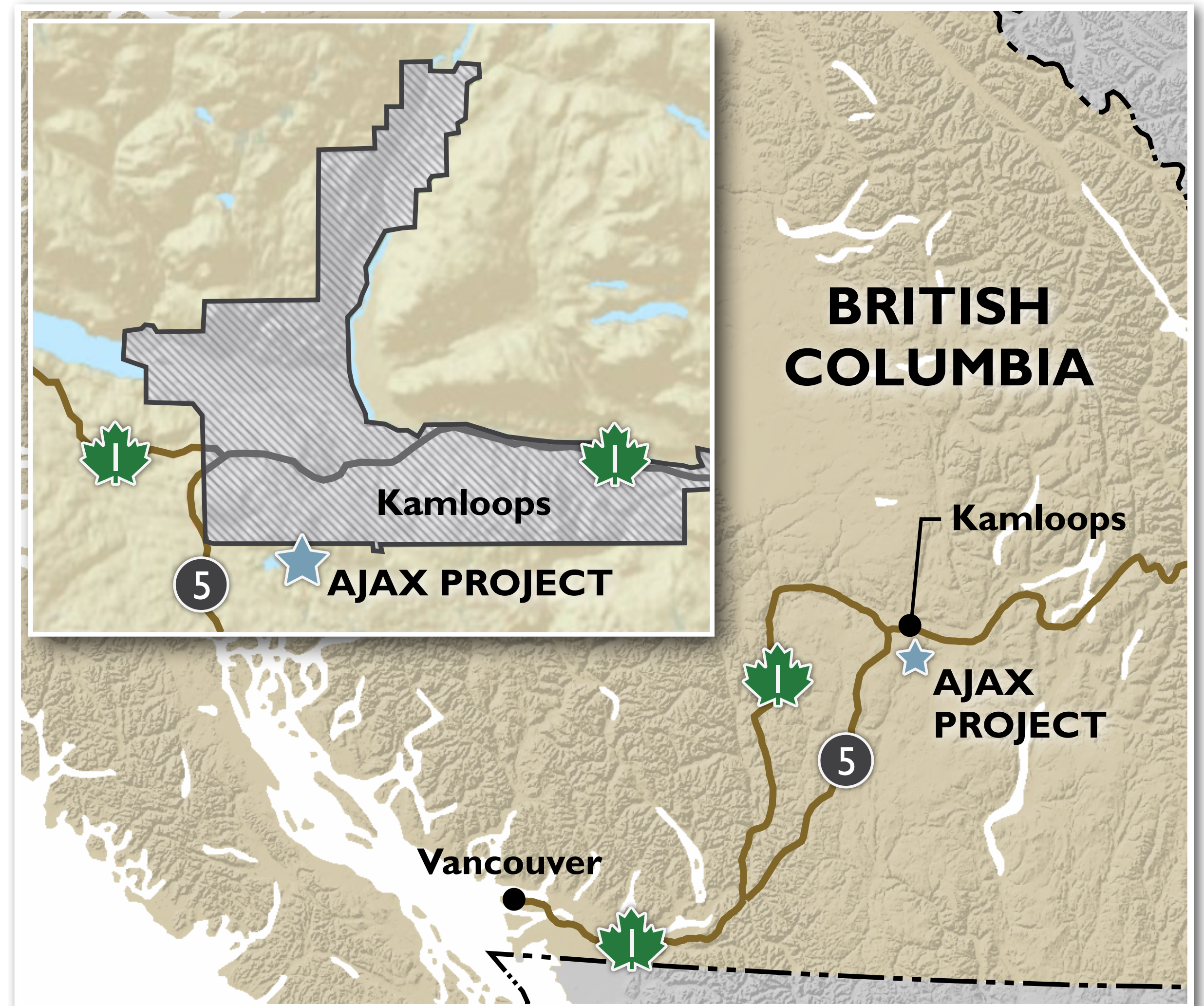


Description of the Proposed Project

As outlined in the draft AIR/EIS Guidelines document, the Application/EIS will describe the location and components of the proposed project in sufficient detail to support the assessment of potential project-related effects.

The proposed project being assessed is comprised of:

- An open-pit copper-gold mine anticipated to process 21.9 million tonnes of ore per year over a 23-year mine life
- A 60,000-tonne-per-day conventional flotation processing plant
- A thickened tailings plant
- Tailings storage facility
- Waste rock management facilities
- Water management facilities
- Road and bridge upgrades
- New access and haul road
- Transmission line and transformer upgrades
- Explosives storage facility
- Process and potable water system
- Concentrate Storage and Shipping area
- Concentrate transport to the Port of Vancouver



The proposed project is located partially within the City of Kamloops, and within the Thompson Nicola Regional District, southwest of the junction of the Trans Canada Highway and the Coquihalla Highway. The Proponent intends to utilize the existing transportation corridors and existing infrastructure to the extent possible. It is anticipated that approximately 15 – 20 concentrate transport trucks will travel to the Port of Vancouver per day from the mine site.

Mine Plan

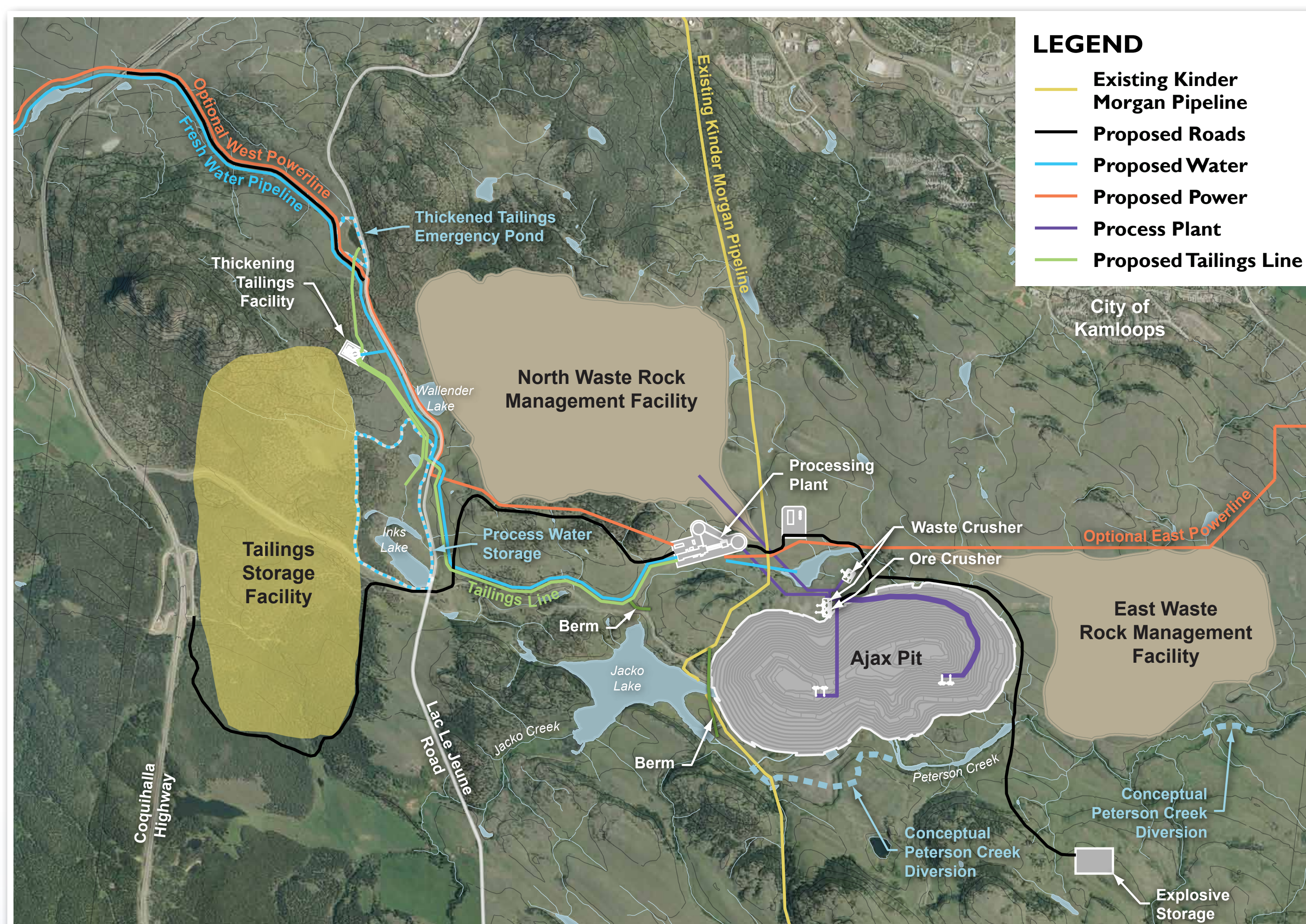
As outlined in the draft AIR/EIS Guidelines document the Application/ EIS will provide a mine plan in sufficient detail to support the assessment of potential project-related effects.

The mine plan for the proposed project will include:

- Pit development, including descriptions of pit phases and designs, management and monitoring during operations
- Mine production schedule, including general mining plan and production
- Process plant and ore processing, including process description, flow sheet, list of reagents, and construction methods
- Tailings storage facility, including site considerations and constraints, embankment design criteria, description of operations and monitoring
- Waste rock storage and ore stockpiles, including storage locations, volumes, methods, development, operations and monitoring
- Overburden and topsoil stockpiles, including a description of storage, location and method of stockpiling
- Mining equipment, including a list of equipment, its capacity and source, hours of use and fuel requirements
- Blasting, including a description of the type, quantity, manufacturing, storage and use of explosives
- Mine water management
- Ancillary infrastructure
- Water supply, including a description of how the existing infrastructure will be upgraded to supply process water from Kamloops Lake
- Power supply, including a description of the power line
- Project access and transport corridor, including a description of the public and temporary roads used to access the mine, the size and types of vehicles used and the frequency and approximate timing of trips

- Closure and reclamation, including an overview of the proposed conceptual closure and reclamation plan and a description of the measures to be implemented to mitigate long-term adverse effects

The proponent is required to develop a preliminary mine plan in accordance with the Health, Safety and Reclamation Code for Mines in BC, and other federal and provincial regulations.



Provincial and Federal Scope of the Environmental Assessment

The proposed Ajax Mine Project is undergoing a single, coordinated assessment to meet the environmental assessment requirements of both the Government of Canada and the Government of BC. In a single, coordinated environmental assessment both levels of government retain independent decision-making on matters within their own legislative authority and are responsible for the environmental assessment decisions required by its legislations.

The proposed project's application for a provincial Environmental Assessment Certificate and a federal Environmental Assessment Decision Statement will be assessed by the BC Environmental Assessment Office (EAO) and the Canadian Environmental Assessment Agency (CEA Agency).

The scope of the environmental assessment will include, but is not limited to:

- An assessment of the potential for the proposed project to cause adverse environmental, social, health, heritage and economic effects and measures to avoid, prevent or reduce any such potential adverse effects
- Potential adverse effects of the proposed project on Aboriginal groups' potential rights and interests and, ways to avoid, mitigate or accommodate potential impacts of the proposed project on potential Aboriginal rights and interests



The EAO and CEA Agency will evaluate the proponent's consultation with government agencies, Aboriginal groups, stakeholders and the public.

Assessment Methodology

In the Application/EIS, each valued component will be assessed according to the following methodology:

- Identify potential effects on each value component.
- Describe measures to avoid or mitigate (eliminate, reduce or control) potential effects, through mine design and environmental controls
- Identify each residual effect that cannot be eliminated or reduced
- Assess interactions with other past, present and future project effects (potential residual cumulative effects)
- Determine the significance of remaining residual effects and residual cumulative effects
- Develop monitoring and follow-up programs

Definitions:

Cumulative Effects: changes to the environment that are caused by an action in combination with other past, present and future human actions

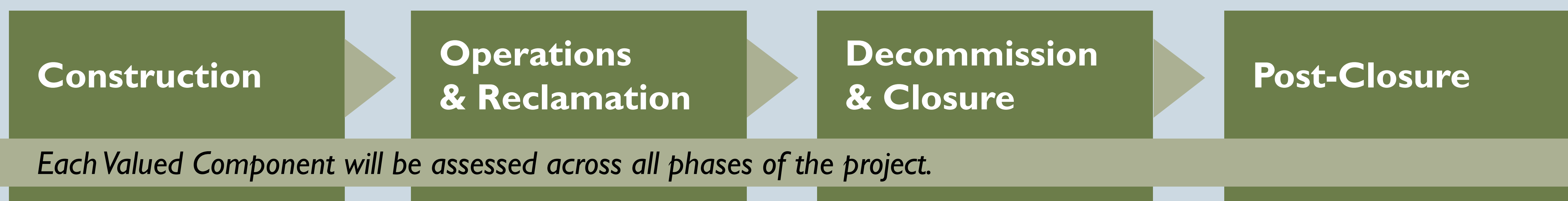
Mitigation: the elimination, reduction or control of the adverse environmental effects of the proposed project, and includes restitution for any damage to the environment caused by such effects through replacement, restoration, compensation or any other means

Residual Effect: any remaining or leftover effect after measures have been applied to eliminate, reduce or control the potential effect

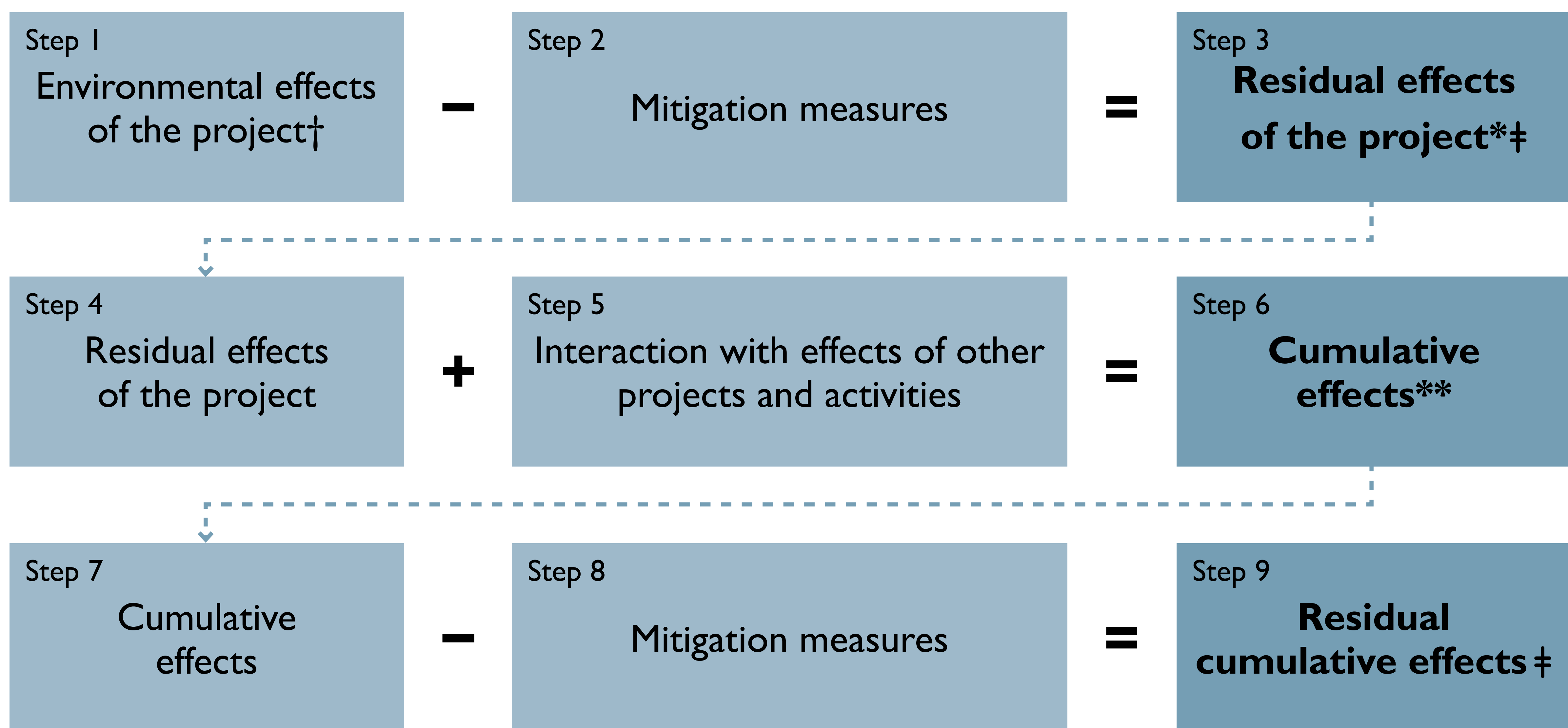
SIX FACTORS FOR EVALUATING SIGNIFICANCE OF ADVERSE EFFECTS

1. **Magnitude:** This refers to the magnitude or severity of the effect. Low magnitude effects may have no impact, while high magnitude effects may have an impact.
2. **Probability:** the likelihood that an adverse effect will occur and the certainty (i.e. level of confidence) associated with the information and methods used in the EA.
3. **Geographic Extent:** This refers to the extent of change over the geographic area of the proposed project. The geographic extent of effects can be local or regional. Local effects may have a lower impact than regional effects.
4. **Duration and Frequency:** This refers to the length of time the effect lasts and how often the effect occurs. The duration of an effect can be short term or long term. The frequency of an effect can be frequent or infrequent. Short term and/or infrequent effects may have a lower impact than long term and/or frequent effects.
5. **Reversibility:** This refers to the degree to which the effect is reversible. Effects can be reversible or permanent. Reversible effects may have lower impact than irreversible or permanent effects.
6. **Context:** This refers to the ability of the environment to accept change. For example, the effects a project may have in areas that are ecologically sensitive, with little resilience to imposed stresses.

PROJECT PHASES



EAO and CEA Agency Environmental Assessment Framework For Determining and Assessing Project Effects



† Including direct and indirect effects

‡ A final determination of significance is made by the EAO and CEA Agency by applying the Six Factors for Evaluating the Significance of Adverse Effects

* If there are no residual effects, no further steps are needed

** If there are no cumulative effects, no further steps are needed

Environment Valued Component: Assessment of Potential Effects

The Application/EIS will identify, analyze and describe potential effects resulting from the proposed project’s construction, operation, decommissioning and closure, and post closure phases on the following environment based valued components. The Application/EIS will describe mitigation measures the Proponent will implement to address potential adverse impacts. The Application/EIS will assess potential residual adverse effects which cannot be eliminated or prevented through environmental control technologies or other acceptable means.

Environment Valued Components to be Assessed include:

- Climate
- Geology, Landforms and Soils
- Surface water quality
- Surface water quantity
- Groundwater quality
- Groundwater quantity
- Fish populations and fish habitat
- Rare plants
- Rare and Sensitive Ecological Communities
- Terrestrial Invertebrate
- Amphibian
- Reptile
- Migratory Bird
- Raptor
- Non-migratory Gamebird
- Bat
- Mammal

Are there any other environmental issues or effects you think should be included and assessed?

INFORMATION SOURCES AND ASSESSMENT METHODS:

Data to support the assessment will be collected by qualified professionals through direct field observation, mapping and studies, and through knowledge shared by potentially affected First Nations so as to identify species of cultural, spiritual or traditional use importance.

The data will be analyzed according to current scientific standards and regulatory protocols.

Measures to avoid or mitigate (eliminate, reduce or control) any potential adverse effects and monitoring requirements will be identified.

The additional displays elaborate on the following four themes in Section 6.0 Assessment of Potential Environmental Effects of the draft AIR/EIS Guidelines document that have been of considerable public interest to date:

- Wildlife and their Habitat (Terrestrial Invertebrate, Amphibian, Reptile, Migratory Bird, Raptor, Non-migratory Gamebird, Bat, Mammal)
- Fish and Fish Habitat (Fish populations and fish habitat)
- Grasslands and Wetlands (Rare plants, Rare and Sensitive Ecological Communities)
- Surface and Ground Water (Surface water quality, Surface water quantity, Groundwater quality, Groundwater quantity)

Please refer to the draft AIR/EIS Guidelines document for the information requirements of the other Environment Valued Components.



Environment Valued Component: Wildlife and their Habitat

What We've Heard

Early consultation has identified the following potential wildlife and wildlife habitat concerns:

- Effect of noise on wildlife
- Effect of light pollution on wildlife
- Wildlife habitat and grazing area loss
- Wildlife habitat avoidance or wildlife displacement
- Decrease quality of food available for wildlife
- Increase wildlife mortality from access to the open-pit, increased traffic, construction and blasting
- Spread of noxious weeds

Early consultation has identified the following wildlife species of concern:

- Badger
- Burrowing Owl
- Sharp Tailed Grouse
- Waterfowl dependent on wetlands

What will be Assessed

As outlined in the draft AIR/EIS Guidelines document, this section of the Application/EIS will assess the potential direct and indirect effects of the proposed Project on wildlife and their habitat. Potential effects will be assessed and mitigation or enhancement measures would be described and implemented to enhance, eliminate, prevent, reduce or respond to potential effects. Potential effects on wildlife and their habitat that will be assessed include, but are not limited to:

- Terrestrial habitat
- Feeding, nesting, denning or breeding habitats
- Habitat alteration or loss
- Wildlife barriers
- Mortality and productivity
- Species important to First Nations
- Noise and light pollution

Information Sources and Assessment Methods

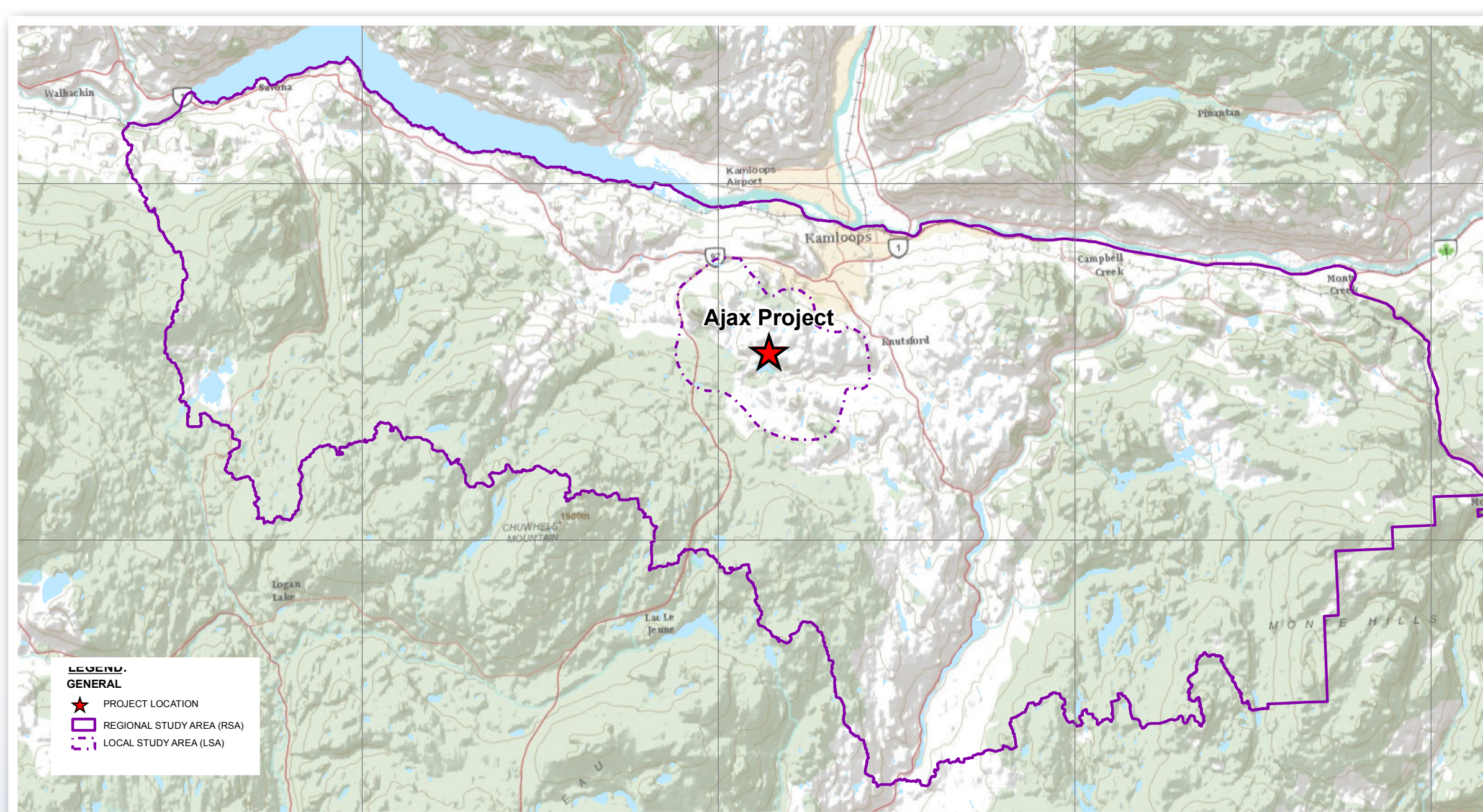
Information will be collected through field studies completed to applicable provincial and federal scientific standards and regulatory protocols, including but not limited to:

- Visual and audio observation
- Documenting wildlife movement patterns
- Air photos
- Vegetation (or habitat) mapping
- Knowledge shared by First Nations to identify wildlife species and their habitat of cultural, spiritual or traditional use

The information collected will be analyzed according to standardized protocols. Information collection and analysis will consider the potential effects of the proposed project on wildlife and their habitat from all construction and post-construction activities including, but not limited to: land clearing, construction, and mine operation. Measures will be identified by the Proponent to avoid or mitigate for potential adverse effects and can include adjustments to certain components of the proposed project footprint to avoid sensitive habitat, or specific plans for garbage management on site, noxious weed control and dust management, among other measures. Opportunities for site restoration and enhancement will also be explored to offset potential losses and improve biodiversity for wildlife and their habitat.

Next Steps

Once the AIR/EIS Guidelines document is approved by the EAO and CEA Agency, the Proponent must collect the information required by the AIR/EIS Guidelines and prepare and submit an Application/EIS for review.



Does the draft AIR/EIS Guidelines document satisfy your interests and concerns, or would you like to see additional wildlife and wildlife habitat related interests and concerns included for study or consideration?

Refer to the draft AIR/EIS Guidelines:

- Section 6.10 Terrestrial Invertebrate VC
- Section 6.11 Amphibian VC
- Section 6.12 Reptile VC
- Section 6.13 Migratory Bird VC
- Section 6.14 Raptor VC
- Section 6.15 Non-Migratory Gamebird VC
- Section 6.16 Bat VC
- Section 6.17 Mammal VC

Environment Valued Component: Fish and Fish Habitat

What We've Heard

Early consultation has identified the following potential concerns:

Habitat Loss/Alteration

- The potential effects of the proposed project on the northeast arm of Jacko Lake
- Concerns around the potential draining of Jacko Lake into the proposed adjacent open pit
- The potential effects of the diversion of Peterson Creek
- The inability to replicate existing fish habitat

Water Withdrawal

- The potential effects of water withdrawals from Kamloops Lake causing altered flow regime and higher water temperature and river-bank loss

Fish Mortality

- Water quality impacts from runoff and creek diversion flowing through the old waste dump and its potential effects on fish
- The potential for accumulation of toxic substances in fish
- The potential effects of blasting and vibration on fish in Jacko Lake

Cumulative effects

- Fish habitat (and water quality in general) at Petersen Creek have been identified as being already severely impacted by existing alterations and water withdrawal
- Kamloops Lake water level and water quality have been identified as being already affected by water withdrawal for irrigation, mining and city water uses and cumulatively with the potential effects of the proposed project could affect fish stocks in the Thompson River

What will be Assessed

As outlined in the draft AIR/EIS Guidelines document, this section of the Application/EIS will assess the potential direct and indirect effects of the proposed project on fish and fish habitat. Potential effects will be assessed and mitigation or enhancement measures would be described and implemented to enhance, eliminate, prevent, reduce or respond to potential effects. Potential effects on fish and fish habitat that will be assessed include, but are not limited to:

- The potential effects on fish and fish habitat due to the mine footprint
- The potential effects on fish and fish habitat in the Peterson Creek and Cherry Creek watersheds
- Effects of mining activities on water flow patterns and changes in water quality and quality of fish habitats at, and downstream of, potential areas of alteration
- Potential effects from water withdrawal from Kamloops Lake
- Direct mortality or sub-lethal effects to fish as a result of altered water quality or blasting and vibration

- A cumulative effects assessment will be conducted to identify the residual effects of other projects and activities, such as water diversions for irrigation and city use, and to assess whether this interaction will likely result in significant adverse impacts to fish and fish habitat

Information Sources and Assessment Methods

Information will be collected through field studies completed to applicable provincial and federal scientific standards and regulatory protocols, including but not limited to:

- Sampling will be conducted to study the overall health of benthic invertebrates (organisms that live in, or on the bottom of, sediments of rivers, streams and lakes)
- Continuing field observation and aquatic studies that were initiated in the proposed project area in 2007 to document the presence, absence, abundance, and distribution of species, habitat and use of fish in the proposed project area
- Quantifying available fish habitat
- Establishing baseline metal loadings in fish tissue
- Knowledge shared by First Nations to identify fish species and fish habitat of cultural, spiritual or traditional use

The information will be analyzed according to standardized protocols. Information collection and analysis will consider the potential effects of the proposed project on fish and fish habitat from all construction and post-construction activities including, but not limited to, land clearing, construction, and mine operation. Measures will be identified by the Proponent to avoid or mitigate for potential adverse effects to fish and fish habitat. Any adverse effects to fish habitat will be quantified and a conceptual fish habitat compensation plan will be included with the Application/EIS. Mitigation and/or compensation requirements are based on Fisheries and Oceans Canada "no-net-loss" policy.

Next Steps

Once the AIR/EIS Guidelines document is approved by the EAO and CEA Agency, the Proponent must collect the information required by the AIR/EIS Guidelines and prepare and submit an Application/EIS for review.

These are some of the information requirements described in the draft AIR/EIS Guidelines document for fish and fish habitat. Does the draft AIR/EIS Guidelines document satisfy your interests and concerns, or would you like to see additional fish and fish habitat related interests and concerns included for study or consideration?

Environment Valued Component: Grasslands and Wetlands

What We've Heard

Early consultation has identified the following potential concerns:

- Loss of a sensitive grassland ecosystem
- Habitat loss for badger, Burrowing Owl, grouse and other indigenous and endangered species
- Reclamation opportunities and/or challenges with grasslands
- the potential effects of dust and metal to grasslands in and outside the project footprint
- The spread of noxious weeds
- Loss of wetland habitat from the Peterson Creek diversion impacting amphibians, reptiles, birds and mammals
- Loss of Inks Lake
- Loss of waterfowl habitat at Jacko Lake

What will be Assessed

As outlined in the draft AIR/EIS Guidelines document, this section of the Application/EIS will assess the potential direct and indirect effects of the proposed project on grasslands and wetlands.

Potential effects will be assessed and mitigation or enhancement measures would be described and implemented to enhance, eliminate, prevent, reduce or respond to potential effects.

Potential effects on grasslands and wetlands that will be assessed include, but are not limited to:

- The effects of the proposed project on potentially important sites that include remnant old-growth forests in heavily logged (or beetle affected) areas, wetlands, rock outcrops, and pocket grasslands removed from grazing, rare plant communities and riparian areas
- The potential effects on grasslands, including grasslands not in pristine condition and/or being actively grazed, will be assessed as rare and sensitive ecological communities
- Potential effects on provincial Red and Blue-listed ecological communities known, or thought to occur, within the Kamloops forest district
- Potential effects on federal *Species at Risk Act* listed taxa
- Potential effects on taxa (organisms) of regional concern

Information Sources and Assessment Methods

Information will be collected through field studies completed to applicable provincial and federal scientific standards and regulatory protocols, including but not limited to:

- Baseline studies will document and assess existing grasslands and wetlands
- Field surveys will be used to confirm the presence of rare plants and rare and sensitive ecological communities within the project footprint
- Traditional ecological or community (including First Nations) knowledge will be considered
- Representational habitats and any significant habitat features will be photographed
- Existing map sources and ecosystem mapping

The information will be analyzed according to standardized protocols. Information collection and analysis will consider the potential effects of the proposed project on grasslands and wetlands from all construction and post-construction activities including, but not limited to, land clearing, construction of the pit and mine components, and mine operation. Measures will be identified by the Proponent to avoid or mitigate for potential adverse effects to grasslands and wetlands. Mitigation measures could include adjustments of project footprints to avoid particular sensitive habitats, specification of vegetation clearing schedules, garbage management, noxious weed control, and dust management. The potential effectiveness of each measure will be discussed. Opportunities for site restoration and enhancement will be explored to help offset potential losses and improve biodiversity.

Next Steps

Once the AIR/EIS Guidelines document is approved by the EAO and CEA Agency, the Proponent must collect the information required by the AIR/EIS Guidelines and prepare and submit an Application/EIS for review.

These are some of the information requirements described in the draft AIR/EIS Guidelines document for grasslands and wetlands. Does the draft AIR/EIS Guidelines document satisfy your interests and concerns, or would you like to see additional grasslands and wetlands related interests and concerns included for study or consideration?

Environment Valued Component: Surface and Groundwater

What We've Heard

Early consultation has identified the following potential surface and groundwater concerns:

- Potential effects on surface water quality which can in turn affect local creeks and lakes
- Impacts to the quality and quantity of groundwater from proposed mine operations
- The potential for water withdrawal from Kamloops Lake for proposed mine processing and dust control measures to cause water shortages and affect downstream communities
- Effects of acid rock drainage and metal leaching from the proposed project
- The potential for hazardous chemical spills to affect groundwater resources
- The potential effects of pit development on water quality in Jacko Lake
- Cumulative effects of climate change/global warming on water levels
- Concerns about slope stability in the Aberdeen area

What will be Assessed

As outlined in the draft AIR/EIS Guidelines document, this section of the Application/EIS will assess the potential direct and indirect effects of the proposed Project on surface water and groundwater quality and quantity. Potential effects will be assessed and mitigation or enhancement measures would be described and implemented to enhance, eliminate, prevent, reduce or respond to potential effects. Potential effects on surface water and groundwater quality and quantity that will be assessed include, but are not limited to:

- Baseline surface water quality for all potentially affected waters
- Potential effects of metal leaching/acid rock drainage on water quality
- Expected changes in surface hydrology resulting from infrastructure development and freshwater withdrawal requirements for the proposed Project
- Potential for increases in piezometric levels in the Aberdeen area that may adversely impact slope stability
- Water quality results will be presented and compared to current provincial and federal water quality standards for protection of aquatic life

- A surface and groundwater model will be developed to integrate results of the metal leaching/acid rock drainage prediction work, baseline water quality, hydrology, and water balance information to develop water quality predictions.
- Other projects or activities that may affect surface water and groundwater quality and quantity will be considered
- Management plans will be provided where there are significant uncertainties or risks associated with the predicted water quality or quantity

Information Sources and Assessment Methods

Information will be collected and completed to applicable provincial and federal scientific standards and regulatory protocols including, but not limited to:

- Ongoing surface water and groundwater sampling and monitoring programs (i.e. monitoring stations and groundwater monitoring wells)
- Stream flow measurements to identify gaining and losing stream reaches as well as base flow contributions
- The City of Kamloops well-water data, drill logs, inventory of neighbouring well users, regional groundwater surficial geology mapping and geotechnical drilling
- Meteorological data to address net precipitation available for groundwater recharge and runoff

The information collected will be analyzed according to standardized protocols. The information collection and analysis will consider the potential effects of the proposed Project on surface water and groundwater quality and quantity from all project related activities. Measures will be identified by the Proponent to avoid or mitigate for potential adverse effects and include a discussion of the effectiveness of proposed measures. The results of the assessment may be used to develop management plans such as materials handling procedures

Next Steps

Once the AIR/EIS Guidelines document is approved by the EAO and CEA Agency, the Proponent must collect the information required by the AIR/EIS Guidelines and prepare and submit an Application/EIS for review.

These are some of the information requirements described in the draft AIR/EIS Guidelines document for surface water and groundwater quality and quantity. Does the draft AIR/EIS Guidelines document satisfy your interests and concerns, or would you like to see additional surface water and groundwater related interests and concerns included for study or consideration?

Economic Effects Assessment

What We've Heard

Early consultation has identified the following potential economic concerns:

- The potential loss of jobs and economic and social potential because Kamloops might get a reputation as an industrial town and current residents might move away
- Short-term scope of proposed Project: proposed Project related jobs compared to the potential for long-term tourism and service jobs, short-term economic benefits of the proposed Project compared to potential long-term health costs, environmental clean-up and decreased property and recreational values
- City of Kamloops expansion may be compromised by the proposed Project location
- Loss of agricultural land and potential effects on the quality and quantity of irrigation water
- Reduced property values in adjacent communities due to proximity and potential structural damage
- The proposed Project will have a need for specialized skills and services and may need to hire from outside the region
- Potential effects on other resource users such as grazing, hay production and tourism

What will be Assessed

As outlined in the draft AIR/EIS Guidelines document, this section of the Application/EIS will describe the projected economic effects of the proposed Project. Potential effects will be assessed and mitigation or enhancement measures would be described and implemented to enhance, eliminate, prevent, reduce or respond to potential effects. Potential effects to be assessed include, but are not limited to:

- Construction and labour requirements and opportunities for employment
- Direct and indirect government revenues
- How the proposed Project would interact with other economic activities in the region, including forestry, tourism, recreation and the Thompson River University
- A description of the existing housing stock and the potential effects of the proposed Project on real estate prices and availability
- Socio-cultural implications arising from the loss of agricultural activities will be examined, in part through interviews with potentially affected landowners

- The potential effects of the proposed Project on employment, including economic spin offs and population growth
- How the proposed Project would interact with the population, infrastructure and services due to the presence and/or influx of construction and operation-related workers and their associated incomes

Information Sources and Assessment Methods

Economic information will be collected to characterize a current baseline economic profile of the Kamloops region. Information will be collected through:

- Socio-economic studies about the social diversity of the region and the availability of specialized skills and services for the proposed Project
- A feasibility study that includes an examination of the proposed Project's sensitivity to fluctuating metal prices.
- Literature review of similar studies and projects
- Relevant available statistics
- Comments received through public consultation, interviews and meetings
- Official Community Plans and Land and Resource Management Plans

The information collected will be analyzed and the Application/EIS will describe any potential effects of the proposed Project on the economy for all phases of the project. Measures will be identified by the Proponent to avoid or mitigate for potential adverse effects and include a discussion of the effectiveness of proposed measures.

Next Steps

Once the AIR/EIS Guidelines document is approved by the EAO and CEA Agency, the Proponent must collect the information required by the AIR/EIS Guidelines and prepare and submit an Application/EIS for review.

These are some of the information requirements described in the draft AIR/EIS Guidelines document for an assessment of the potential economic effects of the proposed Project. Does the draft AIR/EIS Guidelines document satisfy your interests and concerns, or would you like to see additional economic related interests and concerns included for study or consideration?

Social Effects Assessment: Resources

What We've Heard

Early consultation has identified the following potential concerns related to social resources:

- Proposed Project related road traffic will increase risk of accidents, road deterioration, maintenance costs, and congestion
- Increased health related cost to the community from potential respiratory problems such as allergies from poor air quality and contaminated water
- Increased use of local public services, including garbage and waste disposal
- Negative perception: loss of being seen as the Tournament Capital of Canada; loss of being able to attract doctors and other professionals; and change of lifestyle including not being able to enjoy the night sky and outdoor recreation areas

What will be Assessed

As outlined in the draft AIR/EIS Guidelines document, this section of the Application/EIS will assess the potential direct and indirect effects of the proposed Project on social resources. Potential effects will be assessed and mitigation or enhancement measures would be described and implemented to enhance, eliminate, prevent, reduce or respond to potential effects. Potential effects to be assessed include, but are not limited to:

- The quantity and frequency of concentrate trucks leaving and arriving at the proposed Project site including shipments of material and waste
- The frequency and volume of commuter traffic to and from the proposed Project site, with consideration of increased traffic within nearby residential areas
- Potential effects to community health and well-being
- Potential effects of proposed Project related service requirements
- Potential effects of mine lighting on the surrounding neighbourhoods and recreational uses (existing and proposed)

- Potential effects on the value of Jacko Lake to the community including recreational users, tourists, and residents

Information Sources and Assessment Methods

Information will be collected to describe baseline conditions and the potential effects of the proposed Project on social resources. This information includes, but is not limited to:

- Current traffic patterns on roads at, or adjacent to, the proposed Project site and concentrate shipping corridor
- Key person interviews and literature reviews
- Human health information from other disciplines including air quality, water quality and economics will be used

The information collected will be analyzed and the Application/EIS will describe any potential effects of the proposed Project on the social resources for all phases of the project. Measures will be identified by the Proponent to avoid or mitigate for potential adverse effects and include a discussion of the effectiveness of proposed measures.

Next Steps

Once the AIR/EIS Guidelines document is approved by the EAO and CEA Agency, the Proponent must collect the information required by the AIR/EIS Guidelines and prepare and submit an Application/EIS for review.

These are some of the information requirements described in the draft AIR/EIS Guidelines document for an assessment of the potential effects of the proposed Project on social resources. Does the draft AIR/EIS Guidelines document satisfy your interests and concerns, or would you like to see additional social resources interests and concerns included for study or consideration?

Social Effects Assessment: Visual and Aesthetic Resources

What We've Heard

Early consultation has identified the following potential concerns related to visual and aesthetic resources:

- Increased light pollution from the proposed Project's lighting will interfere with astronomical research and impact birds and other biological systems, including vegetation, insects and nocturnal wildlife
- The size and location of the open pit, waste rock management facility and tailings storage facility and their proximity to Kamloops
- The visual impact of increased dust in the air and on cars, houses and other structures has the potential to affect tourism, property values, and recreational activities

What will be Assessed

As outlined in the draft AIR/EIS Guidelines document, this section of the Application/EIS will assess the potential direct and indirect effects of the proposed Project on visual and aesthetic resources. Potential effects will be assessed and mitigation or enhancement measures would be described and implemented to enhance, eliminate, prevent, reduce or respond to potential effects. Potential effects to be assessed include, but are not limited to:

- The potential visual and aesthetic impact of the proposed Project and components
- The potential effects of construction and operations, including air emissions and dust from mining operations on visual and aesthetic resources
- Potential effects of mine lighting on the surrounding neighbourhoods and recreational uses (existing and proposed)
- The quality of darkness and lighting alternatives and light fixtures to minimize light pollution will be examined

Information Sources and Assessment Methods

Information will be collected to describe baseline conditions and the potential effects of the proposed Project on visual and aesthetic resources. This information includes, but is not limited to:

- A description of the current view-shed where the proposed Project is situated and the perceived effects on the view-shed through key person interviews
- Developing potential viewers' perspective based on project component locations and an examination of various sight lines from different locations, including residential, recreational and commercial
- Collecting climate related information for the proposed Project area, including existing light levels and shading effects in the neighbourhoods surrounding the proposed Project and at the Stake Lake Observatory

The information collected will be analyzed and the Application/EIS will describe any potential effects of the proposed Project on visual and aesthetic resources for all phases of the project. Measures will be identified by the Proponent to avoid or mitigate for potential adverse effects and include a discussion of the effectiveness of proposed measures.

Next Steps

Once the AIR/EIS Guidelines document is approved by the EAO and CEA Agency, the Proponent must collect the information required by the AIR/EIS Guidelines and prepare and submit an Application/EIS for review.

These are some of the information requirements described in the draft AIR/EIS Guidelines document for an assessment of the potential effects of the proposed Project on visual and aesthetic resources. Does the draft AIR/EIS Guidelines document satisfy your interests and concerns, or would you like to see additional visual and aesthetic resources interests and concerns included for study or consideration?

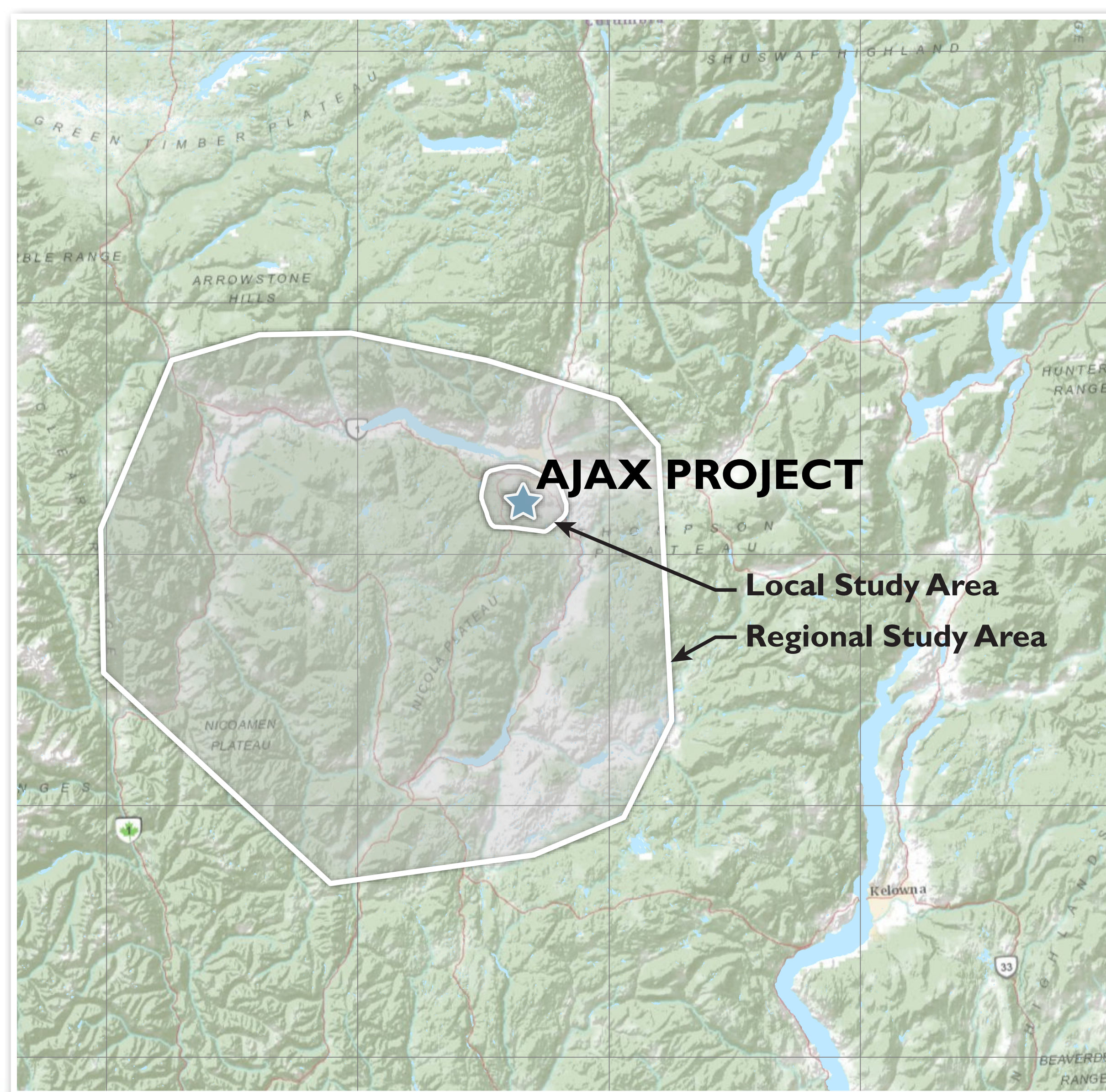
Heritage Resources Effects Assessment: Objects and Sites

Heritage resources in British Columbia are protected under the Heritage Conservation Act. The following definitions are provided in the Heritage Conservation Act:

- Heritage object means, whether designated or not, personal property that has heritage value to British Columbia, a community or an Aboriginal people
- Heritage value means the historical, cultural, aesthetic, scientific or educational worth or usefulness of a site or object

What will be Assessed

As outlined in the draft AIR/EIS Guidelines document, this section of the Application/EIS will assess the potential direct and indirect effects of the proposed Project on Heritage Resources. Potential effects will be assessed and mitigation or enhancement measures would be described and implemented to enhance, eliminate, prevent, reduce or respond to potential effects. Potential effects on archaeological resources will consider each requirement of the **Heritage and Conservation Act**.



Information Sources and Assessment Methods

Information will be collected from an archaeological assessment and traditional or community knowledge, where available. An archaeological assessment will:

- Include an Archaeological Overview Assessment (AOA), and an Archaeological Impact Assessment (AIA)
- Assess archaeological potential in the study area through an AOA
- Conduct surface examination and subsurface testing under the authority of a Heritage Conservation Act Inspection Permit for the purpose of identifying previously unrecorded archaeological sites or reassessing known sites
- The AIA will include descriptions of any anticipated project impacts and management measures
- Review background literature of relevant archaeological, historical, ethnographic and environmental information
- Request Aboriginal groups perspectives on archaeological potential in the study area including traditional and community knowledge

The information collected will be analyzed and the Application/EIS will describe any potential effects of the proposed Project on heritage resources for all phases of the project. Measures will be identified by the Proponent to avoid or mitigate for potential adverse effects and include a discussion of the effectiveness of proposed measures. Measures can include project redesign or archaeological excavation and follow-up analysis of any recovered artefacts or recorded features.

Next Steps

Once the AIR/EIS Guidelines document is approved by the EAO and CEA Agency, the Proponent must collect the information required by the AIR/EIS Guidelines and prepare and submit an Application/EIS for review.

These are some of the information requirements described in the draft AIR/EIS Guidelines document for an assessment of the potential effects of the proposed Project on heritage resources. Does the draft AIR/EIS Guidelines document satisfy your interests and concerns, or would you like to see additional interests and concerns related to heritage resources included for study or consideration?

Human Health Effects Assessment: Air Quality

What We've Heard

Early consultation has identified the following potential health concerns related to air quality:

- Potential for dust from the proposed Project to affect people with respiratory illnesses and cancers including long term effects from proposed Project components
- The proximity of Pacific Way Elementary to the proposed Project and the potential effect of dust on children at the school
- Ability to control dust fall due to local environment, weather and from unforeseen accidents
- The composition of dust and that it might contain toxic chemicals
- Emissions from diesel fuel, machinery exhaust and chemicals from the proposed Project
- Potential effects on food grown locally that could be exposed to metal-contaminated dust fall or soil

What will be Assessed

As outlined in the draft AIR/EIS Guidelines document, this section of the Application/EIS will identify and analyze project components and activities that could affect air quality and human health. Potential effects will be assessed and mitigation or enhancement measures would be described and implemented to enhance, eliminate, prevent, reduce or respond to potential effects. Potential effects to be assessed include, but are not limited to:

- The ambient air in the study area and the projected emissions from the proposed Project and its components: machinery and equipment, site and access road operation and use, the tailings storage facility, the waste rock management facilities, drilling and blasting and in-pit conveyors
- Potential receptors (residential, commercial and industrial land uses) and sensitive subpopulations and the distance from each to the proposed Project components
- Other existing activities which will be included in the cumulative effects assessment include: the New Afton Mine, Dawson Construction Ltd. to the east of the property, and traffic on primary and secondary roads
- The dust inventory will include total particulate matter and the inhalable (PM10) and respirable (PM2.5) fractions. The particulate fractions will be described in terms of the potential toxic substances it contains such as trace metals, and primary and precursor pollutants

- Ambient air quality during the operation of the proposed Project will be modelled
- The effects assessment will consider a modeling domain 20 km by 20 km centered on the proposed Project site

Information Sources and Assessment Methods

Information will be collected to describe baseline conditions and the potential effects of the proposed Project on human health because of potential air quality effects. This information includes, but is not limited to:

- Current standards and benchmarks for the assessment of air quality such as the Guidelines for Air Quality Dispersion Modelling in British Columbia (MOE 2008)
- Background information on air quality in the local and regional air shed
- Long-term baseline information on particulate matter in the proposed Project area from the National Air Pollution Surveillance Program
- Information on industrial facility pollutant releases and disposals to air, water and land for the region from the National Pollutant Release Inventory, Environment Canada

The information collected will be analyzed and the Application/EIS will describe any potential effects of the proposed Project on air quality that could affect human health for all phases of the project. Measures will be identified by the Proponent to avoid or mitigate for potential adverse effects and include a discussion of the effectiveness of proposed measures. Monitoring programs could be developed and used to evaluate the effectiveness of measures throughout the life of the proposed Project and into the post-closure phase. These types of monitoring programs can include annual reporting requirements.

Next Steps

Once the AIR/EIS Guidelines document is approved by the EAO and CEA Agency, the Proponent must collect the information required by the AIR/EIS Guidelines and prepare and submit an Application/EIS for review.

These are some of the information requirements described in the draft AIR/EIS Guidelines document for an assessment of the potential effects of the proposed Project on human health due to potential effects on air quality. Does the draft AIR/EIS Guidelines document satisfy your interests and concerns, or would you like to see additional interests and concerns related to air quality impacts on human health included for study or consideration?

Human Health Effects Assessment: Noise and Vibration

What We've Heard So Far

Early consultation has identified the following potential concerns related to noise and vibration:

- The potential effects of noise and vibration from proposed Project activities such as crushing, blasting, conveying, hauling and increased traffic on quality of life including recreation and organized sports, health and wildlife
- Effects of blasting on the structural integrity of nearby buildings and homes
- Potential effects of blasting, vibration and noise on community members' health
- Potential effects of noise and vibration to cause landslides or slope stability issues in the Aberdeen area
- Potential effects of blasting and vibration on the Kinder Morgan pipeline

What will be Assessed

As outlined in the draft AIR/EIS Guidelines document, this section of the Application/EIS will assess the potential direct and indirect effects of noise and vibration from the proposed Project. Potential effects will be assessed and mitigation or enhancement measures would be described and implemented to enhance, eliminate, prevent, reduce or respond to potential effects.

Information Sources and Assessment Methods

Information will be collected and completed to applicable provincial and federal scientific standards and regulatory protocols, including but not limited to:

- Baseline daytime and night time sound levels will be continuously monitored under a weather-resistant enclosure to reduce the potential for wind-induced noise
- A noise and vibration model will be developed to predict noise increase and potential vibration during all project phases from pre-construction to post-closure

- Methodologies for assessment referenced in the Health Canada document, "Guidance for Evaluating Human Health Impacts in Environmental Assessment: Noise. DRAFT" (January 2011)

The information collected will be analyzed according to current guidelines in the absence of provincial or federal standards for noise levels, modelled noise and predicted vibration levels:

- The British Columbia Noise Control Best Practices Guideline. BC Oil and Gas Commission. 2009.
- Environmental Code of Practice for Metal Mines. Environment Canada. 2010.
- World Health Organization's Guidelines for Community Noise (1999).
- City of Kamloops Noise Control By-law 24-42.
- Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety. US EPA Report no. 550/9-74-004. 1974.

The potential effects of the proposed Project on noise and vibration from all proposed project related activities will be assessed. Measures will be identified by the Proponent to avoid or mitigate for potential adverse effects and will include a discussion of the effectiveness of proposed measures. The results of the assessment may be used to develop management plans such as a response and resolution policy and/or mitigation measures such as the construction of a sound buffer.

Next Steps

Once the AIR/EIS Guidelines document is approved by the EAO and CEA Agency, the Proponent must collect the information required by the AIR/EIS Guidelines and prepare and submit an Application/EIS for review.

These are some of the information requirements described in the draft AIR/EIS Guidelines document for the effects assessment on noise and vibration. Does the draft AIR/EIS Guidelines document satisfy your interests and concerns, or would you like to see additional noise and vibration related interests and concerns included for study or consideration?

Natural Hazards and Potential Accidents and Malfunctions

Natural Hazards

As outlined in the draft AIR/EIS Guidelines document, the Application/EIS will describe the approach and methods used to assess the potential effects of natural hazards on the proposed Project and its activities.

Potential effects that will be assessed include, but are not limited to:

- Any changes or effects on the proposed Project that may be caused by natural hazards, whether the changes or effects occurs within or outside of Canada
- The likelihood and severity of the changes or effects based on different probability patterns

Longer-term effects of climate change will be discussed up to the projected post-closure phase of the project and will include a description of climate data used. The sensitivity of the project to long-term climate variability and effects will also be identified and discussed.

Natural Hazards that will be Assessed could include:

- Extreme weather events (lightning, heavy rain or snow, extreme temperatures, flooding, drought, fire and high winds, wind)
- Natural seismic (earthquake) events and associated effects such as liquefaction, subsidence, etc.
- Fire
- Slope stability and mass wasting events (e.g., debris flows/torrents; rock fall; snow avalanche)
- Winter (freezing temperatures, ice jams etc.)
- Climate change

Measures will be identified by the Proponent to avoid or mitigate for potential adverse effects of natural hazards on the proposed Project and will include a discussion of the effectiveness of proposed measures. Measures could include design and construction strategies to avoid or minimize the likelihood and severity of the effects.

Potential Accidents and Malfunctions

As outlined in the draft AIR/EIS Guidelines document, the Application/EIS will describe the potential accidents and malfunctions associated with the proposed Project and the conditions under which they could occur.

Potential effects to be assessed include, but are not limited to:

- Description of potential accidents, malfunctions and unplanned events, including evaluation of worst-case scenarios that could occur
- The likelihood and circumstances under which these events could occur and the environmental effects that may result from such events, assuming contingency plans are not fully effective

Potential Accidents and Malfunctions could include:

- Fire
- Contamination of soils and/or water due to spill, leaks, etc. (e.g., fuel spills)
- Leakage from Tailings Storage Facility, containment ponds or pipelines
- Power outages
- Flying rock from blasting
- Motor vehicle accidents
- Flooding, erosion and/or burial due to containment structure failures
- Acid rock or metal leaching
- Sediment transport into watercourses
- Spills of hazardous substances stored on site (chemicals, fuels, contained liquid waste)
- Accidental release of contaminants from stockpiles of ore or waste rock
- Accidental explosion, including those caused by explosives

Measures will be identified by the Proponent to avoid or mitigate for potential adverse effects of potential accidents and malfunctions on the proposed Project and will include a discussion of the effectiveness of proposed measures. The Application/EIS will identify risk management plans, contingency plans, mitigation measures and response options.

Next Steps

Once the AIR/EIS Guidelines document is approved by the EAO and CEA Agency, the Proponent must collect the information required by the AIR/EIS Guidelines and prepare and submit an Application/EIS for review.

These are some of the information requirements described in the draft AIR/EIS Guidelines document for natural hazards and potential accidents and malfunctions. Does the draft AIR/EIS Guidelines document satisfy your interests and concerns, or would you like to see additional interests and concerns included for study or consideration?

Alternative Means of Carrying Out the Proposed Project

As outlined in the draft AIR/EIS Guidelines document, the Application/EIS will provide a summary of alternative means of carrying out the proposed Project, in whole or in part. This refers to alternative means of carrying out the proposed Project that are technically and economically feasible and the environmental effects of any such alternative means.

Alternatives considered may include, but are not limited to:

- Mining methods
- Mining extent
- Waste rock treatment and management
- Arrangement of infrastructure, waste rock piles, and proposed Project components
- Transport route and options
- Water management

The Application/EIS will include a description of the proposed Project alternatives, a summary of the key issues in considering the alternatives and the rationale for selecting the preferred alternative based on a consideration of environmental effects and technical and economic feasibility.

Capacity of Renewable Resources

As outlined in the draft AIR/EIS Guidelines document, this section of the Application/EIS will include an analysis of the capacity of renewable resources to meet the needs of the present and those of the future where resources are likely to be significantly affected by the proposed Project. The Application/EIS will also identify and describe any criteria used in considering sustainable use, based on ecological considerations such as integrity, productivity, and carrying capacity.

Renewable resources will include, but are not limited to:

- Forestry
- Trapping

Next Steps

Once the AIR/EIS Guidelines document is approved by the EAO and CEA Agency, the Proponent must collect the information required by the AIR/EIS Guidelines and prepare and submit an Application/EIS for review.

These are some of the information requirements described in the draft AIR/EIS Guidelines document for an assessment of alternative means for carrying out the proposed Project and the capacity of renewable resources. Does the draft AIR/EIS Guidelines document satisfy your interests and concerns, or would you like to see additional interests and concerns included for study or consideration?



Environmental Management Plans

As outlined in the draft AIR/EIS Guidelines document, this section of the Application/EIS will describe the proposed Project's proposed environmental management plans. Environmental management plans are defined actions and procedures to ensure that human and environmental health and safety is accounted for through all phases of the proposed Project.

The Proponent will design an environmental management system to ensure a consistent approach to responsible environmental management through:

Planning: by establishing an environmental policy, performance objective, regulatory requirements or environmental management plan for the proposed Project.

Implementation: by allocating resources and assigning roles and responsibilities, ensuring training and appropriate communications, documentation and record keeping, and operating controls for the proposed Project.

Checking & Corrective Action: by ongoing monitoring of environmental performance and inspection and evaluation of practices and compliance.

Continuous Improvement: by conducting senior operational management review of the Environmental Management System and identification of improvements in performance.

Proposed Environmental Management Plans (and Monitoring Plans) to be developed include, but are not limited to:

- Surface Water Quality Management and Monitoring Plan
- Groundwater Quality Management and Monitoring Plan
- Erosion and Sediment Control Plan
- Construction Waste Management Plan
- Acid Rock Drainage Management Plan
- Air Quality Monitoring and Dust Control Plan
- Water Management and Hydrometric Monitoring Plan
- Fisheries and Aquatic Life Monitoring Plan
- Contaminated Sites Management Plan
- Solid Waste Management Plan
- Hazardous Waste Management Plan
- Accidents and Malfunctions Plan

- Natural Hazards Management Plan (e.g. Landslides, Floods)
- Emergency Response Plan
- Fire Hazard and Abatement Plan
- Landscape Design and Restoration Plan
- Soil Salvage and Handling Plan
- Wildlife/Vegetation Monitoring Plan
- Archaeological Sites Management Plan
- Reclamation and Closure Plan

Follow-Up and Monitoring Programs

As outlined in the draft AIR/EIS Guidelines document, this section of the Application/EIS will describe the type, frequency, duration and location of monitoring and follow-up programs. It will also include the planned approach to data management, analysis and reporting, as well as contingency plans and reporting in the event that exceedances are detected.

Follow-up program means a program for verifying the accuracy of the environmental assessment of a project, and determining the effectiveness of any measures taken to mitigate the adverse environmental effects of the proposed Project.

Potential Role of Community in Follow-up and Monitoring Programs

The Proponent proposes to develop and maintain an ongoing community group to advise the development and implementation of follow-up and monitoring programs.

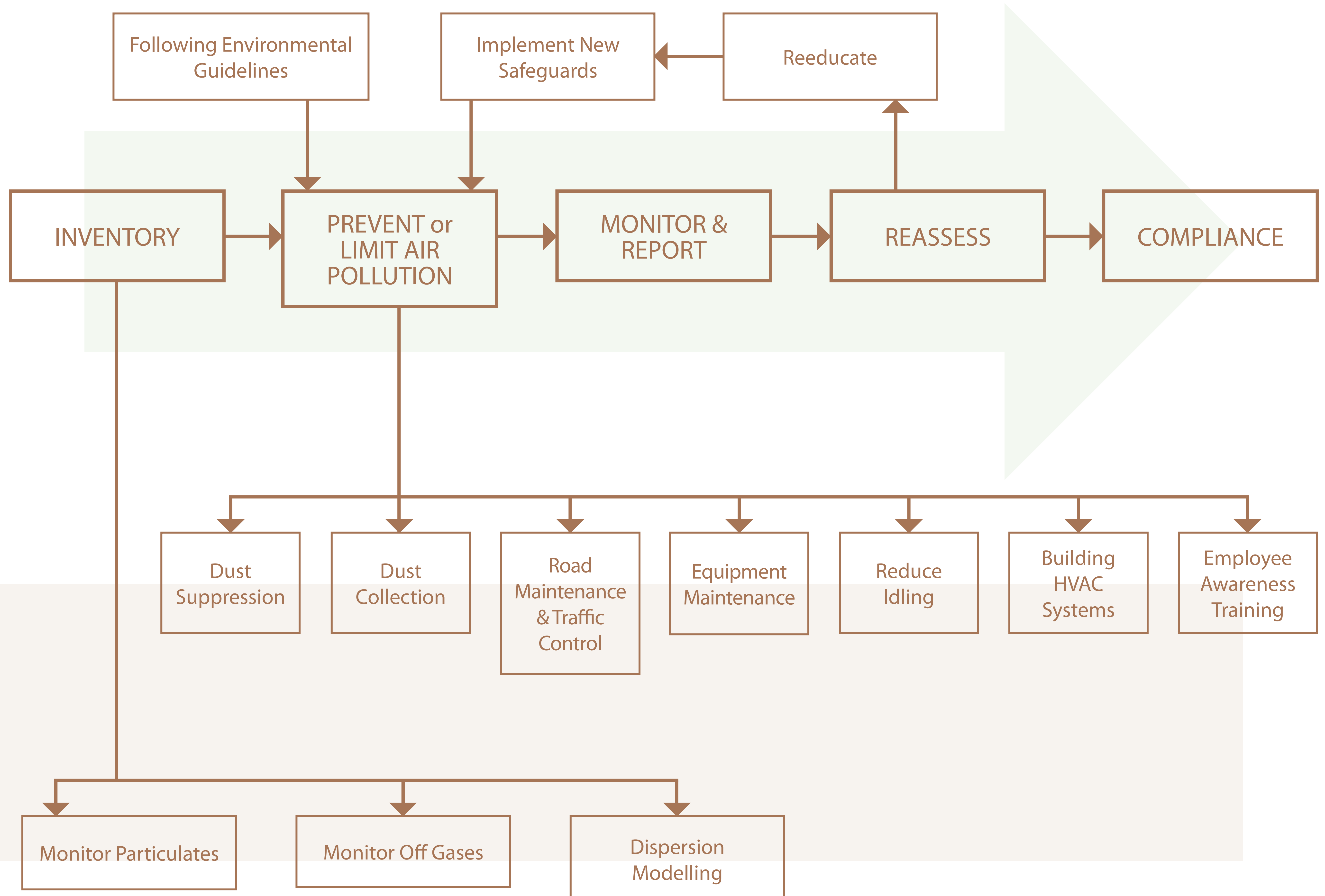
Next Steps

Once the AIR/EIS Guidelines document is approved by the EAO and CEA Agency, the Proponent must collect the information required by the AIR/EIS Guidelines and prepare and submit an Application/EIS for review.

These are some of the information requirements described in the draft AIR/EIS Guidelines document for environmental management plans and follow-up and monitoring programs. Does the draft AIR/EIS Guidelines document satisfy your interests and concerns, or would you like to see additional interests and concerns included for study or consideration?

ASSESSING AND PROTECTING AIR QUALITY AT MINING OPERATIONS

The objective of air quality management is to identify the potential sources for particulate and off gases and monitor and control the air quality at the mine site.



CARLOTA MINE



Carlota Mine during operation

Location: Globe-Miami, Arizona

Mine type: Open Pit

Status: Nearing closure and in reclamation

Carlota was discovered in the 1990's and came to be one of the first copper mines designated and permitted under modern environmental legislation. Owned entirely by KGHM International Ltd., the mine was commissioned in late 2008 and has produced an average of 25 million pounds of cathode copper annually for the last four years. Carlota has been implementing a mine-for-closure plan which optimizes cash flow while advancing activities related to the winding down of operations. This plan is consistent with the life of mine objectives as described in the Carlota permits which called for a staged closure plan during the last years of mining. The mine's timeline for closure is in accordance with current permits and Arizona environmental regulations. Time and attention is spent on closure to ensure an end-use that allows the once-used mined land to be reused for other purposes.

KGHM International and the Environment:

- Our Carlota Mine is a Zero Discharge Operation. This means all water that comes into contact with the mine is held within its property and reused for dust control and mine processes. No "disturbed" water is allowed to leave the property.
- We have purchased locally impacted water for use in our operations, partially replacing the need to use fresh water.
- We transported agave plants from disturbed areas to safer locations in collaboration with the Forest Service of Arizona.
- We took the initiative to support and partially fund the cleanup of the Gibson Mine, located near Carlota. Although Gibson Mine does not belong to KGHM International, we took action because KGHM International believes it is important to be a responsible neighbor.

KGHM International in the Community:

Carlota supports the local community both financially and with donations of employee time. A few highlights of the mine's contribution include:

- We have donated funds to repair and reopen the Miami Community Pool and support a variety of programs for the elderly, such as Meals on Wheels.
- We are also a member of the 2012 Pinto Valley Road clean-up team.
- The mine and the employees are directly involved in the community and have donated safety equipment for science labs at a San Carlos elementary school. In addition, we have donated funds, gift cards and nearly 5,000 non-perishable food items and toys to local food banks.



KGHM
INTERNATIONAL

FRANKE MINE



First cathode produced at Franke Mine

Location: Region II – Northern Chile

Mine type: Open Pit

Status: In Operation

The Franke Mine is located in the Altamira district of Chile, near the southern limit of the Antofagasta Region (Region II). The Mine employs approximately 640 people and produced 33 million pounds of cathode copper in 2011.

KGHM International and the Environment:

- At Franke we use dust suppression sprays and covered stockpiles to maintain air quality during ore processing.
- All of the water and process solutions we use are fully contained and recycled on site.

KGHM International in the Community:

- We participate in and donate to local community events. Our employees have voluntarily formed a group that visits retirement homes and local schools.
- We support the local community and have worked with the highway department to resurface 50 kilometers of public road which has greatly helped reduce dust emissions from local traffic. This road upgrade has also had a positive economic impact on the local community of Tal Tal, where tourism has been positively impacted by the improved access.
- On a regional level, we participated and donated funds to support the rescue of 33 trapped underground Chilean miners in 2010.



KGHM
INTERNATIONAL

ROBINSON MINE



A Robinson shovel loads a haul truck for transport to the crusher

Location: Ely, Nevada

Mine type: Open Pit

Status: In operation

The Robinson Mine is a wholly owned operation located approximately 13 kilometers west of Ely, in the semi-arid climate of White Pine County, Nevada. The mine employs almost 600 people. With a history of more than 100 years of production, this mine produced 95 million pounds of copper and 30,000 ounces of gold in 2011.

KGHM International and the Environment:

- KGHM International employs "mining for closure" practices at the Robinson mine which means we use modern day mining practices to close historic mining facilities in an environmentally sound manner.

- We are utilizing water and binding agents to spray the roads to keep dust to a minimum.
- KGHM International monitors air quality, groundwater and surface water to ensure our mining activities not only meet environmental standards, but also do not impact the neighboring communities of Ruth and Ely.

KGHM International in the Community:

Robinson has been and continues to be actively engaged in the local communities in a variety of ways, including:

- Assisting the City of Ely with improvements to its drinking water and storm drainage systems. As part of this program, we have drilled four new wells in the last three years to supplement the City of Ely's water systems.

- Partnering with the community of Ruth to install a new basketball court and swings in one of the local parks. In addition, we are raising money for community athletic programs such as the Summer Basketball Program, supporting high school track and cheer teams and hosting a regular barbeque to raise money for local non-profit organizations and clubs.
- We support the American Cancer Society.
- Our employees are also involved in the community. We have "adopted" a four-mile stretch of highway between Ely and the nearby town of Ruth and are regularly removing garbage and debris.

KGHM
INTERNATIONAL



SIERRA GORDA PROJECT



Sierra Gorda Project construction

Location: Region II – Northern Chile

Mine type: Open Pit

Mine life: 20 years

Status: Construction

The Sierra Gorda Project is a joint venture project between KGHM International Ltd., Sumitomo Metal Mining and Sumitomo Corporation. Located less than three kilometers from the town of Sierra Gorda, this project has commenced preliminary physical construction and pre-stripping in preparation for production in 2014.

Estimated production from current reserves average 483 million pounds of copper, 25 million pounds of molybdenum and 64,000 ounces of gold per year. In order to effectively execute this project, more than 1,100 permanent employees will be hired, as well as more than 7,400 contracted positions.

KGHM International and the Environment:

- Sierra Gorda is a zero discharge facility built to World Equator Principle Industry best practice standards and is strictly monitored by environmental, safety and labour agencies.
- A combination of sea water and dust suppressants are used to control dust emissions.
- Dust suppression sprays, covered stockpiles and bag house technologies are used to maintain air quality while processing the ore.
- Water and process solutions are fully contained and recycled on site.
- Once in production, concentrate transportation will be conducted in sealed rail cars thus providing maximum containment of the end copper product.

KGHM International in the Community:

- We provide significant employment opportunities both locally and regionally.
- We are currently working with the local community on several projects and have:
 - Funded the upgrade of the waste water treatment plant at the community of Sierra Gorda.
 - Donated updated fire-fighting equipment to the town and responded to emergency situations when requested.
 - Helped define and implement the community's need for updated and expanded medical services.
 - Paved several kilometers of dirt roads near the community to lower dust levels.



KGHM
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SUDBURY OPERATIONS

KGHM International and the Environment:

- Ore is handled, processed and stored on lined containment pads. Any runoff from these pads is collected and diverted underground.
- Storm water management systems are in place, which collect potentially impacted site runoff water and divert it to a surface pond which discharges to the underground workings.
- Since we operate close to communities we use a combination of water and dust suppressants to control dust emissions on an as needed basis. Surface crushers are fully enclosed to control dust emissions as well. Crushed ore is transported offsite in covered haul trucks.
- All water collected underground is fully contained and reused where possible. Excess process water is pumped and eventually treated at a nearby Wastewater Treatment Plant.

KGHM International in the Community:

KGHM International is actively involved and supportive of a variety of community programs in the Sudbury area. A few examples include:

- We are a platinum sponsor for the Wahnapiatae First Nations – Centre of Excellence – which is the new hub of operations and health services for the WFN community. We also donate funds to the Sudbury Regional Hospital.
- We support and volunteer at local education events and sponsor Sudbury's annual Mining Week activities. We have also donated one million dollars to the new School of Mines at Laurentian University.
- We have partnered with the City of Greater Sudbury in its Regreening Program, which supports a local forest floor transplant project. We have also donated funds to other local natural habitat protection programs.
- Our employees are active members in the community and volunteer at multiple community events. We are a major sponsor and participator in the local Easter Seals Society Telethon and annual Run for the Cure.



MORRISON DEPOSIT (CRAIG MINE)

Mine type: Underground

Status: In Operation

Producing: copper, nickel, platinum, palladium and gold

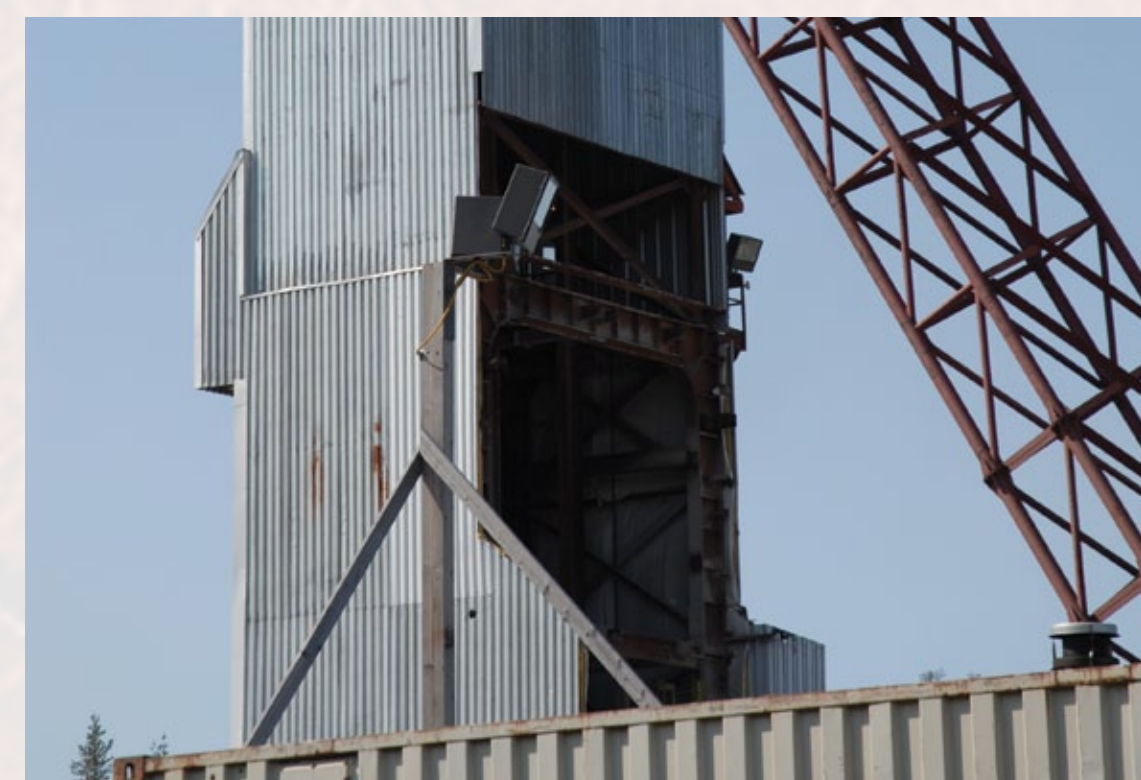


MCCREEDY WEST MINE

Mine type: Underground

Status: In Operation

Producing: nickel, copper, platinum, palladium and gold

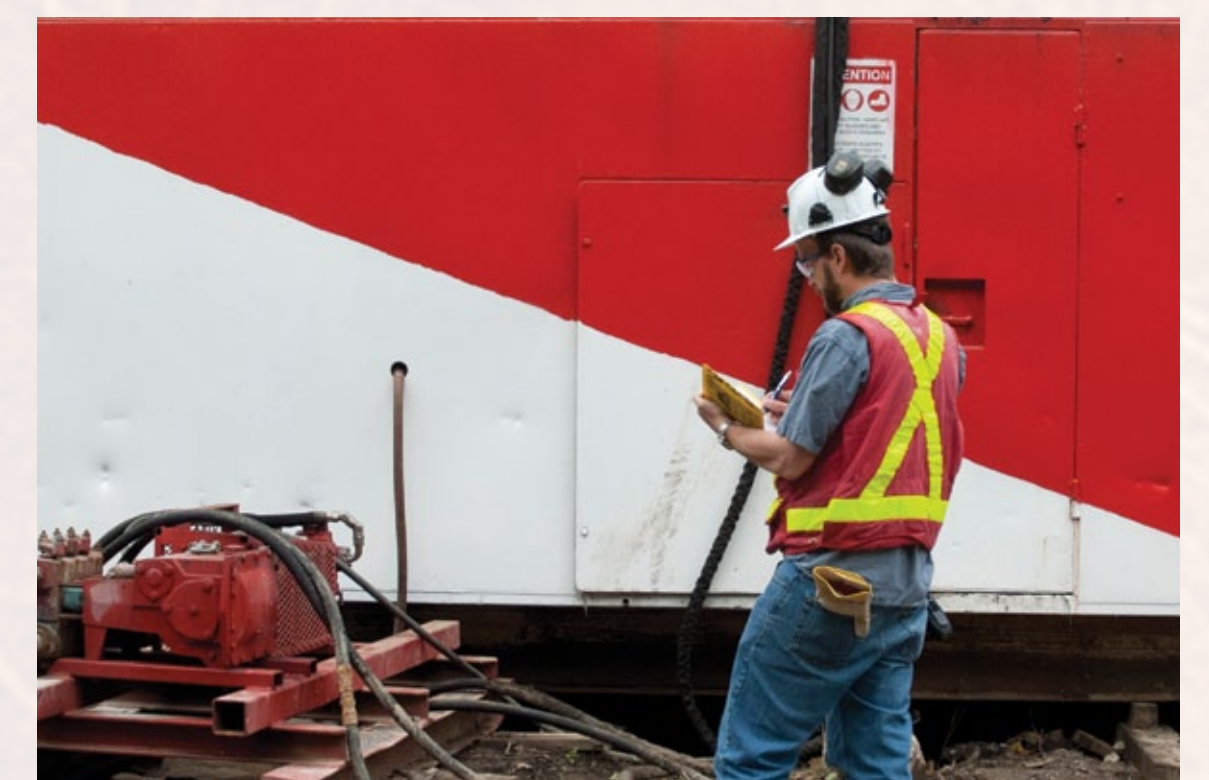


PODOLSKY MINE

Mine type: Underground

Status: Nearing closure and in reclamation

Producing: copper, nickel, platinum, palladium and gold



VICTORIA PROJECT

Mine type: Underground

Status: Engineering and permitting

Metals: nickel, copper, platinum, palladium and gold



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