



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 10**

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REGIONAL  
ADMINISTRATOR'S  
DIVISION

September 28, 2021

Regina Wright  
Director, Pacific and Yukon Region  
Impact Assessment Agency of Canada  
757 West Hastings Street, Suite 210A  
Vancouver, B.C. V6C 3M2

Dear Ms. Wright:

This letter provides the U.S. Environmental Protection Agency's comments on the proposed Eskay Creek Revitalization Project (Project) in response to the Impact Assessment Agency of Canada's (IAAC) August 18, 2021 letter to the EPA. The Project is a proposed open pit gold and silver mine and processing facility located approximately 53 miles northwest of Stewart, British Columbia (BC). The Project is in the transboundary Unuk River watershed, approximately 25 miles from the BC-Alaska border. Your letter requested EPA's input on Federal-Provincial coordination for the Project and on the potential issues that should be addressed in a federal impact assessment, should a federal assessment be required.

Federal-Provincial Coordination

IAAC is seeking comment on BC's request to substitute the provincial environmental assessment process in place of the federal impact assessment process. While the BC environmental assessment could consider impacts outside of BC, it is our understanding that the management of transboundary effects is ultimately an area of Canadian Federal jurisdiction and responsibility. Therefore, we request that IAAC conduct a federal impact assessment for this Project, in a coordinated manner with BC, to ensure that transboundary effects are fully considered. We encourage IAAC and BC to coordinate their processes to the extent possible to encourage effective engagement and document preparation and review, including the development of a coordinated Federal-Provincial impact/environmental assessment.

The basis for our request is because we believe the Project has the potential for adverse direct and cumulative transboundary effects to U.S. waters, aquatic resources, and tribal uses. This is due to the Project's proximity to the border and its plans for discharging treated and untreated water into waters draining to the Unuk River. We find it is difficult to assess the Project's ability to manage and treat water given the lack of specificity related to water management/treatment plans and closure plans. In addition, the Project's construction of tailings dams to create a large wet tailings impoundment could represent a long-term risk to U.S. resources. Cumulative impacts to the Unuk River could occur due to the Project plus discharges from past mining activities at the site, the nearby operating Brucejack Mine, the Kerr-Sulphurets-Mitchell (KSM) Project and other potential mining projects in the Unuk River watershed.

Environmental assessments for previous proposed BC mining projects with the potential for transboundary effects, including Red Mountain Gold, KSM, and Brucejack, were developed via a

Federal-Provincial coordinated process. We believe that the Eskay Project warrants the same level of federal involvement.

### Impact Assessment Issues

Following are issues that we recommend be addressed in a federal impact assessment for the Project. Many of these issues are discussed in further detail in technical advisor comments that EPA sent via a September 7, 2021 email to the BC Environmental Assessment Office on the Eskay Creek Project Initial Project Description (IPD).<sup>1</sup> These issues are focused on information we believe is needed in the impact assessment to meaningfully evaluate potential transboundary impacts.

- Geographic scope of analysis. Due to the proximity to the U.S. border, the impact assessment should evaluate potential impacts to the Unuk River downstream into Alaska. We recommend that the impact assessment include a specific section on impacts outside of Canada so that it will be easy for U.S. agencies, tribes, and the public to access the information.
- Water quality. Seepage, runoff, stormwater and treated water discharges from the Project would drain to the Unuk River or tributaries to the Unuk River. We recommend that the impact assessment predict changes to water quality concentrations and loading at the border in comparison to the State of Alaska water quality standards. We recommend that this include impacts from waste rock and tailings storage facility runoff and seepages, open pit mine water discharges, treated water discharges, stormwater discharges, and fugitive dust deposition. The impact assessment should utilize completed and robust geochemical testing of representative pit wall material, waste rock, and tailings to characterize the potential for acid rock drainage and metal leaching. Transparent and robust water balance modeling, hydrological modeling, and water quality modeling should be utilized to predict loading and concentrations of contaminants, including metals, nitrates, and suspended solids, in mine contact waters and in the Unuk River under a range of climatic settings.
- Aquatic resources. Potential impacts can occur to aquatic resources and habitat located in US waters and to fish that cross the border due to changes in water quality, water flows, sedimentation, and fugitive dust deposition from mining activities. The assessment should evaluate potential impacts to Unuk River aquatic resources and habitat including the five species of Pacific salmon (chinook, coho, chum, pink, and sockeye) and to eulachon, which are important tribal resources.
- Baseline conditions. Previous mining and waste disposal activities occurred at the Eskay Creek location between 1994 to 2008. Permitted discharges from previous mining activities appear to be ongoing. The IPD describes how some discharges have exceeded permit limits for zinc. The description of baseline water quality and aquatic resources conditions in the impact assessment should include the pre-development (pre-mining) baseline conditions, as well as the current baseline conditions. This will enable an evaluation of whether past mining operations have resulted in adverse impacts to water quality and aquatic resources and the availability of assimilative capacity for changes due to the Project. This information is also pertinent to the cumulative effects analysis.
- Water treatment. As previously described, waters draining from the Project drain into the transboundary Unuk River. The IPD does not specify the water treatment processes that would be used to treat mine contact water during operations, closure, and post-closure with a sufficient level

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<sup>1</sup> IACC was cc'd on that email.

of detail to determine if they would be effective at preventing water quality impacts to the Unuk River. The impact assessment should describe the proposed water treatment objectives and limits for the Project and the specific water treatment processes that would be used during the different project stages. Water treatment process descriptions should have a sufficient level of detail and the impact assessment should evaluate the effectiveness of proposed water treatment.

- Project and impact duration. We recommend that the impact assessment evaluate the impacts of the project during operations, closure, and post-closure. The IPD describes a 3-year reclamation and closure period. The impact assessment should disclose the length of the post-closure period, the activities that would occur, and potential impacts during that time. For example, the IPD is not clear on whether long-term water treatment would be needed for open pit discharges or other project-related discharges and the impact assessment should address this.
- Project alternatives. We recommend that alternatives to Project components be evaluated in order to avoid and minimize impacts. The project proposes to dispose tailings in the existing wet tailings impoundment. Three new tailings dams would be constructed at the existing tailings facility in order to increase its capacity. We recommend that more geotechnically resilient tailings management alternatives be considered and alternatives that would result in a lower environmental impact to downstream resources in the event of a tailings dam breach be considered, such as filtered (dry stack) tailings and a reduced water cover tailings facility. We recommend that tailings alternatives be evaluated via a multiple accounts-analysis or other structured assessment methodology and incorporate current best practices for tailings management. In regard to waste rock management, we recommend that facilities used to store potential acid generating or metal leaching waste rock utilize seepage control and/or liners to prevent contaminated water seepage into adjacent streams.
- U.S. Tribal impacts. The Unuk River is an important river for Alaska indigenous tribes for water quality, fish harvesting, cultural values, and traditional values. The impact assessment should identify Alaska tribes that have traditional, cultural, and subsistence uses of the Unuk River, provide a description of those uses, and describe potential impacts to tribal uses over the life of the Project, including closure. We recommend that IAAC reach out directly to Alaska tribes with ties to the Unuk River to gain baseline information about traditional territories and uses and determine the tribes' interests and concerns. EPA can provide contact information for Alaska tribal governments, if needed.
- Tailings dam stability and failure. The impact assessment should evaluate the geotechnical stability of the proposed tailings dams during operations, closure, and post-closure under both static and seismic conditions. Due to the long-term nature of the proposed tailings dams and the valuable downstream resources that extend beyond the border, we recommend that the impact assessment evaluate impacts due to a tailings dam breach. This should include a breach assessment and an inundation analysis that shows the potential extent of downstream tailings flow and water quality changes and a description of potential impacts to river users, water quality, and aquatic resources including into Alaska. Further we recommend that the impact assessment describe how Alaska communities, Alaska tribes, and the U.S. would be notified in the event of tailings dam incident.
- Cumulative impacts. The impact assessment should include an assessment of cumulative impacts based on past, present, and reasonably foreseeable future activities in the Project area. The cumulative impacts assessment should include, at a minimum: the past mining activities at the Eskay location, the operating Brucejack Mine, the KSM Mine Project, and other proposed projects in the

Unuk River watershed. We recommend that the assessment evaluate cumulative impacts to Unuk River water quality and aquatic resources.

- Climate change. EPA recommends that the impact assessment include a discussion of reasonably foreseeable effects that changes in the climate may have on the Project and the surrounding area, including long term stability of the infrastructure (e.g., water treatment facilities, tailings facilities). This analysis would inform the development of measures to improve the resilience of the Project. If anticipated changes could notably exacerbate the environmental impacts of the Project, EPA recommends these impacts also be considered as part of the impact assessment analysis. We recommend mitigation and monitoring be included to address those impacts.
- Monitoring. We recommend that impact assessment describe the monitoring that would occur to evaluate changes in Unuk River water quality and aquatic resources during project operations and closure. In addition, we recommend that the Project Applicant establish and maintain a monitoring location at the BC–Alaska border in order to demonstrate that water quality standards are being met and that the data be made publicly available.

EPA appreciates the opportunity to provide input into the substitution request and issues to be evaluated in a federal impact assessment. Please feel free to contact Patty McGrath at (206) 553-6113 or [mcgrath.patrica@epa.gov](mailto:mcgrath.patrica@epa.gov) if you have questions regarding these comments.

Sincerely,



Rebecca Chu, Chief  
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Cc:  
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