



THE STATE
of **ALASKA**
GOVERNOR SEAN PARNELL

Department of Natural Resources

OFFICE OF PROJECT MANAGEMENT & PERMITTING

400 Willoughby Avenue, Suite 400
Juneau, Alaska 99801-0101
Telephone: 907-465-6849
Email: kyle.moselle@alaska.gov

January 24, 2014

Nicole Vinette
Environmental Assessment Office
PO BOX 9426 STN PROV GOVT
Victoria, BC V8W9V1
Submitted via email to Nicole.Vinette@gov.bc.ca

Re: Working Group Comments for Proposed KSM Mine

Dear Ms. Vinette,

This letter summarizes the State of Alaska's (State) participation to date in the technical working group review of the proposed Kerr-Sulphurets-Mitchell (KSM) mine, identifies our primary areas of interest in the project, and requests additional information.

The Environmental Assessment Office (EAO) has provided the State an opportunity to participate in all phases of the working group review for the KSM Mine assessment. The EAO and Seabridge Gold Inc. (project proponent) have supplied the State with review documents. Resource managers with the Alaska Departments of Environmental Conservation, Fish and Game, and Natural Resources have joined in working group and sub-working group meetings, both in person and via teleconference, facilitated by the EAO.

Throughout the review process, the State's primary areas of interest have been the potential for the proposed KSM Mine to eliminate fish habitat in British Columbia watersheds that drain to Alaska, and to potentially impact downstream Unuk River fishery resources and water quality. For this reason, we focused our review on aspects of the project that may potentially affect Alaska's resources with emphasis on road and bridge construction in British Columbia fish bearing water bodies that drain to Alaska, waste rock and water storage facility design criteria, wastewater discharge quality, and long-term post-closure management.

It appears road construction in Coulter Creek will impact Dolly Varden char (*Salvelinus malma*) and coho salmon (*Oncorhynchus kitsutch*) habitat during placement of two bridges and one culvert. It appears road construction in the Unuk River will impact Dolly Varden char habitat during placement of a culvert and Dolly Varden char and Chinook salmon (*O. tshawytscha*) habitat during placement of a bridge. At construction, we calculate the cumulative amount of habitat that will be unavailable for fish use in British Columbia will be 383 m². It is difficult to tell from the provided tables the proportion of migration, rearing, or spawning habitat being used by each species that will be eliminated by fill placement. In order to gain a greater understanding of the potential effect of this proposed project to Alaska's fisheries, please quantify the net potential loss of fish habitat productivity as it relates to the overall watershed.

Additionally, please inform the State if there are provincial or federal requirements for a project proponent to replace or mitigate fish habitat loss.

A cursory review of water quality standards in British Columbia indicates that they are generally comparable to those of Alaska. It is our understanding that the KSM Mine will need to demonstrate its ability to comply with British Columbia's water quality guidelines to receive authorizations under the Mines Act and the Environmental Management Act. Information from the project proponent indicates the potential need for a mixing zone and/or site-specific criteria for waste water discharge(s) that cannot meet water quality criteria at the point of discharge. In order to gain a better understanding of the provincial and federal processes for authorizing mixing zones and site-specific water quality criteria the State requests information on the regulatory requirements, guidelines, and criteria the regulating agency uses to determine if such an application can be authorized. Please explain if these authorizations include consideration of downstream impacts to Alaskan waters and whether the State will be consulted before an authorization is finalized.

Directly downstream of the mine site in Sulphurets Creek and the Unuk River in British Columbia, the project proponent's water quality model predicts that the concentrations of aluminum, cadmium, copper, iron, and selenium may increase above both British Columbia water quality guidelines and naturally occurring background concentrations. Concentrations of these metallic and semi-metallic elements at the UR2 sampling site¹ on the Unuk River near the border with the United States naturally occur above Alaska and British Columbia water quality standards and guidelines and are predicted by the project proponent to be lower after the mine is constructed and water treatment begins. A review of available information indicates that post-closure facility management, water treatment, and environmental monitoring will be long term and require significant funding. The State requests additional information as to how provincial and federal agencies and the project proponent will establish and manage financial assurance mechanisms for the KSM Mine to ensure long-term operability of post-closure mine facilities, water treatment activities, and monitoring in the event the project proponent is unable to meet those commitments in the future.

The State appreciates the opportunity to participate in the review of the proposed KSM Mine and provide comments to the working group.

Sincerely,



Kyle Moselle
Large Project Coordinator

Cc:

Tom Crafford, Director, DNR-OPMP
Allan Nakanishi, Wastewater Discharge Authorization Program supervisor, DEC-Water
Jackie Timothy, regional supervisor, DFG-Habitat
Nicole Legere, habitat biologist, DFG-Habitat
Brent Murphy, Environment and Sustainability Manager, Seabridge Gold Inc.

¹ Naturally occurring background levels of metallic and semi-metallic elements, and other indicators of water quality, have been collected at UR2 for six years.