Project Basics

The proposed Kerr-Sulphurets-Mitchell (KSM) project is a giant open pit and underground copper-gold-silver-molybdenum mine complex located 65 km north of Stewart, British Columbia, at the headwaters of a tributary of the Unuk River, just upstream from Misty Fiords National Monument in Alaska. Seabridge Gold holds a 100% interest in the project. The company envisions at least three open pits plus underground operations that could generate over 2 billion tons of tailings waste over a mine life of up to 55 years. The proposed mine could have significant impacts on water quality and salmon and wildlife habitat in both the Unuk and Nass River watersheds.

At KSM, Seabridge Gold proposes to exploit mineral deposits in steep terrain next to ice fields. The proposed mine is expected to process 130,000 tonnes of ore per day and would require a 155 acre water storage facility and dam, along with explosives factories and magazines, camp buildings and supporting infrastructure. Twin 23 km tunnels, drilled under the glaciers, would link the mine to a mill and tailings impoundment site near Highway 37, between Treaty and Teigen Creeks, which drain into the Bell-Irving River. One tunnel would transport crushed ore from the mine in a slurry pipeline and return water, diesel fuel and electrical power; the other would transport personnel and supplies. The Northwest Transmission Line (NTL) would provide power for the mine.

Ore concentrate would be transported by truck to the deep-water seaport at Stewart, B.C., for shipment to an Asian smelter. The footprint of the proposed project would encompass the headwaters of two watersheds, and would have impacts on both sides of the border throughout the southern transboundary region.
About Seabridge

Seabridge Gold is a Toronto-based publicly-traded junior gold exploration company. It was founded in 1999 when gold prices were low. Its corporate strategy is to evaluate, acquire, explore and develop gold deposits in a rising gold price market, then sell or partner on assets ready for production. Seabridge does not build or operate mines. The KSM project is the company’s most important asset. Seabridge Gold plans to obtain permits for the proposed mine, then enter a joint venture with a bigger mining company when market conditions are favourable.

Review Process Status

The KSM Project requires certification under both the British Columbia Environmental Assessment Act (BCEAA) and Canadian Environmental Assessment Act (CEAA) processes. In addition, numerous federal and provincial licenses, permits, and approvals will be required to use, construct, and operate the project. In particular, the project will require an amendment to Schedule 2 of the federal Metal Mining Effluent Regulation (MMER) in order to construct the Tailings Management Facility in an area occupied by fish.

Seabridge Gold submitted a joint application under the BC Environmental and Canadian Environmental Assessment Acts in August 2013. The assessment process is 180 days.

Time Frame

The KSM project needs an Environmental Assessment Certificate. The EA process is 180 days, with an additional 45 days for a decision. KSM could receive an EA certificate by April 2014. Mine construction is anticipated to take at least 4 years, at an estimated cost of over $5 billion.

Despite the size of the deposit – estimated reserves include 38.2 million ounces of gold, and 9.9 billion pounds of copper, making it one of the largest gold-copper deposits in the world – there is uncertainty as to whether it will be developed. Seabridge Gold has stated it doesn’t intend to develop the mine on its own. The company’s aim is to take the KSM Project through the Environmental Assessment process, and then sell the project to a large mining company. However, the mountainous terrain poses technical challenges that could easily lead to cost escalations that could derail the project if mineral prices continue to recede from recent historic highs. Seabridge Gold may not find a buyer.

The KSM project poses a significant risk of acid mine drainage into fish bearing waters. The project needs an amendment to a federal regulation to put a tailings impoundment near Teigen Creek, which supports high fish values in the Nass watershed. This could delay the project, as could consultation and negotiations with at least four First Nations in B.C. As well, the risk of pollution flowing from B.C. into Alaska creates the potential for significant transboundary liabilities that have previously stalled or halted proposed mines such as Tulsequah Chief and Windy Craggy in the transboundary region.

Threats to Conservation

KSM poses the biggest single threat to rivers and salmon in the transboundary region. Located in a remote, wild and pristine area, the proposed mine would imperil water quality and fish habitat in both the Unuk and Nass systems. The Nass is one of Canada’s top salmon rivers. It would also fragment grizzly and mountain goat habitat, and greatly increase industrial truck and marine traffic in the southern transboundary region.

Mineralized rock at the KSM mine site has high sulfur content with a high probability for acid generation. Potentially acid-generating waste rock at the mine site would be a long-term concern. The proposed mine site drains into the Unuk River, which provides spawning habitat for Pacific salmon and steelhead, as well as cutthroat and rainbow trout, char, and whitefish in Canada and in Misty Fiords National Monument in Alaska.
The proposed process plant site and tailing impoundment would be located between Teigen and Treaty Creeks, which flow into the Bell-Irving River, a tributary of the Nass River. The tributaries support high fish values, including spawning or other habitat for chinook, coho and sockeye salmon, steelhead, rainbow and bull trout, Dolly Varden, char and mountain whitefish. Sulfide rich tailings would be submerged within a proposed nine km long tailings impoundment, with two earthen dams as high as and much wider than the Hoover Dam. Leaks and spills of toxic tailings into fish habitat are of serious concern.

The proposed project would also lead to the construction of new roads through prime grizzly bear and mountain goat habitat in the Nass and Unuk River watersheds. On Highway 37, about 40 trucks per day would transport ore concentrate from the mill to the deep-water port at Stewart, B.C., greatly increasing the risk of traffic mortality to wildlife such as moose and bears.

**First Nations/Native Alaskan Positions**

The proposed KSM Project would impact multiple First Nations – both at the project site and downstream in the Unuk and Nass watersheds. Part of the proposed Project, excluding the mineral deposits and their immediately related infrastructure, lies within the boundaries of the Nass Area, as defined in the Nisga’a Final Agreement. The Nisga’a Nation and Seabridge Gold have reached agreement in principle on material components of a Benefits Agreement in connection with the proposed KSM Project. The Nisga’a have also expressed concerns about the proposed mine, in particular the tailings impoundment and the risks to downstream water quality and fish habitat.

Other Aboriginal groups involved in the EA include the Tahltan Nation, Gitxsan Nation, Gitxsan wilp Skii km Lax Ha, Gitanyow First Nation, Gitanyow wilp Wii’litsxw, and the Métis Nation of British Columbia. The Gitxsan Treaty Society has given the BC EAO written support for the KSM project. Key concerns about KSM from all these First Nations include worries about the threats to water quality and fish habitat, and disturbance to mountain goats and moose within the project region.

Native Alaskans have also expressed serious concerns about the threats to salmon and other fish, including eulachon, in the Unuk River downstream from the proposed mine site. In 2012, the Central Council of Tlingit and Haida Indian Tribes of Alaska passed a resolution expressing concern about KSM, and calling on the State of Alaska and the state department to require the Boundary Waters Treaty between Canada and the U.S. be followed, and that “proper government-to-government consultation be conducted on all matters regarding mining projects and their impacts on maritime species and subsistence way of life.” Similar concerns have been expressed by other Native Alaskans, including Ketchikan Indian Community, and Metlakatla Indian Community.

**Summary**

The KSM Project is a massive copper-gold-silver-molybdenum mine proposed by Seabridge Gold. It is located on salmon bearing waters in multiple First Nation territories. It is just upstream of Misty Fiords National Monument in Alaska, close to the international border, and will threaten downstream Alaska Native and fishing interests. It is currently being reviewed in the Canadian federal and provincial environmental assessment processes, and has substantial potential environmental impacts to the region’s wildlife and fish populations.
TRANSBOUNDARY WATERSHED CONSERVATION BRIEFING

Kerr-Sulphurets-Mitchell Mine Proposal • Fall 2013

KSM Project Mine Site Layout during Operation Phase

Application for an Environmental Assessment Certificate/Environmental Impact Statement for the KSM Project
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Resources

KSM Project – http://ksmproject.com/
Seabridge Gold KSM Project – http://seabridgegold.net/ksm.php
Nisga’a Final Agreement – http://www.nisgaalisims.ca/nisgaa-final-agreement
Tahltan Central Council – http://www.tahltan.org/
Gitanyow First Nation – http://www.gitanyow.com