

# SEABRIDGE GOLD

October 27, 2017

*Via Email*

Southeast Alaska Conservation Council  
224 Gold Street  
Juneau, Alaska  
99801

Attention: Ms. Meredith Trainor  
Executive Director

Dear Ms. Trainor:

**RE: Correction of Factual Errors Pertaining to the Description of the KSM Project, 2017 Fall Issue of RAVENCALL**

Seabridge Gold is dismayed with the Southeast Alaska Conservation Council's (SEACC) ongoing inaccurate description and portrayal of the KSM Project using nonfactual information which is simply not supported by the publicly available data. With respect to your 2017 fall issue of the RAVENCALL magazine, specifically your article on page 6 which refers to our KSM Project, Seabridge demands an immediate public retraction and correction of the record

The factual errors and inaccuracies are as follows:

1. *KSM will be one of the largest and wettest mines in the world.*

This statement is **inaccurate** and typifies SEACC's ongoing attempts of using misinformation to depict KSM in a negative light and to create confusion and fear among your followers. KSM's planned average rate of 130,000 tonnes of ore processed per day place KSM as a future moderately sized operation among porphyry copper/gold mining projects. There are numerous projects located primarily in Asia and South America respectively, such as Grasberg, Bougainville, Ok Tedi and Los Pelambres with higher throughput rates than that which is proposed for KSM.

Additionally, a brief internet search identified more than 18 different mining, both active and reclaimed projects, located worldwide with average annual precipitation rates in excess of KSM's average rate of 1750 mm per year. A typical example is the former Island

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Valley Copper Mine situated on northwest Vancouver Island which operated for a number of years and is now successfully reclaimed.

2. *Technology to collect and treat the expected amount of contaminated water from the acid generating mine is unproven.*

This statement is **factually incorrect** and highlights SEACC's lack of knowledge specific to mine water and waste management techniques.

When in production, KSM will rely on a proven combination of diversion ditches and tunnels, techniques which are utilized worldwide within the mining industry as well as other industries, to collect and directed mine impacted water to the planned collection point, the Water Storage Facility. The fact that the KSM water management plan will utilize water diversion tunnels, is recognized as a safer and durable system which accounts for the wet climate and mountainous terrain, but is acknowledged to be more expensive and increase operating costs, by mining industry experts.

The incorporation of the water tunnels into KSM's water management plan is one example of Seabridge's commitment to responsible mining by minimizing environmental impacts.

The primary planned water treatment system for KSM is the HDS (high density sludge) system which is essentially a lime addition system. **Contrary to your assertion** that this is unproven technology, lime addition systems and their use in water treatment systems have been successfully operating worldwide for decades, in a variety of industries.

Similarly, the proposed Selenium treatment system is an ion exchange system which utilizes proven technology that has also been in operation for decades, technology which is used by many home owners to soften their potable water supplies. The only new aspect added to this system was the ion exchange media which demonstrates an affinity for absorbing Selenium. This material has subsequently been **proven** to work by recent testing completed by Seabridge and other mining companies located with BC.

3. *There is no evidence that the current technology (for selenium) is capable of removing a sufficient amount of selenium to meet Alaska's standard by the time it reaches the border at quantities proposed.*

*Despite an agreement between BC and Alaska, BC approved Seabridge's plan and does not require them to demonstrate a Se treatment process until 5 years into construction.*

Each of these two statements are **factually inaccurate** and again demonstrates either SEAA's continued penchant for distorting facts or your complete lack of understanding of the permitting process within BC, specifically the process as it pertains to the KSM Project.

As was highlighted by the 2014 environmental provincial and federal environmental assessments approvals, approvals which were granted in advance of the formalized BC-Alaska MOU pertaining to transboundary mining projects, Seabridge successfully demonstrated during the independent and joint harmonized Province of British Columbia and Canadian environmental assessment review, that there would be no impact on Alaskan waters from the Project based on the identified mitigation measures. Specifically, the

Canadian Environmental Assessment Comprehensive Study report stated “*the agency has concluded that no significant adverse impacts on water quality, water quantity, fish, or human health are expected on the Alaskan side of the Unuk River.*” These approvals were based on the Project implementing selenium treatment as a mitigation measure, which will result in Se levels remaining below the Alaskan Selenium standard throughout the life of the project.

Additionally, even though there was no formal agreement yet signed with BC and Alaska regarding transboundary mining projects, Alaskan and US regulators and the general public were actively involved in the review of the proposed KSM Project and influenced design changes associated with the Project. CEAA received and addressed over 400 comments related to BC-Alaska transboundary concerns during the public comment opportunity on the Environmental Impact Statement Summary portion of the EA. The CEAA Report acknowledged and summarized the involvement of American regulators in the review by stating that, the Agency, in collaboration with federal departments, identified and assessed the potential adverse environmental impacts of the Project on the basis of, “*comments from United States federal and Alaska state-agencies and proponent responses to the comments*”.

As well, the BC Environmental Assessment Report also highlighted the involvement of Alaskan regulators, stating that, “*the State of Alaska was concerned about the potential elimination of fish habitat in BC watersheds that drain to Alaska, and the impact downstream to Alaskan fishery resources and water quality*”.

The BC Environmental Assessment Approval Certificate also attached a series of legally enforceable conditions, of which **three conditions** specifically dealt with the issue of selenium, the proposed treatment method and the timing that is required for the treatment. The three conditions state:

- *Within one year of the issuance of an EAC, the EAC Holder must construct and operate a pilot water treatment plant (the “**Pilot Plant**”) to evaluate the feasibility of treating selenium to the concentrations assumed in the water quality predictions and effects assessment for the project. The Pilot Plant must be operated with local runoff from Mitchell Creek that has been modified to represent the range of expected water quality and conditions for seepage from the Mitchell/McTagg rock storage facility. The Pilot Plant must be operated at a sufficient flow rate to prove the feasibility of the treatment process.*

*The EAC Holder must submit a report describing the results of the Pilot Plant and assessing its feasibility for the treatment requirements for the Project, to MOE, MEM and the Environmental Assessment Office (EAO) within 12 months of completion of the Pilot Plant work.;*

- *As part of the Mines Act permit application for the mining of the Mitchell Pit or the mining of ore from the Sulphurets Pit, the EAC Holder must provide, to MEM and MOE’s satisfaction, detailed designs for the selenium water treatment plant including disposal plans for spent regenerant or secondary wastes produced. The design must*

*incorporate information collected under Conditions 7, 17 and 18 and a detailed schedule for plant construction, commissioning and operation; and,*

- *The EAC Holder must, by the end of the **fifth year of mining operations** (defined as the end of the fifth year from the initiation of mining of ore or waste rock from the Mitchell pit), construct and commission a water treatment plant for the purpose of removing selenium from mine waste rock seepage. The selenium treatment plant must be capable of treating flow rates of at least 500 L/s, and must be capable of receiving and treating water from the McTagg/Mitchell rock storage facility as well as the Sulphurets and Kerr Pits, and the EAC Holder must operate such treatment plants in a manner that ensures the requirements of permits under the Environmental Management Act are met during operations, closure and post-closure phases of the Project.*

The Selenium Treatment system proposed by Seabridge was **successfully tested and proven** during a pilot plant campaign using water extracted from the project site, during the summer and fall of 2014, **contrary to your assertion** that this method is not yet proven. It is also noted that this testing occurred well before the deadline date of July 30, 2015. Also, as was required by the legally binding EA condition, Seabridge submitted the report to the regulatory authorities in the spring of 2015, including Alaskan officials, **again in advance** of the formal agreement of BC and Alaska. It is also important to highlight that subsequent to Seabridge's 2014 pilot plant testing, other BC companies have completed successful selenium pilot plant testing, **further demonstrating the viability of the treatment method**, using exactly the same methods as was proposed and proven for the KSM Project.

The remaining two EA conditions **relate to future aspects** associated with the Project, and given that **construction or mining activity has not yet been initiated**, neither of these two conditions have yet been satisfied. It is important to highlight for SEACC's edification, that any Selenium treatment plant for the Project **will be required by Year 5 of operation and not Year 5 of construction** as stated in your article.

4. *The Canadian Government amended Schedule 2 of the Metal Mining Effluent Regulations fisheries protection, allowing Seabridge to replace fish bearing streams with a Tailings Management Facility, similar to the design that BC's Mount Polley Independent Review Panel advised against. This was a federal Canadian action, and Alaska as a mere state, had no voice at the table, underscoring the need for the US federal government to be directly involved in transboundary mine-related issues.*

Contrary to your assertion or inference, KSM's tailings management facility (TMF) **is not located within transboundary waters**. The TMF drains into the Bell-Irving drainage basin and ultimately flows into the Nass River, which is located entirely within Canada's jurisdiction, and not Alaska's. On this basis we are unsure as to why SEACC would demand a role in this permitting process.

However, during the public engagement process with Canadian citizens for Seabridge's Schedule 2 Amendment application on proposed Project infrastructure located entirely within Canadian jurisdiction, the Canadian Federal Government did solicit or request comments from the Alaskan Government as a matter of courtesy, **which refutes** your assertion that Alaska was not at the table.

Furthermore, SEACC's statement that KSM's TMF uses a design that the Mount Polley Independent Review Panel advised against is **wrong and factually untrue**. The Panel **did not** recommend no further use of wet tailings storage but highlighted that projects must move towards the implementation of Best Available Tailings Technology (BATT), such as the use of dry stacking, underground backfill and mined out pits as potential management options so as to prevent future accidents.

What **was not mentioned** by SEACC is that Seabridge's KSM TMF design is **considered best available technology (BAT)** and **meets the requirements** of the Mount Panel Report, based on a technical study completed by independent professional engineers conducted during 2014-2015 time period, after receipt of the BC environment assessment approval (<http://seabridgegold.net/News/Article/617/seabridge-gold-s-design-of-ksm-project-s-tailing-management-facility-confirmed-as-best-available-technology-by-leading-engineering-firm>; <http://ksmproject.com/bat-report/> ).

As a further step in its review process for our proposed tailing management approach, Seabridge commissioned an independent review of the BAT report by Dr. Dirk van Zyl. Dr. van Zyl is a world-recognized expert in tailings, mined-earth structures and sustainability with over 40 years of experience. He is currently a faculty member at UBC's Faculty of Applied Science and was a member of the Independent Expert Engineering Investigation and Review Panel investigating the Mount Polley tailing storage facility breach. In his review of the Klohn Crippen report, Dr. van Zyl states: **"I support the overall conclusions of the KSM BAT report. The evaluation shows that using filtered tailings at this project is not a feasible option as it will not result in moving to zero failures. Adding complexity in tailings management, as filtered tailings will do at the KSM site, does not promote the overall goal of moving to zero failures."** (<http://seabridgegold.net/News/Article/617/seabridge-gold-s-design-of-ksm-project-s-tailing-management-facility-confirmed-as-best-available-technology-by-leading-engineering-firm>)

To further illustrate the importance that Seabridge places on ensuring the implementation of best available technology in our TMF design, the TMF design has also been reviewed by our Independent Geotechnical Review Board (IGRB) which was formed for the project in January 2015. The IGRB **confirmed** in April 2016 that the design of the proposed structures for our KSM Project were **appropriate and were deemed safe** and the findings of their first report are publicly available on the KSM Project website. (<http://seabridgegold.net/News/Article/587/design-of-tailing-management-facility-and-water-storage-dam-at-ksm-receives-vote-of-confidence-from-independent-geotechnical-review-board>; <http://ksmproject.com/independent-review-board/>)

Public debate and respectful disagreement is the cornerstone of both the American and Canadian democracies, respectively. However, within each country, debate and disagreement is underpinned by the provision of accurate data and a discussion of the relevant facts, areas at which SEACC by its own actions, has continuously failed to meet. SEACC's failure to provide accurate, timely and relevant data on KSM does a disservice to the readers of the Ravencall magazine and your followers and unnecessarily inflames the going discussion regarding the KSM Project. Based on

these factors, **we again reiterate our demand for an immediate retraction/clarification** of the inaccurate description of KSM within the Fall issue of SEACC's Ravencall magazine.

I can be reached via email, [brent@seabridgegold.net](mailto:brent@seabridgegold.net), or by mobile, (867) 445-5553, and I look forward to your reply in response to our immediate concern. Going forward, should any of your staff and/or writers pen articles referencing KSM, I request that you extend myself and Seabridge the courtesy of fact checking KSM details, so that a factual story may be published. Additionally, should SEACC have any additional questions regarding the Project, Seabridge will be pleased to respond. Thank you for your time.

Yours truly,

A handwritten signature in blue ink, appearing to read "Brent Murphy". The signature is fluid and cursive, with the first name "Brent" being more prominent than the last name "Murphy".

R Brent Murphy, M.Sc., P.Geol.,  
Vice President, Environmental Affairs

RBM/...

CC. Mr. Guy Archibald  
Southeast Alaska Conservation Council

Mr. Kyle Moselle  
Large Mine Coordinator  
Department of Natural Resources  
State of Alaska

Ms. Kathy Eichenberger  
Ministry of Energy and Mines  
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