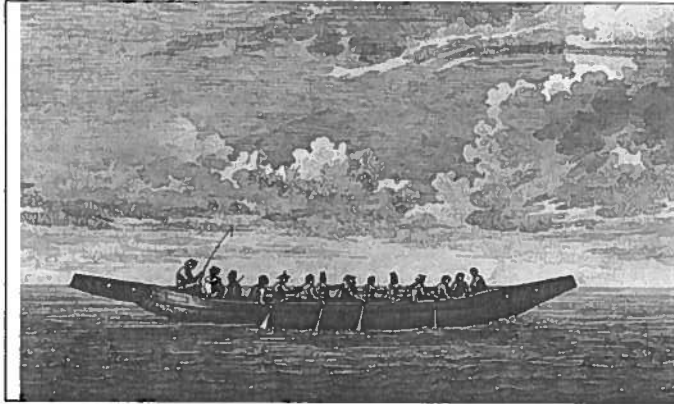




***Southeast Alaska
Subsistence Regional
Advisory Council***

**Don Hernandez, Chairman
1011 E. Tudor Road, MS121
Anchorage, Alaska 99503**

RAC SE19004.DP

MAR 13 2019

USDA Forest Service
ATTN: Acting Regional Forester, David Schmid
P.O. Box 21628
Juneau, Alaska 99802

USDA Forest Service – Tongass National Forest
ATTN: Forest Supervisor, Earl Stewart
648 Mission Street
Ketchikan, Alaska 99901-6591

Hoonah Ranger District – Admiralty Island National Monument
ATTN: District Ranger, Basia Trout
430-A Airport Way
Hoonah, Alaska 99829

Dear Messrs. Schmid and Stewart and Ms. Trout:

I am writing on behalf of the Southeast Alaska Subsistence Regional Advisory Council (Council) to express our concerns regarding water quality and pollution issues in and around the Hawk Inlet area, in Chatham Strait. The Council understands that the Forest Service is preparing another Environmental Impact Statement (EIS) in 2019 for the area and wishes to make comments and requests, based on collective concerns from subsistence users and other members of the public.

The Council is one of ten regional advisory councils formed under Title VIII of the Alaska National Interests Lands Conservation Act (ANILCA) and chartered under the Federal Advisory Committee Act. Section 805 of ANILCA and the Council's charter establish its authority to initiate, review, and evaluate regulations, policies, management plans, and other matters related

to subsistence within the Southeast Alaska region. The Council provides a forum for the expression of opinions and recommendations regarding any matter related to the subsistence uses of fish and wildlife within the region.

The Council has discussed water contaminants and their potential adverse effects on subsistence resources for several years at its public meetings. At its fall 2018 public meeting in Sitka, the Council received a presentation on water contaminants, including information from recent reports on contamination levels. After hearing the presentation, the Council discussed the issue extensively. The Council wishes to share with you its concerns, and those of the public, regarding how decreasing water quality in Hawk Inlet in recent years has affected food sources that subsistence users harvest in the area. The safety and security of subsistence foods is a major concern to Council members throughout our region. Pollution in the Hawk Inlet ecosystem is of particular concern to Council members from Angoon and Hoonah, whose residents use resources harvested in the upper Chatham Strait marine environment.

When Admiralty Island National Monument was formed, the Greens Creek Mine was allowed to continue operations because of pre-existing mining claims. Mining would be allowed only if mining did not create irreparable harm to the Monument itself. The original EIS published in 1984 declared that the protection of the ecosystem in Hawk Inlet was the primary conservation goal.

The Council understands that a baseline study was conducted in the early 1980s as a condition of the permit authorizing mining production. According to Hecla Greens Creek Mine's own documents from this period, monitoring marine populations and diversity would be the best way to measure the health of the Hawk Inlet aquatic ecosystem. The initial study created the baseline that would allow for evaluating impacts from mine activities, including tailings depositions, ore loading, and water treatment. The elements of this study need to be repeated in order to compare against that baseline and assess mining impacts on the health of the ecosystem and the subsistence foods harvested from the area.

In 2014, Friends of Admiralty Island worked with aquatic biologist Michelle Ridgway to conduct a pilot study that indicated a significant accumulation of toxic heavy metals was impacting the food chain. The results of her work show that most metal concentrations in tissues of most species in Hawk Inlet exceeded the Alaska Reference statistics for those species as well as levels recorded in the early baseline studies (three baselines are listed: 1978/79, 1981, and 1984-89). Some results showed levels above what was safe for human consumption. There is also evidence that some species have disappeared altogether from Hawk Inlet since mining has occurred.

The Ridgway study also tested a liver from one harbor seal harvested by a resident of Angoon. Test results showed the liver contained 220 mg/kg of mercury. Based on this extremely high level of mercury, the State of Alaska issued a letter to Angoon warning that vulnerable populations should not eat seal liver and should limit their consumption of seal fats.

In recent years, residents of Angoon, Hoonah, Tenakee Springs, and Juneau have become increasingly concerned about what effects the mining operation at Greens Creek has had on subsistence foods in Hawk Inlet. These concerns run the gamut from the observed decline of Dungeness Crab near the mining wastewater outflow, to the possible effects on salmon travel through the area, to the documented liver contamination in the harbor seal harvested near Angoon.

Alaska Department of Environmental Conservation (ADEC) lists Hawk Inlet as a Category 3 waterbody, that is, "Data or information is insufficient to determine whether the water quality standards for any designated uses are attained." We believe that ADEC has failed to do adequate monitoring of this large mine, which has been issued Notices of Violation several times for Clean Water Act violations by the Environmental Protection Agency (EPA) and ADEC,¹ and was listed as the second-highest producer of mine waste in Alaska on the EPA's 2016 Toxic Release Inventory.²

The original 1981 surveys include extensive baseline data that could be used to show what effect the Greens Creek Mine discharges into marine waters has had on marine life. Extensive population and data were collected in the 1981 baseline study in the intertidal and subtidal areas on the Greens Creek Delta, the head of the inlet, and in the area of the cannery near sites sampled by Ridgeway. The 1981 Greens Creek delta survey provides population numbers for 28 phyla of organisms, each with numerous species presents prior to mine development.

A bioassessment index developed for measuring the biological integrity of non-glacial streams throughout the Alexander Archipelago provides useful techniques for monitoring long-term water quality trends, as well as sources of impairment.³ Development of a bioassessment program for Hawk Inlet and surrounding waters is necessary since exploration and modern mining techniques may allow Greens Creek Mine to operate for an additional 76 years, almost to the year 2100. The mine is known to produce a significant loading of pollutants that bioaccumulate, such as cadmium, copper, mercury and lead. Based on monthly concentration averages reported from July 2007 until June 2012, and a monthly daily average flow rate based on flow reported from February 2011 until April 2012, experts estimate a loading of nearly 8,000 pounds of pollutants

¹ See <https://aws.state.ak.us/OnlinePublicNotices/Notices/Attachment.aspx?id=93234>

² See https://iaspub.epa.gov/triexplorer/tri_factsheet.factsheet_forstate?pstate=AK&pYear=2016&pParent=NAT

³ See

https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=2&cad=rja&ved=0CD8QFjAB&url=http%3A%2F%2Faquatic.uaa.alaska.edu%2Fpdfs%2FAlexanderArchipelagoReport_final.pdf&ei=EhtRUZGelIf0iQKTulCgAw&usg=AFQjCNHkvPG1lg75m1cKCwgr_JdxYLzpzg (accessed April 10, 2013).

annually bioaccumulate and are likely to persist in sediments, water, or biota.⁴ Three of these contaminants - cadmium, mercury and lead - are considered significant because they have bioconcentration factors over 100.⁵

Hawk Inlet is well-documented as being within the traditional subsistence use areas of Angoon. Migration patterns for northern Southeast Alaska salmon show that salmon travel through mixing zones on northern Admiralty Island. Seal can travel many miles from their original home, so any seal born in Hawk Inlet, traveling past Angoon, could be contaminated.

The Council urges better management of water quality in Hawk Inlet. It is essential that the effects on subsistence be examined to protect the rural subsistence users who rely on these resources for survival.

Based on the foregoing, the Council urges the U.S. Forest Service to take the following action:

1. Replicate the 1981 baseline study that identified the natural diversity and populations of aquatic life in Hawk Inlet. This study was mentioned in the Environmental Impact Statement of 1983 completed to authorize permitting the mine. Since the early baseline study was conducted, only incomplete and fragmentary data have been collected. The Council urges that the more comprehensive 1981 baseline study be replicated so that the difference between the two studies will show the impacts of mining activity in the Hawk Inlet area.
2. Replicate on a larger scale seal sampling as done in Hawk Inlet, which resulted in the recommendation of limiting the consumption of seal by Angoon residents.
3. Conduct studies on the airborne fugitive dust from the tailings pile as a possible source of lead accumulation in Hawk Inlet. Fugitive dust can be a pervasive source of toxic contamination. Currently, the dust monitoring program indicates large amounts of lead spread throughout the surrounding forest around the tailings pile. However, Greens Creek Mine's dust monitoring program lacks standardization and lacks equipment that complies with American Society for Testing and Materials requirements. Additionally, there are no dust monitoring stations on the Greens Creek Delta, a probable pathway to dust entering the inlet.

These actions by U.S. Forest Service are essential to protect subsistence uses of marine resources in the Hawk Inlet area. Any further permitting of Greens Creek Mine will need sufficient data to evaluate the effect of expanded mining on subsistence uses as part of the agency complying with its ANILCA Section 810 responsibilities.

⁴ The data for these estimates were derived from a file named "Most Recent Data" provided SEACC by ADEC on March 28, 2013. By this reference, we incorporate this agency record into our comments.

⁵ EPA's 1991 *Technical Support Document for Water Quality-based Toxic Control*, Section 4.3.1 at 71.

The Council appreciates the opportunity to convey its concerns about the long-term effects of water contaminants and pollution on food resources that many of our Southeast Alaska families depend upon. If you have any questions regarding this letter, they can be addressed through our Council Coordinator, DeAnna Perry, at 907-586-7918 or dlperry@usda.gov.

Sincerely,



Donald Hernandez

Chair

cc: Federal Subsistence Board

Southeast Alaska Subsistence Regional Advisory Council

Thomas Doolittle, Acting Assistant Regional Director, Office of Subsistence Management

Chris McKee, Acting Deputy Regional Director, Office of Subsistence Management

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Pippa Kenner, Acting Anthropology Division Supervisor, Office of Subsistence Management

Thomas Whitford, Regional Subsistence Program Leader, U.S. Forest Service

Mark Burch, Special Projects Coordinator, Alaska Department of Fish and Game

Brock Tabor, Program Manager, Alaska Department of Environmental Conservation

Interagency Staff Committee

Administrative Record