



Friends Of Admiralty Island



Newsletter

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Our Last Chance *by K.J. Metcalf, President*

A massive expansion of an area to deposit mine tailings will soon be proposed by Hecla Greens Creek Mine, in Hawk Inlet in Admiralty Island National Monument.

The expansion decision by the Forest Service will affect everyone who hunts, fishes, harvests wild

foods or recreates in an area from Youngs Bay to Hawk Inlet and south of Hawk Inlet along Chatham Strait. That decision will determine how and where millions of tons of rock flour (called tailings) will be piled over a 100 acres of now-intact old growth forest and alongside or even burying salmon streams.

This decision process (the Environmental Impact Statement) will determine the fate of Hawk Inlet for the next 30-40 years of mining and for the required hundreds of years of monitoring and treatment of tailings and waste water discharge.

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“It is horrifying that we have to fight our own government to save the environment.”

– Ansel Adams

ANNUAL MEETING

Saturday, March 9, 2019
Northern Light United Church
Featuring
Alaskan Adventurer
Bjorne Dihle

“Perspectives of Admiralty & Chichagof Islands by Paddle and Foot”

PLEASE SEE THE FULL MEETING SCHEDULE ON PAGE 3.



Bjorne Dihle, looking for a coffee shop, deep inside Admiralty Island.

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Friends Of Admiralty Island

Friends of Admiralty Island is a non-profit, public interest, volunteer organization formed in 1987. We depend on member donations and grants to carry out a program of advocating for the island's protection through education, promoting research and supporting management that reflects the recognition of the island's values: ecological diversity (including its abundant fish and wildlife), wilderness setting, Tlingit Indian culture, prehistoric and historic record and geological makeup. We believe that as people and agencies understand and appreciate these values they will become stronger champions for the island's protection.

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We believe there is one last chance to convince the agencies that the current mine operation has, and continues to damage the health of the Hawk Inlet ecosystems. A massive expansion using the same model will be disastrous.

We believe the key is to quantify how the mine development and operations have affected the marine and upland ecosystems. To us that means, replicating the 1981 pre-mining baseline (or major portions of it), determining the multiple ways mine toxins are entering the food chain, and designing tailings and water treatment, mitigation and monitoring to stop on-going pollution and help restore Hawk Inlet's damaged ecosystems.

Friends of Admiralty is 100% committed to working towards Hecla Greens Creek Mine being a non-polluting model mine. For this to happen, the replication of the baseline must proceed any decisions to expand the tailings disposal area.

This is not the first time we've had to fight to protect Admiralty Island. It was the "poster child" in efforts to save an intact example of the temperate old-growth rain forest during the "Tongass Timber Wars" starting in the 1960s. Admiralty Island was saved from logging by President Carter's 1978 Admiralty Island National Monument Proclamation, followed by congressional national monument and wilderness legislation in 1982. Admiralty is now the largest intact temperate old-growth rain-forest in the world.

Since Admiralty Island is a National Monument, legislation authorizing the Greens Creek Mine to operate set a very high bar by stating that the mine, "will not cause irreparable harm to Admiralty Island National Monument."

In 2013 Forest Supervisor Cole revealed his apprehensions about Greens Creek when he rejected the mine's 30-50 year tailings expansion proposal which would have buried 116 acres of Monument land and permanently eradicated 1,646 feet of salmon habitat.

Cole had to consider both the mine's benefits and the need not to harm the environment. As Hecla states, the Greens Creek Mine is the largest silver producer in the world and the economic engine for their corporation. Additionally, Greens Creek is a major part of the regional economy providing over 300 jobs. At the same time Admiralty Island is a National Monument/Wilderness and unique in the world, with rare qualities and values.

In Cole's rejecting the mine's proposal he did permit an additional 10 years of tailings disposal involving only 18 additional acres of National Monument lands with no salmon streams involved. Cole also declared that

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FRIENDS OF ADMIRALTY ISLAND ANNUAL MEETING

Saturday, March 9, 2019 • Northern Light United Church

– with a presentation by Bjorne Dihle –

5:00 - 6:30 pm Friends of Admiralty Business Meeting

6:30 pm Community Potluck - Share a hot dish or salad. All are welcome!

7:30 pm "GRIZZLY BEARS ARE MY WEAKNESS" - Bjorne Dihle
 "Perspectives of Admiralty and Chichagof Islands by Paddle and Foot"

Bjorne is an author, storyteller, fisherman, hunter and all-around Alaskan adventurer. With stories and slides, he'll share with us a few of his Southeast wilderness expeditions.

Funter Bay Updates

Friends of Admiralty's cruise to Funter Bay May 20, 2017 was of historic importance. A number of Aleut survivors and family members from St. Paul and St. George Islands returned to the site of their WW II three-year internment. The internees in two Funter Bay camps were literally abandoned by the US Government. Due to little or no health care some 38 died from tuberculosis, pneumonia, contaminated water, poor nutrient and cold and damp overcrowded living conditions.

This emotional trip allowed the internees to explain to their families how they survived – there were lots

of tears and talk of intergenerational trauma. There appeared to be some healing, also.

A beautiful 10 foot Russian Orthodox cross, crafted by artisans of Lemon Creek Correctional Center was erected and dedicated by The Right Reverend David, Orthodox Bishop of Sitka and Alaska.

Our booklet, *Pathway to Healing*, details the historic significance of this cruise and is available for a \$10 donation to Friends of Admiralty, either through our website or by email to admiralty_friends@yahoo.com.

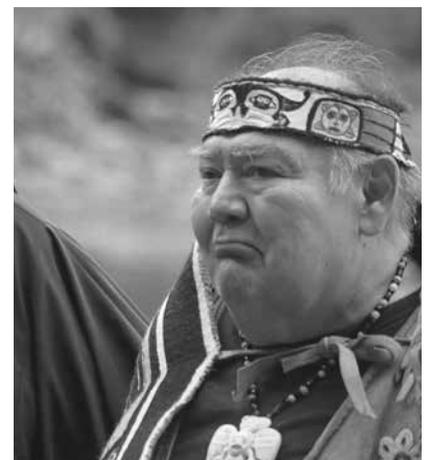
Bishop David (Mahaffey) blesses grave sites at the location of a WWII internment camp for Aleuts in Funter Bay (Kevin Gullufsen | Juneau Empire)



Carrying the "healing cross" to the grave site of those who perished during their years of internment. (Kevin Gullufsen | Juneau Empire)



David Katzeek, a Tlingit leader, speaks next to Bishop David (Mahaffey) of the Orthodox Church of Alaska. (Kevin Gullufsen | Juneau Empire)



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his 2013 decision was only a short-term decision. The ten-year reprieve is to allow the Forest Service to develop policies on how to apply the concept of “irreparable harm” and other mandates so they are consistent with what congress intended.

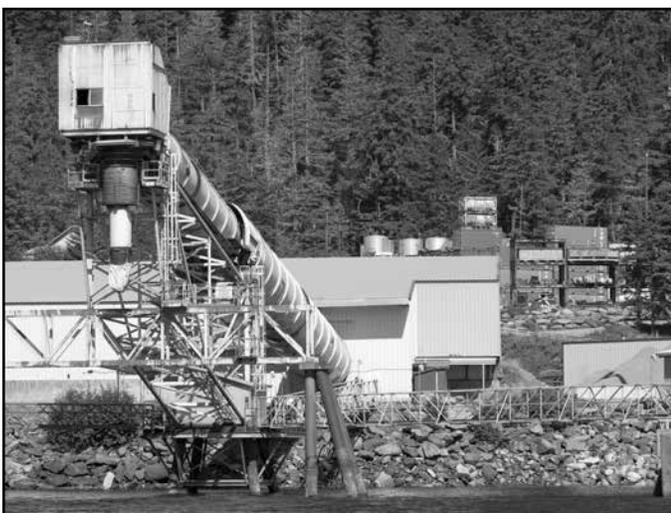
Cole directed the mine to develop feasible alternative tailings disposal solutions. The mine has publicly acknowledged that if they cause irreparable harm they will lose their right to mine.

In addition, he directed the Tongass Forest staff to work with stakeholders to identify information that must be considered in determining the tailings expansion feasibility.

Cole’s decision was courageous and provided a “watershed moment” for the mine and Hawk Inlet. We saw it as a window to get the mine on a solid scientific monitoring regime. That window is about to close.

To predict the future environmental impacts of any expansion, it’s necessary to have complete and defensible scientific knowledge of how the past 38 years of mine development and operation have affected the health of the marine and upland ecosystems. The information needed on conditions before mining does exist, but it has never been used to determine the mine’s actual effect on those ecosystems.

Greens Creek Mine ore loading facility, Hawk Inlet.



The 1981 pre-mining scientific baseline was completed so that over time it could be replicated to determine if the mine operation was causing changes in species diversity, population numbers and levels of toxins in the food web.

Friends of Admiralty has advocated for years to replicate this baseline. We were told by the state that it couldn’t be replicated, nor was there any reason to do so.

We decided, in response to Cole’s request for stakeholders to identify needed information, to contract with Oceanus Alaska, led by Marine Ecologist Michelle Ridgway (who tragically died in 2018) to prove that replicating the 1981 baseline was feasible and necessary. We successfully tested a variety of the original sample sites, and in doing so we demonstrated significant toxin increases in sediment and plant and animal tissue. Our results, compared to the baseline, demonstrated that the 11 metals tested had increased an average of 73 times in the 38 years since the mine was developed.

The Alaska Department of Conservation (DEC) is responsible for permitting and monitoring discharges from the mine. DEC acknowledges the heavy metal increases. However, with no scientific evidence to support their opinion, they claim that the mine is not causing the increases. Instead they believe the heavy metals are coming from natural sources (weathering rock) and entering the ecosystem. We reject that opinion, since we documented that the dramatic increases coincide with the mine’s operation.

Time is running out. The mine estimates it will reach permitted tailings capacity in about six years. An environmental impact statement may take 3-5 years. A new tailings location may require several years of construction.

OUR PLAN

We have been conducting research to establish a direct link between toxins in the inlet and their source; either natural background sources or the

Our Last Chance *...continued from page 4*

result of the mine's operation. To accomplish this, we will determine if the lead and zinc in sediment and tissue samples from the inlet can be "fingerprinted" by analysis of their unique isotopic ratios. We will then compare these fingerprints with an analysis of the lead and zinc from the processed tailings, as well as other possible sources entering the inlet.

Additionally, we will document the natural background accumulation of metal toxins over hundreds of years to establish a baseline and trends of accumulation prior to the mine development.

To accomplish this, we will conduct laboratory analysis on 1600-year-old midden clam shells, and shells from old raised beaches (spanning hundreds of years) for lead and zinc loads over time and compare that analysis with contemporary shells from Hawk Inlet (see "A Message From the Ancestors" pg. 6).

If the results indicate the mine is harmless and natural background processes are responsible for the spike in toxins, then we can accept that. However, we believe our analysis will provide undeniable scientific proof that

Please be Generous

This article sums up the urgency and what we hope to accomplish. Sample collecting will be done this spring on the big tides and lab testing will follow – with results by September.



Your generous donations have carried us this far and now we are asking for more. Every dollar you have donated or will donate – noted "Legacy" of "Last Chance" will make this work possible.

I don't like asking for money. However if we don't do this work it won't be done and it will be business as usual.

Thank you for your past generosity. Just so you know, I'll put my own money in the pot. I can't think of a more valuable legacy to leave my children and grandchildren.

the tailings' dump and wastewater are the major sources of the accumulating toxins in the inlet. This information can then be used for the design and treatment of tailings, fugitive dust and water discharge for the future.

OUR LAST CHANCE

If we fail, and the Forest Service allows the expansion, using DEC's findings which state that the mine is not responsible for increased toxins, the entire Hawk Inlet marine and upland ecosystems would be damaged for hundreds of years, if not forever.

The Tlingit people, "The First Nations People", have a deep spiritual and cultural connection to this land. Joe Zuboff, Angoon Deisheetaan cultural leader states, "We are people of the land and waters, their health is our health."

A Message From The Ancestors

David Katzeek, a Thunderbird clan elder and cultural leader from Klukwan, is a resource teacher in the Juneau School District and an expert Lingit (Tlingit) speaker and writer. We were discussing the shell midden at the mine site, a midden dated to about 1660 years ago. We plan to take several shells to be analyzed for natural background occurrences of toxins in the Hawk Inlet watershed. As David and I discussed the health of Hawk Inlet today we wandered in our minds back to the ancient people 1600 years ago. The following article evolved.

I can imagine the minus tide in Weineidei (Hawk Inlet) over 1600 years ago as the ancient ancestors follow the receding water, digging sticks flipping out clams to be gathered into woven baskets. They would have said “ax ádee” (my precious possession); not gold, but food (at.xá)

Perhaps further down the beach, xootz (brown bear) was excavating, crushing and eating his share of clams. These shellfish provided a very healthy diet for beast and man and shows the balance between the ways of the Lingít people and the resources.

“The tide is out and the table is set,” is a Llingit expression describing the bounty and incredible richness of tidal lands. Having healthy food for your child and your grandparents is the reason for the joyful expression of “ax.adee!” It is along the lines of “at.óow”, meaning that which was paid for or is priceless!



David Katzeek

There is an old story of Raven seeing people starving and knowing the abundance of food lying below the tidal waters, yet the tide refuses to go out. The people will surely die. Raven dives into the water and discovers the old-lady who is tightly holding the tide from lowering. Clever Raven, after numerous attempts, is able to make the old lady release the tide and the people are saved. This story documents that the resources are for all people, great and small, and not just for a select few!

The story reinforces the life-sustaining food from tidal lands and the values of persistence and sharing. The reason the Lingít people have been on this land on Admiralty for over 10,000 years is because they respected the resources and lived by prioritizing the needs of all creatures, not just the community of human beings.

Mollusks (clams and mussels) are used in many studies as bioindicators of environmental metallic concentrations because of their ability to accumulate and concentrate metals from seawater. During their lifetime, trace elements present in the environment and assimilated by the mollusks are incorporated into

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Hawk Inlet Long-term Science Study and Training Opportunity

One of Michelle Ridgway's hopes was that Hawk Inlet would evolve into a world-class study area and training setting for scientist and technicians. In memory of her tireless work and dedication to science and teaching we have adopted that goal as our goal.

Mines adjacent to productive bodies of water will be with us for centuries. Greens Creek tailings and water discharge will have to be treated and monitored for hundreds of years. How future mines are designed and monitored are critical for the protection of marine, fresh-water environments and uplands. This must be a scientifically sound model.

So much science has been conducted in Hawk Inlet and yet we are still unsure of the affects of the mine on the ecosystems. Greens Creek Mine could become the model and a training ground so that we grow our own scientists and technicians – and have a clean mine.

Scientific value was a key Admiralty asset listed in the enabling legislation. The Forest Service could develop a scientific study plan for the Island. Hawk Inlet could be at the top of the list.

The pay offs could be huge

Michelle teaching marine science to Angoon students.



Michelle's crew of Angoon science helpers.



A Message From The Ancestors ...continued from previous page

the shell. In particular, the shell stores elements not needed by the organism, such as heavy metals.

When the ancient ones gathered their bounty of clams, mussels and cockles from Weineidei, they ate them fresh or preserved them for later nourishment. Some of the shells were used as implements, but most were discarded in a pile, or midden.

Such a midden was located in Hawk Inlet and became a part of the archeological inventory prior to the development of the Greens Creek mine. A shell from the midden was carbon-dated to indicate the shell was discarded about 1,600 years ago.

When tested, those ancient shells will be an accurate measurement of amounts of natural (non-human) weathering and release of heavy metals over past centuries. We will compare those results with clam shells, of the same species and size, collected this year from Hawk Inlet tidelands, to see the effects of their being exposed to 38 years of released mine-related toxins.

It's as if the ancient ones handed us a shell and said, "This will show you what our world was like. Compare it to how well you have cared for your world."



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Winter 2019 Newsletter

Join Friends of Admiralty Today!

Friends of Admiralty is a tax-exempt, non-profit organization. This newsletter is provided free to those who care about Admiralty Island-Kootznoowoo, "Fortress of the Bears." To become a member of Friends of Admiralty, just e-mail your contact information and we'll sign you up free of charge.

Donations are welcome and greatly appreciated. To support our work, please go to www.friendsofadmiraity.org and click on "donate."

Paperless Newsletters

We encourage all who receive our newsletters to consider switching from a mailed paper to an electronic version. The cost in paper, printing, postage, and the resulting carbon footprint could be reduced. If this appeals to you, drop us an e-mail at: admiraity_friends@yahoo.com

Yes! I want to join Friends of Admiralty Island. *Membership is free.*

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