

The Legacy of Hawk Inlet – No Irreparable Harm (1/23/16)

by K.J. Metcalf

The Making of a Monument - In 1978 President Carter proclaimed Admiralty Island as a National Monument, which ended the contentious debate whether to preserve Admiralty or log it. That proclamation was cemented in law in 1982 when Congress included Admiralty in the 1982 Alaska National Interest Lands Conservation Act (ANILCA) as a National Monument and Wilderness.

Including Mines in the Monument - Key to congressional action was language to accommodate valid and potential mining claims on Mansfield Peninsula and the high-value claims at Greens Creek. To accomplish this, Hawk Inlet was set as the northern boundary of the Monument, excluding Mansfield Peninsula. Moreover, Greens Creek was excluded from Wilderness designation. The idea was to allow mining in the Monument, but there were some very specific conditions designed to protect Monument values – the core being that there was to be no irreparable harm to those values and during mining in Misty Fiord and on Admiralty Island (both National Monuments managed by the Forest Service), all fish habitat was to be protected. The bar was set high to accommodate this all too frequent conflict of resource uses.

The pre-mining condition of Hawk Inlet - In preparation for the development of Greens Creek mine, two remarkable 1978 studies were undertaken to document the pre-mining condition of Hawk Inlet and the surrounding watersheds on the Greens Creek side. The first was a comprehensive baseline study with special emphasis on the Hawk Inlet marine environment, uplands and freshwater systems. This study was done by an interdisciplinary team comprised of state, federal and Noranda (the mine owner/operator at the time) scientists. An important study element was the meticulous documentation of species diversity and their population numbers, and tissue samples for pre-mining metal content taken at selected inlet sites, using extreme low tides for much of the sampling. This diversity/population approach was referenced in a 2013 Greens Creek Mine Annual Report as the best way to determine the health of an ecosystem.

The second study, in direct response to the developing mine was an Alaska Department of Fish and Game (ADFG) cutting-edge study on Admiralty brown bears on the northern end of the island. A number of bears were tagged and radio collared and their movements mapped to help establish their population numbers, home ranges, denning locations and seasonal movements. A valuable result of this study was the archiving of samples of their blood and hair. Though these have not been analyzed, they can be and will likely provide a valuable pre-mining baseline metal content for bears in the general vicinity of the mine. These studies were of gold standard quality and firmly established the pre-mining health of the area.

However, these studies would only be useful if they (or portions thereof) were periodically replicated to scientifically track changes in the health of the environment that could be related to mine operations. ADFG has replicated a portion of their bear study to help verify bear populations. But, strangely the Hawk Inlet study has been ignored, in fact it even disappeared for a number of years – it was lost and no copies seemed to exist. A copy was finally discovered in 2014.

Advocating for a science based process - Friends of Admiralty has advocated since our 1997 founding to use the Hawk Inlet study to scientifically measure mine-caused ecosystem change. Our requests were dismissed for various reasons: too costly, can't be done because the original sample sites were not recorded with a GPS, and the most troublesome reason is that there are no indications in the on-going samples of elevated metals.

A second opinion – It became obvious that our voice was not being heard. That is, unless we had credible scientific evidence to indicate that, no the mine is not polluting, or yes it is. We were encouraged by Forest Cole, Tongass Forest Supervisor, when he signed the 2013 tailings expansion decision. He indicated he would make an interim decision because there was not enough known concerning the tailings deposit and how it affects the environment. He urged stakeholders and the mine to work on different designs and better information so the next Forest Supervisor will be able to make a better informed long-term decision.

We took Supervisor Cole to be talking directly to us. In 2015 we designed a reconnaissance level study to sample a geographic representation of some of the 1981 sample sites, testing the feasibility of replicating a full study, or some modified version of it. We had the copies of the original field notes, photographs and compass directions and by matching similar extreme low tides we believe we were spot on, or within a few feet. All of our samplings have photographs and GPS locations. We collected 100 samples including water, bottom sediment and organism tissue to be tested for a suite of 11 metals and some additional industrial pollutants. Our sampling strategy was to duplicate most of the ongoing mine sampling sites. We found our numbers were mostly close to the mine's numbers (though they test for only 5 metals). Additionally we tested some of the 1981 sites that have never been re-tested, and we took advantage of some unplanned opportunities (seal, bear, deer and additional benthic organisms).

Toward a solution – We are alarmed by our findings and feel stronger than ever that there have to be systematic changes in the processing and handling of mine wastes and monitoring procedures. It is abundantly apparent that a replication of the 1981 baseline study is the immediate next step. We recognize that the mine is a reality and an important part of the Southeast Alaskan economy and it should continue in that role.

The mine's own web site states that "Hecla's 100%-owned and operated Greens Creek mine in southeast Alaska is one of the largest and lowest-cost primary silver mines in the world, last year producing 7.8 million ounces of silver at a cash cost of \$2.89/ounce. Production in 2015 is expected to be 7.3 million ounces." The mine also lists substantial gold and lead production and reserves, all of which suggests the mine will be in production for years.

If the mine operation is polluting to the extent we believe it is currently, what will the issues be with years more of operation? The mine is faced with a substantial investment in technology and infrastructure to make this the model mine that the State of Alaska has claimed it to be. The Forest Service and the State of Alaska have a significant responsibility to meet their permitting and oversight responsibilities.

K.J. Metcalf, currently the President of Friends of Admiralty was appointed the first Forest Service Ranger on Admiralty Island National Monument when it was proclaimed by President Carter in 1978. He, and others insisted on a comprehensive baseline study of the Hawk Inlet area prior to the development of the Greens Creek mine. Now, 35 years later he is insisting it be used to quantify the effects of the mine operation.

