

5/15/2019

Kyle Moselle, Associate Director
Alaska Department of Natural Resources / Office of Project Management and Permitting
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Re: Draft Waste Management Permit No. 2019DB0001 and Application for Waste Management Permit for the Palmer Phase II Exploration Project Haines Alaska Upland Mining Lease No. 9100759 (March 2019)

Dear Mr. Moselle,

The following comments are being submitted by Alaska Clean Water Advocacy (ACWA), an Alaska-based project of the Earth Island Institute.

ACWA believes the Plan of Operations Stage 2 (POO 2) submitted by Constantine Mining LLC is wholly insufficient to warrant any action other than a suggestion for resubmittal. Until such time as the company submits an adequate analysis and plan for their proposed activities, DEC's draft solid waste permit should not be finalized. While the POO 2 identifies numerous areas of concern with respect to their intended operations vis-à-vis the protection of public lands and waters, the document is virtually silent on how the company will address such concerns.

A few examples should suffice to support this perspective:

1. The POO 2 includes the construction of wastewater discharge piping, settling ponds, utility structures, explosives storage buildings, fuel tanks, storage pads containing potentially acid-generating rock, and associated roads and infrastructure in a narrow valley regularly impacted by avalanches within a short distance (hundreds of feet) from Glacier Creek, a major tributary to the Klehini and Chilkat Rivers. Constantine's "plan" is to build avalanche berms to protect these structures. However, much of the waste rock they plan to use for avalanche berms will be unavailable for a year or more after the buildings and utility infrastructure are in place, since the infrastructure will be needed to dig the tunnel and produce the waste rock for the berms.
2. The data used by Constantine to assess the avalanche danger to their facilities was compiled from the last few winters (2014-2017) when the Chilkat Valley witnessed unusually low levels of snowfall. Just prior (2011-2013) to their chosen data set the Valley experienced some of the highest levels of snowfall ever recorded in the region (>30 feet.) If snowfall during the next few winters returns to the levels of just a few years ago, the berms as described in the POO would be grossly inadequate and their facilities, roads, etc., and the toxic contaminants they contain, could literally be pushed into Glacier Creek in a matter of seconds.
3. The plan assumes hundreds of thousands of gallons of wastewater requiring some level of treatment will flow out of the tunnel every day. Their consultant notes it is possible their flow estimate during some portions of the tunnel excavation could be off by an order of magnitude. The wastewater settling ponds are only designed to hold and process ~ two days of flow,

which means even if their flow estimates are correct, the upper and lower diffusers will need to be releasing hundreds of thousands of gallons of wastewater into groundwater every day to keep the settling ponds from being overwhelmed. Should these diffusers and/or the settling ponds become clogged with particulates (their purpose) sooner than expected incoming wastewater will have to be shunted through an “emergency spillway” without treatment into Glacier Creek. Given that the settling ponds are likely to be frozen half of the year or more and potentially covered by 10-20 feet of snow, the wastewater flow will probably need to be shunted through the “emergency spillway” for many months of the year and the operator will be unable to remedy the situation, let alone monitor the water quality status of the ponds or discharged wastewater.

4. There has been virtually no groundwater mapping to determine the fate of the wastewater discharges from the site that will be pumped underground. Constantine has no idea when that wastewater containing explosive residues, drilling lubricants, and hydrocarbons from the creation of the tunnel will reach surface waters or groundwater areas where nearby residents have drinking water wells.
5. Baseline testing to date of water samples from surrounding creeks and groundwater wells is somewhere between inadequate to non-existent. Several of the groundwater wells were only tested twice, eleven days apart in one month in the fall. We have tremendous changes in groundwater flow in the area due to glacial runoff and seasonal changes in precipitation. The sampling data to date is of negligible value in terms of planning and monitoring.

The POO 2 may describe in detail what the operator needs in terms of structures and utilities to move forward, but it is remarkably deficient regarding background information, analysis, and planning as to how the operator intends to protect public lands and resources on which virtually everyone in the Chilkat Valley depends. A 30-day comment period on a draft permit is not the time to begin addressing major omissions in the plan of operations. Typically, all significant issues are resolved before a draft permit is issued so that minor questions and concerns can be addressed before a final permit is approved. It is disconcerting that this permit application and the POO 2 have progressed to this point in the process with such glaring deficiencies.

ACWA urges the DNR, DEC, and Mental Health Trust Authority and Trust Land Office to reject the POO 2 and not finalize the draft solid waste management plan until the many significant omissions and deficiencies in these documents have been resolved.

Thank you for considering our comments.

Gershon Cohen Ph.D.

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