

Tailings Disposal Options for the Kensington Mine

Southeast Alaska Conservation Council 03-12-09

Before passage of the Clean Water Act in 1972, mining companies frequently dumped their tailings--the waste product of the chemical and physical milling process used to extract ore--in the nearest lake or river, often with catastrophic consequences for those water bodies, for fish, and for human health. During that time many industries claimed that environmental laws like the Clean Water Act would devastate the economy, but after years of strong pollution control and continued industry success, it is clear that clean water is good business.

In 1982, the Environmental Protection Agency adopted regulations specifically prohibiting the use of our waters as tailings waste dumps for all new gold mines.¹ The EPA studied the mining industry nationwide and concluded that the discharge of mine tailings into navigable waters was unnecessary because feasible alternatives existed and were already in use at most mines.



(Left: Lower Slate Lake before development of Kensington Mine.)

Coeur d'Alene Mines, the owner of the Kensington Mine, claims that the archaic practice of lake dumping of tailings is necessary. The truth is, alternatives to lake dumping exist. In fact, the Kensington Mine has readily available tailings disposal options that do not involve lake dumping and would use more environmentally sound disposal methods.

Dry Stack Tailings Option.

Instead of dumping a slurry of untreated water and tailings into a lake, like the controversial Lower Slate Lake tailings plan, dry stack tailings disposal involves separating the water from the tailings and stacking the tailings in a lined and contained area.² The processed water is then treated or recycled for milling in the mine.² The tailings facility is eventually capped and re-vegetated.²

The EPA determined that dry stack disposal of tailings at the Kensington Mine is the environmentally preferred alternative.³ This method is successfully and profitably used at the nearby Greens Creek Mine.⁴ Further, in 1997 the Kensington Mine revised all necessary permits and authorization to operate the Kensington Mine with a dry stack tailings facility,² but the mine company decided not to develop the Kensington at that time because of falling gold prices. Environmental groups never challenged the permits in court.

It is worth noting that the 1997 design for the Kensington Mine was significantly larger than what Coeur has proposed today.⁵ Coeur's attorney's claims that a dry stack would dwarf the pentagon are inconsistent with the scale of the current mine plan. For more:

www.seacc.org/dispelling-myths-around-the-kensington-mine.

Paste Tailings Option.

Paste tailings disposal is similar to dry stack disposal, but the tailings contain more water and are a toothpaste-like consistency.⁵ The tailings are spread over a lined and contained area then dry and harden, in some cases with added cement.⁵

Conservation groups, including the Southeast Alaska Conservation Council, worked with Coeur d'Alene Mines and regulatory agencies for over a year to develop a paste tailings plan. In September of 2008, just before the permitting process was complete, Coeur unexpectedly abandoned the paste tailings option to gamble with its controversial lake dumping plan in the US Supreme Court. State and federal regulatory agencies involved in the permitting of the paste plan predicted that the paste plan would have been fully permitted by December of 2008.⁶ Conservation groups still support the paste option.

Because dry stack and a paste facilities would be located on the Lynn Canal side of Lionshead Mountain, they would better protect the incredible resources of Berners Bay. Lower Slate Lake flows into Berners Bay, so a failure of the Lower Slate Lake tailings dam would result in direct pollution of Berners Bay. The proposed location for these facilities is flat and contains no major water bodies. This is important because the presence of water can cause pollution to spread and unintentionally transport or erode the tailings.

Like the existing waste rock piles and Comet Beach camp/barge landing facility, the paste or dry stack facility would be visible from Lynn Canal, but plans to stockpile and seed topsoil "visual barrier" would reduce this visual impact. Neither paste nor dry stack facilities would be visible from Berners Bay, contrary to claims by Coeur's attorney.

All options for disposing mine waste will have some impacts on the environment. There will be wetlands that need to be filled for the paste or dry stack facility. The majority of these wetlands are forested wetlands and muskeg. These types of wetlands are more common than the lake habitat found at Lower Slate Lake. A significant portion of the forested wetlands where the paste/dry stack facility would be located were logged during the early 1900s.

An additional benefit of the paste or dry stack tailings plan is that there would be ample room for expansion with little additional disturbance.⁷ This is important because past designs for the Kensington have called for the milling of significantly more ore than what is now proposed, indicating that the Kensington may expand operations beyond the planned 10 years mine life. The Lower Slate Lake plan can not accommodate this type of expansion.⁷

The Bottom Line: Environmentally preferable alternatives to lake dumping exist and are practical at the Kensington Mine.

For more information contact Rob Cadmus at 907-586-6942 or rob@seacc.org.

1- 40 C.F.R. § 440.104(b)(1)

2- USDA Forest Service. 1997 Record of Decision for Final Supplemental Environmental Impact Statement Kensington Gold Project.

3- Environmental Protection Agency to US Army Engineer District, Alaska. 2004. Comes, Marcia letter to Gallagher, Timothy.

4- USDA Forest Service. 2003. Greens Creek Tailings Disposal Final Environmental Impact Statement.

5- USDA Forest Service. 2008. Draft Environmental Assessment for Kensington Gold Project.

6- EPA, Coeur, US Forest Service, et al. 2008. Notes from August 27th Kensington E.A. Status Call.

7- Richins, Rick & Knight Piesold. 2007. Kensington Project Paste Tailing Facility Alternatives Review Meeting. October 15, 2007 in Juneau, Alaska.