

A Visit to Pebble Mine

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TU Board of Trustees

Fog was just beginning to burn off of Lake Iliamna as our Cessna 180 floatplane passed over the lake's southwestern shore, headed to a broad saddle of land near Sharp Mountain, a short distance inland from the lake's north shore. It was early September and southwestern Alaska was already showing signs of fall, with the heather below turning gorgeous shades of yellow, red, and deep purple. The land around this giant (1000 square mile) lake was dotted with lakes and ponds of varying sizes, woven together by numerous rivers and creeks. If we looked closely, we could see the bright red backs of spawning sockeye salmon far below.

Local lodge owner and pilot Brian Kraft was taking Jeff Schmitt and me on an air, water, and land-based tour of the proposed Pebble Mine site. We'd heard and read much about this vast undertaking, and today we were going to get to see it with our own eyes. As someone who'd grown up in the "Show Me" state of Missouri, it was just what I needed to get a clear, first-hand picture of the mine and its potential impacts. I was thankful that Jeff had been able to arrange our visit, and that Brian was willing to take time from his busy schedule to host it.

Jeff and I had spent the week fishing a few miles downstream from Lake Iliamna on the Kvichak River, the main outlet from the lake to Bristol Bay. We had targeted the large rainbow trout that inhabit the Lake, but drop down into the river in late summer and early fall to feed on eggs and flesh behind the spawning sockeye and chum salmon that were now in the river. Since the Kvichak hosts the largest run of sockeye in the world, it has become a mecca for commercial and sport fishers from all over the world. But the river, the lake, the sockeye, and the wonderful fishing are all threatened by the spectre of the mine.

Northern Dynasty Mines, Inc. (NDM), a British-Canadian joint venture, has proposed to mine a large metallic sulfide deposit at the headwaters of some of these streams. The mine application, filed in 2006, calls for a mine with a life span of 40 to 50 years. Their intent is to dig an open pit to retrieve deposits of gold, copper, and molybdenum now imbedded in quartz below the Alaskan tundra. In order to service that mine, they would also build a 700 foot dam, two large tailing ponds, a 104 mile long access road, a power line, a water line, and a slurry line from the mine down to Bristol Bay. According to William Hauser, an Alaska fisheries biologist who has studied the mine application, "the proposed project will leave permanent landscape features affecting some thirty square miles, including two tailing ponds that will house billions of tons of mine tailings which include toxic materials."



Texas NLC Rep Jeff Schmitt and Alaskan lodge owner and bush pilot Brian Kraft after landing on Frying Pan Lake at the proposed Pebble Mine site.

As Jeff and I prepared for our tour of the mine site, Brian gave us a quick overview of what has been proposed by NDM. "Preliminary findings suggest that this is a pretty low grade deposit," he said. "In order to retrieve the metallic ores, they will have to dig them out of the ground, then crush them into microscopic particles and mix them with water, creating a slurry about the consistency of a milkshake. The metals will then be leached from that slurry with cyanide and the waste will be stored in the tailing ponds."

Brian nosed the plane downward as we approached the north shore of Lake Iliamna and we could clearly see the schools of spawning sockeye in a stretch of Lower Talarik Creek known as "The Ditch." The Creek cut a sinuous, zigzag pattern across the landscape as it flowed through forest and tundra from its headwaters to the lake. Ahead, we saw the first signs of activity at the mine – preliminary drilling sites perched on the hills and a large, cleared pad of land, maybe 50 acres in size, that was the headquarters for the mining operation. From the air, it looked more like a junkyard or an industrial storage facility than anything else. Brian brought the plane in to land at Frying Pan Lake, a small body of water in the middle of the site.

If Pebble Mine is not in the middle of nowhere, it's certainly just a few miles from there. It's currently accessible only by air, and so a whole new infrastructure of power, water, and land access would need to be created for the mine to function effectively. For now, the primary means of transportation is by helicopter. As we toured the area, the helicopters buzzed continuously overhead, carrying baskets of supplies and equipment to the drilling sites. Elsewhere, workers were busy clear-cutting several parallel strips of land 20 feet wide and 1300 meters long, so wires could be laid to "shock the ground" and obtain readings that would tell them where the richest deposits of ore were located.

While fishing the Kvichak, Jeff and I had the opportunity to meet a young man who typified the dilemma that Alaskans face with the mine. Joshua (not his real name), moved from the lower 48 to Alaska four years ago, hoping to start a lodge or fishing operation. Now just 23, he was recently married to

a local girl and they are expecting their first child. And while Josh still dreams of running a fishing lodge and believes that “the mine has to be stopped,” he recently took a job with NDM, helping to clear timber for the shock tests.

How will all this activity affect the local flora and fauna? Well, for starters, NDM proposes to fully or partially dewater about 60 lineal miles of mainstem streams – plus the adjacent tributaries and wetlands. These streams, like Upper and Lower Talarik Creek and the headwaters of the Koktuli River, are now prime sockeye and Chinook salmon breeding grounds. Their proposed access road will affect another 12.5 square miles of land and may require as many as 120 stream crossings along its 104 mile course.

Since the water table now lies just 12 feet below the surface of the tundra it can be easily altered or contaminated by mining and infrastructure building. “Over time,” wrote Hauser, “bridges and culverts for the access road can deteriorate and interfere with juvenile or adult fish migration between important habitats, while leakage in the slurry line could smother fish food, fish eggs, and wash downstream to affect spawning and rearing habitat in Lake Iliamna.”

It is predicted that the mine could reduce the sockeye and Chinook breeding areas by 10%, so there is the potential for cumulative, multi-year losses of fish production and stream productivity. The Bristol Bay salmon fishery contributes



Portion of Upper Talarik Creek near the Pebble Mine site that is proposed for “dewatering.”

about 32% of the total value of salmon harvested each year in Alaska, the largest in the state. Sockeye salmon comprise about 90% of the Bristol Bay harvest, and about 56% of the statewide sockeye harvest. Annual impacts on the commercial and sport fisheries are estimated at \$300 million.

NDM spokesmen have repeatedly assured that the mine would cause “no net loss” of habitat for any of Alaska’s fish or other wildlife and that the plan for the mine would be completely safe and fault proof. Hauser claims, however, that “the environmental record of metallic sulfide mines, particularly where the ore body is at groundwater, as it is at the Pebble Mine site, is poor. One study of recently-permitted large mines in the US found that 85% of these sulfide-based mines polluted surface water, 93% polluted ground water, and of those that developed acid mine drainage, 89% of their original environmental documents predicted that they would produce no pollution.”

But for local Alaskans like Josh, the choice is not an easy one. The state and its citizens have prospered for years from the subsidies earned from oil and mineral leases. NDM has brought rosy predictions about the mine’s potential and its impact on the Alaskan economy. Since the proposed mine is on state land, NDM won a state referendum on the mine by promising lots of high paying jobs and a boost to the faltering economy. And NDM has made it a policy to hire local labor (like Josh) whenever possible.

For Josh and his family, the economics were overwhelming. NDM pays laborers \$30 an hour to clear timber. They also pay them for their travel time to and from the mine (by helicopter), and pay them time-and-a-half for overtime. Since Josh’s usual work week is 95 hours, and he can work up to four weeks straight without a break, he can earn over \$11,000 a month. With training and experience, he could become a driller, and the pay would be 50% higher. That’s hard to turn down in any economy, and especially so in the wilderness of Alaska, with a growing family to feed.

But as Brian Kraft was quick to remind us, “these are ‘forever decisions.’ They don’t just affect those of us who live and work and fish here now, they will affect our children and our grandchildren. Once the mine is dug, and the road and tailing pools are built, they will be with us forever. And someone will have to be monitoring and maintaining them, because their threat to the environment and the fishery will not just go away.”

So what can we do? Well, the GRTU Board, through our Coldwater Outreach Conservation Fund, has already authorized a \$3000 contribution to Trout Unlimited’s efforts to fight Pebble Mine. If you’d like to do more, go to the TU website at www.tu.org and see how you can help protect Bristol Bay and its wonderful fishery.