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**Pebble puts a plan on table**

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To borrow a phrase oft used by Pebble's detractors over the past decade, the "Sword of Damocles" finally fell over the holidays when Pebble submitted, and the U.S. Army Corps of Engineers (USACE) accepted, a full permit application.

A decade ago the idiom was employed to describe the threat a future copper and gold mine 17 miles northwest of Iliamna may pose to Bristol Bay communities and fish downstream. More recently, opponents have frequently cited the fabled 4th-century BC tool of imminent danger when discussing Pebble's reluctance to ever release details of its region-transforming mega-project. The "sword" came to represent an ongoing, costly battle to derail the mine before permits were applied for.

The USACE published the hundreds of pages of the company's plan last Friday, and for the first time area residents can see what a developed project might actually look like a decade from now. The following is a summary of information submitted by Pebble in its permit application:

"PLP is proposing to develop the Pebble copper-gold-molybdenum porphyry deposit as a surface mine in Southwest Alaska," begins the overview. The project is located "in a sparsely populated region" near Iliamna Lake and consists of four primary elements: the mine site, the Amakdedori Port, a system of roads from the port to the lake, and from the lake to the mine site, and a natural gas pipeline from the Kenai Peninsula to the mine site.

"The project is proposed to be a conventional drill, blast, truck, and shovel operation with a mining rate of up to 90 million tons per year. Approximately 1,100 million tons of mineralized rock and 100 million tons of waste rock will be mined" over the 20-year life of the project. The ore will be crushed and processed on site "to produce 600,000 tons of copper-gold concentrate and 15,000 tons of molybdenum concentrate annually," Pebble states in its application.

Tom Collier, the CEO of Pebble Limited Partnership, said the project is now half the size that was planned earlier and is contained within the North Fork Koktuli drainage only (a tributary of the Nushagak River), avoiding Upper Talarik Creek (a tributary of the Kvichak River). The tailings storage facility will be built with enhanced safeguards, the potential acid generating tailings will be stored separately in a fully-lined facility, there will be no permanent rock piles, and no cyanide used to recover final trace amounts of gold.

By the time production has peaked, after 14 years according to the permit, the open pit will be roughly 22 football fields long by 18 football fields wide and nearly 1800 feet deep. Operations will be powered by a 230 megawatt power plant fed by natural gas piped in 188 miles from the Kenai Peninsula. After being processed on site, the copper, gold, and other mineral concentrates will be loaded into closed containers, trucked to Iliamna Lake, barged across in a custom ice-breaking ferry, then trucked from near Kokhanok to a Cook Inlet port at Amekdodori. From there, the concentrate will be dumped into bulk carriers called Handysize vessels for transport Outside. The company estimates 2,000 workers will be employed during a four-year construction phase, and 850 through the 20-year life of the project.

The application lists 63 initial permits that will be required, perhaps none so controversial as the ability to discharge dredge and fill material into waters of the United States. Covered under Section 404 of the Clean Water Act, the Environmental Protection Agency and U.S. Army Corps of Engineers will evaluate whether Pebble can achieve this safely. Under the Obama administration, the EPA moved to preemptively prevent this permitting step, claiming the project could never coexist with the world's largest sockeye salmon fishery downstream. Pebble's application spends 12 pages discussing its "comprehensive water management" strategy, saying surplus water will be treated before it's released in amounts that are "balanced" with the surrounding environment.

The proposed 75 miles of new roads will be built on 65 percent State of Alaska land and 35 percent Alaska Peninsula Corporation land, with the short spurs connecting to the airports in Kokhanok and Iliamna that includes three miles on Iliamna Natives Limited land. The transportation corridor appears to carefully avoid Bureau of Land Management lands, a state game refuge, and Native Allotments.

According to PLP, the mine will begin paring down operations after 14 years. During the final six years, that will be covered under the permit, low-grade ore that has been stockpiled will be milled and the project prepared for closure and reclamation. Equipment will be dismantled and removed, concrete pads and foundations dismantled, and the ground graded and replanted to look natural. Roads will be closed, the ferry and port dismantled, and if no longer needed, the pipeline will be closed down and abandoned in place.

A tailings facility will remain, covered in rocky, sandy material and kept dry. The massive open pit, backfilled with the waste rock, will turn into a large acid lake. It "will continue to fill for a period of several decades post-closure. Surface runoff from the walls will result in leaching of accumulated metals from the walls. Water quality is expected to be acidic with elevated metals due to the overall oxidation of the pit walls," the application states. The water level will be kept to about 890 feet deep, which is at least 50 feet below the "elevation at which groundwater flow would be directed outward from the open pit," with the excess water pumped to treatment stations and released into the environment. No details are provided about whether the lake will ever not be toxic, or how wildlife such as migratory birds will be protected.

A financial bond will be required to guarantee the mine's safe and successful closure, but the amount has not been determined.

The National Environmental Policy Act permitting process is expected to take four to five years. Following any further litigation, the company would then start a four-year construction process, then 20 years mining the deposit. The closure and reclamation plan will be updated every "five years to address any changes", and allow the company to make use of the ensuing decades' worth of developments to design a safer exit.

Northern Dynasty Minerals stock ticked up a few cents with the news, but has settled around $1.75 per share. That is down from a month prior, and down considerably from a peak of $3.36 a month after Donald Trump took office. NAK shares were worth more than $21 in 2011, then crashed down to 20 to 30 cents from 2014-16 as the EPA attempted to kill the project.

Paul Lebo, a Northern Dynasty investor who blogs about Pebble at SeekingAlpha.com, believes NAK shares will soon hit $7 to $8 per share, given the "increased process rate and the $1.5 billion framework agreement" reached with First Quantum Minerals, now the other half of the Pebble Limited Partnership.

Pebble's opponents, however, have not been mollified in the least by the smaller, "near-surface" mine design. The United Tribes of Bristol Bay slammed the plan, suggesting it has already differed from preliminary details released in the fall, and will only open the door for follow on mining at the end of the 20-year permit.

"The science on such a project is already available, and already clear: This mine will devastate the Bristol Bay fishery. Bristol Bay residents will continue to fight this project and protect the water that has sustained our way of life since time immemorial," said UTBB President Robert Heyano.

A press release from the Bristol Bay Native Corporation softened earlier statements against the Stand for Salmon initiative and House Bill 199, but not on Pebble.

"BBNC continues to oppose the development of the proposed Pebble mine at the headwaters of the Nushagak and Kvichak river systems. Despite the fact that the Pebble Limited Partnership (PLP) has now proposed a smaller mine footprint, our Directors and shareholders still believe it is the wrong mine in the wrong place," reads the statement.

The debate is being pushed to the state level, as there are more than 30 permits that will be required out of the executive branch agencies. At the start of this election year, Dan Dunaway, a retired state sport fish biologist from Dillingham, recently called on Governor Bill Walker to block the project or prepare for a backlash from rural voters who backed him in 2014.

"Pebble's claims sit on state lands. The governor and his natural resource agencies are in charge of that land base. The vast majority of Alaskans are against turning those lands into an open-pit gold and copper mine. As the state's executive, Gov. Walker has the right to determine that those lands are managed as the public wishes," he wrote in a Friday op-ed for the Anchorage Daily News.