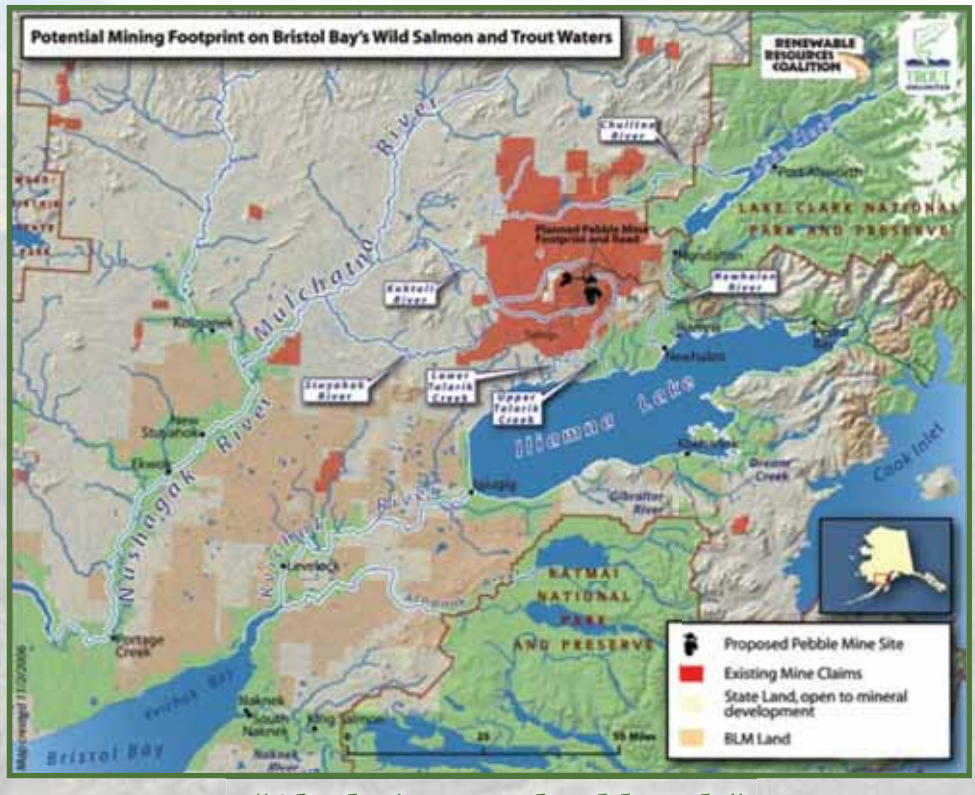
Photo Credit (Background): Ryan Peterson

BY MATT SUUCK



"Alaska's second gold rush"

THE Heart OF THE MATTER

In the southwest corner of Alaska, in the largest salmon spawning grounds in North America, there is a perfect storm of a potential environmental disaster brewing. Where native peoples, sport fishing and hunting guides, and commercial fishermen have been pursuing their livelihoods in a pristinely wild environment, outside interests are proposing constructing a mine so huge in proportion that it will forever change, not only the lives of the people inhabiting the region, but an entire ecosystem.

Known as the "Pebble Mine" in common vernacular, the Pebble Limited Partnership is a joint mining project of British based Anglo American and the Canadian corporation, Northern Dynasty Minerals. This project of global interest includes shareholders from countries such as Australia, Canada, Japan, and the UK. In 1988, Cominco Alaska Exploration began exploring an ore deposit, about 200 miles southwest of Anchorage. Located in the Bristol Bay region near Lake Iliamna and Lake Clark National Park, this deposit was soon estimated to be the second largest ore deposit in the world, only slightly smaller than Indonesia's Grasberg Mine. The Pebble Mine is being proclaimed as "Alaska's second gold rush."

So what riches does the Pebble Mine hold? According to the Pebble Partnership, the deposit, which is split up between Pebble West and Pebble East, totals 9.1 billion tons, containing 72 billion pounds of copper, 94 million ounces of gold, and 4.8 billion pounds of molybdenum. Over its life (40-80 years), the mine should produce revenue of about $300 billion, with more than half of the value coming from copper. To put it into perspective, the Pebble Mine will be at least twice the size and produce three times the value of the Bingham Canyon Mine near Salt Lake City, Utah, which to date is the wealthiest operating mine in the United States. Beyond the pure resource gain, the Pebble Partnership estimates creating around 1,000 high-wage jobs for the next 50-80 years. Such numbers are staggering and can quickly blind any individual. However, due to the low grade of the ore, only a mining project on a large industrial scale makes extraction feasible. The Pebble West deposit would be mined as a low-cost open pit, approximately two miles wide and several thousand feet deep. The Pebble East deposit, on the other hand, would need to be mined subsurface.

Though currently still considered an exploration project, permit applications are slated to be filed with state and federal agencies in 2010. According to the Northern Dynasty Minerals' timeline, production would be scheduled to begin in 2016. To be able to run the mine effectively, the Pebble

"Our duty to the whole, including the unborn generations, bids us restrain an unprincipled present-day minority from wasting the heritage of these unborn generations. The movement for the conservation of wild life and the larger movement for the conservation of all our natural resources are essentially democratic in spirit, purpose, and method."

– Theodore Roosevelt

Photo Credit: Scott Hed

Photo Credit: Erin McKittrik

Photo Credit: Terry Gunn

Partnership is planning to construct a port at Iniskin Bay in Cook Inlet, power lines and a 100 mile road and pipeline through currently undisturbed wilderness to supply the mine with fuel, electricity, and transport away ore slurries. The Pebble Mine will also require the construction of two large tailings dams at the headwaters of the Koktuli River. One of these earthen dams would be over four miles long and 740 feet high, with the smaller dam being nearly three miles long and 700 feet high; both of which would be larger than Hoover Dam.

The problem with the Pebble Mine is that it is a classic real estate case of "location, location, location;" it is the wrong mine in the wrong place. The deposit lies at the headwaters of Upper Talarik Creek and the Koktuli River. Upper Talarik Creek flows into Lake Iliamna, which drains into Bristol Bay via the Kvichak River. The Koktuli River waters reach Bristol Bay by way of the Mulchatna and Nushagak rivers. Bristol Bay is home to some of the largest salmon runs in the world, with all five Pacific species (Chinook, Chum, Coho, Pink, and Sockeye) spawning in the bay's freshwater tributaries.

Salmon are the life source of the Bristol Bay ecosystem. All wildlife in the region is dependent upon the successful annually spawning runs. Bears seek out the spawning fish as a vital food source, and dead salmon act as the fertilizer needed to grow the vegetation required by both moose and caribou. Bristol Bay also contributes 29% of the annual commercial salmon harvest in Alaska and has a statewide impact on jobs and the economy (75% of all jobs in the Bristol Bay region are based on salmon fishing). But there is also a large group native to this region that depends on healthy salmon populations for subsistence, as much as the great brown bears do. In fact, due to the threat that the Pebble Mine poses to their way of life, the Bristol Bay Native Corporation issued a statement opposing the project. The short-term economic gains did not outweigh the long-term impact on, not only an ecosystem, but on an age-old culture and way of life.

The rivers flowing into Bristol Bay are also world renowned for trophy rainbow trout and salmon fishing. Sport anglers spend thousands of dollars a week to enjoy these pristine waters. The Alaska Department of Fish and Game estimates that sport fishing generates over $989 million dollars annually in south-central Alaska, with the Bristol Bay region being a huge part of that equation, with an estimated 65,000 sport anglers visiting the region each year.

Though I am sure that many of you enjoy fishing, big game

species such as moose, caribou, and brown bear are also affected by the proposed mine. Thousands of caribou belonging to the Mulchatna herd stage in the proposed mining area after calving. Hunting guides and outfitters, whose livelihoods are under constant threat in today's world anyway, can ill afford to have such a large disruption to the native big game species. Even though the Pebble Partnership states that its employees will not be allowed to hunt or fish, the lack of access and the disruption of migration patterns will effectively shut this region down to hunting.

When foreign corporations more interested in quarterly earnings than an environment that they have no nationally vested interest in, are allowed to come to the United States and adversely affect our wildlife, natural resources, and way of life, then there is nothing to stop them from doing it in crucial sheep habitat.

Beyond the simple destruction of the landscape and disruption of wildlife migration routes, the chief concern is that the mine poses a severe environmental risk due to its toxic tailings, required for the mining project. In order to separate the metals from the rock, the ore is pulverized and mixed with water and chemicals. This water-chemical waste is referred to as tailings and is stored in specially constructed dams for perpetuity. Though the mine might only operate for up to 80 years, the toxic waste will remain forever. Tailings for a mine such as Pebble will most likely contain traces of arsenic, mercury, cyanide, diesel, and oil. The deposit could, when coming in contact with air and water, produce sulfuric acid. Any leakage downstream from these dams will irreparably harm the crucial salmon population. In fact, as little as 2-8 parts per billion increases of copper in the water damage salmon's senses, thus making them extremely vulnerable to predation and hinder their abilities to spawn. As an example, the much smaller Bingham Canyon Mine (a similar copper, gold, and molybdenum mine) contaminated 60 square miles of groundwater near Salt Lake City. The mine, operated by Kennecott Utah Copper Corporation (a subsidiary of internationally owned Rio Tinto) treats an estimated 2.7 billion gallons of polluted water each year.

Mines require a large amount of water for their ore extraction processes, and the Pebble Mine is no exception. The estimated water consumption each year would be near 35 billion gallons; more than the entire city of Anchorage. This form of water depletion has led to lakes and waterways drying up in other parts of the world, vital to wildlife and livestock.

Though the Pebble Partnership downplays the threat posed by seismic activity, fact is that Alaska is one of the most geologically active regions in the world. Magnitude 6 and 7 earthquakes occur about five times each year, with a magnitude 8 quake occurring every 13 years. Since tailings and waste are stored for eternity, it is only a matter of time before a severe quake (like America's largest earthquake in 1964 in Prince William Sound) could damage the earthen dams significantly enough that leakage might occur. To complicate matters further, the exact locations of faults in the mine region are unknown. The USGS estimates that the Lake Clark fault is located within five miles of the proposed mine site. Simply put, the potential disaster is absolutely calculable.

Sadly, according to the Pebble Partnership itself, all impacts are currently unknown. Despite having reportedly invested millions of dollars in research, they have, to date, no true understanding for what devastation the mine might cause, how to prevent chemical leaks, or what long-term affects the mine might have on fish and big game populations. To ask the public and the local inhabitants to simply trust that it will be alright is rather naïve.

The problem organizations such as Sportsman's Alliance for Alaska, Trout Unlimited, Dallas Safari Club, Wildlife Forever, The Isaac Walton League, as well as members of the Alaska Professional Hunters Association have in opposing the Pebble Mine is that it is located on state land, and politicians in a natural resource friendly government with personal interests at stake, have never opposed such projects. However, all is not lost. The Pebble Mine is dependent on EPA permits for the construction of mine infrastructure. Should these permits not be granted, then the entire project is in jeopardy. Also, downstream of the mine site, there are nearly 1 million acres of federal public land. Should protection be extended to this vital habitat, then no permits should be issued by the

Photo Credit: Erin McKittrik

Above and below: The proposed mine site.

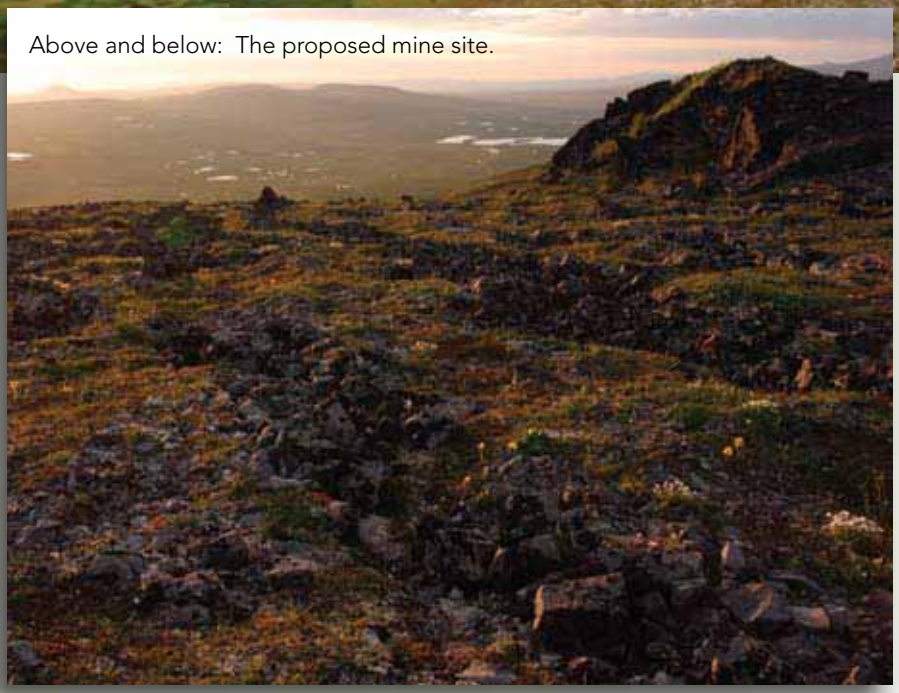


Photo Credit: Erin McKittrik

federal government. Those with a personal interest in protecting the Bristol Bay region should also voice their opposition during the stakeholder engagement process of the Environmental Impact Statement. Initiatives such as the Valle Vidal Protection Act (New Mexico) and Wyoming Range Legacy Act (Wyoming) have proven that sportsmen and –women from diverse backgrounds can join together to protect vital wildlife habitat and traditional ways of life in the face of ill conceived natural resource development projects.

So what does the Pebble Mine have to do with wild sheep? Both nothing and everything, is the answer. Though the impact on the Dall's sheep herd in Lake Clark National Park is unknown, it is the precedence that this mine will set, should it be allowed to move forward that poses a real threat to wild sheep. When foreign corporations more interested in quarterly earnings than an environment that they have no nationally vested interest in, are allowed to come to the United States and adversely affect our wildlife, natural resources, and way of life, then there is nothing to stop them from doing it in crucial sheep habitat. What might be your reaction when a project the size of Pebble Mine would be proposed in the Chugach or Wrangell Mountains? Though the impacts of open pit mining to habitat are self evident, the use of aircraft and construction of roads have been proven to adversely affect wild sheep populations (NPS study in 1994 and USAF study in 1993). For sensitive wildlife populations the equation is simple: construction equals destruction.

There is no doubt; America is in need of energy and mineral development. If the goal is to become energy independent once again, then we must develop those resources found within our own borders, by our own companies. Some companies, such as Millrock Resources, have a much more modern and realistic approach to mining. They strongly believe in the concept of sustainable development. They are the only company I could find that factors social and environmental impacts into the bottom line. Unlike the more heavy handed approach used by the Pebble Partnership, Millrock Resources believes in a proactive approach and open lines of communication with local communities to gauge concerns for any exploration project. Working together and being actively involved in the proposal process are key in developing a smart approach to well regulated natural resource development.

Do not misunderstand; conservation is not at odds with natural resource development. In fact, the founding principle of "wise use," as it was set out by men such as Theodore Roosevelt, Aldo Leopold, and George Bird Grinnell, stated that properly regulated use of our natural resources is vital to our prosperity as a democratic nation. However, natural resource extraction cannot take place in all circumstances and at all costs. Once the Pebble Mine and others like it begin, they can never be stopped. What is once lost can never be regained. Conservation of all natural resources, including wildlife, is at the heart of organizations like the Wild Sheep Foundation, and for hunter conservationists such as us the Pebble Mine is too important to ignore. *WS*