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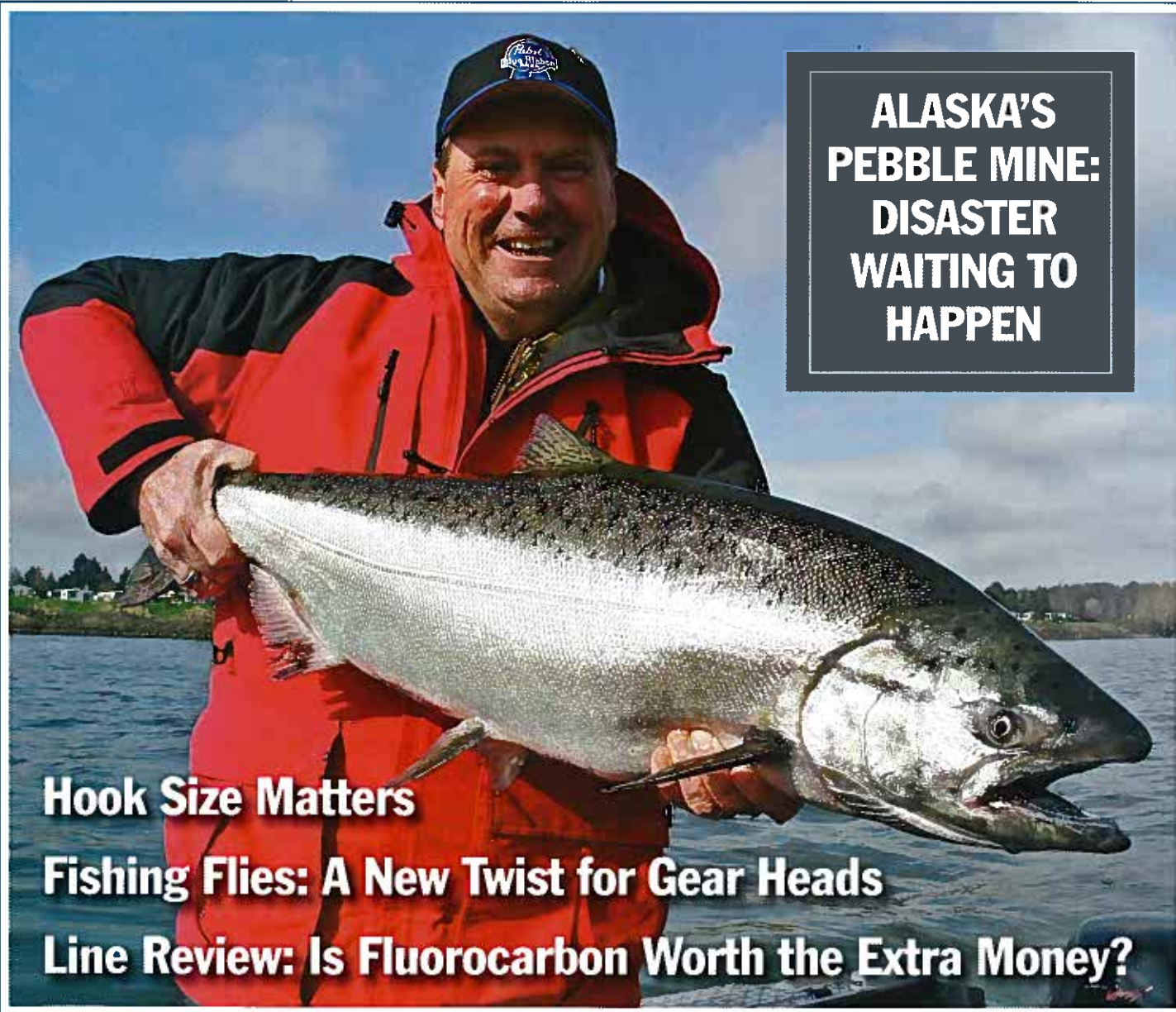
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## FOOL'S GOLD

Alaska's Pebble Mine Threatens Bristol Bay Region – One of America's Last Great Fisheries. By DAVE ATCHESON

**R**ounding the top of a small knoll, an expanse of tundra and a maze of pothole lakes emerges and stretches into a seemingly boundless pastel of greens and blues. Through this mesh of dense vegetation and interconnected waterways flows a small stream, a vein that ties this vital source of life to its larger arteries before eventually giving birth to the Nushagak River and feeding Bristol Bay.

Even from our far off vantage point this distant stream runs red, not from some run-

off or waste, but red from the natural living wonder that epitomizes this region of Alaska—its wild salmon.

"And that's just what it is," marvels Richard Jameson. "It's a natural wonder, as much of a wonder as the Grand Canyon or the Redwoods, and we can't let anything happen to it."

Tim Bristol, the Alaska Director of Trout Unlimited, is in complete agreement. "With the exception of perhaps the Russian Far East there's simply no place that possesses these riches," he says.

Its vastness and ethereal

beauty, its sheer wildness, make it difficult to imagine this region as anything else, especially an industrial zone. Yet that's just what might happen here. This national treasure, one of our last, great remaining strongholds for wild salmon and trout, is the proposed site for Pebble Mine, and ground zero in one of the most contentious battles over resources—and our hunting and fishing heritage—that Alaska has ever seen. Unfortunately, with a war in Iraq, a presidential election, an economic crisis, among other things, taking place in the Lower

48, it has gone virtually unnoticed by a large segment of the American public.

"Hopefully that will change," says Jameson, a retired lawyer who has hunted and fished this area for the last 25 years, and who has made it his mission to get the word out. "Everyone has heard about the Arctic National Wildlife Refuge. But that would pale in comparison to what we risk here."

Anyone who has been fortunate enough to wet a line in this part of Alaska knows what he is talking about. The fishing

The proposed Pebble Mine will have catastrophic effects on the wildlife and the salmon and trout populations.



DAVE SCHAMP PHOTO

PAT HOGGLUND PHOTO

eye salmon in the world, with an estimated 42 million fish having entered in a single season. On any of these rivers, or their tributaries farther north, simply dabbing an egg pattern amongst this onslaught of spawning salmon is enough to entice trophy trout that often range between 20 and 30 inches. But all that is on the brink of changing. Forever.

### **Jobs, the Economy, and Pebble**

Unfortunately, along with a thriving fishery and an amazing array of wildlife and waterfowl, this area is also rich in ore. According to Northern Dynasty Mines, the Canadian company spearheading the Pebble Project as it's now called, it is estimated there is more than \$350 billion dollars worth of copper, gold and molybdenum in the area.

Northern Dynasty, which does not actually own any mining equipment, bought the claims and then attracted min-

ing giants Anglo American and Rio Tinto. Anglo, now a 50 percent shareholder in the Pebble Project would do the actual mining.

Despite its name Anglo American is not American. The company began in South Africa and is currently based in London. Forty-nine percent shareholders in DeBeers Diamonds, it has done most of its work in Third World countries. It is currently busy in Alaska trying to convince citizens that the Pebble Mine project is in the state's best interest. To do so, the Pebble Partnership has hired ex-commissioner of the Department of Natural Resources, John Shively, as CEO, and Ken Taylor, ex-Deputy Commissioner of the Alaska Department of Fish and Game as a vice president. Collectively they have set out on a multi-million dollar media blitz.

In an area where the economy has been hard hit and jobs outside the fishing industry are virtually nonexistent, the Peb-

ble Partnership's message is resonating with some. Many in the Native community sold their commercial fishing permits years ago when fish prices were down. As one elder has said, the lure of the 1,000 jobs Pebble is promising has divided many local communities as well as the general public.

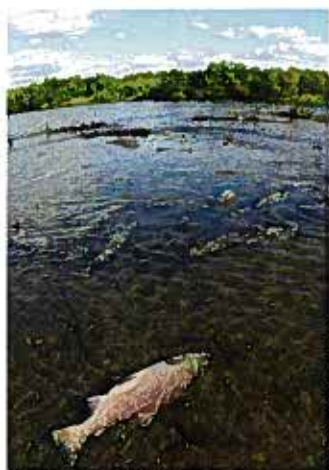
### **The Slow Release of Information**

The Pebble Mine, which very likely will be the largest in North America, may be only the beginning. Several other large companies have claims in the area, which spans nearly 1,000 square miles, encompassing some of the most important spawning habitat in the world, and they are simply waiting to see how the process proceeds with Pebble before moving in.

As many mining companies do, the Pebble Partnership has been guarded in the release of its scientific data. Critics point out that many companies have a

is legendary. There are countless miles of unexplored rivers that teem with salmon and trout. Those rivers that have been discovered offer world famous salmon and trout fishing, making this area one of the most sought after places to fish in the world. The Bristol Bay Region covers approximately 40,000 square miles — slightly larger than the state of Ohio. One of the river systems that will be affected if the Pebble Mine is allowed to proceed is the mighty Nushagak, renowned for the arm-wrenching excitement of its chinook, where during the peak of the season anglers regularly wear themselves out releasing 30, sometimes 40 of these native giants a day. Also within the mine's reach would be the Kvichak River system, which boasts the largest run of sock-

Trout and salmon populations in the Bristol Bay Region will be the first to feel the effects of an open pit mind in the Bristol Bay Region.



PAT HOSLUND PHOTO

history of waiting until the very last minute in the permitting cycle and inundating understaffed government agencies with an excess of information. It's a common ploy designed to stymie the process and leave only a small window when it comes time for public comment.

What has been released so far is a plan to utilize both open pit and large-scale "block-cave" mining. Each produce a lot of waste and, according to plans submitted in 2006, a pit nearly two miles long and a mile and a half wide would be required. The 2.5 billion tons of waste rock, some toxic, would need to be stored underwater in holding lakes created by damming these streams. The plan called for damming the Koktuli River, a

salmon-bearing stream and tributary of the Mulchatna River, which flows into the Nushagak. There would be several earthen dams, the largest measuring 4.3 miles long and 720 feet high, larger than the Hoover Dam and taller than Seattle's Space Needle.

Accompanying this massive upheaval of habitat, waste storage and the mining process would require water usage estimated at nearly 70 million gallons per day, extracted from nearby streams. In addition, estimates of the electricity required keep rising, the latest figure between 500 and 600 megawatts annually, the same amount required to supply Anchorage, a city of 260,000. A deep-water port in Cook Inlet and a 104-mile road to the mine site, crossing as many as 120 streams, including the Newhalen River, would also be built. Along this service road would run a pair of slurry lines, one designed to send the par-

tially milled ore to ships and one the leftover slurry back to be stored in perpetuity on site. Company officials promise that all of this can be accomplished while maintaining a thriving fishery and protecting wildlife.

### Hard Rock Mining's Recent History

"If the recent history of hard rock mining is any indication of what we have in store, we are in trouble," says Anders Gustafson, a longtime Bristol Bay guide, who now works full time to protect the region. "And I'm not anti-mining, not by any means. This is simply the wrong place. All you have to do is look at any place where mining and fish overlap."

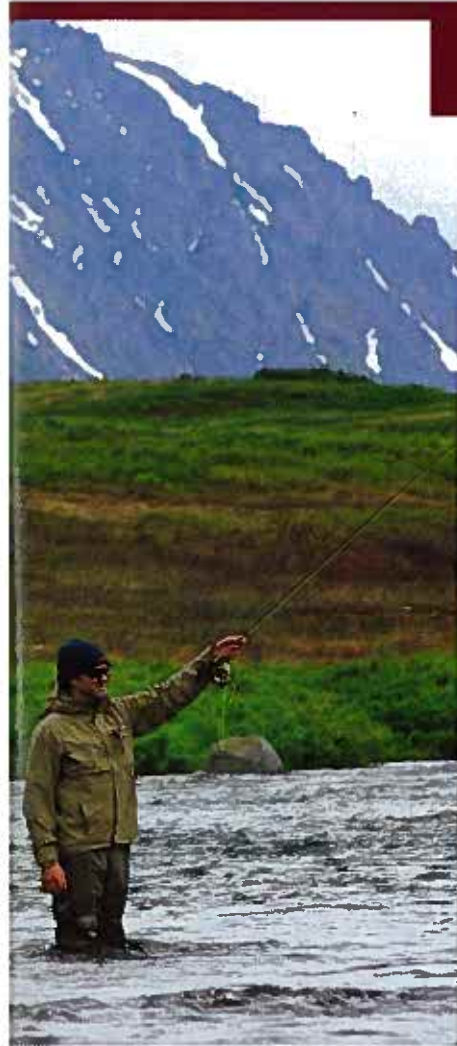
And you don't have to look far. According to the Environmental Protection Agency, hard rock mining is the top polluter in the country. Horror stories like the Summitville Mine in Colorado, which left 17 miles of the Alamosa River

sterile; or the Berkeley Pit in Montana, where a flock of birds actually died after landing in their holding pond. In fact, there are 63 hard rock mines listed as Superfund Sites that have cost taxpayers \$2.6 billion dollars in cleanup costs, and another 93 sites that would qualify if the Superfund was indeed super and had enough funds.

Recent studies show that while mining interests always predict 100 percent compliance with clean water standards they are wrong 76 percent of the time, and that bonds posted for cleanup costs are woefully underestimated, only covering between 20 and 80 percent of expenses, and contributing nothing in remediation for lost fishing income.

In a recent column in the Anchorage Daily News, Dr. Glenn Miller, a professor of Natural Resources at the University Nevada Reno, made the alarming statement that he believes





BRIAN O'KEEFE PHOTO

the threats posed by Pebble looms larger than any mine developed in the last 30 years in the United States. Miller, who as a scientist has studied mining for more than 25 years, goes on to cite statistics from Jarritt Canyon Mine in Northern Nevada, which spewed large amounts of mercury into the air and whose tailings pond leaked from its inception and contaminated ground water with mercury and arsenic for years. A subsidiary of Anglo American was for years one of the primary owners in the Jarritt Canyon Mine.

"Anglo American's environmental and human rights track record is not encouraging," says Gustafson referring to the company's two dam failures in 2005. One took place in Ghana and it flooded a school and a nearby neighborhood with toxic waste. Gustafson also points out the company has a shaky track record with its employees. The company has incurred over 40 worker deaths a year between 2002 and 2007. Says Gustafson, "If they can't even keep their workers alive what kind of job do we expect them to do with our salmon?"

### The Science

One of many problems with the Pebble site is how seismically active it is. It is located within the Ring of Fire and it's surrounded

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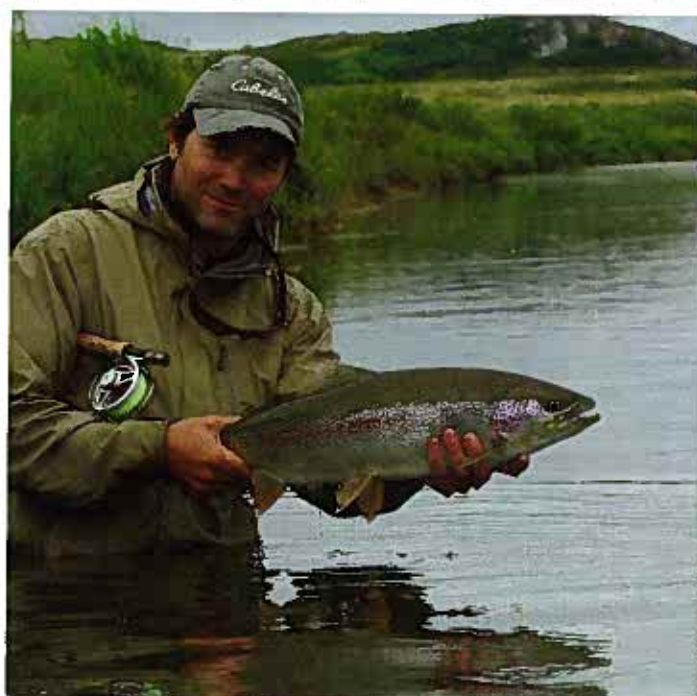
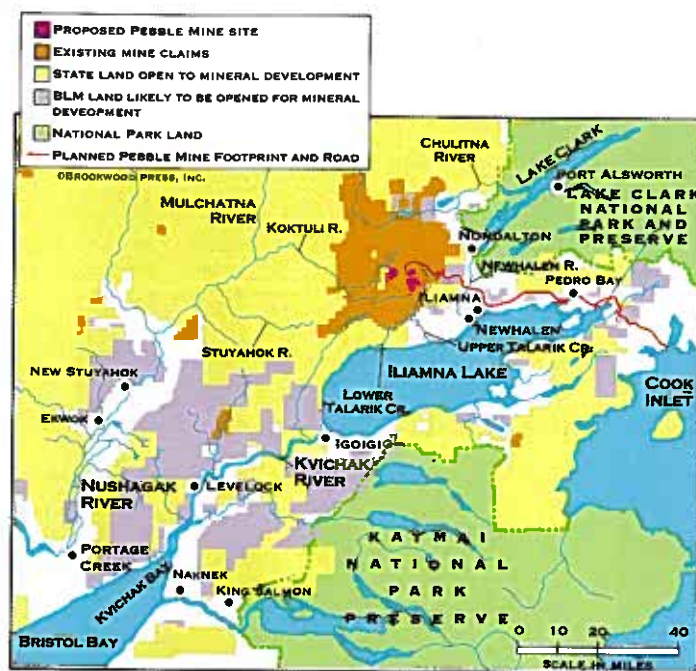
The Bristol Bay Region supports the world's healthiest trout and salmon population including a 42 million sockeye run in the Kvichak River. Its trout fishing (below) is legendary with fishermen throughout the world.

by volcanoes making it prone to earthquakes. There is a great deal of debate about just how close to the site major fault lines run, and many worry that in the event of a large disturbance, the integrity of earthen dams could be jeopardized, resulting in a catastrophic spill. Northern Dynasty's early plan called for dams that could withstand an earthquake of 7.8 on the Richter scale.

Alaska experiences magnitude 6 and 7 earthquakes at least 5 times a year, and a magnitude 8 about every 13 years. The Good Friday quake that rocked Alaska in 1964 measured over 9.

The volcanoes in the area also continue to be active. Mount Augustine erupted in 1986 and in 2006 blew ash 30,000 feet into the air. As of this writing Mount Redoubt is blowing steam daily and according to scientists with the Alaska Volcano Observatory an eruption is imminent.

Of much more concern, and much more likely than a catastrophic breach of the dam, is the slow leaching of toxins. The same volcanoes that long ago shaped this land also de-



BRIAN O'KEEFE PHOTO

posited minerals that formed sulfide rock. Scientists explain that sulfide rock, deep under ground and surrounded by earth, weathers slowly and poses no threat to the environment. When it's extracted in the mining process, however,

and exposed to air and water, it becomes sulfuric acid, a deadly toxin that must be stored along with other byproducts in tailing lakes forever. Not only does the acid pollute in the form of acid mine drainage, it frees heavy metals like lead and mercury,

which even at low levels are a threat to the health of people and fish. Not all mines are sulfide mines, and what is most alarming is there has never been one, in the entire history of mining, that has *not* contaminated the ground and surface water around it.

Another significant problem is that, along with gold, this is a copper mine, and recent studies show that even trace amounts of copper can severely affect a fish's olfactory senses. Salmon, of course, use their keen sense of smell to find their natal streams, to feed, even in the mating process.

Add to all these factors the unique hydrology of the area. "This is one of the wettest places

BRIAN O'KEEFE PHOTO



I've ever seen," says Gustafson. "The tundra is like a sponge." The area receives nearly 40 inches of rain a year and hydrologists report the groundwater in many places is only 30 feet below the surface. They say predicting how it will flow is like predicting the weather. It's nearly impossible. And how it will mix with discharge or water from the tailings reservoir is anyone's guess.

### The Process

Many in state government, including Alaska's governor, urge people to trust the permitting process; they maintain it is rigorous and it will protect our fisheries. Gov. Sarah Palin, despite her family having fished commercially in Bristol Bay,

has time and again come down firmly on the side of mining interests. She has resisted retracting a highly controversial move by her predecessor allowing "mixing zones," the discharge of toxins into salmon streams as long as they dissipate to allowable levels downstream. In August of 2008, only days before the vote on a ballot initiative that would have protected salmon streams from toxic discharges by large-scale mines, she came out publicly against the initiative and was featured in ads funded by the industry. It was the largest expenditure ever on a ballot initiative in Alaska, with the mining interests spending a reported \$10 million dollars to defeat

Proposition 4. Coincidentally, the Washington Post newspaper reported that mining interests contributed heavily to Palin since she was elected governor and among those reported to have contributed to Palin's campaign some have ties to Northern Dynasty.

One of the major flaws in this "rigorous" permitting process that the governor and the Pebble Partnership continually tout, is that the state relies on the mining companies to provide virtually all of the preliminary studies and environmental data required in the process. This information is then submitted to the Department of Natural Resources, whose commissioner is a 20-

year veteran of the mining industry and was actually involved in the engineering of the dam at Alaska's Fort Knox gold mine. It is a classic case of the fox guarding the hen house and as supporters of the Pebble Project continually point out, Alaska has never said no to a large-scale mining permit.

### Banding Together

This renewable resource, along with supporting a tremendous sport fishing industry—a study just released showed sport fishing brought \$1.4 billion into the state last year—also supports a thriving commercial fishery. It was reported that 2007 was the fourth largest Bristol Bay commercial harvest ever, and that

Jim Teeny, right, and Scott Heemstra from Katmai Lodge take a moment to admire a 40-plus pound king caught by Teeny in the Alagnak River, one of the watersheds in the Bristol Bay Region.



DONNA TEENY PHOTO

the commercial industry infuses approximately \$350 million into the local economy each season, supporting over 5,000 full-time jobs. The sport fishing industry brings into the region \$60 million in direct expenditures a year, and there is, and has been for thousands of years, a thriving subsistence culture as well. It is estimated that Bristol Bay residents harvest over 2.4 million pounds of salmon per year to fill their freezers and smokehouses.

In an effort to band these groups together, and in the hope of protecting the area, Jameson began The Renewable Resources Coalition. "It started as a loose affiliation, something we thought would last about a year, just long enough to kill the crazy notion of an enormous mine at the headwaters of our most prolific fishery. We thought we'd just have to explain the issue and that would be it. But five years later, here we are."

Now the Alaska affiliate of the National Wildlife Federation, and a bona fide conservation organization with five full-time employees, the RRC leads the fight to save Bristol Bay.

"It's been a long road," says Jameson. "We've always had squabbles amongst ourselves, but now sport, commercial, and subsistence fishermen are finally banding together. Let's just hope it's not too late." As he and his colleagues like to say, "we can argue about allocation later, first we have to make sure we have something to argue over. Let's save the fish."

### **Joining the Band: What You Can Do**

Located on state land, this has been until recently an in-state battle, waged mainly by Alaskans. Recently, however, the Bureau of Land Management has re-designated nearly 2 million acres of federal land along the lower portions of these streams for mineral exploration. Part of the problem may be that for many, Alaska seems so big, as the Columbia basin once did, and its resources infinite. Yet, as reported in the Winter issue of *Salmon & Steelhead Journal*,

the Columbia itself once boasted salmon runs upwards of 16 million. In 2008 a paltry 868,000 salmon returned to the Columbia River basin illustrating one of the largest salmon crashes known to man. Even though circumstances are different the results could be the same in the Bristol Bay region if the Pebble Mine were to gain approval. To keep the Bristol Bay region pristine thousands of fishermen, both sport and commercial, are banding together. And they're asking for your help.

First, remind everyone you know that this issue is pressing. Remind them that one of the last bastions of wild salmon left on Earth is in jeopardy.

Write to the governor of Alaska. Tell her you're a fisherman, likely to spend money in Alaska, and explain how important this resource is and how the rest of the country feels about preserving it. Report what has occurred elsewhere and remind her not to repeat

those mistakes. It has been said that those in Alaska can be the first ones to do it right, or the last ones to do it wrong. This resource belongs to all of us, including our children.

Write to your federal legislators and urge them to help reverse the BLM designation.

Urge your congressional delegation to push Clean Water Act reform, so that mining companies cannot dam lakes and streams, pump tailings into them, and call it waste water treatment.

Finally, become more involved. For more information and to join other outdoorsmen go to the Renewable Resources Coalition's website [[www.renewableresourcescoalition.org](http://www.renewableresourcescoalition.org)]. This is one of most influential conservation groups that is fighting the Pebble Mine. Better yet, pick up the phone and call them (907-743-1900). It very well could be the first step you take in preserving one of the U.S.'s greatest salmon and trout resources. □