



October 8, 2010

**DELIVERED BY EMAIL**

Peter S. Adler, Ph.D.  
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The Keystone Center  
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Re: Pebble Mine

Dear Peter:

As a former board member of The Keystone Center (“Keystone”), I read with interest the recent email sent by Dr. Todd Bryan about the dialogue process that Keystone has undertaken around the proposed Pebble Mine project in southwest Alaska. That email, written in response to an advertisement in the Anchorage Daily News, described generally Keystone’s approach and, in particular, its efforts on Pebble.

NRDC has a long history with The Keystone Center. We respect its work and its staff, and, as you know, we have supported it for many years (and continue to support it) as a member of its board of trustees. Because Keystone’s involvement with the Pebble Mine is itself proving controversial, I write to explain our views on the project and the reasons we oppose it.

Specifically with regard to Keystone, we question the utility of the dialogue process here given Pebble’s unsuitable location, the project’s unavoidable risks, and the region’s significant opposition to it. Since the process has already begun, however, we recommend that its end-goal not be development of a “realistic mining scenario,” but protection of the Bristol Bay watershed and the wild salmon fishery on which the region has relied for centuries.

I. PEBBLE MINE

NRDC and its members support the local fishermen, native communities, and the overwhelming majority of the region’s residents in opposing the Pebble Mine, because the inevitable risks posed by a large-scale hard rock mine in the Bristol Bay watershed are unacceptable.

First, and most fundamentally, we believe the proposed location is irreconcilable with large-scale metallic sulfide mining. It’s simply the wrong place. The Bristol Bay watershed feeds one of

the most productive wild salmon fisheries in the world—a fishery that generates over \$400 million a year and sustains not only the communities of the region and consumers of wild salmon around the world but abundant wildlife throughout the Bristol Bay ecosystem. Pebble Mine would be located at the headwaters of the river system that feeds this watershed, in a region of complex hydrological connections both above and below ground, near the largest fresh water lake in Alaska. The health of these resources must be protected first and foremost.

The question isn't whether, in theory, it might be possible to conduct “responsible large-scale mining.” The problem with Pebble is that the risks to natural resources and the communities that depend on them posed by such a mine *in this place* are unacceptable—notwithstanding the most thorough environmental review that regulators can devise or the best engineering that the world's most experienced mining companies can promise, even with Keystone's help. These are not risks that can be eliminated or mitigated to insignificance by scientific analysis, by adjustments to project design, or by commitments to operational conditions. Even so-called “fail-safe” technologies can fail, as we've seen most recently in the Gulf of Mexico.

Nor is down-sizing of the project an acceptable solution, since the risks of contamination will persist over the life (and after-life) of the mine. And once mining and associated infrastructure are introduced into this pristine wilderness, escalating industrialization becomes, as a practical matter, irresistible—however unambiguous the regulatory commitments to prevent it.

Any project is fundamentally flawed if it would unavoidably put at risk resources we can't afford to lose. Because of its unacceptable location, that, in our view, is the case with Pebble Mine.

Second, the scale of the mine and associated facilities envisioned by the Pebble Partnership—based on the size of the deposit, the low-grade quality of the ore, and the complete absence of infrastructure in this remote region—is inimical to the responsible management of sensitive wetlands habitat. According to latest estimates, the mine will generate some 10 billion tons of waste, laced with toxic byproducts of the mining process—a process that will leave a massive open pit (“Pebble West”) exponentially larger than any mine ever previously developed in Alaska, as well as an underground mine a mile deep (“Pebble East”).

Although the precise contours of the tailings pond have yet to be determined, experts estimate that the mining footprint will exceed 50 square miles, with unavoidable damage to the region's water resources, including significant salmon spawning habitat. To service the mine, major infrastructure will be required, including power generation facilities, an extensive network of roads, a slurry pipeline to transport its product, and a marine terminal, much of which will be built in and around Cook Inlet, including in areas proposed as “critical habitat” for the Inlet's endangered beluga whale population.

Third, the mineral extraction process is inherently toxic. It is, as one official at Anglo American told me a few months ago, “a dangerous business.” We know that large mines leak—during and after their operation—and that copper, even at several parts per billion above background levels, is toxic to salmon. Mineralized rock can acidify the water, tailings lakes produce leachate, and chemicals used for processing ore generate toxic residue. Wind, explosives, and vehicle use can

cause contaminated dust or other pollutants to infiltrate local water sources—and that is to say nothing of seismic activity in a seismically active region. A recent review of 25 large-scale mines in the U.S. found that 19 of them violated water-quality standards despite legal commitments to comply with state and federal requirements.<sup>1</sup>

Finally, according to the latest surveys, opposition to the Pebble Mine project is estimated in the range of 80 to 90 percent in the Bristol Bay and Lake and Peninsula Boroughs. Most recently, to protect the watershed, six Bristol Bay tribes have petitioned the U.S. Environmental Protection Agency to prohibit the issuance of dredge and fill permits for large-scale hard rock mines like Pebble in the Kvichak and Nushagak River drainages. These petitions were joined in August by the Bristol Bay Native Corporation—a multi-billion dollar developer and the largest land-owner in the Bristol Bay region—which last year announced its opposition to the Pebble Mine project. This level of opposition cannot, in our view, be ignored—by the Pebble Partnership, by government regulators, or by Keystone.

Given these facts, NRDC is firmly resolved to do all that we can, following the lead of the local communities, to protect this region. We've asked the mine's proponents to consider whether the potential benefits from the proposed project are really worth the costs and risks to this unique natural area that, notwithstanding the best environmental review and safeguards, such a project inevitably entails.

## II. THE KEYSTONE CENTER

We urge Keystone to consider this question, too, in its dialogue process. We believe the dialogue is the wrong approach given the project's unacceptable location and unavoidable risks. We value good science, as you do, to inform a dispute, resolve uncertainties, and, where possible, eliminate risks through project design changes, operational conditions, or other mitigation. In this instance, however, no amount of scientific analysis can alter the fundamental problem that this is an inherently dangerous project in the wrong place.

Be that as it may, we recognize that the dialogue process has begun. We suggest, as it proceeds, that its central focus must be protection of the watershed and the natural resources that have sustained the region, its people, and its wildlife for thousands of years. The process will be counter-productive—with costs to Keystone's credibility—if the ultimate goal or outcome of the dialogue is to develop a so-called realistic mining option at Pebble, even if envisioned, according to your report, as “an environmentally and socially preferred mining scenario or scenarios.”

To do otherwise will feed the perception that Keystone has been retained by the Pebble Partnership not for the independent assessment which is Keystone's intent but in a veiled attempt to lend credibility to a mining proposal pursued against the wishes of the region's residents, in

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<sup>1</sup> Kuipers, J.R., Maest, A.S., MacHardy, K.A., and Lawson, G. 2006. Comparison of Predicted and Actual Water Quality at Hardrock Mines: The reliability of predictions in Environmental Impact Statements. Kuipers & Associates. PO Box 641, Butte, MT USA 59703. 195p.

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disregard of its unsuitable location at the headwaters of one of the most productive fisheries in North America, in the heart of a sustainable ecosystem unsurpassed anywhere in the world.<sup>2</sup>

We would, of course, welcome the opportunity to talk about this with you or your staff, and we appreciate your attention to our very serious concerns about this project.

Sincerely,

A handwritten signature in black ink, appearing to read "Joel Reynolds". The signature is fluid and cursive, with a large initial "J" and "R".

Joel Reynolds  
Senior Attorney

cc: Todd Bryan, PhD., The Keystone Center

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<sup>2</sup> In this connection, we note your efforts to find independent funding for panel members so that they will have no financial ties to Pebble. We agree this makes sense, not just for panel members but for the Pebble dialogue process as a whole. We recommend that Keystone, too, find a funding source other than the Pebble Partnership or anyone associated with the Pebble project.