



NATURAL RESOURCES DEFENSE COUNCIL

July 23, 2012

Office of Environmental Information (OEI) Docket (Mail Code: 2822T)
Docket # EPA-HQ-ORD-2012-0276
U.S. Environmental Protection Agency
1200 Pennsylvania Ave., N.W.
Washington, DC 20460
Email: ORD.Docket@epa.gov
<http://www.regulations.gov/>

Re: NRDC Comments on “An Assessment of Potential Mining Impacts on Salmon Ecosystems of Bristol Bay, Alaska” (Docket # EPA-HQ-ORD-2012-0276)

Dear Administrator Jackson:

On behalf of its 1.3 million members and activists, the Natural Resources Defense Council (“NRDC”) submits these comments to the U.S. Environmental Protection Agency (“EPA”) regarding the agency’s March 18, 2012 draft Bristol Bay Watershed Assessment (“Watershed Assessment” or “Assessment”). NRDC applauds EPA for undertaking a well-researched and thorough scientific assessment of the impacts of large-scale mining on the Bristol Bay watershed’s natural resources. As described more fully in the enclosed comments, we believe that the Assessment and the record on which it is based support a determination that large-scale mining of the Pebble deposit is irreconcilable with the health and integrity of the fisheries, waters, wildlife, and recreational resources of the Bristol Bay watershed. On this basis, we urge EPA to promptly finalize its Watershed Assessment and move forward proactively to prohibit large-scale mining in the region, including the Pebble Mine.

The Watershed Assessment was prepared pursuant to EPA’s authority under section 104 of the Federal Clean Water Act (“FWPCA” or “Clean Water Act”) and specifically in response to petitions submitted requesting the agency to use its authority under section 404(c) to prohibit, deny, or restrict the specification of the proposed Pebble Mine in Bristol Bay, Alaska as a disposal area for the discharge of dredged or fill material.

Our comments follow the structure of EPA’s Watershed Assessment:

First, we begin by discussing the Bristol Bay region, the proposed Pebble Mine, and the background of the Watershed Assessment.

Second, we review EPA’s analysis of the environmental impacts of large-scale mining in the Bristol Bay watershed. EPA found that large-scale mining would cause (i) *inevitable* destruction and modification of salmon habitat and populations, as well as harm to the wildlife and native

communities that rely on them; (ii) *likely* habitat fragmentation and extirpation, and chemical, acid, and metal exposure, and (iii) significant risk of *catastrophic* tailings dam failure. The Watershed Assessment concludes that even assuming flawless planning, engineering, operation, and maintenance – an assumption that EPA acknowledges is unrealistic in an industry where accidents and failures of some kind are a *certainty* – large-scale mining will cause severe and irreparable impacts to the Bristol Bay environment and to the half-billion dollar annual economic benefits (and 14,000 full and part-time jobs) associated with those resources.

The Bristol Bay watershed supports all five species of North American Pacific salmon, including the largest sockeye salmon fishery in the world, and has sustained Alaska Native communities for centuries. Even at its minimum size, a mine such as the Pebble Mine would eliminate or block 55 to 87 miles of salmon streams and destroy 2,512 to 4,286 acres of wetlands – key habitat for sockeye salmon and other fish. Downstream water flow reduction will irreparably degrade salmon populations and fisheries and damage one of the very keys to salmon health and volume in this area – their biodiversity. Necessary access roads will cause additional impacts to salmon through population fragmentation, exposure to sediment, and decreased groundwater-surface water connectivity. And degraded salmon populations mean degraded wildlife because salmon support ecosystem strength as a whole. Alaska Natives would also suffer health and cultural harm from mining, as their way of life has for centuries depended on salmon for subsistence, as well as for cultural, social, and spiritual identity.

In addition to these inevitable and unavoidable impacts, failures that have afflicted other mines -- and are certain to happen here -- would cause significant adverse impacts on the Bristol Bay environment, its communities, and its people. EPA concludes that culvert failure will occur at a rate of 50%, and pipeline spills would have a 98% probability. The long-term effectiveness of tailings dams is unproven, and the size of dams contemplated in the case of the Pebble Mine will intensify the risk of eventual failure. Due to the “ephemeral” nature of human institutions over time, maintenance and treatment of the mine site can be expected to eventually terminate, causing severe and indefinite harm to the surrounding environment due to acid mine drainage and metal leaching.

In the case of a tailings dam failure, catastrophic damage would extend hundreds of miles and hundreds, if not thousands, of years.

Third, we analyze the additional – and often more significant adverse impacts – of large-scale mining infrastructure and activities that EPA, due to the deliberate conservatism of its analysis, elected not to address. As a result, the Assessment and its findings underestimate the full extent of potential impacts of large-scale mining in the Bristol Bay region. For example, the Watershed Assessment underestimates the amount of tailings. The Assessment uses a 6.5 billion ton maximum mine scenario, which is considerably smaller than the over 10 billion ton resource estimate released by Northern Dynasty Minerals. In addition, the Assessment does not consider the likely *greater* impacts that would result from: (1) the development and operation of a deep-water port in Cook Inlet; (2) secondary development; (3) climate change; and (4) a realistic tailings dam failure. EPA severely underestimates the amount of tailings likely to be released during failure, the distance these tailings would travel, and the potential duration of their toxicity. Finally, the Watershed Assessment does not consider the potential adverse impacts caused by subsidence and fugitive dust. Taken together, these additional foreseeable risk factors unquestionably strengthen EPA's conclusions regarding significant and irreparable harm

attendant to large-scale mining in the Bristol Bay watershed.

Fourth, we evaluate objections to the Watershed Assessment and find that the criticisms are unfounded. Both Northern Dynasty Minerals and the Pebble Limited Partnership have criticized EPA for allegedly acting without statutory authority, violating the Data Quality Act, and depriving their Due Process rights. Large-scale mining proponents have also attacked EPA's peer review charge as being too narrowly focused, as well as the Watershed Assessment for not fully incorporating a 27,000-page Environmental Baseline Document that was solely funded by the Pebble Limited Partnership, never subjected to peer review, and released a full year after EPA's call for submissions. As described more fully in the enclosed comments, all of these arguments are without merit.

Finally, we argue that – based on the conclusive findings in the Watershed Assessment – EPA should exercise its authority under section 404(c) and proactively prohibit or restrict large-scale mining (like the Pebble Mine) in the watershed. The EPA Assessment, the underlying record, and the best available science provide a compelling and legally sufficient factual basis for EPA to find that “unacceptable adverse effects” to local fisheries, waters, wildlife, and recreational resources within the meaning of section 404(c) will occur in the Bristol Bay watershed as a result of large-scale mining. In addition, initiation of 404(c) proceedings in Bristol Bay would be consistent with EPA's past exercise of its 404(c) authority. Fisheries impacts would exceed those EPA has addressed in prior 404(c) proceedings, and the sheer size and scope of Pebble Mine surpasses any other project EPA has previously reviewed. Unquestionably, EPA has the statutory authority to proactively initiate 404(c) action – and, in fact, failure to do so preemptively may risk the agency's ability to exercise this authority, according to one recent federal court decision.¹ Acting now will also protect parties with mining interests in the watershed from investing additional resources in pursuit of a large-scale mining project manifestly unsuited to a region like the Bristol Bay watershed. The Pebble Partnership is but one example of such a party.

As EPA conducts an independent peer review and finalizes the Assessment, and based on the facts and the applicable law described in detail in that Assessment and in the enclosed comments, we respectfully urge the agency to initiate action under section 404(c) to proactively protect the Bristol Bay watershed and the communities, salmon, and wildlife that depend on it for survival. If ever there were a case for the exercise of EPA's 404(c) authority, it is this one.

Very truly yours,



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¹ Mingo Logan Coal Company v. EPA, CA No. 10-0541 (ABJ) (D.D.C. March 23, 2012).