

Office of Environmental Information
(Mail Code: 28221T)
Docket #EPA-HQ-ORD-2013-0189
U.S. Environmental Protection Agency
1200 Pennsylvania Ave., N.W.
Washington, DC 20460

June 24, 2013

Dear Acting Administrator Perciasepe,

These comments on the Environmental Protection Agency's (EPA) Revised Draft Assessment of Potential Mining Impacts on Salmon Ecosystems of Bristol Bay, Alaska are offered by the undersigned 27 investors and investor organizations representing approximately \$35 billion in assets under management. Many of the signatories to this comment letter also provided the EPA with comments on the importance of Bristol Bay and its salmon fishery in 2011 and submitted comments on the 2012 Draft Assessment. We welcome the opportunity to offer an investor perspective on Bristol Bay's valuable natural resources and the potential implications of large-scale mining in the region. We appreciate the time and resources that the EPA and its sister agencies have applied to conducting this science based assessment of the Bristol Bay watershed. The process is essential to allow for a full and meaningful understanding of this national and global resource. As discussed more fully below, in light of the significant resources at stake, we recommend that the EPA initiate a Clean Water Act Section 404(c) review process for the Bristol Bay region.

Upon our review, we would like to take this opportunity to highlight a number of the EPA's findings:

- The Bristol Bay watershed in southwestern Alaska supports the largest sockeye salmon fishery in the world, with approximately 46% of the average global abundance of wild sockeye salmon. Between 1990 and 2009, the annual average inshore run of sockeye salmon in Bristol Bay was approximately 37.5 million fish. Annual commercial harvest of sockeye over this same period averaged 25.7 million fish. Approximately half of the Bristol Bay sockeye salmon production is from the Nushagak and Kvichak River watersheds.
- The exceptional quality of the Bristol Bay watershed's fish populations can be attributed to several factors, the most important of which is the watershed's high-quality, diverse aquatic habitats, which are untouched by human-engineered structures and flow management controls. Surface and subsurface waters are highly connected, enabling hydrologic and biochemical connectivity between wetlands, ponds, streams, and rivers, thus increasing the diversity and stability of habitats able to support fish. These factors all

contribute to making the Bristol Bay watershed a highly productive system. High aquatic habitat diversity also has supported the high genetic diversity of fish populations. This diversity in genetics, life history, and habitat acts to reduce year-to-year variability in total production and increase the stability of the fishery.

- The Bristol Bay commercial salmon fishery was valued at approximately \$300 million in 2009 (sales from fishers to processors), and provided employment for over 11,000 full and part-time workers at the season's peak. These estimates do not include retail expenditures from national and international sales.
- Bristol Bay is home to 25 federally recognized tribal governments, 14 of which are in the Nushagak and Kvichak drainages with a population of 4,337 in 2010.
- Alaska Native cultures – Yup'ik and Dena'ina – are two of the last intact, sustainable salmon-based cultures in the world, subsisting on the salmon of Bristol Bay for thousands of years.

We also note that the EPA, based on mining scenarios, made the following findings about risks to the salmon and other fishes:

- The direct loss of up to 24, 56, and 90 miles of streams respectively.
- Alteration of stream flow up to an additional 34 miles of streams.
- The loss of up to 4800 acres of wetlands.
- Production of acidic and metals-laden waters. Based on the nature of these materials, it is extremely unlikely that the mine could operate without degrading water quality downstream, particularly given the perpetual management required.
- Leaching of copper during standard operation could directly impact salmonids up to 35 miles of river and stream beyond the mine footprint.
- Leaching during standard operation could indirectly impact salmonids in up to 51 miles of stream within the mine footprint.
- There are no examples of such successful, long-term collection and treatment systems for mines, because these time periods exceed the lifespan of most past large-scale mining activities, as well as most human institutions . . . Engineered waste storage systems of mines have only been in existence for about 50 years.
- In event of a tailings dam failure, the North Fork Kaktuli River could lose up to 19 miles of stream habitat and would not support salmon for at least 10 years and spawning and rearing habitat would be impacted for a period of decades.
- A tailings dam failure could cause a loss of up to 30% of the Nushagak king salmon and 10-20% of the Mulchatna king salmon.
- There is a 98% likelihood of pipeline failure per 25 years of operation putting at least 1/3 of the Lake Iliamna sockeye population at risk.

- If six (of possibly 15) additional mines are developed, impacts could include an additional mining footprint of up to 13,000 acres, elimination or blockage of an additional 40 miles of streams, and wetland losses of up to 6,100 acres.
- Climate change projections show an average temperature increase of 4 degrees C by the end of the century, with precipitation increasing by 30% annually and a total of nearly 270mm of precipitation. On their own these changes will impact the salmon fishery and populations, especially impacting important life stages of salmon, including spawning and emergence of fry, as well as growth and survival of fry that rear in lakes, and spawning timing and run timing. Potential impacts from large-scale mining put the resiliency of Bristol Bay salmon at greater risk.

For widely diversified investors with long-term investment horizons such as ours (sometimes referred to as “Universal Owners”), the value of our portfolios is dependent in part on sustainable global economic growth. For that reason we are aware of the need for natural resource development to support economic growth as well as the development of clean technologies, which hold the promise of more sustainable economic growth. But we are also concerned that returns could be negatively affected by corporate behavior with negative social and environmental impacts. It is in our interest for our portfolio companies to reduce these risks and also protect our reputations from activities that may tarnish us through association. We therefore believe it is critically important for mining activity to occur only in ecologically and culturally appropriate areas.

We are concerned that if large-scale mining occurs in the Bristol Bay watershed and has the impacts described in the EPA’s draft environmental assessment, that it could cast a cloud over mining projects in general – even responsible and safe ones. This has the potential of increasing mining costs generally and may put into question appropriate mining projects. Such occurrences could be destabilizing to the global mining and fishing industries and consequently not helpful for long-term economic growth.

But we are also acutely aware of the negative economic externalities related to natural resource extraction. Damage to ecosystem goods and services from land and water pollution related to mineral extraction can generate very real, but currently unpriced, economic, social and environmental externalities. An April 2013 report from Trucost and The Economics of Ecosystems and Biodiversity for Business Coalition

has estimated the unpriced natural capital costs at US\$7.3 trillion relating to land use, water consumption, GHG emissions, air pollution, land and water pollution, and waste for over 1,000 global primary production and primary processing region-sectors under standard operating practices, excluding unpredictable catastrophic events. This equates to 13% of global economic output in 2009.

We also observe that the EPA's 2012 Assessment attracted the attention of those in the business community that are concerned about the sustainability of our seafood supply. The Food Marketing Institute (FMI) issued a comment letter in support of the 2012 Assessment stating that "Bristol Bay is a one-of-a-kind fishery that is important not only to the ecology of the region but also to fulfilling the goal of long-term sustainable seafood sourcing." Not only is the FMI a national trade association that represents 1,500 member companies – food retailers and wholesalers – in the United States and around the world with a combined annual sales volume of \$680 billion, but it represents many companies that are in our investment portfolios. This illustrates the point that widely diversified investors consider not only how a particular project will impact a specific company or project, but also how it impacts all aspects of a portfolio.

We believe that section 404(c) of the Clean Water Act provides a scientifically sound way to address the issues raised in the Revised Assessment. Under established precedents, practices and policies within the Clean Water Act 404(c) program, the EPA may prohibit or restrict the disposal of mine waste into certain "waters of the U.S.," if it determines that it will have an "unacceptable adverse effect" on municipal water supplies, shellfish beds and fishery areas, wildlife, and recreational areas.

Numerous groups, including Alaska native tribes, the Bristol Bay Native Corporation, native village corporations, the United Fishermen of Alaska, and other commercial and sport fishing groups, have urged the EPA to exercise its authority over mine waste disposal in the Bristol Bay watershed under Section 404(c), pointing out that asserting restrictions under Section 404(c) "could further the goals of the Clean Water Act by providing certainty and associated time and money savings to industry and the public - including the indigenous peoples of the region to whom the United States has a trust responsibility."

Accordingly, we believe that an inclusive and scientifically based Section 404(c) process, consistent with the environmental assessment process we have seen thus far, can be consistent with the concerns we have articulated above regarding economic growth, responsible mineral development, negative externalities, and the financial importance of ecosystem services. As such, we recommend that the EPA initiate the Section 404(c) review process. This process must be scientifically rigorous and take into account all available perspectives and evidence.

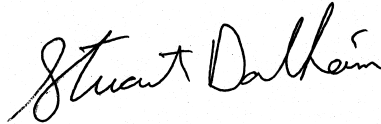
Finally, we observe that from an investor perspective, a Section 404(c) process at this stage could help remove regulatory risk and uncertainty about large-scale mining in the region. This presents the opportunity to enhance clarity that could in turn facilitate the efficient allocation of capital investment in mineral development. We believe it is prudent for all financially interested parties to understand now, as fully as possible, the regulatory environment. For that reason we believe that the EPA should be provided with the resources necessary to continue with the 404(c) process.

We thank you for your time and consideration of our comments. Please direct any questions you may have to Jonas Kron at jkron@trilliuminvest.com or 503-592-0864.

Sincerely,



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Stuart Dalheim, Vice President
Calvert Investment Management, Inc.

on behalf of

Alaska Conservation Foundation
As You Sow
Blue Moon Fund
Boston Common Asset Management, LLC
Calvert Investments
Catholic Health East
Christian Brothers Investment Services
Clean Yield Asset Management
Congregation of St. Basil
Everence and the Praxis Mutual Funds
First Affirmative Financial Network
Goodfunds Wealth Management
Green Century Capital Management, Inc
Jim and Patty Rouse Charitable Foundation
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Midwest Coalition for Responsible Investment
New Outlook Financial, LLC
Oneida Trust Committee - Oneida Tribe of Indians of WI
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