

Bristol Bay, Alaska



PHOTOS: RIGHT, JEFF SCHULTZ/ALASKASTOCK; TOP AND BOTTOM LEFT, MICHAEL MELFORD/NATIONAL GEOGRAPHIC STOCK

Is This the Place for a Mine Larger Than Manhattan?

In the coming months, the Obama administration will determine whether a colossal open-pit gold and copper excavation project, known as Pebble Mine, can be built in the biologically rich and remote wildlands of southwest Alaska's Bristol Bay watershed. This pristine system of rivers and lakes supports the world's largest wild salmon runs and the brown bears and bald eagles that feed on them. The area is home to Pacific walrus and beluga whales and is important habitat for a wide variety of birds, moose, lynx, wolverines, and black bears.

The Bristol Bay region has supported a subsistence-based way of life for Native Alaskans for thousands of years, as well as world-class commercial and sport fisheries. It includes 27 globally important bird areas, two national parks, one national monument, four national wildlife refuges, and several state parks and critical habitat areas.

Visible from space

This same area has attracted serious mineral exploration that would put its bounty in jeopardy. The proposed Pebble Mine is expected to be so massive that it would be visible from outer space. The project is backed by the world's second-largest multinational mining corporation, London-based Anglo American, and Northern Dynasty Minerals, a Canadian mining company.

Industry data indicate that Pebble's footprint could span 32 square miles—an area almost 1½ times larger than Manhattan. It would likely include an open pit seven times deeper than the Washington Monument with structures as high as Hoover Dam to contain an estimated 7 billion to 10 billion tons of contaminated tailings permanently. It would

require 86 miles of roads, slurry pipelines, and heavy-duty truck traffic, as well as power plants and a deepwater port in one of the world's most sensitive areas.¹

Clean Water Act protection

Because the Pebble Mine would be located on state land, primary permitting authority lies with the Alaska Department of Natural Resources. However, the federal Clean Water Act requires that a wetland fill permit be obtained from the Army Corps of Engineers before the mine can be developed. Further, the Clean Water Act gives the Environmental Protection Agency (EPA) the responsibility of determining whether discharges of dredged or fill material would adversely impact municipal water supplies, shellfish beds and fisheries, wildlife, or recreational areas. This "veto authority" can be used by the EPA while a permit is being considered, after it is issued, or before a permit application is submitted.

In 2009, Bristol Bay Native Corp. and nine Native Alaska tribes called on the EPA to declare the watershed area off-limits for mine waste disposal, thereby preemptively denying the federal wetland fill permit. EPA responded by initiating an ecological assessment of the Bristol Bay watershed to better inform any permit decision it made in the future. The agency confirmed that the region's rich biodiversity justified rigorous review of the impact of the proposed Pebble Mine as well as other possible mining operations that could turn the area into an industrial district. The EPA's assessment considers impacts to Native cultures and the roughly \$480 million in economic activity generated each year by the region's fishing and tourism.

Contamination virtually certain

The EPA released a preliminary assessment in May 2012, which stated that "mining at this scale would cause the loss of spawning and rearing habitat for multiple species of anadromous and resident fish." The mine—even if it operated according to the highest of the industry's standards—could be expected to eliminate or block 55 to 87 miles of salmon streams and destroy roughly 4,000 acres of wetlands, habitat for salmon and other fish.² In addition, the EPA concluded:

- "At least one or more ... failures could occur, potentially resulting in immediate, severe impacts on salmon and detrimental, long-term impacts on salmon habitat." The probability of a pipeline spill with potential contaminant release into streams and wetlands is a virtual certainty, estimated at 98 percent.³

- Many of Bristol Bay's 35 fish, 190 bird, and 40 animal species rely on the nutrients salmon transport through the food web. If salmon decline, many other species will suffer.⁴
- The mine could have long-term, negative consequences for Native Alaskans, who depend on salmon for a subsistence-based economy, nutrition, and traditional culture."⁵

The draft has undergone extensive public and expert review, including hearings in Alaska and a 60-day public comment period. The agency received more than 230,000 public comments, and has committed to incorporate responses from scientific peer review teams into the final draft assessment.

Broad support for protection

The implications of siting what could be the world's largest mining complex within Bristol Bay's world-class salmon fishery have raised concerns from prominent individuals and groups. In August, the EPA reported that well over 90 percent of those who submitted official comments on the assessment to the agency oppose the mine.⁶ While the state of Alaska is aggressively pushing Pebble's development, a significant number of notable Alaskans do not favor the project. This list includes officials from Bristol Bay Native Corp. and multiple Alaska Native tribal governments, former Govs. Tony Knowles and Jay Hammond, former Alaska Senate President Rick Halford, representatives of the commercial fishing industry, and seafood producers. At the national level, sportsmen and the outdoor industry, the \$670 billion food marketing industry, and chefs Alice Waters, Mark Bittman, and Tom Colicchio have raised concerns. Major jewelers, including Tiffany and Zales, have pledged not to purchase gold from the mine if it is constructed.

2013 decision expected

The EPA is expected to issue its final report on the assessment in early 2013. Its findings will provide the foundation for the Obama administration to determine whether Bristol Bay, with its remarkable wildlife and salmon runs, is an appropriate place for what could become one of the largest open-pit mines on Earth.

1 U.S. Environmental Protection Agency. *An Assessment of Potential Mining Impacts on Salmon Ecosystems of Bristol Bay, Alaska (External Review Draft)*. (Seattle, 2012). Abstract, i. <http://yosemite.epa.gov/R10/ECOCOMM.NSF/bristol+bay/bristolbayreport>.

2 *Ibid.*

3 *Ibid.*, p. ES-16.

4 *Ibid.*, p. ES-5.

5 *Ibid.*, p. ES-9.

6 Bohrer, B. Aug. 8, 2012. "Panel taking comments on Alaska mine study." BloombergBusinessweek News. www.businessweek.com/ap/2012-08-08/panel-taking-comments-on-alaska-mine-study.

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