

SCOPE OF ENVIRONMENTAL IMPACT OF PEBBLE PROJECT IN COOK INLET AND KENAI PENINSULA

This information is compiled from the Pebble Project Project Description (POA-2017-271)¹ to help stakeholders on the Kenai Peninsula assess regional environmental and social impacts of the proposed Pebble Project. It will be important to communicate these impacts to our community, our political representatives and, ultimately the Army Corps of Engineers during the upcoming public comment period on the scope of their Environmental Impact Statement (EIS).

**Comment to Army Corps of Engineers by June 29.
Go to pebbleprojecteis.com to comment.**

Mine Basics

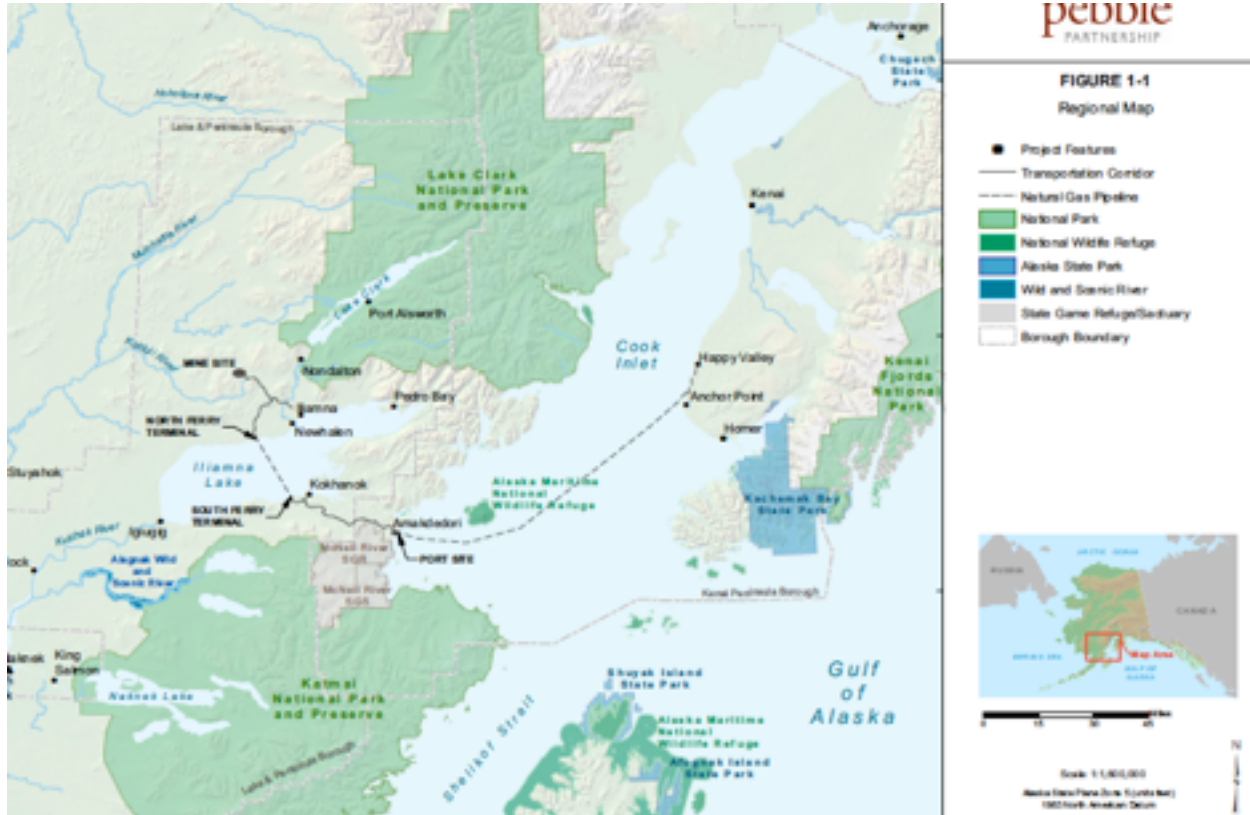
- Project operating life of 20 years.
- A total of 1.2 billion tons of material mined over the life of the Project.
- Final pit dimensions of 6,500 feet in length, 5,500 feet in width, and 1,350 to 1,750 feet in depth.
- Mining rate up to 90 million tons per year.
- Milling rate up to 58 million tons per year.
- Annual copper-gold concentrate production of 600,000 tons.
- Annual molybdenum concentration production of 15,000 tons.
- Final tailings storage facility (TSF) capacity of 1.1 billion tons.
- Peak low grade ore (LGO) storage capacity of 330 million tons.
- Power plant generating capacity of 230 megawatts (MW).
- Project operating schedule of two 12-hour shifts per day for 365 days per year.
- Employment of 850 to 2,000 personnel for operations and construction, respectively.

Transportation around the Mine

- An 83-mile transportation corridor from the mine site to a year-round port site located on Cook Inlet near the mouth of Amakdedori Creek consisting of:
 - A 30-mile private double-lane road from the mine site to a ferry terminal on the north shore of Iliamna Lake.
 - An 18-mile lake crossing utilizing an ice breaking ferry to a ferry terminal on the south shore of Iliamna Lake.
 - A 35-mile private double-lane road to the Amakdedori Port.

¹ http://www.poa.usace.army.mil/Portals/34/docs/regulatory/plp12_22_2017_POA_2017-271_DA_Application_Pebble_Limited_Partnership_Attach_D.pdf?ver=2018-01-05-115828-333

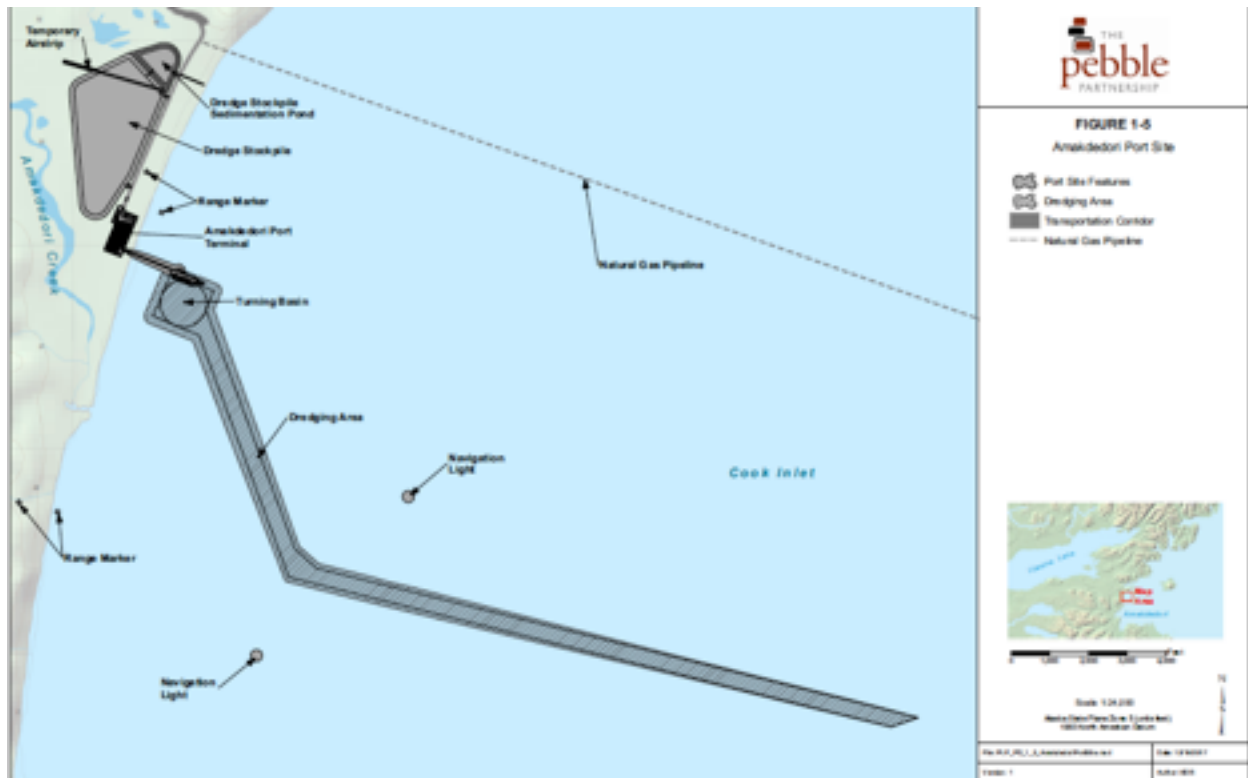
- Spur roads from the transportation corridor to the communities of Iliamna, Newhalen, and Kokhanok



- Daily transportation of concentrate, fuel, reagents and consumables will require **up to 35 round trips per day for each leg of the road**, including three loads of fuel per day. The ferry will require **one round trip across the lake per day**.

The Port in Kamashak Bay at Amakdadori Creek

An earthen access causeway extends out to a approximately **4.2-mile marine jetty** located in 15 feet of natural water depth. The channel of the jetty will be dredged to **50 feet below the low-low water line** to allow for the required under-keel clearance for the design ship and will be 400 feet wide at the bottom. In the area near the berth, a 1,200-foot diameter (minimum) turning basin will be provided for ships to safely navigate in and out of the berth. The dredged material will be used to construct the jetty, causeway, and/or the main terminal patio area, if suitable. Excess dredgeate will be stored in an impoundment adjacent to the port facilities. Annual maintenance dredging will be required through the life of the port facility.



Geotechnical information on the sub-bottom soil profiles is not currently available for this area, according to the *Project Description* “on-shore geophysical information suggests that sufficient depth of sand and gravel exist in the bay to allow this dredging to be completed without having to excavate any hard rock.” All unused dredge material will be disposed of in a stockpile on the upland area behind the marine terminal. The dredge stockpile will be constructed by first excavating a containment area of approximately **170 acres**.

Infrastructure at port includes power generators, diesel generator, LNG compression station for roadside LNG pipeline, maintenance facilities, employee housing/offices, airstrip, ship loading/unloading operations, storage facilities for ore concentrate/fuel/other supplies, water and sewage treatment plant, airstrip.

According to the *Project Description*, “Preliminary data gathered at Amakdedori beach in 2013 indicate that Pacific herring are the predominant species present in the nearshore environment, with smaller populations of Dolly Varden and pink salmon. The port site is located within critical habitat for the Cook Inlet Beluga Whale and the Northern Sea Otter Southwest Distinct Population Segment (DPS). Cook Inlet Beluga Whale critical habitat includes nearshore waters out to two nautical miles and comprise important foraging areas in fall and winter. Northern Sea Otter critical habitat includes foraging areas and escape habitat from marine mammal predators found in Kamishak Bay.”

Boat Traffic

- Up to 25 Handysize ships will be required annually to transport concentrate. Up to 30 marine line-haul barge loads of supplies and consumables will be required annually. Two ice-breaking tug boats will be used to support marine facility operations.
- The dock is designed to allow access of Handysize vessels of 40,000 dead weight tons, 700 feet in length:



<http://maritime-connector.com/wiki/handysize/>

Power

- The primary fuel for the mining operations will be natural gas: A 188-mile gas pipeline is proposed from the Kenai Peninsula across Cook Inlet to the Project site with compressor stations on the Kenai Peninsula and at the Amakdedori Port.
- Installed nameplate capacity of mine is 230 MW (1 megawatt can power between 750-1,000 homes). This plant uses as much power as 187,500-230,000 homes.
- The expected maximum parcel size for diesel fuel delivery is four million gallons.
- Diesel storage will include a variety of tank types and sizes ranging from approximately 10,000 to 50,000 gallons.

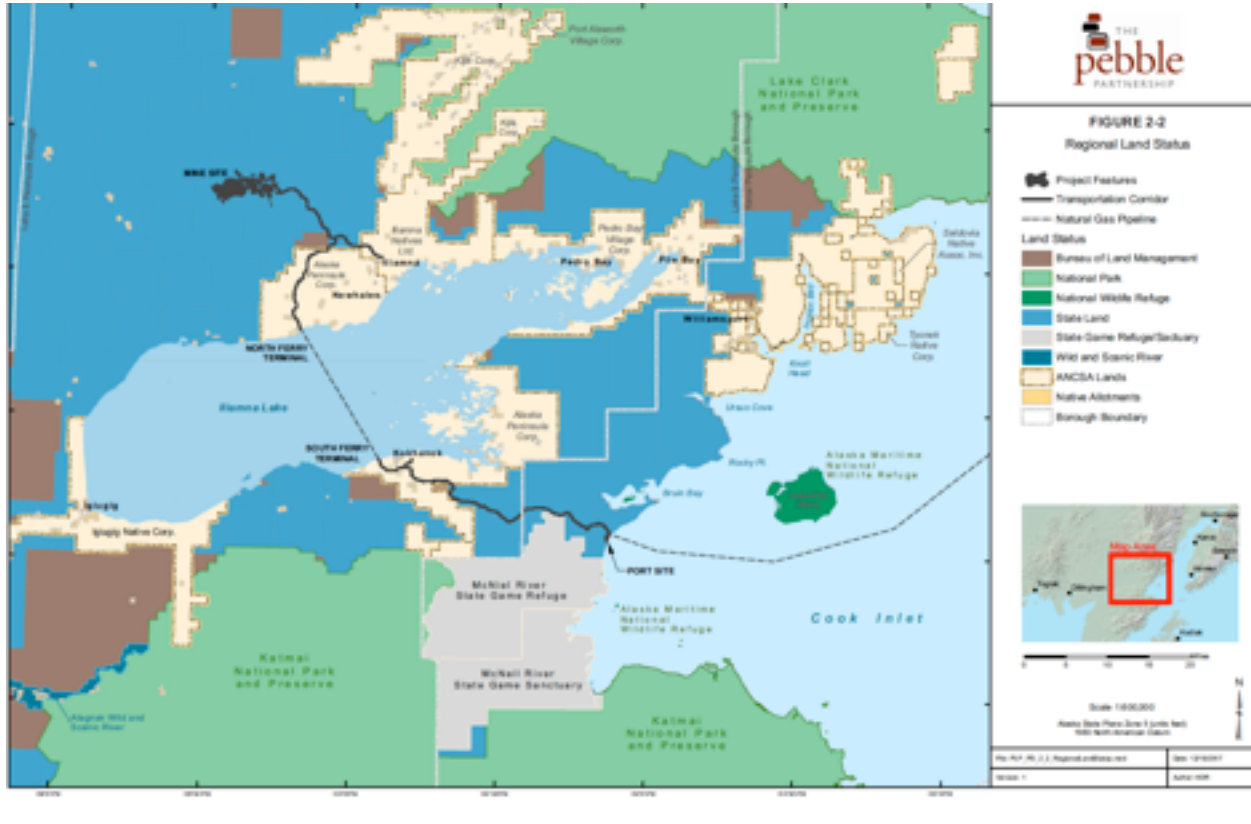
Jobs

- Employment of 850 to 2,000 personnel for operations and construction, respectively.
- For reference, the according to the EPA, in 2014,
 - “the Bristol Bay watershed’s ecological resources generated nearly \$480 million in direct economic expenditures and sales and provided employment for over 14,000 full- and part-time workers in 2009. The Bristol Bay commercial salmon fishery generates the largest component of this economic activity, with an estimated value of \$300 million (sales from fishers to processors) and employment for over 11,000 full- and part-time workers...”²

² EPA. *Proposed Determination of the U.S. Environmental Protection Agency Region 10 Pursuant to Section 404(c) of the Clean Water Act Pebble Deposit Area, Southwest Alaska.*

Parks

Several state and federally managed lands lie within a 100-mile radius of the mine site or Amakdedori Port



Tips for Writing Your Comment

*Comments on the Scope of Impacts must be submitted to the Army Corps of Engineers by **April 30**. This is political, so spread the word as far and high as you can.*

Nuts and Bolts:

1. Go to <http://pebbleprojecteis.com>
2. Click on “Documents” and download the Scoping Package.
3. If you’re interested, you can see Pebble Project’s Permit Application under “Background Documents.” It is Appendix D.
4. Submit Comments online at <http://pebbleprojecteis.com> or by mail to:

Mr. Shane McCoy
Regulatory Division, U.S. Army Corps of Engineers,
P.O. Box 6898
Joint Base Elmendorf Richardson, AK 99506-0898.

Writing Tips:

Remember, The Army Corps is required to respond to substantive comments!

Read the Proposal and Get Clear on the Basics:

- What exactly are they proposing?
- Look at maps, tables.
- Get a picture in your mind. Eg. is it like a football field, like ten football fields?
- What are they not talking about?
- Answer your questions: contact people who know more, eg. Fish & Game, the contact person on the draft permit (Shane McCoy, 753-2715 or Shane.M.Mccoy@usace.army.mil), friends, people in industries close to matter, Cook Inletkeeper, Kachemak Bay Conservation Society, SalmonState.

Be as Specific as Possible when Describing Impacts:

- Think about what you know.
- How large will impact be?
- How long will it last?
- Who will lose?
- What will they lose?
- How do you know what you know?
- Numbers, maps, examples and references are good.
- Think about people, fish, wildlife, water, soil, microbes, nutrient balance, habitat, historic uses.

- How should they study/ look at the potential impact? What has happened in similar kinds of development (eg. Mount Polley tailings dam failure)

Make Suggestions:

- What data or analytic tools should be used?
- What are alternatives that should be evaluated in the EIS? (What are other ways stated goals can be achieved?)
- The No Action alternative (i.e. no mine) should be the preferred alternative.

Amplify your Comments by CCing the following:

Bill Walker

bill.walker@alaska.gov

Dan Sullivan

senator_sullivan@sullivan.senate.gov

Lisa Murkowski

Copy comments to her contact form at: <https://www.murkowski.senate.gov/contact/email>

Also consider rewriting your comments as letters to the editor and send to:

Homer News:

michael.armstrong@homernews.com

Homer Tribune:

twells@reportalaska.com