UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
P.O. Box 21668
Juneau, Alaska 99802-1668

September 1, 2004

Ms. Ella Ede
Northern Dynasty Mines Inc.
3201 C Street, Suite 604
Anchorage, Alaska 99503

Re: Pebble Gold Copper Project

Dear Ms. Ede:

The National Marine Fisheries Service (NMFS) has reviewed the Pebble Gold Copper Project Draft Environmental Baseline Studies Plan for 2004, dated July 2, 2004. The project proponent is Northern Dynasty Mines Inc. (Northern Dynasty). The proposed project involves open pit mining operations for gold, copper, molybdenum, and silver deposits in the Iliamna Lake, Upper Talarik and North Fork Koktuli drainages in southwestern Alaska. The estimated milling capacity for the Pebble Project ranges from 90,000 to 200,000 tons per day, and the estimated mine life ranges from 30 to 60 years. Mine operations include mining, tailings disposal, ore and waste rock hauling (road construction), shipping (port construction west side of Lower Cook Inlet), and eventual reclamation.

The Draft Environmental Baseline Studies Plan offers an adequate description of proposed mining related environmental issues that may potentially affect our trust resources. However, the studies are fairly general and NMFS' concerns are twofold. First, we are concerned about the spatial scale of the proposed studies; impacts to fisheries resources and essential fish habitat (EFH) could easily extend beyond the project boundaries. NMFS recommends that you extend the scope of baseline studies to include both downstream and upstream areas that could be affected by mine operations. Those studies should include mining, tailings disposal, ore and waste rock hauling, shipping, and eventual reclamation. The primary purpose of studies should be to establish a sufficient baseline, along with a monitoring/temporal component to the study design, and to assess changes in the environment over time resulting from all project components.

Second, NMFS concurs with the National Park Service comments that given the large variability that is typical of natural systems, the fish and water quality studies as described are likely to be insufficient to detect potential changes due to the proposed mine. The before-after-control-impact (BACI) study design (Skalski and McKenzie 1982) with replicates of each type has been used with success in environmental impact studies (Day et al. 1997, Irons et al. 2000). The current study plan includes no similar unimpacted sites (controls) for comparison and minimal pre-impact data. With only "after-impact" information, and little "before-control" data, Northern Dynasty will have a difficult time deciding if an observed change was due to: 1) the impact (mining, road, port...etc.), 2) an unrelated factor, or 3) natural variability of the response.

NMFS recommends Northern Dynasty schedule an interagency coordination meeting including representatives from State and Federal agencies as well as local governments. Project sponsors should describe the proposed project (including mining, tailings disposal, road, port, and power options) and the proposed schedule in as much detail as possible. Existing information for each of the major study areas and any results of 2004 field studies should be provided and discussed. An interagency field visit following the meeting and prior to winter would valuable.

NMFS appreciates your early coordination and hopes this information is useful. Brian Lance (907) 271-1301 is the NMFS contact for this project.

Sincerely,

James W. Balsiger
Administrator, Alaska Region

cc: USFWS, EPA, ADGC, ADFG, ADNR/OHMP, ADEC, NPS – Anchorage

References:

Day, R.H., S.M. Murphy, J.A. Wiens, C.G. Hayward, E.J.Harner, and L.N. Smith. 1997. Effects of the *Exxon Valdez* oil spill on habitat use by birds in Prince William Sound, Alaska. Ecological Applications. 7:593-613.

Irons, D.B., S.J. Kendall, W.P. Erickson, L.L. McDonald, and B.K. Lance. 2000. Nine years after the *Exxon Valdez* oil spill: effects on marine bird populations in Prince William Sound, Alaska. Condor. 102:723-737.

Skalski, J. R. and D. H. McKenzie. 1982. A design for aquatic monitoring programs. Journal of Environmental Management. 12:237-251.