



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

April 18, 2022

Colonel Damon Delarosa  
U.S. Army Corps of Engineers  
P.O. Box 6898  
JBER, Alaska 99506-0898

Re: Nome Offshore Dredge Gold Mine, POA-2003-00053-M2

Dear Colonel Damon Delarosa:

Thank you for notifying us about the above referenced application from Mr. Craig C. Coggins in a letter dated March 4, 2022. The purpose of this project is to conduct offshore suction dredging for gold at Norton Sound near Nome, Alaska. The proposed scope of work includes an offshore suction dredging operation, using a 20-inch diameter suction nozzle mounted on a 12-ton, 30-foot long by x 8 foot wide, underwater, custom-built track crawler. The crawler operation is supported by a 66 foot by 20 foot landing craft vessel, anchored offshore and working in 40 to 60-foot depth waters. The crawler moves seabed gravels and cobbles into 2-to-3-foot-high rows of tailings. Smaller gravel, sand, and fine materials are sucked up by the dredge hose, pumped to the vessel, sluiced, and returned to the ocean floor through an 8 inch diameter hose, 20-to-30 feet below the surface. Up to 20 cubic yards per hour of material would be processed for a total of up to 15 acres of seabed mined per year. Mining activities affect the top 24 inches of substrate. All dredged materials are returned to the ocean floor in approximately the same location from which they were removed, with reclamation conducted concurrently.

Section 305(b) of the Magnuson-Stevens Fishery Conservation and Management Act (MSA) and the Fish and Wildlife Coordination Act requires federal agencies to consult with us on all actions that may adversely affect essential fish habitat (EFH) and other aquatic resources. The EFH consultation process is guided by the requirements of our EFH regulation at 50 CFR 600 Subpart K, which mandates the preparation of EFH assessments and generally outlines each agency's obligations in this consultation process. In support of this consultation process, you provided a notice of the proposed action and your agency's conclusion regarding impacts on EFH. We offer the following comments and recommendations on this project pursuant to the above referenced regulatory process.

### **Essential Fish Habitat**

The North Pacific Fishery Management Council has identified EFH for nearshore marine waters in the vicinity of Nome to include EFH for all five species of Pacific salmon (Chinook, Chum, Pink, Sockeye, and Coho), Alaska plaice, arrowtooth flounder, octopus, red king crab, roughey rockfish, snow crab, Tanner crab, flathead sole, Kamchatka flounder, and yellowfin sole (NPFMC 2020, 2021a,b). Our comments provided during previous consultations for the proposed action and similar projects focused on red king crab due to their vulnerability to impacts associated with suction mining. We reiterate those concerns herein. Further, our



conservation recommendations listed below support the conservation of all species with EFH designated in the project area.

### **Norton Sound red king crab**

Norton Sound red king crab (NSRKC) is one of the northernmost red king crab populations that can support a commercial fishery (Powell et al. 1983). Historically, the community of Nome depends on this fishery as an economic base with a summer and winter commercial fishery, and subsistence harvest. However, in recent years the stock has seen significant population declines. The summer commercial fishery, which accounts for most of the catch, reached a peak in the late 1970s at a little over 1313 tons retained catch. Retained catches since 1982 have been below 227 tons, averaging 136 tons, including several low years in the 1990s. As the crab population rebounded, retained catches increased to 231 tons in 2016, but decreased 69% to 73 tons in 2019. Legal crab abundance and biomass is increasing since 2018, which was expected from the large sublegal crab abundance in 2016-2018 and practically no fishery occurring in 2020 and 2021 (Hamazaki, and Zheng 2022).

One of the unique life-history traits of Norton Sound red king crab is that they spend their entire lives in shallow water since Norton Sound is generally less than 40 m in depth. NSRKC concentrate along shallow-water depth contours to form mating pairs, release eggs, or form crab “clusters”. NSRKC also migrate along these shallow contours. NSRKC are consistently abundant offshore of Nome.

The highest plankton production occurs in spring (March 1 through May 31) and is associated with the retreating ice edge. This plankton production provides seasonally important nutrients in Norton Sound. NSRKC associate with the ice edge and its movements through break-up and migrate into shallow nearshore areas for reproductive activities during this time including pair bonding, molting, and egg extrusion.

### **Assessment of Effects to EFH**

Your agency has concluded that the proposed project activity would not adversely affect EFH in the project area, “because of the limited time the activity would occur (June 1 through September 30), and the small impact area relative to the size of the lease area.” Federal regulations define an adverse effect as “any impact that reduces the quality and/or quantity of EFH” (50 CFR 600.810(a)). Based on the proposed action and designated EFH for several federally managed species within the project area, we disagree with this conclusion as it is likely this action will adversely affect EFH and aquatic resources within the project area.

We understand the importance of matching the scale of an action with the central objective or question; in this case, whether individual small scale suction dredge mining operations at depths greater than 30 feet result in adverse effects to EFH. Your assessment does not account for combined effects of individual actions, which may be cumulatively significant. We estimate that the applicant has cumulatively impacted at least 108 acres of seabed from 2010 to 2021 with up to 17 acres per year from June 1 through September 30 each year. The timing of mining activities overlaps with the May through August period where NSRKC larvae drift in the nearshore currents and settle into the bottom to begin their ontogenetic migrations. The timing of the

proposed suction dredging would overlap with this period when NSRKC are most vulnerable to direct effects from mining and indirect effects from habitat disturbance and associated predation.

Studies regarding the Westgold Nome Offshore Placer Mining Operation (BIMA) list several impacts offshore placer mining may have to the benthic community such as the resuspension of fine sediments, removal of benthic organisms and increased predation of injured organisms. Previous mining operations off Nome resulted in considerable localized substrate alteration. Sediment fines destabilized by mining operations were redistributed by local currents and sea conditions (Jewett 1999). Such severe disturbances will remove habitat for benthic organisms. Actual recovery times for a benthic community to stabilize (i.e., recolonization of dredge sites to comparable density, biomass, and number of taxa) at high latitudes are difficult to determine. Previous studies associated with the BIMA showed that even seven years post- mining, seafloor habitat and species assemblages had not recovered to pre-disturbance conditions (Gardner and Jewett 1994). The pre and post-monitoring studies also indicate apparent benthic community recolonization and recovery within 3 to 5 years for sand substrates and 5 to 10 years for cobble substrates for these shallower depths (Jewett et al. 1992). In contrast, a more recent study of nearshore marine mining (waters less than 30 feet) showed that while the impacts of mining were significant, natural effects (e.g. ice scour and wave-generated disturbances) were greater than mining effects to the benthos (Baldwin-Schaeffer 2018).

Our letter dated March 18, 2010, relayed recovery time and cumulative impact concerns in response to the U.S. Army Corps of Engineers (USACE) Public Notice POA-2009-505. We recommended monitoring studies through the permitting process to help quantify the cumulative effects of dredging and to gather data on the recovery of the substrate and species in the benthic community at depths greater than 30 feet. On March 25, 2022, you provided an information packet that included underwater video of recovery of sites previously mined by the applicant from 2005 through 2021. The average depth of the sites surveyed was 40 feet. Given this information, you have concluded that physical impacts of the dredging recover at 2 to 3 years after mining. That is, the ridges of larger tailing have been leveled and recolonization is well under way.

These potential adverse effects to EFH would be temporary in nature and can be adequately minimized provided the permittee adheres to the standard conditions of USACE permit, your identified conservation recommendations and best management practices, as well as the conservation recommendations below.

### **EFH Conservation Recommendations**

Implementing the appropriate mitigation measures can avoid or minimize direct and indirect project related impacts associated with offshore suction dredging for gold at Norton Sound. In accordance with Section 305(b)(4)(A) of the MSA, we offer the following additional conservation recommendations to further avoid, minimize, mitigate, or otherwise offset effects:

1. From June 1 through July 15<sup>th</sup>, avoid dredging within a radius of one nautical mile from the mouth of anadromous streams identified on land in the Alaska Department of Fish and Game's Anadromous Waters Catalog. Anadromous streams are present on the mainland shoreward of the offshore project area. This seasonal restriction will ensure that

turbidity plumes from the dredge operations do not create a barrier to out-migrating juvenile salmon.

2. For mining activities in depths greater than 20 feet, the permittee should conduct a visual inspection (e.g., by remotely operated underwater video or divers) for NSRKC and other species with EFH designated in the project area. Specifically, visual inspections should be conducted along the projected dredge track prior to commencing mining. If NSRKC or other species with EFH designated in the project area are present, mining operations should move to an alternate location. These visual inspections are necessary to minimize injury and mortality for NSRKC and other species with EFH designated in the project vicinity.

Additional information related to these recommendations can be found in [Impacts to Essential Fish Habitat from Non-Fishing Activities in Alaska](#). Other useful resources are the [EFH mapper](#), [EFH Fact Sheet](#), and our [regional website](#), where you can find FAQs.

We appreciate the opportunity to comment on this action and request a written response to our comments within 30 days pursuant to Section 305(b)(4)(B) of the MSA. If your response is inconsistent with our recommendations, please explain the reasons for not following our recommendations, including the scientific justification for any disagreements over the anticipated effects of the proposed action and the measures needed to avoid, minimize, mitigate, or offset such effects (50 CFR 600.920(k)). If you will not make a decision within 30 days, please provide a letter to that effect and indicate when a full response will be provided. Significant changes to the project may require reinitiating a consultation. Seanbob Kelly [seanbob.kelly@noaa.gov](mailto:seanbob.kelly@noaa.gov) or Stefanie Coxe [stefanie.coxe@noaa.gov](mailto:stefanie.coxe@noaa.gov) are available to answer questions or discuss further actions.

Sincerely,



Gretchen Harrington  
Assistant Regional Administrator  
for Habitat Conservation

cc: Leslie Tose, USACE [Leslie.W.Tose@usace.army.mil](mailto:Leslie.W.Tose@usace.army.mil)  
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## References

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