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Ms. Tiffany Kwakwa, IPOP Manager
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US Army Corps of Engineers
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Re: Public Comment for Bonanza Channel/Safety Sound Dredge (POA-2018-00123)

Dear Ms. Kwakwa and Ms. Tose:

I am writing on behalf of Audubon Alaska, the Alaska-based program of the National Audubon Society, to express my concern, objections and opposition to the proposed IPOP dredge mining proposal in Bonanza Channel/Safety Sound on the Seward Peninsula (Public Notice Application of Permit, Reference Number POA-2018-00123 for Bonanza Slough/Safety Sound dated July 31, 2020). Audubon Alaska is a science-based conservation organization that works to protect birds, other wildlife, and their habitats across Alaska. We have over 6000 members in Alaska, and have been committed to Alaska's wildlife and communities since our inception in 1977. An Alaska-based organization, we represent and employ Alaskans who live across our state, and have important connections to places like Safety Sound. We also represent over 1.8 million members across the United States who care about birds, their habitats, and the impacts of development activities on the future of birds in Alaska. We use science to identify conservation priorities and support conservation actions and policies, with an emphasis on public lands and waters, and through education we seek to raise public awareness about the natural ecosystems of Alaska.

The Applicant for this project, IPOP, LLC, proposes to dredge and discharge approximately 9 million cubic yards of material from estuarine habitats in Waters of the United States over a ten year period for the purpose of extracting gold. The permit application covers the first five years of operation. Safety Sound and Bonanza Channel are an Important Bird Area (IBA), identified through rigorous scientific survey input. It is a statewide IBA for Alaska based on the nesting population of Aleutian Terns in the area, which represent greater than 1% of the global distribution of nesting sites for Aleutian Terns. However, as outlined in the letter below, Safety Sound is actually important for a number of additional bird species, including species that are listed as declining on Audubon Alaska's Watchlist, and those listed as threatened under the U.S. Endangered Species Act. Given these and other concerns, we strongly oppose the proposed action in Safety Sound.

Our primary concerns are that the applicant has done an insufficient job of evaluating the natural resources within the affected area, the importance of subsistence activities in Safety Sound, and the applicant has not completed baseline studies to determine the extent of the existing environmental conditions. They have been unable to accurately assess the projects' impacts due to severe inadequacies in their permit application. Additionally, we believe that this permit and proposed action is a significant action in one of Alaska's important estuaries, and should warrant an Environmental Impact Statement under NEPA if the Army Corps of Engineers decides to move forward. This would also allow for a recorded public process, and requires Government to Government consultations with Tribes across the region. This would also require a review of subsistence resources compliant with NEPA, which should be undertaken in a region that is so important for so many subsistence users. As other stakeholders familiar with the project have suggested for several years, this project should not move forward.

The proposed project will have significant and permanent impacts on a large, extremely productive coastal estuary. Any action proposed in Safety Sound should require an EIS under NEPA due to the ecological significance of the region.

This project is notable in that it proposes a large scale dredge operation in a large, coastal estuary. Estuaries are some of the most productive habitats on earth. They provide a mixing area for fresh and salt water, support high biological productivity and species diversity, and provide important ecosystem services that are often overlooked including preventing coastal erosion, stabilizing shorelines by dissipating wave energy, absorbing flood waters, and sequestering carbon in sediments. The Project Area was characterized by the Alaska Department of Natural Resources in its 2008 Northwest Alaska Area Plan as *Ha (Habitat).* This designation applies to areas of varied size for fish and wildlife species during a sensitive life-history stage where alteration of the habitat or human disturbance could result in a permanent loss of a population or sustained yield of a species. This land will be maintained in an undisturbed, natural state except for improvements related to public health, safety, habitat restoration or rehabilitation, and public recreation. Authorizations within areas designated Habitat are not to be considered appropriate unless consistent with the previous objectives.

This project would harm Essential Fish Habitat and does not include mitigation or avoidance planning that is required under the Magnuson-Stevens Act.

The Project Area is within a coastal estuary that is a confluence of four major rivers. The lower wetlands of this estuary contains eelgrass, *Zostera marina* (See map at end of document, compiled with publically available ShoreZone data). This is a keystone species of coastal estuaries across Alaska, and is considered ***Essential Fish Habitat***. Essential Fish Habitat (EFH) is provided additional protections under the Magnuson-Stevens Act. According to law, projects that cause impacts to EFH have to undergo consultations to minimize and/or avoid impacts to EFH. Although the project proponent has stated, and ACOE has reinforced, that there is no eelgrass within the project area, the best available science data on mapping **eelgrass actually does explicitly show Safety Sound as containing eelgrass habitat** (map attached with data sources), and therefore, EFH guidelines must apply to any federal activity which threatens to harm EFH, which

this project would do if completed. It also provides essential food for numerous species of migratory waterfowl in the region. Eelgrass stabilizes sediment and prevents erosion, and the rich deposit of benthic organic matter in Safety Sound illustrates the characteristics of eelgrass beds. Eelgrass meadows provide food for marine food chains found in Safety Sound and protect nursery and rearing grounds for numerous fish species. Eelgrass is very sensitive to changes in wave action, turbidity, light, and available substrate. The proponent claims no eelgrass is present within the area, yet local knowledge, as well as statewide surveys, indicate the likelihood of eelgrass is high in the project area. The proponent does state that their surveys may be incomplete. They finally complied with the request for surveys, at first claiming no vegetation in the project area, and their recent surveys now state 85% of the project area does have aquatic vegetation, and this could contain eelgrass. This illustrates **the proponent has not assessed baseline information for the region**, and is making false claims of no environmental impact even though it is verified that disturbance to aquatic vegetation could be severe and permanent.

Figure 1: Map created with ShoreZone data to illustrate the presence of eelgrass which has also been verified with personal communications with ADFG staff in the region.

The proposed project will have significant impacts on wetlands with no proposed mitigation.

Characteristic ecological components of coastal estuaries and wetlands are present in the project area. Therefore, a mitigation plan should be required for a project that will substantially and irreversibly harm an existing wetland complex. Valuable wetland and estuarine habitats are often characterized by large populations of fish and wildlife such as those occurring in Izembek Lagoon and the Copper River Delta in Alaska, among others. In less well-studied places, such as the Project Area, large populations of fish and wildlife signal rich populations of the less easily observed resources on which they depend, such as submerged aquatic vegetation, benthic invertebrates, and forage fish.

The presence of a diverse assemblage of birds with diverse foraging strategies and food preferences in the Bonanza Channel area indicates that there are ample submerged aquatic vegetation, benthic invertebrate, and forage fish communities to support them. The applicant does not include any information about these submerged ecological communities and how the applicant intends to minimize harm to the benthic environment.

Submerged aquatic vegetation (SAV) of a number of species are consumed as food by numerous waterfowl species, but also harbor communities of invertebrates consumed by higher trophic level predators and provide valuable ecosystem services. The Applicant contracted for aerial (drone) and boat surveys of eelgrass for their mining claims in 2019. The nearest eelgrass beds were found three miles west of their claims although they admitted their data may be incomplete locally. Local information indicates that eelgrass beds are present within and adjacent to the project area, and because the applicant has made reference to the fact that the extent of the project area could shift, it is likely that impacts to eelgrass beds will occur. The applicant should be required to obtain a baseline inventory of eelgrass in the area, not relying on drone photos, and work with the federal and state agencies in the area to complete a thorough baseline assessment of current wetland conditions, including the extent of all aquatic vegetation and the benthic environment. They indicated they would avoid any eelgrass detected during mining operations but they do not have baseline information available to make these claims and they do not indicate how they will avoid eelgrass if and when they do detect it in the project area. The applicant's eelgrass surveys (Exhibit 2) did reveal that another species of SAV, the surfgrass (*Phyllospadix scouleri*), was present throughout DSKN 30-32 and elsewhere on the Applicant's claims, and the underwater plant, *Ruppia maritima* may also be present. The role of surfgrass as a waterfowl food is less well known than eelgrass, but it is one of the most productive primary producers in marine ecosystems, shelters a variety of marine animals and plants and provides nursery habitat for invertebrates and fishes. While eelgrass is of obvious importance in coastal marine ecosystems, the USACE should be mindful that other SAV species provide similar ecosystem benefits and their destruction through mining worthy of avoidance or mitigation. It is unclear if the locations of other SAVs were surveyed and mapped during the applicant's eelgrass surveys. These data should be included in any baseline assessment before a permit for any action should be considered.

The largest physical impacts of the proposed dredging will be to sediments within the mined channel and the deposition areas adjacent to the mined channel. These sediments likely contain diverse assemblages of invertebrates (amphipods, isopods, clams, marine worms, etc.) that are exploited as food by fish, marine mammals, birds and other invertebrates. The amount of area disturbed is not small (173 acres over five years and 474 acres during the ten-year proposed operational period, with extensions to the footprint mentioned by the applicant). The applicant states that mining activity will create foraging opportunities for some species as invertebrates become exposed at the surface. This is true, but these benefits will be short-lived and will be offset by the long-term loss of these invertebrate communities. Recovery of benthic communities after dredging and spoil disposal can vary depending on sediment type, dredging methods, disposal depths, location, and the original composition of species. Re-colonization can be slow and often fails to recover to pre-disturbance levels and composition. Thus, effects of dredging may be permanent. Lack of pre-mining information on these invertebrate communities, which are fundamental building blocks of the estuarine ecosystem, and an assessment of the impacts of the mining activity on them is a fundamental oversight of the analysis.

Though ACOE does not require mitigation on many mining proposals and current projects across the state, the National Audubon Society questions this practice, and would like to highlight this issue with this proposed project as well. Section 404 of the Clean Water Act requires developers to mitigate wetlands (33 U.S.C. 1344). We ask that ACOE revisit its own intent in the 2018 memo that outlined mitigation actions in Alaska (https://www.epa.gov/sites/production/files/2018-06/documents/epa_army_moa_alaska_mitigation_cwa_404_06-15-2018_0.pdf). ACOE should require a mitigation plan as part of this application.

The proposed project turbidity testing would harm salmon habitat in an important ecological region for pink and chum salmon.

The proponent is proposing Safety Sound/Bonanza Channel include four major rivers, and two of the river mouths are accessible by salmon. Most salmon enter the easternmost river mouth. The location of dredging and turbidity testing was recently added to the Alaska Department of Fish and Game (ADFG) Anadromous Waters Catalogue. Both pink and chum salmon spawn in the Safety Sound region. The proponent's timeline for turbidity testing and drilling will directly impact anadromous fish habitat and spawning habitat. IPOP is proposing to do turbidity testing near the mouth of the easternmost portion of Bonanza Channel, which can block the channel and stir up mud that will make it challenging for spawning salmon to reach their spawning grounds, and will make it difficult for young salmon fry to successfully enter the marine environment. ADFG has documented that these species of salmon spawn in the area through October, which means the turbidity testing and drilling will co-occur with salmon spawning season.

Similarly, the presence of fish-eating birds such as loons, mergansers, gulls and terns in the greater project area indicates that forage fish are present in Safety Sound. Forage fish are generally considered to be small, fatty, non-commercial marine fish that are particularly sought after by marine birds and mammals. The analysis mentions, in

passing, the presence of Dolly Varden, chum, chinook, pink, and coho salmon, and resident fresh water species such as Arctic grayling, burbot, whitefish and northern Pike in the Bonanza and Solomon rivers that feed the Bonanza Channel. The analysis also mentions Saffron cod as present in two areas during winter. The analysis concludes there will be no impacts to fish because anadromous habitats will not be impacted and any increase in turbidity in the estuary will unlikely impact fish passage. The analysis failed to even mention a variety of other marine forage fish species that are known to inhabit the greater Safety Sound ecosystem including capelin, sandlance and herring (http://www.adfg.alaska.gov/index.cfm?adfg=viewinglocations.nomecouncil14to34). These species are highly sought after by marine birds and mammals, are likely to be found in the Project Area and are likely to be impacted by the proposed dredging. Failure to include them in the analysis points to another shortcoming of the analysis.

These examples, though not exhaustive, illustrate that this proposed action **will cause significant degradation** to Safety Sound and the barrier islands in the vicinity.

This Proposed Action will cause significant degradation of ecological resources that are important economic drivers for the region.

Tourism is the third largest economy in the state of Alaska. Wildlife tourism is significant portion of the total tourism economy in Alaska. Birding represents a significant portion of revenue in Alaska's wildlife tourism industry, and Nome is one of the primary places for bird watchers during summer months. Many guiding business from Alaska and other parts of the nation/world, bring clients to Nome. Each guide we spoke with in crafting this letter stated that ***Safety Sound is the most important place to visit*** while birding in Nome. They spoke of the myriad seabirds, shorebirds, and migratory waterfowl species available to view in the protected sound that are not seen in other areas around Nome. These guides use local businesses for lodging guests, and guests spend additional revenue in the communities of Nome and surrounding areas. Alaska has one of the highest rates of in-state bird tourism in the country, with at least 30% of residents participating in the activity. It has the highest number of non-resident birders in the country. In 2011, birders spent over $40 Billion across the United States, with Alaska benefiting from the majority of this tourism income.

The seafood industry is the second largest economy in Alaska. In 2017-2018, the industry accounted for $5.8 Billion in revenue. This income reflects the 3 billion pounds of seafood harvested in Alaska. The highest number of jobs in the seafood industry comes from the Bering Sea/Aleutian Islands region of Alaska, including the community of Nome and surrounding villages. The seafood industry employs more workers than any other private sector industry in Alaska, and is the foundation of employment for most coastal communities. Seafood health is determined by the health of coastal estuaries that provide rich, rearing habitat for many species of commercially harvested seafood.

The proponent has not provided adequate explanation of the impacts of this action on the regional tourism economy. The proponent states "These bird observation areas will not be impacted by the applicant's operation" by reasoning that the direct impacts of visual disturbance will be minimal. The proponent completely ignores the reason for birding tourism in the region is

the presence of birds, which will be negatively impacted by the activities outlined in the proposal (see below). It does not matter if infrastructure is visible on the road, or if a tourist can see a dredging vessel, rather, if the birds are no longer present, the tourism will cease to provide an economy for the region. The applicant should be required to illustrate that the action will not cause harm to an international tourist destination for birders that brings millions of dollars to Alaska's economy each year.

The proposed action will bring significant harm to birds and other wildlife within the region.

Of all the wildlife found in the Project Area, migratory birds are the most conspicuous and draw bird watchers from around the world. Audubon Alaska recognized the importance of Safety Sound and the estuarine complex to the east, including the Project Area, by designating it an Important Bird Area, one of 213 in the State of Alaska. The area is an important migratory stopover and nesting area for thousands of waterbirds and shorebirds including a number of species of conservation concern. Aleutian terns, which have declined by 92% in Alaska since the 1960s (Renner et al. 2015), nest and forage in the Project Area (http://axiom.seabirds.net/maps/js/seabirds.php?app=north_pacific#z=11&ll=64.49840,-164.63431; ebird 2020). The Nome-Council Road in the vicinity of the Project Area remains a reliable location to view this uncommon bird of conservation concern (ebird 2020). Thousands of tundra swans use the Bonanza Channel during spring migration (https://www.adfg.alaska.gov/static/viewing/pdfs/nome_guidebook.pdf). FWS has verified that tundra swans also use the Bonanza Channel throughout the summer, a distinct use of this habitat compared with many other similar areas in the state. IPOP LLC's Plan of Operations identified the important avian resources of the Bonanza Channel, but despite this, concluded that because the mining activity will be quiet, it will not disrupt or displace birds. This is an incorrect assumption as it only implies one variable of disturbance, sound, and makes no further analysis of the irreparable harm to bird habitats that will occur. Mining activity will take place from June-September, nesting and breeding season for hundreds of thousands of waterfowl that use the area, so it is certain that mining activities will impact nesting birds, as they are particularly sensitive to disturbance during nesting and molting season. Nest abandonment is likely, and for some species, like the Steller's Eider (endangered under the US Endangered Species Act) and Spectacled Eider (threatened under the US Endangered Species Act) it may cause complete displacement. Because of extensive disruption to benthic communities from the mining of sediments, foraging by birds will likely be disrupted for years to come.

Safety Sound/Bonanza Channel are the migratory, nesting, and breeding areas for 200 species of birds from six continents. The project area where the 1-5 year mining activity is proposed is home to a seasonal host of diving bird species that utilize the submergent aquatic vegetation and benthic invertebrates as important food sources during their summer months. These species include the Pacific Loon, Common Loon, Common Merganser, Canvasback, Common Goldeneye and Barrow's Goldeneye. Both Spectacled Eider and Stellar's Eider, affording protections under the US Endangered Species Act, have also been documented in the mining project area.

Breeding Bird Surveys (BBS) done within the study area and surrounding habitats have resulted in a number of findings for birds utilizing the area. These can provide a species list from which the applicant could start to do baseline investigations to determine impacts to each of these species instead of dismissing impacts based on limited data in the area. The BBS show the following species present in the region: Pacific Brant, Tundra Swan, Northern Pintail, Greater Scaup, Common Eider, Red-breasted Merganser, Red-throated Loon, Pacific Loon, Sandhill Crane, Semi-palmated Sandpiper, Western Sandpiper, Black-legged Kittiwake, Mew Gull, Glaucous Gull, Arctic Tern, Common Raven, Lapland Longspur, Savannah Sparrow, and Redpoll. These are species that are known breeders in the area, suggesting, at the very least, these species would most definitely be impacted by the proposed activity in the region, *even if they do not occur within the project site*, because breeding birds are particularly sensitive to many disturbances.

The proponent has incorrectly claimed that mining dredge material can be used to create "new shallow areas that may occasionally be exposed as sand mudflats…and could potentially serve as habitat for water birds, shorebirds and seabirds." In documented reports from Kawerak and the Norton Sound Development Corporation, the presence of contaminated soils from earlier mining activities exist in the benthic soils within the Safety Sound estuary. At this time, these materials are inert, as are many heavy metals within soil in aquatic environments. However, these materials are very susceptible to disturbance, and with disturbance will become active contaminants within an ecological system. Instead of creating potential, new habitat, the proponent will instead be contaminating the environment with a recharge of heavy metals from earlier mining activities in the region. This means, a region that is actively undergoing natural regeneration and restoration will again become a largely polluted estuary with limited nutrient available for the species that currently rely on the area for food.

The proponent has not adequately addressed the baseline data for the region's ecological importance for 200 species of birds, as addressed above. Species of conservation concern are listed in the Audubon Alaska Watchlist (https://ak.audubon.org/conservation/alaska-watchlist) and many of the species that utilize the habitats of Safety Sound are found on the Audubon Watchlist. The applicant should address each species and potential direct and cumulative impacts on each species with the proposed activity. For example, all five species of loons in North America are found in Safety Sound, including Yellow-Billed and Red-Throated Loons, which are of significant conservation concern to Audubon and in the case of Yellow-Billed Loons, have been candidates for listing under the U.S. Endangered Species Act. Yellow-Billed Loons are listed as "near-threatened" by the International Union on the Conservation of Nature due to "moderately rapid" population decline. All loon species are known for sensitivity to nesting and breeding territories, and activities associated with the proponent's permit need to address the impacts these activities will have on loons in the region.

The applicant has not addressed the impacts to marine mammals that utilize Safety Sound. Scientific authorities with Kawerak Inc. identified walruses utilizing haul outs in the area, and seal pups using Safety Sound. Walruses and Alaska's seals are protected under the Marine Mammal Protection Act, and therefore, any activity that may impact these species should be addressed and mitigated, or alternatives should be proposed. The applicant does not address the presence of marine mammals within the proposed project area. The applicant should have to

address any "take" that may occur, and should not be allowed to dismiss "take" based on the limited analysis they have currently conducted on ecological impacts to the region. As part of this analysis, they should also include a cumulative impacts analysis to address human health impacts of their actions, as marine mammals accumulate heavy metals and other associated toxins from mining activities (see documentation from Greens Creek Mine in Alaska). Marine mammals are an important subsistence food source, and therefore any analysis of impacts to marine mammals should also include a human health impacts analysis.

This proposed action will cause significant degradation to subsistence resources.

The analysis also gave short shrift to Traditional Ecological Knowledge (TEK) and impacts to subsistence uses that the USACE may wish to re-evaluate. As far as TEK is concerned, all the Applicant states is that they are "committed to engaging and collaborating with the local residents and other stakeholders to create a positive impact for all from dredging in the Bonanza Channel." It is obvious they have made no attempts thus far to engage local users to evaluate the importance of the area culturally and as a source of local foods. Local contacts of Audubon Alaska's in Nome state that because of the high value of the project area to migratory birds, the area is frequently used by subsistence hunters. The Applicant acknowledges that subsistence activities occur in the area and their analysis and conclusion are simply that mining and subsistence can peacefully co-exist. Its worth noting that the Norton Sound Economic Development Corporation, Kawerak Inc., and the Bering Straits Native Corporation all oppose the project and justify their opposition on the protection of natural resources and the subsistence harvests those resources support (Norton Sound Economic Development Corporation Newsletter, May 22, 2018).

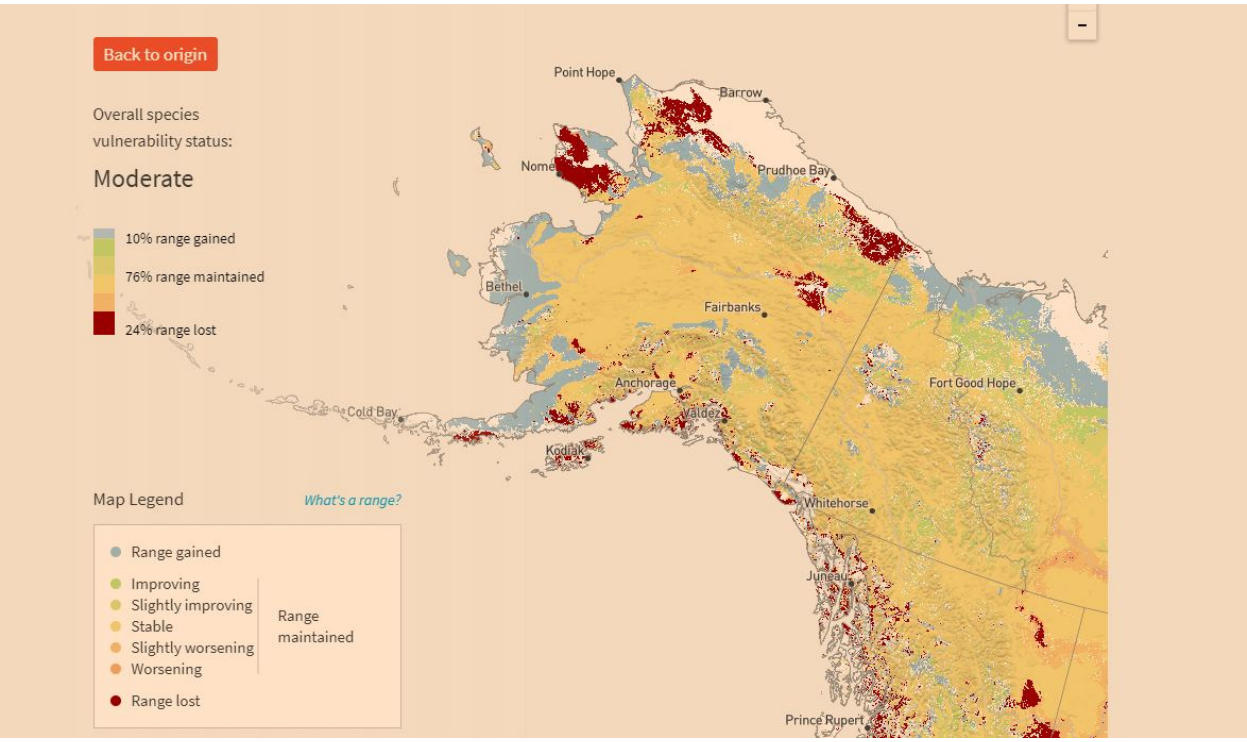
The proponent has stated, "There is no official record of use of the area by subsistence or recreational users of the general project area." **This is incorrect**. There are records of allotments in the area, which are subsistence users, and documentation is available by asking any of the Tribal organizations or the regional corporation for documentation. ADFG has kept records for over 30 years on fishing in the area, and this is almost entirely subsistence fishing. Subsistence fishing requires a subsistence permit (sometimes referred to as a personal use permit) so there is harvest data available for salmon. IPOP should not be allowed to make a statement that blatantly ignores available data.
Many additional data sources exist that the proponent should be required to review about the important subsistence activities in the region.

1) Norton Sound Economic Development Corporation and Kawerak previous statements on subsistence use in the region in response to this project: https://www.nsedc.com/nsedc-kawerak-bsnc-oppose-mining-in-critical-norton-sound-habitat/
2) An assessment by Alaska Maritime NWR that highlights the importance of Safety Sound for subsistence activities: file:///E:/993%20AMBCC%20Survey/Data%20requests/Safety%20Sound,%20Aug%202020,%20Audubon/AK%20Maritime%20Refuge.pdf
3) Wolfe et al. mentions streams near Safety Sound (and therefore part of the area) that are important for subsistence: file:///E:/993%20AMBCC%20Survey/Data%20requests/Safety%20Sound,%20Aug%202020,%20Audubon/Wolfe%20et%20al%20(1986)%20Role%20of%20fish%20and%20wildlife%20in%20economy,%20includes%20Nome,%20TP%20154.pdf

4) An example of a recent subsistence fisheries report that discusses the subsistence harvest in the project area: http://www.adfg.alaska.gov/index.cfm?adfg=ByAreaSubsistenceNortonSound.research

The applicant has not considered the cumulative impacts of the proposed actions.

Cumulative actions are those "which when viewed with other proposed actions have cumulatively significant impacts (40 C.F.R. § 1508.25(a)(2)." Cumulative impact is defined as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions (40 C.F.R. § 1508.7). ACOE should consider potential cumulative impacts of the proposed action and require the applicant to address cumulative impacts. Currently, the applicant only minimally addresses (or dismisses) any potential impacts based on a limited amount of activity. However, given the hydrology and location of Safety Sound, it is possible that the applicant could operate dredging machinery twenty-four hours per day for up to ten years from spring through fall in the area. According to conversations with DNR, this could be enough activity to move one football field worth of substrate material each season. Not only will the immediate activity displace wildlife, remove nesting and breeding habitat for birds, destroy eelgrass and other aquatic vegetation within the estuary, and increase turbidity in the water, but the impacts of moving dirt and removing aquatic vegetation will also have detrimental, long-term cumulative impacts on the region. One specific example that should be addressed is the cumulative impacts on climate change. Estuaries and wetlands are considered "blue carbon networks" that play important roles in carbon sequestration. If disturbed or destroyed, the loss of these blue carbon systems can have a lasting effect on the carbon sequestration potential of a given area. Similarly, many of the bird species in Alaska have been shown to be in decline or will be declining due to climate change impacts (see the 2019 Audubon Report for details at: https://www.audubon.org/climate/survivalbydegrees/state/us/ak). Many species currently found in Safety Sound and within the project area are going to undergo declines due to climate change, and ACOE, along with the applicant, need to consider the impacts of climate change as part of this project on birds because the science is available to do these analyses. The applicant is proposing activity that will directly impact species, such as the Common Goldeneye (see below) that are already going to see population declines due to climate change.



A map of range lost by Common Goldeneye with the 1.5degree Celsius warming that is projected for the species in Alaska under the most conservative warming models. This is a common species found in Safety Sound.

The proposed remediation for this proposed action is not adequate.
The applicant proposes no remediation other than the repurposing of dredged material into its prior location. However, due to contamination from earlier mining activities within the area, even this one remediation task will require a significant operations plan that highlights how the applicant will manage the re-emergence of earlier heavy metal/contaminated sediment back into the suspended water column and aquatic environment. This should also include a study of long-term health impacts of all individuals who subsist on resources within the area because it will directly contaminate many of the subsistence foods harvested in the estuary. The proposed reclamation efforts will not enhance, restore, or replace the function of wetland or estuary habitat in the project area. There is no plan for restoration, which will diminish at least one-quarter of the wetlands in the project area. As part of the permit, *the applicant has not proposed the least damaging alternative action.* This should also be a requirement to satisfy the ACOE permit process.

To summarize, **Audubon Alaska requests the USACE not issue a permit for the proposed dredge operation in Bonanza Creek based on the information provided by IPOP, LLC.** The applicant has done an insufficient job of summarizing information to adequately describe the natural resources in the affected area and the impacts of their operation on these resources. We suspect in part, this is because there may not be detailed information available for the actual mining site, but they have done nothing to remedy this situation with pre-mining baseline information. If the applicant wishes to proceed in the future, they should be required to collect adequate baseline data. This information would accomplish two goals: establish the ecological importance of the project area, and provide information from which later comparisons can be

made. In addition, the company does not seem to have established relationships with local user groups that may be impacted by their activities. To us, the project has not met the test of due diligence one would expect in a project of this magnitude in a sensitive estuarine habitat. Audubon Alaska opposes the entire operation and the permit application. We request that ACOE deny the permit and require the applicant to conduct baseline research before applying for this action in the future. **We also ask that ACOE require an Environmental Impact Statement if this or a similar action is sought in the future** due to the ecological, traditional, social, and economic significance of Safety Sound.

Thank you for your time and consideration. Please do not hesitate to reach out to us with questions or additional information.

Sincerely.

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