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Jolie Harrison, Chief Permits and Conservation Division
Office of Protected Resources
National Marine Fisheries Service
1315 East West Highway (SSMC3)
Silver Spring, MD 20310

Attn: Taking Marine Mammals Incidental to Specific Activities; Taking of Marine Mammals Incidental to Pile Driving and Removal Activities During Construction of the Hoonah Marine Industrial Center Cargo Dock Project, Hoonah, Alaska

Submitted via email to ITP.Egger@noaa.gov

Dear Ms. Harrison,

Defenders of Wildlife is national nonprofit organization dedicated to the protection of all native animals and plants in their natural communities. Founded in 1947 and representing over 1.8 million members and supporters, Defenders prioritizes protecting and restoring imperiled species and their habitats in North America to conserve our nation's rich biological heritage – our biodiversity. We appreciate the opportunity to comment on this incidental harassment authorization. We support the City of Hoonah in pursuit of this project and we recognize the benefits it will bring to the community. Please consider these comments below regarding the taking of marine mammals.

In summary, NMFS has not demonstrated that the authorized take numbers will be small, that impacts will be negligible, or that it is effecting the least practical impacts on marine mammals. We request that NMFS reduce the Level B take for all marine mammals, especially humpback whales; evaluate the effect of multiple takes on the same individuals; require additional PSOs charged with photo ID documentation for humpback whales, define humpback group size, evaluate available noise reduction strategies; require local temporal restrictions during the humpback bubble net feeding season; and include the best available science regarding marine mammal noise criteria to re-evaluate the proposed harassment zones.

NMFS has failed to demonstrate the authorized take numbers are small

NMFS proposes to authorize level A take for 8 Dall's porpoise, 16 harbor porpoise, and 60 harbor seal and authorize Level B take for 12 minke whale, 880 humpback whale, 4 gray whale, 316 killer whale, 328 Pacific white sided dolphin, 144 Dall's porpoise, 440 harbor porpoise, 660 harbor seal and 550 Steller sea lion. Defenders requests that the agency lower the Level B take for all species. The number of allotted takes for a project should not equate to the number of predicted maximum sightings of that species.



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For instance, NMFS is proposing to authorize Level B take for 880 humpback whales, which is 8.7% of the entire North Pacific stock. Likewise, the current authorized take for each of the three stocks of killer whales exceeds 10% of the total stock. Both resident and transient killer whales live in family groups that rely on vocalizations to communicate about prey and other important information. Take of just one killer whale (of any ecotype) is extremely unlikely as these animals are seldom seen alone in Southeast Alaska. Additionally, if one member of a family group experiences a temporary threshold shift through a Level B take, that individual's ability to communicate can be significantly impaired which could inhibit the entire group's ability to communally feed and hunt until that individual recovers. The large take authorizations represent significant proportions of the stocks in and of themselves, and those takes can impact many more animals in the stock. The large takes numbers accounting for the maximum estimate of animals to be seen during the course of the project do not promote any mitigation or protection for marine mammals in the area.

NMFS has not demonstrated that impacts to the Humpback Whale DPSs will be negligible

In 2016, the North Pacific stock of humpback whales was divided into DPSs to facilitate more specific and targeted management and conservation strategies to listed and non-listed stocks. As of that 2016 rule, the Mexico DPS remained listed under the ESA and the Hawaii DPS was delisted. However, in the years leading up to the delisting of the Hawaii DPS to the present day, the Hawaii DPS has exhibited drastic declines in abundance.¹

Between 2013 and 2018, mother-calf observation rates for the Hawaii DPS dropped 76.5%, potentially indicating a severe decline in reproductive success for this recently delisted DPS.² The calculations provided by Wade et al., 2016, allocate 53 of the authorized takes for the endangered Mexico DPS, leaving 827 takes for the Hawaii DPS. Given the troubling status of the Hawaii DPS despite the delisting, it is not clear that 827 takes would have a negligible impact on the remaining population. For both DPSs, NMFS must better explain how it reaches this conclusion and, as discussed below, how it is effecting the least practicable adverse impact on them.

NMFS must more accurately define "group size" for humpback whales

NMFS defines a maximum humpback group size as eight individuals for all months of the year, but cites no support for that maximum group size. NMFS must state how the agency is defining this term for the purpose of mitigating harm caused by this project. Additionally, regardless of how "group" is defined, humpback group size in Southeast Alaska varies dramatically throughout the year depending on prey availability and social group dynamics. NMFS appears to rely on the eight-animal group size to calculate 880 takes for humpback whales. After considering the arguments above, the agency may need to revisit take calculations to account for larger potential group sizes.

¹ Cartwright R., Venema A., Hernandez V., Wyels C., Cesere J. and Cesere D. (2019). Fluctuating reproductive rates in Hawaii's humpback whales, *Megaptera novaeangliae*, reflect recent climate anomalies in the North Pacific. *Royal Society Open Science*; 6:181463.
<http://doi.org/10.1098/rsos.181463>

² ID at Cartwright et al., 2019.



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NMFS should have nearshore PSO monitoring guidelines and reporting

We agree with the agency requiring PSOs for this project and for other nearshore marine construction projects as a mitigation measure in addition to appropriate time and space restrictions. When properly trained and utilized, PSOs serve a vital role in mitigating harm to marine mammals. However, we encourage NMFS to provide a formal PSO monitoring guidelines and requirements for reporting takes. We cannot find any nearshore PSO trainings or requirements that are provided for similar offshore PSOs and fisheries observers. In addition to NMFS requiring PSOs to report marine mammal sighting estimates as “min/max/best” NMFS should require these estimates to be documented in the final publicly available report.

NMFS should require an additional PSO for easily photo identifiable species

We encourage NMFS to mandate an additional PSO who is solely dedicated to photo-identification work. We acknowledge that an identifiable photo of an individual marine mammal is not always possible and some species are more suitable for photo-identification (such as humpback whales) than others. Nevertheless, we encourage NMFS to incorporate photo identification work into protected species observing primarily because this will allow PSOs to more reliably determine if individual animals are exposed to multiple takes, even if PSOs do not or cannot successfully match an individual in known identification catalogs. Additionally, photo-identification will allow the agency, scientists, and managers the opportunity to review takes after the project’s completion, contribute to science, and provide better information for future management decisions.

NMFS must discuss effects of multiple takes to individuals

It is also very likely the same individual humpback whales will be exposed to multiple Level B takes. Humpback whales exhibit extremely high site fidelity to their preferred their feeding waters in Southeast Alaska during the summer and fall months. This is common knowledge among whale watching professionals in Southeast Alaska. Photo identification has documented the same individuals returning to feed in the same locations year after year. NMFS’s own researchers work with whale watching professionals to collect photographs and observational data to contribute to regional photo identification catalogs, HappyWhale,³ and scientific literature. From personal experience, and collaborations through HappyWhale, I can attest that there is a small number of individual whales that feed in Icy Strait and the waters surrounding Hoonah. It is unsafe to assume that if a whale is displaced from its preferred site, then it will find the same success in another area. This is especially true for a mother teaching her calf where and how to feed, which is the primary reason for mothers to return to Alaska after giving birth to their newborn calves in tropical waters. For these reasons, the agency must acknowledge the very realistic threat of multiple takes on the same individuals. NMFS must address the impacts of cumulative Level B takes being concentrated on the same individual whales, both to those whales and to the stock as a whole.

NMFS should require temporal restrictions based around humpback whale bubble net feeding

³ www.HappyWhale.com



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Depending on prey availability, humpbacks may choose to feed in close proximity with one another, but not necessarily together as one group. In times of abundant prey, humpbacks will collaboratively bubble net feed together. The timing of bubble net feeding can vary year to year. When humpbacks bubble net feed together, it is common to observe a wide variety in group sizes, often consisting of more than eight individuals. It is extremely important humpbacks are able to maximize their caloric intake in the summer and fall through this type of feeding because during the breeding season, when the whales migrate to tropical waters, they eat very little and survive primarily off the fat reserves they built in Southeast Alaska. Mothers will also nurse their calves from these reserves, which is critically important to both the listed Mexico DPS and the Hawaii DPS, which is showing signs of decreased reproductivity. Additionally, humpbacks coordinate bubble net feeding through vocalizations. During the bubble net feeding season, a prime acoustic environment is necessary. Humpbacks are known to bubble net feed in the vicinity of the project area. NMFS should consider temporal restrictions when the humpbacks are bubble net feeding, especially to avoid masking vital intraspecies communications during this critical feeding period.

NMFS must include updated best available science regarding marine mammal noise criteria

NMFS cites Southall et al., 2007 for functional hearing groups and NMFS 2018 for generalized hearing ranges based on a 65-decibel threshold from normalized composite audiograms. NMFS classifies baleen whales with a generalized hearing range from 7hz to 35 kHz. However, an updated 2019 study by Southall et al., “Marine Mammal Noise Exposure Criteria: Updated Scientific Recommendation for Residual Hearing Effects,” is not included in this IHA⁴. NMFS has correctly stated there are no direct measurements for mysticete hearing but Southall et al., 2019 further elaborates that anatomical data and modeling can be used to estimate audible ranges and frequencies of best hearing but it cannot be used to estimate hearing sensitivity or generate empirical audiograms. Southall et al., 2019 also indicates that NMFS should separate baleen whale hearing groups into multiple categories for the purpose of assessing likely noise impacts. Blue, fin, and bowhead whales have larger cochlear radii ratios specialized for very low frequencies whereas humpbacks commonly use higher sound frequencies in intraspecies communication (such as to coordinate bubble net feeding). With the inclusion of Southall et al., 2019, NMFS must reevaluate the shut down zone sizes, especially for baleen whales.

NMFS should assess the available sound propagation reduction technologies

We appreciate that the City will use pile caps to reduce the noise associated with pile driving. It is unclear from the proposal, however, what the range of available technologies and strategies is to mitigate noise and other project impacts – i.e., to effect the least practicable impacts on marine mammals. Other projects have employed bubble curtains to reduce noise, for example. NMFS must address the technologies and approaches available to minimize project impacts on marine mammals and state how it is ensuring that those impacts are minimized. Regarding bubble curtains, NMFS should consult with expert acousticians regarding source level reduction to minimize effects on marine mammals in both the near and far field.

⁴ Southall, Brandon L. et al. 2019. “Marine Mammal Noise Exposure Criteria: Updated Scientific Recommendations for Residual Hearing Effects.” *Aquatic Mammals* 45(2): 125–232.



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Comments on request for renewal

Shall the first phase of this project be satisfactorily completed with the inclusion of the above mitigations and corrections and minimal level B take of marine mammals, we support the City of Hoonah receiving renewal for the continuation of the dock construction.

Thank you for your consideration of the above comments. In addition to being vital components of a functioning ecosystem, marine mammals also bring significant tourism revenue to Southeast Alaska and residents of Hoonah. We appreciate the agency striving to provide the best mitigation and conservation management strategies to the protection of marine mammals and hope these comments can support its efforts to do so. We hope the agency will consider these comments to achieve that standard.

Sincerely,

Katy Bear Nalven
Alaska Marine Representative
(907) 276-9453