23 May 2025

Mr. Jon Kurland, Regional Administrator
Alaska Region, National Marine Fisheries Service
National Oceanic and Atmospheric Administration
Juneau, Alaska

Re: NOAA–NMFS–2025–07029

Dear Mr. Kurland:

The Marine Mammal Commission (the Commission), in consultation with its Committee of Scientific Advisors on Marine Mammals, has reviewed the National Marine Fisheries Service's (NMFS) 23 April 2025 draft Aquaculture Opportunity Area (AOA) options in Alaska state waters (90 Fed. Reg. 17051). The Commission previously submitted comments on the Request for Information regarding the identification of AOAs in Alaska state waters[1] and nationwide.[2]

As noted in earlier correspondence, aquaculture planning requires a data-informed, science-based approach to minimize potential conflicts with marine mammals and their prey. Siting should seek to avoid overlap with marine mammal home ranges, including foraging and breeding areas, and migration routes. The Commission was pleased to see that NMFS had incorporated several of our previous recommendations into the current draft spatial analysis, including use of the following datasets in the sub-models used in the suitability analysis:

- Feeding Biologically Important Areas (BIAs) for fin, gray, and North Pacific right whales (Wild et al. 2023);
- Abundance and distribution data for northern sea otters; and
- Haulout site data for harbor seals and haulout and rookery site data for Steller sea lions.

The Commission offers the following additional considerations for the final Alaska marine spatial planning study and identified AOAs:

The *Aquaculture Opportunity Area Atlas for the Southern California Bight* (Morris et al. 2021) and the *Aquaculture Opportunity Area Atlas for the U.S. Gulf of Mexico* (Riley et al. 2021) used a combined protected species data layer that included marine mammals, assigning relative suitability scores based on conservation status under the Endangered Species Act (ESA) and Marine Mammal Protection Act (MMPA) and population trends — even if species were not ultimately included in the spatial suitability modeling. Both studies listed all marine mammals and other protected species known to occur in the region, described all relevant data layers considered, and provided clear justifications for any exclusions. They also noted that species excluded from the analyses would need to be revisited

[1] See the Commission's 18 December 2023 letter
[2] See the Commission's 22 December 2020 letter.

during the Programmatic Environmental Impact Statement stage of the National Environmental Policy Act process to further determine the suitability of various AOA options.

In contrast, the Alaska region's materials only list data layers used in the final modeling, without specifying whether additional marine mammal species or data were considered but not included. For example, while data on small cetaceans were not among the final model outputs in the Southern California Atlas, the supporting documentation clearly indicates that these species were evaluated and explains the rationale for their exclusion. This level of clarity is absent from the Alaska analysis, making it unclear which marine mammal species in the Gulf of Alaska were considered. The Commission recommends that NMFS adopt an approach in Alaska similar to the approach used in the other two regions— if not already done—to ensure comprehensive consideration of marine mammal presence and habitat and to clarify how decisions were made regarding data inclusion or exclusion.

Biologically Important Areas

While the model accounts for feeding BIAs for some large whale species, it does not incorporate Gulf of Alaska humpback whale feeding BIAs or gray whale migratory BIAs. Given the frequent entanglement of humpback whales in fishing gear (Johnson et al. 2005) and aquaculture gear (Bath et al. 2023), the ongoing entanglement of gray and humpback whales in fixed-gear fisheries along the West Coast[3], and the potential entanglement risk to endangered North Pacific right whales, it is important to account for known seasonal whale presence when evaluating AOA suitability. The Commission previously recommended[4] that NMFS take a precautionary approach when assessing the suitability of AOA sites on the West Coast, due to the potential to exacerbate the entanglement risk to endangered large whales. Notably, the Southern California Atlas included migratory BIAs in their analyses. The Commission recommends that NMFS consider incorporating Gulf of Alaska humpback whale feeding BIAs and gray whale migratory BIAs into the Alaska AOA suitability analysis.

Critical habitat

State-level layers[5], such as game refuges, critical habitats, and sanctuaries, have been included in the Alaska AOA suitability analysis. While the Commission acknowledges that ESA-designated critical habitat protections apply to federal actions and that jurisdiction in this AOA is especially complex, the Commission recommends that NMFS also include ESA-designated critical habitat for threatened and endangered stocks of marine mammals, such as Steller sea lions, North Pacific right whales, humpback whales, and sea otters, that might not have been included in state-level critical habitat layers. The documentation for those designations provides important information about where marine mammals are known to occur and could help inform the siting process.

The Commission supports NMFS's removal of the broader Southwest Alaska study area (except for Kodiak) in light of known endangered North Pacific right whale distribution. However,

[3] NOAA Fisheries. 2024 Whale Entanglement Report. April 2025. Available at: https://www.fisheries.noaa.gov/s3/2025-04/2024-whale-entanglements-report.pdf
[4] See the Commission's 22 December 2020 letter.
[5] Alaska Department of Fish and Game. Find a Conservation Area. Available at: https://www.adfg.alaska.gov/index.cfm?adfg=conservationareas.locator.

the Commission urges continued avoidance of overlap with designated critical habitat and other areas of known use by North Pacific right whale, particularly nearshore waters where recent sightings and acoustic detections indicate ongoing presence (Crance et al. 2022; Wright et al. 2025). Final siting decisions should reflect the best available science, including recent sighting, acoustic, and BIA data.

Identifying and expanding data for small cetaceans

In assessing the suitability of sites for AOAs in Alaska, NMFS should ensure its analyses reflect the presence and habitat use of small cetaceans. Within the Gulf of Alaska, the draft AOAs overlap with habitat used by harbor porpoises and other small cetacean species. For example, the most recent Alaska Stock Assessment Reports (NMFS 2023) note that harbor porpoises are commonly observed in coastal and nearshore waters of the Gulf of Alaska, where aquaculture operations may be sited. Small cetaceans may interact with aquaculture operations, and the Commission re-iterates its previous recommendation regarding identifying and taking into account important habitat areas and distribution patterns for small cetaceans. Information from the most recent marine mammal SARs (NMFS 2023) and other relevant sources should be integrated to reflect current patterns of distribution and habitat use.

Alaska Native subsistence hunting and integration of Indigenous Knowledge

The Commission commends NMFS for excluding at least one potential AOA site in response to Tribal input and strongly encourages the continued integration of Indigenous Knowledge throughout AOA siting and permitting processes. Section 101(b) of the MMPA allows Alaska Natives to harvest marine mammals for subsistence purposes, and Section 119 provides for cooperative co-management agreements between Alaska Native Organizations (ANOs) and NMFS/ U.S. Fish and Wildlife Service. As such, the Commission recommends that NMFS consult with marine mammal ANOs, Alaska Native Tribal representatives, and other marine mammal co-management partners, particularly about sensitive marine mammal habitats and subsistence hunting areas. Indigenous Knowledge should be incorporated into aquaculture planning and permitting decisions, as it can offer timely, place-based, and ecologically detailed information on the distribution, movement, and habitat use of subsistence hunted marine mammal species. For example, during the two AOA Spatial Planning Workshops[6], co-hosted by NMFS, National Centers for Coastal Ocean Science, and the State of Alaska, participants raised questions about how the model will account for changing marine mammal distributions due to environmental changes and how spatial data will be updated over time. Several participants emphasized the value of Indigenous Knowledge for detecting and understanding such shifts in species distribution and behavior.

Assess and monitor cumulative impacts of aquaculture development

As discussed in the Commission's previous letter, monitoring of aquaculture sites as they are developed and operated is essential to assess the effectiveness of, and to appropriately modify, strategies to reduce the risk of harmful interactions between marine mammals and aquaculture. The

[6] NOAA Fisheries. *Alaska Aquaculture Opportunity Area Spatial Planning Workshops Summary Report*. August 2024. Available at: https://www.fisheries.noaa.gov/s3//2024-08/Alaska-AOA-Spatial-Planning-Workshops-Report.pdf

array of activities occurring within the Gulf of Alaska, many of which are accounted for in the suitability analysis, indicates a need to address the cumulative impacts of aquaculture, as interactions with marine mammals may increase as aquaculture operations expand. The Commission recommends that efforts be made to monitor the impacts of aquaculture operations over time, including studies of cumulative effects. The Commission encourages adaptive management to ensure the effectiveness of mitigation measures.

The Commission appreciates the opportunity to provide comments on AOAs being considered for the Gulf of Alaska. Please contact me if you have questions about the Commission's recommendations or comments.

Sincerely,

Peter O. Thomas, Ph.D.,
Executive Director

cc: Ms. Danielle Blacklock, Director, Office of Aquaculture, NMFS, NOAA
Ms. Alicia Bishop, Aquaculture Coordinator, Alaska Regional Office, NMFS, NOAA

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