

6 October 2022

Ms. Kelly Hammerle, Chief
National Oil and Gas Leasing Program
Development and Coordination Branch
Office of Strategic Resources
Bureau of Ocean Energy Management (VAM-LD)
45600 Woodland Road
Sterling, Virginia 20166-9216

Dear Ms. Hammerle:

The Marine Mammal Commission (the Commission), in consultation with its Committee of Scientific Advisors on Marine Mammals, has reviewed the Bureau of Ocean Energy Management's (BOEM) 2023-2028 National Outer Continental Shelf (OCS) Oil and Gas Leasing Proposed Program. The Commission has also reviewed BOEM's draft programmatic environmental impact statement (EIS) for the 2023-2028 Proposed Program, as announced in its 8 July 2022 notice of availability (87 Fed. Reg. 40859). The Commission provided comments to BOEM on the 2019-2024 Draft Proposed Program (see the Commission's <u>9 March 2018 letter</u>) raising concerns about the number of planning areas included for consideration and a lack of information about risks to marine mammals in each of the planning areas under consideration, and making recommendations for excluding or deferring certain planning areas or portions of planning areas from leasing during the next five-year program. The following provides general comments and additional information on the planning areas that BOEM has included as options in the 2023-2028 Proposed Program.

The 2023-2028 Proposed Program

BOEM's proposed action, under Alternative B(a) of the programmatic EIS, includes up to 11 lease sales in its 2023-2028 Proposed Program — ten lease sales in the Gulf of Mexico¹ and one lease sale in the Cook Inlet planning area. This is a significant reduction from the 47 lease sales considered in the 2019-2024 Draft Proposed Program, and a return to the more conservative leasing approach that has been followed by BOEM and its predecessor, the Minerals Management Service, since 1992 (as depicted in Figure 4-1 of the Proposed Program). The 2023-2028 Proposed Program includes essentially the same number of lease sales in the same planning areas that BOEM made available in its previous 2017-2022 leasing program². The next step in the process is for BOEM to issue a Proposed Final Program for Presidential and Congressional review and approval.

¹ Including the entire Western Gulf of Mexico planning area, most of the Central Gulf of Mexico planning area, and a small portion of the Eastern Gulf of Mexico planning area, as specified in Section 104(a) of the Gulf of Mexico Energy Security Act of 2006 (GOMESA). The exclusion areas identified in GOMESA were extended by Presidential Memorandum until 30 June 2032, under authority of Section 12(a) of the Outer Continental Shelf Lands Act.

² In May 2022, BOEM cancelled all remaining lease sales in the 2017-2022 leasing program, including one in Cook Inlet (Lease Sale 258) due to lack of industry interest, and two in the Gulf of Mexico (Lease Sales 259 and 261) due to litigation-related delays. Those three lease sales were subsequently reinstated after publication of the 2023-2028 Proposed Program by the Inflation Reduction Act of 2022, and are scheduled to be held by the end of 2023.

The Commission has commented previously on the known and potential effects of offshore oil- and gas-related energy development³ on marine mammals. Those effects include disturbance and potential injury from noise generated by geophysical (seismic) surveys, drilling, and increased vessel traffic; vessel strikes; exposure to oil spills and other pollutants; and disturbance from decommissioning activities. It has also become increasingly evident that the distribution, health, and resilience of certain marine mammals are being affected by changes in climate conditions (Gulland et al. 2021). More information is needed how oil and gas leasing decisions and new production might compound and worsen the impacts of those changes.

Oil and gas leasing and development raise the risk of oil spills. Cetaceans exposed to heavy oiling during the Deepwater Horizon oil spill experienced increased mortality, chronic disease, and reproductive impairment in the years following the spill (Schwacke et al. 2022). In the arctic and northwestern US coast, fur-bearing marine mammals are especially vulnerable to exposure to oil, with exposed animals suffering from impaired mobility, impaired thermoregulation, gastrointestinal damage, and organ failure. Exposure to oil can also weaken marine mammals' immune systems (DeGuise et al. 2021), making them more vulnerable to other threats. The persistence of unrecovered oil in the marine environment increases the likelihood of chronic effects on long-lived species, such as marine mammals (NASEM 2022).

Comments on specific planning areas

Cook Inlet

The Cook Inlet OCS planning area overlaps critical habitat of the endangered Cook Inlet beluga whale and the threatened northern sea otter. The Commission remains concerned that any increase in oil and gas activities in the Cook Inlet OCS, when added to other existing human activities in state and federal waters of Cook Inlet, will pose significant risks to beluga whale and sea otter populations and adversely affect important habitat.

Despite the voluntary suspension of subsistence hunting of Cook Inlet beluga whales in 1999 and a limited harvest until 2005 (Shelden et al. 2021), the beluga whale population has continued to decline. The current abundance estimate is 279 animals, which represents a 2.3 percent annual decline over the last ten years (Shelden and Wade 2019). This population is at risk of extinction because of its low numbers and lack of recovery since being listed as endangered under the Endangered Species Act in 2008. Although the reasons for the continued decline of Cook Inlet beluga whales are not fully understood, anthropogenic noise, habitat loss and degradation, and the cumulative effects of multiple stress factors were recently reconfirmed by the National Maine Fisheries Service (NMFS) as threats to the recovery of Cook Inlet beluga whales (NMFS 2022). NMFS also raised concerns regarding the potential negative effects of severe weather events and warming waters caused by climate change, which could affect the availability or nutritional quality of prey species and increased susceptibility to disease (NMFS 2022).

³ Reference to 'energy development' here and throughout this letter refers to all stages of oil and gas upstream activities, including exploration, platform installation, drilling, production, well monitoring, transportation (via pipelines or tankers), and decommissioning.

Beluga presence in the Cook Inlet OCS lease area is limited seasonally but not discountable, and could be negatively affected by increased oil and gas development in this area. Historically, beluga whales occurred in Cook Inlet as far south as Kachemak Bay (Dutton et al. 2012). What is known about their current distribution is based on aerial surveys, vessel-based photo-identification (photo-ID) surveys, and acoustic monitoring. Aerial surveys to determine abundance are conducted primarily in June, when beluga whales are concentrated near foraging areas in the upper inlet (Shelden et al. 2019, 2022). Additional aerial surveys were funded by BOEM in the Spring and Fall from 2018 to 2021 to determine the extent to which beluga whales occur in or adjacent to the OCS lease area. During those surveys, beluga whales were detected in the upper inlet but also near the proposed OCS leasing area in Tuxedni Bay and near Kalgin Island on the western side of the inlet, and in the Kenai and Kasilof Rivers on the eastern side of the inlet (Figure 13; NMFS 2022). Photo-ID surveys conducted from April through October have detected beluga whales consistently in the Kenai River area in the Fall months (McGuire et al. 2020). Beluga whales have been detected acoustically near the proposed lease area during the winter months off Tuxedni Bay, the Kenai River area (Castellote et al. 2020), and northwest Kalgin Island (Polasek et al. 2021).

BOEM has proposed one lease sale in the Cook Inlet OCS in the 2023-2028 Proposed Program, to be held in 2026. Demand for leases in the Cook Inlet OCS in future leasing programs is expected to be minimal, given the continued low projections of recoverable oil and gas resources in Cook Inlet (BOEM 2021). BOEM canceled Cook Inlet Lease Sale 258 under the 2017-2022 fiveyear program in May 2022 due to a "lack of industry interest4." Lease sales in Cook Inlet were canceled in 2007, 2009, and 2011 for the same reason, and a lease sale in 2004 received no bids⁵. Lease Sale 244, held in 2017, attracted bids from only one company⁶. Lease Sale 258 was recently reinstated under the Inflation Reduction Act of 2022 (Public Law 117-169), and is required to be held by December 2022. The requirement to reinstate Lease Sale 258 was enacted after BOEM released its 2023-2028 Proposed Program. The reinstatement of Lease Sale 258 in 2022 would seemingly make yet another lease sale in 2026 untimely as well as environmentally risky. Cook Inlet has a history of both small and large oil spills from platforms and pipelines (Robertson and Campbell 2020), and is the only region in Alaska where direct discharge of produced water from oil and gas production is authorized (NASEM 2022). Oil spills and discharge of hydrocarbons represent direct and indirect threats to beluga whales, sea otters, and other marine mammals in Cook Inlet and adjacent areas (Reich et al. 2014, Norman et al. 2015).

In its comments to BOEM on Cook Inlet Lease Sales 244 and 258⁷, the Commission recommended that BOEM defer leasing in Cook Inlet until the causes of the decline of the beluga whale population are better understood and addressed, and progress toward recovery of this population has been demonstrated. In the event that Lease Sale 258 went forward, the Commission recommended that BOEM exclude from leasing any and all portions of beluga whale and sea otter critical habitat that overlap the Cook Inlet OCS planning area. Given the increased potential for exposure to acoustic disturbance and oil from continued oil and gas development, the Commission again recommends that BOEM defer any future lease sales in Cook Inlet to ensure that oil and gas exploration and production activities do not jeopardize the survival or recovery of the Cook Inlet

⁴ https://www.boem.gov/oil-gas-energy/leasing/lease-sale-258

⁵ https://www.boem.gov/regions/alaska-ocs-region/oil-and-gas-alaska

⁶ https://www.boem.gov/newsroom/press-releases/cook-inlet-federal-lease-sale-yields-more-3-million-high-bids

⁷ See the Commission's <u>6 September 2016</u> and <u>13 December 2021</u> letters, respectively.

beluga whale population or impede the recovery of sea otters. If BOEM includes a lease sale in the Cook Inlet OCS planning area in its 2023-2028 Leasing Program, the Commission again recommends that it exclude blocks that overlap with beluga whale and sea otter critical habitat (i.e., all waters north of 60°15' N latitude and offshore waters that overlap sea otter critical habitat on the western side of Cook Inlet north of Chinitna Bay and north of Augustine Island). The Commission further recommends that BOEM continue funding aerial surveys in Cook Inlet to determine year-round presence of beluga whales, sea otters, and other marine mammals in the proposed lease sale area and adjacent areas to inform future planning.

Gulf of Mexico

As noted by BOEM in the draft programmatic EIS, the Gulf of Mexico currently accounts for 97 percent of oil and gas produced in U.S. offshore waters. Despite this fact, we lack current information on the abundance and distribution of the 22 species of marine mammals that occur in the Gulf and that are potentially affected by oil and gas activities. We also lack information on trends in abundance over time. To help fill these gaps, BOEM entered into an interagency agreement with NMFS, the U.S. Fish and Wildlife Service, and the U.S. Geological Survey to conduct aerial and vessel-based surveys in 2017 and 2018 under the Gulf of Mexico Marine Assessment Program for Protected Species (GoMMAPPS). The objective of the GoMMAPPS surveys was to provide regionwide data on the abundance and distribution of marine mammals and other protected species, and to generate spatially explicit habitat density models. GoMMAPPS surveys have provided important population-level information regarding what is known about several offshore marine mammal species, including endangered Rice's whales, endangered sperm whales, and other cetaceans, as well as seabirds and sea turtles that occur in the Gulf of Mexico. While data from GoMMAPPS surveys currently represent the best available science for most of the Gulf of Mexico marine mammal species and stocks, they were collected four or five years ago and will quickly become outdated for the purpose of evaluating the abundance and distribution of marine mammals in the Gulf of Mexico and the potential impacts of anticipated future leases.

The Commission is unaware of any plans by BOEM at present to continue funding region-wide, multi-species surveys in the Gulf of Mexico similar to those conducted under the GoMMAPPS program. Updated and consistently collected abundance, distribution, density, and trend data for marine mammals and other protected species are needed by BOEM to evaluate potential impacts from both oil and gas and wind energy development, and are needed by NMFS to evaluate industry requests for authorizations to take marine mammals incidental to all stages of offshore energy development. The Commission has raised the need for continued GoMMAPPS surveys for marine mammals and other protected species in numerous letters, and notes that similar surveys are currently funded, at least in part, by BOEM in other OCS areas it oversees⁸. The Commission recently met with BOEM to discuss the possibility of BOEM entering into a public-private partnership with industry and/or other federal agencies to ensure continued, long-term funding for protected species surveys in the Gulf of Mexico. The Commission continues to believe that long-term surveys are needed and again recommends that BOEM work with NMFS, industry, and other entities as appropriate to plan for and implement continuing, long-term GoMMAPPS surveys or similar region-wide, multi-species monitoring of abundance and distribution of marine

⁸ Including the <u>Atlantic Marine Assessment Program for Protected Species</u> and the <u>Pacific Marine Assessment Program for Protected Species</u>.

mammals and other protected species in the Gulf of Mexico, using consistent approaches that facilitate comparisons and trend analyses. Such a program is needed to obtain current and accurate information that both BOEM and NMFS use in making decisions related to offshore energy development.

The Commission notes that the proposed for leasing in the Gulf of Mexico OCS do not overlap with the core distribution area of Rice's whales, identified by NMFS as waters from 100 to 400-m depth in the eastern Gulf of Mexico⁹. In its analysis of Aquaculture Opportunity Areas in the Gulf of Mexico, NMFS determined that all Gulf waters within the 100 to 400-m depth range are potential habitat for Rice's whales (Riley et al. 2021). This includes waters of the Western Gulf OCS, where there have been several acoustic detections and at least one confirmed visual sighting of Rice's whales within those depths (Soldevilla et al. 2022). Given the precarious conservation status of Rice's whales, with an estimated species abundance of not more than 100 individuals, and their confirmed presence in the western Gulf OCS, the Commission recommends that BOEM exclude areas with 100 to 400 m depths from proposed lease sales in the Gulf of Mexico OCS.

I trust these comments will be helpful. Please let me know if you have any questions.

Sincerely,

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

Peter o Thomas

References

BOEM. 2021. National Assessment of Undiscovered Oil and Gas Resources of the U.S. Outer Continental Shelf. U.S. Department of the Interior, Bureau of Ocean Energy Management. OCS Report BOEM 2021-071. 99 pages. https://www.boem.gov/2021-assessment-undiscovered-oil-and-gas-resources-nations-outer

Castellote, M., R.J. Small, M.O. Lammers, J. Jenniges, J. Mondragon, C.D. Garner, S. Atkinson, J.M.S. Delevaux, R. Graham, and D. Westerholt. 2020. Seasonal distribution and foraging occurrence of Cook Inlet beluga whales based on passive acoustic monitoring. Endangered Species Research 41:225–243. https://doi.org/10.3354/esr01023

De Guise, S., M. Levin, L. Jasperse, J. Herman, R.S. Wells, T. Rowles, and L. Schwacke. 2021. Long-term immunological alterations in bottlenose dolphin a decade after the Deepwater Horizon Oil Spill in the Northern Gulf of Mexico: Potential for multigenerational effects. Environmental Toxicology and Chemistry 40(5):1308–1321. https://doi.org/10.1002/etc.4980

Dutton, I.M., J.R. Klein, K.J. Cain, R. Deel, R. Federer, H. LeBail, and J. Hunt. 2012. An oral history of habitat use by Cook Inlet belugas in waters of the Kenai Peninsula Borough. Alaska SeaLife Center, Final Report prepared for the Kenai Peninsula Borough. 104 pages.

⁹ https://www.fisheries.noaa.gov/resource/map/rices-whale-core-distribution-area-map-gis-data

- https://www.fisheries.noaa.gov/resource/document/oral-history-habitat-use-cook-inlet-belugas-waters-kenai-peninsula-borough
- Gulland, F.M.D., J. Baker, M. Howe, E. LaBrecque, L. Leach, S.E. Moore, R.R. Reeves, and P.O. Thomas. 2022. A review of climate change effects on marine mammals in United States waters: Past predictions, observed impacts, current research and conservation imperatives. Climate Change Ecology 3:100054. https://doi.org/10.1016/j.ecochg.2022.100054
- McGuire, T.L., G.K. Himes Boor, J.R. McClung, A.D. Stephens, C. Garner, K.E.W. Shelden, and B. Wright. 2020. Distribution and habitat use by endangered Cook Inlet beluga whales: Patterns observed during a photo-identification study, 2005–2017. Aquatic Conservation: Marine and Freshwater Ecosystems 30:2402–2427. https://doi.org/10.1002/aqc.3378
- NASEM (National Academies of Sciences, Engineering, and Medicine). 2022. Oil in the Sea IV: Inputs, Fates, and Effects. Washington, DC: The National Academies Press. 497 pages. https://doi.org/10.17226/26410
- NMFS (National Marine Fisheries Service, Alaska Region and Alaska Fisheries Science Center). 2022. Beluga Whale Cook Inlet Distinct Population Segment (DPS) (*Delphinapterus leucas*) 5-Year Review: Summary and Evaluation. Anchorage, Alaska, and Seattle, Washington. 51 pages. https://media.fisheries.noaa.gov/2022-09/cibw-5-year-review-2022.pdf
- Norman, S., R.C. Hobbs, C.E.C. Goertz, K.A. Burek-Huntington, K.E.W. Shelden, W.A. Smith, and L.A. Beckett. 2015. Potential natural and anthropogenic impediments to the conservation and recovery of Cook Inlet beluga whales, *Delphinapterus leucas*. Marine Fisheries Review 77:89–105. https://doi.org/10.7755/MFR.77.2.5
- Polasek, L., M. Castellote, M. Wooler, B. Taras, and J. Olnes. 2021. Foraging ecology and habitat use of Cook Inlet beluga whales (*Delphinapterus leucas*). Final Report. NMFS Award Number: NA17NMF4720071. Alaska Department of Fish and Game, Juneau, Alaska. 148 pages.
- Reich, D., R. Balouskus, D. French McKay, D. Schmidt Etkin, J. Michel, and J. Lehto. 2014. An environmental vulnerability model for oil spill risk analyses: Examples from an assessment for the State of Alaska. Proceedings of the 37th AMOP Technical Seminar on Environmental Contamination and Response, Emergencies Science Division, Environment Canada, Ottawa, Ontario, Canada, 65–89.

 https://www.researchgate.net/publication/289022957 An environmental vulnerability mo
- Riley K.L., L.C. Wickliffe, J.A. Jossart, J.K. MacKay, A.L. Randall, G.E. Bath, M.B. Balling, B.M. Jensen, and J.A. Morris, Jr. 2021. An Aquaculture Opportunity Area Atlas for the U.S. Gulf of Mexico. NOAA Technical Memorandum NOS NCCOS 299, 545 pages. https://doi.org/10.25923/8cb3-3r66

del for oil spill risk analyses Examples from an assessment for the state of Alaska

- Robertson, T., and L.K. Campbell. 2020. Oil spill occurrence rates for Cook Inlet, Alaska, Oil and Gas Exploration, Development, and Production. U.S. Department of the Interior, Bureau of Ocean Energy Management. OCS Study BOEM 2020-051. 78 pages. https://www.boem.gov/BOEM_2020-051
- Schwacke, L.H., T.A. Marques, L. Thomas, C.G. Booth, B.C. Balmer, A. Barratclough, K. Colegrove, S. De Guise, L.P. Garrison, F.M. Gomez, J.S. Morey, K.D. Mullin, B.M. Quigley, P.E. Rosel, T.K. Rowles, R. Takeshita, F.I. Townsend, T.R. Speakman, R.S. Wells, E.S. Zolman, C.R. Smith. 2022. Modeling population effects of the Deepwater Horizon oil spill on a long-lived species. Conservation Biology 2022:e13878. https://doi.org/10.1111/cobi.13878
- Shelden, K.E.W., and P.R. Wade (editors). 2019. Aerial surveys, distribution, abundance, and trend of belugas (*Delphinapterus leucas*) in Cook Inlet, Alaska, June 2018. Alaska Fisheries Science

- Center Processed Report 2019-09, National Marine Fisheries Service, Seattle, Washington. 93 pages. https://repository.library.noaa.gov/view/noaa/22918
- Shelden, K.E.W., B.A. Mahoney, G. O'Corry-Crowe, R.T. Stanek, and K.J. Frost. 2021. Beluga, *Delphinapterus leucas*, harvest in Cook Inlet, Alaska, 1987 to 2022. NOAA Technical Memorandum NMFS-AFSC-429, Seattle, Washington. 46 pages. https://repository.library.noaa.gov/view/noaa/33459
- Shelden, K.E.W., K.T. Goetz, A.A. Brower, A.L. Willoughby, and C.L. Sims. 2022. Distribution of belugas (*Delphinapterus leucas*) in Cook Inlet, Alaska, June 2021 and June 2022. AFSC Processed Report 2022-04, National Marine Fisheries Service, Seattle, Washington. 80 pages. https://repository.library.noaa.gov/view/noaa/45364
- Soldevilla, M., A.J. Debich, L.P. Garrison, J.A. Hildebrand, and S.M. Wiggins. 2022. Rice's whales in the northwestern Gulf of Mexico: call variation and occurrence beyond the known core habitat. Endangered Species Research 48:155–174. https://www.int-res.com/abstracts/esr/v48/p155-174/