

May 1, 2019

Ms. Jolie Harrison
Chief, Permits, Conservation and Education Division
Office of Protected Resources
National Marine Fisheries Service
1315 East-West Highway
Silver Spring, MD 20910



RE: Taking Marine Mammals Incidental to Oil and Gas Activities in Cook Inlet, Alaska

Dear Ms. Harrison:

The Environmental Investigation Agency (EIA) is submitting this letter in response to the National Oceanic and Atmospheric Administration (NOAA) Fisheries' request for comments on a petition for authorization of the taking of marine mammals (ITA) by Hilcorp Alaska LLC (Hilcorp) incidental to oil and gas activities in Cook Inlet, Alaska from 2019-2024. We are concerned that the activities associated with this ITA permit request will have a major impact on Cook Inlet's endangered population of beluga whales (*Delphinapterus leucas*). We also have concerns regarding NOAA's suggestion that it may begin granting ITA permit renewals without public comment, which is inconsistent with the plain language requirements of the Marine Mammal Protection Act (MMPA). We therefore urge NOAA Fisheries to deny Hilcorp's application and to continue to engage in public comment for ITA permit renewals pursuant to the MMPA.

New ITAs should be denied until there is demonstrable recovery of the Cook Inlet beluga whale population

The beluga whale population of Cook Inlet has declined from an estimated population of 1,300 in 1979 to just 328 individuals in 2016.¹ The population has not recovered as NOAA Fisheries predicted after the cessation of subsistence harvests in 2000 and it has continued to decline at an annual rate of 0.4 percent from 2004-2014.² After listing the population as Endangered under the Endangered Species Act in 2008, critical habitat for the population was designated in 2011. In 2016, the first version of a Species Recovery Plan was published.³ NOAA Fisheries also featured the Cook Inlet beluga whales as a Species in the Spotlight in 2016.⁴ The population also regularly captures the public's imagination and inspires citizen scientists, as occurred during recent beluga counts. We note these developments to emphasize the great consideration NOAA Fisheries has often given towards this population due to its serious depletion and the resources it has devoted towards its recovery.

Within the Recovery Plan, anthropogenic noise is classified as a threat of high relative concern. Underwater noise is also considered one of several cumulative effects or high stressors that constitute a separate threat to the Cook Inlet belugas.⁵ The increasing contribution of new anthropogenic sources of noise pollution to the

¹ Sheldon, K. E. W., R. C. Hobbs, C. L. Sims, L. Vate Brattström, J. A. Mocklin, C. Boyd, and B. A. Mahoney . 2017. Aerial surveys, abundance, and distribution of beluga whales (*Delphinapterus leucas*) in Cook Inlet, Alaska, June 2016. AFSC Processed Rep. 2017-09, 62 p. Alaska Fish. Sci. Cent., NOAA, Natl. Mar. Fish. Serv., 7600 Sand Point Way NE, Seattle WA 98115

² Ibid.

³ National Marine Fisheries Service. (2016). Recovery Plan for the Cook Inlet Beluga Whale (*Delphinapterus leucas*). National Marine Fisheries Service, Alaska Region, Protected Resources Division, Juneau, AK.

⁴ NOAA Fisheries. (2018). Species in the Spotlight: the Cook Inlet Beluga Whale. Available at: <https://www.fisheries.noaa.gov/video/species-spotlight-cook-inlet-beluga-whale>

⁵ NMFS 2016

list of existing impacts to Cook Inlet belugas has led many experts to hypothesize that the reason the population is not recovering is because they are suffering "death by a thousand cuts."⁶

Approval of Hilcorp's ITA is inconsistent with NOAA Fisheries' efforts to support the recovery of the Cook Inlet beluga whales. Given the precarious state of the population, and its continuing decline, approval of any new ITAs or incidental harassment authorizations (IHA), much less one covering five years of varied activities, risks further unacceptable harm and should be deferred at least until the reasons for the population's decline are understood and effective recovery has been demonstrated. The Marine Mammal Commission (MMC) has also repeatedly made this recommendation.⁷

NOAA Fisheries has not considered all sources of take or the full impacts of reviewed sources

Instead of implementing the recommendations of the MMC, NOAA Fisheries appears to have taken the opposite approach. Underwater noise from 3d and 2d seismic surveys, vertical and sub-bottom seismic profiling, vibratory pile driving, drilling, and pipe driving as proposed by Hilcorp can cause temporary or permanent threshold shifts in beluga hearing, mask animal hearing and vocalizations, and lead to altered behavior or displacement from habitat.⁸ These impacts could be more important to the survival of individual belugas than is currently known. As noted in the Recovery Plan, "there is a general underestimation of the importance of the acoustic environment to CI belugas and other odontocetes in general. There may also be an underestimation of the impacts of anthropogenic noise to CI belugas."⁹

NOAA Fisheries' proposed ITA in the final draft petition, to take 30 belugas per year from 2019-2024, is equivalent to nearly ten percent of the population. Considering that the population has failed to recover, we believe ten percent is far too high a figure in any one year. Nor is an explanation offered for the revised steps Hilcorp's proposed activities must follow to meet this authorized level, below the calculated exposure of 34.18 for 2019, and 60.17 overall against an overall authorization of 35.¹⁰

The proposed ITA also fails to reflect the full potential impact of noise sources, arguing that the effects of these activities will be both small and localized. Moreover, while acknowledging that the Beaufort Sea population of "belugas appear to be fairly responsive to seismic energy, with few being sighted within 10–20 km", the report suggests without citing any scientific sources that "Cook Inlet belugas are more accustomed to anthropogenic sound than beluga whales in the Beaufort Sea".¹¹ This finding is inconsistent with beluga reactions to other industrial activities in Cook Inlet. During previous pile driving activity near Knik Arm in Cook Inlet, beluga sightings remained consistent but sighting time decreased, as did foraging behavior. During active pile driving, belugas were more likely to travel through the affected areas, and juvenile sightings decreased suggesting displacement and avoidance.¹² Pulsed sounds like seismic testing may also have more impacts on masking communications than previously known, as sound levels remained elevated by as much as 25 dB between air gun blasts.¹³

Nor does the proposed ITA include all possible sources of takes. For instance, echosounders and side scan sonar are disregarded as a source of potential take, as they "operate at frequencies of greater than 200 kHz".¹⁴ However, Deng *et al.* found that while the central frequency output is above 200 kHz, all of the

⁶ Ibid.

⁷ Marine Mammal Commission (2017). Response to notice of intent to prepare an environmental assessment for the issuance of annual incidental take authorizations.

⁸ NMFS 2016

⁹ NMFS 2016

¹⁰ NMFS 2019

¹¹ Ibid.

¹² Kendall, L. S., & Cornick, L. A. (2015). Behavior and distribution of Cook Inlet Beluga Whales, *Delphinapterus leucas*, before and during pile driving activity. *Marine Fisheries Review*, 77(2), 106-115.

¹³ Guerra, M., Dugan, P. J., Ponirakis, D. W., Popescu, M., Shiu, Y., Rice, A. N., & Clark, C. W. (2016). High-resolution analysis of seismic air gun impulses and their reverberant field as contributors to an acoustic environment. In *The Effects of Noise on Aquatic Life II* (pp. 371-379). Springer, New York, NY.

¹⁴ Ibid.

sounders examined by the researchers also generated sound from 90-130 kHz.¹⁵ In Castellote et al. 2014, seven belugas caught from the wild population of Bristol Bay exhibited hearing ranges from 4-150 kHz, well within the range to perceive these side sounds.¹⁶ In keeping with a precautionary approach, echo sounders and other high frequency operations must be reconsidered as a potential source of Level B harassment.

NOAA Fisheries failed to conduct an adequate cumulative assessment of activities causing anthropogenic underwater noise in Cook Inlet

NOAA Fisheries has not sufficiently considered the cumulative effects of Hilcorp's proposed ITA alongside other industrial projects. Recommendation 62 of the Recovery Plan calls for a comprehensive approach for the allocation of takes, including a cumulative cap based on a percentage of the current abundance. A similar recommendation to consider takes cumulatively rather than individually in a region is identified in NOAA's roadmap for underwater noise. While NOAA Fisheries has accepted this recommendation and previously declared its intention to prepare a cumulative Environmental Impact Statement (EIS) for oil and gas activities for Cook Inlet covering multiple years, this has been postponed. Instead, citing a reduction in requests and funding issues, a one-year Environmental Assessment of oil and gas activities was conducted for only the 2018 season which fails to capture the cumulative impact of proposed oil and gas activities on Cook Inlet belugas.¹⁷

While NOAA's draft Environmental Assessment does include a cumulative effects section listing some other projects that have either begun or are anticipated to begin in the next five years, the list is incomplete. Another ITA was submitted by the Alaska Gasline Development Corporation (AGDC) in 2018, which would overlap Hilcorp's activities in both time and space. AGDC's ITA also requested takes up to 32 belugas each year from 2019-2024 incidental to the construction of a natural gas pipeline and export terminal crossing the Middle Cook Inlet northeast of Tyonek south to Nikiski.¹⁸ This area is approximately the same zone identified by Hilcorp as a potential site for one of its planned testing wells, scheduled for either the second or the third season of activity. In addition to AGDC's activities, any cumulative analysis must account for the impact of future lease sales in Cook Inlet. In the Draft Proposed Outer Continental Shelf (OCS) Oil and Natural Gas Leasing Program released by the Bureau of Ocean Energy Management (BOEM) for 2019-2024, two additional lease sales in Cook Inlet were envisioned. These should also be accounted for as potential future oil and gas activity in any future analysis.

Not considering the cumulative impact of all of these projects contradicts the Cook Inlet Beluga Recovery Plan and effectively ignores cumulative threats that may cause irreparable damage to this critically endangered beluga population. Given that "the number of ITA requests, or anticipated requests," have increased NOAA Fisheries must begin an Environmental Impact Statement for all potential sources of harassment, not limited to oil and gas activities.¹⁹

Concerns for potential renewals

NOAA Fisheries further asserts the possibility of a renewal for this ITA without public input provided it there is not "substantial modification".²⁰ As the proposed activities contained in this ITA include but are not

¹⁵ Deng, Z. D., Southall, B. L., Carlson, T. J., Xu, J., Martinez, J. J., Weiland, M. A., & Ingraham, J. M. (2014). 200 kHz commercial sonar systems generate lower frequency side lobes audible to some marine mammals. *PloS one*, 9(4), e95315.

¹⁶ Castellote, M., Mooney, T.A., Quakenbush, L., Hobbs, R., Goertz, C., Gaglione, E. (2014). Baseline hearing abilities and variability in wild beluga whales (*Delphinapterus leucas*). *The Journal of Experimental Biology* 217. Available at: <http://jeb.biologists.org/content/217/10/1682.full>

¹⁷ Notice of Intent To Prepare an Environmental Assessment on the Issuance of Incidental Take Authorizations in Cook Inlet, Alaska. 82 FR 41939. (August 17, 2018). Codified at 82 170.

¹⁸ Alaska LNG (2018). Petition for Incidental Take Regulations for Construction of the Alaska LNG Project in Cook Inlet, Alaska. Available at: <https://www.fisheries.noaa.gov/action/incidental-take-authorization-alaska-gasline-development-corporation-liquefied-natural-gas>

¹⁹ 82 CFR 41939

²⁰ NMFS 2019

limited to 2d and 3d surveys, pipeline maintenance, pile driving, and drilling of wells, it is not clear what would constitute a “substantial” modification to these proposed actions. Nor is it clear as written if NOAA Fisheries would reopen a proposed renewal for public comment or deny it outright if the activities remained the same, but the condition of an endangered population like the Cook Inlet belugas deteriorated. It is also unclear how whether or how an automatic renewal could adequately assess cumulative impacts to Cook Inlet belugas.

Pursuant to Section 101(a)(5)(A) of the Marine Mammal Protection Act (MMPA), ITAs can only be issued “during periods of not more than five consecutive years each...after notice (in the Federal Register and in newspapers of general circulation, and through appropriate electronic media, in the coastal areas that may be affected by such activity) and opportunity for public comment”. Therefore, automatic renewal of ITA permits without public comment is inconsistent with the MMPA on its face.²¹

For the reasons outlined herein, we urge you to deny Hilcorp’s petition.

Sincerely,

Daniel Hubbell
Policy Analyst
Environmental Investigation Agency

²¹ 16 U.S.C. 1371 Sec. 101(a)(5)(A).