MARINE MAMMAL COMMISSION

11 September 2015

Ms. Jolie Harrison, Chief
Permits and Conservation Division
Office of Protected Resources
National Marine Fisheries Service
1315 East-West Highway
Silver Spring, MD 20910-3225

Dear Ms. Harrison:

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) 12 August 2015 notice of intent (80 Fed. Reg. 48299) to prepare a programmatic environmental assessment (EA) for the issuance of annual incidental take authorizations in 2016 in Cook Inlet, Alaska, pursuant to the Marine Mammal Protection Act (MMPA).

The Commission remains concerned about impacts of human activities on Cook Inlet beluga whales, given their status and population trend, and agrees with the programmatic approach being taken by NMFS to evaluate the environmental impacts of proposed activities for 2016. This approach allows for a more thorough assessment of both the individual and cumulative impacts of all planned or ongoing activities on Cook Inlet beluga whales and provides NMFS with a stronger foundation from which to determine whether negligible impact determinations are warranted. It also would allow NMFS to establish annual limits on the total number and types of takes that are authorized for sound-producing activities in Cook Inlet before issuing any additional incidental take authorizations or regulations.

The Commission provided comments and recommendations on a previously published notice of intent to prepare a programmatic environmental impact statement (EIS) for the issuance of incidental take authorizations for activities in Cook Inlet, Alaska, for multiple years (see the Commission's 29 December 2014 letter, enclosed). The majority of the Commission's comments and recommendations contained in that letter are relevant to NMFS's current development of its programmatic environmental assessment for 2016. Thus, the Commission again recommends that NMFS—

- establish annual limits on the total number and types of takes of beluga whales that are authorized for sound-producing activities in Cook Inlet before issuing any additional incidental take authorizations or regulations;
- request that other federal agencies with direct permitting authority for activities in Cook Inlet be invited to participate as cooperating agencies in the development of the EA to ensure that information regarding federal activities that are ongoing, under agency review, or being planned are fully considered and incorporated;

- identify, develop, and analyze a broad range of alternatives and mitigation measures to address all types of impacts on beluga whales from various proposed activities; recommended measures include—

    - implementing broad time-area restrictions, especially in Critical Habitat Area 1 around key foraging areas and in the Kenai River Delta and Kachemak Bay in Critical Habitat Area 2
    - reducing overall activity levels, particularly sound-producing activities, throughout Cook Inlet
    - enhancing observer protocols and increasing the number of observers deployed on various platforms (e.g., vessel, aircraft, and land) to increase the likelihood of detecting beluga whales and implementing standard mitigation measures
    - using passive acoustic monitoring devices to supplement visual observations to better detect whales
    - working with the Alaska Regional Office and the State of Alaska Department of Environmental Conservation to develop, coordinate, and implement state and local plans to prevent and respond to oil spills and other hazardous substance releases to minimize impacts on beluga whales, their habitat, and their prey;

- require entities conducting activities in Cook Inlet to work together to test the effectiveness of both standard and supplemental mitigation measures;
- work with BOEM to encourage applicants proposing to conduct seismic surveys in Cook Inlet to collaborate on those surveys and, to the extent possible, submit a single application seeking authorization for incidental takes of marine mammals;
- include in its small numbers and negligible impact determinations all estimated[1] takes incidental to proposed activities that would occur in Cook Inlet rather than reducing the numbers of takes based on presumed mitigation effectiveness; and
- work with entities conducting activities in Cook Inlet to develop a long-term monitoring plan to provide better information on—

    - the occurrence of beluga whales in Cook Inlet and their behaviors and habitat-use patterns at various times of the year and in various areas, including foraging and diving behavior
    - the causes of mortality and injury through increased surveillance and response to stranded animals
    - the overall soundscape of Cook Inlet and contributions to it from various human activities
    - the types, levels, and timing of human activities throughout Cook Inlet
    - behavioral, physiological, and health-related responses of beluga whales to sound-producing activities
    - the individual- and population-level significance of avoidance of areas by beluga whales in response to disturbance from both short-term and chronic sound exposure
    - the extent to which human activities affect the acoustic habitat, availability of prey

[1] Generally, model-estimated.

species, and overall water quality of Cook Inlet.

In addition, the Commission reiterates its recommendation that NMFS defer issuance of incidental take authorizations in Cook Inlet until it has better information on the cause(s) of the ongoing beluga whale decline and has a reasonable basis for determining that authorizing the incidental taking will not contribute to or exacerbate that decline. The Commission continues to believe that, given the precarious status of the Cook Inlet beluga whale population, any activity that may contribute to or worsen the observed decline should not be viewed as having a negligible impact on the population.

In light of the fact that clear and consistent criteria do not exist regarding the assessment of small numbers and negligible impact under the MMPA, the Commission has recommended on several occasions that NMFS develop a policy that sets forth clear criteria and/or thresholds for determining what constitutes small numbers and negligible impact for the purpose of authorizing incidental takes of marine mammals. It is the Commission's understanding that NMFS is in the process of developing a more quantitative framework for determining whether an activity will have a negligible impact for the purpose of authorizing takes of marine mammals (80 Fed. Reg. 50992). The Commission therefore recommends that NMFS complete the development of its policy for determining what constitutes small numbers and negligible impact for the purpose of authorizing incidental takes of marine mammals before issuing any authorizations in 2016 or subsequent years. The Commission would welcome the opportunity to discuss that policy as it is being developed.

To put this in the context of the National Environmental Policy Act (NEPA), the Commission is concerned that any activity or suite of activities that may contribute to or exacerbate the decline of the Cook Inlet beluga whale population should be viewed as having significant impacts. Thus, the Commission concurs with NMFS's earlier decision to prepare a programmatic environmental impact statement on the issuance of incidental take authorizations for activities in Cook Inlet over multiple years. However, the impact of those same activities over the single year that would be covered by the proposed EA (2016) might also rise to a level of significance warranting analyses typically conducted in an EIS. The Commission trusts this issue will be addressed in the EA.

The Commission hopes that these comments will be helpful to NMFS in meeting its responsibilities under the MMPA and NEPA. Please let me know if you have any questions.

Sincerely,

Rebecca J. Lent, Ph.D.
Executive Director

Enclosure

cc: Jon Kurland, NMFS Alaska Regional Office

29 December 2014

Jolie Harrison, Chief
Permits and Conservation Division
Office of Protected Resources
National Marine Fisheries Service
1315 East-West Highway
Silver Spring, MD 20910-3225

Dear Ms. Harrison:

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) 14 October 2014 notice of intent (79 Fed. Reg. 61616) to prepare a programmatic environmental impact statement (EIS) for the issuance of incidental take authorizations in Cook Inlet, Alaska, pursuant to the Marine Mammal Protection Act (MMPA). The Commission is extremely concerned about impacts on Cook Inlet beluga whales, given their status and population trend, and has focused its comments in this letter on that species. However, the Commission expects NMFS to include a broader analysis of marine mammals in the EIS and to interpret the Commission's comments as being more broadly applicable to all marine mammals that inhabit Cook Inlet.

Taking a programmatic approach

NMFS is responsible for issuing incidental take authorizations under section 101(a)(5) of the MMPA. Prior to issuance, NMFS typically prepares environmental assessments that evaluate the impacts of issuing authorizations to take marine mammals incidental to proposed activities; such assessments include also any proposed mitigation and monitoring measures. Because of increasing levels of anthropogenic activities in Cook Inlet and concerns about the continuing decline of Cook Inlet beluga whales—a population designated as depleted under the MMPA and listed as endangered under the Endangered Species Act (ESA)—NMFS is preparing a programmatic EIS to evaluate the environmental impacts of issuing marine mammal incidental take authorizations for various activities in state and federal waters of Cook Inlet. NMFS has stated that its programmatic EIS would analyze multiple activities over multiple years, thereby providing a comprehensive decision-support tool that evaluates a wider range of alternatives, a wider range of practicable mitigation and monitoring measures, and the cumulative impacts of anthropogenic activities over a longer time frame than normally is afforded by preparing project-specific environmental assessments.

The Commission agrees that a programmatic approach is both timely and warranted considering the increasing levels of anthropogenic activities in Cook Inlet. A programmatic approach to evaluating the broad range of anthropogenic activities in the Inlet and the cumulative impacts of those activities on Cook Inlet beluga whales would provide NMFS with a stronger foundation from which to determine whether negligible impact determinations are warranted. In making those determinations, NMFS must, among other things, evaluate the best available

information regarding the causes of the decline of Cook Inlet beluga whales and determine whether and how ongoing or additional activities, both separately and in combination, are contributing to or exacerbating that decline.

Ensuring that all activities in Cook Inlet are subject to NMFS review

The intent of the planned EIS is to evaluate the environmental impacts of issuing marine mammal incidental take authorizations for various activities in state and federal waters of Cook Inlet. However, not all activities currently being conducted in Cook Inlet have been reviewed by NMFS to assess their potential to result in the incidental taking of beluga whales. For example, it appears that several oil and gas companies that conduct drilling or other operations in Cook Inlet state waters[1] have not submitted incidental take authorization requests to NMFS[2], even though those operations have the potential to disturb or injure beluga whales. If a government agency or private entity does not seek authorization from NMFS to take beluga whales incidental to its activities, it risks violating the MMPA. Additionally, NMFS is unable to prescribe appropriate mitigation measures, document potential takes, or gather information on how these activities contribute to overall impacts on the affected populations. Determining the individual and cumulative impacts of anthropogenic activities in Cook Inlet requires a complete accounting of all activities that have the potential for incidental take of beluga whales.

Collaboration and coordination with other federal, state, and local officials, industry representatives, private entities, and tribal organizations are essential to ensure that information regarding all activities in Cook Inlet that have the potential to take beluga whales and impact the Cook Inlet marine environment is included in the EIS and subsequently factored into the design of appropriate mitigation and monitoring requirements. As a first step, the Commission recommends that NMFS request that other federal agencies with direct permitting authority for activities in Cook Inlet be invited to participate as cooperating agencies on the development of the EIS to ensure that information regarding federal activities that are ongoing, under agency review, or being planned are fully considered and incorporated. The Commission further recommends that NMFS expand its outreach and coordination with state and local officials, industry representatives, private entities, and tribal organizations in Cook Inlet to ensure that information on all activities that may impact Cook Inlet beluga whales is included in the EIS.

Needs for improved information and the issuance of the Cook Inlet Beluga Whale Recovery Plan

At the 3–4 November 2014 NMFS-sponsored Conservation and Recovery of Cook Inlet Beluga Whales in the Context of Continued Development meeting in Anchorage, NMFS reviewed the status of beluga whales and ongoing research and monitoring efforts. NMFS also summarized the available information regarding anthropogenic and environmental impacts on beluga whales. There is a strong degree of confidence in recent point estimates of beluga whale abundance and in the trend of those estimates starting in 1994, but significant data gaps exist regarding seasonal movement patterns, group composition and dynamics, disease and other health issues, and causes of

[1] http://dog.dnr.alaska.gov/GIS/Data/ActivityMaps/CookInlet/Cook_Inlet_Oil_and_Gas_Activity_Map_09012014.pdf
[2] http://alaskafisheries.noaa.gov/protectedresources/whales/beluga/development.htm

mortality and/or reduced fecundity. There is also considerable uncertainty regarding baseline environmental conditions in Cook Inlet (including the acoustic environment) and the impacts of various anthropogenic and environmental stressors on beluga whales.

The Cook Inlet Beluga Whale Recovery Team identified priorities for addressing data gaps to promote recovery of beluga whales in its draft recovery plan, which was submitted to NMFS in 2013 in accordance with section 4(f) of the ESA. The plan has been under review by NMFS since that time and is expected to be made available for public comment early in 2015. The Commission recommends that NMFS expedite its review and issuance of the Cook Inlet Beluga Whale Recovery Plan as an essential tool for guiding and prioritizing research and monitoring efforts needed to provide better information on the status of beluga whales, baseline environmental conditions, and various anthropogenic and environmental impacts on beluga whales. The Commission further recommends that NMFS reconvene the Cook Inlet Beluga Whale Recovery Team and related science and stakeholder working groups periodically to assist in further refining and prioritizing research and monitoring recommendations and other recovery plan action items.

Range of alternatives and mitigation measures to be considered

Standard measures to mitigate or minimize harm to Cook Inlet beluga whales during activities to date have included delay, ramp-up, power-down, and shut-down measures for sound-producing activities, quieting technologies for pile-driving and other construction activities, and vessel avoidance measures and speed restrictions. Some of those measures are intended to reduce the incidence and severity of acute injuries to animals that are detected by visual observers within or before entering the designated Level A harassment zone. However, the effectiveness of those measures in preventing acute harm to animals that may enter the zone but are not detected has not been verified. It is also unclear what measures may be needed to prevent degradation of key habitat features. Moreover, existing mitigation measures are not designed to prevent catastrophic events, such as oil spills, and would be inadequate to prevent deaths or injuries of beluga whales should there be such an event. The impacts on the beluga whale population in Cook Inlet from such an event could be significant, especially if it were to occur in or near a high-use area such as designated beluga whale critical habitat.

The Commission recommends that NMFS identify, develop, and analyze a broad range of alternatives and mitigation measures to address all types of impacts from various proposed actions, not limited to the standard mitigation measures typically required in incidental take authorizations. Supplemental measures should include—

- implementation of broad time/area restrictions, especially in Critical Habitat Area 1 around key foraging areas and in the Kenai River Delta and Kachemak Bay in Critical Habitat Area 2;
- reducing overall activity levels, particularly sound-producing activities, throughout Cook Inlet;
- continuing the investigation of alternatives to seismic surveys (i.e., marine vibroseis or similar technologies);
- enhancing observer protocols and increasing the number of observers deployed on various

platforms (e.g., vessel, aircraft, and land) to increase the likelihood of detecting beluga whales and implementing standard mitigation measures;

- testing new technologies to aid in visual detection of whales (e.g., night-vision or infrared devices and unmanned aerial systems);
- using passive acoustic monitoring devices to supplement visual observations in the detection of whales; and
- developing, coordinating, and implementing state and local plans to prevent and respond to oil spills and other hazardous substance releases to minimize impacts on beluga whales, their habitats, and prey species, including stockpiling of appropriate response equipment and supplies and staging realistic response drills.

The Commission further recommends that NMFS include alternatives that would require entities conducting activities in Cook Inlet to work together to test the effectiveness of both standard and supplemental mitigation measures.

NMFS also should take a precautionary approach when evaluating the presumed effectiveness of the standard mitigation measures. In recent incidental take authorizations (e.g., 79 Fed. Reg. 54398), NMFS determined that authorization to take beluga whales was not needed in some areas where beluga whales may occur. This was based on the assumption that visual observations would detect all whales, thereby allowing mitigation measures (i.e., shut-down measures) to be implemented before the whales entered designated Level B harassment zones. The Commission opposed this approach (see letter of 14 October 2014) because it was unreasonable to assume that observers would achieve a 100 percent detection rate of beluga whales within or approaching those zones. Until such time that the effectiveness of mitigation measures has been determined, the Commission recommends that NMFS include in its small numbers and negligible impact determinations all estimated[3] takes incidental to proposed activities that would occur in Cook Inlet rather than reducing the numbers of takes based on presumed mitigation effectiveness.

Long-term monitoring to determine the impacts of anthropogenic activities

Sections 101(a)(5)(A) and (D) of the MMPA direct NMFS, when issuing incidental take authorizations, to set forth "requirements pertaining to the monitoring and reporting of such taking." The MMPA implementing regulations at 50 C.F.R. § 216.104(a)(13) specify that requests for authorizations must include suggested means of accomplishing the necessary monitoring and reporting that will result in increased knowledge of the species and the level of taking or impacts on populations of marine mammals that are expected to be present in the proposed action area. This includes long-term monitoring to determine the impacts of anthropogenic activities on beluga whales. The Commission recommends that NMFS work with those entities conducting activities in Cook Inlet to develop a long-term monitoring plan that assesses the following broad categories and specific objectives—

Occurrence

- determining the density and distribution of beluga whales throughout the year and

[3] Generally, model-estimated.

characterizing their behaviors (e.g., feeding, migrating, breeding, resting, etc.) at various times of the year and in various areas within Cook Inlet;

- expanding requirements for industry-sponsored aerial surveys and other monitoring (i.e., land-, vessel-, and rig-based surveys) independent of ongoing activities;
- integrating sightings data from industry-sponsored monitoring with other sightings and stranding data and working with industry to refine its data collection methods, as necessary, to ensure those methods are robust and able to be integrated with sightings data collected by researchers; and
- assessing the overall soundscape of Cook Inlet and determining how various anthropogenic activities contribute to it.

Exposure

- conducting a more rigorous survey of baseline levels of anthropogenic activities throughout Cook Inlet and overlaying those data with beluga whale seasonal distribution patterns to determine areas and activities of greatest concern; and
- evaluating f(0) and g(0) values specific to the protected species observers who are monitoring for beluga whales on various observation platforms to provide both a reasonably accurate assessment of the manner in which whales are taken (by Level A or B harassment) and reliable estimates of the numbers of whales taken.

Responses

- evaluating the individual- and population-level significance of avoidance of areas by animals in response to disturbance from both short-term and chronic sound exposure and investigating the relationship between the avoidance behavior and the whales' foraging behavior, seasonal movements, health, reproduction, and survival; and
- collecting behavioral response data related specifically to sound-producing activities to inform NMFS's efforts to revise its acoustic criteria and thresholds.

Habitat Impacts

- determining to what extent anthropogenic activities affect the acoustic habitat, availability of prey species, and overall water quality of Cook Inlet; and
- investigating beluga whale habitat-use patterns in Cook Inlet, including foraging and diving behavior studies.

Deferral of incidental take authorizations

A new approach is needed to address the continued decline of beluga whales in Cook Inlet. At its recent meeting in Anchorage, NMFS acknowledged that cumulative or synergistic impacts of anthropogenic activities in Cook Inlet are likely a primary factor in the continued decline of beluga whales and that new procedures and practices to manage those impacts need to be developed to accommodate continued activities in the Inlet. Given uncertainties regarding the potential impacts of ongoing and planned activities, NMFS suggested that it may be approaching the point where it is unable to continue making negligible impact determinations and issuing incidental take

authorizations. As noted in previous letters[4], the Commission believes that point has already been reached and once again recommends that NMFS defer issuance of incidental take authorizations for Cook Inlet beluga whales until it has better information on the cause(s) of the ongoing decline and has a reasonable basis for determining that authorizing the incidental taking will not contribute to or exacerbate that decline. The Commission continues to believe that, given the precarious status of the Cook Inlet beluga whale population, any activity that may contribute to or worsen the observed decline should not be viewed as having a negligible impact on the population.

I trust these comments will be helpful to NMFS in meeting its responsibilities under the MMPA and the National Environmental Policy Act. Please let me know if you have any questions.

Sincerely,

Rebecca J. Lent

Rebecca J. Lent, Ph.D.
Executive Director

Cc: Eileen Sobeck, Assistant Administrator for Fisheries
Jim Balsiger, Regional Administrator, Alaska Region
Doug DeMaster, Science and Research Director, Alaska Fisheries Science Center

[4] See letters of 17 April 2008, 26 May 2009, 7 October 2010, 21 October 2011, 9 January 2013, 31 January 2014, 4 April 2014, and 4 September 2014.