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Mr. Jon Kurland
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National Marine Fisheries Service
Alaska Regional Office
Protected Resources Division
P.O. Box 21668
709 W. 9th St., Rm. 420
Juneau, Alaska 99802-1668

Re: Comments of the Alaska Oil and Gas Association on the Draft Recovery Plan
for the Cook Inlet Beluga Whale (NOAA-NMFS-2015-0053)

Dear Mr. Kurland:

The Alaska Oil and Gas Association (“AOGA”) submits these comments on the National Marine Fisheries Service’s (“NMFS”) Draft Recovery Plan for the Cook Inlet Beluga Whale (“DRP”). *See* 80 Fed. Reg. 27,925 (May 15, 2015). AOGA participated in this recovery planning effort as an active member of the Cook Inlet Beluga Whale Recovery Team’s Stakeholder Panel. As such, AOGA has a unique perspective on the DRP’s goals, use of data, identification of threats and proposed management measures. AOGA appreciates NMFS’s consideration of these comments.

AOGA is a non-profit trade association located in Anchorage, Alaska. AOGA’s fourteen member companies account for the majority of oil and gas exploration, development, production, transportation, refining, and marketing activities in Alaska. AOGA’s members include the principal industry stakeholders that operate in Cook Inlet within the range of the Cook Inlet Beluga Whale (“CIBW”), which is listed as endangered under the Endangered Species Act (“ESA”), and our members have significant experience implementing conservation measures to protect CIBW. AOGA and its members are longstanding supporters of wildlife conservation, management, and research across the areas in which its members operate.

Summary of Comments

The best science currently available fails to explain why the CIBW population has not rebounded in the years since subsistence harvests were regulated in 1999. NMFS acknowledges in the DRP that available data do not explain (1) why the population numbers have remained flat, (2) what factor or combination of factors may be affecting CIBW recovery, or (3) what management actions might alleviate those effects to allow CIBW to recover.

Rather than implementing a series of potentially ineffective recovery actions based on specious concerns or theories that have no basis in science, the DRP proposes a science-based, step-wise, adaptive approach to answering these critical questions first, so that recovery actions can be developed that focus on actual threats to CIBW recovery. AOGA believes that, if implemented properly and with continued stakeholder input, the DRP's research-first approach is an appropriate method for obtaining the data necessary to recover CIBW in a manner consistent with both the law and scientific principles.

Unfortunately, while NMFS's approach to determining appropriate recovery actions focuses on developing and using the best science to make sound resource management decisions, other key sections of the DRP, including the recovery goals and assessment of threats, fail to present and rely on the best available science and are otherwise unsupported and arbitrary. As described in detail below, AOGA's concerns include the following:

- The DRP relies on a misrepresentative historical abundance number of 1300 which unreasonably inflates recovery objectives beyond those necessary to establish a stable, recovered species, and includes certain "threat-based" de-listing criteria that do not relate to identified threats to CIBW recovery (Section A);
- The DRP misleads readers by selectively presenting CIBW population data to support its assertion that the population is experiencing a negative trajectory when the survey data, viewed as a whole, clearly shows that the population fell dramatically as a result of subsistence harvest and since that time has remained effectively flat (Section B);
- The DRP prematurely prioritizes purported threats to CIBW population recovery as "low," "medium" or "high" based on "qualitative" judgments made in the admitted absence of data that would allow a science-based characterization of such threats, leading to the arbitrary categorization of activities and effects as "medium" or "high" threats to CIBW recovery, notwithstanding that no evidence supports those conclusions. Specifically, the DRP speculates about the potential effects on CIBW recovery from noise, habitat alteration, catastrophic events and combinations of stressors, and in each case reaches conclusions that these threats are of "medium" or "high"

concern to CIBW recovery while simultaneously admitting that existing data do not support those conclusions and, in some places, concluding that activities are of “high concern” precisely because the agency lacks relevant data (Section C);

- The DRP fails to acknowledge or take into consideration that oil and gas activities in Cook Inlet are highly regulated to protect the environment and marine populations, and that oil and gas exploration and development activities already incorporate both design and operational features, including significant monitoring and mitigation actions, to protect the CIBW population (Section D).

AOGA requests that NMFS revise the DRP to address the comments summarized above and discussed in detail below.

Detailed Comments

According to the DRP, the CIBW population’s failure to rebound as anticipated following regulation of subsistence harvests suggests to NMFS that “some factor (“*threat*”), or combination of factors, is inhibiting reproduction and/or survival,” but NMFS does not know what factor or combination of factors that might be. DRP at 270 (emphasis in original). The DRP is replete with acknowledgements of the lack of evidence, data or even causal connections between various possible stressors or threats and CIBW population health. *See, e.g.*, DRP at 73 (“little is known about the mechanisms impeding recovery”); *id.* at 107 (“[w]hat is unknown is why the population is not recovering.”); *id.* (noting the “lack of clear reason or reasons for the failure to recover”); *id.* at 146 (there is no “single threat” clearly limiting recovery). NMFS acknowledges that models have been unable to “narrow down the causal effects” using available data. DRP at 73. In other words, the best available science does not point to any particular anthropogenic or other factor as the reason that the CIBW population has not rebounded as expected.

In the complete absence of scientific information regarding why the CIBW population numbers remain flat and what factors may be affecting recovery, NMFS cannot legitimately identify specific management actions that would alleviate those effects to allow CIBW to recover.¹ The DRP’s research-first approach to developing

¹ NMFS’s recovery plans must employ and be based upon the best available science. *See* NMFS Interim Recovery Planning Guidance Version 1.3 at 5.2.2 (June 2010) (“ensure recovery plans are based on the best scientific information and judgment”) (hereinafter “Recovery Planning Guidance”), available at: <http://www.nmfs.noaa.gov/pr/pdfs/recovery/guidance.pdf>; *see also* NMFS and U.S. Fish and Wildlife Service (“USFWS”), Notice of Interagency Cooperative Policy on Information Review Standards Under the Endangered Species Act, 59 Fed. Reg. 24,271 (July 1, 1994)(The ESA requires the Services to “use the best scientific and commercial data available” for recovery activities.); NMFS and USFWS, Endangered and Threatened Wildlife and Plants: Notice of Interagency Cooperative Policy for Peer Review in Endangered Species Act Activities, 59 Fed. Reg. 34,270 (July 1, 1994) (“The [ESA] requires the Services to make biological decisions based upon the best scientific and commercial data available. These decisions involve...recovery planning and implementation.”).

relevant data, if implemented properly, should provide a basis from which NMFS and stakeholders can evaluate and identify actual threats to CIBW health. As it stands today, the reason the CIBW population remains flat is unknown, and NMFS is correct that “[b]efore this question can be answered, more information must be obtained about the basic biology and effects of potential threats on the CI belugas.” DRP at 107 (explaining that both the biology of the whales and effects of potential threats must be better understood).

Unfortunately, while the DRP takes an appropriate approach to developing data and making recovery management decisions in the face of a lack of currently available data, its approach to addressing such uncertainty fails in other areas. As described in the comments below, NMFS must correct these failings in a final CIBW recovery plan to ensure that the plan meets the requirements of the ESA and is consistent with the best available science.

A. The DRP’s Downlisting and De-listing Factors Are Flawed

NMFS’s proposed downlisting and de-listing demographic criteria are based on a misrepresentative historical abundance estimate of 1300. DRP at 110. The dramatic decline in the CIBW population which prompted concerns about subsistence harvesting occurred between 1994 and 1998. Before that, the best estimate of CIBW’s population abundance was 653, nearly one-half of NMFS’s estimated abundance for recovery purposes. DRP at 50. The higher estimate of 1300 may be appropriate when considering carrying capacity, but unreasonably inflates recovery objectives beyond those necessary to establish a stable, recovered species that is unlikely to become “endangered within the foreseeable future within all or a significant portion of its range.” 16 U.S.C. § 1532(6). Moreover, NMFS must provide a justification for its downlisting and recovery numbers of 40% and 60%, respectively, of the purported historical abundance levels. It is not enough for the DRP to state that these percentages are the numbers “at which the population should not be considered” endangered or likely to become endangered. DRP at 110, 112-13.

In addition to using flawed numerical recovery objectives, the DRP would require that oil spill prevention and response plans be “more protective than those in place at the time of the CI beluga listing, and as appropriate, specifically provide protections for CI belugas” prior to de-listing. DRP at 112. But as discussed below, oil spill prevention and response plans already have as their primary goal the protection of the marine environment and its resources. The DRP itself acknowledges that oil spills are infrequent and there are no reports of CIBW being directly impacted by any spill event. DRP at 94. There is no evidence that oil spill prevention and response plans are currently inadequate or that oil spills themselves have played or will play any role in CIBW recovery. DRP at 94-96. This de-listing criterion is also inconsistent with the DRP’s recovery management action which would appropriately require changes to oil spill response plans only if research and analysis first suggests that such events are limiting CIBW recovery. DRP at 142.

NMFS cannot justify including a de-listing criterion that its own DRP acknowledges may have no effect on CIBW population health. In the complete absence of a scientific connection between spill prevention and response planning and the CIBW population's failure to rebound quickly, it is arbitrary and capricious to require changes to plans as a criterion of de-listing.

B. The DRP Presents A Misleading Picture of CIBW Population Trajectories

Understanding the CIBW's population numbers and current trajectory is critical to evaluating whether the current environment is in fact supporting CIBW recovery, or not. If the population is increasing, albeit slowly, recovery planning should logically take a different approach than if the population numbers are in steep decline. In the case of CIBW, NMFS's survey data has varied so dramatically from year to year that it is not possible to rely on any one number with confidence. *See, e.g.*, Fig. 13, DRP at 51 (showing changes in NMFS's annual estimates of +20, +68, -49, -73, +44, -9, -88, +27, +70, 0, -54, +19, -56, +28 and +28, with an average annual positive or negative change of over 42 individuals between surveys). Nevertheless, the DRP appears to pick and choose survey years to support its claim that CIBW are currently experiencing a negative population trajectory. *See, e.g.*, DRP at 1 (the population shows "a negative trend since 1999 (a decline of 1.3% per year...)"); *id.* at 8 (the population "continued to decline 4.1% per year from 1999 through 2006). For example, the DRP states that the "most recent 10-year time period" shows a declining trend of -0.4% annually (or 1.3% overall). DRP at 49. But one could just as easily show a positive population trajectory by starting from 2005 survey data (which, we note, actually reflects a ten-year time frame from today), which would indicate an increasing trend of 22.3% through 2014, the latest survey year.² *See* Table 3, DRP at 50. In fact, when considered as a whole, what the numbers indicate is that the CIBW population experienced a steep decline through the last year of unregulated harvest in 1998, after which the population appears to have remained effectively flat.

The survey data, when viewed as a whole, do not show a negative population trajectory since the regulation of subsistence harvests. AOGA takes issue with the DRP's misleading statements and omissions in several locations regarding the population trajectory based on selected data from specific years. When viewed altogether, the population numbers are highly variable but on average have not changed significantly since 1998. While the population has not rebounded quickly from the effects of subsistence hunting, the full survey data suggest a far less dire situation than the data selectively presented in the DRP suggests.

² Similarly, one could note that, since 2006, the population has grown by 34 individuals; the population has consistently grown by 28 individuals annually over the most recent three survey years; and the population in 1998 was just 7 individuals higher than in the most recent survey year, well within the confidence interval. Table 3, DRP at 50.

C. The DRP Improperly Prioritizes Threats Based on Speculation

The DRP should not arbitrarily prioritize threats as “low,” “medium” and “high” given the admitted absence of available science to support such determinations. The DRP is clear that NMFS has no evidence of any causal connection between particular anthropogenic activities and CIBW population health. In other words, NMFS does not know if the “threats” identified in the DRP are, actually, threats. *See, e.g.*, DRP at 73 (“little is known about the mechanisms impeding recovery”); *id.* at 107 (“[w]hat is unknown is why the population is not recovering.”); *id.* (noting the “lack of clear reason or reasons for the failure to recovery”); *id.* at 146 (there is no “single threat” clearly limiting recovery).

In the absence of available science allowing potential threats to be properly “investigated and either dismissed as insignificant or prioritized for action,” science panel members instead took a “qualitative approach” to identifying threats based solely on their best professional judgment. DRP at 73. As the examples below illustrate, this has led to the DRP’s arbitrary treatment of different purported “threats” in the face of the same types of uncertainty. For example, lacking data on how reduction in prey, incidence of disease, habitat alteration and unauthorized take might affect CIBW recovery, the DRP characterizes them as “medium” threats due to uncertainty:

- The DRP states that the impact of “reduction in prey” is “poorly understood” and the magnitude of any potential impact is “unknown,” and therefore characterizes this potential threat as a “medium concern.” DRP at 101.
- The DRP states that incidence of disease in CIBW “appears to be low” and there is “little evidence” of diseases of concern in the area, and on that basis characterizes the threat of a disease outbreak as a “medium concern.” DRP at 102.
- The DRP notes that there is a “limited understanding” of how habitat “might be altered” due to various factors and its resilience, and acknowledges that available science does not allow NMFS to link habitat loss to CIBW recovery concerns, and therefore identifies loss or degradation of habitat as a “medium concern.” DRP at 103.
- The DRP explains that there is a “medium possibility” that unauthorized take of CIBW will occur in the future, and that the effect on CIBW depends on whether the “take” causes a short term behavioral effect or death, and on the basis of those uncertainties characterizes the overall concern as “medium.” DRP at 105.

Conversely, lacking data on how noise, spills and combinations of activities might affect CIBW recovery, the DRP characterizes them as “high” threats based on uncertainty:

- The DRP admits that the magnitude of any impact of noise on CIBW is “unknown,” but nevertheless characterizes the threat from anthropogenic noise on CIBW recovery as a “high concern.” DRP at 103.
- The DRP states that the frequency of catastrophic events in Cook Inlet is low and potential effects are variable depending on event (spills, earthquakes, climate change, mass strandings or salmon run failures), but the DRP still identifies *all* potential catastrophic events -- notwithstanding their location or their impact -- as of “high” concern. DRP at 105.
- The DRP states that cumulative and synergistic effects, if occurring, cannot be quantified or characterized in terms of effects to CIBWs, but uncertainty and detection concerns purportedly make them a “high concern.” DRP at 106.

Recovery plans must be based on sound science, not speculation.³ The DRP should decline to characterize activities as “low,” “medium” or “high” threats in the absence of evidence supporting such labels. Instead, consistent with the DRP’s adaptive, step-wise approach to developing information and then managing threats based on scientific data, the DRP should only identify various activities or effects as “potential” threats and include a process to categorize them as “low,” “medium” or “high” threats later, once the research and analysis contemplated in the recovery actions have been conducted and there is a scientific basis to support such conclusions. To label them as threats without such evidence is premature, unnecessary for implementation of the DRP, unhelpful to CIBW, and very likely to result in unnecessary limitations being imposed on these activities even though NMFS has no evidence that they are a concern for CIBW recovery.

Without limiting the generality of AOGA’s concerns regarding the DRP’s improper designation of threat levels, the following sections discuss AOGA’s specific concerns regarding the DRP’s identification of purported “threats” to CIBW recovery.

1. Noise

In attempting to explain CIBW behavior, the DRP speculates that CIBWs may be seeking “refuge from human activities” such as noise, ship traffic and hunting (DRP at 33). This is highly speculative. As NMFS later acknowledges, Cook Inlet is “naturally noisy, complex and dynamic,” and CIBW have chosen to occupy the upper Inlet which is the noisiest and most industrialized of their habitat. DRP at 27, 84. Anthropogenic noise sources in Cook Inlet “have not yet been identified and acoustically characterized in the context of their effects on beluga hearing and

³ See *supra*, note 1.

communication,” and “[l]ittle is currently known regarding chronic effects of noise exposure on belugas.” DRP at 43; *see also id.* at 87 (effects on CIBW from anthropogenic noises “have not been analyzed and are currently unknown....”); *id.* at 225 (“the current knowledge of the effects of anthropogenic noise to marine mammal acoustic behavior is more limited and only a few studies have focused on belugas.”).

Despite having no data linking anthropogenic noise to CIBW population health, the DRP nevertheless identifies a variety of sources of anthropogenic noise as “threats” to CIBW that “could potentially” interfere with recovery, including vessel noise, pile driving, and oil and gas exploration and development. DRP at 85-86; *see also id.* at 42 (authors “suggested that maybe” CIBW decrease social calls in reaction to noise); *id.* (authors “hypothesized” that noise masking may result in lower CIBW calls *or alternatively* that CIBW “may” just suppress calling in the studied area); *id.* (two studies “suggest” that CIBW “might” reduce vocal activity in response to anthropogenic noise). With little more, NMFS concludes that the potential for a “negative impact” on CIBW recovery is “of high relative concern.” DRP at 87. Incredibly, the DRP also includes as a criterion of de-listing a requirement for a reduction in “the negative impacts of noise-producing activities.” DRP at 113. This is the case notwithstanding the significant protection measures that noise-producing industries already implement to protect CIBW and other environmental resources (*see* Section D, below) and that, as noted above, the DRP states multiple times in various ways that the potential effects of noise on CIBW have not been analyzed or identified.

Highlighting noise-generating activities as threats of “high relative concern” is not without practical or economic consequence. Recovery goals and threats to those goals are considered by NMFS in conducting ESA Section 7 consultations and can be viewed by other federal, state and local regulatory bodies as indicative of a serious impact warranting further restrictions and conditions.⁴ Where there is, as the DRP acknowledges, a “potential” effect but no analysis supporting more, imposing such burdens on project proponents is arbitrary and capricious. For these reasons, AOGA requests that NMFS remove speculative statements regarding noise not supported by the best available science and identify noise as a “potential threat” requiring additional study rather than a threat of “high relative concern.”

⁴ NMFS must consider the social and economic impacts of such restrictions and conditions. *See, e.g.*, 59 Fed. Reg. 34,272 (July 1, 1994) (recovery plans “will minimize the social and economic consequences” of plan implementation); Recovery Planning Guidance, *supra* note 1, at 2.3.2.4 (recovery plans should “minimize socioeconomic impacts”); *id.* at 2.4.2 (NMFS must solicit information on “ways to minimize the social and economic impacts” of recovery plan implementation). The DRP fails to address the socioeconomic impacts that are likely to result from the DRP or how such impacts have been minimized, and is therefore inconsistent with NMFS’s own guidance.

2. Prey and Noise

The DRP asserts that anthropogenic activities which “may” detrimentally affect prey or their habitats (which, in turn, may or may not impact CIBW recovery) purportedly include oil and gas activities. DRP at 78. Noise from various activities is also characterized as having potential impacts on prey and thus on CIBW health. DRP at 79-80. There is no evidence provided by NMFS, however, that: (1) these activities impact prey; or (2) that the presence or absence of prey is a factor in CIBW recovery efforts. In fact, NMFS acknowledges with regard to noise that “little is known about these effects,” and goes on to state that salmon, one of CIBW’s primary prey species, do not respond to noise at a distance. DRP at 79. NMFS also acknowledges that effects of noise on eulachon and other prey species is “unknown.” DRP at 80. In fact, the only noise studies that have been conducted on salmon showed the opposite, *i.e.*, that high noise exposure from activities like pile driving is “unlikely to affect the survival of the exposed animals” and that pile driving resulted in no mortalities. DRP at 80. Further, NMFS acknowledges that the impact from prey reduction, if any, on CIBW is “unknown.” DRP at 80. There is no support for NMFS’s conclusion that “[h]abitat disturbances may cause beluga prey to avoid an area, reduce viability of prey species, or interfere with belugas’ predation success,” or that noise may have “negative effects upon CI beluga prey.” DRP at 80. This and similar statements throughout the DRP should be removed or corrected.

3. Habitat Impacts

The DRP acknowledges that, while anthropogenic activities can alter habitat temporarily or even permanently, whether this causes population level effects is “unknown.” DRP at 88. The DRP notes that “most of the beluga habitat in Cook Inlet is still undisturbed and not degraded to the point that adverse effects to CI belugas are apparent.” Nevertheless, NMFS concludes that loss or degradation of habitat is “of medium concern” due to a “limited understanding” of how habitat might be altered. DRP at 88. The fact that there are limits on our understanding of a particular relationship cannot function as the “science” that supports an action. Without more, a “limited understanding” does not support the characterization of habitat degradation as a threat, let alone a “medium” one.

4. Catastrophic Spills

The DRP identifies catastrophic oil spills as a “high concern” to CIBW recovery. DRP at 97. However, oil and gas activities are highly regulated. *See* Section D, below. As NMFS notes, the frequency of catastrophic events in Cook Inlet has been low, and there are no reports of CIBW being directly impacted by any spill event in the State of Alaska. DRP at 94, 96. NMFS nevertheless lists catastrophic events as a “high concern” due to the immediate adverse effect on CIBW population recovery resulting from live strandings (DRP at 96), which have not been linked to oil and gas or other anthropogenic activities. AOGA requests that NMFS separate its threat

characterizations for various catastrophic events. If NMFS believes strandings pose a high concern, it can designate it as such, but should not include catastrophic oil spills as a “high concern” since, as the DRP states, they are infrequent, highly regulated, and have not caused direct impacts to CIBWs.

5. Multiple Stressors

The DRP acknowledges that there is no “single threat” that is clearly limiting recovery, and instead that the most “plausible explanation” for the CIBW population failing to rebound more quickly from past subsistence hunting is the “cumulative and synergistic effects from multiple threats.” DRP at 146. The DRP posits that CIBW are more susceptible to mortality or other serious effects when (purported) stressors are combined. DRP at 96. In particular, the DRP suggests that noise, when combined with other stressors, is “of particular concern,” despite being “poorly understood.” DRP at 97. These synergistic effects, however “have not yet been described in marine mammals.” DRP at 97. Indeed, so little is known that the DRP attempts to extrapolate from tadpole mortality studies and states that these studies “underscore the possibility” that anthropogenic noise, pollution and the presence of predators (killer whales) together may put CIBW at risk. DRP at 98. While this is purely speculative and NMFS cannot confirm that such stressors are threats to recovery in the first instance, NMFS nevertheless concludes that cumulative and synergistic effects are a “high level threat” to CIBW recovery based solely on purported uncertainty regarding the existence, magnitude and mechanisms of such stressors and difficulty detecting and mitigating those potential stressors. DRP at 99. This conclusion is inappropriate and not supported by the best available science given that NMFS does not know whether these activities pose a threat to CIBW health either individually or in combination.⁵

D. The DRP Must Acknowledge Management Measures Already Occurring

Oil and gas activities in Cook Inlet are highly regulated to protect the environment and marine populations. In its evaluation of various threats to CIBW recovery, NMFS fails to take into account these existing regulatory programs as effective mitigation for the potential threats caused by human activities, such as noise and pollution. The myriad of federal and state requirements aimed at the protection of marine mammals, water quality, noise control, and oil spill prevention and response planning applicable to oil and gas operations include, but are not limited to:

⁵ The DRP identifies the need to “encourage” industry members to share marine mammal study and sighting data in order to inform an evaluation of synergistic effects (*see, e.g.*, DRP ta 149). As indicated in Section D below, however, AOGA’s members are already subject to significant reporting requirements and provide sometimes weekly, monthly and final reports to NMFS when they undertake seismic and other industry activities. There is no evidence in the DRP that NMFS has used or even analyzed any of these data. While AOGA’s members may consider participating in an industry-wide data program under certain conditions, such an effort will only be worthwhile if NMFS devotes the resources necessary to evaluate those data.

- Marine Mammal Protection Act (“MMPA”), 16 U.S.C. § 1361, *et seq.* (*e.g.*, Incidental Take Regulations, Letters of Authorization, and Incidental Harassment Authorizations);
- Oil Pollution Act of 1990, 33 U.S.C. § 2701, (*e.g.*, Spill Prevention, Control, and Countermeasure Plans, and Vessel and Facility Response Plans);
- Clean Water Act, 33 U.S.C. § 1251, *et seq.* (*e.g.*, the Alaska Pollutant Discharge Elimination System permit program);
- National Environmental Policy Act, 42 U.S.C. § 4321, *et seq.*, (detailed environmental review before any major Federal action);
- Clean Air Act (reauthorized in 1990), 42 U.S.C. § 7401, *et seq.*, (National Ambient Air Quality Standards and Prevention of Significant Deterioration Permitting);
- Magnuson-Stevens Fishery Conservation and Management Act, 16 U.S.C. § 1801, *et seq.*, (Essential Fish Habitat designations and protections);
- Outer Continental Shelf Lands Act (“OCSLA”), 43 U.S.C. § 1331 *et seq.* (lease-related environmental conditions, monitoring and mitigation measures for protection of biological resources and fisheries);
- Annex V of MARPOL, U.S. Coast Guard regulations under 33 C.F.R. § 151.73 (disposal of garbage and domestic wastes from fixed or floating platforms); and
- Alaska Oil and Hazardous Substance Pollution Control, AS 46.04 (Oil Discharge Prevention and Contingency Plan).

The oil and gas industry also incorporates both design and operational features to minimize potential impacts to the environment and marine mammal populations, and already provides detailed marine mammal sighting information to NMFS on a regular basis. NMFS must also consider these measures in evaluating the severity of a potential human threat to the recovery of CIBW, yet the DRP is striking in its omission of the many conservation management measures being taken across various industries to protect the resources in Cook Inlet and to protect CIBW specifically. *See, e.g.*, DRP at 207-11 (omitting such measures from the discussion of relevant ESA and MMPA management measures).⁶

The following is a list of some of the mitigation measures that have been employed by the oil and gas industry, in various circumstances, to minimize impacts to CIBW, which were developed in consultation with or at the direction of NMFS and informed by NMFS’s ongoing guidance and regulatory review.

⁶ For example, the DRP states that most noise sources are not “controlled monitored or regulated” and lists various oil and gas-related activities like seismic surveys, platform noise, drilling noise and air/water operations as potential threats (DRP at 85-86) without acknowledging that, in fact, the vast majority of oil and gas activities are highly regulated for noise, often monitored by marine mammal experts, and operate under restrictions and conditions specifically designed to ensure that CIBW are not harassed or harmed by noise.

Mitigation Employed During Seismic Surveys

- Seismic vessels configure airgun arrays to maximize the proportion of energy that propagates downward and minimizes horizontal propagation.
- Vessels limit the size of the seismic energy source to only that which is required to meet the technical objectives.
- Sound Source Verification surveys may be undertaken prior to beginning operations to allow adjustments to be made.
- If a marine mammal is detected outside of the safety radii, but appears likely to enter it, if safety and survey objectives allow, the vessel adjusts speed and course to minimize the likelihood of the animal entering the safety zone.
- Oil and gas companies conduct pre-season modeling and early season field assessments to establish and refine noise safety zones and other radii relevant to behavioral disturbances.
- Companies employ acoustics contractors to perform the direct measurement of received level of underwater sound versus the distance and direction from the airgun arrays. This data is quickly analyzed and used to verify and adjust the safety distances.
- Seismic exploration crews ramp up sound levels by gradually increasing the number and total volume of airguns firing, until full volume is achieved. A full ramp up does not begin until there has been a minimum of a 30-minute period of observation of the entire safety zone by the NMFS-approved Protected Species Observers (“PSOs”) confirming that no marine mammals are present. If the entire safety zone is not visible during the 30-minute lead in, ramp up does not proceed.
- If a marine mammal is sighted within the safety zone, ramp up will not begin until the marine mammal is observed leaving the safety zone or is not observed for 15 minutes.
- Where a marine mammal is sighted within the safety zone, or appears likely to enter the safety zone of a single airgun, the airgun array may be shut down.
- When a marine mammal is sighted approaching or in the applicable safety zone of the full gun array, there is an immediate reduction in the number of operating airguns from all guns firing to only firing those outside the safety zone occupied by the mammal. The vessels employ a precautionary means of measuring the safety radii to the mammal.
- Vessels are kept anchored when approached by marine mammals to avoid the potential for avoidance reactions by the animals.
- Vessels travel at reduced speeds during inclement weather.

Monitoring for Marine Mammals During Seismic Exploration

- Vessels employ qualified PSOs onboard to monitor the safety radii for marine mammals, which varies based on the type of activity taking place. PSOs alternate in four-hour shifts to avoid fatigue and employ laser range finders

to aid in estimating distance. PSOs monitor the occurrence and behavior of marine mammals near the seismic vessel during all daylight periods and most daylight periods when the airgun arrays are not operating. PSOs watch for and identify marine mammals, record their numbers, distances, and reactions to the seismic operations, advise seismic survey personnel of the presence or approach of marine mammals within the designated “safety zones,” initiate mitigation measures (e.g., ramp ups, power downs, and shut downs);⁷ and document “take by harassment” as defined by NMFS. Vessels employ a sufficient number of PSOs to ensure 100 percent monitoring coverage during all periods of seismic and drilling operation, 30 minutes prior to ramp up, and two observer coverage for as large a fraction of other operating hours as possible. PSOs conduct monitoring from the best available vantage point, which is usually the bridge or flying bridge. Data gathered by observers is recorded into databases or handheld computers. Field reports are prepared weekly summarizing the results of the monitoring program and provided to NMFS.

- PSOs scan systematically with the unaided eye and 7 x 50 reticle binoculars, supplemented with “Big-eye” binoculars. Inexperienced PSOs are paired with experienced PSOs to ensure the quality of marine mammal observation.
- Where visibility is low due to darkness or adverse weather conditions, infra-red or night-vision binoculars are used.
- Seismic exploration teams employ multiple PSOs on “chase boats” which are smaller boats that accompany the seismic source vessel to ensure that other boats do not interfere with the seismic array.
- Additional onshore PSOs may be utilized during active seismic operations.
- Operators may conduct daily aerial marine mammal surveys.

Mitigation for Exploratory Drilling

- Well control is maintained through control of well-bore pressures while drilling to avoid releases of oil. A blowout preventer (“BOP”) is installed, including choke and kill lines, flow line alarm, pit level indicator alarm, and mud-gas separator. A minimum of two remote control stations for activating BOP rams will be provided. All BOP control equipment used shall be capable of controlling the maximum surface pressure anticipated while drilling or testing.
- Companies conduct drilling during spring, summer, and fall, which is the period of months with the mildest temperature, weather, and sea condition (no ice) for this region.
- Routine inspection and maintenance checks on equipment are conducted to prevent oil from entering the water, including:
 - Inspections follow standard operating procedures;

⁷ A power down is defined as the immediate reduction in the number of array guns firing to some smaller number. A shut down is the immediate cessation of firing of all airguns.

- Personnel working on the rig are directed to report any unusual conditions to appropriate personnel;
 - Oily equipment is regularly wiped down with oil absorbent pads to collect free oil;
 - Drips and small spillage from equipment is controlled through use of drip pans and oil absorbent drop clothes. All oil absorbent materials used to contain oil spills or seeps are collected and disposed of in sealed plastic bags or metal drums and closed containers;
 - Remedial actions are taken when visual inspections indicate deterioration of equipment and/or their control systems. Following remedial work, and as appropriate, tests are conducted to determine that the systems function correctly.
- Companies engage in pre-drill testing to quantify the absolute sound produced by drilling and to monitor their variations with time, distance, and direction from the drill ship.
 - Oil and gas companies conduct pre-season sound propagation modeling to establish the appropriate exclusion and behavioral radii.
 - Employment of vessel-based NMFS-approved trained PSOs to monitor the occurrence and behavior of marine mammals near the drillship during all daylight periods during operation and most daylight periods when drilling is not occurring. PSOs watch for and identify marine mammals, record their numbers, distances and reactions to the drilling operation. Oil and gas companies adhere to strict limits on the number of consecutive hours that a PSO may be on duty and the total number of on-duty hours that may be worked in a 24-hour period. PSOs are rotated every 3-6 weeks to avoid observer fatigue.
 - Continuous sound-level monitoring throughout all exploration drilling activities using either bottom-founded hydrophones or a radio buoy approach.
 - Use of an acoustic net array to collection information about the occurrence and distribution of marine mammals and to measure the ambient soundscape of surrounding areas.
 - Vessels reduce speed or change course if a marine mammal is sighted from a vessel in transit and will only resume full activity (e.g., full support vessel speed) only after the marine mammals are confirmed to be outside the safety zone.
 - Aircraft is prohibited from flying below 1,500 ft (457 m) altitude except during takeoffs and landings or in emergency situations).
 - Vessels remain anchored when approached by marine mammals to avoid the potential for avoidance reactions by such animals.
 - Companies shall monitor free oil using the visual sheen test method on the surface of the receiving water. Monitoring shall be performed once per day when discharging, during conditions when observation of a sheen on the surface of the receiving water is possible in the vicinity of the discharge, and when the facility is manned. The visual sheen monitoring requirement does

not apply to shore-based facilities. A produced water sample shall be collected and analyzed for oil and grease when a sheen is observed in the vicinity of the produced water discharge. At a minimum, a sample shall be collected and analyzed once per month.

- Companies must separate area drains for washdown and rainfall that may be contaminated with oil and grease from those area drains that would not be contaminated so that the waste streams are not commingled. Deck drainage that is contaminated with oil and grease must be processed through an oil-water separator prior to discharge.
- With limited exceptions, permanent or temporary oil and gas exploration or development does not occur within High Value/High Sensitivity (Type 1) beluga whale habitat areas, unless it occurs on upland areas.
- Approval of oil and gas-related activities within all High Value (Type 2) beluga whale habitat areas will be reviewed on a case-by-case basis. No permanent surface entry or structures are allowed within Type 2 areas, and temporary activities and structures, for example exploration drilling, are only allowed between November 1 and April 1 of each year, unless it occurs on upland areas, within certain tracts.

Reporting to NMFS

- The results of vessel-based monitoring are presented to NMFS in final technical reports. These reports include summaries of monitoring efforts, occurrences of power downs, shut downs, ramp ups and ramp up delays, analyses of factors affecting detectability of marine mammals, species occurrence and distribution, and an analysis of the effects of seismic operations.

NMFS must consider the existing regulatory programs and design and operational measures regularly undertaken in oil and gas development and exploration when it evaluates the severity of potential human threats to CIBW recovery and how best to manage any such threats.

Conclusion

As the DRP admits repeatedly, the best available science fails to explain why the CIBW population has not rebounded in the years since subsistence harvests were regulated in 1999. NMFS responds appropriately to the lack of data in developing a research-first approach to recovery actions, but its approach to other aspects of the DRP, particularly its evaluation and characterization of purported “threats” as “low,” “medium,” and “high,” is seriously flawed. AOGA requests that NMFS remove this threat assessment and replace it with one that recognizes that the best available science does not currently support characterization of potential threats at this time, but that the plan’s research-first approach will allow characterization of each potential threat when there is evidence to support it. AOGA also requests that NMFS revise its historical population abundance estimate to 653 individuals consistent

with 1994 survey data, remove misleading references to a declining population trajectory, and clarify that annual survey data supports a conclusion that the CIBW population trajectory is effectively flat. Finally, AOGA requests that the final plan consider the many requirements and measures already taken by the oil and gas industry to protect the Cook Inlet environment and its natural resources, including the CIBW population.

AOGA and its members appreciate your consideration of these comments. If you have any questions, please do not hesitate to contact the undersigned.

Sincerely,

Josh Kindred
Environmental Counsel
Alaska Oil and Gas Association