



January 27, 2014

Jolie Harrison
Supervisor, Incidental Take Program
Permits and Conservation Division
Office of Protected Resources
National Marine Fisheries Service
1315 East-West Highway
Silver Spring, MD 20910 ITP.Nachman@noaa.gov

RE: Apache Alaska Corporation Comments on 2014 Apache Alaska Corporation Seismic Survey in Cook Inlet Alaska Incidental Harassment Authorization Application

Dear Ms. Harrison,

Apache Alaska Corporation (Apache) appreciates this opportunity to review and submit written comments on their 2014 Apache Alaska Corporation Seismic Survey in Cook Inlet Alaska Incidental Harassment Authorization (IHA) Application "Takes of Marine Mammals Incidental to Specified Activities; Taking Marine Mammals Incidental to Seismic Survey in Cook Inlet, Alaska" (Federal Register Vol 78, No. 251).

Proposed 10-mile (16-kilometer) Exclusion Zone from Susitna River Delta:

Apache asserts that the 10-mile (mi) (16-kilometer [km]) sound source exclusion zone described in the IHA should be modified to 5.9 mi (9.5 km). This is due to the results of the Sound Source Verification (SSV) study conducted in May 2012 (JASCO Applied Sciences 2013). There is no scientific basis or rationale for the 10-mi (16-km) zone spanning from the Beluga River to the Little Susitna River. The SSV study provides a sound, clear, and logical methodology for defining the ensonification boundary of the Level B take zone.

In addition, the definition of the "Susitna Delta" has evolved (and enlarged) over the past two years, as outlined in various iterations of the Biological Opinion (BiOp). Initially, the Susitna Delta was defined as "the area from Beluga River to Little Susitna River" (BiOp dated February 17, 2012, page 19 [NMFS 2012]). The 10-mi (16-km) radius was then enlarged in the February 14, 2013 BiOp (Page 110, Condition No. 4 [NMFS 2013]) to "extend in all directions from both the Beluga River and the Little Susitna River, and the MHHW [Mean Higher High Water] line in between". The exclusion zone now spans into the Critical Habitat 2 area. This designation is unwarranted, especially when data clearly show that a 5.9 mi (9.5 km) radius from the mouth of the Big Susitna (or Little Susitna) River is a scientifically sufficient mitigation measure.

As further support for this position, Apache references the draft IHA at the bottom of page 13. In that discussion of beluga whale feeding areas, NMFS state: "The primary hotspots for beluga feeding include the Big and Little Susitna rivers, Eagle Bay to Eklutna River, Ivan Slough, Theodore River, Lewis River, and Chickaloon River and Bay (NMFS 2008)." No mention is made of the Beluga River, and therefore there is no valid



basis for expanding the exclusion zone to include the radius from the mouth of the Beluga River.

Apache respectfully requests that the exclusion zone be described as a 5.9 mi (9.5 km) radius from the mouth of the Big Susitna River. However, Apache realizes that the exclusion zone as contained in the draft IHA is derived, at least in part, from the February 2013 BiOp. As such, if NMFS cannot revise the exclusion zone contained in the draft IHA without first re-opening and revising the BiOp, in the interest of time, Apache requests that the IHA proceed without waiting for a revised BiOp.

Aerial Surveys:

Apache respectfully requests clarification on the Mitigation and Monitoring Requirements: Section c, paragraph ii of the published notice in the Federal Registrar. This section specifies when daily aerial surveys shall take place. To simplify the description of the physical area, it is clearer to state that aerial survey operations are required during seismic related activities in Zone 1.

Separately, when seismic-related activities which do not involve airgun operations (such as node laying/retrieval) take place, these activities do not cause Level A or Level B harassment; and thus aerial surveys are not required to mitigate marine mammal impact. These surveys are flown at low altitudes over the remote ocean in some of the most congested airspace in Alaska, and Apache would like to minimize the amount of risk to Protected Species Observers (PSOs).

We suggest the language be changed to “aerial surveys shall be conducted on a daily basis (weather and safety permitting) when there are seismic-related activities (limited to airgun operations) occurring in Zone 1.”

Estimated Take Levels:

Apache respectfully requests that language is added to clarify that permitted Level B takes are estimated from the methods described in Apache’s application, but that the permitted Level B takes are for actual individual marine mammals observed inside of the exclusion zones by the PSO.

Apache would like to thank the National Marine Fisheries Service for the opportunity to comment on the 2014 Apache Alaska IHA Application. Please contact me at (907) 792-7303 if you have any questions or need further clarification.

Thank you,

A handwritten signature in blue ink that reads "Marta Czarneski".

Marta Czarneski
Environmental Coordinator



References:

- NMFS. 2012. Endangered Species Act: Section 7 Consultation Biological Opinion. 3-D Seismic Surveys of Cook Inlet, Alaska by Apache Alaska Corporation. February 17, 2012
- NMFS. 2013. Endangered Species Act: Section 7 Consultation Biological Opinion. 3-D Seismic Surveys of Cook Inlet, Alaska by Apache Alaska Corporation. February 14, 2013
- Jasco Applied Sciences. 2013. Apache Cook Inlet Seismic Survey Sound Levels; Revised Areas to 160 dB re 1 μ PA – 2400 in³ array. Report prepared for Apache Alaska Corporation.
- NMFS. 2008. Conservation plan for the Cook Inlet beluga whale (*Delphinapterus leucas*). October.
http://www.nmfs.noaa.gov/pr/pdfs/species/belugawhale_conservationplan.pdf



ITP Nachman - NOAA Service Account <itp.nachman@noaa.gov>

Takes of Marine Mammals Incidental to Specified Activities; Taking Marine Mammals Incidental to Seismic Survey in Cook Inlet, Alaska

1 message

Andrew Friedman <adfriedman@gmail.com>
To: ITP.Nachman@noaa.gov

Mon, Jan 6, 2014 at 11:27 PM

Hello,

Please deny the application from Apache Alaska Corporation (Apache) for an Incidental Harassment Authorization (IHA) to take marine mammals. We still do not know how much harm their proposed activity will create, and any loss of marine life is not worth oil exploration.

Thank you



ITP Nachman - NOAA Service Account <itp.nachman@noaa.gov>

Re: its really an oil and gas survey - who believes our lying govt

1 message

jean public <jeanpublic1@gmail.com>

Wed, Jan 1, 2014 at 4:45 PM

To: itp.nachman@noaa.gov, info@oceana.org, "TheOPSociety ." <info@opsociety.org>, The Pew Charitable Trusts <info@pewtrusts.org>, PETA Info <info@peta.org>, Erica Meier <info@cok.net>, info <info@idausa.org>, INFO@lohv.org, humanelines <humanelines@hsus.org>, Harp Seals <CONTACT@harpseals.org>, foe@foe.org, info <info@earthjustice.org>, INFO@peer.org

PUBLIC COMMENT ON FEDERAL REGISTER

NO IHA SHOUDL BE ISSUED TO APACHE ALASKAWHERE THEY OSTENSIBLY CLAIM IT IS FOR SEISMIC. THIS COMPANY IS A KNOWN OIL & GAS POLLUTER IN MANY LOCAIONS AND SHOULD BE DENIED THIS PERMIT. THE PEOPLE OF THIS COUNTRY BELIEVE EVERY MARINE MAMMAL IN THAT LOCATION IS WORTH \$5 MILLION EACH AND WE CANNOT ALLOW THESE CHEAP OIL & GAS POLLUTER WHOW ANT TO MAKE MILLIONS BY KILLING THEM TO CONTINUE TO DO SO. WE NEED A BAN ON THIS COMPANY KILLING THE ECOLOGY OF THIS SITE. THIS COMMENT IS FOR THE PUBLIC RECORD. PLEASE ACKNOWLEDGE RECEIPT.
JEAN PUBLIC



MARINE MAMMAL COMMISSION

31 January 2014

Mr. P. Michael Payne, Chief
Permits and Conservation Division
National Marine Fisheries Service
Office of Protected Resources
1315 East-West Highway, Room 13635
Silver Spring, MD 20910

Dear Mr. Payne:

The Marine Mammal Commission (the Commission), in consultation with its Committee of Scientific Advisors on Marine Mammals, has reviewed the November 2013 application submitted by Apache Alaska Corporation (Apache) seeking authorization under section 101(a)(5)(D) of the Marine Mammal Protection Act (MMPA) to take small numbers of marine mammals by harassment incidental to a 3D seismic survey in Cook Inlet, Alaska to be conducted from March to December 2014. The Commission also has reviewed the National Marine Fisheries Service's (NMFS) 31 December 2013 notice (78 Fed. Reg. 80386) announcing receipt of the application and proposing to issue the authorization, subject to certain conditions. The Commission reviewed similar applications from Apache in 2011 and 2012 for incidental harassment authorizations associated with proposed seismic surveys in Cook Inlet. The Commission provides the following recommendations and rationale.

RECOMMENDATIONS

Based on its review of the information provided, the Marine Mammal Commission recommends that the National Marine Fisheries Service—

- defer issuance of the proposed incidental harassment authorization until such time as the National Marine Fisheries Service can, with reasonable confidence, support a conclusion that the proposed activities would affect no more than a small number of Cook Inlet beluga whales and have no more than a negligible impact on the population; and
- work with the Fish and Wildlife Service and the Commission to 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.

If the National Marine Fisheries Service decides to issue the requested authorization notwithstanding the risk of significant impacts on the Cook Inlet population of beluga whales, the Marine Mammal Commission recommends that the National Marine Fisheries Service—

- authorize, at a minimum, the average estimated number of takes of harbor seals;
- advise Apache to request the authorization of incidental takes of gray whales associated with its proposed activities; and

- encourage Apache and other applicants proposing to conduct seismic surveys in Cook Inlet in 2014 to collaborate on those surveys and, to the extent possible, submit a single application seeking authorizations for incidental takes.

BACKGROUND

Apache proposes to conduct a 3D seismic survey in Cook Inlet, Alaska, from 1 March to 31 December 2014 in an area of approximately 4,238 km². As with its past two applications, Apache has requested that the incidental harassment authorization cover a larger area of operation than it actually intends to survey to allow for operational flexibility. The project area is located primarily in the middle portion of the inlet and includes nearshore intertidal and offshore areas along the east coast of the inlet in waters up to 128 m in depth. Apache would use two survey vessels, each equipped with a 2,400-in³ airgun array and operated using a ping/pong shooting technique. Apache has indicated that although the vessels would use the 2,400-in³ airgun configuration most frequently, a 1,200-in³ airgun configuration would be used by the vessels when possible. Other survey equipment would include a 440-in³ airgun array, a 10-in³ airgun, a 33- to 55-kHz ultra-short baseline transceiver (pinger), and a 35- to 50-kHz lightweight release ultra-short baseline transponder. In addition, Apache plans to detonate 4 kg of Orica OSX pentolite explosives onshore to acquire additional data. Apache would use bottom-mounted, cableless hydrophones to collect all seismic data. Apache would conduct the survey for an estimated 160 days—100 days in offshore waters and 60 days in nearshore waters.

NMFS preliminarily has determined that the proposed activities could modify temporarily the behavior of small numbers of up to five species of marine mammals, but that the total taking would have a negligible impact on the affected species or stocks. NMFS does not anticipate any take of marine mammals by death or serious injury. It believes that the potential for temporary or permanent hearing impairment will be at the least practicable level because of Apache's proposed mitigation and monitoring measures, as well as additional measures proposed by NMFS, which include—

- (1) using shore- and vessel-based observers to monitor the exclusion zones (based on Level A harassment thresholds of 190 and 180 dB re 1 μ Pa) and disturbance zone (based on Level B harassment threshold of 160 dB re 1 μ Pa) (a) during all daylight hours when airguns are operating, (b) for a minimum of 30 minutes prior to ramp-up of the airguns, and (c) during most daylight hours when airguns are not operating;
- (2) using standard ramp-up, delay, power-down, and shut-down procedures;
- (3) prohibiting ramp-up of airguns during nighttime operations or during low-light hours after an extended shut-down (i.e., when airguns have not been operating for at least 10 minutes);
- (4) implementing additional delay and shut-down procedures if a beluga whale or an aggregation of five or more killer whales or harbor porpoises is observed approaching or within the disturbance zone;
- (5) ceasing airgun operations within 16 km of the mean high waterline of the Susitna River from 15 April to 15 October;
- (6) ceasing seismic survey operations if authorized numbers of takes for any marine mammals are met or exceeded;

- (7) altering vessel speed or course to avoid having a marine mammal enter the respective exclusion zone;
- (8) conducting aerial surveys on a daily basis in the project area, even if the airguns are not operating (weather and safety permitting);
- (9) conducting aerial surveys around the most important beluga whale foraging and reproductive areas of the upper inlet when airguns or pingers are being used north or east of a line from Tyonek across to the eastern side of Number 3 Bay of the Captain Cook State Recreation Area;
- (10) conducting aerial surveys to identify (and presumably avoid) large aggregations of beluga whales and harbor seal haul-out sites when survey operations occur near a river mouth;
- (11) limiting aerial surveys to an altitude not less than 305 m at all times and to a radial distance of 457 m or greater when marine mammals are present (except during takeoff, landing, or an emergency situation);
- (12) alerting NMFS immediately when a cumulative total of 25 (or more) belugas are detected in the disturbance zone;
- (13) reporting injured and dead marine mammals to NMFS and the local stranding network using NMFS's phased approach and suspending activities, if appropriate; and
- (14) submitting field and technical reports and a final comprehensive report to NMFS.

RATIONALE

NMFS's determinations regarding small numbers and negligible impact on beluga whales

In its letters regarding previous incidental harassment authorizations for Apache seismic surveys in Cook Inlet (see letters dated 21 October 2011 and 9 January 2013), the Commission stated its concerns regarding the declining numbers of Cook Inlet beluga whales and the likelihood of continued declines, even in the absence of any additional stressors, such as disturbance associated with seismic activities. The Commission recommended on both occasions that NMFS defer issuance of the proposed incidental harassment authorization until it has better information on the cause or causes of the ongoing decline and has a reasonable basis for determining that authorizing additional takes would 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 that may worsen the observed decline should not be viewed as having a negligible impact on the population. However, in its notices of issuance of incidental harassment authorizations for Apache's 2012 and 2013 seismic surveys, NMFS did not respond to the Commission's recommendation nor did it address the Commission's concerns regarding its small numbers and negligible impact determinations.

The Commission remains concerned that Apache's proposed seismic activities in Cook Inlet, when added to the existing baseline of activities in Cook Inlet, will pose significant risks to the beluga population. Although monitoring reports submitted by Apache for its 2012 activities suggest that the proposed mitigation measures will minimize the likelihood of exceeding the requested number of takes, the requested number of takes remains of concern given continued declines in the beluga population. As stated in previous letters to NMFS, the MMPA allows the authorization of incidental taking only if it involves "small numbers of marine mammals of a species or population stock" and has a negligible impact on such species or stock. It remains unclear how NMFS is

defining both small numbers and negligible impact in this situation and more generally. Reviewing courts have ruled that “small numbers” and “negligible impact” are not synonymous and the former cannot be defined on the basis of the latter—that is, they are separate standards. Defining the term “small numbers” for application to multiple species or stocks has been a challenge. An absolute definition (i.e., a set number of animals) might make sense in some cases but would not in others. A relative definition (e.g., a percentage) also might be appropriate in some cases but not in others. Because the Cook Inlet beluga population has been significantly reduced and is relatively small (about 300 individuals), defining small numbers as a percentage of the population’s abundance would seem most appropriate in this instance.

Consistent with these ongoing and unresolved concerns, the Commission once again recommends that NMFS defer issuance of the proposed incidental harassment authorization until such time as NMFS can, with reasonable confidence, support a conclusion that the proposed activities would affect no more than a small number of Cook Inlet beluga whales and have no more than a negligible impact on the population.

Perhaps the best approach for developing generally applicable criteria for defining “small numbers” would be for NMFS, the Fish and Wildlife Service, and the Commission to form a task force to develop an appropriate working definition that could then be made available for public review and comment. As such, the Commission recommends that NMFS work with the Fish and Wildlife Service and the Commission to 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. The Commission understands that NMFS has been working on developing a policy and would welcome an opportunity to discuss this policy further before it is finalized.

The Commission remains concerned that NMFS is not addressing the cumulative effects of activities in Cook Inlet on Cook Inlet beluga whales. The Commission previously has recommended that NMFS defer issuing any incidental take authorizations for Cook Inlet beluga whales until it has a better understanding of the factor or factors that are causing or contributing to the observed population trend or until the population begins to demonstrate sustained growth. This is particularly important in view of the fact that NMFS has not ruled out the possibility that the combined, aggregate, or cumulative disturbance associated with the broad suite of activities occurring in the Inlet (e.g., oil and gas exploration, development, and production, port construction, shipping, coastal development, military activities, fisheries, etc.) is the cause or a significant contributor to the continued 10-year decline of this endangered population. The Commission remains concerned about authorizing additional sources of disturbance based on the theory that their incremental impact on the existing baseline is “negligible” when the status quo already appears to be at a possible tipping point for this population’s persistence.

Rather than continuing to consider only the incremental effects of new activities in its issuance of incidental take authorizations, NMFS needs to adopt policies and issuance criteria that ensure full consideration of the effects of each new activity in combination with the cumulative effect of ongoing and planned activities in Cook Inlet. There are several potentially useful tools for accomplishing this, including the development of clearer criteria for making negligible impact determinations recommended above. In addition, the recovery plan for the Cook Inlet beluga whale

currently under development provides an excellent opportunity to promote the research needed to identify the cause or causes of the population's decline and to investigate the possible cumulative effects of multiple factors. This could be coupled with periodic reviews of all sources of potential disturbance to beluga whales in Cook Inlet, adoption of measures to mitigate such disturbance, and regular evaluations of the effectiveness of current conservation measures. The Commission continues to believe that NMFS needs to give greater attention to and invest more resources in understanding and addressing the factors contributing to the decline of the Cook Inlet beluga whale population and to promote more aggressively the conservation and recovery of this population. Authorizations under section 101(a)(5) of the MMPA are one tool to achieve that goal.

If NMFS decides to issue the requested authorization, notwithstanding the Commission's recommendations and the possibly significant impacts on the Cook Inlet beluga population, then the Commission has the following additional comments and recommendations regarding other concerns with Apache's application and NMFS's analysis of it.

Ensuring takes of beluga whales do not exceed those requested

Apache has once again requested authorization to take a number of beluga whales that is less than what Apache estimated could be taken in the proposed survey area. In its estimation of potential takes, Apache identified two zones of operation—Zone 1 in the northern portion of the project area and Zone 2 in the southern portion (Figure 2 in the application). It then calculated the average number of beluga whales expected to occur in each square kilometer of the survey area using the habitat model developed by Goetz et al. (2012). Multiplying those densities by the area of the disturbance zone associated with each of the two zones of proposed survey operation, Apache estimated that up to 57 belugas could be taken—28 in Zone 1 and 29 in Zone 2 (see Table 4 of the *Federal Register* notice). NMFS has proposed that Apache limit takes of belugas to no more than 30 whales (the number of belugas NMFS has authorized in previous incidental harassment authorizations; see for example 78 Fed. Reg. 12720) by requiring that Apache (1) use a number of visual monitoring methods (i.e., aerial-, shore-, and vessel-based surveys) to maximize the likelihood of detecting any belugas that may be present in the survey area, (2) shut down seismic operations if belugas are sighted within or approaching the disturbance zone, (3) alert NMFS immediately once a cumulative total of 25 or more belugas have been detected within the disturbance zone and (3) cease operations once 30 belugas have been taken. The Commission generally considers NMFS's proposed mitigation, monitoring, and reporting measures reasonable for the purpose of ensuring that no more than 30 belugas are taken by Level B harassment.

Unclear basis for requested number of takes of harbor seals

Besides belugas, the other marine mammal species seen most frequently during Apache's monitoring of the project area and surrounding areas in 2012 and 2013 were harbor seals and harbor porpoises.¹ The Commission recommended in its comments on Apache's last authorization application that NMFS require Apache to either amend its application to seek authorization for the maximum numbers of marine mammals that may be taken or provide sufficient and consistent justification for requesting lesser numbers of takes for these two species. In its response to the

¹ <http://www.nmfs.noaa.gov/pr/permits/incidental.htm#applications>

Commission’s recommendation, NMFS stated that it would use average estimates for these two species because using maximum estimates would result in overestimates that do not account for marine mammals avoiding the sound source before they are in the disturbance zone (78 Fed. Reg. 12720).

Although this may be the case, the fact that a potentially significant number of marine mammals may be disturbed to the point where they change their behavior to avoid the project area at lower sound levels suggests that the disturbance zone previously used by NMFS and again included in this proposed authorization is insufficient to account for all of the takes that are likely to occur. If it is going to rely on such an argument as the rationale for not using maximum estimates, NMFS should explain why it believes marine mammals that avoid an area in response to a sound source, even if their exposure is below the assumed disturbance threshold, should not be considered to have been taken under the MMPA’s definition of Level B harassment (16 U.S.C. § 1362(18)(A)(ii)).

For its current application, Apache made adjustments to the average and maximum estimated densities for several species, including harbor seals, based on corrected NMFS survey data from 2000 to 2012 (Table 5 in the application). It also made adjustments to increase the size of the disturbance zone, from 6.4 km to 9.5 km, based on sound source measurements made in 2012. For harbor seals, both estimates increased significantly² (see Table 1). However, no corresponding adjustments were made either to Apache’s request or the number of takes included in NMFS’s proposed take authorization for harbor seals. Apache did not discuss its rationale for requesting the same number of harbor seal takes, given the higher take estimates. Instead, it noted in its application that (1) it does not anticipate harbor seals to haul out in large numbers in the proposed survey area, (2) the estimated numbers of takes are skewed upwards because the density estimates are based on the numbers of animals observed at large haul-out sites, and (3) seals on land would not be exposed to in-water sounds. However, these observations are at odds with reported sightings of large numbers of harbor seals in the survey area and adjacent areas during 2012 and 2013 aerial surveys (Lomac-MacNair et al. 2014), and the Commission’s long-standing position that seals identified at haul-out sites spend some portion of the day in the water (see letter to M. Payne dated 25 June 2012), thereby subjecting them to disturbance.

Table 1. Estimated and requested numbers of takes of harbor seals for Apache’s 2013 and 2014 survey seasons.

	2013 Activities		2014 Activities		Requested numbers of takes (both years)
	Maximum estimated takes	Average estimated takes	Maximum estimated takes	Average estimated takes	
Harbor seals	414	203.8	585.2	439.9	200

The Commission notes that NMFS is not necessarily bound by the numbers requested by the applicant and should request that applicants make adjustments as necessary based on best

² Average and maximum take estimates were adjusted also for other marine mammal species expected to be in the project area, but were still within the range of previous estimates.

available information. Therefore, to ensure that authorized takes for harbor seals are not exceeded for proposed activities in 2014, the Commission recommends that NMFS authorize, at a minimum, the average estimated number of takes for harbor seals.

Including a request for incidental takes of gray whales

Apache has not requested authorization to take gray whales incidental to its previous or currently proposed seismic activities. However, in its 2012 monitoring reports, Apache reported four instances in which gray whales were observed approaching the disturbance zone resulting in shutdowns of operations. On two other occasions, the occurrence of gray whales in the project area prompted a delay of operations. Given the repeated instances of gray whale sightings and mitigation measures being implemented to avoid unauthorized takes in 2012, it is not clear why takes of this species are not being requested in Apache's current application. To ensure that unauthorized takes of gray whales do not occur in 2014, the Commission recommends that NMFS advise Apache to request the authorization of incidental takes of gray whales associated with its proposed activities.

Reducing the potential for duplicative seismic surveys

It is the Commission's understanding that NMFS is reviewing at least two other applications requesting takes of beluga whales incidental to proposed seismic surveys in Cook Inlet in 2014, one submitted by the company that has conducted and may conduct a similar seismic survey on behalf of Apache in 2014. It is not clear whether these applications are seeking separate authorizations for some or all of the same activities. This should be clarified and the applicants encouraged to combine their requests if overlap exists. In any event, NMFS needs to adopt policies and institute procedures to ensure that separate applications to conduct essentially the same activities in the same areas are considered more holistically. If indeed the applicants are proposing to conduct multiple seismic surveys within the same area, it would increase the numbers of marine mammals taken and expose beluga whales and other marine mammals to unnecessary, avoidable risks. Section 101(a)(5)(D)(ii)(I) of the MMPA directs NMFS to structure incidental harassment authorizations so that they prescribe "other means of effecting the least practicable impact on such species or stock and its habitat." Allowing multiple operators to obtain separate authorizations to conduct duplicative surveys is inconsistent with that mandate.

The Commission has emphasized the need to minimize redundant seismic surveys in all areas of oil and gas exploration. NMFS has had some success in the past in encouraging applicants to collaborate on seismic surveys in areas of common interest. The Commission commends Apache's efforts to date to enter into data sharing agreements with other seismic operators to minimize the need for duplicative survey efforts. Data sharing and collaboration is critical in habitat areas used by endangered populations such as Cook Inlet beluga whales. To that end, the Commission recommends that NMFS encourage Apache and other applicants proposing to conduct seismic surveys in Cook Inlet in 2014 to collaborate on those surveys and, to the extent possible, submit a single application seeking authorization for incidental harassment of marine mammals.

Mr. P. Michael Payne
31 January 2014
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The Commission appreciates the opportunity to review this incidental harassment authorization. Please contact me if you have questions regarding these recommendations.

Sincerely,

A handwritten signature in blue ink that reads "Rebecca J. Lent". The signature is written in a cursive style with a large initial 'R'.

Rebecca J. Lent, Ph.D.
Executive Director

cc: Jon Kurland, National Marine Fisheries Service, Alaska Regional Office

References

- Goetz, K.T., R.A. Montgomery, J.M. Ver Hoef, R.C. Hobbs, and D.S. Johnson. 2012. Identifying essential summer habitat of the endangered beluga whale *Delphinapterus leucas* in Cook Inlet, Alaska. *Endangered Species Research* 16:135-147.
- Lomac-MacNair, K. M.A. Smultea, L.S. Kendall, S. Wisdom, N. Opinsky, C.E. Bacon, and D. Steckler. 2014. Marine mammal monitoring in central and upper Cook Inlet from vessel, land, and aerial platforms during spring, summer, and fall of 2012 and 2013. Poster presented at 2014 Alaska Marine Science Symposium, Anchorage, AK.



Submitted via Electronic Mail

January 29, 2014

Jolie Harrison, Supervisor
Incidental Take Program
Permits and Conservation Division
Office of Protected Resources
National Marine Fisheries Service
1315 East-West Highway
Silver Spring, MD 20910
Via ITP.Nachman@noaa.gov

Re: *Proposed IHA for a Third Year of Apache Alaska Corporation Seismic Surveys in Cook Inlet, Alaska*

Dear Ms. Harrison:

On behalf of the Natural Resources Defense Council, Center for Biological Diversity, Alaska's Big Village Network, Center for Water Advocacy, and Alaska Inter-Tribal Council, and our hundreds of thousands of members, we write to comment on NMFS' proposed incidental harassment authorization for a third year of Apache Alaska Corporation ("Apache") seismic surveys in Cook Inlet, Alaska. 78 Fed. Reg. 80385 (Dec. 31, 2013).

As you are aware, Apache's surveys in Cook Inlet have been the subject of litigation in federal district court. That litigation, and the resulting court opinion, called attention to the errors that NMFS initially made in authorizing this highly disruptive industrial activity in so vulnerable a location – a constricted inlet that happens also to contain the only extant critical habitat of an endangered, declining, and range-limited marine mammal population. It is disturbing to find not only that NMFS has perpetuated certain of these errors in a third take authorization, but that significant new errors have been introduced as well. This year, Apache's application is joined by requests from at least two other companies, Furie and SAExploration, to run seismic surveys in Cook Inlet, including, apparently, within some of the same general areas defined by Apache. In this light, NMFS' failure to fully analyze the cumulative impacts of this activity, and to require little if any additional mitigation or monitoring beyond what it has proposed in the past, cannot be countenanced.

This letter summarizes the deficiencies in the proposed authorization.

I. Background on the MMPA

The Marine Mammal Protection Act (“MMPA”) was adopted over forty ago to ameliorate the consequences of human impacts on marine mammals. Its goal is to protect and promote the growth of marine mammal populations “to the greatest extent feasible commensurate with sound policies of resource management” and to “maintain the health and stability of the marine ecosystem.” 16 U.S.C. § 1361(6). A careful approach to management was necessary given the vulnerable status of many of these populations (a substantial percentage of which remain endangered or depleted) as well as the difficulty of measuring the impacts of human activities on marine mammals in the wild. 16 U.S.C. § 1361(1), (3). “[I]t seems elementary common sense,” the House Committee on Merchant Marine and Fisheries observed in sending the bill to the floor, “that legislation should be adopted to require that we act conservatively—that no steps should be taken regarding these animals that might prove to be adverse or even irreversible in their effects until more is known. As far as could be done, we have endeavored to build such a conservative bias into the [MMPA].” Report of the House Committee on Merchant Marines and Fisheries, reprinted in 1972 U.S. Code Cong. & Admin. News 4148.

The heart of the MMPA is its so-called “take” provision, a moratorium on the harassing, hunting, or killing of marine mammals. 16 U.S.C. § 1362(13). Under the law, NMFS may grant exceptions to the take prohibition, provided it determines, *inter alia*, that such take would (a) take only small numbers of marine mammals and (b) have only a negligible impact on marine mammal species and stocks. It should be noted that the “small numbers” and “negligible impact” determinations are legally separate and distinct requirements of the MMPA and may not be conflated. *NRDC v. Evans*, 279 F.Supp.2d 1129, 1150-53. Finally, in authorizing take under the Act, NMFS must prescribe “methods” and “means of effecting the least practicable impact” on protected species as well as “requirements pertaining to the monitoring and reporting of such taking.” 16 U.S.C. §§ 1371(a)(5)(A)(ii), (D)(vi). As discussed below, the agency has failed to meet these standards.

II. Deficiencies in NMFS’ Analysis and Determinations

A. Marine Mammal Impacts from the Apache Survey

NMFS’ “small number” and “negligible impact” findings, and its determination of the number of takes to authorize, depend in substantial part on its take estimates. Here, however, the proposed IHA has failed to properly estimate take.

In the case of Cook Inlet belugas, NMFS, while abandoning some aspects of the faulty analysis that the Court in *Native Village of Chickaloon* rejected, has ended up applying an alternative take methodology in a plainly erroneous way. In particular, NMFS calculates beluga take using a predictive habitat density model (Goetz et al. 2012) that is based on data from 1-2 summer months and that is expressly confined to summer distribution, when belugas are generally concentrated in the Upper Inlet, even though Apache’s

activity would be authorized to occur at any time during the year. Moreover, while both the proposed IHA notice and Apache's application are unclear on this point, it would appear that NMFS' analysis fails to account for the duration of the activity, simply multiplying predicted densities by the total area ensonified for each of Apache's two survey zones. Finally, even for the summer months, the predicted number of takes is inconsistent with the aerial data compiled by Apache during the 2012 season, which shows much larger numbers of belugas within or nearby the areas to be ensonified under the proposed authorization—an inconsistency that may be due to the agency's apparent failure to account for survey duration.

In the case of marine mammals other than the beluga whale, NMFS has repeated past errors associated with its use of raw NMML survey data. It has once again made substantial errors in its density calculations, including but not limited to its failure to incorporate correction factors for missed marine mammals in its analysis; and its failure to fully account for survey duration by multiplying densities, which are calculated on an hourly basis, by the number of survey days but not the number of hours in a day.

For all species, NMFS has significantly underestimated the size of Apache's impact area by, *inter alia*, using an outdated and incorrect threshold for behavioral take; and disregarding the best available evidence on the potential for temporary and permanent threshold shift on mid- and high-frequency cetaceans and on pinnipeds.

Additionally, the proposed IHA fails to properly evaluate the impacts of stress on marine mammal foraging effectiveness and other biologically essential life functions, and on reproduction and survival; the risk of stranding, due to noise as a contributing factor; and the potential diminishment of prey availability for belugas, due to direct effects on fish populations, behavioral changes such as displacement that render prey less available, and the effects of increased turbidity. Finally, the IHA fails to justify adequately the specific level of take it would authorize, especially given the additional takes proposed in other IHA applications that NMFS has received for Cook Inlet; and provides inadequate justification for its small numbers and negligible impact determinations.

B. Cumulative Impacts from Multiple Activities in the Inlet

As NMFS' regulations make clear, the agency must modify, withdraw, or suspend an IHA if the authorized taking, "either individually or in combination with other authorizations," is having a greater than negligible impact on the species or population or an unmitigable adverse impact on subsistence use. 50 C.F.R. § 216.107(f)(2). This year, in addition to Apache's, NMFS has received IHA applications from two other companies, Furie and SAExploration, that plan to conduct seismic exploration in Cook Inlet and, according to documents published by the Alaska Department of Natural Resources, largely within the same general areas identified by Apache. A number of recent studies on other species, including blue, right, sperm, and beaked whales, demonstrate behavioral and short-term physiological effects that when repeated can result, and in at least one case have resulted, in long-term impacts on populations and individuals. The very model

that NMFS uses here to define beluga whale densities observes a negative correlation between beluga whale presence and anthropogenic disturbance in the Inlet. NMFS must consider whether the cumulative impacts from these proposed activities, on top of Apache's own multiple authorizations, are having "either individually or in combination" a greater than negligible impact on the Cook Inlet beluga whale and other marine mammals.¹

C. Mitigation and Monitoring Measures

When NMFS issues an IHA, it is required to prescribe mitigation "effecting the least practicable impact" on marine mammals, paying particular attention to mating grounds and other important habitat. 16 U.S.C. § 1371(a)(5)(D)(ii)(I). Even assuming *arguendo* that an authorization could legally issue here, the mitigation that the agency has proposed for the Apache survey fails to meet the MMPA's "stringent" standard. *Evans*, 279 F.Supp. at 1159.

Here NMFS has failed to consider or adequately consider such measures as, *inter alia*, seasonal exclusions around river mouths, including but not limited to early-spring (i.e., pre-April 14) exclusions around the Beluga River and Susitna Delta area; avoidance of other areas that, based on NMML's predictive habitat model or tagging data, have a higher probability of beluga occurrence; required use of lowest practicable source levels in conducting seismic exploration, such as by employing Apache's 1200 in³ sub-array in lieu of the full 2400 in³ array, with testing at the outset to determine the extent to which the smaller-volume array can practicably be used; deferral of seismic acquisition in higher density areas, e.g., Apache's Zone 1, until the alternative technology of marine vibroseis becomes available, which may happen within the coming year; field testing and use of marine vibroseis, such as the array currently being tested by Geo-Kinetics, if available; use of advance aerial surveys to redirect activity if sufficient numbers of belugas or other species are sighted; observance of a 10 knot speed limit for all vessels, including supply vessels, employed in the activity; limitation of the so-called "mitigation" airgun to the longest shot interval necessary to carry out its intended purpose; immediate suspension of airgun activity, pending investigation, if any beluga strandings occur within or within an appropriate distance of the year three survey area; and establishment of a larger exclusion zone for beluga whales that is not predicated on detection of whale aggregations or cow-calf pairs. Additionally, NMFS should clarify that Apache's 30-take limit can be exceeded either by proxy, through the application of Apache's Equation 1 (at 78 Fed. Reg. 80404), or by direct observation of beluga whales within the harassment zone.

NMFS is likewise required to prescribe requirements pertaining the monitoring and reporting of marine mammal takes. 16 U.S.C. §1371(a)(5)(D)(ii)(III). To this end, given the importance of detecting belugas to the overall authorization scheme, the agency must consider prescribing passive acoustic monitoring measures that are superior to the virtually useless over-the-side hydrophone intended for the M/V *Dreamcatcher*, such as

¹ The National Environmental Policy Act also requires NMFS to evaluate cumulative impacts, as well as, *inter alia*, to evaluate all reasonably foreseeable impacts, alternatives, and mitigation. Here, NMFS issued an environmental assessment and finding of no significant impact, not an environmental impact statement.

the PAMGuard system and real-time detection algorithm developed by St. Andrews University (SMRU). This system has been shown, in controlled trials, to detect Cook Inlet beluga whales reliably up to 1 kilometer away, with a reasonable potential detection range of about 3 miles (see Gillespie et al. 2013); it is portable, reports detections in real time, and can readily be deployed from shore for transition-zone and other near-shore operations. Additionally, for exploration occurring further offshore NMFS should consider available options for offshore moorings of real-time passive acoustic systems, such as moorings designed by Mooring Systems, FloTec, Benthos, or other companies. For visual surveillance, NMFS should consider setting a ship-based monitoring requirement of at least 2 experienced PSOs, per vessel, on watch at all times during daylight hours, with a maximum of 2 consecutive hours on watch and 8 hours of watch time per day per PSO, which comes closer to the work limits observed by professional biologists on NOAA large-vessel surveys.

III. Conclusion

Given the manifest deficiencies of Apache's application, the imperiled status of the beluga population, and NMFS' inability – given this record – to make the findings required for authorizing take under the MMPA, we urge you to conclude that an authorization cannot issue at this time.

As always, we welcome the opportunity to discuss these issues with you and your staff. For further discussion, please do not hesitate to contact me at mjasny@nrdc.org.

Very truly yours,



Michael Jasny
Senior Policy Analyst
Director, Marine Mammal Project

Attachments

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RESOURCE DEVELOPMENT COUNCIL

Growing Alaska Through Responsible Resource Development

January 22, 2014

Ms. Jolie Harrison
Office of Protected Resources
National Marine Fisheries Service
1315-East-West Highway
Silver Spring, MD 20910

Re: Proposed Incidental Harassment Authorization to Apache in Cook Inlet

Dear Ms. Harrison:

The Resource Development Council for Alaska, Inc., (RDC) is writing to support the issuance of the proposed Incidental Harassment Authorization for Apache Corporation's proposed seismic survey in Cook Inlet between March 1 and December 31, 2014. Given extensive mitigation measures and monitoring requirements, the survey is not likely to adversely affect Cook Inlet species or stock.

RDC is an Alaskan business association comprised of individuals and companies from Alaska's oil and gas, mining, forest products, tourism, and fisheries industries. Our membership includes all of the Alaska Native Regional Corporations, local communities, organized labor, and industry support firms. RDC's purpose is to expand the state's economic base through the responsible development of our natural resources.

Given tight energy supplies in Southcentral Alaska, the proposed seismic survey could ultimately lead to the development of much needed energy resources for Alaska's most populous region. The survey is clearly in the public interest as it could give Apache the information it needs to potentially secure a stable source of energy for local communities and utilize a valuable resource for Alaskans.

More than half of the state's population depends on natural gas from the Cook Inlet region for home heating, electricity and commercial enterprise. Continued development of Alaska's natural resources is critical to local communities and the state's economy and the quality of life of our residents.

Development of potential energy resources in the Cook Inlet basin will provide new jobs in the region and revenues to the State of Alaska. Operation of Apache's 2011-12 seismic program resulted in some 225 direct, indirect, and induced jobs resulting in more than \$22.5 million a year

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in payroll. Because of Apache's local hire policies, 60 percent of these jobs went to Alaska residents.

Apache has acquired over 800,000 acres of oil and gas leases in Cook Inlet since 2010 with the primary objective to explore for and develop oil and gas resources in Cook Inlet. Except for the location and the size of the survey area, the activities proposed for the 2014 survey season are essentially the same as those conducted during Apache's first survey season in 2012. As shown during the 2012 seismic survey, which resulted in no takes of Beluga Whales, the mitigation measures and operating standards imposed by the company were exceptional.

Given Apache's proposed measures, as well as other actions considered by the Service, the proposed mitigation measures would result in the least practicable impact on marine mammals species or stocks and their habitat. With the proposed mitigation and related monitoring, no injuries or mortalities to marine mammals are anticipated to occur as a result of Apache's proposed seismic survey in Cook Inlet. Additionally, the animals in the area are not expected to incur hearing impairment or non-auditory physiological effects. The number of takes that are anticipated and proposed to be authorized by the Service are expected to be limited to short-term behavioral harassment. Animals are not expected to permanently abandon any area that is surveyed, and any behavioral that are interrupted during the activity are expected to resume once the activity ceases. Only a small portion of marine mammal habitat may be affected at any time, and other areas within Cook Inlet will be available for necessary biological functions. In addition, the area where the survey will take place is not known to be an important location where beluga whales congregate for feeding, calving, or nursing.

Mitigation measures such as controlled vessel speed, dedicated marine mammal observers, non-pursuit, and shutdowns or power downs when marine mammals are seen within defined ranges will further reduce short-term reactions and minimize any effects. In all cases, the effects of the seismic survey are expected to be short term, with no lasting biological consequence.

RDC supports Apache's efforts to explore for potential oil and gas resources in the Cook Inlet basin based on its continued community outreach efforts, economic support, and efforts to work with local, state, and federal agencies on their Cook Inlet program. Moreover, development of potential resources is clearly in the public's interest, as noted above.

RDC is confident Apache will work diligently to insure a successful, environmentally-sound project. We urge the Service to clearly recognize the many benefits of seismic surveys and subsequent development of energy resources to Alaskans and the local economy.

RDC encourages the Service to issue this Incidental Harassment Authorization in a timely manner.

Sincerely,



Carl Portman
Deputy Director

Alaska Oil and Gas Association



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Joshua Kindred, Regulatory & Legal Affairs Manager

January 30, 2014

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Re: Proposed Incidental Harassment Authorization to Apache in Cook Inlet

Dear Ms. Harrison:

The Alaska Oil and Gas Association (AOGA) is writing to support the issuance of the proposed Incidental Harassment Authorization for Apache Corporation's proposed seismic survey in Cook Inlet between March 1 and December 31, 2014. AOGA is a private non-profit trade association located in Anchorage, Alaska. AOGA's fifteen member companies account for the majority of oil and gas exploration and development in Alaska. AOGA and its members are longstanding supporters of responsible oil and gas leasing, exploration and development in Alaska, wildlife conservation, management and research in Cook Inlet. In accordance with those beliefs, AOGA is confident that Apache will work conscientiously to ensure that its endeavors benefit the Cook Inlet region and all Alaskans.

Apache has leased approximately 850,000 acres onshore, in tidal areas and offshore in the Cook Inlet Basin, an oil and gas producing region that was first developed in the 1950s and 1960s. Despite decades of development, the full benefits of this region have yet to be realized. Modern 3-D seismic will allow Apache to acquire accurate subsurface imaging, which will ultimately identify the most promising locations for exploratory drilling. Apache has already demonstrated a cautious and fastidious approach is a prior seismic survey conducted in the same region in 2012. The 2012 survey implemented similar mitigation measures and operating parameters and resulted in zero takes of Beluga Whales.

The Interstate Oil & Gas Compact Commission awarded Apache with the 2013 Chairman's Stewardship Award for its use of wireless seismic technology in Alaska's Cook Inlet. Apache's Cook Inlet 3-D seismic program employs industry's first true cable-free wireless seismic technology to acquire 3-D seismic data. That technology drastically limits disturbance to Cook Inlet communities, wildlife and environment. IOGCC Communications Manager Carol Booth said numerous worthwhile projects were submitted to the commission for consideration in

the 2013 Chairman's Stewardship Awards, and noted that "Apache's project is an outstanding example of what the award represents."

Over half of Alaskans depend on natural gas from the Cook Inlet basin for home heating, electrical needs and commercial enterprise. As a result, it is paramount to Alaskan communities and the Alaskan economy for Apache to continue its development efforts. Apache's 2012 seismic program referenced above resulted in over 200 direct, indirect, and induced jobs, which, in turn, represented more than 22 million in payroll. Due to Apache's local hiring preference, more than sixty percent of those jobs went to Alaskans.

Apache's proposed 3D seismic survey in Cook Inlet contains mitigation measures to safeguard local marine mammal species and habitat and, as a result, no injuries or deaths are expected to occur. Furthermore, the seismic survey is not likely to cause hearing impairment or non-auditory physiological effects to local species. Because Apache anticipates that takes will be limited to short-term behavioral harassment, local animals are not expected to permanently abandon the region. Finally, it is important to note that the proposed activity will only affect a small percentage of marine mammal habitat at any time, and will not take place in areas known to critical to Beluga Whale feeding, calving or nursing.

AOGA supports Apache's efforts to explore for future development of oil and gas resources in the Cook Inlet basin. Apache has a history of working with Alaska Native corporations and tribal councils as well as contractors, stakeholders and government agencies to minimize the impact on Cook Inlet Beluga whales and other marine mammals, including killer whales, harbor porpoises, Steller sea lions and harbor seals. Apache has proven to be successful and environmentally conscious in the region and Apache's future success is critical to Alaska. Accordingly, AOGA asks NMFS to issue the proposed Incidental Harassment Authorization in a timely manner.

Sincerely,

A handwritten signature in black ink, appearing to read 'JK', written over a horizontal line.

Joshua Kindred
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www.centerforwateradvocacy.org

January 29, 2014

Jolie Harrison, Supervisor
Incidental Take Program
Permits and Conservation Division
Office of Protected Resources
National Marine Fisheries Service
1315 East-West Highway
Silver Spring, MD 20910
Via ITP.Nachman@noaa.gov

Re: *Proposed IHA for a Third Year of Apache Alaska Corporation Seismic Surveys in Cook Inlet, Alaska*

Dear Ms. Harrison:

On behalf of the Alaska Big Village Network, Center for Water Advocacy, The Chickaloon Village Traditional Council and Alaska Inter-Tribal Council, we write to comment on NMFS' proposed incidental harassment authorization (IHA) for a third year of Apache Alaska Corporation ("Apache") seismic surveys in Cook Inlet, Alaska. 78 Fed. Reg. 80385 (Dec. 31, 2013).

As you are aware, Apache's surveys in Cook Inlet have been the subject of litigation in federal district court. That litigation, and the resulting court opinion, called attention to the errors that NMFS initially made in authorizing this highly disruptive industrial activity in so vulnerable a location – a constricted inlet that happens also to contain the only existing critical habitat of an endangered, declining, and range-limited marine mammal population. It is disturbing to find not only that NMFS has perpetuated certain of these errors in a third take authorization and that significant new errors have been introduced as well, but that to date NMFS has avoided requests for consultation with affected Native Alaskan Tribal governments on the IHAs including this one.

This year, Apache's application is joined by requests from at least two other companies, Furie and SAExploration, to run seismic surveys in Cook Inlet, including,

apparently, within some of the same general areas defined by Apache. In this light, NMFS' failure to fully analyze the cumulative impacts of this activity, and to require little if any additional mitigation or monitoring beyond what it has proposed in the past, cannot be countenanced.

This letter summarizes the deficiencies in the proposed authorization.

I. Background on the MMPA

The Marine Mammal Protection Act ("MMPA") was adopted over forty years ago to ameliorate the consequences of human impacts on marine mammals. Its goal is to protect and promote the growth of marine mammal populations "to the greatest extent feasible commensurate with sound policies of resource management" and to "maintain the health and stability of the marine ecosystem." 16 U.S.C. § 1361(6).

The process for tribal consultation on marine mammal issues is governed by Section 119 of the MMPA¹ in which NMFS and the US Fish and Wildlife Service (FWS) were granted authority to enter into cooperative agreements with Alaska Native organizations (ANOs). To this end, Co-management Agreements have been established between NMFS and Alaska Native Organizations, including tribes and tribally authorized co-management bodies. Individual co-management agreements incorporate the spirit and intent of co-management through close cooperation and communication between NMFS and the Alaska Native Organizations, hunters, and subsistence users. Agreements encourage the exchange of information regarding the conservation, management, and utilization of marine mammals in U.S. waters in and around Alaska. Existing agreements cover co-management structures, monitoring subsistence harvests, collecting and analyzing data on marine mammal populations, and participating in marine mammal research.²

The co-management agreements for NMFS' actions in relation to the IHA include the Cook Inlet Marine Mammal Council's Co-Management Agreement for Cook Inlet Alaska belugas.³ "The purposes of this Agreement between NMFS and the ABWC is to promote the recovery of the CI beluga whale...."⁴

II. Deficiencies in NMFS' Analysis and Determinations

NMFS' "small number" and "negligible impact" findings, and its determination of the number of takes to authorize, depend in substantial part on its take estimates. Here, however, the proposed IHA has failed to properly estimate take. While NMFS focuses mostly on Marine Mammals, for example, we believe a more comprehensive ecological risk assessment is needed to understand localized and cumulative effects to subsistence use of the ecosystems resources. In particular, NMFS has a limited

¹ 16 U.S.C. §1388(a)&(b), Pub. L. 103-238.

² <http://alaskafisheries.noaa.gov/tc/>.

³ <http://alaskafisheries.noaa.gov/protectedresources/whales/beluga/2006cimmcagreement.pdf>.

⁴ Agreement at Article III.

ecosystem assessment and basic understanding of ecological risks to Alaska Native peoples that hunt and fish in Cook Inlet, and in particular with the Endangered Cook Inlet Beluga Whale's Recovery.

In addition, NMFS mandatory consultation with EPA use Bristol Bay Watershed Assessment ecological risk assessment of the subsistence resources that adversely and disproportionately impacts Alaska Native fisherman. The report "An Assessment of Potential Mining Impacts on Salmon Ecosystems of Bristol Bay" uses a well-established methodology of an ecological risk assessment, which is a type of scientific investigation that provides technical information and analyses to foster public understanding and inform future decision making.⁵

A. Marine Mammal Impacts from the Apache Survey

NMFS' "small number" and "negligible impact" findings, and its determination of the number of takes to authorize, depend in substantial part on its take estimates. Here, however, the proposed IHA has failed to properly estimate take. When NMFS issues an IHA, it is required to prescribe mitigation "effecting the least practicable impact" on marine mammals, paying particular attention to mating grounds and other important habitat. 16 U.S.C. § 1371(a)(5)(D)(ii)(I). Even assuming *arguendo* that an authorization could legally issue here, the mitigation that the agency has proposed for the Apache survey fails to meet the MMPA's "stringent" standard. *Evans*, 279 F.Supp. at 1159.

These affects are in infringement upon the aboriginal title of Cook Inlet tribal entities. This is particularly true due to the fact that, even with the adoption of the Alaska Native Claims Settlement Act (ANCSA),⁶ Alaska Natives may possess unextinguished aboriginal title, which included hunting, fishing, and gathering rights.⁷

In addition human rights as they relate to native subsistence have been recognized in international treaties and national constitutions since 2002. However, as in the case, this right is being eroded by the inclusion of water and other essential services as commodities in international trade treaties and conventions. This includes the International Covenant on Civil and Political Rights Article 1. which states that "no people are to be deprived of their own means of subsistence." The President Jimmy Carter signed the Covenant in 1992 which was, thereafter, ratified by Congress.⁸

Similarly, The international human rights standards serve as a guide for measures to address impacts of government actions on subsistence resources, underscoring the fundamental moral and legal obligations to protect and promote full enjoyment of the

⁵ http://www.epa.gov/ncea/pdfs/bristolbay/bristol_bay_assessment_final_2014_ES.pdf

⁶ Pub. L. No. 92-203, 85 Stat. 688 (codified as amended at 43 U.S.C. §§ 1601–28).

⁷ See, Robert T. Anderson, Alaska Native Statehood and Alaska Native Rights, *Unfinished Business*, 42 *Tulsa L. Rev.* Vol. 43:17.

⁸ <http://www.cartercenter.org/news/documents/doc1369.html>.

rights enshrined in the Universal Declaration of Human Rights⁹ and in the core universal human rights treaties.¹⁰

Human rights laws apply to the IHA communities because like other indigenous peoples of the world the Cook Inlet tribes area struggling to maintain and preserve their own culture, but much of their land has been taken away from them, and they are highly dependent on what is left to provide them with enough food and housing. While efforts to strengthen the rights of Indigenous people in a global sense, have had some positive results in recent years, including the adopting of the ILO Convention on the Rights of Tribal and Indigenous People and the UN Declaration on the Rights of Indigenous Peoples, (UNDRIP), when they are displaced and live on “welfare”, their culture is undermined and the alien culture of the dominant society in which they must adapt leads to high degrees of alcoholism suicide and sometimes criminal behavior.¹¹

Experts, in fact, recognize that UNDRIP guidelines require that governmental policies must recognize indigenous peoples right to land and natural resources, which makes it possible for them to preserve their culture while sustaining a livelihood.¹² This relationship between native people’s rights to land and natural resources and economic survival has been highlighted by the Inter-American human rights bodies in a number of cases.¹³ In the *Yakye Axa Indigenous Community* case, for example, the Inter-American Court of Human Rights held that Paraguay had violated the rights of the member of that community to live a dignified existence, which follow from the right to life, by delaying the restitution of their ancestral lands and thus making it difficult for them to obtain food, clean water, adequate housing and healthcare.¹⁴

In fact, it can be argued that native Alaskan tribal government’s such as those in the Cook Inlet watershed retain such a property right to protect fish and wildlife up which they rely for subsistence. This argument is based on the fact that common law recognizes a property-based sovereign trust interest in fish and wildlife populations that live within, or pass through, a government’s borders.¹⁵ Judicial recognition of the government’s interest arose out of an early need to establish public rights to wildlife in a pre-possessory state,¹⁶ and with respect to other critical natural resources such as water and air.¹⁷ This resulted in a legal doctrine which joined the sovereign trusteeship over wildlife and the

⁹ <http://www.ohchr.org/EN/UDHR/Pages/Introduction.aspx>.

¹⁰ <http://www.ohchr.org/EN/ProfessionalInterest/Pages/CoreInstruments.aspx>.

¹¹ See, Javid Rehman, *International Human Rights Law, A Practical Approach* p. 248 (June 2002) (Practical Approach).

¹² See, *Ibid*.

¹³ See, Case 11.140, *Mary and Carrie Dann v. United States*, IA CommHR Report NO 75/02 (27 December 2002); *Mayagna (Sumo) Awas Tingni Community v. Nicaragua*, IACtHR Series C No 79 (31 August 2001); *Yakye Axa Indigenous Community v. Paraguay*, IACtHR Series C No 125 (17 June 2005).

¹⁴ *Yakye Axa Indigenous Community, ibid*, paras 164-8 and 176.

¹⁵ See, 35 AM. Jur. 2D Fish and Game § 1 (1967).

¹⁶ See, *Geer v. Connecticut*, 161 U.S. 519, 523-25 (1896) (tracing origins of governmental rights in wildlife).

¹⁷ See, *Ibid* at 525-27 (citing treatise which grouped water, air, wildlife, the sea, and its shores to eger the as a clasws of property called “res communes,” held in an “ancient state of negative community”).

“public trust” in other natural resources.¹⁸ These principles are fundamental to the function of governments and are manifest in the law of several other nations and trace back to ancient legal regimes predating the United States.¹⁹

The landmark decision *Geer v. Connecticut*,²⁰ which discusses the sovereign property interest in wildlife, addressed whether the State of Connecticut could forbid the entry of game that had been legally taken within the state into interstate commerce despite restriction in the Interstate Commerce Clause of the Constitution.²¹ As a predicate to the constitutional issue, however, the Court resting its conclusion on reasoning dating back through English common law to the law of Athens, the Court set forth a principle of sovereign trusteeship in wildlife that endures to this day.²²

The Committee on Economic, Social and Cultural Rights (CESCR) has repeatedly addressed the problems faced by indigenous peoples, including the vulnerability of such peoples whose ancestral lands may be threatened.²³ Potential future uranium mining and road building and the impacts of climate change in the Cook Inlet Watershed, for example can aggravate the situation of village communities degrading their land, and caused their displacement. The CESCR has also emphasized that as part of their obligations to protect people’s resources base for food, states parties should take appropriate steps to ensure that such activities of the private business sector are in conformity with the right to food.²⁴

III. Conclusion

Given the manifest deficiencies of Apache’s application, the imperiled status of the beluga population, and NMFS’ inability – given this record – to make the findings required for authorizing take under the MMPA, we urge you to conclude that an authorization cannot issue at this time.

As always, we welcome the opportunity to discuss these issues with you and your staff. For further discussion, please do not hesitate to contact me at waterlaw@uci.net.

Sincerely,

s/Harold Shepherd
Harold Shepherd, Director

¹⁸ Many courts refer to wildlife as a subset of interests protected by the public trust doctrine. See, Mary Christina Wood, *The Tribal Property Right to Wildlife Capital (Part I): Applying Principles of Sovereignty to Protect Imperiled Wildlife Populations* Idaho L. Rev., p. 52. Vol., 37, No.1 (2000) (Protecting Imperiled Wildlife Populations).

¹⁹ *Ibid.* at 53.

²⁰ 161 U.S. 519 (1896).

²¹ *See, Ibid.*

²² *See, Ibid* at 161 U.S. at 522-27; *Protecting Imperiled Wildlife Populations* at 53

²³ *Practical Approach* at 248.

²⁴ *Practical Approach* at 248 citing, CESCR General Comment 12, n 7, para 13 & 27.

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