UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
P.O. Box 21668
Juneau, Alaska 99802-1668

January 29, 2003

MEMORANDUM FOR: Steven Kokkinakis
Office of Strategic Planning

FROM: For James W. Balsiger
Administrator, Alaska Region

SUBJECT: DEIS for Cook Inlet Planning Area: Comments

The Alaska Region has reviewed the December 2002 Draft Environmental Impact Statement (DEIS) prepared by the Minerals Management Service (MMS) Alaska Outer Continental Shelf Region for Lease Sales 191 and 199 in the Cook Inlet Planning Area. Please refer any questions to Brad Smith or Brian Lance in our Anchorage office at (907) 271-5006.

General Comments

The Minerals Management Service's proposed action (also described here as Alternative I) consists of the Cook Inlet multiple-sale area which includes 517 whole or partial blocks covering 2.5 million acres in Cook Inlet. These blocks would be offered through two (2) individual sales which would occur sequentially- Lease Sale 191 in 2004 and Lease Sale 199 in 2006. This alternative reflects an estimated resource development of 140 million barrels of recoverable oil and 190 billion cubic feet of natural gas. The DEIS assumes that the oil and gas will be recovered as a result of a single development, which may result from either one or both sales.

The DEIS offers three (3) additional alternatives: the no action alternative and two (2) alternative deferral areas. While it is not clear whether the DEIS intends for these alternatives to be mutually exclusive, we recommend the adoption of Alternatives III and IV. These alternatives present small, but potentially valuable, improvements from the proposed action. Alternative III (Lower Kenai Peninsula Deferral) would reduce potential effects on subsistence fish resources and associated habitat. The deferral area is used for subsistence by the communities of Port Graham, Nanwelek, Seldovia, and Port Chatham. The MMS projects this alternative (and the other) would slightly reduce potential effects to essential fish habitat when compared to the proposed plan. While exploratory activities adjacent to the deferral area would continue and may present many of the same impacts expected

in the proposed plan, Alternative IV (Barren Islands Deferral) offers meaningful benefit to the protection of locally important marine resources, endangered species and marine mammals, and essential fish habitat around the Barren Islands. The inclusion of both alternatives would reduce the intrusion of the sale into designated critical habitat of endangered Steller sea lions.

NMFS and MMS are currently consulting on the effects of the proposed sales on threatened and endangered species. This consultation will result in the preparation of a biological opinion under section 7(a)(2) of the Endangered Species Act of 1973, as amended. On December 18, 2002, NMFS sent MMS a letter responding to your request for a programmatic Essential Fish Habitat Consultation on activities associated with leasing and exploration from proposed Lease Sales 191 and 199, as well as exploration associated with all other existing leases in the Cook Inlet Planning Area. NMFS has received a response dated January 10, 2002, from MMS and will continue to work on completing the EFH consultative requirements.

Specific Comments on the DEIS

Page ES-3, second paragraph, last sentence. "Effects to essential fish habitat that could be caused by seismic surveys, turbidity, and pipeline construction (both offshore and onshore) are considered low and are not expected to result in measurable effects at the ecosystem level." This section should clarify whether the action will have an "adverse effect" on essential fish habitat (EFH). A finding of "adverse effect" triggers an EFH assessment and consultation.

Page ES-4, last paragraph, second sentence. How habitat will recover "in a month or so" is not clear. Recovery would depend on the type of habitat affected, the degree of impact, as well as temporal and spatial factors.

Page ES-6, Alternative II. "The production from the Cook Inlet OCS would displace oil currently being imported by tanker to Cook Inlet area processing facilities. Without the OCS production, importation by tanker, with its attendant environmental effects, will continue and possibly increase." Does this imply that if Alternative I is accepted importation of oil by tanker in Cook Inlet will decrease or disappear altogether?

Page II-3. II.B. Alternative 1. The text here does not provide sufficient discussion of the transportation associated with these sales. The document states that the tankering of OCS crude oil is not foreseen as part of the action. Does this assume all oil from this

sale would be used within the south central Alaskan region? What is the potential that oil would be shipped outside of the state? What is the potential for liquified natural gas from the sale to be shipped from the processing facility at Nikiski?

Page II-14. II.F.2. Information to Lessees (ITL's). If an agency has a concern but no regulatory authority, how does the ITL system help enlighten the lessee about other agencies' concerns? For example, ITL No. 6 covers Drilling Fluids and Cuttings Discharge during Post-Lease Activities. The contact federal agency for ITL No. 6 is the Environmental Protection Agency (EPA). NMFS has concerns about the effects of drilling fluids and cuttings discharge on EFH. How would the lessee be informed of NMFS concerns?

Page III-12. Water Quality. This section should be reviewed for clarity, because it seems to present a challenge to the lay reader's ability to understand these issues. For example, we found the passage "In this vein, a non-framework dependent unit of weight can be approximated by using "tonnes," representing both metric tonnes and English long tonnes, rather than English short tons. Weight in English long tonnes or metric tonnes is the same to the third decimal place. English short tons are 10% lighter." to be especially difficult.

Page III-16. III.A.4.a(3)(c)1). The DEIS states the metals in the permitted discharges of Cook Inlet wastewater facilities also occur in drilling muds, cuttings, and produced waters from offshore oil and gas operations. "Table III.A-3 does not include drill cuttings even though they are discharged at twice the rate of drilling mud because their trace metal composition is similar to the natural background (Boehm, 1998)." What are the cumulative (additive) effects? Page V-35 V.C.5.e(3)(e) states that over the next 5 to 10 years municipal wastewater and seafood waste are estimated to contribute double the inputs of the oil industry-produced waters. NMFS believes this is even more reason to inject produced waters, muds, and cuttings downhole.

Page III-51 Beluga Whale. We appreciate MMS's attention to this important Cook Inlet species. The discussion and analysis within the DEIS are very thorough and present an accurate accounting of the stock and the effects of hunting and resource development on this depleted marine mammal.

Page III-62. Humpback whale. While the DEIS again presents an excellent narrative describing this important species of endangered whale, it is also evident the sale area supports feeding aggregations of humpback whales from one or more stocks. NMFS has received many

reports of "several hundred" humpbacks sighted near the Barren Islands by summer fishing charters, and have observed humpbacks on several occasions feeding near the Kenai Peninsula coastline north and east of Elizabeth Island. We believe this use should be a determining factor in the decision to establish the two deferral alternatives.

Page. III-161. We were pleased to see the presentation of local observations and knowledge in the DEIS. It would be helpful if many of the statements which appear in this section had some time-reference, because when the statement was made is not always certain. Listing certain observations among communities to identify common issues or problems would also be interesting.

Page IV-10. IV.A.5.c. This section should also include a description of dispersants and any considerations or restrictions on their use in Cook Inlet.

Page IV-12. IV.B.1.a(1). This section discusses the effects of permitted discharges of produced waters. The DEIS states in conclusion that, "Drilling fluids and produced waters would be injected downhole during development and production." Meanwhile, on page IV-50. IV.B.1.e(2)(a)2) the DEIS states, "Drilling muds and cuttings may be discarded into Cook Inlet during exploration, if permitted by the Environmental Protection Agency. This activity is not expected to have any effects to essential fish habitat or water quality." Why produced waters would be injected downhole during development and production, but not during exploration is unclear. Is it feasible to inject produced waters downhole during exploration? If so, NMFS would support this technique as an EFH conservation recommendation. The Environmental Protection Agency (EPA) has guidance for discharge into Cook Inlet. What assurance exists that produced waters will be injected downhole?

Page IV-13. IV.B.1.a(2)(a). The DEIS states the current National Pollutant Discharge Elimination System (NPDES) permit for Cook Inlet (EPA 1999) requires that the bulk of drilling mud be "practically nontoxic" in order to be discharged. What does "practically nontoxic" mean? Also, what kind of impacts to fisheries and essential fish habitat could be expected inside the "mixing zone" (EPA's NPDES), particularly to eggs, larval stages of fish, and prey? A discharge of drilling muds, cuttings, and production waters would occur on a consistent basis throughout the life of the field. What would this mean to resources and habitat?

Page IV-42. IV.B.1d(3)(b)1). The DEIS states that concentrations of petroleum hydrocarbons beneath the initial surface slick are less than 0.1 parts per million, well below toxic levels for finfishes. NMFS believes the DEIS should present a discussion on the potential effects of dispersants and associated dispersed oil to fish and prey associated with near surface and midwater habitats. Numerous marine fishes have pelagic life stages associated with these habitats.

Page IV-47. IV.B.1.e(1). The DEIS states effects on essential fish habitat from seismic surveys, turbidity, and pipeline construction are considered low. Are these effects considered adverse or not?

Page IV-48. Seismic Surveys. The information presented in the third paragraph here contains some errors. We recommend re-wording this paragraph as "As a temporary measure (until NMFS completes its underwater acoustic criteria for marine mammals), NMFS resorted to human standards, meant for the workplace, in assessing 'incidental take' applications under the MMPA. At 70 dB above an animal's acoustic threshold (the level at which it can hear) ocean noise was presumed to affect behavior. At 80-100 dB over an animal's threshold, noise was presumed to induce temporary hearing loss and at 155 dB to cause immediate, permanent auditory damage (Jasny and Reynolds, 1999; National Research Council, 1996). However, Jasny and Reynolds (1999) indicate that behavioral changes may hinder an animal's survival, without actually damaging its hearing."

Page IV-50. IV.B.1.e(2)(a)1). The DEIS states that Pacific Herring are a prey species, as well as commercial fish species, that may be adversely impacted by seismic activity. The DEIS further states that if seismic surveys are restricted to early fall and late summer they will not affect spawning habitat when herring are concentrated in spring. The NMFS supports this timing restriction as an EFH conservation recommendation.

Page IV-55. IV.B.1.e(3)9c)2). This section discusses the effects of a large oil spill on essential fish habitat. The DEIS states, "The concentration of oil in the water column of the oiled estuarine areas would be expected to decrease to below the regulatory criterion of 15 parts per billion within 30 days." The DEIS states the same for marine water habitat. How was the regulatory criterion of 15 parts per billion determined, how is it defined, and which agency has regulatory authority?

The DEIS further states on page IV-54. IV.B.1.e(3)(c)1) that, "Egg and larval stages of many species are more susceptible to stress and toxic substances than adult stages. Several studies have demonstrated adverse effects of oil to fish in intertidal habitat at levels below the water quality guidelines of 15 parts per billion, including mortality to pink salmon embryos at 0.1 parts per billion." Possible effects on egg and juvenile stages from an oil spill when levels fall below this regulatory criteria of 15 parts per billion are not clear. Numerous marine fish species, both commercial and forage species, have pelagic egg and larval stages within the project area and would likely be adversely affected should an oil spill occur. As stated in the DEIS possible ecosystem effects on Walleye Pollock could radiate up and down the food chain. In the case of a large oil spill, is there an adverse effect or not?

Page IV-53 IV.B.1.e(3)(c). This section discusses the effects of a large oil spill on essential fish habitat. The DEIS states the greatest risk to essential fish habitat is from major oil spills. What measures will be taken during exploration, development, and production to prevent oil spills? What spill response procedures have been established for Cook Inlet? Have these response procedures been proven effective under various conditions, including broken ice, in Cook Inlet?

Page IV-92. Third paragraph. National Marine Fisheries Service (1995) does not appear in the literature cited section.

Page IV-191 through IV-205. The DEIS clearly supports the recommendation for adoption of both alternatives III and IV. NMFS believes these deferrals should be adopted, particularly in view of their benefits to marine mammals and endangered species, and the relatively small loss of oil potential.

Page IV-201. IV.B.4.b(4). This section discusses the differences in effects between the preferred alternative and the Barrens Island Deferral. The DEIS states, removing the area around the Barren Islands and Kennedy Entrance would slightly decrease the probability of oil spill impacts to the beaches of Kamishak Bay and the Barren Islands as well as estuarine waters in outer Shelikof Straight. This alternative presents small, but potentially valuable, improvements from the proposed action. Kennedy Entrance and the waters around the Barren Islands are important essential fish habitat due to the upwelling of nutrients into the trophic food chain. A 50% reduction in potential impacts to zooplankton and phytoplankton populations (fish prey), as stated in the DEIS, is substantial. NMFS believes support for this alternative is justified.

Page IV-205.IV.C.3. Unavoidable effects to Essential Fish Habitat should include the effects of produced waters, potential oil spills (large and small), as well as the potential use of dispersants.

Page IV-209. IV.D.5. The DEIS states oil spills could have short-term effects on marine habitats and that fish and fish habitats are expected to recover within one generation. This statement is rather broad. NMFS believes recovery would be species, habitat and site specific. Also, recent studies (2002) in Prince William Sound show Exxon Valdez oil present in both intertidal and subtidal habitats 13 years after the spill. Furthermore, this oil was shown to be bioavailable to organisms using these affected habitats.

Page IV-211. IV.D.11 and IV.D.12. The DEIS states that an oil spill would likely have effects on commercial fisheries and subsistence harvest patterns that are short-term in nature and should not have long-term effects. In describing the potential effects of an oil spill on commercial and subsistence uses any analysis of potential long term effects should be based in part on the perception by resource user groups that a resource could be tainted. Also, for migratory and mobile species any effects model should include effects outside the spill area as these potentially tainted species move into areas not directly affected by the spill.

Page IV-216. IV.F.2.c. Is there a standard response technology for a spill occurring during late fall freeze-up? If so, is there any reasonable prediction of the efficiency of this technology, or examples of its testing or actual use in Cook Inlet or elsewhere in Alaska? Please provide a description of the experience(s) of using oil skimming systems "successfully" in Cook Inlet amid broken ice.

Page IV-221. IV.F.3.e(2). This section discusses the effects of a 120,000-barrel blowout on essential fish habitat. The DEIS should include a discussion of possible effects to surface and mid-water essential fish habitats from an oil spill of this magnitude. Numerous marine species have juvenile, planktonic, and egg stages that occupy these habitats. What would be the effect if dispersants were used to control a spill?

Page IV-243. IV.F.3.o. This section discusses the effects of a 120,000-barrel blowout on sport fisheries. The DEIS states an oil spill could eliminate sport fishing in Cook Inlet for 1 year. In describing the potential effects of an oil spill on sport fisheries, any analysis of potential long term effects should be based in part on the perception by resource user groups that a resource could be tainted. Effects could very well extend beyond 1 year.

Page V-28. V.C.5.d(1). The DEIS states, while some individual fishes may be disturbed, injured, or killed, "effects measured at the population level are not likely." The words "effects measured at the population level are not likely" are used throughout the DEIS to describe potential effects to fish resources and EFH. Measurable effects at the population level following a disturbance are difficult to demonstrate. The ability to demonstrate an effect is sensitive to sample size and scale. The large amount of natural variation inherent in most wild populations often swamps out any effects of the disturbance. This has been shown across numerous taxa and disturbance events, including the Exxon Valdez oil spill. The inability to demonstrate an effect does not necessarily mean there was no effect. The DEIS does a good job addressing this issue on page V-36.V.C.5.c(4). This discussion on page V-36.V.C.5.c(4) should be referenced throughout the DEIS when mention is made to "no measurable effects at the population level."

Page V-28. V.C.5.d(2). This section discusses cumulative effects of drilling discharges on fisheries resources. Are there any data on depositional zones outside the project area (e.g. Shelikof Straight)? If, as stated in the DEIS, Cook Inlet is a system dominated by dilution over deposition, then discharge of produced waters from oil industry sources, as well as municipal discharges, are likely being deposited outside Cook Inlet. What are the cumulative effects on bottom habitats and associated demersal fish populations?