Alaska Oil and Gas Association

AOGA

121 W. Fireweed Lane, Suite 207
Anchorage, Alaska 99503-2035
Phone: (907)272-1481 Fax: (907)279-8114
Email: crockett@aoga.org
Marilyn Crockett, Executive Director

energy API

Kyle B. Isakower
Vice President, Regulatory and Economic Policy

1220 L Street, NW
Washington, DC 20005-4070
Telephone: (202) 682-8314
Fax: (202) 682-8408
Email: isakowerk@api.org
www.api.org

July 6, 2010

VIA ELECTRONIC FILING

Public Comments Processing
Attn: FWS-R7-ES-2009-0042
Division of Policy and Directives Management
U.S. Fish and Wildlife Service
4401 N. Fairfax Drive, Suite 222
Arlington, VA 22203

Re: Supplemental Comments of the Alaska Oil and Gas Association and the American Petroleum Institute – Proposed Rule to Designate Critical Habitat for the Polar Bear (FWS-R7-ES-2009-0042)

Dear Sir or Madam:

This letter provides the supplemental comments of the Alaska Oil and Gas Association ("AOGA") and the American Petroleum Institute ("API") (the "Associations") in response to the U.S. Fish and Wildlife Service's ("Service's") proposed rule designating critical habitat for the polar bear (*Ursus maritimus*) (the "Proposed Rule") pursuant to the Endangered Species Act ("ESA"). *See* 74 Fed. Reg. 56058-86 (Oct. 29, 2009). The Associations previously submitted detailed comments on the Proposed Rule by separate letters dated December 23, 2009.

On May 5, 2010, the Service reopened public comment on the Proposed Rule. Among other things, the Service sought comment on its draft economic analysis ("DEA") for the polar bear, the need for special management considerations or protections, requests for exclusion under ESA section 4(b)(2), and any other anticipated impacts stemming from the Proposed Rule. This supplemental comment letter responds to those requests.

At the outset, it is important to discuss two critical conclusions in the DEA that both reinforce the Associations' previous comments and instruct these supplemental comments. *First*, the DEA concludes, based on the Service's guidance at Appendix C, that the designation of critical habitat is expected to result in *no changes to polar bear conservation requirements* because existing regulations already adequately protect polar bear habit. DEA at ES-4. This conclusion requires the

Service to significantly scale back its plan to designate 187,166 square miles[1] of critical habitat for the polar bear. The ESA requires the Service to make a finding that any area it designates as critical habitat "may require special management considerations or protections." 16 U.S.C. § 1532(5)(A)(i). The DEA's determination that the designation will have *no conservation benefits* forecloses the Service's ability to make that required special management finding. The Service cannot reasonably conclude that existing regulations already adequately protect habitat *and* sustain the conclusion that such areas "may require special management considerations or protections." For this reason alone, the Service must significantly scale back the Proposed Rule or forego designation altogether.

Second, the DEA's *no conservation benefits* conclusion, together with its conclusion that there will be *no economic benefit* from the designation of critical habitat (DEA at ES-6), demonstrate that the benefit of excluding from the designation current and proposed oil and gas exploration, development, and production sites, including transportation corridors, and all active and proposed oil and gas lease sale planning areas, outweigh the (nonexistent) benefits of designation.[2] Under section 4(b)(2) of the ESA, the Service may exclude specific areas from the designation of critical habitat if the benefits of excluding the area outweigh the benefits of including that area. The DEA makes this balancing simple by effectively concluding that the benefits of including any area as critical habitat will be zero; there will be *no conservation benefit* and *no economic benefit*. At the same time, the Service identifies administrative costs associated with ESA section 7 consultations on oil and gas construction and development projects which, while modest, are still significantly greater than zero. DEA at ES-6. Under these specific circumstances, where the designation provides no identifiable benefit, the Service should broadly exclude all current and proposed oil and gas exploration, development, and production sites, including transportation corridors and a one-mile buffer zone, and all active and proposed oil and gas lease sale planning areas, to avoid such unnecessary costs.[3]

---

[1] The Proposed Rule provided for 200,541 square miles of critical habitat. AOGA previously noted that this unprecedented designation is larger than 48 of the 50 states and significantly larger than the state of California. The Service has now corrected this area based on a mapping error to 187,166 square miles. Although the Service has now deleted an area larger than Maryland, the revised area is *still* larger than 48 of the 50 states, including California.

[2] The Associations also agree with the Service's position, reiterated in the DEA, that the "[c]ritical habitat designation for the polar bear will not be used by the Service as a vehicle to regulate climate change." DEA at ES-5. This position necessarily informs the DEA's conclusion that the designation will have no direct impacts other than the incremental administrative costs of section 7 consultation. If the Service ever retreats from this position, due to litigation or any other reasons, the Service must reopen the critical habitat decision and revise its economic analysis accordingly.

[3] The Associations believe that the Service is well aware of the specific geographic areas contained within this request. Existing oil leases are identified in the DEA at Exhibit ES-3. Proposed activities are discussed in the DEA at 3-10 to 3-11. Moreover, the Service is kept appraised of all planned and potential activities through the polar bear incidental take regulations. *See, e.g.*, AOGA's

(continued . . .)

Although the information contained in the DEA is sufficient to warrant broad exclusions of critical habitat under ESA section 4(b)(2), it is readily apparent that the DEA significantly underestimates the scope of the administrative and process-related costs that the designation of critical habitat will impose on the oil and gas industry. For example, the DEA estimates that the incremental cost to a third-party of considering critical habitat in a formal ESA section 7 consultation is $1,750. This grossly underestimates the incremental costs to the oil and gas industry in Alaska. As discussed in more detail below, the Associations estimate that private industry costs for a single section 7 consultation on the kind of large-scale oil and gas projects and related infrastructure contemplated in Alaska could easily run into the millions of dollars.[4] The incremental administrative costs of considering critical habitat in those consultations will far exceed the Service's $1,750 estimate. Indeed the third-party incremental administrative costs of conducting a section 7 consultation on a single forecasted project in critical habitat as proposed – for example, the Chukchi Sea undersea pipeline – could easily eclipse the Service's projection of $185,000 for all oil and gas consultations for the next 30 years. These significant costs underscore the appropriateness of the requested exclusions for oil and gas leasing, exploration, development and production sites, and associated transportation corridors, located within the United States range of the polar bear.

The DEA also improperly discounts a number of other important indirect costs to the oil and gas industry that are associated with the critical habitat designation. The DEA properly discusses how the designation of critical habitat creates additional litigation risk and uncertainty about project development in critical habitat areas. DEA at 3-19. But the DEA then disregards these impacts as "too speculative for this analysis." *Id*. That is not correct for a number of reasons. Principally, while these costs may be difficult to quantify, they are real and must be considered qualitatively if not quantitatively. In addition, a number of these costs, specifically litigation costs, delay and deferred production costs, and increases in risk premiums due to uncertainty, can be reasonably quantified. These costs, like the incremental administrative costs of considering critical habitat in a section 7 consultation, provide no conservation benefit to the polar bear. These reasonably foreseeable costs further justify the appropriateness of the broad exclusions requested above.

For these reasons, and the reasons stated below, the Service must limit its proposed polar bear critical habitat designation or forgo such designation altogether in recognition of the fact that such habitat *does not* require "special management considerations or protections." Alternatively, the

---

(. . . continued)
Petition for Promulgation of Regulations Pursuant to Section 101(a)(5) of the Marine Mammal Protection Act (April 2009) at Table 2-2 (identifying existing and potential Oil and Gas Development Projects on the North Slope) (attached hereto as Exhibit A). To the extent the Service needs additional information, the Associations are available to provide it.

[4] The basis for these costs are discussed in detail in Section II.B, and include incremental costs of staff time, consultant fees, and legal advice, as well as the cost of producing a biological assessment and additional critical habitat-related studies.

Service should broadly exclude all current and proposed oil and gas exploration, development, and production sites, including a one-mile buffer around such sites and including transportation corridors, and all active and proposed oil and gas lease sale planning areas.

DETAILED COMMENTS

I. THE SERVICE'S ECONOMIC ANALYSIS CONFIRMS THAT DESIGNATED AREAS HAVE NO SPECIAL MANAGEMENT CONSIDERATIONS

The Associations' previous comment letters explained in significant detail why most, if not all, of the habitat proposed for critical habitat designation requires no special management considerations or protections, and therefore do not meet the required criteria for critical habitat designation. The Associations' previous comments focused on two principal concerns.

Initially, the Associations explained that the Proposed Rule fundamentally failed to explain *why* special management considerations or protections may be required. The Service can designate critical habitat only if it first makes a finding that the listed species habitat "may require" special management considerations or protections. *See Cape Hatteras Access Preservation Alliance v. U.S.F.W.S.*, 344 F.Supp. 2d 108, 124 (D.D.C. 2004) (Service cannot designate critical habitat without making "mandatory" finding that special management may be required). The Proposed Rule provides no basis for such a finding. Instead, the Proposed Rule offers a single sentence with respect to special management considerations:

> Special management considerations and protections may be needed to minimize the risk of crude oil spills and human disturbance associated with oil and gas development and production, oil and gas tankers, and potential commercial shipping along the North Sea Route to polar bear habitat features essential to their conservation.

74 Fed. Reg. at 56,071. This conclusory statement cannot satisfy the special management requirements of ESA section 4(b)(2). *See Cape Hatteras*, 344 F.Supp. 2d at 124 (special management finding cannot be satisfied by "conclusory statement").

In addition, the Associations previously explained that the Service could not reasonably make the required special management finding because the Marine Mammal Protection Act ("MMPA") already adequately manages polar bear habitat. There is a long and well documented history showing that interaction between polar bears and the oil and gas industry in Alaska is minimal and that to date all oil and gas activity in Alaska has had no more than a "negligible impact" on the polar bear or its habitat. As the DEA details at Appendix C, the MMPA achieves this result through regularly promulgated incidental take regulations that provide required mitigation measures applicable to oil and gas activities in polar bear habitat. Indeed, the Service itself has repeatedly concluded that these MMPA regulations "have ensured that industry effects on the polar bear have remained at the negligible level" and provide a greater level of protection to the polar bear than the ESA. *See* 74 Fed. Reg. 56,058, 56,072 (Oct. 29, 2009). Under these circumstances, the best available science demonstrates that no special management considerations or protections are required.

In light of the conclusions in the DEA that the designation will provide no conservation benefit, the Service cannot reasonably justify any finding that polar bear habitat may require special management considerations or protections. "Special management considerations or protection" means "any methods or procedures useful in protecting physical and biological features of the environment for the conservation of listed species." 50 C.F.R. § 424.02. The obvious intent of this regulation is to provide for habitat designation only where doing so will trigger some "methods or procedures" that will be "useful" in conserving the polar bear. As the DEA explains, however, existing management under the MMPA already adequately protects the polar bear and polar bear habitat, and the designation will result in *no additional protections*. *See, e.g.*, DEA App. C at 7 ("[W]e do not anticipate that critical habitat designation would result in more protective measures than those already required."). Under these circumstances, where designation will trigger no conservation measures whatsoever, the Service cannot reasonably conclude that special management considerations or protections may be required.

The legislative history surrounding Congress' decision to amend the ESA in 1978 to limit critical habitat designations to areas that "may require special management considerations or protections" is instructive in this regard. Prior to 1978, the ESA had no express definition of critical habitat and the Service began broadly designating occupied areas as critical habitat. This practice created growing concerns that the Service was designating critical habitat "as far as the eye can see and the mind can conceive."[5] In response to these concerns, Congress created the current definition of critical habitat which limits critical habitat designations to "specific areas" that contain "the physical or biological features . . . essential to the conservation of the species" *and that* "may require special management considerations or protections." 16 U.S.C. § 1532(5)(A). This narrower definition was designed to push back against overbroad designations where those designations were simply not useful or helpful for the conservation of threatened or endangered species. In the absence of any identifiable conservation or economic benefit, the proposed designation of an area larger than California for the polar bear critical habitat directly contravenes Congressional intent.

Nor can the Service satisfy its statutory obligations by relying on speculative future concerns. Although the word "may" indicates that the need for special management "need not be immediate, it is mandatory that the specific area designated have features which, in the future, may require special consideration or protection." *Cape Hatteras*, 344 F.Supp. 2d 108,124-25 (internal quotation marks omitted). That determination, like every part of a critical habitat decision, must be based on the best scientific and commercial data available. If the data show – as they do here – that there is no current or reasonably identifiable future unmet need with regard to polar bear habitat management, the Service cannot satisfy its statutory obligations and therefore should not designate critical habitat. As the DEA itself states, "the Service is unable to foresee a scenario in which the designation of critical habitat results in changes to polar bear conservation requirements." DEA at ES-4. If the Service cannot now "foresee" a benefit from critical habitat designation, then it cannot reasonably conclude

[5] *See* Legislative History of the Endangered Species Act at 823 (reprinting House Consideration and Passage of H.R. 14104, with amendments, Oct. 14, 1978).

that special management protections "may" be required in the future. Any other result would turn the ESA's special management requirement into a meaningless exercise.[6]

II. ALTERNATIVELY, THE SERVICE SHOULD EXCLUDE ALL EXISTING AND PROPOSED OIL AND GAS EXPLORATION AND DEVELOPMENT AND PRODUCTION AREAS UNDER ESA SECTION 4(b)(2)

Even if polar bear habitat required special management, which it does not, the Service should substantially reduce the scope of the designation. Section 4(b)(2) of the ESA grants the Service authority to exclude "any area" from the designation if it:

> determines that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat, unless [the Secretary] determines, based on the best scientific and commercial data available, that the failure to designate such area as critical habitat will result in the extinction of the species concerned.

Simply put, the Service can exclude any area where the costs of designation, including economic impacts, outweigh the conservation or economic benefits of designation. Such exclusions avoid unnecessarily burdening economic activity and designating areas as critical habitat where there is little or no benefit in doing so.

The Associations' previous comments requested broad exclusions of current and proposed oil and gas exploration, development, and production sites, including transportation corridors on the North Slope and adjacent waters of the Beaufort and Chukchi Seas. The Associations based those requests on (1) the absence of any identifiable benefit to the polar bear; (2) the importance to the Alaska economy and national energy needs of oil and gas development in these areas; and (3) the potential for the designation to impose unnecessary costs and litigation risks on the oil and gas industry. The Associations supplement those comments below in light of the DEA's unqualified conclusion, consistent with the Associations' comments, that the designation will not benefit the polar bear. The Associations also respond below to a number of additional reasonably foreseeable costs of the critical habitat designation that the DEA grossly underestimates or improperly marginalizes.

A. The Service's Draft Economic Analysis Demonstrates That There Are No Benefits of Any Kind From the Designation of Polar Bear Critical Habitat

The DEA demonstrates that the Service should exclude broad areas from the polar bear critical habitat designation because the costs of designation clearly outweigh the conservation

[6] Indeed, Congress gave the Service a procedure to deal with unknown future developments by providing that they may revise designations as appropriate. 16 U.S.C. § 1533(a)(3)(B).

benefits. The DEA identifies zero conservation benefits and zero economic benefits of the designation. At the same time, the DEA identifies approximately $185,000 in administrative costs related to oil and gas industry consultations. Even assuming that these administrative costs were accurate – which as explained below they are not – the absence of any conservation or economic benefit warrants a broad exclusion of all current and proposed oil and gas exploration, development, and production sites, including transportation corridors, and all active and proposed oil and gas lease sale planning areas. The Service cannot reasonably impose any cost when those costs are measured against a benefit of zero. As such, the Associations respectfully request that the Service exclude all current and proposed oil and gas exploration, development, and production sites, including a one-mile buffer around such sites and including transportation corridors, and all active and proposed oil and gas lease sale planning areas.

The Associations recognize that the Service must exercise judgment in deciding whether or not to exclude certain areas from the critical habitat designation pursuant to ESA section 4(b)(2), and that the Service is not required to give economic considerations predominant consideration.[7] Nevertheless, here, the complete absence of any economic or conservation benefit to the polar bear affords only one reasonable conclusion: the costs of designation outweigh the benefits. It would be arbitrary to not to broadly exclude oil and gas operations under these circumstances. *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29 (U.S. 1983) (agency action is arbitrary and capricious where "explanation for its decision [] . . . runs counter to the evidence before the agency"); *Ariz. Cattle Growers' Ass'n v. United States Fish & Wildlife, BLM*, 273 F.3d 1229 (9th Cir. Ariz. 2001) (holding Service decision arbitrary and capricious where based on "no evidence" in record).

The DEA suggests a potentially contrary result when its states, "[w]hile this rule is not anticipated to result in economic benefits [or] additional polar bear conservation, the Service is under a statutory obligation to designate critical habitat to the maximum extent prudent and determinable." DEA at 7-10. That is not correct. As explained, regardless of whether a specific area meets the other statutory requirements of critical habitat, ESA section 4(b)(2) expressly authorizes the Service to exclude specific geographic areas where the benefit of exclusion outweighs the benefits of inclusion. This exclusion authority extends to "any area" and presumably the Service can exclude all critical habitat for a species based on a balancing of benefits, so long as that exclusion would not result in the extinction of the species. The statutory obligation to designate critical habitat should not extend to situations where, as here, the designation imposes significant costs while affording absolutely no identifiable benefit.

B. The Service's Draft Economic Impact Analysis Significantly Underestimates the Impact of the Critical Habitat Designation on the Oil and Gas Industry

Even if the economic impacts identified in the DEA alone were not sufficient to warrant exclusion – which they are – it is equally clear that the Service has significantly underestimated the

[7] *See* H.R. Rep. No. 95-1625, at 16-17 (1978), 1978 U.S.C.C.A.N. 9453, 9466-67 (1978).

administrative costs and other economic impacts to the oil and gas industry in Alaska. Specifically, the DEA (1) underestimates the direct costs of the designation by assigning unrealistically low values to the incremental administrative costs of considering critical habitat in a section 7 consultation; and (2) improperly marginalizes significant indirect costs that are reasonably foreseeable including litigation costs, delay, risk premiums, and uncertainty.

1. The draft Economic Analysis grossly underestimates the costs of conducting a section 7 consultations

The DEA's estimate of the incremental costs of conducting a section 7 consultation is unreasonably low. The DEA at page 1-12 provides a table that identifies the "Incremental Administrative Costs Per Consultation." The table provides cost estimates for reinitiated consultations – the entire cost of which is attributable to critical habitat designation – that range from $3,640 to $21,300. For new consultations, the incremental cost of considering critical habitat ranges from $1,850 to $16,500. The table estimates that third-party costs for these consultations – costs to the Associations' members in a consultation – range from $513 to $1,750. Based on those numbers, the DEA estimates the total incremental economic impact from the designation of critical habitat for all consultations for the oil and gas industry over the next 30 years to be $185,000, or $14,900 per year. The DEA attributes these numbers to a "review of consultation records from several Service field offices across the country in 2002."

These numbers are unrealistically low. For the Associations' members, their participation in a single formal section 7 consultation commonly costs between $75,000 and $150,000. This figure includes staff time, expert opinions and outside consultant time, including legal counsel in support of permitting. This figure is exclusive of any studies that the Associations' members may need to conduct in support of the consultation, and exclusive of any litigation costs. The Associations' members similarly anticipate the incremental cost of considering critical habitat in a section 7 consultation to be an additional 20-25%, or $18,750 to $37,500 per consultation.[8] Critically, this estimate is as much as *20 times greater than* the DEA's $1,750 estimate for the incremental costs of considering critical habitat in a typical section 7 consultation. Based on the 36 consultations projected by the DEA over the next 30 years, the total incremental administrative costs *to third parties alone* ranges from $675,000 to $1.35 million, far eclipsing the Service's total undiscounted projection of costs for all parties. *See* DEA at B-4. While the DEA's estimate might theoretically have been accurate in 2002 at some (unidentified) locations on some (unidentified) projects, it is not even a remotely accurate reflection of the cost of doing business in Alaska.

These third-party costs are not the only costs in the DEA that are unreasonably low. The DEA estimates that the incremental administrative cost of preparing a biological assessment ranges

[8] These percentage estimates are consistent with other recent economic analyses on critical habitat designations including the beluga whale completed in April of 2009 (25%) and the Canada lynx completed in December of 2008 (25%).

from $500 to $2,800. The Associations' members have previously produced or commissioned numerous biological assessments as the designated non-federal representatives in section 7 consultations. In their experience, the total cost of producing a biological assessment typically ranges from $50,000 to $200,000. As with consultation costs, consideration of critical habitat in a biological assessment typically adds an additional 20% to 25% to the cost of a biological assessment. Accordingly, the Associations' members anticipate that the incremental administrative costs of considering critical habitat in those biological assessments would range from $10,000 to $50,000. This too exceeds the DEA's high-end estimate of $2,800 by many fold.[9]

Equally important, the Associations' higher (and more realistic) numbers for a *typical* section 7 consultation are likely still a significant underestimate of the actual costs that third parties will incur. That is so because few, if any, of the section 7 consultations identified in the DEA at pages 3-10 to 3-11 could be characterized as *typical*. Many of the identified projects are either massive infrastructure projects – such as the development of natural gas pipelines, oil pipelines, or seabed pipelines – or subject to intense public scrutiny – such as the incidental take regulations or programmatic lease sales – or both. Although the Associations' members believe, and the Service agrees, that existing regulations under the MMPA will ensure that these projects have negligible impacts on polar bears, both the size of these projects and intense public scrutiny will drive the administrative costs much higher.

Indeed, industry experience in other contexts demonstrates that the cost of producing the biological assessment alone for a large oil and gas infrastructure project could run several million dollars. Although not an Alaska example, a recent biological assessment for a single liquefied natural gas ("LNG") terminal on the Columbia River in Washington State cost the project proponent $6 million.[10] The DEA identifies numerous planned oil and gas infrastructure projects that are much larger than an LNG terminal. But even for a single, similar biological assessment in polar bear critical habitat, the incremental cost of considering critical habitat in that biological assessment (calculated at 25%) would be $1.5 million. That individual cost alone is more than *the total costs that the DEA identified for all sectors of the economy for a 30 year period*. *See* DEA at ES-7 (identifying $1.7 million in prevent value (3%) to entire economy).

Moreover, the Associations' members believe that the Service has underestimated the total number of consultations that will occur in critical habitat over the next 30 years. The Service identifies a number of programmatic biological opinions that will take place in the next 30 years. But individual applicants for projects will still have to go through individual consultations, albeit on a scale that more closely resembles the Associations' members' estimate for a "typical" Alaska section 7 consultation. Such typical section 7 consultations could number in the hundreds over the next 30

[9] Although the Associations are not in a position to estimate the amount of administrative funds expended by the Service, its numbers appear unrealistically low as well.

[10] *See* http://www.bradwoodlanding.com/content1818 (last accessed on June 14, 2010).

years.[11] The incremental impacts of considering critical habitat in these tiered consultations must be considered here as well.

Finally, none of the above identified costs include the potentially significant costs of conducting polar bear critical habitat studies. To be clear, the Associations agree with the Service that no additional conservation measures should be required because the MMPA already adequately protects polar bear habitat. But procedurally, in every section 7 consultation, the Service will have to document whether or not the primary constituent elements ("PCEs") are present in a given project area and, if so, make a determination as to whether the proposed project will adversely modify or destroy those PCEs. Although the Service has appropriately determined at the outset for the purposes of designation that the MMPA already protects those PCEs, the Service will still have to confirm, based on the best scientific and commercial data available, whether PCEs *exist* in the project area so that it can conduct the appropriate analysis to confirm that conclusion.

Producing data regarding the existence of PCEs is costly due to the harsh and remote conditions in which polar bears live. The Associations' members have conducted many different kinds of polar bear-related studies. In their experience, a simple two-week field study to verify the presence or absence of polar bear PCEs in any given area could cost as much as $200,000, with additional in-office analysis costing as much as $100,000. These costs would be wholly attributable to the critical habitat designation and would occur each time a section 7 consultation, or reinitiation, is required.

All of these direct costs further underscore the importance of broadly excluding current and proposed oil and gas activities and associated transportation corridors in the absence of any conservation benefit conferred on the polar bear as a result of a critical habitat designation. Without exception, the costs detailed above are all process related and do nothing to further polar bear conservation. As such, the Service should broadly exclude these areas from designation to avoid significant and needless expenditures.

2. The additional indirect costs of designation are significant and reasonably foreseeable

In addition to the direct costs discussed above, the Associations' members also anticipate that there will be a number of other significant indirect costs caused by the critical habitat designation. Like the direct costs, these indirect costs will do nothing to further polar bear conservation and, therefore, provide further support for broad exclusions of critical habitat.

The Associations appreciate the Service's willingness to discuss a number of indirect impacts of the polar bear critical habitat designation including litigation costs, loss of production, project

[11] Many of these individual project actions may result in informal consultations, and those informal consultations also have an incremental economic impact that must be considered in the Service's ESA section 4(b)(2) analysis.

slippage and uncertainty. *See* DEA at 3-12 to 3-19. But after addressing a number of these concerns, the economic analysis dismisses them as "too speculative for this analysis." That is not correct. Nothing in the ESA requires the Service to limit its analysis to only those economic impacts that are absolutely certain and quantifiable. Nor would such a requirement make sense. The economic analysis is necessarily a reasoned projection of what human activities may happen in the future and the economic impacts that the designation may have on those future activities. This process necessarily requires some educated judgments. As such, the DEA has no reasonable basis for discounting reasonably expected indirect costs. In fact, many of these costs, such as certain litigation-related costs, can be estimated with a reasonable level of certainty and should be considered quantitatively. Other costs, while still reasonably certain to occur, cannot be readily measured, and should instead be considered qualitatively. But by no measure should any of these costs be considered "too speculative" for consideration.

Section a., below, discusses the litigation costs that the Associations anticipate will occur because of the critical habitat designation. Section b. discusses additional sources of delay attributable to the critical habitat designation. Section c. discusses the potential costs of such delay in terms of project slippage and deferred production. Finally, section d. explains how the risk and uncertainty associated with these potential costs and delays, even if they never come to pass, impose an immediate cost now on the Associations' members.

a. Litigation related costs directly caused by the critical habitat designation

There are a number of litigation costs that are reasonably certain to occur as a direct result of the critical habitat designation. At the outset, it should be abundantly clear to the Service that every decision related to the polar bear will be challenged in court. As the Associations outlined in their original comment letter, there have been no fewer than 14 lawsuits involving the polar bear since it was first proposed for listing under the ESA in 2008. Every offshore oil and gas exploration project occurring in polar bear habitat since that time has been challenged by non-governmental organizations pursuing environmental objectives ("eNGOs"). Since the Associations' last comment letter, that pattern has continued with the announced plans by the Center for Biological Diversity on May 5, 2010 to file a lawsuit to stop oil and gas drilling in polar bear habitat.[12] There is no reason to believe this practice will change.

For that reason, it is virtually certain that at least two lawsuits will result *directly* from the critical habitat designation. The first lawsuit will challenge the polar bear critical habitat designation itself. Even if the Service designates the entire 187,166 square-mile area in the Proposed Rule (and it

[12] *See* Center for Biological Diversity, Lawsuit Launched to Protect Polar Bears From Interior Secretary Salazar's Arctic Offshore Drilling Plan (May 5, 2010) http://www.biologicaldiversity.org/news/ press_releases/2010/arctic-drilling-05-05-2010.html (last accessed on June 14, 2010).

should not), eNGOs will still sue the Service claiming the area designated was too small. This litigation is virtually certain to occur no matter what areas the Service designates.[13] The entire cost of this litigation is directly attributable to the critical habitat designation.

The second lawsuit that is virtually certain to occur is a lawsuit by eNGOs challenging the Service's reasonable position that it will not use polar bear critical habitat to regulate climate change. While the Associations agree with the statement in the DEA that "the underlying causes of climate change are complex global issues that are beyond the scope of the [ESA]," and believe that this position is both correct and legally defensible,[14] the eNGOs are unlikely to concede this fact. As soon as the Service designates critical habitat for the polar bear, it can reasonably expect a lawsuit seeking to force the Service to regulate greenhouse gas emissions through critical habitat decisions.

The economic costs of litigating these two cases can be readily measured using current litigation over the polar bear listing decision as an example.[15] Based on the Associations' experience in that and similar cases, we estimate the costs of just one of these cases could be as much as $1 million for a single party, with the entire cost of the litigation, including the use of public resources, running as high as $4 million per case. These significant economic impacts will result directly from the critical habitat designation and cannot be dismissed as "speculative" in the Service's economic analysis.

Outside these two cases, there is another readily apparent litigation cost that can be attributed only to critical habitat. Based on the current litigation record of the eNGOs in Alaska, it is reasonable to expect that all, or nearly all, of the approximately 36[16] anticipated oil and gas projects identified by the DEA at pages 3-10 and 3-11 will very likely also be the subject of litigation brought

[13] This lesson is readily apparent from the Service's recent designation of critical habitat for the Canada lynx. There the Service designated a record 39,000 square miles. The Service was subsequently sued in two different lawsuits. One by eNGOs claiming that the designation should be larger, and one by recreational interests claiming that the designation should be smaller.

[14] *See* AOGA's December 23, 2009 Comment Letter at 26.

[15] To date, the original petition to list the polar bear and designate critical habitat has resulted in no fewer than 14 federal lawsuits – two lawsuits to force the Service to make decisions pursuant to the requirements of the ESA, eleven lawsuits in multiple federal district courts challenging the decision to list the polar bear and issue a special 4(d) rule, and one lawsuit challenging the application of ESA section 7 in the context of polar bears to the registration and reregistration of pesticides.

[16] The DEA identifies 10 categories of future activities within which the Associations can identify a minimum of 36 anticipated oil and gas consultations. This number is consistent with the number of years for each unit in which the DEA anticipates administrative costs will be borne. *See* DEA at B-4 (Exhibit B-5).

by these groups. This litigation could occur with or without the critical habitat designation. But if the Service designates critical habitat in these oil and gas project areas, the Service must expect that every one of those lawsuits will also include at least *one additional claim* contending that the project adversely modifies or destroys critical habitat. Because such claims are only legally available if the Service designates critical habitat, the costs of responding to those claims must be considered in the economic analysis. Although such claims should not – in the end – be successful, the Service, as well as the oil and gas industry, will have to expend resources defending against such claims. The Associations estimate that the *incremental* costs of responding to a critical habitat claim in litigation is approximately $50,000, or a total of $1.8 million for the 36 significant oil and gas actions anticipated in the DEA.[17]

In addition, given the large number of claims likely to be brought related to critical habitat over the next 30 years, the Service should also reasonably anticipate that at least *one* will be successful at securing a preliminary injunction halting a project on the basis of a critical habitat claim. While the Associations anticipate that no lawsuit will be successful on the substantive merits of the critical habitat issue because, as repeatedly stated, oil and gas activities are already adequately regulated to protect polar bears and their habitat, the possibility exists that the Service may make procedural errors in its critical habitat analyses. Although the Service works diligently to avoid such errors – and, as discussed above, spends tremendous resources doing so – procedural oversights can and do happen and will make at least one critical habitat decision vulnerable to preliminary injunction. As noted in the DEA, the cost of even a single one year delay could exceed $200 million. *See* DEA at 3-16.

Although this kind of injunction is not absolutely certain to result because of critical habitat designation, the past history of litigation in Alaska demonstrates that such litigation is reasonably foreseeable. As discussed below, this very real possibility creates additional risk and uncertainty for every project, and creates genuine concerns of project slippage or deferred production. These costs too must be considered in the critical habitat analysis.

b. Other sources of delay

While litigation, as just discussed, is one potential source of project delay, other sources of delay may prove equally if not considerably more costly. *First*, the incremental administrative process of considering critical habitat – clearly recognized by the DEA – necessarily adds additional time to each project's permitting process. Although the Service does not anticipate that the designation will result in new *substantive* restrictions on oil and gas operations, that does not mean that the procedural obligations triggered by the critical habitat designation are somehow eliminated.

[17] These are conservative estimates because they include only the incremental additional cost of litigating a critical habitat claim in addition to other claims. Should one or more of the lawsuits raise critical habitat issues only, the critical-habitat related costs of litigating those cases would be several times greater than $50,000.

In every section 7 consultation the Service must opine that the proposed action will not adversely destroy or modify critical habitat. To support that conclusion, in every instance, the Service will have to identify which PCEs are present at each site and demonstrate that, as anticipated, the proposed action is not significantly impairing those elements. Development of that record not only takes resources (as discussed above) but it also takes time. The delay caused by the additional administrative burdens could easily run past a seasonal construction window, causing significant delay and expense.

Second, the designation creates a real possibility that a number of projects will be foreclosed altogether. This is particularly true with respect to offshore oil and gas leasing in the Chukchi and Beaufort Seas. Critically, the Associations are aware of no offshore oil and gas leases in Alaska, or anywhere else in the Outer Continental Shelf ("OCS") for that matter, that have ever been authorized within existing designated critical habitat areas. On the contrary, on two occasions the former Mineral Management Service ("MMS") has either deleted (or contemplated deletion) of areas within critical habitat from a proposed lease sale. The MMS eliminated Ledyard Bay from Lease Sale 193 in the Chukchi because it contained critical habitat for the spectacled eider. Similarly, although not completed, MMS proposed elimination of Pacific right whale critical habitat from Lease Sale 214. Despite the long history of oil and gas operations in Alaska without any impact on the polar bear, the designation creates a very real possibility that MMS's successor, the Bureau of Ocean Energy Management, Regulation, and Enforcement, will find authorizing additional leases in polar bear critical habitat politically unpalatable and never offer additional lease sales in Beaufort and Chukchi Seas.

Third, the mere fact that a project is proposed within critical habitat designated on existing leases will trigger additional costly and protracted litigation regarding National Environmental Policy Act ("NEPA") compliance issues. Many OCS oil and gas projects are appropriately completed under an environmental assessment ("EA") and Finding of No Significant Impact ("FONSI") that is tiered to a larger environmental impact statement ("EIS"). The Department of Interior, and the Associations' members; have each successfully litigated the right to rely on tiered EA's for oil and gas projects over repeated eNGO challenges. Although the designation of critical habitat by itself should not change this practice, it is certain that eNGOs will initiate a new round of litigation on that point. While those challenges proceed through the courts, if a judge were to direct the agency to complete a new EIS, such an order would result in significant additional delay and costs.

Outside the OCS, many small scale projects or project modifications are also conducted using an EA and FONSI that often supplement or incorporate by reference existing NEPA documents. These projects too face increased litigation risk. Moreover, the designation creates additional risk that federal agency may elect to complete a more robust EIS in light of the critical habitat designation. While the Associations' members do not believe that a critical habitat designation should trigger an EIS, federal agencies (or the Courts) may disagree. This may happen because the agency believes the criteria triggering an EIS are now met. *See* 40 C.F.R. § 1508.27(9) (listing impacts to critical habitat as a factor when considering whether impacts are significant). Alternatively, the agency (or the private applicant) may voluntarily decide to produce an EIS because

the presence of critical habitat has made the project a target for eNGO lawsuits, and the agency feels obligated to insulate the decision from legal challenge.

In either case, preparation of an EIS imposes an additional cost above and beyond the baseline need to prepare an EA. This cost is significant. In the experience of the Associations' members, producing an EIS generally costs between $4 million and $12 million above and beyond the cost of producing an EA. In addition the preparation of an EIS leads to significant delay. Producing an EIS generally takes an additional one to two years or more of process.

c. Project slippage, deferred production or closure

The potential delays associated with litigation and other process-related burdens can reasonably be expressed in terms of project slippage, deferred production or abandonment of the project altogether. Although the Associations do not anticipate that every project will suffer delay or deferred production, as explained above, it is reasonable to presume that at least one such project will be delayed or abandoned as a result of the critical habitat designation. Oil and gas exploration, production, and development on the North Slope and in Arctic waters are necessarily time sensitive. Each year, the Associations' members only have a limited window of time for many activities due to the challenging logistics and the harsh climate (e.g., the open water season for exploration activities in the Chukchi Sea is only about 12 weeks). Delay, even of a short nature, can push a project's time line past the operation window, delaying the project until the window reopens the following year. As can be seen below, the magnitude of these economic impacts from even a single year of delay dwarfs the $185,000 costs identified by the Service.

Development of leases in the OCS in the Beaufort and Chukchi Seas is anticipated to generate billions of barrels of oil, and correspondingly generate billions of dollars in jobs, revenues, and royalties.[18] A recent study evaluated the economic impact of future offshore oil and gas development in the Beaufort Sea, the Chukchi Sea, and the North Aleutian Basin over the next 50 years.[19] That study concluded that OCS development was anticipated to generate 35,000 jobs, a total payroll of $72 billion, and state and local revenues of over $5.8 billion, over the next 50 years.[20] Oil and gas

---

[18] *See* Final EIS for Lease Sale 193, OCS EIS/EA MMS 2007-026 (May 2007) at II-32 (estimating 12 billion barrels of recoverable petroleum in the Chukchi with a 5% chance of 29 billion barrels); Final EIS for Lease Sales 186, 195 and 202, OCS EIS/EA MMS 2003-0001 at Ex. Sum. 3 (estimating 460 million barrels recovered from Lease Sales 186, 195, and 202).

[19] *See* Northern Economics, Economic Analysis of Future Offshore Oil and Gas Development: Beaufort Sea, Chukchi Sea, and North Aleutian Basin (March 2009) (prepared for Shell Exploration and Production), available at http://www-static.shell.com/static/usa/downloads/about_shell/strategy/major_projects/alaska/econanalysisofoffshoreogdevpt.pdf.

[20] *Id.*; *see also* Final EIS for Lease Sales 186, 195 and 202, OCS EIS/EA MMS 2003-0001 at Ex. Sum. 3 (identifying economic benefits of Beaufort Sea leases as "$15 million in revenue to the

(continued . . .)

companies in Alaska have already invested several billion dollars in securing these leases, including $2.6 billion dollars for the Chukchi Sea leases alone. The economic impact of delaying or deferring development of these leases could be staggering. Given the economic scale of these kinds of projects, even relatively minor delays can rapidly escalate to immediate losses of hundreds of millions of dollars and seriously erode the long-term profitability (and therefore viability) of such projects. *See* DEA at 3-16.

The potential for critical habitat designation to impose these kinds of costs is demonstrated by the example of the Stellar sea lion. That critical habitat designation was preceded by an economic analysis that estimated that the likely cost to the fishing industry would be negligible. Subsequently, in *Greenpeace v. National Marine Fisheries Service,* 106 F. Supp. 2d 1066 (W.D. Wash. 2000), eNGOs successfully secured an injunction prohibiting fishing in Steller sea lion critical habitat. That decision had massive impacts on the economy of Alaska, directly contradicting the initial economic analysis. In fact, a subsequent study estimated the impact of the shutdown at more than $207 million.[21]

These costs can be even more pronounced for the oil and gas industry given the scale of the investments required to bring an oil field to production. The recent litigation over an exploration plan in the outer continental shelf ("OCS") provides another important example of the costs associated with litigation and delay. As the DEA itself notes, one of the Associations' members, Shell Offshore Inc, recently experienced this kind of impact when eNGOs successfully enjoined MMS's approval of a plan of exploration on the OCS, securing a preliminary injunction that delayed Shell's activities for more than two years. The delay cost Shell approximately $200 million dollars. *See* DEA at 3-16.[22] While not a critical habitat case, this experience demonstrates how quickly the costs of even a short term injunction can multiply.

d. Uncertainty and risk

All of the potential litigation and potential delays discussed above create significant risk and uncertainty for the Associations' members. Even if none of those delays or litigation actually occurs, the very real risk created by a critical habitat designation has an immediate economic impact on the

---

(. . . continued)
North Slope Borough, $190 million to the State of Alaska, and $930 million to the Federal Government. An average of 800 jobs over 30 years could occur, and if so, they would represent about $1.7 billion in total personal income for these workers.").

[21] *See* Northern Economics, Assessment of the Economic Impacts of Federal Actions to Protect Steller Sea Lions on Alaska Groundfish Fishery Participants (Jan. 2002).

[22] Shell Offshore believes these numbers may be significantly higher than the $200 million reported in the DEA.

Associations' members. The increased risk of operating in polar bear habitat effectively places a risk premium on all existing and planned operations in critical habitat. Simply put, a project located in critical habitat is more risky than a project that is not. This risk and uncertainty is an additional cost that warrants inclusion in the impact analysis and provides further support for excluding all current and proposed oil and gas exploration, development, and production sites, including transportation corridors, and all active and proposed oil and gas lease sale planning areas, from the polar bear critical habitat designation.

These risks, and the enormous magnitude of the associated costs, can be better understood by considering development of offshore oil and gas in the Chukchi Sea. That area is thought to hold some 12 billion barrels of oil. In 2008, oil and gas companies spent $2.6 billion on leases in the Chukchi Sea, and since that time have invested billions more. The polar bear designation adds new risks to those leases and impacts leaseholders in a number of critical ways.

At the simplest level, the designation of critical habitat would arguably devalue those leases by increasing the risk associated with developing them. Those leases, and the money invested by members of the oil and gas industry, were purchased with a certain set of known risks. Those risks will *increase* with a critical habitat designation. There will be an increased risk of procedural or administrative project delay. There will be an increased risk of more intense litigation. There will be an increased risk that new parts of the Chukchi Sea will not be opened to development, thereby preventing oil and gas companies from leveraging infrastructure investments needed for development against future production anticipated from leases acquired during future lease sales.

These risks impose immediate costs on the leaseholders. Their leases necessarily become more risky as a result of the designation of critical habitat and correspondingly lose value. Even if the lost value were only 1%, that loss would be $26 million. And even at a fraction of that number, 0.1%, the loss would be $2.6 million – or more than four times the total economic impact projected by the DEA for all of Alaska for the next 30 years.

In addition to devaluing existing investments, the designation of critical habitat would make future investments more risky as well. Again with respect to the Chukchi Sea, the Associations estimate that oil and gas companies will have to invest many billions more to get those wells to the production stage. This will require enormous investment in exploration, building platforms, and constructing an undersea pipeline. The designation of critical habitat places an additional risk premium on those investments as well.

These same risk factors will apply equally to *every oil and gas investment* in the area proposed for designation of critical habitat. Multiplied across the industry and all projected projects within critical habitat, these costs are staggering.

III. CONCLUSION

For the reasons stated above, as well as the reasons stated in the Associations' previous comment letters, the Service must significantly reduce its unprecedented proposal to designate 187,166 square miles as critical habitat for the polar bear. The DEA confirms that the areas proposed

for designation as critical habitat lack special management considerations and therefore do not meet the required criteria for designation as critical habitat. Alternatively, the Service should exclude all current and proposed oil and gas exploration, development, and production sites, including a one-mile buffer around such sites and including transportation corridors, and all active and proposed oil and gas lease sale planning areas, because the benefits of exclusion clearly outweigh the benefits of inclusion. The DEA confirms – even with its significantly underestimated cost estimates – that the designation will impose significant costs on the industry while producing no identifiable or foreseeable conservation or economic benefit to the polar bear. While the DEA alone provides a sufficient basis for broad exclusions, it is equally clear that the economic impacts will be far greater than those anticipated by the DEA. As such, the best scientific and commercial data available afford only one result: the Service should exclude broad areas from the critical habitat designation to avoid unnecessary economic impact, or forgo designation altogether.

Thank you for considering the Associations' supplemental comments regarding the Service's proposed designation of polar bear critical habitat and the DEA. If you have any questions regarding these comments, please do not hesitate to contact the undersigned.

Sincerely,

Marilyn Crockett
Executive Director
Alaska Oil and Gas Association

Kyle Isakower
Director
Policy Analysis, API

cc: The Honorable Sean Parnell, Governor, State of Alaska
The Honorable Lisa Murkowski, United States Senate
The Honorable Mark Begich, United States Senate
The Honorable Don Young, United States House of Representatives

Table 2-1
Infrastructure Area on North Slope as of 2007

Type of Infrastructure	Acres	Hectares
Gravel roads and causeway		
Roads	2,873	1,163
Causeway	216	87
Total Area	3,089	1,250
Airstrips (gravel or paved)	307	124
Offshore gravel pads, islands		
Exploration islands	54	22
Production islands	112	45
Total Area	166	67
Gravel pads		
Production pads, drill sites	2,914	1,179
Processing facility pads	846	342
Support pads (camps, power stations)	1,698	687
Exploration site	321	130
Total Area	5,779	2,338
Total gravel footprint	9,341	3,779
Other affected areas		
Exploration site - disturbed area around gravel pad	649	263
Exploration airstrip – thin gravel, tundra scar	65	26
Peat roads	517	209
Tractor trail, tundra scar	258	104
Exploration roads – thin gravel, tundra scar	174	70
Gravel pad removed, site in process of recovery	309	125
Gravel pad removed, site is recovered	81	33
Total other affected area	2,053	830
Gravel mines/borrow pits		
In rivers	5,384	2,179
In tundra	1,351	547
Total gravel mine area	6,735	2,726
Total infrastructure area	18,129	7,335

Source: Aero-Metric, Inc. 2007

Table 2-2
Existing and Potential Oil and Gas Development Projects on the North Slope

Unit	Name	Type of Production	Reserve Location	Production Location	Year Discovered	Year in Production
Existing						
Colville River	Alpine	Oil	Onshore	Onshore	1994	2000
Prudhoe Bay	Aurora	Oil	Onshore	Onshore	1999	2001
Badami	Badami	Oil	Onshore/Offshore	Onshore	1990	1998
	Cascade	Oil	Onshore	Onshore	1993	1996
	East Barrow	Gas	Onshore	Onshore	1974	1981
Duck Island	Eider	Oil	Offshore	Offshore	1998	1998
Duck Island	Endicott	Oil	Offshore	Offshore	1978	1986
Kuparuk River	Kuparuk	Oil	Onshore/Offshore	Onshore	1969	1981
Prudhoe Bay	Lisburne	Oil	Onshore	Onshore	1967	1981
Kuparuk River	Meltwater	Oil	Onshore	Onshore	2000	2002
Prudhoe Bay	Midnight Sun	Oil	Onshore	Onshore	1998	1999
Milne Point	Milne Point	Oil	Onshore/Offshore	Onshore	1969	1985
Prudhoe Bay	N. Prudhoe Bay	Oil	Onshore	Onshore	1970	1993
Prudhoe Bay	Niakuk	Oil	Offshore	Onshore	1985	1994
Northstar	Northstar	Oil	Offshore	Offshore	1984	2001
Prudhoe Bay	NW Eileen/Borealis	Oil	Onshore	Onshore	1999	2001
Oooguruk	Oooguruk	Oil	Offshore	Offshore	1993	2008
	Palm	Oil	Onshore	Onshore	2001	2003
Prudhoe Bay	Polaris	Oil	Onshore	Onshore	1999	2001
Prudhoe Bay	Prudhoe Bay	Oil	Onshore	Onshore	1967	1977
Prudhoe Bay	Pt. McIntyre	Oil	Offshore	Onshore	1988	1993
	Sag Delta	Oil	Offshore	Onshore	1976	1989
Duck Island	Sag Delta North	Oil	Offshore	Offshore	1982	1989
	Sag River	Oil	Onshore	Onshore	1969	1994
	Schrader Bluff	Oil	Onshore	Onshore	1969	1991
	South Barrow	Gas	Onshore	Onshore	1949	1950
Kuparuk River	Tabasco	Oil	Onshore	Onshore	1992	1998
Kuparuk River	Tarn	Oil	Onshore	Onshore	1991	1998
	Walakpa	Gas	Onshore	Onshore	1980	1992
Prudhoe Bay	West Beach	Oil	Onshore/Offshore	Onshore	1976	1994
Kuparuk River	West Sak	Oil	Onshore	Onshore	1969	1997
Colville River	CD-3 Fjord	Oil	Onshore	Onshore	1992	2006
Colville River	CD-4 Nanuk/Nanuq	Oil	Onshore	Onshore	1996	2006
Nikaitchuq	Nikaitchuq	Oil	Offshore	Offshore	2004	2009
Planned/Potential						
NE NPR-A	CD-5 Alpine West	Oil	Onshore	Onshore	2000	2010
	Ataruq/Two Bits	Oil	Onshore	Onshore	2005	NA
NE NPR-A	CD-6 Lookout	Oil	Onshore	Onshore	2000	2010
NE NPR-A	CD-7 Spark	Oil	Onshore	Onshore	2000	2010
	E. Umiat	Gas	Onshore	Offshore	1964	NA

Table 2-2
Existing and Potential Oil and Gas Development Projects on the North Slope (continued)

Unit	Name	Type of Production	Reserve Location	Production Location	Year Discovered	Year in Production
	East Kurupak	Gas	Onshore	Offshore	1976	NA
	Fish Creek	Oil	Onshore	Offshore	1946	NA
Beaufort	Flaxman Island	Oil	Offshore	Onshore	1975	NA
NRP-A	Gubik	Gas	Onshore	Onshore	1950	NA
Beaufort	Gwydyr Bay	Oil	Onshore/Offshore	Onshore	1969	NA
	Hammerhead/Sivulliq	Oil	Offshore	Offshore	1985	NA
	Hemi Springs	Oil	Onshore	Offshore	1984	NA
	Kalubik	Oil	Offshore	Onshore	1992	NA
	Kavik	Gas	Onshore	Offshore	1969	NA
	Kemik	Gas	Onshore	Offshore	1972	NA
Beaufort	Kuvlum	Oil	Offshore	Offshore	1987	NA
Liberty	Liberty	Oil	Offshore	Offshore	1983	2011
	Meade	Gas	Onshore	Offshore	1950	NA
	Mikkelson	Oil	Onshore	Onshore	1978	NA
	Pete's Wicked	Oil	Onshore	Onshore	1997	NA
Point Thomson	Point Thomson	Oil & Gas	Onshore/Offshore	Onshore	1977	2014
	Sandpiper	Oil & Gas	Offshore	Offshore	1986	NA
	Simpson	Oil	Onshore	Offshore	1950	NA
	Sourdough	Oil	Onshore	Onshore	1994	NA
	Square Lake	Gas	Onshore	Offshore	1952	NA
	Stinson	Oil	Offshore	Offshore	1990	NA
	Sukukik	Oil	Onshore	Onshore	1988	NA
	Ugnu	Oil	Onshore	Offshore	1984	NA
	Umiat	Oil	Onshore	Offshore	1946	NA
	Wolf Creek	Gas	Onshore	Offshore	1951	NA
	Yukon Gold	Oil	Onshore	Onshore	1994	NA

NA = Not yet in production