Section VII

Comments and Responses

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Section VII. Public Comments on the Draft IAP/EIS

Preview of this Section

This section provides a statistical summary of the comments received on the draft IAP/EIS. A list of the agencies, organizations and individuals who submitted substantive comments for which BLM has prepared specific responses is also provided. Finally, both general and specific comments and BLM's responses to those comments are presented.

A. Summary of Comments on the Draft IAP/EIS

Approximately 97,000 individual comment media on the draft IPA/EIS were received during the public comment period January 15 through April 2, 2003. Comments on the draft IAP/EIS were received via letter, e-mail, fax, website, and formal public meetings; many were received from various states of the United States, Canada, Mexico, and Europe. Approximately 87,000 comments arrived via e-mail or via internet in response to solicitations from advocacy groups. An additional 8,000 comments were sent via facsimile transmission. Many of the comments prompted by campaigns organized by environmental organizations were identical statements. Comments were also made directly on the document on at BLM's Draft IAP/EIS website. Nine public meetings/subsistence hearings were held during February 2003. More than 150 people made statements. The meetings were held at Anaktuvuk Pass, Anchorage, Atqasuk, Barrow, Fairbanks, Nuiqsut, Wainwright, and Point Lay, Alaska, and Washington, D.C.

Comment letters were entered into a database that randomly assigned tracking numbers. Individual tracking numbers were assigned to only one representative letter for identical or nearly identical form letter.

All comment letters and hearing transcripts were reviewed by a team of BLM and MMS specialists and comments requiring specific responses were identified. A comment received a specific response if it 1) is substantive and related to inadequacies or inaccuracies in the analysis or methodologies used; and/or 2) identifies new impacts or recommends reasonable new alternatives or mitigation measures; and/or 3) involves substantive disagreements on interpretation of significance (BLM NEPA handbook). Specific comments and reponses are provided in Section VII.D. The comments and responses are presented by topics that were frequently mentioned in the comment letters overall. The IAP/EIS has been revised when appropriate to address many of the comments. Additional information, either requested or provided by public input, has been incorporated in the IAP/EIS.

The 97,000+ comment letters received have not been reproduced in this document. The written and oral testimony

reproduced in this document are representative of the substantive and general comments received. Representative comment letters are reproduced in Appendix 15 in the CD-ROM and website versions of the Final IAP/EIS. The comment letters are part of the administrative record and can be inspected upon request.

B. Commenting Agencies, Organizations, and Individuals

Substantive comments were received from the agencies, organizations, and individuals listed below. The number following the name of the organization or individual(s) below is a discrete identification number that was used in the response to comments process. The specific comments and responses are presented in Section VII.D. Reproductions of representative letters, including each letter with a comment requiring a specific response, are provided in Appendix 15, which is not included in the printed version of the Final IAP/EIS but can be viewed on the CD-ROM and website.

Federal Agencies

- U. S. Department of Commerce, National Oceanic and Atmospheric Administration
  - National Marine Fisheries Service (NOAA Fisheries; formerly NMFS) (209)
  - NOAA Climate Monitoring and Diagnostics Laboratory (183)
- U. S. Environmental Protection Agency (261)
- U. S. Fish and Wildlife Service (260)
- U. S. Geological Survey (164)

State and Local Governments and Tribal Organizations

- Governor Frank Murkowski and the State of Alaska (251)
- Representative Norman Rokeberg, Alaska State Legislature (80066)
- The North Slope Borough (80065)
- City of Barrow (80015)
- City of Nuiqsut (80026)
- City of Wainwright (80012)
- Inupiat Community of the Arctic Slope (254)
- Native Village of Barrow
- Municipality of Anchorage, Office of the Mayor (80061)

Alaska Native Claims Settlement Acts Corporations

- Arctic Slope Regional Corporation (186)
- Kuukpik Corporation (254)
- Olgoonik Corporation (169)
- Wainwright Tribal Council (80012)

Oil and Gas Industry and Related Groups

- Alaska Oil and Gas Association (247)
- Anchorage Sand & Gravel Co., Inc. (80088)
- Anadarko Petroleum Corporation (256)
- ConocoPhillips Alaska, Inc (255)
- NANA Development Corporation (80025)
- Resource Development Council (267)
- WesternGeco (215)
- Fairbanks Economic Development Corporation (265)
- Greater Seattle Chamber of Commerce (80010)
- Tacoma-Pierce County Chamber, Tacoma WA (168)

Conservation Groups and Related Groups

- Alaska Coalition- Sierra Club Alaska Chapter, Alaska Center for the Environment (80016)
- National Audubon Society, Alaska (213)
- Wilderness Society, et al. (253)
- American Society of Mammalogists (249)
- Alaska Beluga Whale Committee (271)
- Anchorage Audubon Society (174)
- North Country Ecological Studies (80003)
- Santa Clara Valley Audubon Society (80011)
- Western Arctic Caribou Herd Working Group (WACH) (80004)
- Polar Bears Futures (80008)
- Sierra Club (80014)
- Natural Resources Defense Council (147)

Other Written Comments

- Alaska Miners Association, Inc. (268)
- David van den Berg (189)
- Michael Masters (180)
- Teena Helmericks (172)
- Rosemary Ahtuangaruak (167)
- Paul Hugo (187)
- Jodi Peterson (80005)
- Valerie Sovalik (166)
- Kellie Ward (80023)
- Terry Woods (80021)
- Joseph Akpik (258)
- Gregory Chase (80044)
- Robert Franz (80009)
- Walter Gove (245)
- Christine Henderson (252)
- Patricia Phillips (170)
- David Pray (80002)
- John Stroud (246)
- Jessica Sprajcar (46)

- Issac Conlen (80090)

Public Meeting Testimony Documents and Individual Comments

All of the following individuals spoke at the public meetings. The comments that received a written response have been assigned a discrete comment identification number located beside the name of the individual.

Anaktuvuk Pass, Alaska (Document Identification Number 80072)

- Gilbert Lincoln, Citizen (80072-979)
- Raymond Paneak, Citizen (80072-980)
- Mark Morry, Citizen (80072-982)
- Laura Ticket, Citizen (80072-983)

Anchorage, Alaska (Document Identification Number 80073)

- Tom Maloney, VECO
- John Schoen, Senior Scientist, for Audubon Alaska (80073-957,958,959,960,990,991,992,993,1004)
- Diana Rhodes, Alaska Coalition/Alaska Native Conservation Group
- Sara Callahan Chappell, Regional Representative, for Sierra Club (80073-1005)
- Tad Owens, Executive Director, for the Resource Development Council for Alaska (80073-1006,1007,1008)
- Rick Mott, Vice President, Exploration and Land for ConocoPhillips Alaska, Inc.
- Diane Kerr, Manager, Alaska and Canada Frontier Exploration, Anadarko Petroleum Corp.
- Maynard Tarp, President, Haw Construction Consultants
- Lynn Johnson, President, Dowland-Bach Corporation
- Dennis Stacey, Citizen
- Mary Waters, Wilderness Society, Audubon Alaska
- Larry Houle, General Manager, Alaska Support Industry Alliance (The Alliance)
- Cindy Middlestadt, For Mark Huber, Vice President, Doyon Universal Services, Joint-Venture
- Pamela Miller, Arctic Connections
- Karen Jettmar, Wilderness Adventure Travel Company
- Keith Silver, President, Prudhoe Bay Community Council
- Tony Alvarado, Wells Fargo Bank, Vice President , Commercial Banking Division
- Debra Williams, Executive Director, Alaska Conservation Foundation
- Bill Wielechowski, Vice President, Alaska AFL-CIO
- Bob Dittrick, Citizen
- Eric Myer, Citizen
- Bill Mohrwinkel, Wilderness Guide in the Arctic
- Michael Totemoff, Citizen
- Victoria Martin , Citizen
- Rosemary Ahtuanagaruak, Alaska Native, Nuiqsut, Alaska
- Stan Porhola, Graduate Student at UAA
- Rebecca Kyle, Substitute Teacher
- Kate Taylor, Citizen
- David van den Berg, Wilderness Guide
- Bob Randall, Citizen

Atqasuk, Alaska (Document Identification Number 80074)

- Larry Aiken, Inupiat Community of the Arctic Slope (80074-896)
- Joseph Akpik, Tribal Member of Inupiat Community of the Arctic Slope (80074-883,884,885,887,888,889,890,891,892,893)
- Hazel Hopson, Atqasuk Corporation
- Bernadine Itta, Citizen (80074-895)
- James Aiken Sr., Citizen (80074-894)

Barrow, Alaska (Document Identification Number 80075)

- Kris Anderson, VECO Alaska
- Geoff Carroll, Citizen(80075-408,412,414,511)
- Alfred Brower, Citizen
- Marie Carroll, Citizen (80075-470,471,473,474)
- Richard Garrard, ConocoPhillips in Alaska
- Arnold Brower, Sr., Citizen
- Arnold Brower, Hearing Officer
- Theresa Imm, Arctic Slope Regional Corporation
- Dorothy Edwardsen, Citizen (80075-477,478)
- Diana Rhodes, Alaska Coalition (80075-479,480,481)
- Robert Suydam, Wildlife Biologist (80075-482)
- Vera Williams, Citizen (80075-483,485,486,487,488)
- James Patkotak, Inupiat Community Arctic Slope (80075-489)
- Russell Schnell, NOAA (80075-490)
- Thomas Nusunginya, Citizen
- George Ahmaogak, Mayor, North Slope Borough (80075-491,492)
- Craig George, North Slope Borough
- Maggie Ahmaogak, Alaska Eskimo Whaling Commission (80075-493)
- Nathaniel Olemaun, Jr., Inupiat Community Arctic Slope (80075-494)
- Charles T. N. Brower, North Slope Borough
- Noah Itta, Citizen
- Jenny Ahkivgak, Citizen
- Theresa Judkins, Alaska Eskimo Whaling Commission
- Charlie Okakok, Citizen (80075-495)
- Tom Brower, Citizen (80075-496,497)
- Percy Nusunginya, Native Village of Barrow, Inupiat Traditional Government (80075-448, 499)
- Edith Edwardsen Vorderstrase, Mayor of Barrow (80075-501)
- Gordon Brower, North Slope Borough (80075-502,503)
- Doreen Lampee, Citizen
- Johnny Brower, Citizen (80075-505)
- Diana Gish, Citizen
- Taqulik Hepa, North Slope Borough (80075-506, 507,508)
- Todd O'Hara, Citizen
- Roland Brower, Citizen (80075-509)
- Dorothy Webermazonna, Citizen (80075-510)

Fairbanks, Alaska (Document Identification Number 80076)

- Deb Moore, Northern Alaska Environmental Center (80076-897)
- Steve Thompson, Mayor of Fairbanks
- John Whitehead, ConocoPhillips Alaska, Inc.
- Margaret Russell, Seekins Ford Lincoln Mercury
- David van den Berg, Wilderness Guide (80076-898)
- Jim Laiti, Plumbers and Pipefitters, Local 375
- John Miller, Citizen (80076-899,900)
- Don Lowery, Operating Engineers, Local 302
- Dave Klein, Retired Professor (80076-901,902,904,907)
- Charles Parkvan, Laborer's Union
- Pat Kerber, Citizen
- R. L. Odsather, Citizen (80076-905,906)
- Don Ross, Citizen
- Tim Sharp, Laborer's Union Local 942
- Chris Johansen, Citizen
- Kathy Miller, Citizen
- Kara Moriarty, Greater Fairbanks Chamber of Commerce
- John Zuleger, Laborer's Union
- Sam Meadows, Laborer's Local 942
- Laura Henry, Arctic Audubon
- Richard Gaul, Laborer's Union
- Jim Drew, Retired Professor
- Norm Phillips, Doyon Limited
- Frank Kein, Citizen
- Bob Hagberg, Local 942 Laborer's

Nuiqsut, Alaska (Document Indentification Number 80077)

- Michael Wheatall, ConocoPhillips Alaska, Inc. (80077-924)
- Rosemary Ahtuanagaruak, Citizen (80077-925,926,927)
- Isaac Kaigelak, Citizen (80077-928,930,931,947)
- Bernice Kaigelak, Citizen (80077-933,934,935,936,937,938,939)
- Eli Nakapigak, Citizen (80077-940,942)
- Sarah Kunaknana, Citizen (80077-943,944
- James Tallak, Citizen (80077-945,946

Point Lay , Alaska

- Willard Neakok, Point Lay Vice Mayor

Wainwright, Alaska

- Homer Bodfish, Native tribal member (80079-985)
- Bob Shears, Petroleum Engineer (80079-986)
- Frederick George Ahmaogak, Citizen (80079-987)
- June Childress, Native Village of Wainwright (80079-988)
- Enoch Oktollik, Citizen (80079-989)
- Marjorie Angashuk, Volunteer Firefighter
- George Anaggassag, Citizen

Washington D.C. (Document Identification Number 80081)

- Larry Williams, Citizen
- Pamela A. Miller, Owner, Arctic Connections, Anchorage, Alaska (80081-531,532,535,537)
- Cindy Shogan, Executive Director, Alaska Wilderness League (80081-539,540,541)
- Patricio Silva, Energy Attorney, Practicing in Washington, D.C. (80081-542)
- Marcia Argust, Legislative Representative/Campaign for America's Wilderness (80081-543,544,545)
- Lydia Kay Savalik, Alaska Native, Nuiqsut, Alaska
- Rosemary Ahtuangaruak, Alaska Native, Nuiqsut, Alaska
- Joseph Luijten, Citizen
- Charles Clusen, Alaska Director, National Resources Defense Council (80081-546,547,549)
- Marquerite Carr, Citizen
- Randall Moorman, Legislative Research Associate for Earth Justice (80081-550)
- Tony Cobb, Executive Director, Conserve America
- Jim Steitz, Citizen
- Bradley Kinder, Citizen
- Joanna Winchester, Student, Kenyon College, Gambier, Ohio, CRS Student Coalition
- Andrew Hunt, Student St. Johns College, Annapolis, MD
- Daniel Lavery, Sierra Club of Alaska (80081-551,552)
- Geoff Suttle, Citizen
- Bart Semcer, Citizen
- Justin Tatham, Representing the U.S. Public Interest Research Group (80081-553,554)

C. General Comments and Responses

The comments below were expressed in many ways in many of the comment letters received. Although these comments are not specifically on the content of the Draft IAP/EIS or the Plan under consideration, BLM believes that responding to these concerns on broader issues is appropriate.

Comment: The public did not have adequate opportunity to provide input.

Response: The NEPA process provides specifically for two public input opportunities--scoping and public meetings on the draft IAP/EIS. The 45-day scoping period of the Northwest NPR-A IAP/EIS was formally initiated with publication of the Notice of Intent to Prepare an Integrated Activity Plan/Environmental Impact Statement and Call for Information and Comments in the November 14, 2001, *Federal Register*. Scoping is specifically intended to give stakeholders and the public an opportunity to have input on the issues, alternatives,

and mitigation measures of the IAP/EIS.

The public review and comment period on the draft IAP/EIS provides stakeholders and the public another opportunity to comment on the issues, alternatives, and mitigation measures as well as on the information and analyses in the IAP/EIS. If scoping comments were not understood or were not considered in the draft IAP/EIS, the public comment period is an opportunity to clarify or repeat a concern. The comment period on the draft Northwest NPR-A IAP/EIS was initially 60 days and was then extended an additional two weeks. Comments on the draft document were accepted through a variety of means—mail, fax, e-mail, website, and public meetings. The comments could be as lengthy and detailed as needed to fully convey concerns. Multiple comment letters can be submitted during the comment to provide additional detail as it occurs to the commenter.

In response to public requests for more time to comment on the draft IAP/EIS, the close of the public review and comment period on the draft IAP/EIS was extended from March 18, 2003, to April 2, 2003.

Comment: I hope you will take my comments seriously.

Response: The BLM received almost 100,000 letters, postcards, e-mails, faxes, and web-based comments on the draft IAP/EIS. Every comment submission was reviewed by BLM or MMS staff.

Comments on the content of the IAP/EIS were identified and responded to. A response to a comment may be revision or addition to the text of the IAP/EIS, or a direct answer to the comment, or both. Section VII explains the criteria and process by which we identified, evaluated, and responded to substantive comments.

Opinions regarding oil and gas leasing in the National Petroleum Reserve-Alaska—whether for, against, or ambivalent—are considered by BLM management and decisionmakers in preparing the Record of Decision. Opinions are not analyzed in the IAP/EIS because they don't generate changes in the technical content. They are forwarded for management consideration and are part of the permanent record for this planning process.

Many, many of the comments received are form letters. Comments that appeared in form letters or were expressed multiple times in multiple ways have been addressed in a response to a specific comment or have been summarized and responded to as a general comment.

Comment: Environmental Impact Statements are supposed to contain all possible and probable alternatives to the proposed action. The alternatives put forth in your draft environmental impact statement&offer little in the way of balancing oil and gas development with protecting the area's wildlife, wilderness, or its residents' subsistence lifestyle.

Response: Under NEPA, we must "rigorously explore and objectively evaluate all reasonable alternatives" not all "possible and probable alternatives" to the proposed action. A reasonable alternative must meet the proposal objectives. As noted in Section I.A of the IAP/EIS, the proposal's objective "encourages oil and gas leasing in NPR-A while requiring protection of important surface resources and uses. "The IAP/EIS examines an array of alternative packages created by varying the area within NPR-A that could be offered for oil and gas leasing and the conditions that would be applicable to that leasing, including provisions to protect wildlife, wilderness, and subsistence lifestyle. The four alternatives in the draft document (No Action, A, B, and C) and the Preferred Alternative developed for the final document adequately cover the range of reasonable alternatives.

Comment: The recent findings of the scientific community that oil and gas development have had very negative impacts on the arctic terrain, contrary to the industry's assertions, makes critical a careful evaluation of any

further arctic development.

Response: The recent report by the National Research Council, which examined previously published research, while expressing concerns over past and potential effects of oil and gas development, did not conclude that "oil and gas development have had very negative impacts on the arctic terrain. "Indeed, more than decades of experience of the oil and gas industry have yielded technology and other strategies that minimize effects to the terrain. We have used much of the research reviewed by the NRC in our analysis of potential cumulative effects. The IAP/EIS has made the rigorous and objective evaluation of the reasonable alternatives required by NEPA.

Comment: There are no provisions for renewable energy development. We should turn our focus to fuel economy and conservation&then to alternative energy, and finally to further oil exploration and development. Draining the Arctic will just postpone the inevitable a little longer. It's time to get serious about alternative fuels and fuel efficiency. The administration argues that we need more independence from foreign oil. How is this proposal going to lessen our demand for oil? How can this relatively small amount of land provide us with the necessary petroleum to reduce our overseas imports? It would seem clear & that we cannot expect even a dramatic increase in our domestic production to do much to satisfy our [U.S.] consumption, given we consume 25 percent of the world's oil production.

Response: As noted in Section I.A of the IAP/EIS, the objective "encourages oil and gas leasing in NPR-A while requiring protection of important surface resources and uses. "As such, alternative energy programs would not be included in the range of reasonable alternatives.

In any event, the energy needs of the United States will be met by a combination of imports from foreign sources, domestic oil and gas exploration, development and production, conservation, and other energy sources such as wind, solar, geothermal, and nuclear. Each source makes a contribution to satisfying the need and each has ecological, technological, and economic advantages and disadvantages. For example, a recent Department of the Interior report eliminated Alaska from examination of the potential for public lands in the State to be used for wind power generation because the lack of an electricity distribution grid within the state limited the effectiveness of the technology. In the period envisioned by the proposed action, fossil fuels will continue to be the single largest component of the domestic energy stream.

Comment: My question on the issue is what is going to be the economic advantage to the exploitation of this area? What would the citizens of the U.S. get in return for opening the NPR-A to oil and gas leasing?

Response: The economy of the area is discussed in Section III of the IAP/EIS. The IAP/EIS examines an array of alternative packages created by varying the area within NPR-A that could be offered for oil and gas leasing and the conditions that would be applicable to that leasing and the potential effects to the economy under each alternative are discussed in Section IV. The production of oil and gas resources within NPR-A could make a valuable contribution to the domestic production portion of the stream by offsetting declines in production from Prudhoe Bay, using the existing TAPS pipeline and tanker transportation and distribution system.

If a decision is made to open all or part of the Northwest NPR-A to oil and gas leasing, companies will competitively bid for leases. The money received from successful bids, annual rentals on the leased acreages, and royalties on produced oil and gas would be divided between the Federal Government and the State of Alaska. Federal statute provides that 50 percent of the receipts from sales, rentals, and royalties on NPR-A leases are to be paid to the State of Alaska semiannually. The federal law provides that, in allocating these funds, the State give "priority to use by subdivisions of the State most directly or severely impacted by development of oil and gas" in the Reserve.

The 1999 Lease Sale in the Northeast NPR-A resulted in $38.6 million in first year bonus bids and $1.7 million in first year rentals for the Federal Government. The Federal Government estimates future annual rentals due to the Federal Government from the 1999 Northeast NPR-A Lease sale to be $2 million. The 2002 Lease Sale in the Northeast NPR-A resulted in $31.9 million in first-year bonus bids for the Federal Government.

Comment: I oppose opening the Arctic National Wildlife Refuge to oil and gas drilling.

Response: Many comments received on the draft IAP/EIS expressed concern about ANWR--the Arctic National Wildlife Refuge. This IAP/EIS is for the National Petroleum Reserve-Alaska (NRP-A). Although both the NPR-A and ANWR are located on the North Slope of Alaska, they are different--and not adjacent--areas. The area designated as a National Petroleum Reserve is the western part of the Arctic Coastal Plain and the Arctic Foothills Provinces. The ANWR is 100 miles to the east, adjacent to Canada. The NPR-A and ANWR are managed by different federal agencies. Please see Map 1 of the IAP/EIS.

D. Specific Comments and Responses

The specific comments and responses below include both substantive comments and representative comments on more general topics related to the Northwest NPR-A Plan. The representative comments provide the reader with a range of topics and issues that reflect the core of what was expressed in the 97,000+ letters received. The full texts of the substantive and representative comment letters are reproduced in Appendix 15 . Appendix 15 is provided in CD-ROM and website versions of the Final IAP/EIS.

Each letter is identified by a unique number, and each comment from a particular letter is also coded with a unique identification number. Every individual response following a comment is coded with a combination of these unique identification numbers so the reader will know what letter and specific comment from the letter is being responded to.

1. TOPIC : PREFERRED ALTERNATIVE

Comment From: Resource Development Council (Comment Letter No. 267)

RDC strongly opposes the withdrawal of land in the planning area for habitat preservation. Special habitat preservation areas tend to go beyond their intended purpose and unnecessarily inhibit reasonable uses of the land. RDC believes environmental concerns regarding development in sensitive habitat areas should and can be adequately addressed during the permitting process through balanced and reasonable permit stipulations. However, we do not support stipulations that would prohibit surface facilities and other limitations before exploration has taken place. Such measures would be premature and unnecessarily limiting. **(Comment No. 267-1034)**

Response To: Comment 267-1034

The BLM has taken your comments and concerns into considertion in developing the Preferred Alternative. We believe the PA is a well balanced alternative that will facilitate the development of the available oil and gas resources as well as provide protection for the natural wildlife resources found in the Northwest NPR-A.

2. TOPIC : STIPULATIONS - GENERAL

Comment From: City and Native Village of Nuiqsut (Comment Letter No. 80026)

Hazardous Materials Documentation: Additionally, we would like to see a requirement for hazardous materials documentation regarding routing and removal throughout the NPR-A area. **(Comment No. 80026-1015)**

Response To: Comment 80026-1015

Please see responses to comments 249-520, 80075-505, and 80082-542 (Site Clearance and Requirements for Restoration). See also the General Lease Stipulations and Required Operating Procedures for the Preferred Alternative, specifically Required Operating Procedures A-3, A-4, A-5, A-6, A-7, E-4 and Stipulation G-1.

3. TOPIC : WILD AND SCENIC RIVERS

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

We commend BLM for taking an initial look at potential wild, scenic and recreational rivers in the Northwest Planning Area DEIS as directed by the Wild and Scenic Rivers Act of 1968. To implement the intent of the Act BLM must proceed to formally review and address the eligibility and suitability of each of the 22 rivers identified in the DEIS as having "outstanding remarkable values". During the study process full consideration should be given to the "wild" category as well as the 'scenic' category. By only considering 'scenic' designations the DEIS fails to meet the requirements of the Act. **(Comment No. 253-27)**

Response To: Comment 253-27

The Record of Decision for the IAP/EIS will make suitable determinations for all the rivers identified as eligible. The planning team considered the possibility of preliminary classification as "wild" during scoping, but settled on "scenic" after reviewing the information available for each river, including the information presented at public meetings. The initial classification of all identified eligible rivers as "scenic" was based on existing patterns of motorized subsistence use, and the presence of camps and cabins along most of the eligible streams. The team still finds "scenic" as the most appropriate preliminary classification. This would, of course, not preclude Congress from designating one of these streams for management as a wild river area.

Comment From: U. S. Evironmental Protection Agency (Comment Letter No. 261)

Under Alternative C, the DOI/BLM proposes to designate 22 rivers as 'Wild' or 'Scenic' pursuant to the Wild and Scenic Rivers Act. These streams include: Alataktok, Alaktak, Avak, Avalik, Chipp, Inaru, Ivisaruk, Kaolak, Ketik, Kigalik, Kuk, Kungok, Meade, Nakotlek, Ongorakvik, Oumalik, Titaluk, Topagoruk, Tunalik, Usuktuk, and Maybe Creek and the Colville River. EPA would also recommend Ikpikpuk River to be included to this list due to its importance for raptor nesting habitat. EPA strongly supports DOI/BLM's decision to designate these streams as 'Scenic' or 'Wild' as part of any Preferred Alternative that is selected for the NW NPR-A IAP/EIS. The final IAP/EIS should document input from the local communities and any private land owners who were consulted prior to designating these rivers. **(Comment No. 261-91)**

Response To: Comment 261-91

Section III.C.10.c of the IAP/EIS explains why the Ikpikpuk River is not reviewed for eligibility and suitability for Wild and Scenic River designation. Additionally, BLM did document input from the local communities and any private land owners who were consulted prior to designating these rivers. Please see Section III-Response of Entities Affected by River Designation Status - in the Final IAP/EIS.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

To implement the intent of the Act BLM must now proceed to formally review and address the eligibility and suitability of each of the 22 rivers identified in Table III-38 of the DEIS as having "outstanding remarkable values". During the study process full consideration should be given to the "wild" category as well as the 'scenic' category since many river sections are 'free of impoundments and generally inaccessible except by trail, with watersheds and shorelines essentially primitive and waters unpolluted. These represent vestiges of primitive America" Title 16 Chapter 1273 (b) (1). The National Petroleum Reserve-Alaska contains some of the most primitive county left in the United States'much of it along its rivers. While these river studies are underway no activities should be permitted that degrade any of the river values for these 22 rivers. The BLM should, as part of its planning process, incorporate management provisions that will protect the outstanding qualities of any segments suitable for designation as a Wild and Scenic River. If BLM stops short of suitability determinations and only conducts eligibility inventories, eligible streams and rivers must likewise be protected. The DEIS must evaluate the adverse impact of roads, pipelines, seismic work and gravel extraction to the future designation of these rivers. **(Comment No. 253-347)**

Response To: Comment 253-347

The Northwest NPR-A IAP/EIS will complete the river study process by making suitability determinations for all the rivers in the Planning Area. During the planning process we will use our existing authority to minimize negative impacts to rivers in the area. The analysis in the draft IAP/EIS does not identify any particular threats to the outstandingly remarkable values of the eligible rivers over the planning timeline. If the record of decision for the IAP/EIS finds any rivers suitable for addition to the National Wild and Scenic Rivers System, then BLM will use our existing authority, to the extent possible to protect that suitability while Congress considers possible designations. Please also see the response to comment 253-27 (Wild and Scenic Rivers).

Comment From: The Kuukpik Corporation (Comment Letter No. 254)

Due to their importance, key rivers should be protected by a stipulation creating buffer zones extending from each bank in which no permanent oil and gas infrastructure may exist. The size of these No Permanent Improvement zones should be similar to those used in the Northeast NPR-A for rivers of equivalent resource value. In principle, we can agree to limited exceptions for necessary roads or pipelines transecting the river buffer zones so long as these are kept to one per river unless more than one is environmentally preferable. There is no reason not to provide this significant baseline protection to the rivers corridors that we and the wildlife rely upon for our survival and movement. **(Comment No. 254-623)**

Response To: Comment 254-623

The suggestions in this comment are largely adopted in the Preferred Alternative through Stipulation K-1. The stipulation establishes areas along certain named rivers where there will be no permanent oil and gas facilities. Of

the 19 rivers listed in Kuukpik's comment, 12 are named in Stipulation K-1. The remaining seven rivers are in the Preferred Alternative Deferral Area.

Comment From: The Sierra Club (Comment Letter No. 80014)

In addition, BLMs investigation of potential wild, scenic and recreational river designations within the planning area must proceed to formally review each of the 22 rivers identified as having "outstanding remarkable values" and give full consideration to the "wild" category of designation. **(Comment No. 80014-863)**

Response To: Comment 80014-863

Please see the responses to comments 253-27 and 253-347 (both in Wild and Scenic Rivers).

Comment From: Walter Gove (Comment Letter No. 245)

I strongly recommend that you maximize the degree to which the Ikpikpuk River is untouched by exploration. There appears to be no reference to this river in the EIS, which is hard to understand, given the importance of this river. **(Comment No. 245-865)**

Response To: Comment 245-865

The Ipikpuk River is discussed in Section III.C.10.c of the IAP/EIS.

4. TOPIC : MANAGEMENT

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

Moreover, the energy policy directs the Secretary of the Interior to 'consider environmentally responsible oil and gas development based on sound science and the best available technology' (DEIS p. 1-2). If BLM intends to fulfill this mandate, then a revised DEIS is necessary to incorporate the new science from both Audubon Alaska and the National Research Council before an adequate NEPA analysis can proceed. Further, the stipulations in this DEIS fail to require the industry to use the proclaimed best available technology and therefore are also inadequate to fulfill this mandate. **(Comment No. 253-38)**

Response To: Comment 253-38

We have considered the reports from the Audubon Society and the National Research Council in development of the Preferred Alternative presented in this document. Several ROP's have been developed since the draft IAP/EIS was published to ensure appropriate levels of research prior to construction of possible development-related sites. Some of the original Stipulations and ROP's have also been rewritten to make more clear BLM's goals of protecting wildlife species and their habitats and the standards to achieve these goals. The cumulative effects analysis has been revised with consideration of the NRC report

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

In addition to failing to include all reasonable choices available to meet BLM's stated goal of multiple-use management, the four alternatives also fail to meet the substantive standards established by the NPRPA and FLPMA. If, in fact, it does authorize this leasing program, the NPRPA also requires that any 'activities . . . shall include or provide for such conditions, restrictions, and prohibitions as the Secretary deems necessary or appropriate to mitigate reasonably foreseeable and significantly adverse effects on the surface Resources.' 42 U.S.C § 6508(1). Moreover, exploration in special areas must be conducted 'in a manner which will assure the maximum protection of [the] surface values.' Id. § 6504(b). The alternatives and stipulations provided in the DEIS do not meet those standards. **(Comment No. 253-66)**

Response To: Comment 253-66

We believe that the draft alternatives do meet the substantive standards established by the NPRPA and FLPMA, and that the activities proposed in each alternative also include appropriate measures to protect surface resources that are present. Each alternative described in chapter II of the draft and in the Preferred Alternative in this document includes a set of Stipulations and Required Operating Procedures in the form of setbacks, seasonal and other restrictions, and other measures to accomplish this. The Preferred Alternative in this document includes a setback of one mile from the Colville River in the Colville River Special Area to provide additional protection for raptors. While there are no special measures applicable solely to the Teshekpuk Lake Special Area, the Preferred Alternative protects caribou, brant, subsistence uses and other resources within this area by including stipulations and ROP's that apply to these resources both within the Special Area and in areas adjacent to the Special Area. These measures are more effective than if they stopped at the boundary of the Special Area.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

Similarly, under FLPMA, BLM is obligated to manage the NPR-A 'under principles of multiple use and sustained yield' 43 U.S.C. § 1732; see also id. §1701(7), (8). Management for multiple use means that the agency is required to manage 'public lands and their various resource values so that they are utilized in the combination that will best meet the present and future needs of the American people' and to achieve 'harmonious and coordinated management,' considering 'the relative values of the resources and not necessarily to the combination of uses that will give the greatest economic return or the greatest unit output.' 43 U.S.C. § 1702(c). Further, BLM must emphasize the long-term management potential of public lands to satisfy the needs of both current and future generations, see id. § 1703(h), and must 'take any action necessary to prevent unnecessary or undue degradation of the lands,' id. § 1732(b). The alternatives and stipulations considered do not meet those standards because they provide inadequate protection for surface resources and do not establish a coherent management scheme for the Planning Area. **(Comment No. 253-67)**

Response To: Comment 253-67

The alternatives and accompanying protective measures contained in the draft and the Preferred Alternative herein do meet the standards of FLPMA and do consist of appropriate actions to prevent unnecessary or undue degradation of public lands. In developing all alternatives BLM has taken its responsibility for long-term management and the principles of multiple-use and sustained yield seriously. This commitment is reflected in the substantive requirements of the protective stipulations and required operating procedures that accompany each alternative.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

NEPA and its implementing regulations require that an EIS be a 'detailed' statement. 'See 42 U.S.C. 4332'. 'What is required is information sufficient to permit a reasoned choice of alternatives so far as environmental aspects are concerned.' Natural Resources Defense Council v. Morton, 458 F.2d 827, 836 (D.C. Cir. 1972). Settled case law holds that 'detailed' means 'site-specific.' 'Site-specific analysis is essential to meaningful environmental analysis.' State of California v. Bergland, 483 F. Supp 465, 483 (E.D. Ca. 1980), aff'd and rev'd in part sub nom. State of California v. Block, 690 F.2d 753 (9th Cir. 1982). An EIS cannot be the basis for federal action if it fails to consider the individualized, 'on the ground' effects on local environments. . . .[and] does not provide the detailed analysis of local geographic conditions necessary for the decision-maker to determine what course of action is appropriate under the circumstances. Natural Resources Defense Council v. Morton, 388 F. Supp. 829, 833, 838-9 (D.D.C. 1974) (emphasis added), aff'd without opinion 527 F.2d 1386 (D.C. Cir.), cert. denied 427 U.S. 913 (1976); see also Natural Resources Defense Council v Hodel, 819 F.2d 927, 928 (9th Cir. 1987) (Morton is 'the leading case in this area' holding that NEPA requires 'assessment of the environmental effects . . . in specific areas.'); 40 C.F.R. § 1502.14 (EIS must 'sharply defin[e] the issues and provid[e] a clear basis for choice among options by the decisionmaker and the public.'). The DEIS for the Northwest Planning Area is not site-specific. Indeed, BLM cannot reasonably claim that in just a few hundred pages, it could adequately analyze on a sitespecific basis the impacts that might occur from oil and gas leasing on 8.8 million acres of the Reserve. A generic discussion of resources and potential impacts like that contained in the DEIS simply cannot suffice as the required site-specific analysis. Under different circumstances the broad-scale approach that BLM has taken in the DEIS might possibly be acceptable in a programmatic EIS, if the programmatic EIS does not purport to become the basis for authorization of discrete activities, such as oil and gas leasing, in particular areas of the Reserve. This DEIS, however, does not claim to be a programmatic EIS, but forms the basis for a leasing program. Based on this NEPA process, BLM will issue leases that authorize oil and gas exploration and development. Accordingly, the choice among alternatives will have direct, on-the-ground impacts that must be considered on a site-specific basis. The DEIS will establish the lease stipulations and ROPs that are intended to protect surface resources when exploration and development occur. Decisions such as these will impact the environmental resources directly and, therefore, must be considered on a site-specific basis. Accordingly, if BLM intends that it be the basis for authorizing oil and gas leasing in particular areas of the Reserve, it must be scaled so that it is site-specific. An adequate site-specific analysis cannot take place until BLM provides a detailed and reasonable projection of potential development. As discussed in the next section, the DEIS fails to describe realistic development scenarios that can form a basis for an adequate site-specific analysis. In the later sections on specific resources, areas where site-specific impacts need to be analyzed further are identified. Until this analysis is done, the IAP/EIS may serve as programmatic planning document, but cannot be used as a basis for entering into oil and gas leases. **(Comment No. 253-69)**

Response To: Comment 253-69

The IAP/EIS complies with NEPA's requirements regarding site-specificity. As required by NEPA, the IAP/EIS summarizes and synthesizes site-specific information regarding the environment of the Planning Area, including its physical, biological, cultural, and socio-economic resources. Scientific information is presented concerning the differing soil types and their locations, vegetation, groundwater and surface water resources, air quality, fish, bird, and mammal species that inhabit the Planning Area and where they are found in concentrations, marine mammals, and threatened and endangered species. Human settlements, socio-economic systems, uses of the land, transportation corridors and the importance of subsistence in the region are also described and mapped. The IAP/EIS summarizes the known information on historic, paleontological and cultural resources of the Planning Area, and identifies the varied scenic, recreational, wild and scenic river, and wilderness resources. Additional information that has been received as a result of the public comments on the draft IAP/EIS has been incorporated in the final IAP/EIS, where appropriate. The IAP/EIS and accompanying maps provide a clear picture of the locations in the Planning Area where different resources and species are concentrated at different times during the year and when they are in particularly sensitive life stages. For example, the IAP/EIS provides detailed discussion of the areas important for caribou calving, insect relief, and wintering areas; polar bear denning sites; prime molting, nesting, and brood-rearing areas for birds; marine mammal haul outs; and so on. This information, gathered in Section III of the IAP/EIS and the accompanying appendices, summarizes the existing scientific surveys and studies which have been conducted on each species or resource and provides adequate site-specific information to form the basis for the detailed analysis of direct, indirect, and cumulative environmental impacts in Section IV of the IAP/EIS. Section IV refers to and utilizes the resource information from Section III to predict various levels of impacts from projected activities in different locations in the Planning Area under each

alternative. This information will inform BLM in its decision making regarding where in the Planning Area to allow oil and gas leasing and other management activities, and under what conditions. In addition to the information gathered in this IAP/EIS, NEPA reviews will occur at each subsequent stage of any oil and gas activities proposed to be authorized by BLM following leasing. These subsequent environmental reviews will be conducted before approval of any on-the-ground oil and gas exploration or development plans, and they will be tiered to this IAP/EIS. Any new information regarding resources or impacts anticipated from particular development proposals will be gathered and presented in a new NEPA document at each permitting stage, thus ensuring that BLM's decisions continue to be well informed as activities proceed. This document uses the same kind of scenarios that were used in the Northeast NPR-A EIS/IAP and that are commonly used in planning documents in many places by various agencies. These scenarios are developed by combining what is known about the oil and gas potential of the area and current industry technology. Environmental analysts then use the scenarios to estimate the effects of development on natural and cultural resources in the planning area, which is a common practice in planning documents.

Comment From: State of Alaska (Comment Letter No. 251)

The State of Alaska recommends that the area be available for oil and gas leasing but only under the condition that no permanent surface facilities be allowed in the Lagoon and surrounding onshore areas. The State recommends that the specific boundaries of this "no surface occupancy" area be defined more specifically by the Bureau of Land Management (BLM) in consultation with appropriate federal, state and local regulatory and resource agencies and incorporated in the Final IAP/EIS. **(Comment No. 251-135)**

Response To: Comment 251-135

Under the Preferred Alternative, oil and gas leasing will be deferred for 10 years in the Kasegaluk Lagoon to Peard Bay area. Prior to the lease offerings, appropriate protections, including a No-Surface-Occupancy stipulation, will be imposed. Additionally, the Preferred Alternative recommends that the Kasegaluk Lagoon and adjacent lands be designated a special area.

Comment From: State of Alaska (Comment Letter No. 251)

The BLM proposal to include ROPs as conditions of applicable individual permits presents two problems: 1) except where specific protection is mandated by state or federal law, few protective measures for critical industry operations (e.g., waste and hazardous material handling, transportation, facility design) are committed at this time under the IAP/EIS process; and 2) the public and state authorities will have very diminished weight in review and decisions (if any review is planned) on individual permits issued by BLM. **(Comment No. 251-136)**

Response To: Comment 251-136

Required Operating Procedures (ROP's) incorporated in the Preferred Alternative and adopted as such by the Record of Decision would be a commitment by BLM to require an applicant to meet the identified standards and requirements. That these requirements will not be attached to a lease as stipulations does not minimize their importance. The ROP's must be incorporated as a design feature or management practice as a part of any proposal submitted to BLM to operate on public lands within the Planning Area. As part of the proposal, an ROP need not be stipulated. While the list of ROP's is in fact fairly comprehensive it is understood that it is not and can not be all inclusive. The BLM will continue to develop additional project-specific mitigation through the application and NEPA process, which allows for state and public review.

Comment From: State of Alaska (Comment Letter No. 251)

Development project planning and design often reaches the point where major changes are not possible or economically feasible when presented to agencies at the permitting stage. If the additional stipulations (or many of them) are included as conditions of the lease, industry will have most of the requirements that their development plan must address at the time the leases are presented for sale. This will provide industry with a greater degree of certainty in preparing for development, ensure a greater degree of protection for resources, and provide for more efficient use of corporate and agency time and resources. Unless the requirement is a restatement of federal or state law or there is some other clear justification, we recommend that a number of required operating procedures be converted to stipulations and added to the lease (see Technical Comments). **(Comment No. 251-137)**

Response To: Comment 251-137

Required Operating Procedures (ROP's) adopted by BLM will be identified in the Record of Decision. With that decision, ROP's become requirements that industry will have to address in their development plans and permit proposals.

5. TOPIC : PURPOSE OF NPR-A

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

BLM states the purpose of the DEIS very broadly -- 'to determine the appropriate multiple-use management' of the Northwest -- and calls the document an 'Integrated Activity Plan/Environmental Impact Statement.' (DEIS pp. I-1-2.) This purpose is much broader than simply determining the appropriate parameters of an oil and gas leasing program. Instead that statement of purpose indicates that BLM intends to use the DEIS to develop a comprehensive management plan for the Planning Area. Consistent with this broad purpose, BLM states that it will determine not only whether lands that should be offered for oil and gas leasing and the measures that should be implemented to protect surface resources if leasing occurs, but also 'what non-oil and gas land allocations should be considered for this portion of the NPR-A.' (Id. p. I-2.) The analysis conducted in the DEIS, however, is not consistent with this broadly stated purpose. Rather, BLM has placed an unduly heavy emphasis on oil and gas development in its proposed management of the Northwest Planning Area. That emphasis is evident in the alternatives selected by the agency and in the cursory manner in which impacts of oil and gas leasing are evaluated. Contrary to BLM's stated goal, emphasizing oil and gas development will preclude effective management of the area and sacrifice surface resources. Such an emphasis on oil and gas leasing is not warranted at this time, and BLM has not demonstrated a need for an aggressive leasing program. The DEIS cites the President's energy policy, the Naval Petroleum Reserves Production Act (NPRPA), 42 U.S.C. § 6501, et seq., the Federal Land Policy and Management Act (FLPMA), 43 U.S.C. § 1701, et seq., as the primary sources of authority for leasing and as demonstrations of need for the DEIS. None of those statutes or proposals, however, provide adequate justification for the emphasis on extensive exploration and development contemplated by the BLM at this time. BLM has not identified a need for such drastic action taken before sufficient scientific information is available to predict more accurately the impact exploration and development may have on the Reserve environment. Instead, the DEIS should take a more balanced approach to multiple-use management of the Reserve. **(Comment No. 253-35)**

Response To: Comment 253-35

This document address the issues of wilderness, wild and scenic rivers, special areas, visual resource management, and travel management besides making decisions about where oil and gas leasing will be allowed and what Stipulations and ROP's will be used to protect surface resources. The reasons for considering a leasing

program at this time are adequately presented in Chapter 1. Please see our response to 253-40 ((Legal).

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

BLM states that it is undertaking the National Environmental Policy Act (NEPA) process 'to fulfill the mandates of the President's energy policy.' (DEIS p. I-2.) In determining the purposes and goals of this action, however, BLM is required to heed the views of Congress. See Citizens against Burlington, Inc, v. Busey, 938 F.2d 190, 196 (D.C. Cir. 1991); City of New York v. Department of Transp., 715 F.2d 732, 743-45 (2d Cir. 1983). Congress has not ratified the President's energy policy, and it may not do so. Moreover, BLM should not base decisions on a policy that was determined during closed door meetings with oil industry officials and no public process pursuant to NEPA. Accordingly, the energy policy does not provide a legitimate basis for a decision to lease or demonstrate a need for such action at this time. Nor should it skew the agency's decision making away from multiple-use management and toward oil and gas leasing. **(Comment No. 253-36)**

Response To: Comment 253-36

Congress authorized developing this Integrated Activity Plan/Environmental Impact Statement (IAP/EIS) in the 2003 budget. Congress is aware of the fact that the BLM traditionally identifies lands available for oil and gas leasing in its land use plans and is also aware that the Northeast NPR-A IAP/EIS authorized leasing. Had Congress objected to oil and gas leasing, it would not have authorized the expenditure of funds for a process that might lead to such an action.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

The DEIS, however, never makes clear which provisions of FLPMA are applied or how that statute establishes a need to manage the Reserve. **(Comment No. 253-45)**

Response To: Comment 253-45

Section 102 of FLPMA requires that BLM manage all of its lands from a multiple-use perspective. Oil and gas leasing is a legitimate use of BLM-managed lands and a specific use designated for the National Petroleum Reserve-Alaska. The IAP/EIS would be inadequate if it failed to identify areas to be made available for leasing and to establish the rules for that leasing.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

The counterpart provision to multiple use is sustained yield (43 U.S.C. § 1702(h)). It requires BLM to emphasize the long-term management potential of our public lands to satisfy the needs of both current and future generations. Needs are satisfied only to the extent that they do not permanently impair the productivity of the land or quality of the environment. **(Comment No. 253-46)**

Response To: Comment 253-46

The IAP/EIS contains assessments of the effects of oil and gas activities on various natural and cultural resources. The conclusions of these assessments are summarized in Appendix 2. There is nothing in any of the summaries that indicates there will be any more than minimal short-term or long-term effects on most resources. The

exception is that development in the caribou insect-relief areas near Dease Inlet could have more serious impacts, but BLM has developed Stipulations and ROP's to minimize the likelihood of the occurrence of these effects.

Comment From: Public Meeting on DEIS - Barrow, Alaska (Comment Letter No. 80075)

Let me add to my testimony with this, I believe, without a doubt, that the Secretary of the Interior breached duty of protection by issuing permits for land held in aboriginal position by Inupiats of the North Slope. The NPR-A was withdrawn without the notification and consultation of our tribal government that owned the land. I will also add by quoting a few cases from the U.S. Courts. A. The Johnson v. McIntosh case of 1823, the rules of discovery, gives title to discoverer and therefore, the Inupiat were living and using this land now known as NPR-A before the United States and Navy were ever here. B. The Cherokee Nation v. Georgia case of 1831. It was proved that Indian Nations are not foreign nations but are considered domestic dependent nations. Domestic within borders of the U.S. dependent on U.S. for protection from states. The U.S. government was to protect us from the states and not give what we own to the state government using ANCSA. We are considered nations with inherent sovereignty existing before U.S. Constitution. I would also like to add that the U.S. Constitution grants power to Congress to regulate commerce with Indian tribes, and two, laws made under the Constitution are the supreme law of the land. Federal power over Indian affairs. Plenary, plenary power is complete not absolute. It can preempt state power but can't violate the U.S. Constitution. I believe that our aboriginal title is protected by treaties with the United States but the absence of any treaty does not diminish the Federal duty to protect against trespass. And because of this, ANCSA did not abolish the preexisting tribal governments. We know that Section .810 of ANILCA requires the Federal government to assess the effect of any Federal activity in Alaska on Native subsistence and the passage of ANILCA did not compel suggestion that Congress intended to exercise commerce clause powers over all submerged lands and navigable Alaska waters. **(Comment No. 80075-478)**

Response To: Comment 80075-478

The BLM has met all of its government-to-government consultation obligations by meeting with the tribal organizations of the North Slope. Documentation of these meetings can be requested from the Northern Field Office in Fairbanks. The subsistence analysis required by section 810 of ANILCA is located in Appendix 5. Please see comment response 253-328 (ANILCA).

Comment From: Public Meeting on DEIS - Barrow, Alaska (Comment Letter No. 80075)

Like many of you we were disappointed about the Mineral Management Service's decision to open the Beaufort Sea and, like the Beaufort Sea, it is the Bush's administration stated intent and order to BLM to heavily develop the NPR-A. **(Comment No. 80075-479)**

Response To: Comment 80075-479

In accordance with the President's energy policy, BLM is considering making additional lands within the National Petroleum Reserve-Alaska available for oil and gas leasing.

Comment From: Gregory Chase (Comment Letter No. 80044)

I don't believe the reserve should be undrillable. It makes sense to use it in a time of great national need (if that ever occurs) but not before. Assuming this point is agreed, then why develop the land and ready it for drilling so far in advance of said time' Sure, establish the public precedent that the land is drillable. That will keep our heads

clear and enhance our negotiating position internationally. Actually doing anything physically, though, would only increase the temptation to declare a "time of need" at a premature date and do harm to the wilderness. **(Comment No. 80044-769)**

Response To: Comment 80044-769

Please see the response to comment 253-20 (Birds).

Comment From: Kellie Ward (Comment Letter No. 80023)

The proposal mentions a governmental projection that by 2020 two-thirds of the countrys oil will be imported from other countries given the amount of available oil. Drilling for oil and gas in the National Petroleum Reserve will provide a very temporary solution. Petroleum (as well as natural gas) is a non-renewable resource, which is becoming more and more scarce. I would encourage you to utilize this money and energy into researching more renewable alternatives to petroleum, which might provide a better solution to oil dependency and take our country in the direction of sustainability. **(Comment No. 80023-837)**

Response To: Comment 80023-837

The BLM is a land management agency with the authority to lease appropriate public lands for oil and gas leasing. We do not fund research into alternative sources of energy or energy conservation. Other agencies are responsible for energy research.

Comment From: Alaska Miners Association, Inc. (Comment Letter No. 268)

The NWPA should also be opened to mineral entry under the general mining laws and leasing laws. This area is known to contain vast coal deposits and is also prospective for discovery of metal deposits. The plan should be changed to recommend opening of the area to leasing of coal and leasable minerals under the applicable laws. Our nation needs these metal and energy resources and the current closure should be removed so exploration for metal and coal deposits can begin. **(Comment No. 268-843)**

Response To: Comment 268-843

Opening the National Petroleum Reserve- Alaska to mining operations was an alterative that was considered and subsequently eliminated from further analysis in this IAP/EIS. A brief discussion of the history and decision regarding this issue is provided in Section II.G.4.

Comment From: Public Meeting on DEIS - Atqasuk, Alaska (Comment Letter No. 80074)

To my further comments include the Draft Executive Summary which indicates the alternative presented in the Integrated Plan EIS are consistent with the purposes of the NPR-A governing statues. And I'd like to get that governing statute, which statutes are we looking at' Okay. Offering a different balance between serving the total, what the President has said the total energy needs for the nation. The goal of the NPR-A, this is coming from the (In Native) and protecting surface resources from unnecessary and undue degradation as required by the Federal Land Policy and Management Act. **(Comment No. 80074-888)**

Response To: Comment 80074-888

The primary laws that direct BLM management of NPR-A are discussed in Section 1 of this document.

Comment From: Isaac Conlen (Comment Letter No. 80090)

I expect that this public land will be leased to development companies at market rates. I do not believe it is in the public interest to subsidize the exploration and development of publicly owned property as has occured in the past. **(Comment No. 80090-1040)**

Response To: Comment 80090-1040

If the decision documented by the Record of Decision at the end of this NEPA process is to make areas within the Northwest NPR-A Planning Area available for oil and gas leasing, then tracts will be delineated and offered for competitive bidding. Monies derived from Federal oil and gas leasing come from bonus bids at the time of leasing, rentals for the term of the lease, and royalties paid on oil and gas produced from the lease. The high bids received at a lease sale are evaluated by a team of geologists, geophysicists, and minerals economists to ensure the public receives fair market value based on the agency's estimate of resources that may occur under the lease. The Federal Government does not subsidize oil and gas exploration and development. A "subsidy" is monetary assistance granted by a government to a person or private commercial enterprise. The Federal Government has offered incentives to balance high operational costs or high risk in certain areas. Royalty relief (lowering or temporarily suspending royalty rates on production) is an example of an incentive that has been applied to certain oil and gas operations both onshore and on the outer continental shelf. Without appropriate incentives in some areas, some leases might never be explored or developed, or some production operations might become uneconomic, triggering plugging and abandonment without maximizing the extraction of the oil and gas resources. No incentives are proposed in this IAP/EIS.

Comment From: Jodi Peterson (Comment Letter No. 80005)

Since 1923, NPRA has been stipulated for development only in times of pressing national need. By any definition, that time is now. America could save 20 billion barrels of oil (ten times as much as the reserve is estimated to contain in economically recoverable oil) just by making a modest improvement in fuel-economy standards. **(Comment No. 80005-969)**

Response To: Comment 80005-969

See the responses to 253-20 (Birds).

6. TOPIC : PLANNING

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

The DEIS fails to balance short and long-term costs and benefits. BLM must consider potential uses of the public lands and disclose how resource uses result in losses of lands for wilderness, wildlife habitat, and watershed

protection. **(Comment No. 253-47)**

Response To: Comment 253-47

The assessments include short- and long-term effects on wilderness, wildlife habitat and watershed protection. The IAP/EIS discusses the relationship between the local short-term uses and maintenance and enhancement of long-term productivity (Section IV.H) as required by NEPA.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

The stated purpose of the DEIS is broad -- 'to determine the appropriate multiple-use management' of the Northwest Planning Area. The alternatives analyzed by BLM, however, do not fulfill such a broad mandate. Indeed, none of the alternatives in any way reflect comprehensive 'management.' Rather, each of the alternatives in which leasing is permitted simply identifies the areas that will be leased, the protections that may be put in place to minimize the harm caused by drilling, and potential designations for protected areas. Such provisions are insufficient to constitute 'multiple-use management.' Those activities might constitute facets of comprehensive management, but they are insufficient standing alone to represent a management scheme for the Planning Area. Further, the 'no-action alternative' requires absolutely no management. Instead, it requires that the agency take absolutely no action in the area except permitting seismic exploration. Accordingly, because none of the choices presented will allow it to achieve 'multiple- use management' of the Northwest NPR-A, BLM has failed to consider all reasonable or feasible alternatives. **(Comment No. 253-59)**

Response To: Comment 253-59

The BLM believes that each of the alternatives presented in the draft and the Preferred Alternative presented in Section 5 of this document do meet our mandate of providing management plans. The reader is invited to review the contents of table II-01 in this document for a summary of the management decisions that are being made in each of the alternatives. Note that we are making decisions on potential Wilderness Study Areas, Special Areas, Wild and Scenic Rivers, VRM designations, travel management, subsistence and authorized uses and lands available for oil and gas leasing. The BLM has also developed Required Operating Procedures that apply to all activities that may occur within the planning area; not just oil and gas. We think this breadth of coverage is reasonable in a multiple use management plan. There is no requirement that we consider "all feasible alternatives". Rather, we must consider a reasonable range of alternatives. We believe that the range of alternatives presented does this. Again, please see table II-02 for a summary of the alternatives that documents this conclusion.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

BLM has failed to provide for any area-wide planning despite stating that such management is its primary goal. The need for such comprehensive management has been highlighted by the recent study performed by the National Research Council. The NRC Report specifically calls for 'two kinds of comprehensive planning' in the North Arctic. It states the need for 'a comprehensive slope-wide land-use plan to guide industrial development and assist in planning for the eventual departure of industry from the region' and 'a coordinated and comprehensive research plan.' (NRC Report at 242.) BLM has the opportunity to begin this sort of comprehensive management in this EIS. Unfortunately, the agency instead has constructed alternatives that allow only for leasing and some protection from development, rather than management. **(Comment No. 253-61)**

Response To: Comment 253-61

The BLM can only plan for public lands under BLM management. Please see the response to comment 261-87 (Planning) for a discussion of what BLM is doing to achieve consistency between the plans for the NPR-A Planning Areas. Please see Section II.F.8 in the Final IAP/EIS for a description of how BLM and others will be addressing slope-wide research issues.

Comment From: U. S. Evironmental Protection Agency (Comment Letter No. 261)

While EPA recognizes the benefit of working with subunits for planning purposes, EPA recommends that there be consistency among all of the three Integrated Activity Plans to ensure the protection of valuable subsistence, environmental, fish and wildlife, historic and scenic values of the Reserve, as required by NPRPA as well as aiding lessees to comply with uniform standards where appropriate. To reach that goal, we recommend that DOI/BLM develop guidelines and criteria for the entire NPR-A which would be carried forward in all three planning areas. These guidelines and criteria would provide overarching direction for the NPR-A in (1) developing stipulations and operating procedures, management measures and practices, (2) establishing appropriately protective buffer areas, (3) prohibiting certain development activities in environmentally sensitive areas, (4) monitoring the effectiveness of stipulations through a Research and Monitoring Team, (5) conducting necessary research and studies, and (6) protecting important subsistence and cultural resources through a Subsistence Advisory Panel. The final IAP/EIS and Record of Decision should reflect the development and implementation of such guidelines. **(Comment No. 261-87)**

Response To: Comment 261-87

The BLM is working to ensure consistency of planning across NPR-A and will begin developing an amendment to the Northeast IAP/EIS during Fall 2003. One of the goals of that amendment will be to address and maintain consistency issues between the Northeast and Northwest NPR-A Planning Areas. The BLM intends to initiate a plan for the southern part of NPR-A in 2004 and will make that plan as consistent as possible with the previous plans. Over time, using the amendment process, we expect to continue to address issues of consistency as they arise.

Comment From: Audubon Alaska (Comment Letter No. 213)

A major concern within NPRA deals with incremental piece-meal development, which at some threshold level may have very significant impacts on fish, wildlife, recreational, and subsistence resources. Currently, there is no field-tested data to demonstrate that NPRA will not evolve into a far greater infrastructure of interconnected roads, pipelines, and drill pads which could have significant impacts on NPRA's wildlife, subsistence, and wilderness resources. **(Comment No. 213-356)**

Response To: Comment 213-356

See chapter IV, section F for an assessment of the cumulative effects of this proposal. The conclusions that are contained there and elsewhere in the chapter and those in the Northeast IAP/EIS are supported by the best currently available scientific information and do little to support your concerns. If, in the future, our assessments are incorrect, we can take management actions to address problems as they arise.

Comment From: Western Arctic Caribou Herd Working Group (Comment Letter No. 80004)

The Working Group has similar concerns about expansion of oil and gas infrastructure to the west where it

overlaps the WAH summer range. A major concern within NPR-A is incremental piecemeal development, which at some level may have significant impacts on caribou. There are no field-tested data to demonstrate that NPR-A will not evolve into a far greater infrastructure of interconnected roads, pipelines, and drill pads that could have significant impacts on NPR-A's caribou herds, both the WAH and TLH. **(Comment No. 80004-529)**

Response To: Comment 80004-529

Please see response to comment 261-87 (Planning) for a discussion of how we are trying to ensure the consistency of our plans within NPR-A.

Comment From: Public Meeting on DEIS - Washington, DC (Comment Letter No. 80082)

The BLM has not spent sufficient time or devoted sufficient resources to studying the values of the NPRA as well as the potential effects of drilling, nor has it allowed the public sufficient time to study the environmental impact statement. **(Comment No. 80082-540)**

Response To: Comment 80082-540

The BLM agrees that there is always more to be learned about the natural resources of the National Petroleum Reserve-Alaska and the North Slope. We also believe there is adequate data, collected over at least several decades, to make responsible management decisions. It is important to recognize that prior to the authorization of any potentially ground-disturbing activity, BLM reviews the proposal and conducts additional site-specific analysis. From this review and analysis, additional mitigation would be developed if needed. The availability of the Draft IAP/EIS was announced by BLM on January 15, 2003. The EPA's Notice of Availability was published in the Federal Register on January 17, 2003. In response to public requests, the close of the public review and comment period was extended from March 18, 2003, to April 2, 2003. This 75-day period is longer than the 45-day minimum required by NEPA regulation and should be sufficient for interested parties to review and comment on the draft EIS.

Comment From: Public Meeting on DEIS - Washington, DC (Comment Letter No. 80082)

It is the legal obligation of BLM to ensure that this planning process is as comprehensive and as inclusive as possible. **(Comment No. 80082-545)**

Response To: Comment 80082-545

We have taken your comments into consideration in developing the Preferred Alternative. Also please see comment response 261-87 (Planning).

Comment From: The Kuukpik Corporation (Comment Letter No. 254)

How leasing and development occurs in Northwest NPR-A is critical to Kuukpik, to KSOP, to us as individuals and to the Kuukpikmiut. We and our shareholders and members and our families use the eastern portions of the Northwest NPR-A Planning Area for subsistence. In addition, negative impacts on caribou near Wainwright or Point Lay impact us when those caribou, one of our chief food sources, migrate or should migrate into our traditional subsistence range. As Nuiqsut's population grows, the amount of subsistence resources needed by the

community increases. Similarly, to the extent that we have been, are being and will be squeezed out of portions of our traditional subsistence range by oil and gas development (first around Prudhoe Bay, then around Kuparuk, now around Alpine and fairly soon around the various Alpine satellites), our growing demand subsistence resources and the shrinking supply of such resources in our traditional range will force us to range further west into the Northwest NPR-A Planning Area than we have historically done. The state of the land and subsistence resources in the Northwest NPR-A is thus of critical importance to us. **(Comment No. 254-605)**

Response To: Comment 254-605

This information was considered in developing the Preferred Alternative.

Comment From: Tom Cade (Comment Letter No. 171)

If Interior considered as necessary the impressive amount of environmental analysis and planning that was carried out for the Northeast Planning Area, why not for the Northwest Area' Indeed, why has it not been done for the entire Petroleum Reserve, as many of us have urged for years' **(Comment No. 171-839)**

Response To: Comment 171-839

Please see the comment response to 261-87 (Planning) for a discussion of how we are trying to ensure the consistency of our plans within NPR-A.

Comment From: Tom Cade (Comment Letter No. 171)

I continue to be astounded by the fact that the Nation still has no comprehensive, overarching management strategy for the Petroleum Reserve and adjacent BLM-administered lands. The current DIA/EIS continues the shortsighted, piecemeal approach to management of the Reserve that started with the planning process for the Northeast Area of NPR-A. BLM and Interior need to start thinking holistically about the Reserve and to face up to the statutory responsibilities that make you the stewards for the people of all the resources of NPR-A'not just of the oil and mineral resources, which are of limited value and nonrenewable, but also of all the surface values and renewable resources, which have infinite value if properly cared for. **(Comment No. 171-840)**

Response To: Comment 171-840

Please see the comment response to 261-87 (Planning) for a discussion of how we are trying to ensure the consistency of our plans within NPR-A.

Comment From: Michael North (Comment Letter No. 80003)

Second, I would hope that the decision to expand oilfield production is not made in a political vaccuum, with the National Environmental Policy Act process just a hurdle to justify decisions already made. **(Comment No. 80003-847)**

Response To: Comment 80003-847

The National Environmental Policy Act requires that agencies involve the public in their decision-making processes so that decisions can't be made without consultation with the affected publics. The BLM has used the required scoping process and the public's opportunity to make comments on the draft to ensure that we get a broad array of comments from all of our affected publics. We have received valuable input from several federal agencies, the State of Alaska, the North Slope Borough, the communities of the North Slope, industry, environmental organizations and the general public.

Comment From: Michael North (Comment Letter No. 80003)

If the Arctic National Wildlife Refuge is opened up for development, does production in the National Petroleum Reserve - Alaska also need to be increased (to each of the possible scenarios)' And, 2) If production in the National Petroleum Reserve - Alaska is increased, does the Arctic National Wildlife Refuge need to be opened up for development. From a national energy perspective, these two areas of potential oil production cannot be considered separately. **(Comment No. 80003-849)**

Response To: Comment 80003-849

We can only plan for public lands that we control. See the responses to 213-202 (Special Designation Areas) and 213-217 (Special Designation Areas) for a discussion of what we are doing to achieve consistency between our plans.

Comment From: Public Meeting on DEIS - Fairbanks, Alaska (Comment Letter No. 80076)

And my criticism tonight is that the public is not being given the choice or the information needed to make this choice wisely. **(Comment No. 80076-899)**

Response To: Comment 80076-899

There is no requirement that the public make the choice of what to do with NPR-A. Please see the response to comment 80003-847 (Planning) for a description of how BLM seeks information about public concerns during the planning process. These concerns are considered when BLM develops the Preferred Alternative for how the area will be managed.

Comment From: Public Meeting on DEIS - Fairbanks, Alaska (Comment Letter No. 80076)

Also in the interest of full and meaningful participation by the American public, I encourage BLM to hold meetings around the nation and to take the time and expense to encourage input. **(Comment No. 80076-900)**

Response To: Comment 80076-900

The BLM held meetings seeking public comments in all affected North Slope villages, Anchorage, Fairbanks, and Washington DC.

Comment From: Public Meeting on DEIS - Fairbanks, Alaska (Comment Letter No. 80076)

It's not clear to me how surface values were assessed. I mean, when you're talking about wildlife values and wildlife habitats, that's one thing. But I don't think there was adequate -- adequately addressed the uses of the area primarily fish and wildlife related, and that includes subsistence use, primarily hunting from a wildlife standpoint but also commercial use such as guided hunting, trapping and eco-tourism and other forms of tourism. Sport and recreational hunting has been important, not just for non-Natives but for Natives as well, in addition to subsistence use of the area. So I think these areas haven't been addressed adequately. The potential as well as past use and current use. **(Comment No. 80076-901)**

Response To: Comment 80076-901

See Section III for detailed discussions of the resources of the area and Section IV for discussions of the affects of various management alternatives on the resources present in the area.

7. TOPIC : STIPULATIONS, REQUIRED OPERATING PROCEDURES, AND MITIGATIONS

Comment From: State of Alaska (Comment Letter No. 251)

In addition, the analyses of the potential mitigating effects of some of the proposed stipulations (e.g., B-1, E-1) need to clearly point out the varying degree of protection these measures will have based on the language used to craft the mitigation measure. Some of the stipulations for Alternatives A and B use terms such as 'may be required,' 'may authorize,' or 'up to' to denote the applicability of the measure. In these cases, the protection offered by these measures may therefore range from none or little to substantial. The analyses should identify the entire range of protection of the mitigation measure to allow the reader to more accurately assess the degree of impact of the activity to the resource. We have chosen not to comment on every single instance in the document where incomplete analysis of impacts occurs because the stipulations provide for varying degrees of resource protection. **(Comment No. 251-139)**

Response To: Comment 251-139

The stipulations referred to are found in Stipulation E-1 for Alternative B. Under that stipulation appears a list of geographic features and areas, resources that may be present and at risk from oil and gas activities, and an upper limit for setbacks that may be needed to protect the identified resources. An absolute setback was not established to allow greater flexibility to mitigate impacts when more site and project specific information became available. This approach recognizes that while we know certain resources are present and more concentrated in certain areas relative to elsewhere in the Planning Area, they are still relatively scattered. At any given location the resource may or may not be present. Furthermore, the nature of impacts differs with the facility and the associated activity. For example, the impacts from a road are not the same as from a pipeline and the impacts from a buried pipeline are not the same as from an aboveground pipeline. Therefore, lacking information necessary to develop appropriate mitigation, we attempted to provide the lessee with some idea of the range of restrictions that might be imposed on development, while building in some flexibility that would allow us to adapt our mitigation to the specific proposal through project-specific analysis. By this it should not be assumed that this flexibility and reliance on project-specific analysis would result in no (or inadequate) protection to a resource at risk. This erroneously assumes that BLM would abrogate its regulatory responsibility to take such action as deemed necessary to mitigate or avoid unnecessary surface damage and to minimize ecological disturbance throughout the NPR-A consistent with the requirements of the National Petroleum Production Act and the Federal Land Policy Management Act (43 CFR 2361.1). Please see the response to comment 253-38 (Management) for an explanation of the development of Stipulations and ROP's for the Preferred Alternative.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

The stipulations for mitigating impacts from oil and gas development are harmfully insufficient to protect surface resources and value. The DEIS fails to evaluate adequate mitigation measures and fails to provide scientific rationale for weakening stipulations from the Northeast NPR-A Record of Decision. The promulgation of the stipulations and required operating procedures were based on the premise that the stipulations must not adversely affect the viability of potentially commercial oil discoveries, thereby creating a blanket provision for modification that renders the stipulations virtually meaningless. **(Comment No. 253-28)**

Response To: Comment 253-28

Please see the responses to comments 261-52 (Stipulations, Required Operating Procedures and Mitigations), 261-31 (Criteria for Range of Alternatives), 249-524 (Stipulations, Required Operating Procedures and Mitigations), and 251-136 (Management).

Comment From: U. S. Evironmental Protection Agency (Comment Letter No. 261)

General Comments EPA is particularly concerned with the stipulations and Required Operating Procedures (ROPs) associated with Alternatives A and B because they appear to be less protective than practices that are currently used for protecting natural, biological, and subsistence resources on the North Slope. While we acknowledge the apparent desire to provide additional flexibility in defining needed resource protections with Alternatives A and B, the draft IAP/EIS does not demonstrate that the stipulations and ROPs for those alternatives would be sufficient to ensure that resources would be protected. In some instances, the stipulations and ROPs are written with very prescriptive requirements (such as those proposed for Alternative C) while others are written in very broad, flexible terms (such as those proposed for Alternatives A and B). It is particularly important to have well defined and effective stipulations and ROPs in areas where high natural resource areas coincide with areas of high oil and gas potential, such as the area surrounding Elson Lagoon, Dease Inlet, and Admiralty Bay. **(Comment No. 261-52)**

Response To: Comment 261-52

The BLM does not believe that the mitigations we have developed are "less protective" or noticeably weaker than those in the Northeast NPR-A Record of Decision. We do recognize that we have tried a different approach and that in doing so the "stipulation package" looks very different, and that the number of lease stipulations is reduced. However, we do not believe that this results in less protection to surface resources. There are several reasons stipulations were removed or modified in the Northwest NPR-A IAP/EIS relative to the Northeast NPR-A Plan. Some of the stipulations were eliminated because they addressed specific issues or resources not present in the Northwest NPR-A Planning Area. Others were eliminated because the requirement already exists in law or regulation making the stipulation redundant. Some were removed because they were the responsibility of another Federal Agency or the State of Alaska and thus not enforceable by BLM. Many became required operating procedures (ROP's) because they would apply to all permitted activities, not just activities on oil and gas leases or those proposed by a lessee. Lastly, some stipulations that originated in Northeast Plan were modified and combined in the Northwest IAP/EIS because they related to the same type of activity and shared a common objective. Please see the response to comment 251-139 (Stipulations, Required Operating Procedures and Mitigations).

Comment From: U. S. Evironmental Protection Agency (Comment Letter No. 261)

As presently written, we do not believe that Alternatives A and B provide well defined and protective stipulations or ROPs, particularly for areas with environmentally sensitive or high natural and subsistence resource values. We also note that the stipulations and ROPs for Alternative C, while affording greater protection than those for Alternatives A and B, represent less than one half of the stipulations that are presently being used to protect resources in the NE NPR-A planning area. The stipulations and ROPs represent the mitigation strategy to be applied to activities within the planning area and all alternatives should include measures that adequately protect environmental, biological, and subsistence resources with their implementation, as required by the implementing regulations for NEPA [see 40 CFR 1500.2(e) and (f)] and NPRPA. Consequently, we recommend that all action alternatives evaluated in the final IAP/EIS include stipulations and ROPs that provide adequate protection for important environmental and subsistence resources. In particular, the final IAP/EIS should include additional stipulations specific to protecting wetlands, fisheries resources, deep water lakes and water withdrawal areas, and gravel borrow source sites, which are mentioned in greater detail below. **(Comment No. 261-53)**

Response To: Comment 261-53

We have taken your comments into consideration in developing the Preferred Alternative; see General Lease Stipulations and Required Operating Procedures for the Preferred Alternative. Please also see the response to comment 261-52 (Stipulations, Required Operating Procedures and Mitigations).

Comment From: U. S. Evironmental Protection Agency (Comment Letter No. 261)

Should DOI/BLM choose to apply a different set of stipulations than those being used in NE NPR-A (as is presently proposed), the final IAP/EIS should provide a discussion of the reasons for the differences. This discussion should include an assessment of how the use of fewer and/or less protective stipulations and ROPs (relative to those used for NE NPR-A) would ensure that impacts to valuable natural resources would be avoided or minimized, as specified in the NEPA implementing regulations (see 40 CFR 1500.2) and protected as required by NPRPA. **(Comment No. 261-58)**

Response To: Comment 261-58

Please see the response to comment 261-52 (Stipulations, Required Operating Procedures and Mitigations).

Comment From: U. S. Evironmental Protection Agency (Comment Letter No. 261)

EPA is concerned that there is a significant difference between the stipulations attached to the Preferred Alternative for the Northeast planning area of NPR-A (NE NPR-A) and those proposed for the alternatives for the Northwest planning area and would like clarification on this issue. While both EISs state that the stipulations and ROPs 'are based on existing policies and laws and knowledge of the resources in the Planning Area and current industry practices,' the draft IAP/EIS does not provide information that reveals changes to policies, laws, knowledge of resources or industry practices that have taken place since the Record of Decision for NE NPR-A was issued. As a consequence, we are unable to determine why the proposed stipulations for Alternatives A, B, and C are different from those currently in-place for leasing and post- leasing activities in NE NPR-A. **(Comment No. 261-56)**

Response To: Comment 261-56

Please see the response to comment 261-52 (Stipulations, Required Operating Procedures and Mitigations).

Comment From: U. S. Evironmental Protection Agency (Comment Letter No. 261)

EPA believes that it is critically important that the final IAP/EIS validate the effectiveness of mitigation measures proposed as stipulations and ROPs. Since the stipulations and ROPs proposed in the draft IAP/EIS appear to be based on those currently being used in the NE NPR-A planning area, the final IAP/EIS should report on the implementation and effectiveness of those measures currently being used in NE NPR-A. We recommend that the final IAP/EIS include a discussion of the implementation (have the stipulations been implemented as required') and effectiveness of those measures in protecting natural resources (do they provide adequate/anticipated protections'). This information will disclose to the public and the decision maker understanding of and the likely outcomes associated with the use of stipulations that are based on those already in use. **(Comment No. 261-79)**

Response To: Comment 261-79

Effectiveness of the stipulations finalized by Northeast NPR-A Planning Area Record of Decision (ROD) has been addressed by the Research and Monitoring Team (RMT), which was established through the Northeast Planning process. The RMT has been superceded by the developing North Slope Science Strategy and the North Slope Management Oversight Group, groups who will assess mitgation effectiveness and follow up with appropriate plan maintenance or amendments. The Stipulations and ROP's in the Northwest NPR-A Planning Area IAP/EIS are intended to mitigate potential impacts to environmental resources in the Northwest Planning Area. Implementation of the measures would be achieved through the ROD. Measures adopted in the ROD are enforceable requirements.

Comment From: U. S. Evironmental Protection Agency (Comment Letter No. 261)

While Appendix 12 suggests that it contains an evaluation of the effectiveness of the proposed stipulations and ROPs, we were not able to determine the effectiveness of the stipulations and ROPs in either an absolute or relative sense. Appendix 12 does provide a good side-by-side comparison of which measures are expected to provide more (or less) resource protection. The appendix does not, however, present information that allows the public and decision maker to understand the likelihood of achieving the expected protections if the stipulations and ROPs were implemented. We believe that would be revealed with an assessment of the stipulations currently being used in the NE NPR-A planning area. **(Comment No. 261-80)**

Response To: Comment 261-80

Please see the response to comment 261-79 (Stipulations, Required Operating Procedures and Mitigations).

Comment From: U. S. Evironmental Protection Agency (Comment Letter No. 261)

We find the explanation of the differences between the proposed stipulations and ROPs to be confusing and difficult to understand. Consequently, we recommend that the draft IAP/EIS be revised to clarify the differences between stipulations and ROPs and explain why they need to be differentiated from each other. **(Comment No. 261-83)**

Response To: Comment 261-83

Appropriate text in the IAP/EIS has been revised. Please also see the response to comment 251-136 (Management).

Comment From: U. S. Evironmental Protection Agency (Comment Letter No. 261)

To assure consistency, EPA recommends that the final set of stipulations and ROPs presented in the final IAP/EIS and adopted in the Record of Decision consistently use the word 'shall' to clearly indicate that the elements of each stipulation must be met. The draft IAP/EIS uses 'shall' interchangeably throughout the stipulations and ROPs. **(Comment No. 261-84)**

Response To: Comment 261-84

We have used the word "shall" where appropriate.

Comment From: U. S. Evironmental Protection Agency (Comment Letter No. 261)

While numerous stipulations contain quantitative values (e.g., buffer widths/setback distances, water depths) or dates that directly affect how and when stipulations would be implemented, we were unable to locate the complete data set in the draft IAP/EIS that supports these values and dates or a discussion of the use and effectiveness of these measures in ensuring the protection of applicable resources. We recommend that the final IAP/EIS include this information. **(Comment No. 261-85)**

Response To: Comment 261-85

Many quantitative values (e.g., no permanent facility setbacks/distances and water depths) and periods of time identified in the stipulations were developed by the Teshekpuk Lake Area Caribou/Waterfowl Impacts Analysis Workshop held in Fairbanks, Alaska in 1997. Other values and dates, not related to geese and caribou, were derived from extensive consultation with technical fish, wildlife, water, lands, subsistence, and environmental protection experts during development of the draft IAP/EIS. Scientific literature used to develop values and dates are provided in the bibliography at the end of the IAP/EIS. Values and dates are based on the best available scientific information and expertise with the objective of protecting surface resources. In some instances, quantitative values and dates represent a consensus position derived from consultation with policy and technical experts. Authors have relied upon all sources of information available in evaluating impacts.

Comment From: U. S. Evironmental Protection Agency (Comment Letter No. 261)

Stipulation A-1 - 'Procedures applicable to fuel handling (associated with transportation vehicles) may consist of Best Management Practices if approved by the AO.' We recommend that the Best Management Practices applicable to this activity be included in the final IAP/EIS, consistent with the direction of the NEPA implementing regulations to include appropriate mitigation measures in the final IAP/EIS [see 40 CFR 1502.14(f)]. ROP-1 - 'A current list of approved precautions, specific to type of permitted used, can be obtained by the AO.' We recommend that these precautions be included in the final IAP/EIS, consistent with the direction of the NEPA implementing regulations to include appropriate mitigation measures in the final IAP/EIS [see 40 CFR 1502.14(f)]. ROP-4 - We recommend that the second sentence of element c. be revised to read as follows: 'The AO may permit alternate disposal methods if the lessee demonstrates that subsurface disposal is not feasible or prudent and that the alternate method will not result in adverse environmental effects.' Stipulation C-1 - We recommend that element b. be replaced with Stipulation 24 i. and j. from the Preferred Alternative for the NE NPR-A planning which will ensure consistent protection of the tundra from overland moves and seismic work.

ROP C-1 - We recommend that element f. for Alternatives A and B be replaced with element a. for Alternative C to ensure consistent protection of raptors and gyrfalcon from overland moves and seismic work. Stipulation E-1 - We recommend that Stipulation E-1 for Alternative C be applied to all alternatives, replacing Stipulation E-1 defined for Alternative B and applied to Alternative A (which does not presently have a stipulation defining setbacks from specified water bodies). This will ensure that high- value resource areas will be receive consistent protection throughout the planning area. This approach would also protect resources in a manner that is similar to the approach being taken the NE NPR-A planning area. Stipulation E-2 - We recommend that Stipulation E-2 for Alternative C be applied to all alternatives. As presently proposed, neither Alternative A or B have a stipulation or ROP defining required practices that will ensure that environmental effects from permanent roads are minimized. EPA believes that such a stipulation should be attached to any alternative to ensure that all reasonable means have been taken to avoid or minimize any adverse environmental effects, per the NEPA implementing regulations [40 CFR 1500.2(f)]. ROPs E-4 and E-5 - We recommend that these ROPs be replaced with Stipulations 34, 35, 36, and 37 used for the NE NPR-A planning area. The use of these stipulations will ensure consistent protection of caribou and subsistence users access using accepted industry practices. ROP E-7 - We recommend that this ROP (applicable to Alternatives A and B) be replaced with Stipulation 40 used for the NE NPR-A planning area to ensure that requirements for developing and reclaiming gravel mine sites are established. ROP-7 only addresses gravel mine reclamation. ROP F-1 - We recommend that ROP F-1 for Alternative C be applied to all alternatives to ensure that impacts from air traffic are reduced using standard, accepted practices to minimize effects to wildlife and birds. ROP I-1 - We recommend that this ROP be expanded to ensure that the orientation program includes notification of personnel of the stipulations and ROPs applicable to lease and post- lease activities, an explanation of why they exist and what they are intended to achieve, and the employees obligations to conduct activities in accordance with the stipulations and ROPs. Stipulation J-1 - We recommend that Stipulation J-1 for Alternative C be applied to all alternatives to ensure that impacts from air traffic are reduced using standard, accepted practices to minimize effects to raptors within the Colville River Special Area. Stipulation J-2 - We recommend that Stipulation J-2 for Alternative C be applied to all alternatives. As presently proposed, neither Alternative A or B have a stipulation or ROP defining required practices that will ensure that impacts to grizzly bear dens will be minimized. EPA believes that such a stipulation should be attached to any alternative to ensure that all means have been taken to avoid or minimize any adverse environmental effects, per the NEPA implementing regulations [40 CFR 1500.2(f)]. **(Comment No. 261-86)**

Response To: Comment 261-86

We have taken your comments into consideration in developing the Preferred Alternative. Please also see the response to comment 251-325 (Stipulations, Required Operating Procedures and Mitigations).

Comment From: U. S. Evironmental Protection Agency (Comment Letter No. 261)

We do not believe that the currently proposed stipulations and ROPs are likely to provide adequate protection of valuable subsistence resources and subsistence hunting activities. EPA recommends that the final IAP/EIS evaluate an alternative that includes mitigation measures (stipulations and ROPs) that protect subsistence resources and subsistence hunting activities, while allowing for the lease sales in areas of high oil and gas potential in the planning area. **(Comment No. 261-109)**

Response To: Comment 261-109

We have taken your comments into consideration in developing the Preferred Alternative; specifically see Section H "Subsistence Consultation for Permitted Activities" K-1 and K-3 of the General Lease Stipulations and Required Operating Procedures in the Preferred Alternative.

Comment From: U. S. Evironmental Protection Agency (Comment Letter No. 261)

In the draft IAP/EIS, the cumulative effects analysis of noise and other disturbances indicates that avoidance behavior due to the estimated number of helicopter and vessel round trips per month alone would impact marine and terrestrial animals (valuable subsistence resources) the majority of each day and affect subsistence harvesting activities of the Inupiats. The final IAP/EIS should include stipulations and/or ROPs that restrict noise and traffic disturbances (e.g., seismic activity, vessel and helicopter use, etc.) for facilities developed near or on the ocean shore during the spring and fall whale migrations. We recommend the development of such stipulations/ROPs in consultation with the subsistence whalers. **(Comment No. 261-115)**

Response To: Comment 261-115

We have taken your comments into consideration in developing the Preferred Alternative. See specifically Section H "Subsistence Consultation for Permitted Activities" and K-3, 6, and 8 of the General Lease Stipulations and Required Operating Procedures in the Preferred Alternative.

Comment From: State of Alaska (Comment Letter No. 251)

The format of the alternatives presented in the Draft IAP/EIS, with both increasingly restrictive land classifications and increasingly restrictive stipulations and ROP's makes it difficult to comment on the appropriateness of the alternatives, and to recommend a preferred alternative from the choices provided. Specifically, the most restrictive stipulations and required operating procedures generally have been attached to Alternative C, with less restrictive conditions attached to the other alternatives. This situation makes it difficult to accurately assess the impacts to resources of each alternative given differing levels of impact mitigation associated with each alternative. A better approach would be to have levels of impact mitigation equal for all alternatives so that the true effects of a development scenario to the resources can be assessed. We recommend each stipulation or required operating procedure be developed and applied to all of the proposed alternatives. **(Comment No. 251-138)**

Response To: Comment 251-138

Appendix 12 of the Draft IAP/EIS addresses the effectiveness of the most restrictive stipulations and ROP's, from Alternative C, in the context of the least restrictive oil and gas leasing decisions (and more likely development) of Alternatives A and B. In addition, the effectiveness of the Stipulations and ROP's is evaluated under each resource analysis for each alternative.

Comment From: State of Alaska (Comment Letter No. 251)

The stipulations, currently designed for oil and gas development activities, should be expanded to address potential community roads from Barrow to Atqasuk and Wainwright that could serve a mainline/trunk road function for both exploration and production operations, including connection to a pipeline route for products east through the Northeast (NE) NPR-A to production facilities. Stipulations must be sufficiently flexible to accommodate the linear nature of these facilities. The State recommends that a stipulation specific to community roads be added that allows such roads if they are designed, constructed, and operated to minimize impacts to surface resources. **(Comment No. 251-143)**

Response To: Comment 251-143

The construction of a community road across NPR-A would require a Right-of-Way (ROW) grant from the BLM.

Prior to issuance of a ROW, an environmental analysis in accordance with the National Environmental Policy Act would be required. Appropriate stipulations would be developed at that time. The ROP's developed as part of this IAP/EIS would be considered in the proposal.

Comment From: State of Alaska (Comment Letter No. 251)

Section II, Stipulations and Required Operating Procedures, Definitions, Page II-16. The definition of 'Body of Water or Waterbody' states 'a lake, river, stream, creek, or pond that holds water throughout the summer and supports a minimum of aquatic life.' This definition should be expanded to include ephemeral streams that may only contain water for part of the summer season. These streams are very important rearing and spawning habitat for some species of fish such as Arctic grayling. **(Comment No. 251-149)**

Response To: Comment 251-149

The text has been amended to read "for much of the summer." Most ephemeral streams on the North Slope do not dry up when they cease to flow after breakup, but usually contain isolated pools (often called beaded streams) that would still be protected.

Comment From: State of Alaska (Comment Letter No. 251)

Section IV, Alternative A, Environmental Justice, Effectiveness of Stipulations and Required Operating Procedures, Page IV-225. This section notes Stipulation E-1 will assist in protecting subsistence resources by way of facility setbacks. However, Stipulation E-1 does not apply to Alternative A. **(Comment No. 251-172)**

Response To: Comment 251-172

The text has been changed to eliminate the discussion of Stipulation E-1.

Comment From: Audubon Alaska (Comment Letter No. 213)

The northeastern portion of the proposed Dease Inlet-Meade River Special Area should be given additional protection in a no- lease zone to conserve its high-density waterbird nesting habitat, caribou insect-relief habitat, and polar bear denning habitat (Fig. 2). The marine waters of both Dease Inlet and Elson Lagoon should be designated as no-surface activity zones within the special area to protect these important and sensitive habitats. Elsewhere in the special area, we recommend special stipulations to protect habitats for threatened spectacled eiders and yellow-billed loons. **(Comment No. 213-214)**

Response To: Comment 213-214

We have taken your comments into consideration in developing the Preferred Alternative. Please also see the response to comment 213-232 (Alternatives General).

Comment From: Audubon Alaska (Comment Letter No. 213)

Additional Waterbird Stipulations : Two high-density waterbird nesting areas occur south of the recommended Dease Inlet-Meade River Special Area (Fig. 1). One area, south of Atqasuk, is an important spectacled eider nesting area. The other area, west of Ikpikpuk River, is an important yellow-billed loon nesting area. Both of these areas are identified in Figure 2 and should receive special stipulations to prevent impacts to waterbird nesting habitat. We recommend that specific stipulations for waterbird nesting areas be developed in consultation with appropriate experts at the U.S. Fish and Wildlife Service. **(Comment No. 213-227)**

Response To: Comment 213-227

We have taken your comments into consideration in developing the Preferred Alternative. Please also see the response to comment 213-232 (Alternatives General). Nesting area densities of spectacled eiders south of Atqasuk and yellow-billed loons west of the Ikpikpuk River noted by Audubon range from medium to medium-high, rather than high, on maps generated from aerial survey data by the USFWS. As indicated in the response to Comment 213-225 (Special Designation Areas), several stipulations and ROP's in the IAP/EIS (most notably E-11) would provide protection for these nesting species. The necessity for additional protection would depend in part upon the types of activities that would occur in this area; additional specific stipulations for waterbird nesting areas, as suggested by Audubon, are one approach. This will be considered at subsequent approval stages if necessary.

Comment From: Audubon Alaska (Comment Letter No. 213)

Kasegaluk Lagoon is an important staging and feeding area for as many as 63,000 brant. Habitat change, disturbance, development, and potential for oil and other toxic spills in these areas must be avoided. **(Comment No. 213-234)**

Response To: Comment 213-234

We have taken your comments into consideration in developing the Preferred Alternative.

Comment From: Audubon Alaska (Comment Letter No. 213)

Construction of permanent facilities, including roads and pipelines, should be prohibited within 5,000 ft (1,500 m) of nesting cliffs. Aircraft should avoid low- level flights within 1,000 ft (305 m) from cliffs, and camping or prolonged human presence near nesting sites should be prohibited or tightly managed to avoid impacts. **(Comment No. 213-239)**

Response To: Comment 213-239

If significant oil and gas resources were to be found within certain river corridors, Stipulation K-1 would require that additional design features or mitigation measures be observed, including setbacks of up to ½ mile (most rivers) or 1 mile (Ikpikpuk and Colville rivers). Required Operating Procedure F-1, requiring that aircraft operations minimize impacts on birds--or even more conservatively (Alternative C), that aircraft maintain 1,500 ft AGL within ½ mile of identified raptor nesting sites--could decrease disturbance of raptors. ROP I-1, requiring oilfield personnel to attend an orientation program could increase awareness concerning what types of activities are likely to have adverse impacts on wildlife, including raptors.

Comment From: Audubon Alaska (Comment Letter No. 213)

It also does not address the potential of rolling back habitat protection for calving grounds within the Northeast Plan. **(Comment No. 213-304)**

Response To: Comment 213-304

Future changes to habitat protections around Teshekpuk Lake are not discussed in the cumulative impact analysis because such changes are speculative at this time and beyond the scope of this document. Any proposed changes would be addressed in a separate NEPA document and any decisions on changes would be made subsequent to that NEPA process.

Comment From: State of Alaska (Comment Letter No. 251)

The following are stipulations and required operating procedures that the State believes: 1) need to be modified to adequately protect land, water, fish, wildlife, subsistence, and cultural resources; 2) require modifications to maintain protection of resources without unnecessarily restricting development activities; or 3) make the proposed stipulations consistent with best management practices and policies developed and implemented by technical staff from industry and the State's resource agencies over many years of oil and gas development on state land. Stipulation A: Waste Prevention, Handling and Disposal and Spills Stipulation A-2, Page II-17. This stipulation discusses fuel storage requirements within the planning area. For Alternatives A and B, setbacks are 100 ft. from non fish-bearing water bodies and 500 ft. from fish-bearing water bodies. For Alternative C, the setback is 500 ft. from all waterbodies. We recommend the stipulation language used in Alternatives A and B, with 100 ft. setbacks from non fish-bearing waterbodies and 500 ft.from fish-bearing waterbodies, be used for all alternatives. Stipulation A-3, Page II-18. This stipulation prohibits refueling of equipment within 500 ft. of any fish-bearing waterbody and 100 ft. from a non fish-bearing waterbody for Alternatives A and B. Under Alternative C, the distance is 500 ft. from any waterbody. We recommend the stipulation language used in Alternatives A and B, with 100 ft. setbacks from non fish-bearing waterbodies and 500 ft. from fish-bearing waterbodies, be used for all alternatives. Required Operating Procedures A-1 through A-8, Pages II-18 and II-19. These mitigation measures pertaining to waste prevention, handling, disposal, and spills all should be changed to stipulations to the lease as they pertain to major issues that lessees need to be concerned with prior to submitting bids for leases. Required Operating Procedure A-3. Page II-18. Annular injection or disposal (AD) is specifically mentioned. AD is one of two underground waste disposal methods available State of Alaska NW NPR-A Comments from the Alaska Oil and Gas Conservation Commission (AOGCC). AD has regulatory limits including limited volume (35,000 bbls) and limited duration (90 days in a calendar year) than deeper Class II disposal. Depending on the local geology, AD may be the only option for large volumes of waste as is the case at Alpine. Required Operating Procedure A-4. Page II-18. It is highly unlikely that terrestrial discharge of produced water would be allowed. Produced water may be used for enhanced recovery operations or disposed of in a Class I or Class II well. Produced water may not be disposed of by AD. Stipulation B: Ice Roads and Water Use Stipulation B-1, Page II-20. This stipulation discusses winter water withdrawal within the planning area. For Alternatives A and B, the stipulation states the AO may authorize winter water withdrawal from lakes, creeks, or rivers. This provision needs to be modified to reflect the Alaska Department of Natural Resources' (ADNR) exclusive regulatory authority to approve water withdrawls from surface and subsurface waterbodies in Alaska, including waterbodies in the NPR-A. This authority is based on the common law doctrine of Public Trust which is embedded in the Alaska Constitution, Article VIII Section 3, entitled Common Use. The doctrine provides that fish, wildlife and waters within the State must be managed by the state as a public trust for the benefit of the people as a whole. Alaska Statute (A.S.) 46.15 specifically delegates the authority to adjudicate water rights and temporary authorizations for the use of surface and subsurface waters to the ADNR. In addition, the State has not authorized winter water withdrawal from rivers on the North Slope for approximately 25 years, and without new information we have no intention of changing this policy. As written, we believe this variant fails to adequately protect fish resources in North Slope waters. Therefore, we recommend that this component of Stipulation B-1 for alternatives A and B be deleted. Reference to winter water withdrawal from rivers also should be removed from other appropriate sections of the document. The Stipulation B-1 developed for Alternative C which prohibits winter water withdrawal from rivers and streams should be adopted for all proposed alternatives. In addition, the

stipulation should be modified to state that 1) water withdrawal should be limited in fishbearing lakes to 15% of the under- ice volume for those lakes with depths below 7 ft. and 2) for those lakes with depths between 5 and 7 ft. deep that contain only ninespine stickleback and Alaska blackfish (species capable of tolerating waters with low dissolved oxygen concentrations) water withdrawal of up to 30% of the under-ice volume may be authorized. Present water withdrawal limitations in the NE NPR-A are 15% for sensitive species, and on state land, 30% of the under ice water volume for resistant species. With completion of further fish studies, the numbers may warrant further adjustments by permitting agencies under the exception provision. These proposed changes in the water withdrawal limitation will provide agencies an opportunity to adjust the number based on future acquisition of more complete or detailed information. Stipulation B-1 also implies that a water monitoring plan will be conducted on a year-to-year basis for any and all lakes accessed. If this were the case, it would represent a significant cost and logistical quagmire to the industry. For major operations, lakes utilized in one project could number in the fifties or greater. Use of the suggested wording below would allow sufficient studies to be undertaken that monitor drawdown and water changes before, during and after pumping on a representative number of lakes authorized and from an equal number of control lakes, which would not be utilized. Furthermore, it would not be prudent or necessary to impose a monitoring plan on an operator who is requesting a one-time two-week authorization of a modest water withdrawal from one lake. The portion of Stipulation B-1 related to removal of ice aggregate should be modified to allow U.S. Fish and Wildlife Service (USFWS), ADFG and ADNR to review the request for use of ice chips on a waterbody-specific basis, depending on is size, water volume, depth, fish population and species diversification. Scenarios could range from no ice chip harvesting, to restricting the amount of ice taken (e.g., 15 % of the under-ice water volume), to no limitation. Ice aggregate from fish-bearing lakes may be allowed where the ice is naturally grounded, with the condition that the amount removed be included in the 15% withdrawal limit. The Stipulation should also provide for fle xibility to allow ice aggregate removal from rivers where the ice has naturally grounded. These modifications will provide flexibility to the NW NPR-A water withdrawal stipulation and ensure that impacts on fish resources are minimized. In summary, Stipulation B-1 for all alternatives should be modified to read: Water withdrawal from rivers and streams during winter is prohibited unless and until new information is brought forward indicating that additional review is warranted. Water withdrawal from fish-bearing lakes is limited to 1) 15% of the under-ice volume for those lakes with depths below 7 ft. and 2) water withdrawal up to 30% of the under- ice volume for those lakes with depths between 5 and 7 ft. deep that contain only ninespine stickleback and Alaska blackfish. After consultation with the appropriate federal, state, and North Slope Borough (NSB) regulatory and resource agencies, ADNR may authorize withdrawals from any lake if the proponent demonstrates that no fish exist in the lake. A water monitoring plan may be required to assess drawdown and water quality changes before, during and after pumping any fish-bearing lakes. Removal of ice aggregate from lakes and shallow rivers may be allowed on a waterbody-specific basis, depending on its size, water volume, depth,fish population and species diversification, and where the ice is naturally grounded, after consultation and approval from appropriate agencies (USFWS, ADFG and ADNR). Any water intake structures in fish-bearing waters shall be designed, operated, and maintained to prevent fish entrapment, entrainment, or injury, unless specifically exempted by the ADFG. Stipulation B-2, Page II-20. This stipulation regarding prohibition of compaction of snow cover or snow removal from ice over fish-bearing waterbodies except at approved ice road crossings and lake water pumping stations should be applied to all alternatives and not just Alternative C. Stipulation C: Overland Moves and Seismic Work ADNR has been responsible for tundra travel permitting and enforcement on state land on the North Slope since the first oil wells were drilled in 1969 **(Comment No. 251-325)**

Response To: Comment 251-325

The State of Alaska, the Alaska Oil and Gas Association, ConocoPhillips Alaska, Inc., the North Slope Borough, the Environmental Protection Agency, the Alaska Center for the Environment et al., the American Society of Mammalogists, and the U.S. Fish and Wildlife Service all made extensive comments specific to individual Stipulations and ROP's. These comments were compiled in a report by the core planning team to facilitate a review of each Stipulation and ROP. Other more general comments on stipulations and ROP's from these and other entities, such as those submitted by Kuukpik, were compiled in another report or widely distributed to the team for consideration. Concurrently, management was considering public comment related more generally to management philosophies and new alternatives. As a result of those management meetings, basic direction related to the Preferred Alternative was set forth (please also see the response to 213-232 (Alternatives General). In light of this direction and comments specific to the Stipulations and ROP's, BLM modified and selected a Stipulation/ROP "package". The Stipulation/ROP "package" was further discussed with representatives of the

North Slope Borough and the State of Alaska. Based on those meetings, BLM sought additional information from the State of Alaska, North Slope Borough, and USFWS, and developed the Stipulations and ROP's that are now part of the Preferred Alternative.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

The NRPRA requires that oil and gas leasing activities in the Reserve 'shall include or provide for such conditions, restrictions, and prohibitions as the Secretary deems necessary or appropriate to mitigate reasonably foreseeable and significantly adverse effects on the surface resources.' 42 U.S.C § 6508(1); see also 43 U.S.C. §§ 1701, 1702, 1732. As in the NEPA documents it prepared for the Northeast Planning Area, BLM attempts to comply with that requirement in large part by creating a series of conditions and restrictions that should, or might, be included on leases that are issued for oil and gas exploration. In comments submitted with regard to the Northeast NPR-A DEIS, however, we outlined significant shortcomings of the lease stipulations proposed to protect surface resources in that planning area. (See Northeast FEIS, at V-342-44.) BLM has not remedied many of those deficiencies in the Northeast, and we reiterate those comments here in reference to both the Northeast and Northwest Planning Areas. Moreover, instead of striving to protect resources adequately in the Northwest Planning Area, BLM has proposed significantly weaker and even more discretionary stipulations and Required Operating Procedures (ROPs) in this DEIS. Those protections are sufficiently weak and discretionary as to constitute a complete abdication of BLM's responsibility under the NPRPA and a complete failure to provide protection for environmental and socio-cultural resources. Rather than weakening the already deficient protections used in the Northeast Planning Area, BLM should have provided for additional protections in the Northwest. Moreover, at the very least, BLM should have provided some rationale for its choice to weaken the already deficient stipulations used in the Northeast Planning Area, and addressed the potential impacts of the weakened protections. BLM's failure to do so renders the public and the agency incapable of making an informed decision about the sufficiency of the protections. Primarily, we are concerned that the stipulations and ROPs provided in the DEIS for mitigating impacts from oil and gas exploration and development are harmfully insufficient to protect surface resources in the Northwest Planning Area. The DEIS removes entirely a significant number of lease stipulations put in place in the Northeast, dramatically weakens others, and changes still other mandatory protections into discretionary ROPs. The specific stipulations that are removed, weakened, or changed into discretionary ROPs are listed in the following section. The decision to remove or weaken those protections violates BLM's duty under the NPRPA and FLPMA to protect the surface resources in the NPR-A. 62 The decision to turn restrictions that were stipulations in the Northeast ROD into what the agency has misleadingly termed Required Operating Procedures in this DEIS warrants further comment. Stipulations, under both this DEIS and the Northeast ROD are included as conditions on leases and subsequent activities. By contrast, ROPs are intended to ensure additional mitigation and may be included as stipulations or added as conditions on subsequent permits for oil and gas activities. (DEIS at II-9.) Failing to include these requirements as lease stipulations will mean that their application will be left to the discretion of the local agency official and, therefore, may be subject to far more political pressure. Moreover, it is not clear that these ROPs will be included at all. The potential requirements that applicants would be required to address in their applications how they would implement the ROPs or [w]here applicable, applicants would be required to submit mitigation plans expla ining how they would comply with a particular ROP are meaningless because no standards are provided whereby those applications would be judged, and the DEIS does not explain how those plans would be reviewed. Those changes are dramatic, and we believe that the protections should be required as lease stipulations by default, subject to alteration in some cases, if certain criteria are met. Further, BLM has provided these dramatically weakened protections without adequate explanation for the level of protection selected or an appropriate analysis of the potential ramifications. Indeed, no specific scientific or economic basis was provided for the selection of mitigation measures provided as lease stipulations or ROPs in this DEIS or for the difference stipulation and ROPs provided for each alternative. First, BLM has not provided any justification for its decision to deviate from the protections required in the Northeast ROD. At a minimum, BLM should explain the weakened standards by comparing them to the entire suite of stipulations that were attached to leases by the Northeast ROD (tailored as necessary to the geographic features and sensitive habitats in the NW Area). To do so, BLM should review the effectiveness of the stipulations from the Northeast ROD before determining which, if any, requirements should be changed. The review should include a report of the frequency and associated reasons for modifying and waiving stipulations in the Northeast Planning Area. Moreover, the DEIS should contain scientific evidence that the stipulations will be adequate in mitigating impacts to an acceptable level. Similar stipulations on industrial development within oil fields have had a checkered history in preventing

habitat loss and degradation elsewhere across the North Slope. Additionally, some rationale should be provided for downgrading some protections from stipulations to ROP's. BLM has not justified the decision to weaken the protections based on any economic evidence. At most, the DEIS provides a vague description of the costs of implementation in the section on overall assumptions (DEIS at IV-31-32). The DEIS simply assumes that 'lessees would incur some costs (delays, project modifications, additional studies, lower oil/gas recovery) to implement the protective and restrictive measures.' For Alternative A, it states that 'a qualitative analysis of the costs of implementing the protective measures indicates that development of up to 30 percent of potential future production could be precluded as a result of requiring these protective measures,' (DEIS at IV-32), yet no source document was provided for this assertion, nor were the reasons why there 63 would be additional costs. A similar lack of documentation was given for Alternative B. Instead it is assumed that 'all of the protection measures, regulatory restrictions, and area closures would reduce the exploration opportunities and decrease the likelihood that commercial production would occur.' (DEIS at IV-31.) That assumption is both unsupported and unwarranted. For Alternative C, the DEIS simply asserts that 'protective and restrictive measures for the areas that would remain open for leasing are likely to have adverse effects on oil and gas exploration and development activities,' (DEIS at IV-32), but no reason is given as to why the measures would cost more. Further, by assuming that no development would occur under Alternative C, even though 47% of the area is leased, it may dramatically understate the effects on wildlife habitats and subsistence in particular locations in the event that oil development did take place there. If there are studies showing the costs of various measures, they should be provided. Regardless, in determining the costs of the particular protections, the DEIS should consider both the assumptions used to determine the amount of economically recoverable oil and the assessment of potential locations and quantities of technically recoverable oil, as well as the locations of sensitive resources and the specific measures to be applied. Such overlays and analyses have not been done for this DEIS. Here, the BLM simply states that it is too expensive to include requirements for a wide range of measures that are listed in Alternative C, in direct contradiction to the Secretary of the Interior's statements to the U.S. House Resources Committee on February 11, 2003, about the use of ice roads, directional drilling, etc. Further, the DEIS does not address adequately the impacts of the weakened protections. The stipulations and ROPs will provide on-the-ground protections for surface resources over the entire Northwest Planning Area. BLM, therefore, must conduct a site-specific analysis in order to predict **(Comment No. 253-350)**

Response To: Comment 253-350

Please see the responses to comments 251-136 (Management), 249-524 (Stipulations, Required Operating Procedures and Mitigations), and 261-52 (Stipulations, Required Operating Procedures and Mitigations).

Comment From: Audubon Alaska (Comment Letter No. 213)

Until definitive effects can be documented, denning sites should be avoided in future exploration activities. **(Comment No. 213-352)**

Response To: Comment 213-352

We have taken your comments into consideration in developing the Preferred Alternative (PA). Please see Required Operating Procedure C-1 of the PA which specifically sets limits around grizzly bear dens. Also see the responses to comments 213-232 (Alternatives General) and 251-325 (Stipulations, Required Operating Procedures and Mitigations). Other than subsistence whale-harvest sites such as in the Point Barrow area, the locations where marine mammal carcasses occur and are scavenged vary greatly from season to season and from year to year. It is not practical to protect these constantly changing locations. If a particular location of a carcass were to be in the path of an oil spill, the carcass could be removed to prevent exposure of scavengers to the spill. The potential effects of seismic noise on denning polar bears have been investigated (Amstrup, 1993). Methodologies are being developed to remotely locate occupied dens and avoid disturbance of the bears. Seismic operations would be prohibited within one mile of known (occupied) polar bear dens.

Comment From: Audubon Alaska (Comment Letter No. 213)

Activities should not occur during June-July when belugas are present. **(Comment No. 213-353)**

Response To: Comment 213-353

We have taken your comments into consideration in developing the Preferred Alternative (PA). Please see specifically Stipulation K-8, Kasegaluk Lagoon Special Area, in the PA. Also, see the responses to comments 213-232 (Alternatives General) and 251-325 (Stipulations, Required Operating Procedures and Mitigations).

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

Northwest Stipulation C-1. a. Ground operations are to begin only after frost and snow cover have reached sufficient depths to meet the tundra protection objectives of minimizing compaction of soils and the breakage, abrasion, compaction, or displacement of vegetation. Ground operations shall cease when the spring melt of snow begins, approximately May 5 in the foothills area where elevations exceed 300 ft and approximately May 15 in the northern coastal areas. The exact dates will be determined by the AO. The Northwest DEIS stipulation is far weaker than Northeast stipulation 24i. It deletes the required frost depth of 12' and minimum snow depth of 6'. The DEIS provides no scientific basis for eliminating a long-term practice regarding frost minimums, and does not provide a standard for what would be acceptable level of disturbance to vegetation or soils (BLM does not require avoidance of damage). Studies of snow depth during seismic operations in the Arctic National Wildlife Refuge showed that 'measurable, low level disturbance occurs at depths of as much as 18 inches in tussock tundra, and 28 in. in sedge-shrub tundra (Felix and Reynolds 1989b). Moderate disturbance occurs at snow depths to 10 in. in tussock tundra and 14 in. in most sedge-shrub tundra' (NRC 2003 p. 134). If anything deeper minimum snow depths sho uld be considered, and the different topographic relief and geographic features taken into account. The NRC found that ice roads, pads and vehicle trails from seismic and overland moves change the structure of the snow-pack, and can disturb the vegetation and soils in areas where the snow-pack is thin. **(Comment No. 253-368)**

Response To: Comment 253-368

Please see the response to comment 251-325 (Stipulations, Required Operating Procedures and Mitigations).

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

Why are there not mandatory lease stipulations for caribou mitigation' In some cases, the 5 foot elevation of the Northeast Plan stipulation #37, is not thought to be sufficient by local people. **(Comment No. 253-369)**

Response To: Comment 253-369

Please see the response to comment 251-325 (Stipulations, Required Operating Procedures and Mitigations).

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

This ROP is very vague and fails to set concrete performance standards that would protect fish habitat. Given the very controversial nature of causeways, it is recommended that stipulations remain in place in order to adequately protect fish habitat. According to the National Research Council, better information is still needed regarding causeway impacts. Oil development could harm grayling, arctic cisco, broad whitefish, and other species due to interference with migration patterns or over-wintering habitat caused by causeways, water withdrawals, and other effects (p.211). **(Comment No. 253-370)**

Response To: Comment 253-370

Please see the response to comment 251-325 (Stipulations, Required Operating Procedures and Mitigations).

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

The new ROP fails to address potential impacts to floodplain or riverine habitats from gravel mines. Both the Northeast stipulation and the Northwest ROP fail to address potential impacts to migratory bird habitats that may be lost due to excavation of gravel mines. **(Comment No. 253-371)**

Response To: Comment 253-371

Please see the response to comment 251-325 (Stipulations, Required Operating Procedures and Mitigations).

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

Northwest ROP F-1. All aircraft use shall be conducted in a manner that will minimize impacts to wildlife and birds. This extremely vague ROP replaces the specific stips. 52, 53, 54, and 57 but does not explain how helicopter and plane flights will avoid disturbing wildlife such as nesting Steller's eiders, nesting Spectacled eiders, and other key sensitive areas. **(Comment No. 253-372)**

Response To: Comment 253-372

Please see the response to comment 251-325 (Stipulations, Required Operating Procedures and Mitigations).

Comment From: State of Alaska (Comment Letter No. 251)

Section IV, Page IV-512, Scenario for a Possible Permanent Road Connecting Northwest NPR-A to Outside of the Planning Area. The State recommends that this section be revised to incorporate: 1) the development of community roads between Barrow- Atqasuk-Wainwright that may also be used for oilfield development mainline of trunk road functions. This potential is well within the stated 15 to 20-year period used for modeling in the Draft IAP/EIS. 2) economic modeling for road access connecting to transportation systems outside the NPR-A consistent with possible public funding for a mainline or truck road development into NPR-A. As noted earlier, the economic model used in the Draft IAP/EIS that assumes roads are unlikely in the planning area because they are uneconomic to the private sector is flawed and should be reevaluated given that the State may choose to finance roads in whole or part. **(Comment No. 251-407)**

Response To: Comment 251-407

Inter-community roads within the Northwest NPR-A Planning Area are mentioned in the cumulative scenario and are considered speculative at this time. The BLM acknowledges that such studies for such roads are in progress with State DOT oversight. The final route selection, material requirements, and environmental impacts will undergo thorough NEPA review before ROW permits are approved. The section referred to in the comment is on the "Scenario for a Possible Permanent Road Connecting Northwest NPR-A to Outside of the Planning Area." The Barrow-Atqasuk-Wainwright road would be wholly within the Planning Area. The economic modeling for this IAP/EIS addressed activities under consideration in the Alternatives and the past, present, and reasonably foreseeable cumulative activities. As stated above, inter-community roads within the Northwest NPR-A Planning Area are considered speculative at this time.

Comment From: State of Alaska (Comment Letter No. 251)

Appendix 13, Page 13-1 through 5, Standardized Stipulations Applied to Mitigate the Impacts of Non-oil and Gas Authorizations. This section should be reviewed to ensure that the stipulations adequately address and do not preclude potential road/transmission line projects. D. Alaska Department of Natural Resources Section II.C, Alternatives, Page II-9. Recent exploration successes, combined with the results of a recent evaluation of the petroleum potential of the NPR-A by the U.S. Geological Survey, indicate that the Barrow arch, Arctic Platform, and foothills belt offer the greatest potential for economically significant hydrocarbon accumulations. The greatest potential for large fields with recoverable oil reserves in excess of 100 million barrels lie in Jurassic and Lower Cretaceous age sandstones deposited on the Barrow arch, a south-southeast-trending subsurface ridge. Oil in these potential reservoirs will most likely be high quality crude with low sulfur content and high gravity (28o to 39o API). Shallower secondary reservoir objectives in younger Cretaceous age sandstones on the Barrow arch represent significant additional potential and will serve to reduce exploration risks when drilling to older (and deeper) targets. The Arctic platform and foothills belt are less prospective relative to the Barrow arch, but still possess significant potential for economically viable oil and gas fields. Alternative A will allow the greatest access to the Barrow arch and Arctic platform, and permit the most efficient exploration for these plays. Alternative B removes significant areas on the Barrow arch from oil and gas activities, but retains enough acreage to be practical from an exploration perspective. Alternative C effectively removes the most prospective areas from potential oil and gas activity **(Comment No. 251-410)**

Response To: Comment 251-410

The project-specific mitigation measures listed in Appendix 13 would not preclude road or transmission line projects. Relevant stipulations listed in Appendix 13 would be applied to any authorized project. This would not preclude the need for additional project-specific analysis to consider impacts resulting from any future potential road/transmission line. Through that analysis necessary additional mitigation would be developed as appropriate.

Comment From: Public Meeting on DEIS - Barrow, Alaska (Comment Letter No. 80075)

The most alarming exploration [sic] that I found was that all of the subsistence stipulations from the Northeast Plan were replaced by one stipulation and one ROP in all alternatives, A, B and C. This stipulation and ROP basically say that the industry will consult with local representatives and come to an agreement on how operations will take place. If they can't agree, then the administrative officer will make the final decision on which activities will occur. I am very much opposed to leaving a decision like this in the hands of one man. I'm sure that Bob Schneider would treat people very fairly but we have no idea who will follow Bob in the job. **(Comment No. 80075-414)**

Response To: Comment 80075-414

We have taken your comments into consideration in developing the Preferred Alternative, please see Section H "Subsistence Consultation for Permitted Activities" of the General Lease Stipulations and Required Operating Procedures.

Comment From: Public Meeting on DEIS - Barrow, Alaska (Comment Letter No. 80075)

There are no specific stipulations on high subsistence use areas to help guide the industry before they spend millions of dollars. Especially when everyone knows that the high oil and gas potential sites lay right under our subsistence use areas or important habitat for wildlife. It is harder to come back and say no after millions of dollars are invested on any project. **(Comment No. 80075-470)**

Response To: Comment 80075-470

We have taken your comments into consideration in developing the Preferred Alternative; several required operating procedures and lease stipulations specifically address subsistence use issues. Please see Section H "Subsistence Consultation for Permitted Activities" of the General Lease Stipulations and Required Operating Procedures. See Stipulations K-1, K-3, K-6, and K-8.

Comment From: Public Meeting on DEIS - Barrow, Alaska (Comment Letter No. 80075)

We call on BLM to not roll back stipulations that safeguard the Arctic environment. **(Comment No. 80075-480)**

Response To: Comment 80075-480

The BLM does not believe that the stipulations for the Northwest NPR-A Planning Area provide less safeguards for the arctic environment than do the stipulations adopted in the Northeast Plan. Please also see the responses to 249-524 (Stipulations, Required Operating Procedures and Mitigations) and 251-136 (Management).

Comment From: Public Meeting on DEIS - Barrow, Alaska (Comment Letter No. 80075)

And so one of my questions is how will BLM mitigate the impacts to people and to subsistence and, in fact, can these impacts be mitigated at all' **(Comment No. 80075-482)**

Response To: Comment 80075-482

The BLM cannot eliminate all impacts to the residents of the North Slope and to subsistence resources and activities. The BLM does believe that the stipulations, ROP's, and other features of the Preferred Alternative, in combination with project-specific permitting and NEPA processes, would result in greatly mitigating the impacts.

Comment From: Public Meeting on DEIS - Barrow, Alaska (Comment Letter No. 80075)

On the pipeline, I'd like to state that the caribou crossings need to be made bigger so that the Natives that are going to and from their cabins will have better access crossing to and from their cabin sites. **(Comment No.**

80075-485)

Response To: Comment 80075-485

We have taken your comments into consideration in developing the Preferred Alternative. Please see specifically Required Operating Procedure E-7, Part B.

Comment From: Public Meeting on DEIS - Barrow, Alaska (Comment Letter No. 80075)

And some sort of reflectors for the Natives that travel out during winter seasons, we have no sun rays for a period of time during winter and this brings out a concern for safety for the hunters that are going to and from their cabins. And one thing that I'm just foreseeing is accidents that would be happening and it would affect the North Slope Borough Search and Rescue on missions. And I just wanted to make that statement that reflectors should be thought about on these pipelines for the oil industries to think about. Another is access to and from, going through all these pipelines, are you going to be considering some type of, I don't know -- I know when you go through Prudhoe Bay right now there's a security system and you need some kind of access to go through. What are you going to be considering for this type of access for all the Natives going to and from their subsistence sites' I know I'm not going to be bringing an ID and I don't think I'll need any security clearance to go anywhere where I need to go to my cabin. So I just wanted to bring that out, that access to and from our cabins is something that is free for us to use and that you will have to be considering because you will be going through our subsistence sites. **(Comment No. 80075-486)**

Response To: Comment 80075-486

We have taken your comments into consideration in developing the Preferred Alternative; several stipulations and required operating procedures address subsistence issues. Please see Section H "Subsistence Consultation for Permitted Activities" of the General Lease Stipulations and Required Operating Procedures. Also see Stipulation K-1, K-3, K-6, and K-8.

Comment From: Public Meeting on DEIS - Barrow, Alaska (Comment Letter No. 80075)

On the oil seeps, I made a little notation that was shown on one of your pictures a few minutes ago. Will there be stipulations to clean our environment as a benefit for our environment because you would be in the vicinity of our area already' What an opportunity for the oil seeps, you can use to test your booms to clean the environment. What an idea while in the area or as you are searching and starting your production for oil, something to think about for BLM and the oil industry. Something that's already out there that needs to be cleaned. And I know that Alaska Clean Seas has all these booms and whatever they have. I think what a time for you guys to think about using all that to see if they are viable to use to clean the environment. And as you seen on those oil seeps, there is some areas that can be cleaned and what an opportunity for them to use it. **(Comment No. 80075-488)**

Response To: Comment 80075-488

We understand the commenter is referring to naturally occurring oil seeps. It is unlikely that BLM could stop such occurrences; therefore, any cleanup efforts would be unproductive. BLM has no plan to clean up naturally occurring oil seeps.

Comment From: Public Meeting on DEIS - Barrow, Alaska (Comment Letter No. 80075)

Now, what I'm advocating in the oil drilling scenario, we have something called a clean air sector. It means the air from here to 130 degrees -- at the 130 degrees line and out to 45 is some of the best locally uncontaminated air in the world. And when you do oil wells, one oil well out here will screw up this record that's 30 years long. And if the oil drilling lasted for some period of time we would lose all of that data and we have no other place to go. There's just -- this is such a unique situation and a lot of time and money was spent. So when you start thinking about these leases, please, try to keep out of Elson Lagoon and this area it's such a small amount of area. And I know you're not going to go out here on the ice because you couldn't drill out there. **(Comment No. 80075-490)**

Response To: Comment 80075-490

Special restrictions for oil and gas development would be required along the coast and in Elson Lagoon. Appropriate mitigation is best developed through site/project-specific analysis when activities are actually proposed. National Marine Fisheries Service (NOAA Fisheries, formerly NMFS) will be added to the list of agencies we request to comment on applications for permits for oil and gas activities within 50 km of Barrow.

Comment From: Public Meeting on DEIS - Barrow, Alaska (Comment Letter No. 80075)

It is critical that throughout the package of mitigating measures attached to any planning area lease the burden is consistently placed on the developer/operator to establish that unreasonable adverse impacts will not occur. **(Comment No. 80075-491)**

Response To: Comment 80075-491

The BLM has a regulatory responsibility to take such measures as deemed necessary to mitigate or avoid unnecessary surface damage and to minimize ecological disturbance throughout the Reserve. As part of that responsibility, BLM has identified stipulations and ROP's that an operator has the responsibility to adhere to or to provide sufficient information to demonstrate why such requirements are not technically feasible, are economically prohibitive, or that related management objectives can be met or exceeded in an alternative manner. Ultimately, the responsibility to prevent unreasonable impacts is shared by all who operate in the Reserve and by all who oversee those operations. Under the Preferred Alternative there are Stipulations and ROP's that have been developed that include numerous requirements to consult with the North Slope Borough, Native Tribal Governments, local communities, and other entities. For example, in the case of stipulations for Dease Inlet, Admiralty Bay, Elson Lagoon and associated Barrier Islands, consultation is required with the Alaska Eskimo Whaling Commission to prevent conflicts with whaling activities of North Slope communities. Seismic operations have additional requirements to contact individual cabin users in writing to minimize impacts with subsistence activities. Procedures to facilitate government-to-government consultation have also been established.

Comment From: Public Meeting on DEIS - Barrow, Alaska (Comment Letter No. 80075)

If you don't have things written precisely in an EIS to have minimum standards of how you're going to build, to do it correctly in an area where it's more heavily populated. An example is we've tried for many years to promote pilot projects such as alternative oil production such as buried pipelines, in the road shoulder pipelines, but nothing ever materializes because it's not written that they have to do that, it's not in their EIS, but I think it's to the point where we need to be concise. We need to be very careful how these EIS' get finalized, those wordings have to be in there to protect us. **(Comment No. 80075-502)**

Response To: Comment 80075-502

The BLM has tried to build appropriate standards into the stipulations and ROP's. At the same time, BLM has tried to maintain a measure of flexibility to provide for project and site variability. While allowing this flexibility, it remains BLM's responsibility to make sure appropriate standards are met.

Comment From: Public Meeting on DEIS - Barrow, Alaska (Comment Letter No. 80075)

The last thing I wanted to mention was the importance of a variety of different subsistence use areas. One of them is the Dease Inlet, Elson Lagoon and Admiralty Bay. This area could be considered an Inupiat Highway. When you think of it, for bear hunters, during the summer this is basically their only access to certain hunting camps or to where the animals are. So this area needs to be, you know, really thought out carefully. I would say no surface occupancy, if they could do directional drilling in Admiralty Bay, Dease Inlet and Elson Lagoon, that's what I would recommend, because that route is important to many people who use their boats to go to the variety of different rivers and camp sites or where the animals are. Other important areas that I think also need to be thought out carefully is Peard Bay, another high use area, Koug River near Wainwright, Ikpikpuk River, Chip River, the Inaru, Tukukapak, Kokruagarok, Meade River and Kasegaluk Lagoon, as many other areas that, you know, I might have not mentioned all of them, but these areas are very important to many different people and we need to have that community meeting. Okay. **(Comment No. 80075-508)**

Response To: Comment 80075-508

BLM acknowledges the importance of Kasegaluk Lagoon, Elson Lagoon, Dease Inlet, Admiralty Bay, and the rivers identified (in this comment) as subsistence use areas. In BLM's Preferred Alternative Peard Bay and Kasegaluk Lagoon have been deferred from leasing for a period of 10 years. Special restrictions and setbacks apply to Admiralty Bay, Dease Inlet and Elson Lagoon. Important subsistence use rivers have been identified and setbacks of various distances have been established. See specifically Stipulations K-1, 2, 3, 6, and 8.

Comment From: American Society of Mammologists (Comment Letter No. 249)

the Stipulations in this draft EIS fail to require the oil and gas industry to use the proclaimed best available technologies. Therefore, they fail to meet the mandate of the President's energy policy, which directs the Secretary of the Interior to 'consider environmentally responsible oil and gas development based on sound science and the best available technology.' **(Comment No. 249-521)**

Response To: Comment 249-521

The President's energy policy directs the Secretary of the Interior to "consider additional environmentally responsible oil and gas development, based on sound science and best available technology, through further lease sales in the Petroleum Reserve-Alaska." The BLM is pursuing this directive by considering further lease sales in the NPR-A and in doing so is establishing management objectives and operational standards and requirements that will require the use of the best available technology.

Comment From: American Society of Mammologists (Comment Letter No. 249)

We feel that the stipulations given for mitigating impacts from oil and gas development are grossly inadequate to

protect the ecological integrity of the NW NPR-A. The draft EIS generally fails to evaluate adequate mitigation measures for wildlife species. Further, it perplexing that the Stipulations in the present draft EIS are noticeably weaker than those listed in the NE NPR-A Record of Decision. **(Comment No. 249-524)**

Response To: Comment 249-524

The BLM does not believe that the mitigations we have developed are "grossly inadequate" or that they are noticeably weaker than in the Northeast NPR-A Record of Decision (ROD). We do recognize that we have tried a different approach and that in doing so the "stipulation package" looks very different and that the number of lease stipulations is reduced. However, we do not believe that this results in less protection to surface resources. There are several reasons stipulations were removed or modified in the Northwest IAP/EIS relative to the Northeast IAP/EIS. Some of the stipulations were eliminated because they addressed specific issues or resources not present in the Northwest NPR-A Planning Area. Others were eliminated because the requirement already exists in law or regulation making the stipulation redundant. Some were removed because they were the responsibility of another agency or the State of Alaska and thus not enforceable by BLM. Many became Required Operating Procedures (ROP's) because it was felt they should be a requirement of all permitted activities, not just activities on oil and gas leases or proposed by a lessee. Lastly, some stipulations that originated in Northeast NPR-A Plan were modified and combined in the Northwest NPR-A IAP/EIS because they related to the same type of activity and shared a common objective.

Comment From: American Society of Mammologists (Comment Letter No. 249)

Modify Stipulation J-1 for Alternative C so that no permanent facilities would be constructed in the Colville River Special Area, identified in the 1983 NPR-A EIS. The Colville River drainage area, which includes the Arctic Foothills Province and Colville River Special Area, contains important habitat for moose and wolves (Carroll 2000a, b). Previous surveys, habitat characteristics, and food source opportunities (such as scavenging wolf kills; Magoun 1987, Carroll 1995) suggest this is important wolverine habitat. This is also among the best suitable habitat for muskoxen in the entire Planning Area, expanding south and west from reintroductions east of the NPR-A (Reynolds 1998, Carroll 2002). (2) Modify Stipulation E-2 to prohibit construction of permanent roads connecting production sites between separate oil fields, so that caribou and riparian habitats are afforded better protection. Studies have shown that a portion of the Central Arctic caribou herd has been displaced from their traditional calving areas in the Prudhoe Bay and Kuparuk oil fields (Cameron et al. 1992, Nellemann and Cameron 1998, Wolfe 2000). The Western Arctic caribou herd has its traditional calving areas in the southwestern portion of the NW NPR-A and significant summer and transitional use occurs here as well. This herd is substantially larger than the Central Arctic herd and human dependence on subsistence hunting is greater. However, oil and gas development exacerbate the adverse effects of insect harassment on caribou'loss of additional habitat, when accompanied by weather conditions that favor insect harassment, is likely to depress nutrient status (hence summer weight gain) for lactating female caribou. Depending upon the degree of nutritional stress, this could result in increased mortality of young caribou. NPR-A Planning Team, from A.S.M. 5As seen in other areas of the North Slope, even a slight displacement (a few miles) of caribou can suffice to halt growth in the herd. (3) Ensure application of Stipulation C-1 on overland moves, listed under the No Action Alternative to Alternative C to prevent disturbance of denning polar bears. Human activity along the coast and near shore has influenced the suitability of some areas for use by denning female polar bears; disturbances during denning could result in population declines (Orians et al. 2003). (4) Modify Stipulation J-2 to prohibit petroleum exploration and production activities within 4 km of an occupied grizzly bear den (identified by the ADF&G). Net effect of cumulative effects on grizzly bears of oil and gas development-related killing of bears, hunting, habitat alterations, disturbances, and climate warming are not known, but all of these factors have a negative impact on grizzly bears (Orians et al. 2003). (5) Many of the Stipulations contain wording that would allow other types of mitigation of effects from a particular activity. We feel that mitigation efforts are largely unsuccessful in arctic ecosystems and therefore are not acceptable as allowances for violating a Stipulation or other condition. (6) All Alternatives should state that the BLM requires all oil/gas lessees to participate in and fund any and all needed habitat restoration once exploration and development activities have ceased. (7) The BLM should initiate action now to designate permanent protection for at least five special areas within the NW NPR-A Planning Area, including the Colville River, Teshekpuk Lake, Kasegaluk Lagoon, Peard Bay, and Meade

River/Dease Inlet. These areas are of particular ecological importance due to their unique wildlife species and wilderness values'no oil or gas exploration or development should be contemplated in these areas. **(Comment No. 249-526)**

Response To: Comment 249-526

Please see the response to comment 251-325(Stipulations, Required Operating Procedures and Mitigations).

Comment From: Public Meeting on DEIS - Washington, DC (Comment Letter No. 80082)

First I will say this is an oil industry plan. Alternatives A and B, 100 percent leased, 96 percent leased. Alternative C is sort of the red herring. Even it is a dramatic departure from even what the BLM did that I felt was woefully inadequate in their first lease sell in the Northeast corner of the NPRA. They have rolled back the stipulation phenomenally from 79 stipulations to for Alternative A, 10 for Alternative B, and 20 for Alternative C, and even then, they are not strict, as they were in the first plan. **(Comment No. 80082-531)**

Response To: Comment 80082-531

Please see the responses to comments 249-524 (Stipulations, Required Operating Procedures and Mitigations)and 80074-888 (Purpose of NPR-A).

Comment From: Public Meeting on DEIS - Washington, DC (Comment Letter No. 80082)

That's a lot of conflict, and certainly we don't know all the impacts to the wildlife so far, but this new lease plan for the Northwest NPRA is extremely aggressive. It will not have -- the only red flag I see in this plan is that it is industry getting what it wants, and it's using it as a way to undo what woefully insufficient mitigation measures there were in the first plan for the Northeast NPRA. **(Comment No. 80082-537)**

Response To: Comment 80082-537

The alternatives and accompanying protective measures contained in the draft and the Preferred Alternative herein meet the standards of FLPMA and consist of appropriate actions to prevent unnecessary or undue degradation of public lands. The BLM does not believe that the mitigations we have developed are insufficient or that they are noticeably weaker than in the Northeast NPR-A Record of Decision (ROD). Please also see the response to comment 249-524 (Stipulations, Required Operating Procedures and Mitigations).

Comment From: Public Meeting on DEIS - Washington, DC (Comment Letter No. 80082)

As Rosemary so eloquently laid out, we really need to consider the socioeconomic impacts, subsistence, you need to do wilderness reviews not just for some of the area but for all the area, and you must study all the wild and scenic rivers, not just a few. **(Comment No. 80082-546)**

Response To: Comment 80082-546

See Section IV. for an analysis of subsistence impacts and chapter III for a discussion of wilderness. See response to comment 253-344 (Legal) and Section III. for a discussion of the process.

Comment From: Public Meeting on DEIS - Washington, DC (Comment Letter No. 80082)

And finally, I will just say that we are also very disappointed at the consideration of abandoning the kinds of stipulations that were done in the Northeast areas, which we thought were really barely minimal, and urge you strongly, for any area that is ultimately made available for leasing, that you have the strongest stipulations. **(Comment No. 80082-549)**

Response To: Comment 80082-549

Please see the responses to comments 249-524 (Stipulations, Required Operating Procedures and Mitigations) and 80074-888 (Purpose of NPRA).

Comment From: Arctic Slope Regional Corporation (Comment Letter No. 186)

Second, oil and gas development must respect our people, land, environment, fish and wildlife resources, and our Iñupiat traditional way of life. **(Comment No. 186-556)**

Response To: Comment 186-556

The BLM has taken your comments into consideration in developing the Preferred Alternative. Please see Section H Subsistence Consultation for Permitted Activities of the General Lease Stipulations and Required Operating Procedures

Comment From: Arctic Slope Regional Corporation (Comment Letter No. 186)

Similarly, granting development stipulations such as 'no surface facilities' and other limitations before exploration has even taken place seems premature and unnecessarily limiting. Once exploration has been completed and any resources identified, then reasonable decisions can be made about development via the consultative process. **(Comment No. 186-563)**

Response To: Comment 186-563

Restrictions that prohibit surface facilities such as development pads may prevent a lessee from reaching otherwise recoverable oil and gas reserves. Such a restriction takes from the value of the lease and must be a stipulated in the lease contract.

Comment From: Arctic Slope Regional Corporation (Comment Letter No. 186)

In addition, seismic camps and drill rigs now are prohibited from leaving any trash or materials on the ground when their operations have been completed. Their operations are closely monitored by the North Slope Borough and other permitting agencies. The IAP/EIS for the Planning Area should mandate the best practices that industry

has developed over time and which have shown themselves to be sufficient in protecting the environment while it should also leave open inclusion of utilization of new technology and practices that are sure to be developed in the future. **(Comment No. 186-564)**

Response To: Comment 186-564

The BLM believes that many of the ROPs identified in the Preferred Alternative are best practices that have been established by BLM, the State of Alaska, and industry. The BLM also believes that appropriate Stipulations and ROPs have been structured to allow consideration of new technology and practices.

Comment From: The North Slope Borough (Comment Letter No. 80065)

We will support full leasing, which will allow exploration across the entire area, only if we can be assured that measures restricting permanent facilities in the limited critically sensitive areas we identify will remain in place and be enforced. Our residents must have a clear understanding of what areas may ultimately see exploration and development, and what areas will remain free of permanent facilities. Industry too should have certainty with respect to what areas will be open to exploration and development, and under what conditions, and what areas will remain closed to permanent facilities. **(Comment No. 80065-572)**

Response To: Comment 80065-572

We have considered your comments in developing the Preferred Alternative.

Comment From: The North Slope Borough (Comment Letter No. 80065)

We find the Required Operating Procedure (ROP) concept as it is presented in the Draft troubling. The relationship between stipulations and ROPs is unclear. It is unclear how the stipulations and ROPs would be applied in the first and subsequent Northwest Planning Area lease sales. It is unclear how they would be applied with any uniformity to development and production operations and facilities. Neither the Borough, nor the BLM can now tell our residents, or potential lessees for that matter, the lease conditions that will be placed on industrial operations occurring in the Northwest Planning Area. Certain measures prescribe area buffers with an upper limit, but no lower limit. Certain measures use discretionary language, rather than specifying what must be done. The general lack of clarity in how, or even if, measures will be applied, and the specific lack of clarity in certain stipulations and ROPs are unacceptable. **(Comment No. 80065-580)**

Response To: Comment 80065-580

Please see the response to comment 251-325 (Stipulations, Required Operating Procedures and Mitigations).

Comment From: The North Slope Borough (Comment Letter No. 80065)

The Borough recommends that the concept of ROPs be eliminated in favor of more straightforward stipulations. We offer the following comments on specific proposed measures presented in the Draft IAP/EIS: **(Comment No. 80065-581)**

Response To: Comment 80065-581

Please see response to comment 251-325 (Stipulations, Required Operating Procedures and Mitigations).

Comment From: The North Slope Borough (Comment Letter No. 80065)

Stipulation A-2, Page II-17. This stipulation specifies fuel storage requirements within the planning area. For Alternatives A and B, setbacks are 100 feet from non-fish-bearing water bodies and 500 feet from fish- bearing water bodies. For Alternative C, the setback is 500 ft from all waterbodies. We recommend the stipulation language used in Alternatives A and B, with setbacks of 100 feet from non-fish-bearing waterbodies and 500 feet from fish-bearing waterbodies, be used for all alternatives, with the term 'small equipment' clarified. **(Comment No. 80065-582)**

Response To: Comment 80065-582

Please see response to comment 251-325 (Stipulations, Required Operating Procedures and Mitigations).

Comment From: The Kuukpik Corporation (Comment Letter No. 254)

One of our most fundamental objections to the Draft EIS/IAP is the wholesale elimination from the stipulations and conditions to be placed on lessees in the Northwest NPRA of the vast majority of Stipulations and Conditions for the protection of subsistence that were made part of leases under the Record of Decision for the Northeast NPR-A IAP/EIS. Of the 79 Stipulations and Conditions placed in Northeast NPR-A leases for protection of Subsistence, 43 are eliminated from all Alternatives in the Draft Northwest NPR-A EIS/IAP and 19 are modified or weakened to varying degrees in all or some of the proposed Alternatives for the Northwest NPR-A. **(Comment No. 254-607)**

Response To: Comment 254-607

The BLM has considered your comments in developing the Preferred Alternative. Please see the response to comment 249-524 (Stipulations, Required Operating Procedures and Mitigations).

Comment From: U.S. Fish and Wildlife Service (Comment Letter No. 260)

The Service believes that Stipulations and Required Operating Procedures developed for the different Alternatives in the DEIS may not be precise enough to avoid potential impacts associated with development within the CRSA. We recommend the following for your consideration: $ Setbacks of at least 2 miles from the northern bluff of the river for permanent facilities and roads should be required because of the unusual concentration of nesting raptors on portions of the Colville River and the uncertainty regarding how these birds would react to disturbance within this corridor. The larger buffer also would enhance the protection of adjacent habitats used as foraging areas by raptors. **(Comment No. 260-609)**

Response To: Comment 260-609

We have taken your comments into consideration in developing the Preferred Alternative. Please also see the

response to comment to 251-325.

Comment From: U.S. Fish and Wildlife Service (Comment Letter No. 260)

$The CRSA is especially vulnerable to the impacts associated with increased access to the area, because it would be an attractive destination for a variety of users and nesting raptors are susceptible to disturbance. While the DEIS assumes a development scenario without permanent road connections (roadless) to the Kuparuk Oil Field, the document recognizes the possibility of a road link to the Dalton Highway across State lands and the Colville River. In order to protect the habitats and wildlife resources within the CRSA and to minimize impacts associated with development, we recommend a roadless development scenario be identified as an element of the agency preferred alternative. $ Aircraft restrictions of at least 1,500 feet AGL within one-half mile of cliffs identified as raptor nesting areas from March 15 - August 5. $ The Service recommends the entire CRSA be designated as the Colville River Bird Conservation Area, recognizing the area as supporting the most diverse land bird community in the Alaskan Arctic. **(Comment No. 260-610)**

Response To: Comment 260-610

We have taken your comments into consideration in developing the Preferred Alternative. Please see the response to comment 251-325 (Stipulations, Required Operating Procedures and Mitigations).

Comment From: The Kuukpik Corporation (Comment Letter No. 254)

BLM has taken the position that placing stipulations and conditions in the Record of Decision and as contractual terms in leases is unnecessary and is less flexible than proceeding on a case-by-case basis. Let's consider the advantages of placing such terms and conditions as contractual terms in lease. First, in no way can the lessee ever claim that it was unaware of (and was prejudiced as a result of) a requirement or a limitation on its development rights if that requirement or limitation is stated in its lease. Such a lessee cannot claim hardship because its bid on the lease must have reflected known constraints on development that the lessee was on notice would be placed in the lease. Second, while by and large the federal government is immune to suits or to claims of a taking of property rights based on restrictions imposed on development by the government in its regulatory capacity, that is not a universal rule nor one which a smart lawyer wouldn't have a good shot at getting around, given the right set of facts. Third, any party is in a stronger legal position if the lessee must seek an exception to a contractual term than if no such term exists. That is going to be as true if BLM is in court defending a position as it would be if the property owner were a private party. Fourth, as a basic tenet of human psychology, an applicant for relief from a rule or a contractual term is less likely to obtain a waiver than that same applicant seeking a permit to construct in the absence of such a rule or contractual term. BLM is made up of people, just like any other organization, and rules of human behavior apply to organizations because the decisions of those organizations are made by people. Fifth, isn't the role of a regulator to provide guidance' What guidance is provided by telling a lessee that "We'll see when you want to build. Maybe there'll be some restrictions and maybe there won't." What advantage is there to a lessee to having an unknown set of development requirements lurking out there waiting' Any commercial finds of oil and gas have to be found before they can be developed. Development of any finds in the Northwest NPR-A is 8 to 10 years away, at least. If the administration in office then has a more environmentally restrictive approach, the lessee has probably lost out on any perceived advantage which might be gained by the loosey-goosey nature of having nothing in writing. Sixth, it seems highly doubtful that those increased uncertainties encourage development, when the oil industry in Alaska is forever preaching the need for stability and known quantities to help oil companies make long-term commitments and investments. Given this level of uncertainty, an oil company would pay less for a lease with unknown development restrictions than with known ones. Seventh, if the case-by-case approach to subsistence protections is applied to a development application 8 or 10 years from now, much if not all of the institutional knowledge built up at BLM and other agencies as to the specifics of various studies, risks and environmental sensitivities as a result of the work done on this EIS will be gone, through retirement or transfer of the personnel involved or through simple loss of memory of decadeold information. It is axiomatic that much of the knowledge gained in

such work is never written down, and the conclusory nature of the analysis in many parts of the Draft EIS/IAP simply demonstrates that fact. Such conclusory analysis will be of little benefit to someone ten years from now who is trying to understand the need for protection of a particular site or population. This is a corollary of the rule mentioned above that an exception to a rule or contractual term is harder to get than gaining the identical end when there is no rule or contractual term. Eighth, with all the best will in the world, an official 10 years from now is either going to have to recreate a huge amount of work and knowledge or will simply wing it and most probably not afford adequate attention. Wouldn't it be better to take advantage of all of the work and knowledge that has been gained to distill some tentative ground rules which would be subject to waivers or exceptions upon adequate evidence, rather than to leave it all to chance or re-discovery' We couldn't say of our scientific predecessors that we stand on the shoulders of giants if they'd done their analysis but never bothered to write down more than that it was okay to proceed. The equivalent of that will happen here if no rules are drawn from this EIS/IAP and protections are left to an ad hoc approach at during a series of applications in the future. Ninth, there's certainly no administrative efficiency or convenience involved here, no savings to the federal governmnet from proceeding in this fashion. Tenth, area-wide stipulations provide the predictability of a baseline to both the oil industry and the North Slope residents. This baseline lets everyone know what the rules are. If the BLM relies primarily on site specific analysis, no one knows the rules ahead of time and greater tension and mistrust will exist between the oil industry and the Native communities. The benefit of big-picture planning will also be lost as focus is drawn to specific projects and away from impacts across an entire planning area. Eleventh, an emphasis on site specific analysis also places a heavy burden on the NPRA communities and residents to monitor every aspect of proposed future development. We sometimes feel all "meetinged out" given the number of public meetings scheduled in Nuiqsut over the last couple of years and the size of documents (such as this EIS) that we have to review. It would be nice to reach some conclusions and put some rules into place. Budgets in the NPRA communities are limited, so few organizations have the time or the staff to review and analyze proposed developments in sufficient detail to determine on a site-specific basis what interests will be impacted by proposed development. Given all these advantages of having a firm rule or contractual term, how can an ad hoc or case-by-case approach be squared with the Congressional mandate of 16 U.S.C.3112(1) that BLM is to ' cause the least adverse impact possible on rural residents who depend upon subsistence uses of the resources of such lands" (emphasis added). Clearly it' s "possible" to simply make the stipulations and conditions a matter of contract with the lessee, as was done in the Northeast NPR-A. It' s equally clear that such an approach is likely to reduce harmful impacts on subsistence uses. It will be similarly clear when comments from the Native community on the Draft EIS/IAP are analyzed that the Native community would prefer stipulations and conditions inserted in the lease to the ad hoc approach proposed by BLM. Obviously not everything that' s humanly "possible" to protect subsistence needs to be done. If that were so, there would be no development. BLM is to strike a balance, but it must be a balance within a range of reasonableness. At some point, a court would find that the balance struck by BLM on a particular term exceeded the authority granted to BLM given the stated Congressional policies. We think that the wholesale dumping of subsistence related protections that were found appropriate in the Northeast NPR-A Record of Decision is such a case. Similar cases are to be treated similarly, and we think the Northwest NPR-A is largely similar to and should be treated like the Northeast NPR-A was. **(Comment No. 254-611)**

Response To: Comment 254-611

Stipulations and conditions are an integral part of BLM's alternatives. While we have tried to rethink what we consider is best addressed as a lease stipulation and what is more effectively addressed as a required operating procedure (ROP), we do recognize that both need to be documented in the Record of Decision. Subsequently, lease stipulations will be included as contractual terms of the lease, and ROP's will be requirements that need to be addressed as part of (or prior to) any permit proposal. The ROP's will apply to all applicants, whether a lessee or not. At the same time, BLM does wish to build into these stipulations and ROP's a degree of flexibility to allow new information, new technology, and new uses of existing technology to be considered. BLM seeks to avoid a situation where exceptions are required as a result of better information or newer technology. We have attempted to address this situation in the Preferred Alternative by stating the objective for each stipulation and ROP and, where appropriate, by establishing standards and requirements that allow a degree of flexibility. These flexible or performance based standards and requirements can be tailored or modified on a case by case basis to meet the objective without being unnecessarily restrictive. The ROP's for the Brant Survey and Caribou Study areas are two examples.

Comment From: The Kuukpik Corporation (Comment Letter No. 254)

We strongly believe that those Northeast NPR-A Stipulations and Conditions strike a sound, reasoned balance and should generally be applied in the Northwest NPR-A, as well. **(Comment No. 254-615)**

Response To: Comment 254-615

The BLM believes the Stipulations and ROP's in the Northwest NPR-A Preferred Alternative represent a sound and reasoned approach. Please also see the response to comment 249-524 (Stipulations, Required Operating Procedures and Mitigations).

Comment From: The Kuukpik Corporation (Comment Letter No. 254)

Cabins and camp sites also require the protection of a development buffer stipulation. Typically these cabins and campsites have been used for generations and occupy a specific site because the fishing is superior to other locations or because caribou frequent the area. In either case, an industrial facility in close proximity can destroy the very reason for the cabin or camp site' s existance, essentially destroying its value. Permanent oil and gas improvements should not be allowed within a mile of these cabins and campsites. Such a stipulation could be subject to exception after consultation with the nearest North Slope community and written consent from the family or families who regularly occupy the cabin or camp site. Because exploratory activities such as drilling and seismic surveys make changes, at least temporarily, to the tundra and exploratory drilling leaves behind a well head, such activities should not be allowed in the immediate vicinity (1/4 of a mile) of cabins or camp sites either. This stipulation, too, could be subject to the same exception procedure. **(Comment No. 254-624)**

Response To: Comment 254-624

The BLM has considered your comments in developing the Preferred Alternative; please see Section H "Subsistence Consultation for Permitted Activities" of the General Lease Stipulations and Required Operating Procedures for the Preferred Alternative.

Comment From: The Kuukpik Corporation (Comment Letter No. 254)

Other areas of high valued habitat also deserve the protection of a development buffer. Lakes deeper than 7 feet and waterbird nesting and brooding habitat are of significant concern and should be protected by a ½ mile, No Permanent Improvement buffer zone. Grizzly bear dens are also of concern and should be protected by a ½ mile "No Surface Activity" buffer zone. **(Comment No. 254-625)**

Response To: Comment 254-625

The BLM has considered your comments in developing the Preferred Alternative. See specifically Required Operating Procedures B-2, C-1, E-11 and Stipulation K-2 in Section II.C.6 of the Final IAP/EIS. Also, please see the response to comment 251-325 (Stipulations, Required Operating Procedures and Mitigations).

Comment From: The Kuukpik Corporation (Comment Letter No. 254)

When road-supported facilities are environmentally preferable to roadless facilities, we want the BLM to require that a lessee who proposes to build a pipeline running parallel to a road to show that this is environmentally preferable over burying the pipeline in the road or to separate the road and the pipeline by at least 500 feet. **(Comment No. 254-627)**

Response To: Comment 254-627

The BLM has considered your comments in developing the Preferred Alternative. See specifically, Required Operating Procedure E-7 in Section II.C.6 of the Final IAP/EIS. Also see the response to comment 251-325 (Stipulations, Required Operating Procedures and Mitigations).

Comment From: The Kuukpik Corporation (Comment Letter No. 254)

Where aboveground pipelines are environmentally preferable to burying pipelines inside roads or the tundra, a stipulation should require that such pipelines be raised a minimum of 8 feet above the tundra. **(Comment No. 254-628)**

Response To: Comment 254-628

The BLM has considered your comments in developing the Preferred Alternative. See specifically, Required Operating Procedure E-7 in Section II.C.6 of the Final IAP/EIS. Also see the response to comment 251-325 (Stipulations, Required Operating Procedures and Mitigations).

Comment From: The Kuukpik Corporation (Comment Letter No. 254)

It is also important to keep the roads and pipelines in the Northwest NPR-A Planning Area and outside this Planning Area to a minimum. Less infrastructure should equate to less impact. **(Comment No. 254-629)**

Response To: Comment 254-629

The BLM has considered your comments in developing the Preferred Alternative. See specifically Required Operating Procedure E-7 in Section II.C.6 of the Final IAP/EIS. Also see the response to comment 251-325 (Stipulations, Required Operating Procedures and Mitigations).

Comment From: The Kuukpik Corporation (Comment Letter No. 254)

Stipulations on where facilities and infrastructure may be located and how facilities and infrastructure may be built and used need to be augmented with stipulations preserving our movement and subsistence activities in and around oil and gas infrastructure and ensuring that the communities are kept apprised of oil industry activities. The Draft EIS/IAP recognizes this and concludes that 'without some mechanism to ensure subsistence hunters ongoing access to and through development areas and a protocol for defining 'no fire' zones around development sites, the overall ability to reach subsistence-harvest areas by local subsistence hunters would potentially be restricted. Such mechanisms are necessary in order to cause the "least adverse impact possible" on rural residents who rely on subsistence. Yet, the BLM has not proposed such mechanisms in the Draft EIS/IAP. **(Comment No. 254-634)**

Response To: Comment 254-634

The BLM has considered your comments in developing the Preferred Alternative; see Section H "Subsistence Consultation for Permitted Activities" of the General Lease Stipulations and Required Operating Procedures.

Comment From: U.S. Fish and Wildlife Service (Comment Letter No. 260)

The DEIS identifies the oil and gas potential for the area south of Peard Bay as low. The Service recommends the area be recognized as a Special Area for its high wildlife value. We further recommend Stipulations that would require setbacks of at least one-half mile for permanent structures and roads from known nesting colonies and brood-rearing areas. The estuaries and coastline of Peard Bay would also require a one-half mile setback for permanent development, with no permanent structures in the nearshore waters. **(Comment No. 260-636)**

Response To: Comment 260-636

The BLM is aware of the area's resource values and has taken them and your comments into consideration in developing the Preferred Alternative. Please also see the responses to comments 213-202 (Special Designation Areas) and 213-232 (Alternatives General).

Comment From: U.S. Fish and Wildlife Service (Comment Letter No. 260)

The Service recommends that the wetlands associated with Dease Inlet and Meade River be identified as a Special Area because of its unique habitats and high nesting densities of waterbirds. At a minimum, Stipulations and ROPs equivalent to what is proposed in Alternative C would be appropriate for this area. **(Comment No. 260-640)**

Response To: Comment 260-640

The BLM is aware of the area's resource values and has taken them and your comments into consideration in developing the Preferred Alternative. Please also see the responses to comments 213-202 (Special Designation Areas) and 213-232 (Alternatives General).

Comment From: Public Meeting on DEIS - Anchorage, Alaska (Comment Letter No. 80073)

Currently the proposed Northwest Planning Area dramatically rolls back lease stipulations addressing environment mitigation measures compared with Secretary Babbitt's plan for Northeast NPR-A. Indeed, the Northwest Plan has slashed the requirements. BLM proposes anywhere from 20 to nine lease stipulations in the Northwest Area compared with 79 in the '98 Final Decision for the Northeast NPR-A. Some examples of the rollbacks that are in the draft include no prohibition during exploration of permanent gravel roads, pads and airports, no prohibition on winter water withdrawals from rivers and streams, no requirement for annual spill drills, and no specific caribou mitigation measures. That's only a sampling of the stipulations that were left out in this Draft Plan. Sierra Club opposes these rollbacks of environmental safeguards and we urge the BLM to include the full compliment of mitigation measures in the final decision. **(Comment No. 80073-1005)**

Response To: Comment 80073-1005

Please see the response to 249-524 (Stipulations, Required Operating Procedures and Mitigations) regarding Northwest and Northeast Lease mitigations.

Comment From: U.S. Fish and Wildlife Service (Comment Letter No. 260)

In addition, under both Alternatives, Kasegaluk Lagoon would be unavailable for oil and gas lease sales. The Service endorses the designation and the no-lease Stipulation because of the area's importance for migratory birds. Kasegaluk Lagoon and its associated wetlands are areas of high bird concentration and diversity, providing critically important habitats for specific species of waterfowl and shorebirds (Johnson et al. 1993). The lagoon also is seasonally important for molting and fall-staging waterfowl, particularly brant. The villages of Point Lay and Wainwright also use the area extensively for subsistence activities. **(Comment No. 260-642)**

Response To: Comment 260-642

The BLM is aware of the area's resource values and has taken them and your comments into consideration in developing the Preferred Alternative. Please also see responses to comments 213-217 (Special Designation Areas) and 213-232 (Alternatives General).

Comment From: U.S. Fish and Wildlife Service (Comment Letter No. 260)

In order to protect these areas and minimize disturbance to nesting and brood-rearing spectacled and Steller's eiders, the Service recommends Stipulations and ROPs be developed to protect these critical areas. Based on our experience and observations, we believe that to avoid significant impacts to high density nesting and brood-rearing areas they should be protected with minimum one-half mile setbacks for permanent structures. The estuaries and coastlines of Peard Bay and Dease Inlet should be buffered as well with one-half mile setbacks for permanent facilities. **(Comment No. 260-647)**

Response To: Comment 260-647

We have taken your comments into consideration in developing the Preferred Alternative. See specifically Required Operation Procedure E-11 and Stipulations K-3 and K-6. Also, please see the responses to comments 251-325 (Stipulations, Required Operating Procedures and Mitigations) and 213-232 (Alternatives General).

Comment From: U.S. Fish and Wildlife Service (Comment Letter No. 260)

The Service has questions relative to the Stipulations and ROPs associated with the various DEIS Alternatives. We believe that the DEIS could be improved by more clearly defining the Stipulations and ROPs, by identifying the application criteria to be used for determining where and when they will be applied, and finally specifying the circumstances when exceptions to the stipulations and ROPs will be authorized. If these additions were made, the Service believes that the apparent contradictions in the DEIS regarding how the Stipulations and ROPs would be applied to additional lease-sales and subsequent permit in the Northwest Planning Area would be resolved. In certain cases, we have specific concerns regarding the language of some Stipulations such as those that identify measures indicating a maximum distance (e.g., a buffer zone) without specifying any minimum setback distance. We believe that any Stipulation or ROP should be defined in terms of minimum requirements. It is our position that the oil and gas industry and other users need to know, prior to leasing, the minimum extent of buffers and

other protective measures they will be expected to employ. Without a clear explanation of how the Stipulations and ROPs are defined and applied to exploration and development activities, it is difficult to assess the Alternatives and determine their impacts on the resources of the Northwest Planning Area. **(Comment No. 260-648)**

Response To: Comment 260-648

A better explanation of Stipulations and Required Operating Procedures has been added in the text. Please also see the responses to comments 251-136 (Management), 251-137 (Management), and 251-139 (Stipulations, Required Operating Procedures and Mitigation and 249-524 (Stipulations, Required Operating Procedures and Mitigations).

Comment From: The Kuukpik Corporation (Comment Letter No. 254)

Our experience leads to one conclusion, the consultation stipulation needs to be strengthened, not weakened. This becomes even more critical in the Northwest NPR-A Planning Area, where there are more communities and more people potentially affected. BLM is, in effect, sponsoring these oil industry activities and needs to take a more pro-active role in ensuring that consultation occurs. Before approving any activities in the NPR-A, the BLM should ask itself - has consultation occurred with all communities that may be affected. If the answer is no, the activities should not be allowed to go forward.56 Finally, any consultation process should require lessees to give the BLM notice of any concerns expressed by subsistence users during operations. This way, BLM will be kept informed of any problems arising in the field and BLM can monitor whether oil and gas operations in the NPR-A are consistent with Congress's protection of our subsistence activities. **(Comment No. 254-653)**

Response To: Comment 254-653

Please see the response to comment 254-652 (Monitoring for Compliance).

Comment From: The Kuukpik Corporation (Comment Letter No. 254)

We think that a requirement for active BLM involvement in the consultation process is implicit in the Northeastern NPRA planning area stipulations. If this implicit requirement is not clear enough or if BLM proposes not to apply those stipulations in the Northwest NPR-A or to change or delete the relevant stipulations, Congress has clearly given the BLM the task of assuring that our subsistence way of life is not adversely impacted, which is the whole point of consultation. See, e.g, 16 U.S.C. 3112. **(Comment No. 254-654)**

Response To: Comment 254-654

Please see the response to comment 254-652 (Monitoring for Compliance).

Comment From: The Kuukpik Corporation (Comment Letter No. 254)

While we believe that industry will continue to use ice based exploration in the Northwestern NPRA we would like to see a stipulation prohibiting the placement of new gravel to support exploration activities. We are not opposed to the use or improvement of already existing gravel pads as summer staging areas for winter exploration. **(Comment No. 254-655)**

Response To: Comment 254-655

Please see Stipulation D-2 in the Preferred Alternative.

Comment From: The Kuukpik Corporation (Comment Letter No. 254)

We strongly recommend that the Subsistence Representative program or something like it be adopted as a Stipulation to be incorporated in all leases. The Subsistence Representative would come from the community in whose subsistence range the activity was located. **(Comment No. 254-656)**

Response To: Comment 254-656

The BLM has considered your comments in developing the Preferred Alternative; see Section H "Subsistence Consultation for Permitted Activities" of the General Lease Stipulations and Required Operating Procedures. Also, please see response to comment 254-652 (Monitoring for Compliance).

Comment From: The Kuukpik Corporation (Comment Letter No. 254)

It is critical to make sure that winter tundra travel does not begin before the tundra is sufficiently frozen and covered with snow. At the same time, BLM should be sensitive to differences among types of equipment which result in different levels of impact. Some equipment may be capable of starting tundra travel before others. In addition, BLM should be open to solid proof of the acceptability of alternate approaches to determining when tundra travel is safe for particular types of equipment, as well as to technological changes and improvements to equipment itself. **(Comment No. 254-658)**

Response To: Comment 254-658

The BLM has considered your comments in developing the Preferred Alternative; please see Required Operating Procedure C-2, as well as the response to comment 251-325 (Stipulations, Required Operating Procedures and Mitigations).

Comment From: The Kuukpik Corporation (Comment Letter No. 254)

Operators and their contractors should be encouraged to use state-of-the-art equipment. Similarly, they should be actively discouraged from using metal-tracked vehicles such as bulldozers or from using older more damaging operational techniques, such as turning tracked vehicles by locking one track. Equipment in the seismic industry has upgraded substantially in recent years with lighter and rubber-tracked vehicles. We want to see old practices such as use of metal-tracked bulldozers ended. The two prior winter seismic seasons (2000-01 and 2001-02) saw a series of incidents of major tundra damage, all or almost all of which involved bulldozers and poor operating practices. **(Comment No. 254-659)**

Response To: Comment 254-659

The BLM has considered your comments in developing the Preferred Alternative; please see Required Operating Procedure C-2, as well as the response to comment 251-325 (Stipulations, Required Operating Procedures and Mitigations).

Comment From: The Kuukpik Corporation (Comment Letter No. 254)

Sound management of the NPRA requires annual spill-response refresher training for local responders and annual spill-response field-deployment drills. **(Comment No. 254-665)**

Response To: Comment 254-665

The Oil and Gas industry is required to present an Oil Spill Response Plan (OSRP) at the time of application for permit to develop. The OSR training should be a component of the OSRP, or the training would become the subject of a (requirement) mitigation of the permit.

Comment From: The Kuukpik Corporation (Comment Letter No. 254)

In fact, to protect against possible contamination of water, the BLM should adopt stipulations in the Northwestern NPRA requiring that all fuel be stored at least 500 feet from any waterbody with the exception of small caches. The refueling of equipment (except motor boats, and float or ski planes) within 500 feet of the highest watermark of any waterbody should also be prohibited. **(Comment No. 254-666)**

Response To: Comment 254-666

The BLM has considered your comments in developing the Preferred Alternative; please see Required Operating Procedures A-5 and E-2, as well as the response to comment 251-325 (Stipulations, Required Operating Procedures and Mitigations).

Comment From: The Kuukpik Corporation (Comment Letter No. 254)

Stipulations requiring lessees to continue to look for ways to reduce waste generated at facilities and to find new ways to prevent spills before they happen give industry an incentive to continue advancing, and should be adopted in the Northwestern NPRA management plan. **(Comment No. 254-667)**

Response To: Comment 254-667

The BLM has considered your comments in developing the Preferred Alternative; please also see the response to comment 251-325 (Stipulations, Required Operating Procedures and Mitigations).

Comment From: Olgoonik Corporation (Comment Letter No. 169)

That the cabins be protected whether they are in native allotments or as squatters on BLM lands. That there is accessibility to and from the cabin as well as the surrounding area of the campsites. **(Comment No. 169-696)**

Response To: Comment 169-696

The BLM has made no distinction between authorized or unauthorized cabins and campsites in its consultation requirements; see section H "Subsistence Consultation for Permitted Activities" in the "Lease Stipulations and Required Operating Procedures."

Comment From: U.S. Fish and Wildlife Service (Comment Letter No. 260)

Additionally, we suggest changes to the following Stipulations and ROPs for Alternative B: ROP C-1f (page II-21): This ROP states that motorized traffic will be minimized within 1 mile of any raptor nest and may be prohibited within one-half mile of any raptor nest. The Service suggests that the ROP be revised to prohibit vehicular traffic within one-half mile of raptor nests sites from March 15 to August 15. Stipulation D-1 (page II-22): This Stipulation is the same for Alternative A and B. The Stipulation apparently restricts exploratory drilling in shallow lakes, streams, lake beds, and the active flood-plain unless the applicant can demonstrate that impacts to fish, wildlife, vegetation, and hydrology would be minimal. As written, this Stipulation does not offer specific protection to aquatic resources, as there is no definition of what minimal implies. In addition, the selection of water bodies is ambiguous and illdefined. Criteria need to be defined for the terms shallow lake, lake bed, and stream. It is unclear whether deep lakes and rivers are afforded any protection under this Stipulation. We suggest that the Stipulation be re-written to clearly define the resources involved and offer explicit protection, similar to the same Stipulation for Alternative C. Stipulation D-2 (page II-22): There is no Stipulation D-2 for Alternative B as there is for Alternative C. This Stipulation would prohibit permanent roads and airstrips to be constructed for oil and gas exploration in the planning area. The standard on adjacent State and Federal land prohibits permanent roads for exploration activities. Even if climate warming continues in the Arctic, further reducing the window for winter tundra travel, other options exist for exploratory activities (e.g., the Anadarko Arctic platform and changes in access technology). The Service believes Stipulation D-2 should be a part of any development Alternative. Stipulation E-1 (a - v) (pages II-22-26): This Stipulation identifies specific areas within the planning area which contain subsistence, wildlife habitat, and cultural/paleontological resources that may be protected if and when development occurs. The Stipulation offers little protection from exploration activities and provides no guarantee that protection would be forthcoming prior to development. The Stipulation gives maximum distances (e.g., up to one-half mile) that could be provided rather than minimum distances. Meaningful protective measures need to be presented as minimums for the benefit of lessees and subsistence users; both understandably interested in the minimum effort that will be required for resource protection. The Service recommends that minimum distances be applied (similar to Alternative C) and that exceptions be assessed and potentially granted on a case-by-case basis prior to development. Meaningful set-backs are particularly important for the raptor nesting areas of the Colville and Ikpikpuk rivers and for coastal bays and lagoons. ROP E-5 (page II-27): This ROP is the same for Alternatives A and B and states that pipelines and roads shall be designed to facilitate caribou and subsistence-user passage. As written, this ROP is too vague and does not establish a minimum pipe height or pipe-road separation. The Service believes that this ROP should be replaced, at a minimum, with the ROP for Alternative C, which establishes a 5 foot minimum pipe height and 500 foot pipe-road separation. These standards have been crafted and based on a significant body of research, largely accomplished in the adjacent Kuparuk Oilfield. We see no reason for changing these standards on Federal land, except for the possibility of increasing the pipe height to 7 feet based on recent concerns expressed by Nuiqsut residents. These concerns include the potential for pipeline clearance to be diminished by snow drifts during the winter and spring seasons. In fact, the Teshekpuk Lake Caribou Herd frequently spends a significant portion of the winter in the NPR-A. ROP E-6 (page II- 28): This ROP is the same for Alternatives A and B and states that permanent facilities within 500 feet of shallow lakes, streams, lake beds, estuaries, and active floodplains shall only be approved if minimal impacts to fish, wildlife, vegetation, and the hydrologic condition can be demonstrated by the applicant. As is, this ROP is similar to D-1 and provides little explicit guidance for protecting aquatic resources. The wording of this ROP requires further definition, or the ROP should simply be replaced by Stipulation E-3 found in Alternative C. ROP E-8 (page II-28): This ROP should be replaced with Stipulation E-5 found in Alternative C. The placement of docks and causeways should be restricted in deltas and estuaries and would be regardless under Stipulation E-1v for Alternative B. We believe that the addition of a required monitoring program to determine water quality and fish passage, as required by Stipulation E-5, should be attached to any dock or causeway construction within the planning area. ROP F-1

(page II-29): This ROP is the same for Alternatives A and B and states that aircraft operation shall be conducted in a manner that will minimize impacts to wildlife and birds. The ROP does not establish minimum heights or timing windows and therefore is not enforceable. The Service believes that this ROP should be replaced with ROP F-1 and Stipulations F-1 and F-2 as found under Alternative C. Stipulation J-1 (page II-31): This Stipulation is the same for Alternatives A and B. As written, it does not establish minimum distances from raptor nests for development and is therefore unenforceable. The Service believes that replacing the Stipulation with Stipulation J-1 as it exists under Alternative C, would establish minimum distances for developments from raptor nests within the Colville River Special Area. **(Comment No. 260-697)**

Response To: Comment 260-697

We have taken your comments into consideration in developing the Preferred Alternative. Please also see the response to comment 251-325 (Stipulations, Required Operating Procedures and Mitigations).

Comment From: Olgoonik Corporation (Comment Letter No. 169)

That leasing should not be done prior to finalizing the Vietnam Veterans selections for native allotments and that the current pending allotments and corporate land be finalized. **(Comment No. 169-700)**

Response To: Comment 169-700

The deadline for applications for Vietnam Veterans applications for Native allotments has already passed. Applicants were allowed to select lands within the NPR-A; however, most applications have not been adjudicated. The locations of all approved allotments and pending allotment applications are shown on master title plats and other BLM-maintained records. Completion of Native corporation land selections is underway. One alternative in the EIS proposes withholding leasing until Native land selections are finalized. BLM will make a final decision on this issue in the ROD.

Comment From: Olgoonik Corporation (Comment Letter No. 169)

That all community travels routes accesses are protected whether they are winter or summer routes. **(Comment No. 169-702)**

Response To: Comment 169-702

The Alaska National Interest Lands Conservation Act states that the Secretary (of the Interior) shall ensure rural residents engaged in subsistence activities reasonable access to subsistence resources on the public lands. The BLM has interpreted this to include customary and traditional travel between local communities.

Comment From: Olgoonik Corporation (Comment Letter No. 169)

That the minimum pipeline height be 7 feet and that there is dull finish to them. **(Comment No. 169-703)**

Response To: Comment 169-703

We have taken your comments into consideration in developing the Preferred Alternative.

Comment From: Olgoonik Corporation (Comment Letter No. 169)

That there be no permanent facilities (BLM; 'No surface occupancy' (NSO) designation) in heavy insect relief areas near Peered Bay, Pingosukruk to Pt. Belcher area. (see attached map with identified areas for specified setback) **(Comment No. 169-704)**

Response To: Comment 169-704

We have taken your comments into consideration in developing the Preferred Alternative.

Comment From: Olgoonik Corporation (Comment Letter No. 169)

The consensus was that there be a 3 mile setback on the Kuk River drainage, a heavily used subsistence area as well as associated drainage's as well as the Kokolik River to about 50 miles upriver. (see attached map with identified areas for specified setback) **(Comment No. 169-705)**

Response To: Comment 169-705

Under the Preferred Alternative, oil and gas leasing will be deferred in that area for 10 years. Prior to the deferred lease offerings, appropriate protections, including no-surface-occupancy stipulations, will be considered using new information and analysis.

Comment From: Olgoonik Corporation (Comment Letter No. 169)

No surface occupancy around the Kasegaluk lagoon extending from Wainwright to the NPRA border. This is a very high-use subsistance area for the village during the summer where caribou, seals, waterfowl, fish and beluga. **(Comment No. 169-706)**

Response To: Comment 169-706

Under the Preferred Alternative, oil and gas leasing will be deferred in that area for 10 years. Prior to the deferred lease offerings, appropriate protections, including no-surface-occupancy stipulations, will be considered using new information and analysis.

Comment From: Olgoonik Corporation (Comment Letter No. 169)

That there be no restrictions for local people in surface facilities. In the event that a subsister is in need of help whether their means of transportation is broken down and/or they have an accident. **(Comment No. 169-707)**

Response To: Comment 169-707

The BLM would be happy to assist the Olgoonik Corporation in negotiating an agreement with potential lessees concerning the protocols for helping subsistence hunters in need of assistance due to accidents or mechanical breakdowns. The issue of hunting access near surface oil facilities was raised during discussions for the NPR-A Northeast EIS/IAP and still needs clarification. We have taken your comments into consideration in developing the Preferred Alternative, see section H "Subsistence Consultation for Permitted Activities" in the "Lease Stipulations and Required Operating Procedures." Please also see the response to comment 254-612 (Subsistence).

Comment From: Olgoonik Corporation (Comment Letter No. 169)

All fish bearing lakes have the ½ set back. **(Comment No. 169-709)**

Response To: Comment 169-709

We have taken your comments into consideration in developing the Preferred Alternative

Comment From: Olgoonik Corporation (Comment Letter No. 169)

All petroleum companies should contact the affected communities regularly. **(Comment No. 169-710)**

Response To: Comment 169-710

We have taken your comments into consideration in developing the Preferred Alternative; see section H "Subsistence Consultation for Permitted Activities" in the "Lease Stipulations and Required Operating Procedures."

Comment From: ConocoPhillips Alaska, Inc (Comment Letter No. 255)

Nothing in the scientific data suggests that these alternatives and the prescriptive restrictions contained in the stipulations in an 'excluded' area will provide any greater benefit than the operational restrictions proposed in a protective stipulation that still allows access to the area. Within the broad areas identified by these alternatives as potential set asides, there are always many unused areas and low use habitat that could be developed in an environmentally sound manner. CPAI has scientific data from studies designed in consultation with state and federal agencies tha t demonstrate we can operate in sensitive areas without adversely impacting the wildlife using the habitat. Moreover, some of the DEIS proposed stipulations were not designed to address "small footprint" fields like Alpine or those being proposed in the Alpine Satellite Development EIS currently underway. **(Comment No. 255-744)**

Response To: Comment 255-744

The Preferred Alternative (PA) does not have any areas that would be unavailable for leasing; however, the PA does provide protective measures by deferring oil and gas leasing for 10 years in the Kasegaluk Lagoon to Peard Bay area. Prior to the lease offerings, appropriate protections, including a no-surface-occupancy stipulation, will be imposed. Additionally, the Preferred Alternative recommends that the Kasegaluk Lagoon and adjacent lands be

designated a special area. Development of the Stipulations and ROP's was done with consideration of "small footprint" fields like Alpine.

Comment From: ConocoPhillips Alaska, Inc (Comment Letter No. 255)

The territorial exclusion also prohibits future exploration and development when newer technology will be available. **(Comment No. 255-746)**

Response To: Comment 255-746

All areas in the Northwest NPR-A Planning Area would be made available for leasing under the Preferred Alternative.

Comment From: ConocoPhillips Alaska, Inc (Comment Letter No. 255)

The stipulation should recognize and allow storage and operations at areas closer than the stated distances that are properly designed to account for specific hydrologic conditions. **(Comment No. 255-753)**

Response To: Comment 255-753

Fuel storage stipulations in the Preferred Alternative have been revised to be in agreement with Alaska Department of Natural Resources (ADNR) and Alaska Department of Fish and Game (ADF&G) regulations.

Comment From: City and Native Village of Nuiqsut (Comment Letter No. 80026)

NPR-A Northeast Stipulations: All stipulations contained in the Northeast NPR-A IAP/EIS should also be incorporated into the Northwest IAP/EIS as a matter of continuity and environmental protection. Additionally, our City and Tribal governments need to be involved in the design of subsistence stipulations. BLM should utilize the local Subsistence Oversight Panel to make determinations, however the whole community should be involved in consultations and the utilization of traditional/local knowledge needs to be a priority. **(Comment No. 80026-1017)**

Response To: Comment 80026-1017

Please see responses to comments 213-208 (Research and Monitoring Team), 254-614 (Possible Northeast Amendment), 80077-946 (Government to Government). See also the General Lease Stipulations and Required Operating Procedures for the Preferred Alternative, specifically Required Operating Procedures H-1 and H-2.

Comment From: ConocoPhillips Alaska, Inc (Comment Letter No. 255)

Stipulation B-1 is silent on the use of ice chips from lakes less than 7 feet deep. We request this stipulation be clarified to allow the use of ice chips from naturally grounded sections of all lakes regardless of water depth. **(Comment No. 255-770)**

Response To: Comment 255-770

The stipulations for ice chip removal (Section II.C.5) have been revised for the Preferred Alternative to be in agreement with ADNR and ADF&G regulations.

Comment From: ConocoPhillips Alaska, Inc (Comment Letter No. 255)

During this winter season, ground operations (winter tundra travel) are allowed only when frost and snow cover are sufficient such that the tundra meets protective objectives. Although ROP C-1 clarifies this somewhat, it is not exactly clear what vehicles would be allowed on the tundra once winter season ground operations are allowed under Stipulation C-1. However, ROP C-1 would restrict use to low-ground-pressure vehicles, such as rolligons and a limited use of tractors equipped with wide tracks or 'shoes'. It would not allow other standard equipment that is typically used on ice roads and ice pads. **(Comment No. 255-772)**

Response To: Comment 255-772

The Preferred Alternative discusses in detail the protective provisions developed for ground operations during the winter. See specifically Section II.C.6.c, Stipulation C-2. Also, please see the response to comment 251-325 (Stipulations, Required Operating Procedures and Mitigations).

Comment From: ConocoPhillips Alaska, Inc (Comment Letter No. 255)

Both ROP C-1 and Stipulation C-1 should be clarified to make sure the intent was to allow for the use of this equipment on ice roads and pads. **(Comment No. 255-773)**

Response To: Comment 255-773

We have taken your comment into consideration in developing the Preferred Alternative. Please see the responses to comments 251-325 (Stipulations, Required Operating Procedures and Mitigations),and 255-770 (Stipulations, Required Operating Procedures and Mitigations).

Comment From: ConocoPhillips Alaska, Inc (Comment Letter No. 255)

Stipulation C-1 and ROP C-1 also apply only during the winter season. As such, it is unclear what stipulations, if any, address tundra travel outside the winter season. **(Comment No. 255-775)**

Response To: Comment 255-775

Recreational as well as commercial tundra travel outside the winter season is not allowed.

Comment From: ConocoPhillips Alaska, Inc (Comment Letter No. 255)

From our conversations with BLM, we have been told that the intent of the DEIS is not to disallow summer tundra travel OHV use in a manner consistent with that of the State of Alaska. CPAI requests that a specific stipulation be included if necessary to clarify such use. **(Comment No. 255-777)**

Response To: Comment 255-777

The Preferred Alternative does not allow non-recreational summer tundra travel except as may be authorized on a case-by-case basis by the Authorized Officer. Recreational use of OHV's is limited to winter use of snow machines and other low ground-pressure vehicles and no summer recreational use of motorized vehicles. Subsistence use of all-terrain vehicles (ATV's) is not restricted except that summer use of airboats would be limited to streams, lakes and estuaries that are seasonably accessible by motorboats. Airboat use would be prohibited in seasonally flooded tundra and shallow waters with wetland vegetation adjacent to streams, lakes and estuaries.

Comment From: ConocoPhillips Alaska, Inc (Comment Letter No. 255)

ROP C-1.c ' as discussed in our comments on Stipulation C-1, once winter tundra travel is opened, use should not be restricted to only low- ground pressure vehicles. **(Comment No. 255-779)**

Response To: Comment 255-779

Please see response to comment 255-772 (Stipulations, Required Operating Procedures and Mitigations).

Comment From: WesternGeco (Comment Letter No. 215)

In regard to Stipulation A-3, the floodplain in the NPR-A is quite large and not well mapped. WesternGeco already bases refueling stations at distances greater than 500 feet from water bodies. This year however, the BLM recommended that we set back a distance of 200'. To comply with the floodplain criterion, we would need to obtain floodplain maps from the BLM. In some areas the floodplain may be so extensive as to exclude seismic operations. In this case, WesternGeco would like to have the option to apply for an exemption from the AO. **(Comment No. 215-780)**

Response To: Comment 215-780

We have taken your comments into consideration in developing the Preferred Alternative. The option to request an exception is available to any applicant.

Comment From: WesternGeco (Comment Letter No. 215)

"the applicant shall make every reasonable effort, including such mechanisms as a conflict avoidance agreement and mitigating, to ensure'.' The majority of seismic operations occur during the winter months and not during the annual subsistence harvest. Conflict avoidance agreements and mitigation measures are generally applicable during specific time periods corresponding to the traditional seasonal harvest. Stipulation H-1 should be applied only a time period extending from May 15 to October 1. **(Comment No. 215-781)**

Response To: Comment 215-781

Subsistence activities are not limited to the period between May 15 and October 1. Accordingly, consultation requirements are not seasonal.

Comment From: ConocoPhillips Alaska, Inc (Comment Letter No. 255)

ROP C-1.d ' the second sentence should delete the reference 'for use by rolligons'. Ice roads and hardened snow trails can be used by many vehicles, not just rolligons. **(Comment No. 255-782)**

Response To: Comment 255-782

Please see response to comment 255-772 (Stipulations, Required Operating Procedures and Mitigations).

Comment From: ConocoPhillips Alaska, Inc (Comment Letter No. 255)

ROP C-1.e ' this stipulation is not clear as currently written. It states that the use of bulldozers is prohibited but then allows the clearing of snow for some activities such as seismic lines. The ROP implies that the use of bulldozers is approved for snow removal to the extent that the tundra mat is not disturbed. It needs to be clarified that bulldozers can be used for snow removal as long as the tundra mat is not disturbed. **(Comment No. 255-784)**

Response To: Comment 255-784

Please see response to comment 255-772 (Stipulations, Required Operating Procedures and Mitigations).

Comment From: ConocoPhillips Alaska, Inc (Comment Letter No. 255)

ROP C-1.f ' applicability needs to be clarified. The entire ROP C-1 is designated for the winter season. However, ROP C-1.f includes dates that extend out to August 15, 2003, well beyond the winter season. **(Comment No. 255-787)**

Response To: Comment 255-787

Please see response to comment 255-772 (Stipulations, Required Operating Procedures and Mitigations).

Comment From: ConocoPhillips Alaska, Inc (Comment Letter No. 255)

As a result, CPAI believes this stipulation should be an ROP to be taken into account when looking at a specific project and the potential impacts resulting from that project. **(Comment No. 255-789)**

Response To: Comment 255-789

We have taken your comment into consideration in developing the Preferred Alternative. Please see the response to comment 251-325 (Stipulations, Required Operating Procedures and Mitigations).

Comment From: City and Native Village of Nuiqsut (Comment Letter No. 80026)

River, Stream and Lake Set-Backs: Stipulation E-1 provides for various setback widths for named rivers, streams and lakes. Most of the setbacks are ½ mile in width, except for the 2-mile setback on the northern bluff or bank of the Colville River. The Preferred Alternative selected for Northeast NPR-A development should include setback widths of no less than 3 mile(s) for all rivers, stream and lakes. Wider setbacks are imperative in protecting our subsistence resources. **(Comment No. 80026-1019)**

Response To: Comment 80026-1019

We have taken your comments into consideration in developing the Preferred Alternative. Please see the General Lease Stipulations and Required Operating Procedures for the Preferred Alternative, specifically Required Operating Procedure B-1 and Stipulations E-2, E-3, and K-1.

Comment From: Tom Cade (Comment Letter No. 171)

I am concerned that there may be impending decisions within BLM, or in the Department of the Interior, to relax considerably the well-conceived stipulations and required operating procedures that were approved in Interior's Record of Decision for the Northeast Planning Area in 1998. As I indicated in my letter to you in September of 1998, the preferred alternative and associated stipulations adopted at that time struck 'a reasonable'if not visionary'balance between the interests of conservation and development.' There should be no retreat from those high standards. The proposed strategy to defer detailed environmental studies of potential impacts to the time when permits for actual work are being processed instead of doing them prior to the leasing process, as was the case for the Northeast Planning Area, may be convenient for the industry and BLM, or for some high level political agenda, but it certainly does not augur well for the most effective conservation of surface values and renewable natural resources that would be impacted by development. **(Comment No. 171-838)**

Response To: Comment 171-838

Please see the responses to comments 251-136 (Management) and 249-524 (Stipulations, Required Operating Procedures, and Mitigations).

Comment From: Michael North (Comment Letter No. 80003)

Third, I would hope that the federal government would implement appropriate levels of mitigation, following the U.S. Fish and Wildlife Service's step-down mitigation policy of avoidance, minimization, rectification, reduction, compensation. I shall comment on these one at a time. Avoidance: 1) Oilfield support facilities and lease areas must be located such that aircraft overflights do not cross over the core molting areas of the Teshekpuk Lake Special Area. 2)The core yellow-billed loon breeding areas on the Meade, Chipp and Ikpikpuk Rivers must be removed from any consideration of leasing. Minimization: 1)Smaller lease areas should be approved rather than larger lease areas, and the leased areas should form compact aggregations rather than be spread throughout the NPR-A. This approach would hold in reserve some areas where wildlife populations would not be disturbed, areas that would be analogous to refuges or to "sources" in "source-sink" theory. Rectification: 1) the federal

government should set an absolute cap on the amount of area that can be covered by gravel for roads, drill pads, pipelines, etc. at any one time, and any new future leases would thus have to be tied in with removal of gravel from abandoned facilities. This approach would link all of the North Slope oilfields into a consolidated national planning effort, as gravel pads and roads in the Prudhoe Bay area would become obsolete sooner than new facilities in the NPR-A. Reduction: 1) As gravel pads and roads become obsolete, they need to be removed irrespective of any cap on the amount of area allowed to be developed on the North Slope. Compensation: 1)When there was a concerted effort and considerable likelihood in 1991 that Arctic NWR was going to be opened up for development, there was a rider known as the Jones Amendment that would have established the Teshekpuk-Utokok Uplands NWR in the NPR-A as compensatory mitigation. **(Comment No. 80003-850)**

Response To: Comment 80003-850

We have taken your comments into consideration in developing the Preferred Alternative. We have also responded to several issues mentioned in this paragraph of your comment. • Avoidance. The location of support facilities is not the only sole means of avoidance. Standard flight paths may be established by the lease holder to comply with avoidance concerns in those areas of the Special Area that require avoidance treatment. It is important to note that exploration of the 1940's through 1980's had no such restrictions and the breeding grounds still exist. • Avoidance. It is not necessary to delete areas from leasing to avoid areas of concern and protect resources. Resources of concern can be protected by measures required in lease stipulations, requirements attached to permits, and through Notices to Lessees that requiring such measures to be incorporated into lessees' plans. • Minimization. Maximum lease tract size is governed by law, for NPR-A it is set at 60,000 acres. The BLM policy sets the tract size limit generally at 1 township, 20,000 acres. These sizes are based on economic concerns in that a lease tract must be a size that makes ownership and opportunity of discovery worthwhile in an area of high cost and high risk. The odds of finding small fields decreases as the tract size becomes smaller and administrative costs increase. The offering of leases does not necessarily equate to development, only the possibility of exploration. Intense development is likely to occur on a very small number of leases. In a realistic development scenario, one would see a range of development from intense (production facility) to an abandoned exploration well to no activity at all across all leases offered. The BLM is directed by legislation to offer leases. There is no legal authority for the creation of "refuges" within the reserve. Although oil and gas reservoirs occur along geologic trends, it is only possible to determine areas of potential accumulations until drilling and testing proves whether or not hydrocarbons are present. • Rectification Once a field is discovered and delineated, both environmental and economic considerations dictate a minimum of facilities to attain maximum ultimate recovery of the hydrocarbons. • Reduction. The removal of gravel and other re-use options will be consider at the site specific level. A planning effort like as the author proposes would only work after the oil and gas field locations and quantities are known. • Compensation. Wilderness review in NPR-A is an area of uncertain law. Until recently BLM took the phrase from the Interior Appropriations Act of December 1980, "...the provisions of section 202 and section 603 of the Federal Lands Policy and Management Act of 1976 (90 Stat. 2743) shall not be applicable to the Reserve..." to mean that BLM had no authority to evaluate and recommend areas with wilderness characteristics in the NPR-A. Section 603 is the BLM's implementation of the Wilderness Act. Recent interpretations appear muddled at this time. • Compensation. Federal law requires that the State in allocating its 50 percent share of sales, rentals, and bonus royalties from any leasing in the NPR-A, give "priority to use by subdivisions of the State most directly or severely impacted by development of oil and gas" in the Reserve (P.L. 96-514). Under the law (AS 37.05.530), funds the State receives from leasing on the NPR-A are placed in the NPR-A Special Revenue Fund. These impact funds are distributed to communities through a grant program (19 AAC 50) administered by the Department of Community and Regional Affairs.

Comment From: Alaska Coalition (Comment Letter No. 80016)

Where oil leasing and development proceed, strong environmental safeguards are essential to protect the land, air, water, and wildlife resources of this unique arctic environment. **(Comment No. 80016-855)**

Response To: Comment 80016-855

The BLM agrees that it is important that the Plan include measures to protect the land, air, water, and wildlife resources. These measures must be balanced with meeting the purpose and need for land management in the National Petroleum Reserve-Alaska, as described in Chapter 1 of the IAP/EIS. The configuration of the area offered for lease and the stipulations and required operating procedures present a range of protection to the decisionmaker.

Comment From: The Sierra Club (Comment Letter No. 80014)

While Sierra Club does not oppose oil development within the Reserve, we believe that the many special places and unique wildlife resources within the Reserve are at serious risk from piecemeal development and shortsighted planning. It is imperative that BLM work to set aside the biologically essential components of the Reserve before additional leasing in the area proceeds. Sierra Club seeks effective protection for the nationally and internationally recognized wildlife habitats, wild rivers, cultural resources and wilderness found in the Reserve. The most biologically rich and recognized wildlife and wilderness values of the region are not permanently protected. A balanced approach to the management of these natural resources is needed to protect the most sensitive areas and cultures. The existing alternative proposed in the DEIS do not provide a realistic balance between oil development and habitat protection. None of the management alternatives provide adequate and appropriate protection for the unique cultural, natural, fish and wildlife, scenic and historical values as expressly required by Congress in the National Petroleum Reserve Production Act of 1976. **(Comment No. 80014-858)**

Response To: Comment 80014-858

The BLM believes the draft IAP/EIS provided a range of alternatives that included strong protections for the important cultural, natural, biological, scenic, historic and subsistence resources found in NPR-A. Despite the fact that many did not see among the alternatives one that they could embrace, we believe the appropriate building blocks were provided. Further, we believe that the range was appropriate for purposes of analysis and to provide a strong stimulus for public comment. A critical aspect of our planning process is the opportunity provided the public to comment. The BLM chose to take full advantage of public input and wait until after the comment period to develop a Preferred Alternative, an alternative we feel provides for balanced and environmentally responsible management of NPR-A.

Comment From: The Sierra Club (Comment Letter No. 80014)

Where oil development is allowed to proceed, the strictest environmental safeguards should be in place to protect the wildlife and subsistence values of the Reserve. The proposed plan presented in the DEIS dramatically rolls back lease stipulations addressing environmental mitigation measures, compared with the plan for the NE NPR-A. Indeed, the NW Plan slashes the requirements. BLM proposes from 9 to 20 lease stipulations in the NW Area, compared with 79 in the 1998 final decision for the NE NPRA. This is an unacceptable rollback that will have significant consequences for the long-term impact of oil development in the Arctic. **(Comment No. 80014-861)**

Response To: Comment 80014-861

Please see the responses to comments 249-524 (Stipulations, Required Operating Procedures and Mitigations)and 251-135 (Management).

Comment From: Public Meeting on DEIS - Atqasuk, Alaska (Comment Letter No. 80074)

But first of all, I can see a lot of these that were deleted, completely dropped from Alternative A and B. It even covers leasees shall conduct annual environmental compliance. That hasn't ever been struck out. And so this has been a very disturbing piece of paper that I did not want to read but we -- water withdrawals from rivers and streams during winter is prohibited, that's got to be struck out, too. They can pump all the water they want, build everything, open it wide open. So those are some of the things that I'd like to make it for the record. Even the locations of the winter ice roads shall be offset from one year to minimize vegetative impacts, meaning using the same route, we can use the other route and this is what it means. You know, they got to strike that out, too. And seismic work is prohibited. This is under Babbitt, seismic work is prohibited within a thousand to 1,200 feet of any known cabin. (In Native) They even struck out stipulation 24, to prevent surface disturbance to tundra and other vegetation, track vehicles will not execute (Oil and gas drilling explorations.) (In Native) So these are some of the things that I wanted to briefly present to the public here. Also Ikpikpuk River, half a mile setback from the banks of Ikpikpuk River (In Native), which has been struck out and that's in Alternative A and B, Ikpikpuk River. Teshekpuk Lake, half a mile setback from the bank. HEARING OFFICER BROWER: Joe, could I ask you..... MR. AKPIK: Yes. HEARING OFFICER BROWER: .....if we delete the half mile setback is there another setback that you prefer or was that just objecting to that one that is..... MR. AKPIK: Yes, I am presenting my objection, that I have gone and that are going to be stipulated in Northwest, okay. Fish Creek, three mile set back from each bank. (In Native) I've lived there in Nuiqsut for over three, four, five years and I fished there when I was growing up with Uncle George and Auntie Nanny. And Fish Creek has been one of the vital spots when I used to fish there. So these are some of the things that are very disturbing. Fish Creek is one of the most pristine areas that I've seen. We have to travel there. Judy Creek is another one there, too. That is one of the prettiest rivers I ever seen and they are going to be deleted. Colville River, one mile setback from the western bluff. (In Native) They're going to alleviate that one mile setback from the western bluff. (In Native) So these are some of the things that are very likely deletions that looking into A and B. Okay. HEARING OFFICER BROWER: These are Northeast quarter plans -- stipulations..... MR. AKPIK: Right. HEARING OFFICER BROWER: .....that were deleted that you're objecting to right now' 18 MR. AKPIK: Right, completely -- no -- yeah, these were completely dropped from Alternative A and B. It's about how many pages here, about eight pages of deletions that are really -- that we really need in order for an area to be looked at. HEARING OFFICER BROWER: Now, this, in applying to the Northwestern quarter..... MR. AKPIK: Right. HEARING OFFICER BROWER: .....you want 2 those kind of things reinstituted rather than deleted for the..... MR. AKPIK: Northwest. HEARING OFFICER BROWER: .....Northwest quarter' MR. AKPIK: Exactly. Thank you, Mr. Brower. Yes, there was a lot of deletions from Northeast Alternatives -- a lot of deletions in reference to Northwest. **(Comment No. 80074-883)**

Response To: Comment 80074-883

We have taken your comments into consideration in developing the Preferred Alternative. Please see comments 251-136 (Management) and 249-524 (Stipulations, Required Operating Procedures and Mitigations).

Comment From: Wainwright Tribal Council (Comment Letter No. 80012)

The community members feel that they should have a 3-mile setback on the Kuk River drainage, this is a heavily used subsistence area. This should also include the Utukok and Kokolik Rivers since some of our hunters use that area for fishing and hunting. The community members will have stipulations to preserve and protect our natural resources should there be development in the future. We respect our land, natural resources and we will expect the oil companies to do the same. There should be local people hired to work in the oil companies. Local people should be hired to monitor activities of the oil companies, this would help ensure the protection of the land and natural resources that we depend on. **(Comment No. 80012-1030)**

Response To: Comment 80012-1030

We have taken your comments into consideration in developing setbacks for the Preferred Alternative. Please see

the General Lease Stipulations and Required Operating Procedures for the Preferred Alternative, specifically Required Operating Procedure B-1 and Stipulations E-2, E-3, and K-1. For a discussion of employment and local hire, please see responses to comments 169-712 (Economy), 80065-577 (Economy), 80075-489 (Government to Government), and 80077-924 (Government-to-Government).

Comment From: Public Meeting on DEIS - Atqasuk, Alaska (Comment Letter No. 80074)

Exercising required operating procedure, which are ROPs which will fall under the Bureau of Land Management Department. (In Native) There will be no special areas, neither buffer zone around our unique pristine hunting and fishing grounds. And to include watersheds, which provides us fish and waterfowl. (In Native) The watersheds are very important to be addressed, which we> enjoy and utilize to gather our subsistence during the very short summer period after a long harsh cold winter which is 24 hour darkness. (In Native) **(Comment No. 80074-890)**

Response To: Comment 80074-890

We have taken your comments into consideration in developing the Preferred Alternative; specifically, setbacks along important subsistence use rivers and an expanded consultation process are part of the Preferred Alternative.

Comment From: Public Meeting on DEIS - Atqasuk, Alaska (Comment Letter No. 80074)

My recommendation toward Northwest Development, if the A and B alternatives are approved, we should utilize shallow, small jack-knife rigs to be laid down during the summer period to alleviate the tower and drilling rigs. **(Comment No. 80074-891)**

Response To: Comment 80074-891

Under the Preferred Alternative use of such equipment is not prohibited.

Comment From: Public Meeting on DEIS - Atqasuk, Alaska (Comment Letter No. 80074)

Another thing, when they do make the pipeline, do it like they do it at Nuiqsut, the road is not close to the pipeline, it's a little further, then that way the caribou won't be afraid to cross the road and the pipeline. HEARING OFFICER BROWER: That was Bernadine, recommends the pipeline be not as close to the -- if there's an existing road to be somewhat up away from the road system so that snow pile or things that may happen will not unduly complicate the passing caribou underneath the pipeline because in association with the road. MS. ITTA: It won't obstruct their migratory path. **(Comment No. 80074-895)**

Response To: Comment 80074-895

We have taken your comments into consideration in developing the Preferred Alternative.

Comment From: Public Meeting on DEIS - Fairbanks, Alaska (Comment Letter No. 80076)

I'm leery about oil field development in relationship to potential loss of hunting opportunities, especially since September 11th. In the interest of security of any kind of exploration and development hunting is not really compatible in today's world. I think that needs to be addressed in the report. **(Comment No. 80076-907)**

Response To: Comment 80076-907

Security is always an issue within an oil field, undoubtedly more so since September 11th. However, the traditional lifestyle of the residents of the North Slope is equally important. This is one reason BLM feels that the Subsistence Consultation requirements (reference section H of the "General Lease Stipulations and Required Operating Procedures") are a critical part of the EIS.

Comment From: NOAA (Comment Letter No. 209)

Page II-29 Air Traffic ROP F-1 To minimize the impact of aerial surveys and aircraft flights on marine mammals, we recommend that Required Operating Procedure (ROP) F-1 to also include this statement: 'All aircraft shall maintain an altitude of at least 1,500 ft AGL when operating along the coast and beyond (seaward of) 500 ft of the coastline, except during take off and landing.' **(Comment No. 209-908)**

Response To: Comment 209-908

The BLM can restrict some air traffic as part of a BLM authorized activity; however, we do not have the authority to implement nor enforce blanket restrictions on air traffic activities.

Comment From: Public Meeting on DEIS - Nuiqsut, Alaska (Comment Letter No. 80077)

Our subsistence uses of the lands occur during the heightened activities during the development because of the subsistence seasons, the monitoring activities occur during our heightened uses of the areas. We need to have buffers put in that allow us to utilize the area of our needed subsistence resources. **(Comment No. 80077-925)**

Response To: Comment 80077-925

We have taken your comments into consideration in developing the Preferred Alternative, please see Section H "Subsistence Consultation for Permitted Activities" of the General Lease Stipulations and Required Operating Procedures and Stipulations K-1, K-3, K-6, and K-8.

Comment From: David van den Berg (Comment Letter No. 189)

I urge the BLM to do all it can to protect the recreational, scenic and aural qualities of the Colville River: please do what you can to maintain the wilderness character of the Colville. There are many things you can do to protect the public's interest in this area, which has been amply demonstrated over time (including but not limited to): the fact of its establishment as a Special Area in 1977, the 1980s-era NEPA processes, 1998 NE NPR-A EIS process, the 1998 RAC resolution calling for watershed level planning for the Colville, surveys collected at Umiat, commercial permits issued to recreational outfits, public comment in the aborted Colville River IAP, and public comment in the present EIS process **(Comment No. 189-1036)**

Response To: Comment 189-1036

We have developed a stipulation that creates a one-mile setback for development from the Colville because of its important values. In addition the protections provided by many of the other area-wide stipulations and ROPs apply to the Colville. Also see the response to 80076-898 (Special Designation Areas).

Comment From: Public Meeting on DEIS - Nuiqsut, Alaska (Comment Letter No. 80077)

And then I'm pretty sure that Barrow and Atqasuk and all those had their statements and stuff, but I think if they keep the buffer zone and BLM is the one that say -- have the say so of the buffer zones and stuff on the rivers and to keep, as far as, you know, instead of trying to get closer to the rivers and stuff like that because they have directional drilling that will be going underneath or past the buffer zones and they might disturb the ecosystem of the fish and insects and whatever that nests in these rivers. **(Comment No. 80077-931)**

Response To: Comment 80077-931

We have considered your comments in developing the Preferred Alternative; please see the "General Lease Stipulations and Required Operating Procedures" and Stipulation K-1.

Comment From: Public Meeting on DEIS - Nuiqsut, Alaska (Comment Letter No. 80077)

Although she supports Bernice and Eli's comments on the no action, that careful planning around our culture and subsistence hunting areas, in that planning area should tend to the subsistence and cultural concerns of the Nuiqsut and Arctic Slope communities. There should be stipulations that are already set in, cast in stone if they're going to continue. But these things should be planned so that none of our renewable resources will be altered, that come in seasons. **(Comment No. 80077-944)**

Response To: Comment 80077-944

We have considered your comments in developing the Preferred Alternative and have incorporated many measures into the Preferred Alternative to protect subsistence resources and activities. See Section H and K of the "General Lease Stipulations and Required Operating Procedures" in the Preferred Alternative.

Comment From: Public Meeting on DEIS - Nuiqsut, Alaska (Comment Letter No. 80077)

So I'd like to see that, more regulations come from like water and air quality safety for the animals and the people, of like studying half of it and then see what kind of impacts and hazardous stuff that they can find out. Because to me it's never a good long- term study of what they're doing and stuff like that but I'd like to see half of it done. Because like they say, we ain't got no way of stopping it but we, the people, are going to be the endangered species here if they plan to do all of it and then not knowing the outcome of what's going to happen to our village and our health in this village. **(Comment No. 80077-947)**

Response To: Comment 80077-947

See responses to comments 80077-925 (Stipulations, Required Operating Procedures and Mitigations), 80077-930

(Studies), and 80077-946 (Government- to- Government).

Comment From: David van den Berg (Comment Letter No. 189)

There are so many things you can do to protect the Colville's character, starting with: 1. Do not make available for lease the Colville River Special Area within the NW Planning Area. Though I offer this sincerely, and mean it quite literally, I expect that the agency has already made up it's mind to make it available. Still, it's what I'd like to see happen. 2. In which event, I make a fallback plea that you not offer for leasing the CRSA. 3. As if I don't mean either of the last two entreaties, I urge you to neither make available for leasing nor offer for leasing the Colville watershed. 4. As if I did not mean that, please do not allow any surface occupancy within the CRSA for exploration or development phases. 5. Anticipating that the BLM is already committed to a course that may not allow significant change, I make a penultimate, and decreasingly efficacious request that no surface occupancy be permitted during the exploratory or development phases within the Colville watershed. 6. And finally, a last request that you assign a VRM Class 1 to the whole of the CRSA and reevaluate its SQRU scores. 7. And, oh, one more: please make the Colville a Wild and Scenic River. **(Comment No. 189-1038)**

Response To: Comment 189-1038

The law states that exploration within areas designated by the Secretary as special areas containing significant subsistence, recreational, fish and wildlife, or historical or scenic value, shall be conducted in a manner which will assure the maximum protection of such surface values to the extent consistent with the requirements of the Production Act for the for the exploration of the reserve. The Colville River Special area was designated because it contained significant regional habitats for raptors. The Preferred Alternative provides special measures to protect raptor habitat, see Area Specific Lease Stipulations and ROPs. The Preferred Alternative also designates the lands along the Colville River as a Visual Resource Management class 1.

Comment From: David van den Berg (Comment Letter No. 189)

1a. Not making the CRSA available for leasing suggests that the agency understands at some level that oil drilling conflicts with wilderness qualities; that the Colville deserves protection; that deferring leasing confers a semantic and symbolic presumption in favor of the area's protection: if you don't now open the door to oil and gas drilling, it can't come in yet. Yet! You'll have precluded no options. 2a. The CRSA within NW is only 441,000 acres, approximately 5 percent of the planning area. Not offering it for leasing this time around will not 'blind' bidders to the overall hydrocarbon potential of the NW Planning Area. Will it' Not offering it will not unduly lighten BLM's coffers. Will it' Why not defer leasing here' 3a. The Colville watershed within NW is only 274,548 acres, approximately 3.1 percent of the planning area. Not offering it for leasing this time around will not 'blind' bidders to the overall hydrocarbon potential of the NW Planning Area. Will it' Not offering it will not unduly lighten BLM's coffers. Will it' Why not defer leasing here' 4a. The rhetorical drift from BLM has been to equate the Colville's purpose merely with raptor habitat conservation and recovery. If this is true, it should stop. The CRSA was established also to protect scenic and recreational values, among others. Stipulations for protecting the recreational and scenic qualities of the Colville in NE were weak; in the NW, your stips to protect these values won't do the job. For exploration (winter), your stips may work. But beyond that phase, a one mile or even a two mile buffer for infrastructure is just a futile formality. It's also an insult to those of us who use the river. So it's worth being honest now with the oil companies that you won't countenance surface occupancy along the Colville within a much greater buffer. At almost any point along the Colville between the Awuna confluence and the NE boundary, a drill tower, a bunk house, or a coil of pipe a mile or two from the river merely ensures that it's in plain view from the river. 5a. How about enacting stipulations that prohibit surface occupancy within the Colville River watershed' Since this takes in the 275,000 acres closest to the river, it is the most sensible boundary to draw to protect the Colville's wild character. If you preclude surface occupancy in the watershed, then all occupancy would by definition be on the 'other side of the hill,' visually and aurally isolated from the river. 6a. What more evidence do you need to raise the Colville's VRM and SQRU scores' It's an amazing, peerless wilderness. Beauty is subjective, of course, and I'm telling you that I and others feel it is beautiful, especially that stretch from the

Awuna to the Ninuluk Bluff area. 7a. You've dodged the Wild and Scenic issue by blaming it on Native hostility to the idea. And then to the fact that BLM does not control both shores of the Colville. Well, there are other rivers designated as Wild and Scenic where land ownership is more complicated: The Fortymile River, where the state owns the uplands and the riverbed. The Gulkana River, where the state and Natives own the uplands and the state owns the riverbed. Why not start now to make the Colville within the NW Plan a Wild and Scenic River' **(Comment No. 189-1039)**

Response To: Comment 189-1039

The Preferred Alternative prohibits permanent facilities within one mile of the bluff along that portion of the Colville River within the Planning Area; please see the Area Specific Lease Stipulations and ROPs' for the Preferred Alternative. Please see the response to comment 189-1038 (Stipulations, Required Operating Procedures and Mitigations).

Comment From: Public Meeting on DEIS - Anchorage, Alaska (Comment Letter No. 80073)

The Northeastern portion of this area, that's the cross-hatch on the right side of Dease Inlet, should be given additional protection in a no lease zone to conserve its sensitive wildlife habitat values. The marine waters of both Dease Inlet and Elson Lagoon should be designated as no surface activity zones to protect these important and sensitive habitats. Elsewhere in the special area we recommend developing special stipulations to protect habitat for threatened spectacled eider and yellow-billed loons. And those are the little cross-hatch red areas. These areas would not preclude leasing. **(Comment No. 80073-959)**

Response To: Comment 80073-959

Please see comment responses 213-202 (Special Designation Areas), 213-225 (Special Designation Areas, and 213-232 (Alternatives General).

Comment From: Paul Hugo (Comment Letter No. 187)

All activities should be done before and after spring and fall caribou migration. **(Comment No. 187-966)**

Response To: Comment 187-966

Several measures to minimize impact on caribou movement are included in the Preferred Alternative. However, these measures are focused on the Teshekpuk Lake Caribou Herd, not the Western Arctic Herd (WAH). Impacts to the WAH from oil and gas activities in the Planning Area are not specifically addressed because the winter range, calving area, primary migratory area, and most of the summer range of the WAH are outside of the Planning Area.

Comment From: Jessica Sprajcar (Comment Letter No. 46)

Water ecosystems tend to be more fragile than land-based ones. Therefore it is imperative that oil drilling does not occur near the wetlands, bogs, streams, etc. of the NPR-A. Off-shore oil drilling should also be avoided if possible. Studies have shown that the man-made structures of off-shore rigs cause imbalances in the marine flora and fauna, creating explosions of jelly-fish populations that harm other creatures. **(Comment No. 46-971)**

Response To: Comment 46-971

We have taken your comments into consideration in developing the Preferred Alternative. Please see the General Lease Stipulations and Required Operating Procedures of the Preferred Alternative.

Comment From: Jessica Sprajcar (Comment Letter No. 46)

Secondly, care should be taken to create a continguous area of protected land, not small fragmented spots throughout the reserve. Habitat fragmentation is one of the biggest killers of indigenous populations of animals, as they run out of sustenance, or are separated from other breeding populations and become inbreeding colonies. Roads and pipelines should not run through the middle of any key habitat in the area, as this could lead to disasterous results. **(Comment No. 46-972)**

Response To: Comment 46-972

Please see the response to comment 253-59 (Planning).

Comment From: Gordon Brower (Comment Letter No. 48)

BLM must provide some parameters to steer development. **(Comment No. 48-974)**

Response To: Comment 48-974

Because the locations of economically viable oil and gas reservoirs cannot be known until drilling and well testing are completed, it is not possible for a regional infrastructure plan to be designed at this stage.

Comment From: Gordon Brower (Comment Letter No. 50)

Using of equipment on tundra must be limited and prohibited in any marshy area. **(Comment No. 50-977)**

Response To: Comment 50-977

Please see the General Lease Stipulation and Required Operating Procedures Section II.C.6, for a discussion on Tundra Travel.

Comment From: Hearing -Anaktuvuk Pass (Comment Letter No. 80072)

HEARING OFFICER BROWER: So the concern is that the caribou -- Teshekpuk Herd should not be hindered from moving south to Anaktuvuk Pass area because that does occur, some caribou from the Teshekpuk Herd do migrate to -- so there needs to be some protection, some assurance that that will not be barred or hindered. **(Comment No. 80072-983)**

Response To: Comment 80072-983

Several measures have been included in the Preferred Alternative to minimize impact on movement of the TLH caribou. These include restrictions on aircraft use, elevating pipelines a minimum of 7' above ground level, requiring separation of roads and pipelines, designing oil fields to minimize impacts on caribou movement, and a three-year study of TLH caribou movements within the Caribou Study Area (Map 91) before construction of permanent facilities. In addition, a six-year study of caribou demography, distribution and movement in relation to oil field infrastructure will be conducted by ADF&G with support by BLM and other agencies. See Required Operating Procedures F-1, E-7, and K-5 under "General Lease Stipulations and Required Operating Procedures".

8. TOPIC : SPECIAL DESIGNATION AREAS

Comment From: U. S. Evironmental Protection Agency (Comment Letter No. 261)

To be consistent with past management decisions regarding SMZs, EPA recommends designation of (1) Kasegaluk Lagoon, (2) Peard Bay and Kugrua Bay, and (3) Elson Lagoon, Dease Inlet, and Admiralty Bay as Special Areas for the NW NPR-A due to their importance as critical waterbird and wildlife habitat, subsistence resources, and socio-cultural significance. This would be consistent with recommendations provided by the U.S. Fish and Wildlife Service. (1) Kasegaluk Lagoon - As proposed in the draft IAP/EIS, Alternatives B and C would create a new Special Area for Kasegaluk Lagoon. Given this would be consistent with past management decisions and existing statutory directions for the NPR-A, EPA recommends that DOI/BLM proceed forward with this designation, including gathering input from local communities for any Preferred Alternative that is selected for the NW NPR-A IAP. (2) Peard Bay and Kugrua Bay - This complex of islands and shoal protected deep water bays provide important nesting ha bitat for spectacled eider, a species listed as 'threatened.' There are a number of polar bear denning areas (Map 51). Designation of Peard Bay and Kugrua Bay would be consistent with past management decisions and existing statutory directions for the NPR-A. A Preferred Alternative for the NW NPR-A should include Peard Bay and Kugrua Bay as a Special Area. (3) Elson Lagoon, Dease Inlet, and Admiralty Bay - This ecological area comprises of lagoons, inlets, and bays, which is essential for wildlife and waterfowl habitat. East of Dease Inlet is a caribou insect relief area (Map 91). Threatened Spectacled Eiders nest in this area as well as pacific loons (Map 38) tundra swans (Map 39), white fronted geese (Map 40), northern pintails (Map 41), long tailed ducks (Map 42), king eiders (Map 43). Brants use this area for brood rearing. This is an important area for Yellow-billed loons nesting habitat (Map 90). Dease Inlet provides spotted seal coastal haul out and concentration areas (Map 59). There are a number of onshore dens for polar bears (Map 51). The important habitat values described in the draft IAP/EIS for this area warrant DOI/BLM to designate Elson Lagoon, Dease Inlet, and Admiralty Bay as a Special Area. This would be consistent with DOI/BLM management decisions and existing statutory directions for the NPR-A. EPA would support designation of Elson Lagoon, Dease Inlet, and Admiralty Bay as a Special Area. **(Comment No. 261-88)**

Response To: Comment 261-88

See comment response 213-202 and 213-217 (Special Designation Areas) for discussions of why BLM chose to identify only the Kasegaluk Lagoon as a new Special Area.

Comment From: U. S. Evironmental Protection Agency (Comment Letter No. 261)

We recommend that the final IAP/EIS include separate maps for (1) Kasegaluk Lagoon, (2) Peard Bay and Kugrua Bay, and (3) Elson Lagoon, Dease Inlet, and Admiralty Bay, which includes this resource information.

(Comment No. 261-89)

Response To: Comment 261-89

Information for subsistence, recreational, fish and wildlife, and historical and scenic resources in the Kasegaluk Lagoon area, Peard Bay and Kugrua Bay area, and the Elson Lagoon, Dease Inlet, and Admiralty Bay area is provided in text, tables, and maps. The BLM believes that the maps included in this IAP/EIS are appropriate in scale and level of detail for this IAP/EIS and provide the necessary information to support the program decision.

Comment From: U. S. Evironmental Protection Agency (Comment Letter No. 261)

The draft IAP/EIS analyzes many of the issues that surfaced at the scoping meetings and states that these concerns influenced the alternatives presented. EPA sees some correlation between the issues raised in the scoping meetings and the stipulations and required operating procedures (ROPs), but not in the overall alternatives presented. The designation of Special Areas (SA), Wilderness Study designations or Wild and Scenic Rivers (WSR) status for Alternatives B and C appear to restrict subsistence harvest activities as they would be viewed by affected EJ communities to discourage traditional travel and subsistence hunting practices (page IV-306 of the draft IAP/EIS). An alternative that protects subsistence resources and does not restrict subsistence activities would be ideal for subsistence harvesters. None of the alternatives offer this option. We believe the final IAP/EIS should include such an alternative. **(Comment No. 261-104)**

Response To: Comment 261-104

The stipulations are an integral part of the alternatives and we believe that the stipulations, in combination with the land and resource allocations presented in the Preferred Alternative, No Action Alternative, and Alternatives A, B, and C, do respond to the issues raised during scoping and represent a reasonable range of alternatives for consideration. Further, BLM believes that the No Action Alternative is an option that protects subsistence resources and does not restrict subsistence activities.

Comment From: U. S. Evironmental Protection Agency (Comment Letter No. 261)

Kasegaluk Lagoon The final IAP/EIS should include a full scale map of this biologically important area which includes, but is not limited to, all the environmental resource information, such as marine mammal habitat; bird nesting sites; subsistence resource harvest areas; etc. **(Comment No. 261-131)**

Response To: Comment 261-131

Please see the response to comment 261-89 (Special Designation Areas).

Comment From: U. S. Evironmental Protection Agency (Comment Letter No. 261)

Peard Bay and Kugrua Bay The final IAP/EIS should include a full scale map of this biologically important area which includes, but is not limited to, all the environmental resources information, such as waterfowl habitat and nesting areas for spectacled eider; polar bear denning areas; etc. **(Comment No. 261-132)**

Response To: Comment 261-132

Please see the response to comment 261-89 (Special Designation Areas).

Comment From: U. S. Evironmental Protection Agency (Comment Letter No. 261)

Elson Lagoon, Dease Inlet, and Admiralty Bay The final IAP/EIS should include a full scale map of this biologically important area which includes, but is not limited to, all the environmental resources information, such as caribou insect relief areas; waterfowl habitat and nesting areas for spectacled eider, yellow billed loons and red-throated loons; polar bear denning areas; spotted seal haul out areas; etc. **(Comment No. 261-133)**

Response To: Comment 261-133

Please see the response to comment 261-89 (Special Designation Areas).

Comment From: Audubon Alaska (Comment Letter No. 213)

Summary of Key Recommendations and Concerns 1. Special Areas: Audubon strongly recommends designating four new special areas within the Northwest Planning Area of the National Petroleum Reserve-Alaska. Areas recommended for new special area status include: Dease Inlet-Meade River, Peard Bay, Kasegaluk Lagoon, and South Ikpikpuk River. In addition, we recommend a no lease zone in the Colville River Special Area that occurs within the planning area. Audubon's wildlife habitat alternative provides significantly more industry access to areas of high oil and gas resource potential than BLM's Alternative C. We request that Audubon's Wildlife Habitat Alternative be considered as a formal alternative in the FEIS. **(Comment No. 213-202)**

Response To: Comment 213-202

The Preferred Alternative identifies the Kasegaluk Lagoon for Special Area status. In other areas where you have recommended special protections, we have not chosen to create special areas. The purpose of special areas is to provide protection for the resources within the area. There are other means to provide protection to the resources of these areas. The BLM believes protection would be provided through the comprehensive set of Stipulations and ROP's. We have established setbacks and other restrictions that would provide adequate protection for species present and their habitats in and around rivers and lakes and along the shorelines of bays, inlets, and lagoons. Some of the setback distances have been increased in the Preferred Alternative in response to concerns expressed by your organization and other members of the public. In the Preferred Alternative, we have also added several ROP's that would require studies of threatened and other important species and their habitats prior to making final decisions about construction of permanent facilities. Rather than establish a no lease zone on the Colville River, we have developed a stipulation that will preclude surface occupancy for development within one mile of the river. We think that these restrictions and others included in the Stipulations and ROP's for the Preferred Alternative would provide adequate protection to the resources that are present in the areas you have suggested receive Special Area status. The BLM has considered your recommendations in the development of the Preferred Alternative. The Audubon's proposed Wildlife Alternative addresses some (but not all) species of birds in some parts of the Planning Area, however, this is not a comprehensive alternative that addresses all of the issues the plan must deal with. Alternatives that we consider in our plans must address all of the issues that are of concern. Please see the response to comment 213-232(Alternatives General).

Comment From: Audubon Alaska (Comment Letter No. 213)

Protected Areas: Although the North Slope is undergoing significant change, there are no permanently protected conservation units, except the very small, eastern tip of the Arctic Refuge. The lack of protected areas reduces our opportunity to establish ecological baselines from which we can evaluate long-term impacts from expanding industrial infrastructure and separate these from other environmental effects like climate change. The DEIS does not address this issue. We recommend adopting Audubon's habitat conservation alternative as the start of a comprehensive protected areas strategy. **(Comment No. 213-207)**

Response To: Comment 213-207

The Preferred Alternative will defer for 10 years development in the 18 percent of the Planning Area in the far west and will include a no-surface-occupancy restriction on Kasegaluk Lagoon. These actions should allow the development of the ecological baselines you advocate.

Comment From: Audubon Alaska (Comment Letter No. 213)

The area also includes numerous deep-water lakes. The productive wetlands complex of Dease Inlet-Meade River should be designated by BLM as a new special area (Fig. 2). **(Comment No. 213-211)**

Response To: Comment 213-211

Please see response 213-202 (Special Designation Areas).

Comment From: Audubon Alaska (Comment Letter No. 213)

This area's high wildlife values justify its designation as a special area. Audubon recommends a no- lease zone and permanent protection for Peard Bay (Fig. 2), which has low potential for oil development. **(Comment No. 213-215)**

Response To: Comment 213-215

We have taken your comments into consideration in developing the Preferred Alternative. Please also see the response to comment 213-232 (Alternatives General). The area south of Peard Bay recommended for special protection by Audubon does include several high-density nesting areas for the spectacled eider, as well as for Pacific loon, white-fronted goose, long-tailed duck, scaup, and shorebird species. Abundant high-density areas for these latter species exist elsewhere in NPR-A, and several areas of high and medium-high spectacled eider density also occur, as shown on relevant maps in the IAP/EIS. The IAP/EIS recognizes that some polar bear den locations occur in the Peard Bay area (See Map 51). The necessity for additional protection would depend in part upon the types of activities that would occur in this area. Designating the area as a no-lease area, as suggested by Audubon, is just one possible approach. BLM took a different approach which emphasized the use of setbacks and other protective stipulations. Protective mitigation measures are also appropriately developed during the site-specific environmental review at the permitting stage for specific proposed activities. Under the Preferred Alternative presented in the final IAP/EIS, oil and gas leasing would be deferred for 10 years in the Peard Bay Area to provide an additional opportunity to develop baseline information and study the affected spaces.

Comment From: Audubon Alaska (Comment Letter No. 213)

Kasegaluk Lagoon is also an important subsistence area for the communities of Point Lay and Wainright. Audubon recommends special area designation for the northern portion of Kasegaluk Lagoon. Because of the lagoon's unique habitat values for birds and marine mammals, the entire special area should be zoned as a no-lease area within the Northwest Planning Area (Fig. 2). Kasegaluk Lagoon should be given permanent protection. **(Comment No. 213-217)**

Response To: Comment 213-217

We have taken your comments into consideration in developing the Preferred Alternative. Please also see the response to comment 213-232 (Alternatives General). As the comment notes, Kasegaluk Lagoon is well known as an important staging area for brant in late August-early September prior to their annual fall migration to southern overwintering areas. The Teshekpuk Lake Special Area, however, is the major brant molting area in arctic Alaska. The necessity for additional protection of the Kasegaluk Lagoon area would depend in part upon the types of activities that would occur. Designating the area as a no-lease area, as suggested by Audubon, is just one possible approach. BLM took a different approach which emphasized the use of setbacks and other protective stipulations. Protective mitigation measures are also appropriately developed during the site-specific environmental review at the permitting stage for specific proposed activities. Under the Preferred Alternative presented in the final IAP/EIS, oil and gas leasing would be deferred for 10 years in Kasegaluk Lagoon. The EIS recognizes that polar bears concentrate along the Alaskan coast including Kasegaluk Lagoon (See Map 51 and Section III.B.5.b(5)). The EIS recognizes the importance of Kasegaluk Lagoon for beluga whales (See Section III.5.b(5)) and to spotted seals (See Section III.B.5.b(3)). The text on spotted seals in Section III.5.b(3) has been expanded in response to this comment.

Comment From: Audubon Alaska (Comment Letter No. 213)

This interior coastal plain, which borders the Northeast Planning Area, should be designated as a special area to protect anadromous fish habitat and nesting peregrine falcons. In fact, the entire Ikpikpuk River system should be combined into this special area. Audubon recommends a nolease zone for this special area (Fig. 2). The Ikpikpuk River, flowing north to the TLSA, should be protected with a 2-mi no-surface activity zone along the west side of the river. If necessary, a designated crossing area could be identified along that river corridor. **(Comment No. 213-220)**

Response To: Comment 213-220

We have taken your comments into consideration in developing the Preferred Alternative. Please also see the response to comment 213-232 (Alternatives General). Currently, the Ikpikpuk River is highlighted as a wildlife habitat area of significant concern [(Stipulation K-1 of the Preferred Alternative (PA)] where up-to-1-mile setbacks may be required for facilities and activities. When significant resources occur in designated wildlife habitats, additional design features or mitigation determined through site-specific NEPA analysis would be required to minimize impacts. These protective measures would provide significant protection for peregrine falcons along this river, the upper portion of which has one of the most numerous concentrations of peregrine nest sites. Audubon recommendations of special area designation, 2-mile setbacks, and no-lease zone designation provide alternative approaches for protecting wildlife in this area. Stipulation K-1 of the PA would require additional design features or mitigation, including up-to-1-mile setbacks, for this river if significant resources occur there.

Comment From: Audubon Alaska (Comment Letter No. 213)

The entire special area within the Northwest Planning Area should be protected as a no-lease zone (Fig. 2). This

portion of the Colville River should be given permanent protection. **(Comment No. 213-222)**

Response To: Comment 213-222

We have taken your comments into consideration in developing the Preferred Alternative. Please also see the response to comment 213-232 (Alternatives General). Several stipulations and required operating procedures (ROP's) contained in the IAP/EIS address potential disturbance or pollution problems for other species that could offer protection for raptors and/or songbirds in the Colville River corridor. These include: a) Stipulation K-1, providing up-to-½-mi setbacks for activities along the Colville River could benefit nesting raptors and songbirds in the river's riparian corridor by decreasing disturbance in these areas; b) ROP F-1, requiring that aircraft operations minimize impacts on birds could decrease disturbance of nesting raptors along the Colville River and songbirds occupying the riparian corridor; and c) Stipulation K-7, location of any required permanent facilities in the Colville River Special Area as far from raptor nests as is feasible would minimize disturbance of raptors, and songbirds occupying riparian habitats along the river.

Comment From: Audubon Alaska (Comment Letter No. 213)

Conservation stipulations should be developed and applied in this portion of the TLSA to protect waterbird and caribou populations. **(Comment No. 213-225)**

Response To: Comment 213-225

We have taken your comments into consideration in developing the Preferred Alternative. Please also see the response to comment 232-213 (Alternatives General). Several Stipulations and Required Operating Procedures (ROP) contained in the IAP/EIS address potential disturbance or pollution problems for other species that also could offer protection for yellow-billed loons. These include: a) ROP E-2, prohibiting the storage of fuel and other petroleum products and liquid chemicals within 500 ft of fish-bearing waterbodies and requiring precautionary measures, would decrease the potential for pollution of the larger/deeper lakes and rivers containing fish, thereby decreasing the potential for lethal fouling of loon plumage and mortality of fish, their primary prey; b) ROP A-5, prohibiting equipment refueling within 500 ft of fish-bearing waterbodies would decrease the potential for lethal fouling of loon plumage and mortality of their fish prey; c) Stipulations K-1,2,3,4,8, and E-11, providing up-to-½-mi setbacks for activities around inlets, bays, lagoons, fish-bearing lakes, numerous rivers, and waterfowl nesting and brood-rearing areas could result in some benefit for loons by decreasing disturbance in these areas; d) ROP E-2, prohibiting permanent oil and gas facilities within 500 ft of lakes could reduce the potential for disturbance and contamination impact on loons; e) ROP F-1, requiring that aircraft operations minimize impacts on birds could decrease disturbance of loons; and g) ROP I-1, requiring oilfield personnel to attend an orientation program could increase awareness concerning what types of activities are likely to have adverse impacts on loons.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

We commend BLM for recognizing the important wildlife, subsistence, cultural and wilderness values of Kasegaluk Lagoon. However BLM arbitrarily dismisses designation of additional Special Area because the remaining area of the Northwest Planning Area are 'not exceptional for subsistence, fish, wildlife, historic, or scenic resources ' (DEIS p.II-41). Agency science referenced in this DEIS and Audubon's December 2002 report, Alaska's Western Arctic: A Summary and Synthesis of Resources contradict this claim. We strongly recommend designating the following new Special Areas within the Northwest Planning Area of the National Petroleum Reserve-Alaska by prohibiting leasing, the placement of roads, pipelines and other support infrastructure within the boundaries of these areas. We request that Audubon's wildlife habitat conservation recommendations be considered as the foundation for new alternatives in the revised DEIS and FEIS. **(Comment No. 253-340)**

Response To: Comment 253-340

Please see responses to comments 213-202 (Special Designation Areas) and 213-232 (Alternatives General).

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

We are disappointed BLM did not move the boundary of the Northwest Planning Area to exclude the entire Colville River watershed. It is unacceptable for BLM to piecemeal the planning for the Colville River in four separate planning efforts. The record is clear, both the public and the Resource Advisory Council have consistently expressed interest in stringent protections for the Colville River. **(Comment No. 253-341)**

Response To: Comment 253-341

Please see the response to comment 213-222 (Special Designation Areas).

Comment From: Arctic Slope Regional Corporation (Comment Letter No. 186)

3. ASRC opposes large swaths of land in the Planning Area being 'set-aside' for animal habitat preservation in the Planning Area. Although well-intended, preservation areas often grow beyond their intended purpose and unnecessarily inhibit reasonable land use practices. Current federal, state and local permitting methods are sufficient to protect the environment and the interests of the North Slope residents; and **(Comment No. 186-560)**

Response To: Comment 186-560

Please see the response to comment 213-202 (Special Designation Areas).

Comment From: The North Slope Borough (Comment Letter No. 80065)

Alternatives B and C of the Draft IAP/EIS include the recommendation that Kasegaluk Lagoon be considered for Special Area designation. We support that recommendation, and suggest that Peard Bay and Dease Inlet-Meade River also be considered as Special Areas within the Northwest Planning Area. We recognize that Special Area designation does not in itself prohibit oil and gas leasing, exploration, or development, but does attach a level of scrutiny and protection independent of this planning effort. Designation would allow for management of these areas designed specifically to protect their unique values and uses, and would not permit later piecemeal degradation of protections under the pressure of multiple future development proposals. We recommend that designation of these areas include permanent facility setbacks and seasonal operating restrictions. **(Comment No. 80065-575)**

Response To: Comment 80065-575

We have considered your comments in developing the Preferred Alternative.

Comment From: U.S. Fish and Wildlife Service (Comment Letter No. 260)

The Service supports the designation of Kasegaluk Lagoon as a Special Area and recommends that two additional areas, Dease Inlet-Meade River and Peard Bay be considered as Special Areas within the Northwest Planning Area because of their importance to migratory birds and other trust resources. The acreage of these five Special Areas, if designated, would total approximately 3,583,000 acres or about 40 percent of the Northwest Planning Area. We recommend that Stipulations and ROPs, such as development set-backs and timing windows, be developed which would protect the high-value habitats and fish and wildlife within these areas while allowing oil and gas exploration and development to proceed. **(Comment No. 260-599)**

Response To: Comment 260-599

See responses to comments 213-202 (Special Designation Areas) and 213-217 (Special Designation Areas).

Comment From: U.S. Fish and Wildlife Service (Comment Letter No. 260)

These segments of the TLSA contain high-density waterfowl nesting areas, especially for yellowbilled loons (King and Brackney 1997, Larned et al. 2003, Mallek et al. 2002), and habitat for the Teshekpuk Lake caribou herd (Prichard et al. 2001). The Service believes that the protections allotted to the TLSA in the Northeast Planning Area Final EIS should be extended to those portions which lie within the Northwest Planning Area. At a minimum, Stipulations should be crafted restricting development within high-density waterbird nesting areas. Additionally, measures should be taken to ensure ease of passage through the area by caribou because of their importance for subsistence use. **(Comment No. 260-602)**

Response To: Comment 260-602

See responses to comments 213-202 and 213-225 (Special Designation Areas).

Comment From: U.S. Fish and Wildlife Service (Comment Letter No. 260)

Protecting the habitats within the CRSA, therefore, may not only be important for maintaining local populations of raptors, but for maintaining healthy populations over a broad area. Because of the importance of this area, the Service encourages BLM to develop a comprehensive management plan for the CRSA. **(Comment No. 260-604)**

Response To: Comment 260-604

BLM does intend to develop a Colville River Plan as early as 2006. See response to comment 213-222 (Special Designation Areas).

Comment From: Olgoonik Corporation (Comment Letter No. 169)

No wilderness areas are designated in the proposed NW NPR-This is a reaction to the experience that Anaktuvuk Pass now experiences. Although we've been told by BLM at the 2/20/03 hearing that we are protected under the ANILCA law. We questioned that fact why Anaktuvuk Pass this is not the case for them. **(Comment No. 169-693)**

Response To: Comment 169-693

While subsistence activities within the Wilderness Areas are protected under ANILCA, Section 1110(a), the Preferred Alternative does not recommend any areas for Wilderness designation.

Comment From: ConocoPhillips Alaska, Inc (Comment Letter No. 255)

The creation of new wilderness areas proposed in Alternative C has not been fully analyzed and should be removed from consideration. **(Comment No. 255-748)**

Response To: Comment 255-748

No wilderness areas are proposed in the Preferred Alternative. Please see response to comment 255-737 (Criteria for Range of Alternatives).

Comment From: ConocoPhillips Alaska, Inc (Comment Letter No. 255)

The creation of new wilderness areas will preclude land use for all types of activities, including non-oil and gas activities, that have not been adequately addressed by this DEIS. **(Comment No. 255-750)**

Response To: Comment 255-750

No wilderness areas are proposed in the Preferred Alternative. Please see response to comment 255-737 (Criteria for Range of Alternatives.).

Comment From: U.S. Fish and Wildlife Service (Comment Letter No. 260)

Section IV. D. 9. b. The statement 'The Planning area would be open to oil and gas leasing and exploration in the Kasegaluk Lagoon proposed Special Area under Alternative B' should be changed to 'The Planning area would not be open to oil and gas leasing and exploration in the Kasegaluk Lagoon proposed Special Area under Alternative B.' **(Comment No. 260-755)**

Response To: Comment 260-755

The text has been corrected.

Comment From: The Sierra Club (Comment Letter No. 80014)

While Sierra Club does not oppose oil development within the Reserve, we believe that the many special places and unique wildlife resources within the Reserve are at serious risk from piecemeal development and shortsighted planning. It is imperative that BLM work to set aside the biologically essential components of the Reserve before additional leasing in the area proceeds. Sierra Club seeks effective protection for the nationally and

internationally recognized wildlife habitats, wild rivers, cultural resources and wilderness found in the Reserve. The most biologically rich and recognized wildlife and wilderness values of the region are not permanently protected. A balanced approach to the management of these natural resources is needed to protect the most sensitive areas and cultures. The existing alternative proposed in the DEIS do not provide a realistic balance between oil development and habitat protection. None of the management alternatives provide adequate and appropriate protection for the unique cultural, natural, fish and wildlife, scenic and historical values as expressly required by Congress in the National Petroleum Reserve Production Act of 1976. **(Comment No. 80014-859)**

Response To: Comment 80014-859

See our response to 213-202 (Special Designation Areas).

Comment From: Public Meeting on DEIS - Atqasuk, Alaska (Comment Letter No. 80074)

Let me translate that real quick. James Aiken, Sr., an objection to the wilderness designation of the potential impacts and likelihood of impacts associated with Anaktuvuk Pass, Gates of the Arctic, they had a hardship in their subsistence way of life up there and maybe cumbersome for the new generation as they face their subsistence way of life into the future because you're not going to tell us -- somebody is not going to tell us the same thing you're telling us tonight about the -- some greenie, some environmental is going to take a position and your position telling them come and say, this is wilderness you can't be subsistence hunting here. Those are the impacts that they see in the classification and they would rather not see - James would not -- would rather see that classification of lands included into these areas. (In Native) **(Comment No. 80074-894)**

Response To: Comment 80074-894

Only Alternative C in the draft contained possible areas for wilderness designation. There are no wilderness units proposed for the Preferred Alternative.

Comment From: Public Meeting on DEIS - Fairbanks, Alaska (Comment Letter No. 80076)

When I've asked about why nothing has been done to protect the Colville area, I've just heard that there's industry interest to the west of Umiat. Well, where is this industry interest' If you look at this panhandle that sticks under the old northeast corner of -- or I'm sorry, the Northeast Planning Area, there's this panhandle, there's a lot of terrain under there and, you know, where is industry interested' Where have they expressed an interest' Can't there be a win/win for conservation and for those folks who want to go find and develop oil' I'd like to recommend six things the agency could do to help the Colville out here. They could defer leasing of the Colville special area until we get to the South Plan. They could defer leasing of the Colville watershed until we get to the South Plan. They could withhold from leasing the Colville River special area this time around in Northwest. They could withhold from leasing the Colville watershed this time around in Northwest. They could have a visual resource management Class I and a five mile setback for all of the alternatives, not just Alternative C. **(Comment No. 80076-898)**

Response To: Comment 80076-898

For the Colville River, we have chosen to provide protection to the resources present by establishing a one-mile setback for development along the river while allowing leasing to occur nearer to the river. The Preferred Alternative will also create a visual resource category of Class I for the river, which is consistent with your recommendation. We believe that these steps provide reasonable protections for resources of the river. Precluding

development within a mile should allow recreational use of the river without the intrusion of development facilities.

Comment From: NOAA (Comment Letter No. 209)

Based on NOAA's NESDIS operational requirements, the following measures, at a minimum, are required to avoid significant adverse effects on existing and future NOAA NESDIS activities in the Barrow area, and should be included as mandatory mitigation measures in the Final IAP/EIS and in the conditions of any Bureau of Land Management (BLM) leases of land for oil or gas exploration or BLM approval of oil or gas exploration or development within 50 kilometer (km) of Barrow: 1. The BLM should coordinate with NOAA NESDIS before leasing land for or permitting oil exploration or drilling activities within 50 km of Barrow. NOAA NESDIS will work with the BLM and the applicant to review proposed actions and clear those that will not adversely affect NOAA NESDIS activities as well as work with the BLM and the applicant to incorporate practical measures that will prevent potentially adverse physical effects. 2. The BLM and oil drilling companies should coordinate with NOAA when seeking to lease or develop lands within 50 km of Barrow to ensure that any structures are kept outside the satellite data beam clearance requirements. 3. The BLM and oil drilling companies should coordinate with NOAA when performing seismic surveys on lands within 50 km of Barrow to avoid interference with the satellite data transmissions or scientific measurements. This can be accomplished by conducting seismic operations only during nonsensitive periods and performing seismic work so that vibration levels at NOAA NESDIS facilities do not exceed quantified threshold levels. 4. The BLM and Federal Aviation Administration (FAA) should coordinate with NOAA NESDIS to ensure that TACAN/DME frequency assignments to ground beacons avoid channels 14Y, 15Y, 36Y, 37Y, 56Y, and 57Y. 5. The BLM should require that cellular telephones and other communications systems used by oil lessees and their contractors avoid operating in the 847.5 to 849 megahertz (MHz) frequency band. 6. The BLM should require that SMRs (or similar service radio systems) used by oil lessees and their contractors in the Barrow area avoid operating in the 851 to 855 MHz frequency band. 7. The BLM and oil lessees and their contractors should coordinate with NOAA to prevent adverse use of welders and plasma cutters (which emit large amounts of electromagnetic radiation) within 50 km of Barrow. **(Comment No. 209-918)**

Response To: Comment 209-918

You will be added to the list of agencies we request to comment on applications for permits for oil and gas activities within 50 km of Barrow.

Comment From: Alaska Oil and Gas Association (Comment Letter No. 248)

Fifth, the creation of new wilderness area proposed in Alternative C has not been fully analyzed and should be removed from consideration. As stated throughout these comments, AOGA is opposed to territorial exclusions when there is substantial evidence that oil and gas development can occur in sensitive areas through the use of new technologies and site specific mitigation. **(Comment No. 248-923)**

Response To: Comment 248-923

The Preferred Alternative does not recommend any areas for Wilderness designation.

Comment From: Public Meeting on DEIS - Anchorage, Alaska (Comment Letter No. 80073)

Let me clearly state that Audubon is not opposed to oil and gas development in NPR-A. However, the Northwest

Planning Area of NPR-A encompasses important fish and wildlife habitat, subsistence and wilderness values. To protect these values, Audubon has identified the biological hot spots that should receive special protection. **(Comment No. 80073-957)**

Response To: Comment 80073-957

Please see comment response 213-202 (Special Designation Areas).

Comment From: Public Meeting on DEIS - Anchorage, Alaska (Comment Letter No. 80073)

The Dease Inlet-Mead River area provides important wetland habitat for waterfowl, loons and shorebirds including high densities of rare yellow-billed loons, brant, and the threatened spectacled eider. Dease Inlet is used by polar bears for onshore denning and caribou use the area east of Dease Inlet for insect relief habitat. This productive wetland should be designated by BLM as a new special area. **(Comment No. 80073-958)**

Response To: Comment 80073-958

Please see comment response 213-202 (Special Designation Areas).

Comment From: Public Meeting on DEIS - Anchorage, Alaska (Comment Letter No. 80073)

Peard Bay, which is the dark blue area in the middle, and adjacent wetlands encompass about 950,000 acres and provides high density shorebird and waterfowl habitat, including high density nesting areas for the threatened spectacled eider. Peard Bay is also a denning area for polar bear. Audubon recommends this as a no lease special area. **(Comment No. 80073-960)**

Response To: Comment 80073-960

Please see comment response 213-202 (Special Designation Areas).

Comment From: Public Meeting on DEIS - Anchorage, Alaska (Comment Letter No. 80073)

The northern portion of Kasegaluk Lagoon on the far left in purple encompasses an area of about 260,000 acres. This area provides important marine mammal habitat particularly for beluga whale and spotted seals. Grizzly and polar bear also use this area. Kasegaluk Lagoon has the richest bird diversity of any coastal lagoon system in Arctic Alaska. The lagoon is particularly important to Pacific black brant for molting and fall staging. Audubon recommends special area designation with a no lease zone for Kasegaluk Lagoon. **(Comment No. 80073-990)**

Response To: Comment 80073-990

Please see comment response 213-202 (Special Designation Areas).

Comment From: Public Meeting on DEIS - Anchorage, Alaska (Comment Letter No. 80073)

The southern Ikpikpuk River, which is on the border between the Northwest and Northwest Plain, south of the yellow, encompasses 53,000 acres and it has high density nesting of peregrine falcons. This interior coastal plain should be designated as a special area with no leasing to protect nesting peregrine falcons and anadromous fish habitats. **(Comment No. 80073-991)**

Response To: Comment 80073-991

Please see comment response 213-202 (Special Designation Areas).

Comment From: Public Meeting on DEIS - Anchorage, Alaska (Comment Letter No. 80073)

The Colville River in the very south is one of the most important raptor nesting areas in Alaska and in the world. The central portion of the Colville River special area should be protected as a no lease zone. In BLM's Alternative C, less than two percent of high oil and gas resource potential is available for leasing. In comparison about 65 percent of high oil and gas potential would be available for leasing under Audubon Wildlife Habitat Alternative. **(Comment No. 80073-992)**

Response To: Comment 80073-992

Please see comment response 213-202 (Special Designation Areas).

Comment From: Public Meeting on DEIS - Anchorage, Alaska (Comment Letter No. 80073)

In summary, Audubon strongly recommends designating four new special areas within the Northwest Plain Area. We believe the Wildlife Habitat Alternative combined with best management practices throughout the area will help minimize future impacts from industrial development on valuable fish and wildlife resources. **(Comment No. 80073-993)**

Response To: Comment 80073-993

Please see comment response 213-202 (Special Designation Areas).

9. TOPIC : MONITORING FOR COMPLIANCE

Comment From: U. S. Evironmental Protection Agency (Comment Letter No. 261)

Furthermore, the final IAP/EIS should include a monitoring strategy providing sufficient information to demonstrate the effectiveness of the stipulations and ROPs in protecting the resources they are intended to protect. **(Comment No. 261-55)**

Response To: Comment 261-55

See responses to comments 254-620 (Monitoring for Compliance) and 80077-946 (Government- to- Government).

Comment From: The Kuukpik Corporation (Comment Letter No. 254)

Stipulations mean nothing if they are not voluntarily followed or actively enforced. Unfortunately our experience has been that mitigation measures have not always been followed as illustrated in the Nuiqsut Community's March 6, 2002 EA Letter.23 Nor have we seen state or federal inspections or active enforcement of stipulations and mitigation measures. The North Slope Borough has only a few inspectors who are in charge of the entire North Slope Borough. These inspectors are already overly busy with the Borough's own requirements. We cannot rely on these few inspectors to assure compliance with the BLM's requirements. In the face of broken stipulations and ignored mitigation measures and no active enforcement, we take only limited comfort in the baseline protections we receive from areawide stipulations in Northeast NPR-A, but we would be foolish to proceed without the brightline protections of stipulations at all.. **(Comment No. 254-620)**

Response To: Comment 254-620

The BLM has authority to monitor and inspect all permitted activities and require full compliance with lease terms, conditions of permits, and applicable regulations. BLM is also given authority to issue written or oral orders to govern specific operations to, among other things, ensure that the natural environment, life, and property are protected. Failure to comply can result in monetary assessments, civil and criminal penalties, lease cancellation and forfeiture under the bond. If poor operating practices cause, or could cause "immediate, substantial, and adverse impacts" to the environment, the BLM has the authority to require immediate action. In the event the operator does not comply with the written order, the BLM has the authority to enter upon the land, at the sole risk and expense of the operator, and perform such work as is judged necessary to protect the environment, life, or property. The available enforcement provisions, including assessments and civil penalties, have proven effective in achieving compliance on Public Lands. Our inspection and enforcement authority is the subject of 43 CFR Subpart 3161.2 and 43 CFR Subpart 3163.

Comment From: The Kuukpik Corporation (Comment Letter No. 254)

As to the second root cause, failure to comply with consulting requirements, just this winter we experienced what appears to have been the complete and utter failure of an company conducting seismic surveys just to the west of Nuiqsut to consult with anyone in the Village about proposed seismic work, even though the permit issued to the company specifically required consultation.55 No accidents occurred, but they easily could have with the community unaware that seismic cable was strung across the tundra so close to the village, with the sun below the horizon all day at that time of year and especially given the extensive snowmachining activity that occurs so close to the village. The company relied on out-of-date maps which did not reflect the latest interim conveyances (several years ago) to Kuukpik by BLM. As a result, the company also trespassed on Kuukpik land. If the consultation had occurred, they would have almost certainly learned of the current land status, and the problem would not have arisen. This type of practise is not acceptable and the BLM and the oil industry need to take notice that required and sufficient consultation is lacking. We also think that consultation with the impacted communities requires more than mentioning activities during a public meeting. For example the over summering of a drill rig at Puviaq was mentioned during a public meeting in Nuiqsut, but we received no additional information on this well or the plan to over summer the drill rig on the tundra. The Puviaq location is within our traditional subsistence range. Even if it were not, what happens outside our traditional range impacts the caribou which migrate into our traditional range and is thus of considerable concern to us. In addition, the substantial rolligon traffic needed to support Puviaq came through the heart of our subsistence range during the winter. We had to request a copy of the Puviaq well and over summering permit applications from CPAI, and that happened only after we became aware of what was going on through the Internet. This is not a scenario that should be

replayed in the future. Common courtesy and good relations between the agencies and the community both demand better consultation, which needs to be written into a clear stipulation so that, with personnel turnover, both agency and oil industry personnel remain clearly aware of the need for such consultation. **(Comment No. 254-652)**

Response To: Comment 254-652

The BLM is in agreement that the consultation stipulation included in the NW Plan should be stronger and more detailed than Stipulation 61 of the NE Plan. Section H of the General Lease Stipulations and Required Operating Procedures (ROP's) that accompany the Preferred Alternative for the NW NPR-A Final Integrated Activity Plan does this (please see Response to Kuukpik 254-651 (Subsistence Advisory Panel)). Please note that this ROP states "consultation does not include public meetings that are primarily for the purpose of information distribution, unless it is explained at the beginning of the meeting that there is an open dialogue, and that comments, concerns or other information are being actively solicited." The BLM is concerned about the failure of a nearby seismic operation to adequately consult with the community of Nuiqsut. This allegation will be investigated, and appropriate actions will be taken to ensure that permit stipulations are adhered to. With regard to requiring lessees to give notice to the BLM of concerns raised during the consultation process, this activity is actually the responsibility of the BLM. ROP H-1(b) requires the permit applicant to submit documentation of their consultation efforts, as well as their plan of operations, to the BLM in a timely manner so the BLM can use this information during the government-to-government consultation process. The process as outlined in the Northwest Plan Stipulations would require the industry to consult with local communities before creating their plan of operations to get preliminary concerns that they would take into consideration when writing their plan. Then, this document will be given to the BLM to be used during government-to-government consultation. It is during this government-to-government consultation that the BLM can be informed of any concerns that were expressed but not addressed by the permit applicant or any other additional complaints/concerns/issues that have since come up. The BLM will be able to make an informed decision before signing the permit, or may stipulate additional, project-specific mitigation measures.

Comment From: The Kuukpik Corporation (Comment Letter No. 254)

BLM also needs to ensure that there are serious consequences for poor operating practises, not just a slap on the wrist. Minor fines for serious damage to the land or subsistence resources cannot be seen by contractors as simply a cost of doing business. We believe that that is largely the case, at present. At this point, the biggest restraint on such practises is the fear of embarrassing the operator with harm that is serious enough to become known.58 Fines for breaching permit or lease terms need to enter the equation more than they do at present. **(Comment No. 254-661)**

Response To: Comment 254-661

Please see response to comment 254-620 (Monitoring for Compliance).

10. TOPIC : CRITERIA FOR RANGE OF ALTERNATIVES

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

The alternatives proposed in the DEIS are neither balanced nor realistic. None of the alternatives provide adequate and appropriate protection for the unique cultural, natural, fish and wildlife, scenic and historical values as expressly required by Congress in the National Petroleum Reserve Production Act of 1976. Alternative

A opens the entire Northwest Planning Area to oil and gas leasing. Alternative B opens 96 percent of the area, hardly a middle ground proposal. Alternative C, presumably the conservation alternative, fails to protect all the key areas, but nonetheless is unlikely to be selected because it opens less than 2 percent of the high oil and gas potential areas to development, and the agency predicts that oil development would be financially infeasible under this alternative. **(Comment No. 253-21)**

Response To: Comment 253-21

Please see the responses to comments 80014-858 (Stipulations, Required Operating Procedures and Mitigations) and 261-31 (Criteria for Range of Alternatives).

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

Upon careful consideration of the issues we've outlined above, we have concluded a revised DEIS outlining and analyzing a reasonable range of alternatives for management of the Northwest Planning Area needs to be completed, and an opportunity for public comment on these new management alternatives must be provided. We believe a management alternative should be selected that provides adequate protection to the ecological, wildlife, subsistence, cultural and wilderness resource of the Northwest Planning Area. A more balanced, science based approach to energy development and environmental protection should be considered. **(Comment No. 253-30)**

Response To: Comment 253-30

Please see the response to comment 80014-864 (Criteria for Range of Alternatives).

Comment From: U. S. Evironmental Protection Agency (Comment Letter No. 261)

The alternatives being evaluated in the draft IAP/EIS do not appear to be consistent with the existing statutory directions for the National Petroleum Reserve-Alaska. The DOI/BLM does not anticipate any oil and gas development to occur under Alternative C since it would allow leasing of less than 2% of the areas of high oil and gas potential. The net result is the No Action Alternative and Alternative C would not meet the national energy needs and would fail to fulfill the existing legislative mandates to provide opportunities for oil and gas development of the Reserve. On the other hand, Alternatives A and B would provide 100% of the areas for oil and gas leasing in the high potential areas but fail to protect the significant subsistence, environment, fish and wildlife, and historic or scenic values of the Northwest planning area. We believe that it is necessary for this and future generations to maintain a balance between oil and gas leasing of the high potential areas and protection of significant subsistence, environmental, fish and wildlife, and historic or scenic values consistent with existing statutory directions for the NPR-A. NEPA [40 CFR 1502.14(a)] requires that the lead agency take a balanced approach to rigorously explore and objectively evaluate all reasonable alternatives consistent with the existing statutory directions for the NPR-A, per the NEPA implementing regulations [40 CFR 1502.14(a)]. This approach will ensure that the final IAP will meet the direction of the NPRPA to facilitate oil and gas leasing while protecting significant subsistence, environmental, fish and wildlife, and historic or scenic values. **(Comment No. 261-37)**

Response To: Comment 261-37

The BLM believes the Draft IAP/EIS presents a full range of reasonable alternatives and that the alternatives comply with the Naval Petroleum Reserves Production Act. Please also see the response to comment 261-31 (Criteria for Range of Alternatives).

Comment From: U. S. Evironmental Protection Agency (Comment Letter No. 261)

Based upon our review, it appears that the alternatives in the draft IAP/EIS represent essentially 'all-or- nothing' options for the planning area. Alternatives A and B would allow oil and gas activities in all (Alternative A) or most (Alternative B) of the planning area while requiring lessees to comply with stipulations and Required Operating Procedures (ROPs) that are poorly defined (if required at all) and/or are less protective than practices that are currently used for protecting natural and biological resources on the North Slope. Thus, these alternatives represent options that would maximize the likelihood for oil and gas exploration and development activities (and their effects) while providing minimal or indeterminate protections for environmental, subsistence, and cultural resources. **(Comment No. 261-41)**

Response To: Comment 261-41

Please see the responses to comments 261-31 (Criteria for Range of Alternatives) and 251-136 (Management).

Comment From: U. S. Evironmental Protection Agency (Comment Letter No. 261)

Furthermore, EPA recommends that the final IAP/EIS identify criteria and/or standards employed by DOI/BLM to develop reasonable alternatives consistent with the NPRPA and other statutory directions for the NPR-A. **(Comment No. 261-44)**

Response To: Comment 261-44

The BLM believes that Section I of the document provides this information.

Comment From: U. S. Evironmental Protection Agency (Comment Letter No. 261)

We recommend the final IAP/EIS reflect the development and evaluation of an alternative (or alternatives) designed to strike a balance between oil and gas exploration and development activities and the protection of valuable natural and cultural resources, consistent with the direction of NPRPA and the NEPA regulations. Developing a balanced alternative should provide for reasonable opportunities to lease in areas with high oil and gas potential and also provide necessary protections for environmental, biological and cultural resources. This is particularly important since the areas in the planning area with high oil and gas potential coincide with areas of high natural resource values. A more balanced alternative could include some, or all, of the following attributes: $ Availability of some high oil and gas potential areas for leasing (greater than 2% and less than 100% of the high potential areas). $ Some areas of high natural resource value are not available for leasing (less area than proposed in Alternative C but more than proposed in Alternative B). $ Clearly defined and protective stipulations and ROPs (such as those employed in the Northeast NPR-A planning area). $ Establish protections for the sensitive areas of Elson Lagoon, Dease Inlet, and Admiralty Bay; Peard Bay and Kugrua Bay; and Kasegaluk Lagoon (designations as special areas or development of area-specific stipulations). **(Comment No. 261-43)**

Response To: Comment 261-43

We have taken your comments into consideration in developing the Preferred Alternative. Please also see the response to comment 251-325 (Stipulations, Required Operating Procedures and Mitigations).

Comment From: U. S. Evironmental Protection Agency (Comment Letter No. 261)

The final IAP/EIS should establish and identify the available minimum amount of public lands necessary to carry out a successful leasing program at normal price levels ($18 per barrel or $30 per barrel, etc.) while still excluding or restricting oil and gas leasing and surface activities in the areas most critical for subsistence and cultural uses, environmental resources, fish and wildlife habitat, and historic or scenic values. Other criteria and standards that should be considered include, but should not be limited to, the following: (1) economics of operations in remote areas; (2) distances and costs from existing infrastructure; (3) accessibility to oil and gas reserves; (4) future variations in oil prices that must be anticipated; (5) restrictions imposed on surface activities and facilities which increase environmental and subsistence protections, but also increases the costs to industry; (6) environmental sensitivity of the area; (7) subsistence resources; etc. The same standards and criteria should apply to how the Preferred Alternative is selected. These standards and criteria must be included in the final IAP/EIS to document DOI/BLM's process in the development of the range of alternatives and selection of the Preferred Alternative. **(Comment No. 261-49)**

Response To: Comment 261-49

Please see the response to comment 261-33 (Basic Assumptions).

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

Further, the four alternatives do not reflect consideration of all feasible options but, rather, represent opposite ends of the leasing spectrum with no middle ground. Alternative A opens the entire area to leasing, Alternative B opens 96% of the area, and the 'No Action' Alternative opens none of the Planning Area. Alternative C is supposedly the middle ground between 96% and 0% because it opens 'only' 47% of the area to leasing. Alternative C is not a true middle ground, however, because the agency has constructed it in such a way that it contains all of the most restrictive environmental protections and prevents exploration or drilling on more than 98% of the most promising oil and gas lands. That alternative considers the ramifications of recommending designation of all three potential wilderness areas together with all 22 potential Wild and Scenic River designations. Alternative C also applies more stringent stipulations than are applied under Alternatives A or B. That choice is particularly egregious considering that BLM predicts that no oil or gas development would be feasible under this alternative. If anywhere, these protections should be applied to scenarios in which development might occur. Ultimately, BLM predicts that no oil or gas development will be feasible financially if Alternative C is implemented. Thus, the inclusion of Alternative C does not create a 'range.' BLM gives no consideration to any alternatives in which some of the wilderness areas are recommended, only some of the rivers are designated, or the more stringent stipulations are applied to a development scenario. Indeed, by including all of those protections and the more stringent stipulations in Alternative C, and none in any of the other alternatives, the agency ensured that it can reject environmental restrictions on the grounds that they render oil and gas development infeasible. Thus, the agency has not fulfilled its duty to consider reasonable alternatives lying between full-scale leasing and no-action. **(Comment No. 253-62)**

Response To: Comment 253-62

According to the National Environmental Protection Act (NEPA) the BLM must "rigorously explore and objectively evaluate all reasonable alternatives." A reasonable alternative must meet the proposal objectives. As noted in Section I.A of the EIS, the proposal's objective "encourages oil and gas leasing in NPR-A while requiring protection of important surface resources and uses." The IAP/ EIS examines a range of alternative packages created by varying the area within NPR-A that could be offered for oil and gas leasing and the conditions that would be applicable to that leasing. The three alternatives (A, B, and C) adequately cover the

range of reasonable alternatives. Please see the responses to comments 80014-585 (Stipulations,Required Operating Procedures and Mitigations) and 261-31 (Criteria for Range of Alternatives) .

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

Further, the agency has not provided any option allowing for management or protection in the absence of leasing. The 'No-Action' alternative forbids leasing, but it does not require the agency to take any further management actions in the Planning Area. Management of the area, in the absence of leasing, and should have been considered by the agency. Further, the 'No Action' alternative would result in fewer protections than exist currently. In addition, the 'No-Action' alternative does not stop seismic exploration in the area. Thus, the negative impacts associated with that exploration would continue under this alternative. **(Comment No. 253-64)**

Response To: Comment 253-64

All the alternatives including the No Action Alternative, which by definition is current management, include management protection even in the absence of leasing. Under the No Action Alternative, where oil and gas leases would not be offered and therefore has no lease stipulations, BLM has broad management authority. Under 43 CFR 2361.1(a), BLM has authority to take such action, including monitoring, as deemed necessary to mitigate or avoid unnecessary surface damage and to minimize ecological disturbance throughout the NPR-A consistent with the requirements of the Act for the exploration of the NPR-A. Because Alternatives A through C would offer oil and gas leases, lease stipulations were developed; however these stipulations do not diminish in any way BLM's existing authority to protect resources, as noted, or manage other permitted activities as provided under 43 CFR 2361.2. One option under the No Action Alternative would prohibit seismic exploration. To propose an action alternative that does not allow any exploration in the petroleum reserve is contrary to the objectives of this planning action and is inconsistent with requirements of NPRPA for petroleum exploration of the NPR-A.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

BLM may attempt to remedy these deficiencies by combining facets from the four alternatives suggested in the DEIS to create a Preferred Alternative. (DEIS p. II-9.) Such an approach, however, would foreclose meaningful public involvement and comment on the BLM's selected course of action. The final alternative may be very different from any in the DEIS and, thereby, require substantial revisions of the impact analyses and descriptions. Moreover, as explained above, the alternatives considered in the DEIS are so disparate in impact and construction that the agency will be incapable of appropriately considering the impacts of a new, preferred alternative. Accordingly, we believe a revised DEIS that describes BLM's proposed action and preferred alternative is needed, with opportunity for public review and comment on the revised DEIS provided, before a final EIS and Record of Decision is issued. **(Comment No. 253-65)**

Response To: Comment 253-65

The BLM disagrees that allowing the Preferred Alternative to be developed by combining facets of the four alternatives presented in the draft IAP/EIS forecloses meaningful public involvement or that a Preferred Alternative that combines facets of these alternatives will necessarily be so disparate in impact and construction as to result in the agency being incapable of appropriately considering the impacts. In fact, the Preferred Alternative is well within the range of impacts anticipated under the Draft alternatives, public input was extensive and meaningful and important components of the Preferred Alternative are clearly recognizable as having been facets of Alternatives A through C.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

To remedy these deficiencies, BLM should undertake a revised DEIS in which it identifies and evaluates several new alternatives. These new alternatives should consider additional protections for wildlife, address subsistence issues, and consider recommending several areas for wilderness and wild and scenic river designation. As explained below, see section III F., 'Protected Areas,' there are several additional areas in the Planning Area that warrant additional protections and could form the basis for more comprehensive management alternatives. At a minimum, BLM should consider the 'biological hotspots' identified in Audubon's December 2002 report as the basis for wildlife protections in the new alternatives. The agency, however, also should consider wider-ranging habitat protections, and it should consider them in conjunction with protections for subsistence users. Further, the new alternatives should consider recommending other areas in the Planning Area for designation as wilderness and should consider various combinations of wilderness and wild and scenic river designations. In that way, BLM would provide alternatives that could lead to appropriate multiple-use management of the Planning Area. **(Comment No. 253-68)**

Response To: Comment 253-68

Please see the responses to 80014-864 (Criteria for Range of Alternatives)and 213-232 (Alternatives General).

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

The Secretary no t only has the authority to present recommendations to Congress for wilderness and wildlife refuge designations within the Reserve, but under the authorities of the National Petroleum Reserves Production Act, the Alaska National Interest Lands Conservation Act, the Federal Land Policy and Management Act, and The Wilderness Act, the Secretary can take administrative action to permanently protect these area. We would like to see the planning team address the role of BLM's National Landscape Conservation System in the Reserve. **(Comment No. 253-339)**

Response To: Comment 253-339

The National Landscape Conservation System was established to recognize certain exceptional areas managed by BLM. The NLCS is comprised of BLM-managed National Monuments, National Conservation Areas, National Wilderness Areas, National Scenic Trails, National Historic Trails, National Wild and Scenic Rivers, and Wilderness Study Areas. Of these special areas, the Secretary has authority to establish only National Wild and Scenic Rivers and Wilderness Study Areas The Secretary's authority under Section 2(a)(ii) of the Wild and Scenic Rivers Act to create new Wild and Scenic Rivers is quite limited: such designations are based on requests from state governments. 2(a)(ii) Secretarial designation actions are beyond the scope of a BLM integrated activity plan such as this one. The Secretary can also establish Wilderness Study Areas in areas having wilderness characteristics worthy of consideration by Congress for Wilderness designation. One of the purposes of this plan is to determine if there are any areas in the planning unit that should be recommended as Wilderness. If Congress were to establish a National Conservation Area, National Wilderness Area, National Scenic Trail, National Historic Trail, or National Wild and Scenic River in the planning unit, then the designated area would become part of the NLCS.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

Upon review of the Draft Integrated Activity Plan/Environment Impact Statement for the Northwest National Petroleum Reserve-Alaska, we conclude that a revised DEIS outlining and analyzing a reasonable range of alternatives for management of the Northwest Planning Area needs to be completed, and an opportunity for public comment on the selected management alternative must be provided. **(Comment No. 253-377)**

Response To: Comment 253-377

Please see the response to 213-232 (Alternatives General).

Comment From: Public Meeting on DEIS - Barrow, Alaska (Comment Letter No. 80075)

Finally, we call on BLM to write a supplemental Draft-EIS to incorporate and consider the impacts of this balanced and sensible middle ground alternative. **(Comment No. 80075-481)**

Response To: Comment 80075-481

Please see the response to comment 80014-864 (Criteria for Range of Alternatives).

Comment From: American Society of Mammologists (Comment Letter No. 249)

Although the ASM recognizes the extensive efforts made by the BLM in compiling this voluminous (>1,000 pages) draft EIS, we feel that this document falls significantly short of what we believe to be acceptable for a draft EIS as mandated under NEPA. This draft EIS presents a rather lopsided development plan that would endanger the unique areas of the NW NPR-A and undermine responsible environmental safeguards. The Alternatives offered are not balanced, not realistic, nor do they conform to the requirements for 'adequate and appropriate protection for the unique cultural, natural, fish and wildlife, scenic and historical values' of the NPR laid out in the National Petroleum Reserve Production Act of 1976. The Alternatives given emphasize the literal assets of the area ('National Petroleum Reserve'), ignoring most or all of its other valuable natural aspects. We strongly believe that at least one management alternative should be identified that provides adequate protection to the ecological, wildlife, subsistence, cultural, and wilderness resources of the NW NPR-A; as currently written, this draft EIS fails to provide one. This is not to say that energy development cannot be considered in the NW NPR-A at some point, but this is only possible with a balance between energy development and environmental protection. Besides this over-arching issue, there were many other significant problems in the draft EIS that we identified, including the following: **(Comment No. 249-515)**

Response To: Comment 249-515

Please see the responses to 80014-858 (Stipulations, Required Operating Procedures and Mitigations) and 261-31 Criteria for Range of Alternatives) .

Comment From: American Society of Mammologists (Comment Letter No. 249)

the draft EIS simply does not make the case that leasing for oil and gas development in the NW NPR-A is even necessary at this time. Your draft EIS states that you (BLM) are following the NEPA process to fulfill the mandates of the President's energy policy, to meet your obligations under certain federal laws, and to meet the country's energy needs. None of these reasons come close to adequately demonstrating a need at this time for such a large-scale leasing program proposed by your agency, especially in light of the scientific and economic uncertainties associated with the impacts of the decision to lease these lands for this purpose. The President's energy policy, which, by the way, has not been approved by Congress, does not provide a legitimate basis for a decision to lease or demonstrate a need for such action at this time. (**(Comment No. 249-516)**

Response To: Comment 249-516

The NPRPA, 42 U.S.C. § 6508, provides the necessary legal authority for BLM to conduct oil and gas lease sales in the NPR-A. The President's energy policy directs the Secretary of the Interior to "consider additional environmentally responsible oil and gas development, based on sound science and best available technology, through further lease sales in the Petroleum Reserve-Alaska." Please also see the responses to comments 253-40 (Criteria for Range of Alternatives).

Comment From: John Stroud (Comment Letter No. 246)

Doesn't NEPA state that the Alternatives should be a range of possibilities' Bob Schneider showed the AK Resource Advisory Council a range of alternatives that did appear to be a range. After the Washington office review the mid-range alternative (some oil and gas, some conservation, etc) was removed, this only polarized the issues between resource extraction and resource conservation and protection. The Audubon submitted what was essentially the "mid" range back into the range of alternatives. The BLM should consider the Audubon report a citizen's alternative and treat it as such. If you do not, you should respond to my comment with reasons of why you did not. Their report "filled" back in the Washington Offices request to remove the good information that was originally there. **(Comment No. 246-559)**

Response To: Comment 246-559

Please see the responses to comment 80014-858 (Stipulations, Required Operating Procedures and Mitigations) and 213-232 (Alternatives General).

Comment From: The North Slope Borough (Comment Letter No. 80065)

Because our interests and concerns are complex, our development of a position with respect to a workable leasing alternative has not been a simple process of selecting one of those options presented in the Draft IAP/EIS. Instead, after consultation with our affected communities, we have identified our own leasing and mitigation structure, which we hope adequately captures the will of the broader North Slope community. It is our hope that this preferred management alternative accurately characterizes the affected biological and human environments of the region, effectively addresses the reasonably foreseeable impacts that oil and gas operations may have on the resources, uses, and values we recognize as requiring protection, and clearly describes and justifies the identified measures warranted to provide that protection. As the stakeholders most directly facing the impacts of the management decisions the Secretary and the BLM will make concerning the Northwest NPR-A Planning Area, we hope and expect that the Department of the Interior will consider the alternative we propose with appropriate weight and deference. **(Comment No. 80065-570)**

Response To: Comment 80065-570

We have considered your comments in developing the Preferred Alternative.

Comment From: The Kuukpik Corporation (Comment Letter No. 254)

From our perspective Alternatives A and B are simply unacceptable, yet those seem to be the Alternatives favored

by BLM. If the Preferred Alternative is likely to ressemble Alternatives A or B, the only one of the profered Alternatives that we could support is the No Action Alternative, in the hope of revisiting these issues at some future date with a more acceptable outcome. We hope to see the deficiencies corrected so that environmentally responsible development can occur in a timely way. **(Comment No. 254-606)**

Response To: Comment 254-606

The BLM believes the Preferred Alternative represents a comprehensive, balanced, and environmentally responsible option.

Comment From: U.S. Fish and Wildlife Service (Comment Letter No. 260)

The Service recommends that the Alternatives in the DEIS, need more definition of the conditions that distinguish them. Except for a surface protection designation for Kasegaluk Lagoon, Alternatives A and B, do not differ significantly in development strategy. The Service recommends that Alternative B be revised to propose greater protection for habitats that are significant to federal trust species while still allowing for development. We offer the following revisions of Alternative B for your consideration: 1) Special Area designation for the Peard Bay and Dease Inlet-Meade River areas in addition to the Colville River, Teshekpuk Lake and Kasegaluk Lagoon designations; 2) Stipulations requiring surface development set-backs of at least one-half mile from lagoons, estuaries, rivers and designated high-density nesting areas (except for a recommended 2 mile set-back for the Colville River); 3) a surface protection designation for coastal waters within Special Areas; and 4) a surface protection strategy for Kasegaluk Lagoon and its surrounding wetlands. This revised Alternative would afford greater protection for specific areas while allowing for development to proceed in an orderly and predictable fashion. In addition, the Service recommends Stipulations and ROPs be more explicit throughout the document. We also recommend that 'no-lease' areas identified under Alternative C be explicitly defined in the text and Stipulations. Further comments on each existing Alternative are provided in the Specific Comments section of this document. **(Comment No. 260-649)**

Response To: Comment 260-649

The alternatives presented and evaluated in the draft IAP/EIS have not changed. The BLM has developed an additional alternative – the Preferred Alternative – for the final IAP/EIS. We have taken your comments into consideration in developing the Preferred Alternative. Please also see the responses to comments 251-325 (Stipulations, Required Operating Procedures and Mitigations) and 213-232 (Alternatives General).

Comment From: U. S. Evironmental Protection Agency (Comment Letter No. 261)

EPA found the range of alternatives that were evaluated in detail to be lacking an alternative that represents a compromise between an 'all or nothing' option for the planning area. Consequently, we recommend the development and evaluation of an alternative (or alternatives) which strikes a balance between oil and gas exploration and development activities and the protection of valuable natural and cultural resources, consistent with the direction of Naval Petroleum Reserves Production Act and the implementing regulations for NEPA (see 40 CFR 1500.2 and 1502.14). **(Comment No. 261-31)**

Response To: Comment 261-31

The BLM believes that Alternative B is a compromise between Alternatives A and C. Furthermore, the characterization of Alternatives A and C as "all or nothing" is incorrect. Under no alternative is BLM denying its

responsibility to mitigate or avoid unnecessary surface damage. Under Alternative A, we tried to eliminate the redundancy of developing lease stipulations that are already requirements of the State or other Federal agency and to eliminate stipulations that could not legally be enforced by BLM. Under Alternative A, we also placed greater reliance on developing mitigation at the operational or permitting stage when site and project specific information would be available. It was felt this would provide a more effective and efficient way to develop mitigations; this should not be misinterpreted to be an alternative that proposed development at any environmental cost. Furthermore, under Alternative C almost half of the Planning Area, approximately 4.1 million acres, would be available for lease. Admittedly, given existing information, the area of highest potential for oil and gas development is unavailable, but information is insufficient to be able to conclude that a significant find is not possible elsewhere. Industry continues to explore.

Comment From: U. S. Evironmental Protection Agency (Comment Letter No. 261)

The final IAP/EIS should clearly identify the criteria and/or standards employed by DOI/BLM to develop reasonable alternatives consistent with the existing statutory directions for NPR-A. **(Comment No. 261-32)**

Response To: Comment 261-32

The BLM believes that Section I of the IAP/EIS provides this information.

Comment From: U.S. Fish and Wildlife Service (Comment Letter No. 260)

The DEIS states that while this Alternative would likely have the largest impacts, most of the impacts would be minor because development would impact a relatively small amount of acreage in the planning area (Section II D, page II-33). While the Service agrees that Alternative A would have the greatest impacts, we do not agree that the impacts would likely be minor. Alternative A would have the greatest impacts because it ignores the biological significance of specific areas. Distribution of many wildlife populations is clumped rather than evenly distributed, and therefore especially prone to impacts associated with site-specific development. The DEIS also states (Section IV C) that, under Alternative A, the most serious effect of oil and gas development on wildlife would include potential long-term change in behavior including traditional use of habitats. We agree that such effects could have serious ramifications for impacted species. **(Comment No. 260-692)**

Response To: Comment 260-692

Impact conclusions are based on the scenarios, presented in Section IV.A that project limited exploration and development activities within the very large Planning Area. The analyses recognize the uneven and clumped distribution of most wildlife populations. The uneven and clumped nature of the distribution of these wildlife populations enhances the effectiveness of certain types of project-specific mitigation measures that would be applied at the permitting stage. These measures would include moving a facility, delaying operations, or specifying some design criteria. The even and clumped distribution of wildlife populations was considered in developing the Preferred Alternative.

Comment From: U.S. Fish and Wildlife Service (Comment Letter No. 260)

Alternative B would open 96 percent of the Northwest Planning Area to development. Under Alternative B, Kasegaluk Lagoon is identified as a Special Area that would exclude oil and gas leasing. In addition, the coastal areas and lagoons of the Kuk River and Peard Bay, and coastal waters east of Barrow including Elson Lagoon, Dease Inlet, and Admiralty Bay appear to be protected from surface disturbance. The DEIS states that impacts in

areas open for development would be minimized by the various Stipulations and ROPs outlined in the DEIS. We agree that some of the impacts could be minimized through the imposition of Stipulations and ROPs, however, as written the lack of specificity in the DEIS for Alternative B does not guarantee protection. In fact, the coastal areas mentioned above could be developed under Alternative B if the Stipulations and ROPs are not revised. It is also unclear if the maximum setbacks (one-half mile) were used when determining the amount of area (96 percent), which would be open for oil and gas development. As proposed earlier, the Service recommends that Alternative B be revised to propose greater protection for habitats that are significant to federal trust species while still allowing for development. **(Comment No. 260-694)**

Response To: Comment 260-694

"Setbacks" in this IAP/EIS are areas where permanent development facilities would be prohibited but which would be made available for lease. The oil and gas resources beneath a setback area (if not too large) might be recoverable through extended reach drilling (there would be both technological and economic constraints). The 96-percent figure includes resources in the development setback areas. Please also see the responses to comments 251-139 (Criteria for Range of Alternatives) and 251-325 (Stipulations, Required Operating Procedures and Mitigations).

Comment From: U. S. Evironmental Protection Agency (Comment Letter No. 261)

EPA believes that the draft Integrated Activity Plan/Environmental Impact Statement (IAP/EIS) does not provide the public and the decision maker with the full range of reasonable options available for managing oil and gas exploration and development activities in the Northwest National Petroleum Reserve-Alaska (NW NPR-A) planning area. The implementing regulations for the National Environmental Policy Act (NEPA) instruct the lead agency to rigorously explore and objectively evaluate all reasonable alternatives and to present the expected effects in a manner that sharply defines the issues and provides a clear basis for choice (see 40 CFR 1502.14). In addition, the alternatives should comply with the Congressional mandate of the Naval Petroleum Reserves Production Act (NPRPA) for NPR-A to conduct 'an expeditious program of competitive leasing of oil and gas and at the same time to protect the significant subsistence, environmental, fish and wildlife, and historic or scenic values consistent with the requirements of this Act for the exploration of the reserve.' **(Comment No. 261-34)**

Response To: Comment 261-34

The BLM believes the Draft IAP/EIS presents a full range of reasonable alternatives and that the alternatives comply with Naval Petroleum Reserves Production Act. Please also see the response to comment 261-31 (Criteria for Range of Alternatives).

Comment From: ConocoPhillips Alaska, Inc (Comment Letter No. 255)

Areas that are available for leasing but do not allow permanent facilities are of concern to CPAI. Certain of the Alternatives advocate for no surface occupancy stipulations over large portions of the Northern area along the Barrow Arch. Much of this acreage is in the area of greatest interest to us and could not be produced, eve n with today's advanced extended reach drilling techniques, if these proposed stipulations are implemented. The result is that much of this area simply could not be developed if these no permanent facility designations remain. We would be hard pressed to bid on leases that could not be developed. We believe that we will be able to develop the resource in an environmentally sound manner after the appropriate studies, consultation, engineering and mitigation have been considered. Restrictions that disallow permanent facilities could eliminate this as an option. **(Comment No. 255-737)**

Response To: Comment 255-737

The BLM necessarily develops a wide range of draft alternatives for analysis and comment. Within this range of alternatives, the Preferred Alternative was developed. In crafting the Preferred Alternative, we have taken your comments into consideration. Please see the responses to comments 251-325 (Stipulations, Required Operating Procedures and Mitigations)and 213-232 (Alternatives General)

Comment From: Alaska Coalition (Comment Letter No. 80016)

Since 1976, when Congress transferred the management of the NPR-A (Western Arctic) from the the Navy to the Department of the Interior, it was understood that Congress did so in recognition of the Western Arctic's many nationally significant values, including oil and gas, fish and wildlife, subsistence, and wilderness. They were looking for balance. The alternatives put forth in your draft Environmental Impact Statement offer little in the way of balance. The alternatives also contain weak exploration and development stipulations to protect the environment. Most of the industry regulations approved in other lease sales have been rolled back or watered down in this plan. **(Comment No. 80016-854)**

Response To: Comment 80016-854

Please see the responses to 249-524 (Stipulations, Required Operating Procedures and Mitigations) 251-136 (Management), 80014-858 (Stipulations, Required Operating Procedures and Mitigations).

Comment From: The Sierra Club (Comment Letter No. 80014)

To remedy the deficiencies in the DEIS, BLM should undertake a revised DEIS in which it identifies and evaluates several new alternatives. These new alternatives should consider additional protections for wildlife, address subsistence issues, and consider recommending several areas for wilderness and wild and scenic river designation. At a minimum, BLM should consider the "biological hotspots" identified in Audubons December 2002 report as the basis for wildlife protections in the new alternatives. The agency, however, also should consider wider-ranging habitat protections, and it should consider them in conjunction with protections for subsistence users. Further, the new alternatives should consider recommending other areas in the Planning Area for designation as wilderness and should consider various combinations of wilderness and wild and scenic river designations. In that way, BLM would provide alternatives that could lead to appropriate multiple-use management of the Planning Area. **(Comment No. 80014-864)**

Response To: Comment 80014-864

We have taken your comments into consideration in developing the Preferred Alternative. Please also see the response to comment 251-325 (Stipulations, Required Operating Procedures and Mitigations).

Comment From: Public Meeting on DEIS - Atqasuk, Alaska (Comment Letter No. 80074)

The Alternatives A and B would open all hundred percent to 96 percent of the Northwest with hardly any restrictions and regulations to be administered by Bureau of Land Management. Correct me if I'm right or wrong. **(Comment No. 80074-889)**

Response To: Comment 80074-889

All of the alternatives including the No Action alternative include important management protection. 43 CFR 2361.1(a) gives BLM the authority to take such action, including monitoring, as deemed necessary to mitigate or avoid unnecessary surface damage and to minimize ecological disturbance throughout the Reserve consistent with the requirements of the Act for the exploration of the Reserve. Restrictions and mitigation developed under this authority are developed and imposed through the permitting process. In addition, alternatives A and B developed lease stipulations which would become part of the lease contract as well as Required Operating Procedures that would apply not just to an individual lessee but to all permittees.

Comment From: Public Meeting on DEIS - Fairbanks, Alaska (Comment Letter No. 80076)

Two things the Wildlife Habitat Alternative does not address are wilderness and subsistence. The conservation community calls on BLM to further refine this alternative by conducting a more thorough review of wilderness and wild and scenic river potential than waS previously done for the Draft-EIS. We also call on BLM to not roll back stipulations that safeguard the Arctic environment. And finally, we call on BLM to write a supplemental Draft-EIS to incorporate and consider the impacts of this balanced and sensible middle ground alternative. Let me reiterate, the Northern Alaska Environmental Center is not asking for the entire Northwest Planning Area to be locked up. Instead, we are asking for a responsible balance between protection of this area's spectacular wildlife and wilderness values, and oil development. The Wildlife Habitat Alternative strikes this balance while providing significantly more industry access to areas of high oil and gas resource potential than BLM's conservation alternative. **(Comment No. 80076-897)**

Response To: Comment 80076-897

Please see the responses to comments 249-524 (Stipulations, Required Operating Procedures and Mitigations), 251-325 (Stipulations, Required Operating Procedures and Mitigations)and 80014-858 (Stipulations, Required Operating Procedures and Mitigations).

Comment From: Public Meeting on DEIS - Fairbanks, Alaska (Comment Letter No. 80076)

I can conclude by saying that I don't think you're at a stage where you can present three scenarios and ask us to say which one's best because I think you're going to have to do more work and include more information than you have up until now in order for a judgment to be made in a fair way by all interests; oil interest, environment interest, the general public, the Native people, hunters, fishermen, everyone else. **(Comment No. 80076-904)**

Response To: Comment 80076-904

Please see comment response 80014-858 (Stipulations, Required Operating Procedures and Mitigations).

Comment From: Alaska Oil and Gas Association (Comment Letter No. 248)

Fourth, if either Alternative C or the proposed Wildlife Habitat Alternative were to be adopted, such a territorial exclusion would significantly reduce the likelihood of successful oil and gas exploration and development. It also would not provide any significant additional protection of the environment beyond that afforded by the stipulations that would govern in the absence of the proposed exclusion. Both the BLM Alternative C and what is being referred to as "the Wildlife Habitat Alternative" proposed by Audubon Alaska would exclude nearly all of

the high prospective acreage from the lands available for oil exploration and development. Unlike the full territorial exclusion, however, the application of specific stipulations would permit surface activities to occur in a manner that is protective of the environment and traditional land use. Allowing facilities on these limited areas, with modern exploration and development techniques including horizontal and extended reach drilling would permit the recovery of the hydrocarbons located in this high prospective area. Thus, specific operational requirements and restrictions rather than wholesale territorial exclusion can protect wildlife and traditional uses of the land while, at the same time, permitting the discovery and removal of oil and gas deposits in a manner consistent with the original intent behind the creation of the National Petroleum Reserve-Alaska. **(Comment No. 248-922)**

Response To: Comment 248-922

Under the Preferred Alternative all areas are available to lease.

11. TOPIC : CONSULTATION WITH OTHER FEDERAL AGENCIES

Comment From: U. S. Evironmental Protection Agency (Comment Letter No. 261)

It is not clear from the description in the draft IAP/EIS how the appropriate resource/regulatory agencies will be consulted or give input as decisions are made on how stipulations and ROPs will be implemented. The final IAP/EIS should include a list of agencies with resource protection and/or regulatory/permitting responsibilities and discussion of how they will be consulted in the determination and implementation of stipulations on DOI/BLM leases. **(Comment No. 261-82)**

Response To: Comment 261-82

Copies of the draft IAP/EIS were mailed directly to appropriate resources/regulatory agencies and their comments were solicited during the public review and comment period. Representatives of BLM, both management and staff specialists, met with various Federal, State, and Borough representatives to discuss their comments and concerns. In addition, as required by Section 7 of the Endangered Species Act, formal consultation was initiated with both the U.S. Fish and Wildlife Service and the NOAA Fisheries. Consistent with the National and State Programmatic Agreements and protocols, BLM also consulted with the State Historic Preservation Officer. In accordance with Executive Order 13175, Government-to-Government Relationships with Native American Tribal Governments, representatives of BLM met with the representative of the potentially affected Native villages of the North Slope to discuss their comments and concerns, as well as to discuss the development of the Preferred Alternative. A list of the agencies with resource protection and/or regulatory/permitting responsibilities is provided in Appendix 4. Interrelationships of various laws and regulatory agencies are discussed in Section II.F. An overview of consultation and coordination for this IAP/EIS is provided in Section 6.

12. TOPIC : LAND EXCHANGE

Comment From: Arctic Slope Regional Corporation (Comment Letter No. 186)

4. ASRC has submitted to the Secretary of Interior a proposal for a land exchange, and wants the BLM to recognize that some of the lands in the Planning Area may be acquired by the proposed exchange. **(Comment No. 186-561)**

Response To: Comment 186-561

As Section I indicates, land exchanges are beyond the scope of this plan.

Comment From: Arctic Slope Regional Corporation (Comment Letter No. 186)

ASRC Proposed Land Exchange Our testimony would not be complete without commenting on ASRC's proposed land exchange. ASRC has submitted a proposal to the Department of Interior for a land exchange and asks that BLM recognize that some of the lands in the Planning Area may be acquired by the proposed exchange. It is no secret that ASRC has continued to acquire lands within the NPRA that were excluded to us during our initial ANCSA selections. The lands within NPRA and the Planning Area that ASRC would like to acquire through exchange are in areas that we consider to be our traditional use area; the areas that are used by our shareholders for subsistence activities. These same lands are considered as having 'high oil and gas potential' within the Planning Area. By acquiring lands within this area ASRC is accomplishing two things; rectifying the wrong done to us by taking away our ability to select our traditional use lands, and providing for the economic freedoms of our Iñupiat shareholders by owning high resource potential lands. We are asking that the Department of Interior return some of these lands over to native ownership through our exchange proposal. **(Comment No. 186-565)**

Response To: Comment 186-565

Please see our response to 186-561 (Land Exchange).

Comment From: The North Slope Borough (Comment Letter No. 80065)

It is very important to Borough residents that the Arctic Slope Regional Corporation's (ASRC's) land exchange proposals to acquire title to lands within the NPR-A traditionally used for subsistence, cabins, campsites, and other purposes be implemented as part of the broad management planning for the area. The lands sought within the NPR-A include subsistence use areas continually used by the Inupiat people for centuries and cultural and historic sites of great significance. The injustice of ASRC being prohibited under the 1971 Alaska Native Claims Settlement Act from selecting lands under its entitlement near villages located or elsewhere within the NPR-A must be addressed and remedied. **(Comment No. 80065-576)**

Response To: Comment 80065-576

The land exchange issue was considered but eliminated from further analysis because it is beyond the scope of the Northwest NPR-A IAP/EIS. This is discussed in Section II.G.5 of the IAP/EIS.

Comment From: Hearing -Anaktuvuk Pass (Comment Letter No. 80072)

MR. MORRY: My name is Mark Morry again. Our speaker mentioned that, you know, the wilderness where it is that there would never be a land exchange. With our Park Service land exchange, is that going to be any different' They're both Federal government right, and they're always negotiating. And I think that if NPR-A, that we designate a place where the calving grounds are as wilderness, we'll put stipulations that there'll never be a land exchange within that area. Because you know we had a land exchange with the Park Service, that's Federal

government, too, and land owners of the NPR-A, are Federal government too. So I would like to see the land exchange never happen, designate it wilderness. **(Comment No. 80072-984)**

Response To: Comment 80072-984

Please see response to 80072-982 (Wilderness Areas).

13. TOPIC : SITE CLEARANCE AND REQUIREMENTS FOR RESTORATION

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

BLM has an overall restoration goal of returning the disturbed land to its previous primary uses as fish and wildlife habitat and for subsistence use by native villagers; however, it has yet to develop specific DR&R requirements to implement that goal. In addition, BLM currently uses minimum bond amounts that do not reflect differences in oil company experience and financial viability and are unlikely to cover the potential restoration costs that could be incurred (General Accounting Office. Report to Congress: Requirements for restoring Lands after Oil Production Ceases. Washington: 2002). In order to ensure that the lands of the Reserve are properly restored after oil and gas activities cease, we recommend BLM issue specific dismantlement, removal, and restoration requirements that will allow BLM to meet its overall goal of returning the land to a condition that will sustain its previous us es including fish and wildlife habitat and subsistence uses. In addition, we recommend BLM review its existing financial assurances for oil and gas activities in the Reserve to determine whether they are adequate to assure the availability of funds to achieve its overall restorative goal. **(Comment No. 253-375)**

Response To: Comment 253-375

Specific dismantlement, removal, and restoration requirements will be evaluated in the further NEPA analysis that will accompany each development action. It is too specific an issue to determine in detail before specific developments are proposed. There are (very likely) situations where total removal of facilities is not what would provide the greatest public benefit; and restoration to an original condition may not be a realistic expectation under a number of circumstances. Some examples are the airstrips and gravel pads created in the 1970s and 1980s for the federal government oil and gas exploration program that are in use as administrative sites for BLM today. More importantly permanent facilities must be carefully placed and created with design tools that minimize their presence on the landscape.

Comment From: Public Meeting on DEIS - Barrow, Alaska (Comment Letter No. 80075)

To me, I don't think I would approve anything or even ask them to get into that territory because what they have already done since the 1940s to the present, they haven't cleaned up yet, properly. I think if they can isolate and pinpoint all the areas where they have introduced contaminants that are dangerous to the human health, not recognizing or elaborating on the ones that are in the waters that are bio-accumulated into the fish, and we subsistence hunters, we fish and hunt and eat and some of the fish are partially contaminated and they bio-accumulate when we consume it. And in 30 years somebody who's supposed to be very healthy suddenly gets sick and dies of cancer. I think it would be real nice if they get real serious about doing a very serious cleanup job instead of partial. **(Comment No. 80075-505)**

Response To: Comment 80075-505

There is no simple inventory of everything that may have been brought to the Arctic and left and we don't know specifically where contaminants may be located in NPR-A. We certainly know of some places, and where we know of places we go about presenting that information for funding or to develop other agency interest to provide for cleanup. We also know that there are toxic substances carried by the winds, originating from other countries found in the Arctic. These are so dispersed across the landscape of the Arctic and perhaps all of the globe, that cleanup is not possible.

Comment From: American Society of Mammologists (Comment Letter No. 249)

The draft EIS contained absolutely no mention or consideration of environmental restoration of oil and gas exploration and development facilities and associated infrastructure and lands following facility closure. This is a serious issue to ignore, particularly in light of the fact that all oil and gas facilities have limited life spans and that the facilities themselves and their associated infrastructure must be removed and lands restored or environmental effects will continue to persist. The high probability of failure of all leasees to restore the lands they leased for oil and gas development was brought to light by the recent National Academy of Sciences report (Orians et al. 2003). **(Comment No. 249-520)**

Response To: Comment 249-520

Under all of the alternatives in the draft IAP/EIS, Stipulation G-1 in Table II-02 requires all facilities to be removed and sites rehabilitated upon field abandonment. Stipulation G-1 in the Preferred Alternative also addresses this issue.

Comment From: Public Meeting on DEIS - Washington, DC (Comment Letter No. 80082)

The NAS report noted a paucity of information available on the remediation of production areas, and just from anecdotal areas that I have served in overflights in Prudhoe Bay and elsewhere. I think that there is a question as to whether or not a complete or adequate restoration of production areas to their original condition can be accomplished in such a fragile ecosystem as the Arctic Alaskan North Slope area. **(Comment No. 80082-542)**

Response To: Comment 80082-542

Under all of the alternatives in the draft IAP/EIS, Stipulation G-1 in Table II-02 requires all facilities to be removed and sites rehabilitated upon field abandonment. Stipulation G-1 in the Preferred Alternative also addresses this issue. Specific dismantlement, removal, and restoration requirements would be evaluated in the site-specific NEPA analysis that would accompany each proposed development action. Please also see the response to comment 253-375 (Site Clearance and Requirements for Restoration).

14. TOPIC : POSSIBLE NORTHEAST NPR-A AMENDMENT

Comment From: The Kuukpik Corporation (Comment Letter No. 254)

We also understand, however, through various media reports that after the Northwest NPRA IAP/EIS is completed, BLM proposes to rewrite the terms and conditions presently governing development in the Northeast NPR-A (which were set by the Record of Decision for the Northeast NPR-A IAP/EIS) in order to conform them to

the forthcoming Northwest NPRA Record of Decision. We strongly and will vigorously oppose any such attempt to make wholesale revisions to stipulations and conditions on development. The Northeast NPR-A stipulations and conditions were the product of lengthy, intense and thorough study specific to the Northeast NPR-A Planning Area and which were established following extensive public input. We see no reason to change them just as the protections that they were intended to afford us and our subsistence resources are about to come into play. Even taking into account the arguably greater richness and sensitivity of the Colville River Delta, Teshekpuk Lake, Fish Creek and Judy Creek and the Colville River areas, we think that the Northeast NPR-A protections should be extended to the Northwest, rather than gutting both. It is grossly unfair and not conducive to good, longterm relationships between residents and the oil industry, to try to change the rules for development after local support for new leasing had once been obtained. We can assure you that if the limited subsistence protections of Alternatives A and B had been all that were offered when the Northeast IAP/EIS was open to public comment, the public comment would have been harshly critical and opposed instead of largely supportive. **(Comment No. 254-614)**

Response To: Comment 254-614

The BLM published a Notice of Intent (Notice) to amend the Northeast NPR-A Plan and complete a supplemental EIS in the Federal Register on June 23, 2003. Changes to the terms and conditions presently governing development in the Northeast NPR-A Planning Area will be addressed through the NEPA process and any decisions on changes to the Northeast NPR-A Plan would be made subsequent to that NEPA process. The NEPA process provides for multiple opportunities for public input and consultation with stakeholders.

15. TOPIC : CABINS AND CAMPS

Comment From: Public Meeting on DEIS - Barrow, Alaska (Comment Letter No. 80075)

People in this area own cabins and camp sites that may or may not be Native allotments on Native allotments and we, as permanent occupants must have a clear understanding of how BLM or industry is going to deal with this and we need to know this now and not after the fact. Because my family has, you know, my uncles and aunties and my mother and family have Native allotments or just camp sites and we need to know what will happen to those areas. **(Comment No. 80075-506)**

Response To: Comment 80075-506

We have considered your comments in developing the Preferred Alternative; see Section H of the General Lease Stipulations and Required Operating Procedures. The consultation process does not differentiate between Native Allotment and Non-Native Allotment cabins/camp sites.

16. TOPIC : STATUS AND ALLOTMENTS

Comment From: Public Meeting on DEIS - Barrow, Alaska (Comment Letter No. 80075)

Also I'd like to say that there should be no action done up here until all the answers are met.The questions and answers are met. And also the allotments that haven't been patented or conveyed to the applicants by BLM. And there should be no leases until they are conveyed or patented. **(Comment No. 80075-495)**

Response To: Comment 80075-495

A Native allotment conveys the surface estate but reserves the oil and gas resources to the United States. An oil and gas lease grants the lessee rights to the oil and gas resources but does not grant access across private property. Any conflicts that may arise would be handled as part of the consultation process. See Section H "Subsistence Consultation for Permitted Activities" of the General Lease Stipulations and Required Operating Procedures under the Preferred Alternative.

Comment From: Public Meeting on DEIS - Barrow, Alaska (Comment Letter No. 80075)

In the recent court decisions, Alaska versus U.S., in regards to NPR-A have implications on lands which Native Village of Barrow and the Bureau of Land Management have an understanding on ownership of lands north and west of the Porcupine, Yukon, Kuskokwim Rivers, which is known as the PYK line. As a stakeholder involvement is important, Native Village of Barrow is respectfully requesting that there be further studies to analyze and to ensure decision-makers have the environmental information necessary to make timely decisions and to clarify Native Village of Barrow's territorial boundaries. **(Comment No. 80075-499)**

Response To: Comment 80075-499

Clarifying the Native Village of Barrow Territorial Boundaries is outside the scope of the BLM planning process.

Comment From: Wainwright Tribal Council (Comment Letter No. 80012)

The pending land allotments must be considered so that Veterans applying for their allotment will be honored. This should also address those that have pending allotments that have not been recognized. There are cabins that the hunters use for their subsistence hunting and gathering, there are shelters that hunters have put up for emergency shelter should they break down or be caught in a storm, any seismic groups should be made aware of these cabins before doing seismic activity. **(Comment No. 80012-1029)**

Response To: Comment 80012-1029

Please see responses to comments 80012-1029 (Status and Allotments), 80075-495 (Status and Allotments), 80075-506 (Cabins and Camps), and 80076-905 (Status and Allotments).

Comment From: Public Meeting on DEIS - Atqasuk, Alaska (Comment Letter No. 80074)

The Northwest NPR-A consists of the majority of the Native allotment owners which will greatly have impact with the development. Native allotment owners are the landlords, subject to be protected under the U.S. Trust Responsibility Act, okay. And we have obligation to protect the lands we are given. So this is some of the things that I would like to state. **(Comment No. 80074-892)**

Response To: Comment 80074-892

Please see the response to comment 80075-495 (Status and Allotments).

Comment From: Public Meeting on DEIS - Fairbanks, Alaska (Comment Letter No. 80076)

I'd like to discuss five issues. I support Alternative A. If there's any of the State land selection that was done in 1993 through this area, I'd like to have that supported and go through fruition rather than being precluded. To enforce the issues of ANILCA which is no more. No more add-ons of reserve areas and so on. ANILCA specified in 1980 that it was gone. If there's any RS2477 issues that are through this area, they need to be addressed and formalized and finalized. To ensure that the 90/10 royalty issue that was part of the Statehood Compact will be addressed and held up by BLM as part of their studies. **(Comment No. 80076-905)**

Response To: Comment 80076-905

There are no valid State selections within NPR-A and NPR-A has never been available for State selection under authority of Sec 6 of the Alaska Statehood Act. ANILCA states in Sec 101(d) that the need for future legislation designating new conservation system units, new conservation areas, or new national recreation areas has been obviated (with passage of the Act) and further states in Sec 1326(b) that no further studies of Federal Lands in the State of Alaska for the single purpose of considering the establishment of a conservation system unit, national recreation area, national conservation area or for related or similar purposes shall be conducted unless authorized by that Act or further act of Congress; but ANILCA also states in Section 1320 that the Secretary of Interior is authorized to identify lands in Alaska which the Secretary determines are suitable for wilderness. To date no claims for R.S. 2477 rights within the NPR-A have been asserted by the State of Alaska or other qualified party. Within NPR-A 50%, not 90%, of all receipts from sales, rentals, bonuses, and royalties on leases are paid to the State (PL 96-514; 94 Stat. 2963).

17. TOPIC : MINING

Comment From: Anchorage Sand and Gravel Steven M. Lovs (Comment Letter No. 80088)

This area should be opened to mineral entry under the general mining laws and leasing laws. **(Comment No. 80088-1026)**

Response To: Comment 80088-1026

See response to comment 80076-906 ((Mining).

Comment From: Public Meeting on DEIS - Fairbanks, Alaska (Comment Letter No. 80076)

The area should also be open to mineral entry. You only have it for oil and gas right now, but I'd like you to consider mineral entry under the general mining laws and leasing laws. **(Comment No. 80076-906)**

Response To: Comment 80076-906

Please refer to the IAP/EIS, Section II.G.4 Legislative Action to Open the Planning Area to Mineral Entry (Hardrock). The proposal for legislation to change the statutory management direction on hardrock minerals is

outside of the scope of this IAP/EIS.

18. TOPIC : SUBSISTENCE ADVISORY PANEL

Comment From: U. S. Evironmental Protection Agency (Comment Letter No. 261)

The draft IAP/EIS describes the Subsistence Advisory Panel (SAP) and its work on subsistence issues. Multi-agency working groups, such as this one, can provide valuable links to subsistence communities and their concerns. After 10 years of Native testimony in public forums, numerous SAP meetings, and the extensive Traditional Knowledge database, EPA believes that more effective stipulations and ROPs, offering greater protections for migrating animals and subsistence activities, should be developed and applied to Alternatives A, B and C in this draft IAP/EIS and as well as future DOI/BLM EIS documents. With stipulations and/or ROPs that specifically address subsistence harvesting protections, DOI/BLM can fulfill its charge under the Alaska National Interest Land Conservation Act (ANILCA) Section 810(a)(3) as discussed in Appendix 5. A good example of this is the Beaufort Sea Planning Area Oil and Gas Lease Sale 144 final EIS, developed by DOI Mineral Management Services (MMS), which demonstrates that stipulations can be developed to meet the needs of subsistence communities and include their involvement. Stipulation No. 4, Industry Site-Specific Bowhead Whale- Monitoring Program, was developed to mitigate the effects of exploration activities (including noise) on migrating bowhead whales and includes the involvement of the North Slope Borough and the Alaska Eskimo Whaling Commission. This added protection of a subsistence resource addresses the whale hunting concerns of disproportionately impacted subsistence hunters. EPA recommends that stipulations/ROPs be developed for each alternative that focus on protecting each of the impacted subsistence resources. We believe that this approach will meet the environmental justice intent of incorporating what was heard by the impacted public into the decision- making about the project. We believe it is possible, in the proposed project area, to provide more than adequate protection for subsistence resources and simultaneously encourage cost-effective resource development. **(Comment No. 261-105)**

Response To: Comment 261-105

The BLM acknowledges the importance of the Northwest NPR-A as an area for subsistence activities. Comments by the USEPA and Native communities, as well North Slope residents, have been taken into consideration in developing the Preferred Alternative. The Preferred Alternative includes additional protection for migrating birds and subsistence activities, as well as requirements for subsistence consultation; see Section H "Subsistence Consultation for Permitted Activities" of the General Lease Stipulations and Required Operating Procedures.

Comment From: The Kuukpik Corporation (Comment Letter No. 254)

Note that it has been stated to us informally by a BLM official this winter that BLM considered informing the Subsistence Advisory Panel of activities to be sufficient to comply with the consultation requirement. For the reasons stated below, we vehemently disagree with that position, if it indeed represents BLM's position. **(Comment No. 254-639)**

Response To: Comment 254-639

Stipulation 61 of the NE Plan states: "Prior to submitting an exploration plan or development and production plan (including oil spill contingency plans) to the BLM, the lessee shall consult with potentially affected subsistence communities (e.g., Barrow, Nuiqsut, Atqasuk, or Anaktuvuk Pass), NSB and the Subsistence Advisory Panel to discuss potential conflicts with the siting, timing, and methods of proposed operations and safeguards or

mitigating measures that could be implemented by the operator to prevent unreasonable conflicts". The BLM has always required permit applicants to consult with local communities and the NSB, in addition to the SAP, and will continue to do so. This language is included in the Northwest Plan, along with more precise requirements and expectations by the BLM. The BLM will also strive to ensure that all employees are aware of the policies, stipulations, and required operating procedures stated in the various land use plans that are used to manage the NPR-A.

Comment From: The Kuukpik Corporation (Comment Letter No. 254)

As to the first of these root causes, we recognize that the Subsistence Advisory Panel performs an important function benefitting the North Slope communities in the NPR-A, but consultation solely with the Subsistence Advisory Panel is not equivalent to consultation with affected communities. The Subsistence Advisory Panel is put together to advise the BLM, not to speak for the communities or to make sure that information on upcoming operations received by the Advisory Panel is disseminated to everyone in the community.53 When BLM gets advise from the Advisory Panel, all it reflects is the opinion of one member from each of the represented communities, not the collective opinion of the community.54 As far as the flow of information back to the community is concerned, the Subsistence Advisory Panel is virtually worthless. For one thing, each community has only one representative. For another thing, that representative has no budget and no staff for communicating with the community and is not paid to do so. The whole community expects and needs to be included in consultation related to activities outside our village. After all, these are our ancestral lands and the inheritance of our children. From the standpoint of the personal safety of everyone in the community and from the standpoint of minimizing industry/community tensions, consultation with the Subsistence Advisory Panel is simply not sufficient. Running mobile industrial operations in the vicinity of subsistence and recreational uses without proper notification is simply not safe. That is obviously true of seismic and other mobile exploratory operations, but the need does not end when development is complete, since there are irregular hauling and construction activities connected with ice roads, facility upgrades and other activities. **(Comment No. 254-651)**

Response To: Comment 254-651

The BLM agrees that consultation with only the NPR-A Subsistence Advisory Panel is not adequate (see response to Kuukpik 254-652 (Monitoring for Compliance). The NPR-A Subsistence Advisory Panel met this past winter in January 2003, and held a two-day planning workshop in order to identify ways to improve the SAP and make it a more effective entity. One of the primary topics discussed was information sharing, both from the BLM and Industry to the SAP, and from the SAP members to their individual communities. Toward the result of better communication, the SAP voted to amend their bylaws to include the following duty: Keep local communities informed about planned oil and gas activities and Panel, agency and lessee actions designed to protect subsistence resources and uses. This includes attending, at a minimum, one local government or tribal meeting following the SAP meeting to give an update/review to the local community. The Subsistence Advisory Panel members feel that they perform and fulfill a very important role, both within the BLM and the communities of the North Slope. The SAP will continue to hold yearly planning workshops to discuss ways to improve and enhance this role.

Comment From: Patricia Phillips (Comment Letter No. 170)

Has the North Slope Regional Advisory Council for Federal Subsistence Management been briefed on this EIS and given the opportunity to comment through the FACA process' **(Comment No. 170-970)**

Response To: Comment 170-970

The BLM relies on its Subsistence Advisory Panel, which includes subsistence users from all of the North Slope villages, to provide local input on subsistence issues. There is no requirement that the North Slope Regional

Advisory Council be briefed on this plan.

19. TOPIC : LEGAL

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

BLM relies on the NRPRA for authority to conduct lease sales in the Planning Area. The statute does not mandate a particular progam at this time or demonstrate a need for aggressive leasing and exploration in the absence of adequate information. In fact, the 1980 appropriations rider calling for 'an expeditious program of competitive leasing of oil and gas,' 42 U.S.C. § 6508, does not authorize leasing at this time. Rather, it authorized only the lease sales in the early 1980s, and those leases have expired. The 1980 rider does not continue to authorize lease sales in the NPR-A.. **(Comment No. 253-40)**

Response To: Comment 253-40

The NPRPA, 42 U.S.C. § 6508, provides the necessary legal authority for BLM to conduct oil and gas lease sales in the NPR-A. It and other applicable laws also provide authority for BLM to require adequate protections for the important surface resources in the region. The issue of BLM's authority to lease was decided in Wilderness Society, Inc. v. Babbitt, No. 1:98-02395 CV (D.D.C). The district court in that case found in favor of the United States on summary judgment, holding that the leasing authority in the NPRPA did not expire in the 1980's, as the plaintiffs had argued, but rather continues to the present time. Thus, the NPRPA provides continuing authority for holding new oil and gas lease sales. The BLM also is not restricted by the NPRPA as to the number of or locations where these lease sales may be held. Before making the decision to lease for oil and gas, BLM complies fully with NEPA and other environmental requirements and completes an extensive analysis of environmental impacts, including consideration of areas to be excluded from leasing and other requirements for appropriate protective measures for sensitive surface resources.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

Consistent with this trust responsibility, the agencies within the Department of Interior that manage public lands in Alaska, such as the BLM, must refuse to take land management actions if they find that the actions would cause significant restrictions to subsistence uses and those actions cannot be mitigated unless those actions are otherwise clearly compelled by other law. **(Comment No. 253-330)**

Response To: Comment 253-330

Section 810 of ANILCA requires that BLM evaluate the effect of leasing for oil and gas or other management actions in the NPR-A "on subsistence uses and needs, the availability of other lands for the purposes sought to be achieved, and other alternatives which would reduce or eliminate the use, occupancy, or disposition of public lands needed for subsistence purposes." 16 U.S.C. § 3120. The BLM has prepared an ANILCA § 810 analysis of the effects on subsistence from its proposals and included it in Appendix 5 to the IAP/EIS. Because the analysis finds that one or more of the alternatives, together with the cumulative impacts, "may significantly restrict subsistence uses," ANILCA § 810 requires that BLM give appropriate notice, hold hearings in the vicinity of the area involved, and make determinations as to whether the proposed action is "necessary, consistent with sound management principles for the utilization of the public lands, . . . will involve the minimal amount of public lands necessary to accomplish the purposes of such use, occupancy, or other disposition, and [that] . . . reasonable steps will be taken to minimize the adverse impacts upon subsistence uses and resources resulting from such actions." 16 U.S.C. § 1320(a)(3). The BLM has complied with all these steps in connection with this IAP/EIS process.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

Properly interpreted, the subsection (A) 'necessary' determination should allow significant restrictions to subsistence only where something more specific than agency policy goals compels them. The 'necessary' requirement demands something more specific than a discretionary agency goal. **(Comment No. 253-332)**

Response To: Comment 253-332

The BLM has correctly applied ANILCA § 810 to this proposed action. It has completed the analysis, given notice, held hearings, and made the determinations required by § 810(a)(3), before proceeding with any leasing of public lands in the Northwest NPR-A Planning Area. The Ninth Circuit Court of Appeals has provided definitive guidance as to the proper interpretation of the "necessary, consistent with sound management principles for the utilization of the public lands" determination in § 810(a)(3). Hoonah Indian Association v. Morrison, 170 F.3d 1223, 1226-27 (9th Cir. 1999). In that case, the court found that an agency has the authority to proceed in implementing competing multiple-use management objectives (in that case, timber sales) on the public lands, even where there may be adverse impacts to subsistence uses from the action. The NPRPA authorizes and directs BLM to open the NPR-A for oil and gas exploration and development as well as to impose measures for the protection of the important surface resources of the region, including subsistence resources. The alternatives in the IAP/EIS propose various ways to undertake these objectives, including the development of reasonable measures designed to minimize any adverse impacts on subsistence uses and resources from authorized oil and gas activities.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

Similarly, the 'minimal amount of public lands' determination should require the Department of the Interior to select the alternative that uses the least public land that would accomplish the general purposes of the action, taking into account the relative importance of different lands for subsistence uses. **(Comment No. 253-333)**

Response To: Comment 253-333

The BLM has made a proper determination that the proposed action satisfies the "minimal amount of public lands necessary to accomplish the purposes of such use, occupancy, or other disposition" requirement in § 810(a)(3). The basis for the ANILCA § 810 determination is explained in Appendix 5 to the IAP/EIS. Consistent with sound multiple use management principles, BLM has made available the minimal lands necessary for oil and gas leasing to meet energy production goals while still ensuring that adequate protections are in place to protect valuable surface resources and to minimize any adverse effects on subsistence uses and resources.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

Contrary to assertions in the DEIS Congress gave broad authority in 1976 to the Secretary to manage and protect the wildlife, wilderness, and other resources of the NPRA. 42 U.S.C. §§ 6503, 6504. Other statutes, such as FLPMA, 43 U.S.C. §1732, also give the Secretary the authority to manage the multiple resource values of NPRA land, a complete wilderness review was specifically authorized in the 1980 Alaska National Interest Lands Conservation Act (ANILCA). The DEIS is a multiple purpose land management document, which addresses a variety of issues, including oil and gas leasing. BLM can not arbitrarily ignore the discretion restored by Interior Secretary Bruce Babbitt and originally granted by Congress in ANILCA § 1320. BLM has explicit authority to consider wilderness under ANILCA § 1320. **(Comment No. 253-343)**

Response To: Comment 253-343

Wilderness reviews of BLM-managed lands in Alaska have been guided by unique statutory provisions applicable only to public lands in Alaska. In § 6508 of the NPRPA (42 U.S.C. § 6508) and § 1320 of ANILCA (43 U.S.C. § 1784), Congress provided that, notwithstanding any other provision of law, section 603 of FLPMA (the wilderness review provision) does not apply to any lands in Alaska. Therefore, BLM is not required to conduct wilderness reviews for the lands it manages in Alaska (one exception was a wilderness study specifically required by § 1001 of ANILCA for certain lands north of 68 degrees north latitude and east of the western boundary of the NPR-A. This study was completed in the late 1980s). Section 1320 of ANILCA provides instead that for public lands in Alaska, including the NPR-A, the Secretary "may identify areas in Alaska which he determines are suitable as wilderness and may, from time to time, make recommendations to the Congress for inclusion of any such areas in the National Wilderness Preservation System, pursuant to the provision of the Wilderness Act." 43 U.S.C. § 1784. This leaves it in the Secretary's discretion whether to identify, study and recommend any particular public lands in Alaska for wilderness designation. The BLM exercised its discretion under § 1320 of ANILCA in the Northwest NPR-A Integrated Activity Plan by choosing to consider certain lands in the southern part of the Planning Area for wilderness designation in one of the alternatives (Alternative C). The wilderness values of the entire Planning Area are discussed in Section III of the IAP/EIS, and the possible impacts on wilderness values of the Alternatives are discussed in Section IV. In addition, it is relevant to note that Secretary Norton recently issued a new Department policy on BLM wilderness reviews in Alaska. On April 11, 2003, the Secretary issued a memorandum to the Director of BLM which instructs BLM to: "consider specific wilderness study proposals in Alaska, as part of any new or revised resource management planning effort, if the proposals have broad support among the State and Federal elected officials representing Alaska. Absent this broad support, wilderness should not be considered in these resource management plans. This approach allows me or my successors to take into consideration the views of the State of Alaska, through its elected representatives, in determining when it makes sense to conduct wilderness studies." The Secretary's April 11, 2003 memorandum also clarifies that with respect to the Northwest NPR-A IAP/EIS, "one of the four alternatives in the [draft] Plan considers additional wilderness restrictions and BLM will continue to consider that alternative in developing the Final IAP/EIS." Memorandum from Secretary to Director, BLM, (April 11, 2003). Finally, the commenter references certain sections of the BLM Wilderness Inventory and Study Procedures Handbook, H-6310-1 (January 10, 2001). However, under the terms of a recent settlement of litigation in the State of Utah, BLM is required to rescind this handbook and several implementing directions, decisions, policies and bulletins. State of Utah v. Norton, No. 2:96CV0370 B (D. Utah) (Order approving Stipulation, and Granting Joint Motion to Dismiss Third Amended and Supplemented Complaint, dated April 11, 2003).

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

Even if BLM chooses not to recommend designation of any wilderness study areas within the Planning Area, NEPA requires BLM inventory all of resource values in the Planning Area including wilderness. Secondly, NEPA requires BLM analyze the impacts to wilderness values of oil and gas development for the entire affected environment. This DEIS fails to adequately describe the wilderness resource or analyze the adverse impacts of oil and gas leasing on wilderness resources. **(Comment No. 253-344)**

Response To: Comment 253-344

Section III.C.8 discusses the wilderness inventory process that BLM used in preparing the draft document. This process included updating a comprehensive wilderness evaluation that was done in compliance with section 105(c) of the NPRPA. The results of this inventory are presented on map 88 and table III-35. Assessments of the impacts to wilderness resources from possible development activities are presented for each alternative in the draft and for the Preferred Alternative in this document.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

Furthermore, the DEIS violated NEPA because it fails to consider as reasonable alternative, potential wilderness designations in the Northern portion of the planning area. 'The creation of wilderness is a reasonable alternative.' Sierra Club v. Lyons, No. J00- 0009-CV (D. Alaska March 30, 2001) (holding that Forest Service violated NEPA when it failed to consider new wilderness recommendations in Forest Plan). **(Comment No. 253-345)**

Response To: Comment 253-345

The Sierra Club v. Lyons case, No. J00-0009-CV (D. Alaska March 30, 2001) does not require that BLM consider additional alternatives proposing potential wilderness designations in the northern portion of the Northwest NPR-A Planning Area. The statutes and regulations applicable to the Forest Service in the preparation of national forest plans and applied by the court in the Sierra Club case are quite distinct and different from the statutes and regulations applicable to the NPR-A. As explained in response to comment 253-343 (Legal),§ 1320 of ANILCA exempts the public lands in Alaska from the wilderness review requirements of FLPMA and leaves it within BLM's discretion whether to study and recommend any specific public lands in Alaska for wilderness designation. The BLM has exercised that discretion in the Northwest NPR-A Planning Area Integrated Activity Plan by choosing to consider certain lands in the southern portion of the Planning Area for wilderness designation, but not the entire Planning Area. The BLM has sound management reasons for this choice. In addition to notable differences in landscape and scenic variety between the northern and southern regions, wilderness designation of the northern portion of the Planning Area would preclude all oil and gas leasing and exploration in the highest potential portion of the Planning Area.

Comment From: The Kuukpik Corporation (Comment Letter No. 254)

The Department of the Interior (acting here through the BLM) has been given the task of seeing that the NPR-A is developed only if appropriate conditions, restrictions and prohibitions on activities undertaken by an oil and gas lessee are in place to protect the NPRA's surface and subsistence resources from significant adverse effects. Congress has declared, that federal lands in Alaska, including NPR-A, shall be utilized in such a way to 'cause the least adverse impact possible on rural residents who depend upon subsistence uses of the resources of such lands." Similarly, the taking of wildlife for subsistence is given a preference, and other forms of taking of wildlife are to be restricted if necessary to assure the 'continued viability of a fish or wildlife population or the continuation of subsistence uses of such populations.' Harm to wildlife by oil and gas-related activities is considered a "taking," and must be so restricted if necessary to maintain such populations of fish and wildlife and our subsistence uses. **(Comment No. 254-608)**

Response To: Comment 254-608

42 USC Sec. 6508 says there shall be conducted an expeditious program of competitive leasing of oil and gas in the National Petroleum Reserve Alaska provided that "activities undertaken pursuant to this section shall include or provide for such conditions, restrictions, and prohibitions as the Secretary deems necessary or appropriate to mitigate reasonably foreseeable and significantly adverse effects on the surface resources of the National Petroleum Reserve in Alaska". We believe the Preferred Alternative, while allowing for a program of competitive oil and gas leasing includes the conditions, restrictions, and prohibitions deemed appropriate by the Secretary to mitigate foreseeable and significantly adverse effects on the surface resources.

20. TOPIC : PURPOSE AND NEED

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

The DEIS fails to demonstrate that leasing for oil and gas development in the Northwestern Planning Area is necessary at this time. BLM states that it is undertaking this NEPA process to fulfill the mandates of the President's energy policy, to meet its obligations under various federal laws, and to meet the country's energy needs. None of those statutes or proposals adequately demonstrates a need at this time for the large-scale leasing program contemplated by the agency, especially in light of the scientific and economic uncertainty regarding the impacts of a decision to lease. **(Comment No. 253-20)**

Response To: Comment 253-20

As an agency of the federal government, BLM is responsible for implementing the President's National Energy Policy to expedite oil and gas leasing and development in NPR-A, as well as meeting our obligations under federal law. Public concerns about meeting the country's energy needs have been prominent since at least the 1970's. The U.S. currently imports about half its oil supply, and the U.S. Department of Energy projects that the proportion of oil coming from overseas will near 68 percent by 2025. One way to address these concerns is to develop a leasing program within the National Petroleum Reserve-Alaska, which was established for this purpose in 1923.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

The DEIS also fails to quantify and/or qualify the current activity on the North Slope in the Purpose and Need discussion (DEIS p. 1-3). **(Comment No. 253-57)**

Response To: Comment 253-57

Current activity on the North Slope is summarized in Section IV.F.7 Major Factors Considered in the Cumulative Effects Analysis. Additional description of recent and current activities can be found in Section IV.A.1.b.2 Oil and Gas Exploration and Development Activities.

Comment From: NANA Development Corporation (Comment Letter No. 80025)

Leasing In The Petroleum Reserve Enhances The Nation's Energy And Economic Security. Congress originally designated the land contained within the Northwest portion of the Petroleum Reserve for the past 80 years for future production of energy resources. With the instability in the Middle East, there has never been a better time for increasing America's domestic supply of oil and reducing our dependency on foreign exports. Moreover, development of the Petroleum Reserve has the potential to generate thousands of jobs and provide an additional source of domestic fuel for Americans. **(Comment No. 80025-962)**

Response To: Comment 80025-962

Please see the response to comment 267-1034 (Preferred Alternative).

21. TOPIC : WILDERNESS AREAS

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

The DEIS fails to comprehensively consider wilderness potential for the Northwest Planning Area. BLM dismisses millions of acres of the planning area's potential wilderness with no review or analysis (DEIS p. II-40). Contrary to assertions in the DEIS Congress gave broad authority in 1976 to the Secretary to manage and protect the wildlife, wilderness, and other resources of the Reserve (42 U.S.C. §§ 6503). Other statutes, such as FLPMA, 43 U.S.C. §1732, also give the Secretary the authority to manage the multiple resource values of the Reserve, a complete wilderness review was specifically authorized in the 1980 Alaska Natio nal Interest Lands Conservation Act (ANILCA). **(Comment No. 253-26)**

Response To: Comment 253-26

The BLM inventoried all lands within the Northwest Planning Area for their wilderness values. These lands were first inventoried in 1977-78 under the guidance of section 105 (c) of the Naval Reserve Production Act of 1976, and inventoried again on a much smaller scale in 2001. See Section III.C.8 for a full discussion of the wilderness values of the Planning Area. The inventory in 1977-78 was not for the purposes of identifying lands for wilderness designation, but for the purpose of identifying wilderness characteristics. The NPR-A Production Act of 1976 directed BLM to manage, among other values, wilderness resource values to the extent allowed for in the Act. FLPMA section 603 directed BLM to inventory all BLM lands for their wilderness values and make recommendation for wilderness designation. BLM lands in Alaska were exempted from this mandate. ANILCA, section 1004, directed the Secretary to review BLM lands in Alaska for their suitability or non-suitability for preservation as wilderness. However, the Act was very specific as to what BLM lands were to be reviewed and they were: "Federal lands north of 68 degrees north latitude and east of the western boundary of the National Petroleum Reserve–Alaska, other than lands included in the National Petroleum Reserve–Alaska and in conservation system units established by this Act." Therefore, no authority was given to inventory lands within the NPRA for wilderness designation by ANILCA. ANILCA, section 1320 stated: "However, in carrying out his/her duties under section 201 and 202 of FLPMA, the Secretary may identify areas in Alaska which he/she determines are suitable as wilderness and may, from time to time, make recommendations to the Congress . . .". It is this section of ANILCA that BLM is using to look at wilderness as a part of the Northwest NPR-A plan. Given the Secretary has latitude to identify areas for wilderness suitability and given the reasons for the NPRA withdrawal (for oil and gas reserves), a conscientious decision was made to balance oil and gas potential with potential wilderness areas by eliminating high potential oil and gas lands from further wilderness discussion. (The reasons for this decision are discussed in Section II.G.2 of the IAP/EIS).

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

Further, the DEIS states that, under all alternatives, the area will continue to be designated as an 'Extensive Recreation Management Area,' in which motorized vehicles are allowed, and that studies, such as 'inventory and monitoring of resource populations and conditions,' will be conducted. (DEIS p. II-2.) No more specific information is provided about those studies or management requirements. Thus, while they might be part of a 'multiple-use management' scheme, even together with the uses proposed under the different alternatives, those activities do not constitute comprehensive management. **(Comment No. 253-60)**

Response To: Comment 253-60

The statements you reference were not intended to constitute a comprehensive management plan, they were simply presented in the Introduction to Section II as two actions that would continue regardless of the management plan finally chosen. The statement that the Planning Area would continue to be managed as an Extensive Recreation Management Area (ERMA) is consistent with BLM policy to consider any lands not

designated as a Special Recreation Management Area to be an ERMA and that under any management proposal the Planning Area would meet the definition of an ERMA as found in Bureau Manual 8320. An ERMA is an area where dispersed recreation is encouraged and where visitors have a freedom of recreational choice with minimal regulatory constraint; significant public recreation issues or management concerns are limited; and minimal management, consistent with BLM's stewardship responsibilities, is adequate. Detailed planning is not usually required. More specific information related to inventory and monitoring is presented in Appendix 1 of the IAP/EIS.

Comment From: U. S. Evironmental Protection Agency (Comment Letter No. 261)

The draft IAP/EIS proposes to designate the Foothills and Mountain areas adjacent to the Colville River as Wilderness Areas under Alternative C. EPA supports DOI/BLM's proposal to designate the Foothills and Mountain regions as Wilderness Study Areas due to their importance for raptor nesting habitat. DOI/BLM should designate these wilderness areas in the Preferred Alternative. Special management considerations should be developed for these wilderness areas. **(Comment No. 261-90)**

Response To: Comment 261-90

Any area that should become designated wilderness requires a management plan. Any special management considerations would be addressed in the wilderness plan and could be incorporated as long as it does not compromise the values and directions laid out in the Wilderness Act. The Preferred Alternative does not recommend areas for wilderness designation. It does include measures to protect Raptor habitat. See Stipulation K-1 and Required Operating Procedure K-7.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

However, the DEIS fails to comprehensively cons ider wilderness potential for the Northwest Planning Area. **(Comment No. 253-342)**

Response To: Comment 253-342

Please see the response to comment 253-26 (Wilderness Areas).

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

Given BLM's stated purpose of considering multiple use management, excluding the majority of the planning area is arbitrary. Wilderness is a reasonable use that should be considering. Writing off the majority of the planning area from wilderness consideration without any analysis is inconsistent with the purpose of the IAP/EIS. Where BLM does acknowledge wilderness attributes the DEIS makes sweeping assumptions and contradictions illustrating further the failure to adequately consider wilderness potential. A few examples follow. · The DEIS fails to consider suitable wilderness in the Planning Area claiming wilderness designation prevents traditional access and subsistence. Yet the DEIS acknowledges that Wilderness designation does not preclude traditional access and susbsis tence activities a few pages later (DEIS p. III-139). In fact the 105(c) study specifically states that Wilderness is compatible with traditional access and subsistence. · The DEIS fails to consider the economic value of wilderness, significant national demand for wilderness and wilderness as a piece of our cultural heritage. The 105(c) studies consider each of the elements in the 1979 report. · The DEIS claims old seismic trails prevent wilderness recommendations yet Alternative C suggests seismic activity and ice roads should be allowed in WSAs since there is no impairment for future wilderness designation. We urge BLM to adhere to Secretary

Babbitt's direction and the intent of Section 1320 of ANILCA, and to ascertain the full extent of the Planning Area's wilderness resource values in a revised DEIS. In addition we urge BLM to include in the revised DEIS an adequate impacts analysis of all of the suitable wilderness lands. **(Comment No. 253-346)**

Response To: Comment 253-346

The BLM does not feel we arbitrarily excluded a majority of the Planning Area from wilderness considerations. Please see the response to comment 253-26 (Wilderness Areas) to understand the reasoning for finding a balance of oil and gas leasing and considerations for wilderness designations. Each bullet of this comment is addressed individually below. • Traditional access and subsistence activities are allowed in designated wilderness in Alaska. They would also be allowed in any designated wilderness within the Northwest NPR-A Planning Area. We are not sure where the commenter found language in the Draft IAP/EIS to the contrary. Traditional access and activities are allowed in Alaskan wilderness areas, as outlined in ANILCA section 1110. • The economic value of designated wilderness in the NPR-A was not quantified, because it is not expected to be of any great economic value. The NPR-A is far removed from any major population area. It is very expensive to reach and there are no road systems to the area. Very few people come to the area now (outside of subsistence users) and it is not expected to attract more people just because the area may be a designated wilderness. It is true that designating a wilderness area would add to the wilderness system and add to our cultural heritage. And to that end, BLM does have an alternative (Alternative C) that allows the public the opportunity to comment on the designation of a portion of the Northwest NPR-A as wilderness. • Old seismic trails do not in themselves prevent an area from being designated wilderness. Multiple passes of vehicles used for seismic work made most of the seismic trails. By definition, this does not constitute a road. A road (improved and maintained by mechanical means) would in fact, be grounds to eliminate an area from wilderness consideration. We are not sure where the commenter found verbiage in the Draft IAP/EIS that says "old seismic trails prevent wilderness recommendations," however seismic trails in and of themselves do not eliminate an area from wilderness designation. Secretary Babbitt's direction on addressing wilderness as a resource in this land use plan has been superceded by new direction from Secretary Norton. Under that direction BLM has preceded to consider Wilderness designation for portions of the Planning Area. Prior to this plan, BLM Alaska lands were not to be looked at for potential wilderness designation (Secretary James Watt directive, 1980) in any plan or management of BLM lands. Section 1320 of ANILCA gives the Secretary discretion to look at wilderness in Alaska should he/she choose to. In exercising this discretion and trying to balance the requirements to encourage oil and gas leasing (within the petroleum reserve) with the need to protect resources, including wilderness resources, BLM decided not to consider for Wilderness designation lands in the northern part of the Planning Area with high potential for oil and gas resources (see section II-41). Please also see the responses to comments 253-343(Legal) and 253-345 (Legal).

Comment From: John Stroud (Comment Letter No. 246)

On past maps the BLM has shown that the two areas representing possible Wilderness are directly related to the Low and Medium potential areas for oil and gas. The standards outlined by the Wilderness Act effectively reveal nearly 99% of the NPRA to be Wilderness. Why then would the BLM 1) no longer show the "high, medium, and low" oil potential polygons since they have been available in the past, and 2) replace them with possible wilderness areas' I could not locate the data nor did the information in the Draft IAP showing that the two wilderness areas I outlined on your map have higher wilderness values than anywhere else in NPRA. Please reveal the evidence of why these two proposed WSA's are located where they are. **(Comment No. 246-557)**

Response To: Comment 246-557

The BLM did share working draft maps with high, medium and low oil and gas potential areas. These maps were inadvertently left out of the draft IAP/EIS. These maps have been included in the final IAP/EIS. Please see the last two paragraphs of the response to comment 253-26 (Wilderness Areas) and Section II.G.2 of the IAP/EIS for an explanation of why the potential wilderness areas selected are only within areas of moderate and low hydrocarbon potential. In any inventory area for wilderness, we select boundaries based on manageability. In

other words we ask "if the area were to be designated wilderness, could BLM effectively manage the area to protect the wilderness values"' In addition, BLM also uses definable boundaries. We tried to use drainages and geographical boundaries within the low and moderate oil and gas potential areas to define wilderness areas. This is why the two wilderness areas (Foothills and Mountain units) follow roughly the same boundary lines as shown for low and moderate oil and gas boundaries.

Comment From: The North Slope Borough (Comment Letter No. 80065)

The issue of potential sub-area designations has also been a complex one for us to consider. It is our conclusion that a wilderness designation is neither called for, nor necessary to protect the values of the most sensitive portions of the planning area. With such a designation would come the potential for inappropriate restrictions on the use of the area for subsistence or the methods and means used by subsistence users to access areas or harvest resources. As subsistence users, experience has shown us that with industrial expansion there comes some measure of explicit or de facto limitation on use or access. We do not need, and will oppose any designation that adds addition limitations. Other designations, including special areas and wild and scenic river designations, appear more flexible in the sense that they could be structured not to limit subsistence use while placing reasonable restrictions on industrial and other facilities and uses. Given the apparent impermanence of lease sale stipulations, we are open to discussions of these designations as potential tools for protecting very limited critical areas. The starting point for such consultation must be that there can be no further restrictions on subsistence use or access. **(Comment No. 80065-573)**

Response To: Comment 80065-573

It is true that "...wild and scenic river designations could be structured not to limit subsistence use while placing reasonable restrictions on industrial and other facilities and uses." However, after reviewing all available information, the decision was made not to pursue the possibility of formal long-term designations, and to focus instead on developing stipulations that would protect key surface resources and subsistence use while encouraging (as much as possible) exploration and development of oil and gas resources in the Planning Area. This decision is reflected in the Preferred Alternative and stipulation package. While subsistence activities within the Wilderness Areas are protected under ANILCA, the Preferred Alternative does not recommend any areas for Wilderness designation.

Comment From: Wainwright Tribal Council (Comment Letter No. 80012)

The concerns that were brought up during the meetings on the NPRA-NW were: there should be no designated wilderness areas, this due to the fact Anaktuvuk Pass experienced when wilderness areas were designated in their hunting areas and they were restricted in using the only available transportation they had. The residents of Wainwright opposed the designation of Wilderness Areas. Please show respect to our request. **(Comment No. 80012-1027)**

Response To: Comment 80012-1027

The Preferred Alternative does not recommend areas for wilderness designation. See especially responses to comments 80065-573, 253-346, and 261-90 (All in Wilderness Areas).

Comment From: Michael North (Comment Letter No. 80003)

Furthermore, the majority of the NPR-A is wilderness - not legally defined Wilderness - but inherent

ecologically-defined wilderness. Some part of the NPR-A should receive legal Wilderness designation as compensatory mitigation for the loss of real wilderness. The draft EIS is insufficient unless it addresses concepts of mitigation on this magnitude **(Comment No. 80003-851)**

Response To: Comment 80003-851

The IAP/EIS presents a range of alternatives, one of which (Alternative C) includes wilderness recommendation for lands within the Northwest NPR-A Planning Area. Should this alternative be chosen, the Secretary would recommend over three million acres to the president and congress for wilderness designation.

Comment From: The Sierra Club (Comment Letter No. 80014)

The BLM must comprehensively consider wilderness potential for the NW Planning Area. Instead, the DEIS erroneously dismisses millions of acres within the planning area without review of analysis. **(Comment No. 80014-862)**

Response To: Comment 80014-862

Please see the response to comment 253-26 (Wilderness Areas).

Comment From: Hearing -Anaktuvuk Pass (Comment Letter No. 80072)

Okay, the comment related to this, there's a wilderness designated in Alternate C in Southeastern Portion, that large tract called Wilderness, it should be redesignated to the --under the wilderness area by Kasegaluk Lagoon, where the caribou calving area is. That's Mark Morry's comment. Yeah, that makes sense. **(Comment No. 80072-982)**

Response To: Comment 80072-982

No areas are recommended for Wilderness status in the Preferred Alternative.

22. TOPIC : TIMING

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

Petroleum Operations ' Timing. This section should provide timelines showing what activities are expected during development and production throughout each month of the year, so that the environmental effects on wildlife and human communities and subsistence can be more clearly understood. The DEIS should make clear that oil production activities on the North Slope take place throughout the year, particularly air and road transportation access to the oil fields, and the production of oil. **(Comment No. 253-93)**

Response To: Comment 253-93

The scenarios offered in this document are plausible, but speculative, views of the future. Trying to predict the exact timing of future activities is highly speculative because of changing economic conditions that influence industry actions. A general timetable for a typical development project similar to the Alpine field is given in Table IV-02, but a variety of factors could change this example by many years. A schedule given at a monthly scale would be ridiculous and misleading. Typical schedules for exploration, development, and production activities are discussed on a seasonal level in Section IV.A.1.a. Briefly, exploration is expected to largely occur in winter months (December to May) at sites scattered throughout the area. Development (construction) activities are also expected to occur in winter because of transportation feasibility. Production operations (including well drilling and oil production) would occur year-round for perhaps decades. Table IV-03 provides a general life-span timetable for typical petroleum activities in northern Alaska.

23. TOPIC : SEASONAL ROADS AND DRILLING PADS

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

Exploration ' Seasonal roads and drilling pads . This section needs to describe the constraints to ice road use for parts of the Northwest Plan area where there are few lakes (the southern part); the full water needs for gravel pads, ice road networks, and ice airstrips should be described here. Furthermore, if the entire Northwest Planning Area is located more than 50 miles from existing oil field road networks, and the 'maximum practical length of overland ice roads is less than 50 miles, considering permitting requirements, opening dates for tundra travel, ice road construction time, and the seasonal window for winter drilling,' (DEIS p. IV-13) then the DEIS needs to explain the degree to which ice roads will be used. The DEIS is not clear at all about how much reliance there will be on ice roads, compared with driving directly on the tundra ('rolligon trails' or 'off- road travel') or construction of permanent roads. If indeed, access is more likely to be done by driving directly onto the tundra, with hundreds of trips with very heavy loads needed for moving drillrigs, etc., this needs to be explained as one of the assumptions and the impacts of the likely transportation modes need to be discussed fully. **(Comment No. 253-95)**

Response To: Comment 253-95

The scenarios offered in this document are plausible, but speculative, views of the future. Trying to predict the exact timing of future activities is highly speculative because of changing economic conditions that influence industry actions. A general timetable for a typical development project similar to the Alpine field is given in Table IV-02, but a variety of factors could change this example by many years. A schedule given at a monthly scale would be ridiculous and misleading. Typical schedules for exploration, development, and production activities are discussed on a seasonal level in Section IV.A.1.a. Briefly, exploration is expected to largely occur in winter months (December to May) at sites scattered throughout the area. Development (construction) activities are also expected to occur in winter because of transportation feasibility. Production operations (including well drilling and oil production) would occur year round for perhaps decades. Table IV-03 provides a general life-span timetable for typical petroleum activities in northern Alaska.

24. TOPIC : DEVELOPMENT FIELD LAYOUT

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

Development- Field layout. The DEIS presents a muddled picture regarding whether ice roads will be used at all for access for development, given that 'for practical and economic reasons, winter ice roads are likely to be

limited to 50 to 100 mi in overall length,' (p. IV-17), a distance far exceeding the distance away from existing gravel road network. Therefore, the DEIS needs to assess the environmental impact of construction of permanent gravel roads in the Northeast Planning area, or in the Northwest Planning area, or both. The DEIS states that a permanent road connecting this area to the coast or to the Northeast Planning Area is unlikely (DEIS p. IV-34), yet it also provides the data that shows ice roads are infeasible. Analysis of the effects of permanent roads, both within oil fields, connecting to satellites, and connecting outside the planning area should be done since there are no prohibitions of this infrastructure. **(Comment No. 253-97)**

Response To: Comment 253-97

The practical distance for seasonal ice roads construction is commonly assumed to be approximately 50 miles on land and 100 miles on near-shore grounded ice. Because the Northwest Planning Area is located beyond this distance from existing Prudhoe-Kuparuk infrastructure, the commenter incorrectly assumes that ice roads would not be feasible. However, there is no requirement that all ice roads emanate from existing infrastructure on State lands. Ice roads could connect remote sites to other staging areas (e.g., Barrow, a new coastal base, inland gravel airstrips, or new production facilities) in the Northwest Planning Area. Potential staging sites are shown on Map 107. Regarding permanent gravel roads, it is important to distinguish the types and use of the roads. It is very likely that gravel roads would connect drilling/production pads (a few miles apart) within individual oil fields. It is possible that some gravel roads would connect outlying satellite fields (within 20 miles or so) to central processing facilities. It is less likely that long gravel roads would be constructed across NPR-A to connect oil field infrastructure or villages in the area. Several factors (construction cost, availability of gravel, cost-benefit, and environmental effects) would limit the feasibility of long gravel roads across NPR-A. Without firm plans to build such roads it is premature to evaluate their potential environmental impacts simply because "there are no prohibitions of this infrastructure". Economics would largely dictate character of new infrastructure (including gravel roads) in NPR-A.

25. TOPIC : WELL DRILLING

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

Development and Production- Well Drilling. The assumptions given for extendedreach wells document a number of limitations that cast into doubt the likelihood that the best available technology will actually be used for field development. The DEIS states that 'extended-reach drilling methods are rarely employed for exploration wells, because they are far more costly than vertical wells'alternative field designs must consider the cost tradeoffs between fewer pads with more extended-reach wells as opposed to more pads containing conventional wells. In most instances, it is more practical and cost effective to drill conventional wells from an optimum site, [than] it would be to drill ERD wells from an existing drill site.' (P. IV-20, IV-21). As well, the DEIS has dropped an important stipulation from the NE Plan related to this issue, Stip 32. Lessees shall use maximum economically feasible extended-reach drilling for production drilling to minimize the number of pads and the network of roads between pads. **(Comment No. 253-101)**

Response To: Comment 253-101

The utility of extended-reach drilling (ERD) is discussed in the document (Section IV.A.1.b.(4)(d)). For exploration wells, there are a number of issues other than cost that limit the usefulness of ERD wells. For production drilling, project designs attempt to balance the higher costs for ERD wells with the cost of additional pads and connecting roads. Basic economics imply that companies would try to lower the development costs as much as possible. For example, if part of an oil field extended under a large river, it probably would be cheaper to drill ERD wells than it would be to construct a pad and connecting road, bridge, and pipeline across the river. Economic forces have a greater effect than the vaguely worded stipulation contained in the Northeast NPR-A Plan

26. TOPIC : WATER DEMAND

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

Development and Production ' Water Demand. This section only addresses water used for drilling and camp use, but ignores water needed for ice roads in the event that production sites are not located on a road network. If ice roads are not needed during the production phase because roads will be built, this should be clearly stated. **(Comment No. 253-106)**

Response To: Comment 253-106

Water requirements are discussed under several sub-heading in Section IV. Section IV.A 1.b.(3)(a) discusses water demand for seasonal ice roads (1.0-1.5 million gallons per mile). Section IV.A 1.b.(3)(d) discusses water demand associated with exploration drilling and camps. Section IV.A 1.b.(4)(f) discusses water demand for construction and development drilling. Section IV.A 1.b.(5)(c) discusses water demand for waterflooding operations during production. The commenter is encouraged to read the document before questioning the completeness of the analysis.

27. TOPIC : TRANSPORTATION

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

Transportation. This section fails to identify clearly the extensive air transportation requirements for access during exploration, as well as development and production. Many permanent airstrips will be required during production, especially if oil fields are not connected together with permanent gravel roads. .It also fails to analyze the potential effects of much heavie r reliance on rolligon trails with very heavy loads, and the damage that such repeated traffic within a winter season, or from traffic year after year. The term 'roadless' development is misleading because both Alpine and Badami do contain permanent gravel roads within the oil field, connecting together various drill sites or production pads. The DEIS fails to analyze the potential impacts if a permanent road is built connecting with the existing Kuparuk oil field network, from Nuiqsut, from Barrow, or from the edge of the NE Plan area. Based on existing experience on the North Slope, it is likely that road networks will be built incrementally in a piecemeal basis from one oil field connecting to the next. **(Comment No. 253-108)**

Response To: Comment 253-108

Due to its remoteness, the Northwest Planning Area is likely to experience higher levels of air and marine transport activities than the Northeast Planning Area. It is unlikely that permanent gravel roads would be constructed "piecemeal" across the area because of economic and other constraints. The impacts of permanent roads are difficult to address when the number, location, and construction schedules are unknown. However, the EIS considers the impacts of reasonable scenarios for roads and the cumulative impact section discusses the impacts of a permanent road connection to the Dalton Highway. The character of the roads would be strongly influenced by the size and location of future discoveries which may not be developed for a decade more. Minor service roads in the Northeast Planning Area are now being studied in the Environmental Impact Statement for the Alpine Satellite Plan. Some of this information is relevant to future roads in the Northwest Planning Area, and has been considered in this IAP/EIS.

Comment From: Audubon Alaska (Comment Letter No. 213)

Transportation Infrastructure The DEIS does not adequately describe potential transportation infrastructure within the northwestern planning area and how this will be integrated within the planning area, North Slope communities, and eventually the southwestern portion of NPR-A. While existing oilfields (including Kuparuk, Milne Point and Endicott) may have initially been described and even constructed as distinctly separate fields, over time the industry has argued successfully for connecting roads to the main Prudhoe field and Trans-Alaska pipeline terminus. There is simply no evidence to indicate fields within the NPR-A would not be connected to each other and to existing development to the east. Past experience has dictated that these connecting roads have been necessary for safety (including pipeline spill response), and for economic considerations related to costs of hauling gravel for construction and maintenance and transportation of workers and supplies. It is unreasonable to assume they will not be built. The assumptions underlying the transportation infrastructure within NPR-A are very important for evaluating longterm cumulative effects within the northwestern planning area as well as NPR-A as a whole. The Alaska Department of Transportation and Public Facilities recently completed a resource transportation analysis for northwestern Alaska. The draft map of this area identified two separate transportation corridors connecting the Dalton Highway with Nuiqsut at the eastern boundary of the NPR-A. The impacts of a network of connecting access roads, as well as the extraction of gravel needed to construct these roads have not been adequately addressed. **(Comment No. 213-357)**

Response To: Comment 213-357

The location and extent of potential transportation infrastructure within the Northwest NPR-A would be a function of the location and quantity of recoverable hydrocarbons as well as a function of the timing of the development. The location and extent of any discovery is a matter of speculation. Potential transportation issues related to exploration and development activities would be mitigated through Stipulations and Required Operating Procedures (ROP's). These stipulations and ROP's would be put in place to provide BLM the flexibility to deal with any effects related to those transportation requirements that may arise from potential development activities. Regarding potential roads identified in the Northwest Transportation Plan, a permanent road between the Dalton Highway and Nuiqsut has been added to the cumulative scenario as a reasonably foreseeable future impacting factor. The additional cumulative impact of this road has been incorporated into the appropriate resource analyses and these have been considered in the cumulative effects analysis.

Comment From: State of Alaska (Comment Letter No. 251)

Section III, Page III-149-150, Transportation. The first sentence of the second paragraph in this section which states that "within the NPR-A there are few roads, identified rights-of-way" should be modified to include the Alpine Satellite Development Project proposal for a gravel road to the Lookout drill site in NE NPR-A and the community road corridors identified in the Northwest Plan between Barrow-Atqasuk-Wainwright. **(Comment No. 251-373)**

Response To: Comment 251-373

The Alpine Satellite Development Project is currently under NEPA review and at this time construction on new roads in Northeast NPR-A has not begun. Roads in the Northwest NPR-A Planning Area are still in the proposal stage and detailed descriptions of these future roads are not available. Chapter III describes the existing environment. Please also see the response to comments 213-357 (Transportation) and 251-315 (Right of Way).

Comment From: State of Alaska (Comment Letter No. 251)

Section IV, Page IV-28, Paragraph 3. This paragraph states that hovercraft may be available for pipeline or other infrastructure repairs, but while the hovercraft is an excellent tundra vehicle, there are areas of broken terrain where the hovercraft. would not be able to access infrastructure. BLM may want to direct an inquiry to Lynden Transportation, a hovercraft. expert to refine this statement. **(Comment No. 251-382)**

Response To: Comment 251-382

As the commenter noted, there are areas (and conditions) where hovercraft would not be able to access infrastructure. This statement holds true for all modes of transportation. A detailed listing of design capabilities for hovercraft is beyond the scope of this programmatic analysis. Site-specific conditions (location and seasonal factors) would dictate the most efficient method of transportation to remote areas.

28. TOPIC : INFRASTRUCTURE

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

Inaccurate portrayal of infrastructure and activities. The accuracy of future projections is questionable since the existing infrastructure and currently proposed fields are not accurately portrayed or described. For example, map 25, North Slope oil and gas fields and pipelines, does not even show the existing facilities for the fields nearest to the NPR-A, including Alpine, Tarn, and Meltwater. This map fails to portray the fields within the Northeast planning area as reasonably foreseeable for development, despite the fact that ConocoPhillips Alaska, Inc. has already proposed development of three fields for this area plus two in the adjacent Colville River delta adjacent to NPR-A and BLM has initiated an environmental impact statement process. In its application, the oil company said that as many as 15 additional fields may be produced for the northeast portion of the Northeast Planning Area and the adjacent Colville River delta, but none of these are portrayed in the DEIS. (ConocoPhillips Alaska, Inc. and Anadarko. September 2002). **(Comment No. 253-110)**

Response To: Comment 253-110

Although 15 additional fields in the Northeast Planning Area have been assumed for full field development, the existence of all these new fields has not been confirmed by exploration drilling. The proposal submitted to Federal and State of Alaska agencies identifies only two "drill sites" in the Northeast NPR-A Planning Area. Facilities and pads at these drill sites would support development drilling of the Lookout and Spark oil and gas pools. Lookout development drilling would be conducted from the Colville Delta 6 drill site (CD-6) and Spark development would be conducted from the CD-7 drill site. Drill sites CD-1 through CD-7 as well as the roads proposed to link these drill sites have been added to Map 25. The "15 additional fields" referred to by the commenter are unspecified exploration well sites within NPR-A and State of Alaska lands in the greater Colville delta area. These are representative sites for purposes of environmental analysis; there are no specific locations for these fields. Some may never be drilled. Some or all may not contain commercial pools of oil or gas. ConocoPhillips Alaska, Inc. provides this estimate of future drill sites as an indicator of the potential for undiscovered resources in the greater Colville delta area. Map 25 shows actual facilities and roads on the North Slope, not speculative infrastructure. The satellite fields proposed in the Northeast Planning Area and the new fields south of Kuparuk (Lookout 1, Lookout 2, Spark 1, Spark 1A, Moose's Tooth C, Rendezvous A, and Rendezvous 2) can be accurately located and these fields have been added to Map 25. Publicly-announced discoveries are listed in Table III-01 and are their locations are shown on Maps 26, 99, 100, 101, 102, 103, and 104. The recent public announcement of test results for Lookout 2 will be added to Table III-01.

29. TOPIC : GLOBAL WARMING

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

The cumulative impacts analysis inexplicably fails to include a serious discussion of global warming. This is a serious oversight given the speed of global warming and its potential to impact ice dependent species. The brief discussion of global warming dismisses the phenomenon as the subject of 'ongoing scientific debate.' While the extent of the human contribution to global warming is still open to debate, the fact that the climate is warming is settled. And in the case of the Arctic, the change is particularly pronounced. The NRC notes that the rate of warming on the North Slope 'exceeds the estimate of mean global warming by a factor of 3 or so.' NRC Report at 91. Indeed, MMS itself has acknowledges the dramatic decrease in the length of the season in which ice roads can be used. Environmental Assessment: EA: AK-023-03-008. National Petroleum Reserve-Alaska (NPR-A) Exploration Drilling Program Puviaq #1 and #2 at 4- 22. Global warming has the potential to have dramatic impacts on the natural environment and the industrial development on the North Slope. The DEIS should have discussed how global warming will impact oil development. Further, the cumulative impacts analysis should have considered how the impact of past oil and gas development, the impact of global warming, and the impacts of further development in the Northwest area will impact wildlife, the environment, and subsistence. Due to global warming, the ice cover of the Arctic has been shrinking at a rate of 3% per decade. The NRC warns that this 'loss of sea ice would reduce critical habitat for marine mammals and seabirds that use ice shelves and flows as platforms for feeding, resting, reproducing, and molting.' NRC Report at 92. The DEIS does not discuss how changes caused by global warming will impact oil and gas development. The NRC has concluded that 'climate warming at predicted rates in the Beaufort Sea region is likely to have serious consequences for ringed seals and polar bears, and those effects will accumulate with the effects of oil and gas activities in the region.' NRC Report at 169. The DEIS should have discussed the additional impacts to ice dependent species from oil and gas development in the context of impacts from global warming. Global warming could also have a serious impact on subsistence, beyond the population level effect it could have on various species. According to the NRC, 'if migrations of bowhead whales (Balaena mysticetus), for example, were to shift farther offshore and if populations of seals near the coast were to be seriously reduced, the consequences for coastal human subsistence cultures could be dramatic.' NRC Report at 92. The effect of distribution of subsistence species altered by offshore activities combined with the effects of global warming on subsistence need to be discussed in the cumulative impacts analysis. **(Comment No. 253-212)**

Response To: Comment 253-212

For our discussion on Global Warming, please see updated discussions to Sections IV.F.8.j., Mammals, IV.F.8.n., Subsistence-Harvest Patterns, IV.F.8.o., Sociocultural Systems, and IV.F.8.p. Environmental Justice.

30. TOPIC : JURISDICTIONAL ISSUES

Comment From: State of Alaska (Comment Letter No. 251)

Section III, Page III-125, Federal Jurisdiction. As noted earlier, AS 31.05 gives the AOGCC authority on land where the state has police power. This includes the NW NPR-A planning area. **(Comment No. 251-436)**

Response To: Comment 251-436

Please see the response to comment 251-434 (Permitting).

31. TOPIC : ALTERNATIVES- GENERAL

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

Audubon's December 2002 report, Alaska's Western Arctic: A Summary and Synthesis of Resources, and its February 2003 "Wildlife Habitat Alternative" contain significant new information and analyses not included in the DEIS. This additional information includes substantial areas recommended for protection that are not part of the BLM alternatives, including Alternative C. The Audubon Alternative should be the basis of additional alternatives in a revised DEIS. **(Comment No. 253-25)**

Response To: Comment 253-25

The Audubon's Alaska's Western Arctic: A Summary and Synthesis of Resources (December 2002) was published after the draft IAP/EIS was at the printer. The information in this report is considered in the analyses in the final IAP/EIS. The Audubon's "Wildlife Habitat Alternative" has been considered, along with all other public comments received on the Alternatives, in development of the Agency Preferred Alternative.

Comment From: Audubon Alaska (Comment Letter No. 213)

Summary: Audubon strongly recommends designating four new special areas within the Northwest Planning Area of the National Petroleum Reserve-Alaska. We believe the above recommendations, combined with best management practices throughout the area, will help minimize future impacts from industrial development on valuable fish and wildlife resources. In addition, the areas recommended for no- leasing zones will conserve sensitive habitats and populations as well as provide scientific benchmarks for long-term ecological research and monitoring. Audubon's wildlife habitat alternative provides significantly more industry access to areas of high oil and gas resource potential than BLM's Alternative C. **(Comment No. 213-232)**

Response To: Comment 213-232

After completion of the public meetings on the Draft Plan, members of the core planning team, resource staff, and management met specifically to discuss the Preferred Alternative. Our starting point was a look at the proposals submitted by Audubon and others related to a "Wildlife Habitat Alternative". Resource information submitted by Audubon was considered consistent with our own information and that submitted by others, including the U.S. Fish and Wildlife Service, the State of Alaska, and the North Slope Borough. Recommendations by Audubon for new special areas and corresponding restrictions were evaluated in light of our oil and gas resource information. While it was felt some proposals were too restrictive, especially in the high prospective area in northeast portion of the Planning Area, it was also felt that the Preferred Alternative must look carefully at protections for brant, spectacled and stellar's eiders, yellow-billed loon, peregrine falcon, caribou, and the coastal bays and lagoons and that protections must in some cases be fairly prescriptive and quantitatively defined (e.g., 1/2-mile setbacks on rivers). As discussions proceeded and additional information and input were received, the Preferred Alternative evolved. BLM believes the end result is a balanced and environmentally responsible alternative. Also, please see comment response 213-202 (Special Designation Areas).

Comment From: City of Barrow (Comment Letter No. 80015)

The City of Barrow appreciates this opportunity to provide comments on the Draft Integrated Activity Plan

(IAP)/Environmental Impact Statement (EIS) prepared by the Bureau of Land Management (ELM) for the Northwest Planning Area of the National Petroleum Reserve-Alaska (NPR-A). The Draft presents information and analyzes a range of options for management of the 8.8 million-acre Planning Area. The document focuses primarily on the potential effects of oil and gas leasing, exploration, and development within the area. The entire planning Area has been occupied by the Inupiat people for centuries and encompasses traditional subsistence areas used intensively by our community's residents today. The majority of the population of the City of Barrow residents arc Inupiat and live a traditional subsistence lifestyle, which is dependent upon our continued unobstructed access to healthy fish and wildlife resources. We have reviewed the comments prepared by the North Slope Borough, including the North Slope Alternative, and support them in their entirety as per attached Resolution 04-2003. We also support fill area leasing, but will continue to do so only if sufficient lease conditions are adopted, remain in place, and are enforced to ensure that exploration and development activities will not significantly impact the health of the environment, the area's wildlife resources, or our subsistence activities. We look forward to continuing close consultation with the BLM as a Final IAP/EIS is prepared and decisions are made by the Secretary and other officials of the Department of the Interior. **(Comment No. 80015-1011)**

Response To: Comment 80015-1011

Please see the responses addressing the North Slope Borough's recommendations. 80065-570 through 573 80065-575 through 577 80065-584 through 590 80065-592, 593, 595, 597, and 600.

Comment From: City of Atqasuk (Comment Letter No. 257)

We have reviewed the comments prepared by the NSB, including the North Slope Alternative, and support them in their entirety. We also support full area leasing, but will continue to do so only if sufficient lease conditions are adopted, remain in place, and are enforced to ensure that exploration and development activities will not significantly impact the health of the environment, the area's wildlife resources, or our subsistence activities. We look forward to continuing close consultation with the BLM as a Final IAP/EIS is prepared and as management decisions are made by the Secretary and other officials of the Department of the Interior. **(Comment No. 257-1025)**

Response To: Comment 257-1025

Please see the comments addressing the North Slope Borough's recommendations. 80065-570 through 573 80065-575 through 577 80065-584 through 590 80065-592, 593, 595, 597, and 600.

Comment From: Sierra Student Coalition (Comment Letter No. 149)

The BLM must develop more alternatives because the full-scale development plan they have proposed for the Western Arctic is irresponsible and unbalanced. BLM must develop leasing alternatives that will ensure protection in areas where development proceeds and fully protect special places such as the Meade River/Dease Inlet, Techekpuk Lake, Peard Bay, Kasegauk Lagoon, and the Colville River. **(Comment No. 149-1035)**

Response To: Comment 149-1035

The BLM has developed a Preferred Alternative and General Lease Stipuluation and Required Operating Procedures that we believe is/are balanced and support the development of oil and gas resources while protecting the environment from impacts associated with development.

Comment From: Inupiat Community of the Arctic Slope (Comment Letter No. 264)

We have reviewed the comments prepared by the North Slope Borough, including the North Slope Alternative, and support them in their entirety. We also support full area leasing, but will continue to do so only if sufficient lease conditions are adopted, remain in place, and are enforced to ensure that exploration and development activities will not significantly impact the health of the environment, the area's wildlife resources, or our subsistence activities. We look forward to continuing close consultation with the BLM as a Final IAP/EIS is prepared and as management decisions are made by the Secretary and other officials of the Department of the Interior. **(Comment No. 264-948)**

Response To: Comment 264-948

United States Department of the Interior BUREAU OF LAND MANAGEMENT NORTHERN FIELD OFFICE 1150 University Avenue Fairbanks, Alaska 99709-3899 May 30, 2003 Mr. Nathan Olemaun, Executive Director Inupiat Community of the Arctic Slope P.O. Box 934 Barrow, AK 99723 Dear Mr. Olemaun, I appreciate the opportunity to meet the Executive Board of the Inupiat Community of the Arctic Slope. The purpose of my visit is to consult with the Executive Board on a government-to-government basis concerning the Bureau of Land Management's (BLM) draft Preferred Alternative for the Northwest National Petroleum Reserve-Alaska Integrated Activity Plan (NW NPR-A Plan). The draft Preferred Alternative NW NPR-A Plan differs from the Draft Integrated Activity Plan and Environmental Impact Statement that was released for public review in January. Many of the Lease Stipulations and Required Operating Procedures have changed as a result of comments received during the public comment period, public meetings and subsistence hearings held in communities across the North Slope. We incorporated many of these comments into the draft Preferred Alternative. Enclosed are two documents which help explain the draft Preferred Alternative. The first document contains the Lease Stipulations and Required Operating Procedures we propose to use to implement the plan. The second document is a proposed decision map. Together, these documents form the basis of the draft Preferred Alternative NW NPR-A Plan. Before describing the contents of these documents, it is important to understand how Lease Stipulations and Required Operating Procedures differ. Lease Stipulations are required actions that apply only to the land that is actually leased for oil and gas activity. Required Operating Procedures are requirements that apply both on and off the land that is leased. Compliance with both Lease Stipulations and Required Operating Procedures is mandatory. Both Lease Stipulations and Required Operating Procedures are 'Performance Based.' That is, the BLM has established management objectives we want to achieve. These objectives are based on: 1) current legal requirements, 2) comments received from Federal and State government, the North Slope Borough, and Native Tribal Governments, and 3) comments received from industry, non-government organizations, ANSCA native corporations and the general public. Some requirements and standards are very specific. Others provide guidelines for industry to follow. Successful implementation is achieved when industry is able to carry out its activities and identified management objectives are also met. The Lease Stipulation and Required Operating Procedures document is divided into three (3) sections. The first section deals with Exception Language and Criteria for Lease Stipulation and Required Operating Procedures. It is the BLM's intention to provide a solid framework for the oil and gas industry to operate in NW NPR-A while providing an opportunity to adapt as technology changes or we obtain better information on which to base future decisions. This section spells out how and by what criteria exceptions to stipulations and required operating procedures will be considered and granted. The second section contains General Lease Stipulations and Required Operating Procedures. These stipulations and requirements apply to all areas of NW NPR-A. The general stipulations and required operating procedures cover a broad range of topics from subsistence consultation to facility design and construction to oil field abandonment. The third and final section contains Area Specific Lease Stipulations and Required Operating Procedures. From public comments and our own experience, we acknowledge there are areas of NW NPR-A that are more sensitive than others. In these areas, we have developed more site-specific requirements for industry to follow. When reviewing these Area Specific Lease Stipulations and Required Operating Procedures, it is helpful to use the accompanying decision map as a reference. The BLM has not made any final decisions on the NW NPR-A Plan. We expect to issue a Record of Decision in October of 2003. I am requesting the Executive Board of the Inupiat Community of the Arctic Slope review the draft Preferred Alternative. In this regard, it might be helpful to re-review the Draft Northwest NPR-A Integrated Activity Plan we released in January as this document served as the basis for developing the draft Preferred

Alternative. I am requesting that you provide me with any written comments you deem appropriate by July 31, 2003 so that they can be considered prior to finalizing the Record of Decision in October. Again, I appreciate the opportunity to meet with you and the Executive Board of the Inupiat Community of the Arctic Slope. Thank you for your time and interest. Sincerely, Robert W. Schneider Field Manager Northern Field Office

32. TOPIC : BIRDS

Comment From: U. S. Evironmental Protection Agency (Comment Letter No. 261)

Maps 36, 37, 38, 39, 40, 41, 42, 43, 46, and 62 The Onshore Density for different bird species identified on each map indicate categories of "High," "Medium High," "Medium," and "Low." We recommend making this more quantitative by clarifying under each category the number of birds per square mile (square kilometer). **(Comment No. 261-130)**

Response To: Comment 261-130

The BLM believes that the qualitative categories describing bird densities are adequate for the purposes of this IAP/EIS. Sufficient data does not exist for accurately displaying density on a pe-square-km basis; such a presentation would imply a greater resolution than is possible currently.

Comment From: State of Alaska (Comment Letter No. 251)

Section IV, Alternative A, Birds, Gravel, Page IV-149. This section states gravel will be mined from river drainages in summer and transported to development sites in winter. The State recommends that the gravel be mined off-channel and transported in winter. This approach would eliminate problems such as water quality effects, impacts to wetlands from material stockpiling, and double-handling of material if gravel were dredged or excavated from a site in summer. **(Comment No. 251-164)**

Response To: Comment 251-164

Like most projects with the potential to affect a variety of natural resources, altering the season or area to benefit one species may increase the negative effects on other species. In this case, gravel extraction from off-channel areas removed some distance from a river could adversely affect more birds and heavily used bird habitats than if extraction was accomplished from within a river drainage.

Comment From: State of Alaska (Comment Letter No. 251)

Section IV, Alternative B, Birds, Effects of Oil and Gas Activities, Page IV-277. The first paragraph in this section states the planning area would be open to oil and gas leasing and exploration in the Kasegaluk Lagoon proposed special area under Alternative B. However, the description of Alternative B in Section II, page II-10 states the proposed Kasegaluk Lagoon Special Area would not be available for leasing and no permanent oil and gas facilities would be allowed in the Special Area. This discrepancy needs to be rectified. **(Comment No. 251-173)**

Response To: Comment 251-173

The typographical error concerning potential for leasing and exploration in the proposed Kasegaluk Lagoon Special Area has been corrected. The Kasegaluk Lagoon Special Area would not be offered for lease under Alternative B.

Comment From: State of Alaska (Comment Letter No. 251)

Map 45, Raptor Nesting Sites in NPR-A and Map 92 Raptor Nesting and Foraging Habitat in NW NPR-A. Map 45 depicts raptor (peregrine falcon) nesting sites along the upper Topagoruk River and lower Titaluk River. However, Map 92 shows no raptor nesting or foraging habitat along these rivers. These two map pages should be adjusted to ensure the correct information is presented on both maps. **(Comment No. 251-175)**

Response To: Comment 251-175

These maps have been revised.

Comment From: Audubon Alaska (Comment Letter No. 213)

Key Wildlife Concerns : The DEIS used inappropriate nesting survey data for waterbirds. Increase in predator populations, including gulls, ravens, and foxes, around oilfield infrastructure will reduce populations of ground nesting birds. Impacts to waterbirds from a major oil spill in nearshore waters represent a significant conservation concern for the NPR-A. **(Comment No. 213-203)**

Response To: Comment 213-203

Most of the maps and text descriptions of waterbird distribution and abundance presented in the draft IAP/EIS are derived from USFWS annual eider aerial surveys in mid-June (William Larned, USFWS, personal communication) and/or annual breeding pair aerial surveys in late June-early July (Edward Mallek, USFWS, personal communication). Some maps include additional data. Aside from some aerial surveys performed by environmental consultant companies that target a few particular species, the sources cited above provide the principal data available on waterbirds nesting on the Arctic Coastal Plain, and thus are entirely appropriate sources for this type of information. It is true that if predator populations (e.g., gulls, ravens, foxes) increase around oilfield infrastructure, ground-nesting bird populations in these areas may be reduced as a result of increased predation; however, it is not a clearly demonstrated relationship in many cases. In recent years, waste food availability has been controlled more carefully through the use of covered waste containers, frequent burial of material deposited in landfills, and worker education. The availability of nest/burrow sites on oilfield structures is a potential problem not yet fully addressed by industry or regulatory agencies. However, a USFWS-sponsored workshop concerning human influences on predators of nesting birds on the North Slope of Alaska, held on 17 April 2003, examined many aspects of this potential problem including identifying what research is needed, what management actions can be implemented, and the roles of industry and government agencies. Also, some of the potential problems are addressed by Required Operating Procedure (ROP) A-1 (attracting wildlife to food and garbage prohibited), ROP A-2 (burial of garbage prohibited), and potentially by ROP I-2 (orientation program). Impacts on waterbirds from a large oil spill in nearshore waters are discussed in IAP/EIS Section IV.C.9.b. Although there is a 33 and 38 percent chance of one or more large oil spills occurring under Alternatives A and B, respectively, under the $30/bbl oil price scenario, it is most likely that no spills would occur.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

The cumulative impacts analysis of birds is cursory and fails to even differentiate between the numerous, diverse species that inhabit the planning area. The section talks about 'birds' generically, but in its conclusion limits its references to ducks and other water birds.' DEIS at IV-417. Thus, the analysis apparently fails completely to analyze shorebirds. Shorebirds are already impacted by onshore development, and may be vulnerable to the effects of an oil spill. Current oil development on the North Slope displaces 5% of shorebirds. See NRC Report at 195. Shorebirds also likely have been affected by the loss of food caused by contamination of wetlands by reserve pits. Id. Success for ground nesters is lower in oil fields than in other undisturbed areas. Id. Particular species of concern include the buff-breasted sandpiper and the dunlin. One half of the world's population of buff-breasted sandpipers nest on the North Slope. This species is currently under consideration for listing under the Endangered Species Act. The dunlin has been impacted by loss of wintering and staging habitat in Asia. Id. This should have been discussed as a cumulative impact that may interact with impact from increased offshore oil exploration and development. **(Comment No. 253-213)**

Response To: Comment 253-213

BLM is aware that shorebirds form an important segment of the Arctic Coastal Plain (ACP) avifauna. However, the agency feels that some details included in this comment overstate what actually is known concerning the biology of certain species or realistically can be extracted from the cited references. For example, the comment states that "Current oil development on the North Slope displaces 5% of shorebirds" citing the 2003 NRC report on Cumulative Environmental Effects of Oil and Gas Activities on Alaska's North Slope. As a source for this value, this report cites an earlier study that claims a substantial percentage reduction of shorebirds within the overall oilfield perimeter, and a later study that discounts much of this percentage but agrees that 5% is the best available estimate of "displacement," which includes those individuals that would be displaced from areas buried by gravel, and some indeterminate number that would be displaced from the area adjacent to gravel structures by construction disturbance and subsequent activity on them. The latter study points out that determination of reduction in numbers within the oilfield area by the earlier study was beyond its scope of sampling, the implication being that displaced birds don't necessarily move very far. This is supported by observations that a) shorebird distributions often indicated displacement from roadside areas but resettlement in nearby areas beyond the zone of disturbance, and b) most banded birds tracked after displacement by construction were found to have resettled in nearby areas. The latter study concludes that "Overall there is rearrangement of birds (following gravel placement and disturbance) but probably no net change in bird abundance within the oil field." Future oil and gas developments on the North Slope are expected to resemble Phillips' Alpine development rather than development in the Prudhoe Bay area, with a much smaller footprint (e.g., 100 acres vs North Slope development to date of about 9,500 acres), and thus are not likely to displace substantial numbers of shorebirds. The comment correctly points out that the buff-breasted sandpiper is an uncommon species of concern, however it is not currently under consideration for listing under the ESA as stated.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

We believe that the DEIS does not adequately address potential impacts to selected bird species or provide sufficient protection for their habitats. **(Comment No. 253-219)**

Response To: Comment 253-219

The IAP/EIS analysis has addressed potential impacts to particular species adequately. For those species for which certain data to more precisely determine potential impacts are lacking, the assumption is made that they would experience impacts similar to those described for closely related species that display similar behavioral and ecological traits and/or habitat preferences. Additional data bearing on the adequacy of the impact analyses that comes to the attention of BLM will be incorporated into the final document. Several Stipulations and ROP's in the IAP/EIS would provide protection for these species and their habitats. The necessity for additional protection would depend in part upon the types of activities that would occur in particular areas; additional stipulations may be specified at the subsequent exploration and development stages.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

The DEIS states that "(a)pproximately one million birds representing approximately 70 species occur annually in Beaufort Sea and Chukchi Sea offshore and nearshore marine habitats, and Arctic Coastal Plain (ACP) aquatic and terrestrial habitats'" Although a number of citations follow this statement, the basis for and accuracy of the statement are questionable. For example, in the introduction to The Birds of the Beaufort Sea (1989, BP Exploration [Alaska], Inc.), Johnson and Herter note that "(a)t least 10 million individuals of over 120 species of terrestrial and aquatic birds migrate through the Beaufort Sea area, nest on the adjacent islands, coastal plain, and foothills, or molt in the lagoons and large lakes along the coast." The first sentence of the second paragraph states that "(t)here is at least one area in the Northwest NPR-A Planning Area of high-density water bird groups," but then it fails to identify that area. Table III-07, which is referenced in the next sentence, also does not identify that area. **(Comment No. 253-221)**

Response To: Comment 253-221

Please see the response to comment 213-256 (Birds).

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

Discussion of population trends for various waterbird species makes reference to two sets of aerial surveys: the Eider Breeding Population Survey, Arctic Coastal Plain (Larned et al., 2001) and the Aerial Breeding Pair Surveys of the Arctic Coastal Plain of Alaska (Mallek et al., 2002). The timing of the two surveys is different, as noted in the DEIS, but it is unclear why BLM chose to reference both and present conflicting data for the same species. Further, BLM apparently selected the eider surveys for purposes of the maps in Volume 2 (e.g., Map 42 for long-tailed duck), even through the eider sur veys may not be the best source of information on distributions and densities of waterbirds other than of eiders. In fact, the U.S. Fish and Wildlife Service advised Audubon that the eider surveys are most appropriately used in regard to eiders and that the aerial breeding pair surveys are most appropriately used in regard to waterbirds other than eiders. **(Comment No. 253-223)**

Response To: Comment 253-223

Please see the response to Comment 213-258 (Birds).

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

In the second paragraph, the DEIS describes the importance of Arctophila habitats, which only account for 0.5 percent of the Planning Area. Reference is made to Table III-06, but this table does not give the reader information on where those habitats are distributed within the Northwest NPR-A Planning Area. The third paragraph makes reference to the "lesser golden plover," which reflects outdated nomenclature. The lesser golden plover has been divided into Pacific golden plover (Pluvialis fulva) and American golden-plover (P. dominica), both of which probably occur in parts of NPR-A. **(Comment No. 253-224)**

Response To: Comment 253-224

Please see the response to Comment 213-259 (Birds).

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

The description of the yellow-billed loon should give greater recognition to the fact that the yellow-billed loon has a very small world population, perhaps as few as 16,650 (Fair, 2002, The Wilderness Society and Trustees for Alaska, Anchorage, Alaska). Hence, not only does NPR-A have the "primary nesting area" for the U.S. population, but it is one of the most important nesting areas in the world. Further, by using the Eider Breeding Population Survey as the source of data on distribution in Map 37, the DEIS apparently has missed an important high-density area southeast of Atqasuk and west of the Ikpikpuk River. See Fig. II.2-1 in Alaska's Western Arctic: A Summary and Synthesis of Resources (Schoen and Senner [eds.], 2002, Audubon Alaska, Anchorage, Alaska). In addition, both the yellow-billed and redthroated loons are on the Alaska WatchList of declining and vulnerable bird populations (2002, Audubon Alaska, Anchorage, Alaska). **(Comment No. 253-226)**

Response To: Comment 253-226

Please see the response to Comment 213-260 (Birds).

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

The discussion of brant fails to indicate that the Alaska population of about 125,000 individuals is significantly below the desired population level of 150,000 for this species in the Pacific. This fact heightens the level of concern for any impacts on this species where it nests, rears broods, molts, or stages in NPR-A and specifically in the Northwest Planning Area. Although the DEIS mentions that fallstaging brant concentrate in Beaufort Sea lagoons, bays and deltas, explicit mention should be made of Kasegaluk Lagoon, which may harbor nearly half of all Pacific brant at a single time (Johnson, 1993, Journal of Field Ornithology 64:539-548). The DEIS also fails to note that the brant that gather in NPR-A to molt come from a variety of locations (e.g., Yukon-Kuskokwim Delta, Siberia, and Canada). This fact again underscores the importance of NPR-A habitats for the larger Pacific population of brant. **(Comment No. 253-228)**

Response To: Comment 253-228

Please see the response to Comment 213-261 (Birds).

Comment From: Audubon Alaska (Comment Letter No. 213)

Additional Waterbird Stipulations : Two high-density waterbird nesting areas occur south of the recommended Dease Inlet-Meade River Special Area (Fig. 1). One area, south of Atqasuk, is an important spectacled eider nesting area. The other area, west of Ikpikpuk River, is an important yellow-billed loon nesting area. Both of these areas are identified in Figure 2 and should receive special stipulations to prevent impacts to waterbird nesting habitat. We recommend that specific stipulations for waterbird nesting areas be developed in consultation with appropriate experts at the U.S. Fish and Wildlife Service. **(Comment No. 213-229)**

Response To: Comment 213-229

We have taken your comments into consideration in developing the Preferred Alternative. Please also see the response to comment 213-232 (Alternatives General). Nesting area densities of spectacled eiders south of

Atqasuk and yellow-billed loons west of the Ikpikpuk River noted by Audubon range from medium to medium-high, rather than high, on maps generated from aerial survey data by the USFWS. As indicated in the response to Comment 213-225 (Special Designation Areas), several stipulations and ROP's in the IAP/EIS (most notably E-11) would provide protection for these nesting species. The necessity for additional protection would depend in part upon the types of activities that would occur in this area; additional specific stipulations for waterbird nesting areas, as suggested by Audubon, are one approach. This will be considered at subsequent approval stages if necessary.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

In regard to the greater white-fronted goose, your choice of the Eider Breeding Population Survey does not reveal the importance of onshore wetlands south of Peard Bay, in the area between Wainwright and Atqasuk. Please review data from the Aerial Breeding Pair Surveys (see Fig. II.2-2 in the Audubon report), which indicate high and medium- high densities of this species in this area. The DEIS also should summarize the migrations and wintering areas for species discussed, so that the public fully understands the linikages between birds using habitats in NPR-A and the birds harvested by sport hunters and viewed at various locations in the "Lower 48" or elsewhere. For example, it is important to know that the greater white-fronted geese using NPR-A probably contribute to the mid-continent wintering population of white- fronts. **(Comment No. 253-230)**

Response To: Comment 253-230

Please see the response to Comment 213-262 (Birds).

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

The northern pintail is another species that is well below desired population levels, in this case at the continental scale. On p. III-48, the DEIS makes reference to the North American Waterfowl Plan, which presents information on continental waterfowl populations. The fact that there is much concern about numbers of pintails heightens the level of concern for any impacts on this species in the Northwest NPR-A Planning Area. **(Comment No. 253-231)**

Response To: Comment 253-231

Please see the response to Comment 213-264 (Birds).

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

The long-tailed duck is on the Alaska WatchList, a copy of which is enclosed for your information. Outside of the Arctic Coastal Plain, data from the North American Waterfowl Breeding Pair Surveys indicate declines of about 5.5 percent per year in surveyed portions of Alaska since 1977 (Migratory Bird Management, 1999, U.S. Fish and Wildlife Service, Anchorage, Alaska). There is broad concern about the status of "sea ducks," and the DEIS should give greater recognition to the importance of North Slope habitat for and populations of the long-tailed duck and other sea ducks. **(Comment No. 253-233)**

Response To: Comment 253-233

Please see the response to Comment 213-266 (Birds).

Comment From: Audubon Alaska (Comment Letter No. 213)

The BLM is currently planning leasing in the Northwest Planning Area of the National Petroleum Reserve-Alaska (BLM 2001), which includes most spectacled eider breeding habitat in the western Arctic. Spectacled eiders raft up (aggregate) in numbers between 10,000 and 300,000 (Petersen et al. 1999) during molting and winter. Oil spills and other toxic contamination in gathering areas, including Ledyard Bay, where adult females molt (Larned et al. 1995b), could result in significant impact (BP 2001, Balogh, personal communication 2002). King and Sanger (1979) rated spectacled eiders 78 out of 100 on their oil vulnerability index, making this species the tenth most vulnerable of 176 marine birds rated. Changes to benthic food sources caused by competing species, commercial fishing, and oceanic warming may affect winter survival and energy budgets. Breeding and molting habitats for the largest population of spectacled eiders (Russia) are likely at risk of degradation (W. Larned, USFWS, Kenai, AK, personal communication, 2002). **(Comment No. 213-235)**

Response To: Comment 213-235

Petersen, Larned, and Douglas (1999) reported aggregations of 202 to 33,192 and 32,698 to 363,030 spectacled eiders in Ledyard Bay molting and St. Lawrence wintering areas, respectively. As noted in the comment, a large oil spill entering Ledyard Bay when adult females are molting and extremely vulnerable could result in significant losses. Competition from other species, along with commercial fishing and oceanic warming potentially could decrease food resources and result in lower winter survival and breeding success.

Comment From: Audubon Alaska (Comment Letter No. 213)

Protection from development of coastal corridor habitats (for premigratory staging and feeding) and nearshore marine spill events may be highly important for avoiding impacts to the population of buff-breasted sandpipers. The high level of breeding range overlap with current and potential oil development in the western Arctic predisposes this species to significant cumulative impacts from the effects of oil development. Oil field development in the western Arctic could potentially reduce sandpiper populations through habitat loss, fragmentation, and enhanced predation (Meehan 1986, Martin 1997, Day 1998). **(Comment No. 213-236)**

Response To: Comment 213-236

Because terrestrial habitats near the coast and marine littoral habitats of the Northwest NPR-A are important for the buff-breasted sandpiper and overlap areas of high oil and gas potential, development of coastal shorebird habitats and stranding of an oil spill along the marine coastline of the Northwest NPR-A could reduce the population of this species. Site-specific measures to mitigate potential impacts reduce the risk of spills, and to keep accidental spills from entering habitats are developed during the environmental review at the permitting stage for specific proposed activities.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

With reference to king and common eiders, both species are on the Alaska WatchList. The DEIS misses a very important reference in regard to Beaufort Sea populations of both species: see Suydam et al., 2000, The Condor 102:219-222. Based on migration counts, Beaufort Sea populations of both species declined on the order of 50 percent during the period 1976-1996. This is important information, which should be discussed in the DEIS. **(Comment No. 253-237)**

Response To: Comment 253-237

Please see the response to Comment 213-268 (Birds).

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

There is no mention here of the buff-breasted sandpiper, which has a world population on the order of 15,000 individuals. Hence, the number and distribution of this species within NPR-A is of great interest, especially since it nests on dry tundra (as noted on p. III-48), which is often where oilfield infrastructure is located in order to avoid wetlands. For this reason'plus its small population and vulnerability to enhanced predation around oilfields'this species is at risk from oil development throughout its range on Alaska's North Slope. **(Comment No. 253-238)**

Response To: Comment 253-238

Please see the response to Comment 213-270 (Birds).

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

The DEIS fails to mention that the Arctic peregrine falcon was recently delisted from its status under the Endangered Species Act, and that numbers of this subspecies have increased greatly in NPR-A, based on surveys conducted in 1977 and again in 1999 (Ritchie and Wildman, 2000, as cited in DEIS). Audubon placed the Arctic peregrine on its Alaska WatchList because of the need to monitor it closely to ensure that its recovery is sustained. Concern about its recovery is heightened by a decline in productivity on the Colville River over the last decade or so (Ted Swem, pers. com., in Audubon report). Given the large number of Arctic peregrines nesting along the Colville and Ikpikpuk rivers within the Northwest NPR-A Planning Area, BLM should acknowledge this special need and its own responsibility to maintain numbers of this subspecies. **(Comment No. 253-240)**

Response To: Comment 253-240

Please see the response to Comment 213-278 (Birds).

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

The golden eagle is on the Alaska WatchList, primarily because of concern about habitat fragmentation and loss on this species' wintering grounds in the continental interior in the Lower 48 states (e.g., the Front Range of the Rocky Mountains in Colorado). The DEIS should incorporate data on the movements of subadult golden eagles on Alaska's North Slope, including within NPR-A, as per Carole McIntyre at Denali National Park. **(Comment No. 253-241)**

Response To: Comment 253-241

Please see the response to Comment 213-281 (Birds).

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

There are no citations to support the statement that "(m)ost bird species are likely to be displaced from within 700 ft to about 3,000 ft of large summer encampments, causing a local decline in nest attempts and success." **(Comment No. 253-242)**

Response To: Comment 253-242

Please see the response to Comment 213-283 (Birds).

Comment From: Audubon Alaska (Comment Letter No. 213)

In general, the DEIS failed to acknowledge and address many important papers in the avian disturbance literature. Important studies that should be included in the FEIS include the following. Belanger, L. and J. Bedard. 1989. Responses of staging greater snow geese to human disturbance. J. Wildlife Management 53:713-719. **(Comment No. 213-243)**

Response To: Comment 213-243

Additional references have been added as appropriate.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

There is only brief mention of enhanced predator populations and possible effects of such predators on birds. This possible effect is dismissed as "negligible," without supporting justification. The effect of predation, for example, on snow geese nesting at Howe Island, near the Endicott Causeway, has hardly been negligible over the last decade or so (Streever and Wilson, 2001, BP Exploration [Alaska], Inc.). The recent National Research Council report (2003) on the Cumulative Environmental Effects of Oil and Gas Activities on Alaska's North Slope gives much more weight to the effects of enhanced predator populations on birds. BLM should reconsider this issue in view of the NRC findings, especially in regard to vulnerable species, such as those on the Alaska WatchList or the U.S. Fish and Wildlife Service list of "Birds of Conservation Concern." **(Comment No. 253-244)**

Response To: Comment 253-244

Please see the response to Comment 213-283 (Birds).

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

BLM must quantify routine aircraft flight into large camps before the potential effects of such flights can be evaluated. Given the information provided here, there is no justification for dismissing the effects of routine aircraft flights as "minor." To the extent that flights are to and from or over areas of high densities of nesting, molting or brood- rearing birds, depending on the species, the effects could be significant. **(Comment No. 253-245)**

Response To: Comment 253-245

Please see the response to Comment 213-289 (Birds).

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

Again, there is no justification presented here for the conclusion that the "cumulative effect of repeated disturbance'could result in minor local and regional population- level effects'." In the next paragraph, 1) Bird Concentrations, the DEIS acknowledges that disturbance effects "may be particularly serious in areas where there are higher densities of several species'." However, there is no attempt to quantify impacts on specific species at risk, such as those on the Alaska WatchList or on the U.S. Fish and Wildlife Service list of "Birds of Conservation Concern." **(Comment No. 253-246)**

Response To: Comment 253-246

Please see the response to Comment 213-294 (Birds).

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

The DEIS suggests that if aircraft are flown at higher altitudes, that the number of flights is reduced, and that high density areas areas are avoided, "effects of aircraft operations are likely to be reduced substantially." However, what is BLM's authority to regulate the number, altitude and routes of such flights' If the authority rests with the Federal Aviation Administration (FAA), does BLM have the cooperation of and commitment from the FAA' Is that agency willing to impose restrictions to help minimize effects on birds, consistent with public safety considerations' **(Comment No. 253-247)**

Response To: Comment 253-247

Please see the response to Comment 213-296 (Birds).

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

Given that gravel is a scarce resource in NPR-A (DEIS pp. IV-18 & 19), what is the chance for adverse effects on raptors due to disturbance (e.g., blasting) as a result of increased mining of gravel along rivers where raptors are nesting' The southern Ikpikpuk River, with its high concentration of peregrine falcons, might be an area of particular concern. Based on the minimal analysis presented here (in 4), there is no justification for the conclusion that effects are likely to be "negligible." **(Comment No. 253-248)**

Response To: Comment 253-248

Please see the response to Comment 213-298 (Birds).

Comment From: Audubon Alaska (Comment Letter No. 213)

_____. 1990. Energetic cost of man- induced disturbance to staging snow geese. J. Wildlife Management 54:36-41. Jensen, K.C. 1990. Responses of molting Pacific black brant to experimental eaircraft disturbance in the Teshekpuk Lake Area, Alaska. Ph.D. Thesis, Texas A&M University, College Station. Miller, M.W., K.C. Jensen, W.E. Grant, and M.W. Weller. 1994. A simulation model of helicopter disturbance of molting Pacific black brant. Ecological Modelling 73:293- 309. Ward, D.H., R.A. Stehn, W.P. Erickson, and D.V. Derksen. 1999. Response of fall staging brant and Canada geese to aircraft overlflights in southwestern Alaska. J. Wildlife Management 63:373-381. **(Comment No. 213-253)**

Response To: Comment 213-253

Additional references have been added as appropriate.

Comment From: Audubon Alaska (Comment Letter No. 213)

p. III-47. The DEIS states that "(a)pproximately one million birds representing approximately 70 species occur annually in Beaufort Sea and Chukchi Sea offshore and nearshore marine habitats, and Arctic Coastal Plain (ACP) aquatic and terrestrial habitats'" Although a number of citations follow this statement, the basis for and accuracy of the statement are questionable. For example, in the introduction to The Birds of the Beaufort Sea (1989, BP Exploration [Alaska], Inc.), Johnson and Herter note that "(a)t least 10 million individuals of over 120 species of terrestrial and aquatic birds migrate through the Beaufort Sea area, nest on the adjacent islands, coastal plain, and foothills, or molt in the lagoons and large lakes along the coast." The first sentence of the second paragraph states that "(t)here is at least one area in the Northwest NPR-A Planning Area of high-density water bird groups," but then it fails to identify that area. Table III-07, which is referenced in the next sentence, also does not identify that area. **(Comment No. 213-256)**

Response To: Comment 213-256

The portion of the Draft IAP/EIS statement concerning occurrence of approximately one million birds in arctic marine and terrestrial areas is as difficult to substantiate as the 10 million stated by Johnson and Herter in Birds of the Beaufort Sea, who cited no supporting documents. The approximate number of species (70) expected to occur annually was determined as those likely to be present in reasonably substantial numbers, whereas Johnson and Herter's total exceeding 120 species includes, for example, many seabirds, ducks, passerines, and members of many other groups that are very uncommon to rare or vagrant in this region. The sentence concerning a high-density bird area is a mis-statement resulting from loss of portions of the sentence during the publication process. The statement has been revised in the Final IAP/EIS.

Comment From: Audubon Alaska (Comment Letter No. 213)

p. III-48. Discussion of population trends for various waterbird species makes reference to two sets of aerial surveys: the Eider Breeding Population Survey, Arctic Coastal Plain (Larned et al., 2001) and the Aerial Breeding Pair Surveys of the Arctic Coastal Plain of Alaska (Mallek et al., 2002). The timing of the two surveys is different, as noted in the DEIS, but it is unclear why BLM chose to reference both and present conflicting data for the same species. Further, BLM apparently selected the eider surveys for purposes of the maps in Volume 2 (e.g., Map 42 for long-tailed duck), even through the eider surveys may not be the best source of information on distributions and densities of waterbirds other than of eiders. In fact, the U.S. Fish and Wildlife Service advised Audubon that the eider surveys are most appropriately used in regard to eiders and that the aerial breeding pair surveys are most appropriately used in regard to waterbirds other than eiders. **(Comment No. 213-258)**

Response To: Comment 213-258

The BLM chose to discuss data from both USFWS Eider (mid-June) and Breeding Pair (late June-early July) surveys, as well as some data obtained by environmental consulting companies, to indicate all the data that is available, and to illustrate in the former case that datasets obtained in a similar fashion at different times of year may suggest conflicting population trends for some species. Each data set represents the situation at the time it was obtained; to determine which is the more correct at representing the true annual trends for all species surveyed would require a large increase in survey effort. Bird species distribution and abundance presented in the IAP/EIS were mapped using the eider survey data for the sake of consistency presumably inherent in one dataset since, as noted, eider distribution and abundance are accurately obtained only during the earlier period. The BLM has reviewed the data from both surveys and revised the maps according to USFWS guidance as needed to represent these two parameters. Section III.B.2 provides a discussion of vegetative cover on the NPR-A, including Arctophila wetlands heavily used by waterbirds. The landcover classification developed by BLM and Ducks Unlimited has a resolution of 30m pixels. It is likely that any map portraying this area classified by the cited scheme would show such wetlands scattered throughout the NPR-A. Although there is a general trend from north to south for landcover type to change, most of the 17 cover classes are present at some frequency in most all areas of the NPR-A. A map at this level of resolution would not add anything of value to the vegetation analysis, and would require a much larger map than is practical to include in the IAP/EIS. However, the report detailing the map's production has been published and is available as a BLM Technical Report from BLM External Affairs in Anchorage: USDOI, BLM and Ducks Unlimited. 2002. National Petroleum Reserve - Alaska earth cover classification. Technical Report 40. BLM, Anchorage, AK. It is not practical to give the locations of this vegetative type, which comprises only 0.6 percent of the Planning Area, in tabular format.

Comment From: Audubon Alaska (Comment Letter No. 213)

p. III-49. In the second paragraph, the DEIS describes the importance of Arctophila habitats, which only account for 0.5 percent of the Planning Area. Reference is made to Table III-06, but this table does not give the reader information on where those habitats are distributed within the Northwest NPR-A Planning Area. The third paragraph makes reference to the "lesser golden plover," which reflects outdated nomenclature. The lesser golden plover has been divided into Pacific goldenplover (Pluvialis fulva) and American golden-plover (P. dominica), both of which probably occur in parts of NPR-A. **(Comment No. 213-259)**

Response To: Comment 213-259

The oversight concerning use of an older name for the golden plover has been corrected.

Comment From: Audubon Alaska (Comment Letter No. 213)

p. III-50. The description of the yellow-billed loon should give greater recognition to the fact that the yellow-billed loon has a very small world population, perhaps as few as 16,650 (Fair, 2002, The Wilderness Society and Trustees for Alaska, Anchorage, Alaska). Hence, not only does NPR-A have the "primary nesting area" for the U.S. population, but it is one of the most important nesting areas in the world. Further, by using the Eider Breeding Population Survey as the source of data on distribution in Map 37, the DEIS apparently has missed an important high-density area southeast of Atqasuk and west of the Ikpikpuk River. See Fig. II.2-1 in Alaska's Western Arctic: A Summary and Synthesis of Resources (Schoen and Senner [eds.], 2002, Audubon Alaska, Anchorage, Alaska). In addition, both the yellow-billed and red-throated loons are on the Alaska WatchList of declining and vulnerable bird populations (2002, Audubon Alaska, Anchorage, Alaska). **(Comment No. 213-260)**

Response To: Comment 213-260

Table III-07 gives yellow-billed loon estimates for Arctic Coastal Plain and NPR-A. Figures for the estimated world population have been added to text. Bird species distribution and abundance presented in the IAP/EIS were mapped using the USFWS eider survey data for the sake of consistency presumably inherent in one dataset. Although the maps generated from these two datasets are similar, there are a few noticeable shifts in distribution. The data from both the eider survey and the breeding pair survey has been reviewed and the maps have been revised according to USFWS guidance to represent these two parameters.

Comment From: Audubon Alaska (Comment Letter No. 213)

pp. III-50 & 51. The discussion of brant fails to indicate that the Alaska population of about 125,000 individuals is significantly below the desired population level of 150,000 for this species in the Pacific. This fact heightens the level of concern for any impacts on this species where it nests, rears broods, molts, or stages in NPR-A and specifically in the Northwest Planning Area. Although the DEIS mentions that fall-staging brant concentrate in Beaufort Sea lagoons, bays and deltas, explicit mention should be made of Kasegaluk Lagoon, which may harbor nearly half of all Pacific brant at a single time (Johnson, 1993, Journal of Field Ornithology 64:539-548). The DEIS also fails to note that the brant that gather in NPR-A to molt come from a variety of locations (e.g., Yukon-Kuskokwim Delta, Siberia, and Canada). This fact again underscores the importance of NPR-A habitats for the larger Pacific population of brant. **(Comment No. 213-261)**

Response To: Comment 213-261

Additional details included in the comment regarding brant have been added to the Final IAP/EIS. It is not clear how Audubon derived the "desired population level of 150,000 for this species." The draft EIS acknowledges that brant from outside the area molt in the NPR-A (page III-51 of the draft IAP/EIS).

Comment From: Audubon Alaska (Comment Letter No. 213)

p. III-51. In regard to the greater white-fronted goose, your choice of the Eider Breeding Population Survey does not reveal the importance of onshore wetlands south of Peard Bay, in the area between Wainwright and Atqasuk. Please review data from the Aerial Breeding Pair Surveys (see Fig. II.2-2 in the Audubon report), which indicate high and medium- high densities of this species in this area. The DEIS also should summarize the migrations and wintering areas for species discussed, so that the public fully understands the linikages between birds using habitats in NPR-A and the birds harvested by sport hunters and viewed at various locations in the "Lower 48" or elsewhere. For example, it is important to know that the greater white-fronted geese using NPR-A probably contribute to the mid-continent wintering population of white-fronts. **(Comment No. 213-262)**

Response To: Comment 213-262

Bird species distribution and abundance presented in the IAP/EIS were mapped using the USFWS eider survey data for the sake of consistency presumably inherent in one dataset. Although the maps generated from these two datasets are similar, there are a few noticeable shifts in distribution. The data from both the eider survey and the breeding pair survey has been reviewed and the maps revised as needed according to USFWS guidance to achieve a more satisfactory representation of these two parameters. Significant details included in the comment regarding distribution outside this region that may influence this and other species have been added to the Final IAP/EIS.

Comment From: Audubon Alaska (Comment Letter No. 213)

p. III-52. The northern pintail is another species that is well below desired population levels, in this case at the continental scale. On p. III-48, the DEIS makes reference to the North American Waterfowl Plan, which presents information on continental waterfowl populations. The fact that there is much concern about numbers of pintails heightens the level of concern for any impacts on this species in the Northwest NPR-A Planning Area. **(Comment No. 213-264)**

Response To: Comment 213-264

In view of its substantial current population size, BLM does not feel that the northern pintail population is well below the desired population size. On the basis of aerial breeding pair surveys, Mallek (2002) stated that the indicated northern pintail population was significantly above its 15-year population mean in 2001; the breeding ratio was at the highest level ever recorded for the second consecutive year.

Comment From: Audubon Alaska (Comment Letter No. 213)

The long-tailed duck is on the Alaska WatchList, a copy of which is enclosed for your information. Outside of the Arctic Coastal Plain, data from the North American Waterfowl Breeding Pair Surveys indicate declines of about 5.5 percent per year in surveyed portions of Alaska since 1977 (Migratory Bird Management, 1999, U.S. Fish and Wildlife Service, Anchorage, Alaska). There is broad concern about the status of "sea ducks," and the DEIS should give greater recognition to the importance of North Slope habitat for and populations of the long-tailed duck and other sea ducks. **(Comment No. 213-266)**

Response To: Comment 213-266

On the basis of aerial breeding pair surveys on the arctic coastal plain, which is the focus of this IAP/EIS, Mallek (2002) stated that the indicated long-tailed duck population was significantly above its 15-year population mean in 2001. This estimate indicated a reversal of a four-year decline, and the calculated breeding ratio was the highest level ever recorded and significantly higher than the previous 15-year mean. The BLM has included this information in the final document

Comment From: Audubon Alaska (Comment Letter No. 213)

p. III-53. With reference to king and common eiders, both species are on the Alaska WatchList. The DEIS misses a very important reference in regard to Beaufort Sea populations of both species: see Suydam et al., 2000, The Condor 102:219-222. Based on migration counts, Beaufort Sea populations of both species declined on the order of 50 percent during the period 1976-1996. This is important information, which should be discussed in the DEIS. **(Comment No. 213-268)**

Response To: Comment 213-268

The substantial declines of eiders in previous decades is mentioned in the bird section introduction; Suydam et al., 1997 is cited as the supporting document. The indicated article in the journal Condor has been added as further documentation, and a statement has been added to the eider sections.

Comment From: Audubon Alaska (Comment Letter No. 213)

pp. III-53 & 54. There is no mention here of the buff-breasted sandpiper, which has a world population on the order of 15,000 individuals. Hence, the number and distribution of this species within NPR-A is of great interest, especially since it nests on dry tundra (as noted on p. III-48), which is often where oilfield infrastructure is located in order to avoid wetlands. For this reason'plus its small population and vulnerability to enhanced predation around oilfields'this species is at risk from oil development throughout its range on Alaska's North Slope. **(Comment No. 213-270)**

Response To: Comment 213-270

The buff-breasted sandpiper, a rare breeder in NPR-A, is mentioned in Section III.B.4.c(2)(b). Information on the buff-breasted sandpiper has been added to the habitat use discussion.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

Moreover, this failure to evaluate fully the adverse impacts of potential oil and gas operations implicates the agency's Endangered Species Act obligations. Given the inadequate analysis in the DEIS, BLM is unable to establish that the development alternatives in the DEIS will be consistent with the agency's ESA obligations to avoid jeopardy to listed species and to prevent unauthorized take of such species. **(Comment No. 253-275)**

Response To: Comment 253-275

The BLM has analyzed the potential impacts of the levels of routine activities associated with oil and gas exploration and development that could reasonably be expected to occur associated with the IAP/EIS for the Northwest Planning Area and within the framework of available data. Although the commenter fails to define evaluate fully, it is not considered useful to speculate about potential impacts that could result from a worst-case scenario incident or activity when there is an extremely low probability of occurrence. With regard to BLMs obligation to avoid a jeopardy conclusion in the U.S. Fish and Wildlife Service (USFWS) Biological Opinion (BO) and prevent unauthorized takes of listed species, please referred to the non-jeopardy opinion contained in Appendix 10 . The BO was developed with the IAP/EIS analysis. This IAP/EIS and related BO are just the first steps in an incremental ESA consultation process with USFWS. If exploration and development were to be proposed, consultation would be reinitiated at that time.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

Until the BLM completes an adequate assessment of the full potential impacts of the development alternatives, it cannot demonstrate compliance with these obligations to conserve the spectacled and Steller's eiders and the bowhead. **(Comment No. 253-277)**

Response To: Comment 253-277

The BLM considers the analyses to be adequate and appropriate to the decisions to be made. The U.S. Fish and Wildlife Service (USFWS), by issuing a non-jeopardy BO for this portion of the plan, apparently is in agreement that the analyses are adequate. Please also see the response to Comment 253-275 (Birds).

Comment From: Audubon Alaska (Comment Letter No. 213)

p. III-55. The DEIS fails to mention that the Arctic peregrine falcon was recently delisted from its status under the Endangered Species Act, and that numbers of this subspecies have increased greatly in NPR-A, based on surveys conducted in 1977 and again in 1999 (Ritchie and Wildman, 2000, as cited in DEIS). Audubon placed the Arctic peregrine on its Alaska WatchList because of the need to monitor it closely to ensure that its recovery is sustained. Concern about its recovery is heightened by a decline in productivity on the Colville River over the last decade or so (Ted Swem, pers. com., in Audubon report). Given the large number of Arctic peregrines nesting along the Colville and Ikpikpuk rivers within the Northwest NPR-A Planning Area, BLM should acknowledge this special need and its own responsibility to maintain numbers of this subspecies. **(Comment No. 213-278)**

Response To: Comment 213-278

Some revision of the peregrine falcon description with regard to the points raised in the comment can be accommodated. However, BLM notes that the arctic peregrine falcon was delisted from its threatened status in October 1994, and that the USFWS is only obligated to monitor its status for five years following its removal. Since we are well beyond the end of this period, and numbers of this subspecies have increased greatly, it does not appear necessary to repeat the fact of its delisting in the description of each NPR-A project.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

Table II-02 (Stipulations and Required Operating Procedures) are in place and enforced. No support, historical or otherwise, is provided to show this is a valid assumption rather than an optimistic hope. **(Comment No. 253-280)**

Response To: Comment 253-280

Potential impacts were analyzed without assuming that stipulations or required operating procedures were in place. The potential effects of these protective measures are discussed in a separate section following the analysis. Most of those that apply to listed species are not discretionary.

Comment From: Audubon Alaska (Comment Letter No. 213)

p. III-56. The golden eagle is on the Alaska WatchList, primarily because of concern about habitat fragmentation and loss on this species' wintering grounds in the continental interior in the Lower 48 states (e.g., the Front Range of the Rocky Mountains in Colorado). The DEIS should incorporate data on the movements of subadult golden eagles on Alaska's North Slope, including within NPR-A, as per Carole McIntyre at Denali National Park. **(Comment No. 213-281)**

Response To: Comment 213-281

Available data on golden eagle movements in the NPR-A area has been added to the IAP/EIS description.

Comment From: Audubon Alaska (Comment Letter No. 213)

pp. IV-145. There are no citations to support the statement that "(m)ost bird species are likely to be displaced from within 700 ft to about 3,000 ft of large summer encampments, causing a local decline in nest attempts and success." There is only brief mention of enhanced predator populations and possible effects of such predators on birds. This possible effect is dismissed as "negligible," without supporting justification. The effect of predation, for example, on snow geese nesting at Howe Island, near the Endicott Causeway, has hardly been negligible over the last decade or so (Streever and Wilson, 2001, BP Exploration [Alaska], Inc.). The recent National Research Council report (2003) on the Cumulative Environmental Effects of Oil and Gas Activities on Alaska's North Slope gives much more weight to the effects of enhanced predator populations on birds. BLM should reconsider this issue in view of the NRC findings, especially in regard to vulnerable species, such as those on the Alaska WatchList or the U.S. Fish and Wildlife Service list of "Birds of Conservation Concern." **(Comment No. 213-283)**

Response To: Comment 213-283

Because there are likely to be a variety of bird species occupying the immediate vicinity of large summer camps--each probably with a particular range of distances within which it displays disturbance behavior in response to various human activities--designation of any such range is rather speculative, and is included here only to give a general indication of potential level of sensitivity. References with information bearing on this issue have been added to the text. Potential predator enhancement at the level of development projected for the Northwest NPR-A Planning Area is not likely to be even remotely similar to the Prudhoe Bay area where Endicott is located. The statement concerning the effect of predators on snow geese near Endicott does not demonstrate predator enhancement. The Streever and Wilson reference cited in support of the statement is not listed in the references cited attachment to the comment. Development sites are likely to be scattered, practices that have allowed artificially enhanced predator populations in the past are likely to be tightly controlled, and the USFWS Biological Opinion for this IAP/EIS requires that there be no predator access to food at development sites and that current technology be used to eliminate predator nesting, denning, and sheltering sites. Although regional predator enhancement effects that include the Prudhoe Bay area may be more substantial, local NPR-A population effects are expected to be negligible.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

Furthermore, the DEIS states that it assumes that the probability of crude oil being released during exploration is zero (DEIS p. IV-177). The agency has a responsibility to analyze all potential impacts, not just the optimistic best-case scenario. **(Comment No. 253-285)**

Response To: Comment 253-285

Although stipulations or ROP's that allow discretionary application may not always be applied in their most restrictive form, most applicable with regard to birds are not discretionary. To keep the analysis within reasonable bounds, discretionary measures were considered to be applied in their most restrictive form, rather than in every possible form, to demonstrate at least one effect of the measure. As noted, the statistical probability of a crude oil spill during exploration is zero; however, unless a spill is assumed for purposes of analysis, a realistic analysis of all potential effects of development and production phases is not possible. By analyzing potential impacts of an oil spill, the IAP/EIS does not simply analyze only an optimistic best-case scenario as is evident from the analysis located in Section IV.C.11.c(2), Effects of Oil Spills. Although about 975 oil spills from all sources have occurred on the North Slope, their average size is 2.7 bbl. The BLM considers that analysis of a 900-bbl oil spill scenario is sufficiently inclusive to cover the impacts of all potential spill size scenarios, up to and including this volume.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

This assumption also seems unsupported by history. The total number of oil spills from activities on the North Slope from 1989 to 1996 was 975. (DEIS p. IV-430). It is inappropriate and counter to the spirit and intent of NEPA to perform an impacts analysis based on these unwarranted and unsupported assumptions. **(Comment No. 253-288)**

Response To: Comment 253-288

Please see the respones to 253-288 (Birds).

Comment From: Audubon Alaska (Comment Letter No. 213)

pp. IV-146. BLM must quantify routine aircraft flight into large camps before the potential effects of such flights can be evaluated. Given the information provided here, there is no justification for dismissing the effects of routine aircraft flights as "minor." To the extent that flights are to and from or over areas of high densities of nesting, molting or brood- rearing birds, depending on the species, the effects could be significant. **(Comment No. 213-289)**

Response To: Comment 213-289

The BLM agrees that to accurately evaluate the potential effects of aircraft traffic associated with camps, routine traffic needs to be quantified. At this point it is not possible to estimate this number with precision. Air traffic to scattered camps in operation for a few weeks plus brief aerial survey overflights are expected to have mainly a local effect, and thus result in a minor effect on any regional population. Within the requirements of safety, BLM requires flights to be routed so as to minimize impact to major/sensitive bird concentrations.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

Each of these activities potentially could pose grave risks to the viability of this at-risk species. It is of crucial importance to recognize that because the spectacled and Steller's eider populations have experienced a more than 50% decline, that all the impacts the DEIS characterizes as negligible may have a moderate to large effect on the population's chance of long-term survival. **(Comment No. 253-293)**

Response To: Comment 253-293

The BLM considers that it has fairly represented and analyzed available data and characterized the potential impacts of various factors. There is little evidence to suggest that impacts characterized as negligible are in fact moderate or large.

Comment From: Audubon Alaska (Comment Letter No. 213)

pp. IV-147. Again, there is no justification presented here for the conclusion that the "cumulative effect of repeated disturbance'could result in minor local and regional population- level effects'." In the next paragraph, 1) Bird Concentrations, the DEIS acknowledges that disturbance effects "may be particularly serious in areas where there are higher densities of several species'." However, there is no attempt to quantify impacts on specific species at risk, such as those on the Alaska WatchList or on the U.S. Fish and Wildlife Service list of "Birds of Conservation Concern." **(Comment No. 213-294)**

Response To: Comment 213-294

In the absence of critical studies that would demonstrate quantitatively the effects of repeated exposure to aircraft flights or of flights over areas where multiple species are concentrated, BLM must address some potential impact issues with logic. For example, a smaller number of flights over a given area is likely to result in a less severe effect than would a larger number of flights. At this point it is not possible to estimate this number with precision, since monitoring programs that would yield data bearing on the issue have not been performed. Air traffic to scattered camps in operation for a few weeks per summer, plus brief aerial survey overflights, are expected to have mainly a local effect, and thus result in a minor effect on any regional population involved. The BLM requires industry to route flights so as to minimize impact to major/sensitive bird concentrations, however air traffic control requirements of the FAA would take precedence over any attempt to avoid wildlife concentrations when poor flight conditions prevail. Regarding the conclusions presented in the IAP/EIS, without an attempt to reach reasonable conclusions the document would lose much of its assessment function.

Comment From: Audubon Alaska (Comment Letter No. 213)

The DEIS suggests that if aircraft are flown at higher altitudes, that the number of flights is reduced, and that high density areas areas are avoided, "effects of aircraft operations are likely to be reduced substantially." However, what is BLM's authority to regulate the number, altitude and routes of such flights' If the authority rests with the Federal Aviation Administration (FAA), does BLM have the cooperation of and commitment from the FAA' Is that agency willing to impose restrictions to help minimize effects on birds, consistent with public safety considerations' **(Comment No. 213-296)**

Response To: Comment 213-296

The FAA regulates air traffic activity so that flight operations are carried out under safe conditions. Flights into remote camps are more similar to Alaska bush flights than to scheduled airline service, and as such may be more amenable to follow corridors that avoid wildlife concentrations, as suggested by BLM, if conditions permit and doing so does not compromise safety. It is not likely that the FAA would impose flight restrictions to help minimize effects on birds, and BLM is not suggesting they do so.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

The DEIS fails to take a hard look at the these potentials impacts and fails to look at the indirect impacts from an oil spill to aquatic crustaceans, aquatic insects, plant materials and mollusks such as razor clams which constitute the majority of the eiders diet. **(Comment No. 253-297)**

Response To: Comment 253-297

Although it seems unlikely that a single exposure to an oil spill would result in significant chromosomal damage (unless reference is being made to egg contact), BLM has reviewed the cited publication and included relevant material in the analysis. The potential for reduced productivity in a given year could exist if local reproductive success is decreased as a result of oil contact with eggs; however, it is unlikely that this would translate into significant reduced productivity in future years. The stated effects from exposure to oil are discussed in the IAP/EIS in Section IV.C.11.c.(2). The BLM is not certain exactly what additional analysis is involved in taking a "hard look" at potential impact-producing factors since the subjective term is not defined by the commenter. Impacts to prey organisms that could result in an indirect impact on eiders are possible, but data are not available

to allow other than speculative conclusions concerning such indirect effects. In the 30 days following a spill entering a waterbody, 40% of the volume evaporates, 38% remains on or near the surface, and 22% is dispersed in the water column (Table App 9-10). Nearly all of the oil dispersed into the water column floats within a few centimeters of the surface; a small proportion of the oil dispersed into the water column could contact bottom organisms under unusual circumstances. Except in very shallow water where eiders seldom forage, relatively little oil is expected to reach the bottom even under strong mixing conditions. Also, after 30 days, the oil has weathered considerably and is unlikely to cause the death of extensive prey populations, and such populations are widely available for eiders to exploit away from any given oil spill locality.

Comment From: Audubon Alaska (Comment Letter No. 213)

pp. IV-149. Given that gravel is a scarce resource in NPR-A (pp. IV-18 & 19), what is the chance for adverse effects on raptors due to disturbance (e.g., blasting) as a result of increased mining of gravel along rivers where raptors are nesting' The southern Ikpikpuk River, with its high concentration of peregrine falcons, might be an area of particular concern. Based on the minimal analysis presented here (in 4), there is no justification for the conclusion that effects are likely to be "negligible." **(Comment No. 213-298)**

Response To: Comment 213-298

Critical studies demonstrating a serious quantitative effect of raptor exposure to gravel extraction operations are lacking. However, because most gravel extraction would be accomplished during the winter season when the birds are absent, it is likely this activity would pose a negligible risk. Also, it is likely that lessees would attempt to locate a gravel source as near the areas of higher oil and gas potential in the northern portion of the Planning Area as possible (Maps 105 and 106), at least initially, to decrease transport cost. Thus the northern Ikpikpuk River, and perhaps a few others in the northern portion of the Planning Area, may serve as gravel sources; however, current survey data does not indicate that this area has any substantial raptor population. This in turn suggests that effects on raptors from gravel mining in this area would be negligible regardless of season.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

The DEIS claims that eiders will not be impacted by seismic surveys since they will occur in winter months, 'except under exceptional timing circumstances' for exploration (DEIS p. IV-181). This offers the public no guarantee that these surveys will not routinely be done in summer months. Seismic surveys that have the potential to impact eiders should not occur during summer months under any circumstances! **(Comment No. 253-299)**

Response To: Comment 253-299

Seismic surveying is expected to occur during December to May. Seismic surveying occurs during winter because the operational logistics make summer surveying extremely difficult in this area of poorly drained tundra with abundant shallow lakes. Summer tundra travel in support of seismic surveying operations is not provided for in this IAP/EIS. The infrequent operation that might extend into spring is not likely to extend beyond May and would pose a potential impact to only a small portion of the population with a negligible result.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

Given that the long-term survival of spectacled and Steller's eiders is at risk, we are very concerned about habitat loss associated with all the action alternatives. This includes burial of nesting habitat associated with gravel material sites, the construction of pads, roads and other facilities which all have the potential to negatively

impact these at risk populations. The DEIS fails to provide a sense of scale or magnitude regarding such development. Under Alt A and B, more than 95% of the Planning Area has the potential for eventual development. The DEIS fails to account fully for the cumulative short and long-term impacts to the at-risk eider populations that will result from this level of activity and associated infrastructure . The DEIS also fails to take into account that cumulative impacts of past seismic activities in the NPR-A also has altered some undeveloped tundra lands. Surface disturbance of the tundra caused by industrial activities on the North Slope typically increases surface moisture and primary plant productivity, such changes may indirectly impact the eiders. **(Comment No. 253-301)**

Response To: Comment 253-301

Potential habitat loss from gravel placement is discussed in Section IV.A.1.b(4)(c). As portrayed in the IAP/EIS, any development in the Northwest NPR-A is expected to be accomplished with a relatively small footprint similar to that used for the Alpine development on the Colville River delta. Typically, this would involve a main pad and small satellite drilling pad(s) connected by a road/airstrip and ranging in size from 50-200 acres depending upon the number of satellite pads. In addition, a moderate acreage would be required for small pipeline support pads and possibly a pump station if recoverable quantities of oil were found. However, although early exploration disrupted some tundra areas, current exploration and most heavy equipment transport is accomplished during winter using ice pads and roads causing minimal surface disturbance. stipulations and required operating procedures would restrict development near eider nesting habitats. Proposal-specific mitigation measures would further protect nesting habitats. It is unlikely that habitat burial by numerous development/production facilities throughout the NPR-A would occur in the reasonably foreseeable future; hence any serious threat to listed eiders, which currently have substantial extant populations, is likely to require many decades.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

Numerous studies have shown that predation is an important cause of nest failure in waterfowl. In extreme cases, nest predation can seriously limit waterfowl production and even cause population declines. The DEIS fails to analyze the increased predation that may occur from increased human activity (including hunting access) and facilities development. The DEIS also fails to adequately address the increase of predation from foxes, gulls, rave ns etc on eider breeding grounds. An increase in these predators has been correlated with human activity including facilities construction and garbage dumps, food around shelters, trash etc. For example, the construction of facilities associated with oil and gas development, may be disrupting the natural predator relationship by allowing Common ravens to breed in otherwise unsuitable habit. This predation may result in complete nest failures during incubation or reduced productivity. Poor eider nest success has been documented near Barrow where only 15-18% of nests located between 1991-2000 survived until hatching. Predation is suspected to be the primary cause for this nest failure. The Recovery Plan for the spectacled eider recognizes that increased predation is a major concern for the recovery of this species. Predation is a major concern for eider viability, but rather than analyze this issue in detail, the DEIS provides a cursory and insufficient surface discussion. **(Comment No. 253-302)**

Response To: Comment 253-302

The potential for increased predator presence is discussed under the No Action Alternative (Section IV.B.9). Required Operating Procedures A-1 and A-2 prevent supplemental food source availability that could attract predators and increase their reproductive success. In addition, the USFWS Biological Opinion requires that food and refuse should not be made available at oil and gas facilities, and that permittees use current technology to prevent facilities from providing artificial nesting and denning habitat to potential avian and mammalian predators. See specifically ROP E-9.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

Increased helicopter and air traffic associated with the development alternatives pose risks to eiders. The DEIS recognizes that nesting eiders have been known to react negatively to helicopters (DEIS IV-176). An information void exists regarding how brooding or incubating birds may react to aircraft noise from fixed-winged aircraft or helicopter noise. These activities are often done in summer months, the time when eiders are most likely to be disturbed. Such activity is not consistent with the notake provision of the ESA. **(Comment No. 253-303)**

Response To: Comment 253-303

Stipulation E-1 (Alternatives B and C) requires that if significant resources (e.g., listed eiders) occur in wildlife habitat areas of significant concern, additional design features or mitigation developed through project-specific NEPA analysis (including setbacks within which activities are restricted) would be required to minimize impacts. The stipulation lists numerous rivers, deepwater lakes, waterfowl nesting, brood-rearing, and molting areas, and nearshore marine areas as potential areas of concern. Required Operating Procedure F-1 requires for all alternatives that aircraft use be conducted in a manner that would minimize impacts to birds; maintaining aircraft altitude of 1,500 feet AGL over caribou insect-relief areas also may reduce stress to eiders where such areas overlap eider sensitive use areas. These requirements would reduce the potential for violation of the ESA incidental take provision. See specifically Stipulations K-1, 2, 3, 6, 8, and ROPs K-4 and 7.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

The DEIS fails to take a hard look at the potential impacts to nesting and other eider behavior resulting from hazardous material, fuel spills and solid material removal and remediation. These activities often entail the use of large machinery including drill rigs, hydropunches and backhoes, all which may impact eider habitat and behavior. **(Comment No. 253-305)**

Response To: Comment 253-305

Activity associated with removal and remediation of an oil spill on a pad or tundra would affect only a relatively restricted area, thus it is not likely that a significant impact on a regional eider population would occur.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

Throughout the DEIS, the threats discussed above are dismissed as minor or negligible. What the DEIS fails to recognize that even a 'minor' change in population may have a major impacts for species, such as the spectacled and Steller's eiders whose future viability is already threatened. Furthermore, the DEIS fails to consider that the cumulative effect of each of these minor disturbances, may have a large impact on the species survival. **(Comment No. 253-306)**

Response To: Comment 253-306

In the IAP/EIS, potential impacts to listed eiders ("threats") are analyzed using currently available data. Because quantitative models for estimating more precise numerical effects are not available for most factors that could affect most species, a professional best estimate is made in most instances, and a subjective term for seriousness is attached to this level of potential impact. When the overall stated impact is considered minor or negligible, this is the level that such analysis has determined—in no case is an effect "dismissed" as minor or negligible unless this is the impact level determined.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

Surfacing, respiration, and diving cycles are also affected (Richardson and Malme 1993). Without making a link to onshore activities, I'm not sure how this is relevant to the NPRA program. Can we say that onshore develop may increase offshore boat traffic,or is it just relevant to a full assessment of cumulative impacts? **(Comment No. 253-309)**

Response To: Comment 253-309

Only under exceptional circumstances (fall migration of some individuals very near shore) would bowhead whales be expected to be exposed to approaching vessels. Please also see the response to Comment 253-308 (Birds).

Comment From: Audubon Alaska (Comment Letter No. 213)

The DEIS (p IV-417) states 'The effects of various cumulative factors on seaducks and other waterbirds are likely to be substantially greater than for any activities associated with any individual oil and gas lease sale.' On p IV-418, the DEIS states 'Cumulative effects of oil- industry activities on birds potentially could be substantial in the case of loon species and king eider, and significant in the case of long-tailed duck and king and common eiders'primarily as a result of mortality in the unlikely event a large oil spill were to occur.' However, later in the paragraph the DEIS states that none of the management activities'are likely to cause significant population effects.' This is confusing and need clarification. Clearly, it appears that cumulative effects on some bird species, including threatened Steller's and spectacled eiders (p IV-444) are possible if not likely. **(Comment No. 213-360)**

Response To: Comment 213-360

The referenced statements have been revised. The BLM differentiates between routine management actions, which may have substantial effects, and accidental events involving an oil spill, which are assumed to have significant effects on vulnerable and ESA-listed species.

Comment From: The North Slope Borough (Comment Letter No. 80065)

Very small amounts of crude oil contacting eggs can be embryotoxic, and could devastate entire colonies as oiled adult breeding birds attempt brood-rearing or other mechanisms transport oil to nesting sites (wind, water, peat, etc.). Oil can easily contact eggs via adult birds, soil/sediments, water and air. Considering that the persistence of oil is not well known for North Slope brackish and freshwater systems, impacts on nesting birds could be longer than predicted in the text. (2) Effects of Oil-Spill Prevention and Response (a) Blowout During Open-Water Conditions Habitat disruption from clean up efforts could last much longer than predicted with respect to nesting quality, and prey quantity and quality. This requires further assessment and this uncertainty should be expressed in the IAP/EIS. **(Comment No. 80065-595)**

Response To: Comment 80065-595

While the toxic effects of an oil spill on adult birds, or small amounts of oil contacting eggs, can have a devastating impact on bird colonies, any large spill that occurs in Northwest NPR-A is not expected to reach

sizeable bird colonies. In late summer and fall, it is possible that oil could contact substantial numbers of molting or staging birds in coastal areas. However, released oil weathers fairly quickly and becomes much less toxic. The BLM has added some further discussion of post-spill activity to this section.

Comment From: U.S. Fish and Wildlife Service (Comment Letter No. 260)

The 'Barrow Triangle' includes approximately 673,000 acres, or 7.6 percent, of the Northwest Planning Area. Given the concentration of Steller's eiders near Barrow, we are concerned that significant development within this area could jeopardize the continued existence of the listed Alaska breeding population. Obviously, the best way to avoid jeopardizing the species' survival and recovery is to exclude development from areas of extreme importance to the species. At the time development is proposed, Section 7 consultation will be required and the Service will evaluate whether the cumulative, direct and indirect effects will jeopardize the species survival and recovery. Any resulting Biological Opinions will contain reasonable and prudent measures to avoid or minimize adverse effects. **(Comment No. 260-645)**

Response To: Comment 260-645

The BLM agrees that the Steller's eider is best dealt with via Stipulations and Required Operating Procedures developed in this IAP/EIS and through the project-specific ESA consultation process, which should result in reasonable and prudent measures to protect this species.

Comment From: U.S. Fish and Wildlife Service (Comment Letter No. 260)

The second paragraph of this section states that 'There is at least one area in the Northwest NPR-A Planning Area of high-density water bird groups.' It is not precisely clear what is intended by this sentence, but the Service contends that there are many areas of the Northwest Planning Area which receive high-density use by many species of birds. The use of these areas vary seasonally and by species. Some, such as low-centered polygonous tundra, lake edges and islands are used during nesting, while other habitats such as salt-mash, estuaries, coastal lagoons, and nearshore waters are used during brood-rearing and molt. Much reference is made in this section and throughout the document to Table III-07. The table should be modified in several ways: 1. The most recent data should be incorporated into the table (Larned et al. 2003, Mallek et al. 2003, Dau and Anderson 2002). 2. The table mixes and matches data from several surveys that cannot be directly compared. For example, the table uses Mallek et al. data for estimated mean population and Larned et al. data for estimated breeding density. 3. Breeding density estimates are based on population estimates that are not corrected for visibility bias; thus, estimated density is not a true density, rather, it provides an index to density. 4. The estimated Northwest Planning Area population is not a statistic that is calculated in any of the referenced aerial surveys. It is unclear how the authors of the DEIS obtained their estimate. If Larned's survey data was manipulated to produce this estimate, the authors should be aware of the limited geographic extent of this survey. 5. None of the columns cite the specific data source. Population estimates from the Arctic Coastal Plain survey are mixed with density data from the eider surveys. In addition, population estimates of molting brant and common eiders are not made during the eider or ACP surveys. The table should be clearly labeled to identify the source of the data. 6. The data source for the brant density estimate should be clearly identified. The species column notes that the molting brant population will be presented, but the density column presents breeding density. Molting and breeding populations are very different. For example, some brant migrate to the North Slope to molt after breeding on the Yukon-Kuskokwim Delta. 7. Aerial surveys do not attempt to estimate densities of small passerine birds such as lapland longspurs. The column that is labeled 'Estimated ACP Breeding Density' has an associated footnote indicating that this data comes from aerial survey data. The Bird and Endangered Species (spectacled and Steller's eiders) sections have fundamental errors which should be addressed. Specifically, the authors mix and match results from two North Slope aerial surveys, the eider survey and the ACP survey, and frequently do not cite the source of the results. The North Slope eider survey is designed specifically for eiders and; therefore, is restricted to eider habitat in the northern portion of the coastal plain. The results of the eider survey should not be extrapolated to the Arctic coastal plain as a whole, as is done in the DEIS. The eider survey, timed to

correspond to the presence of eider pairs, is conducted in early June to mid-June. This survey has been conducted annually since 1992. The eider survey is also designed to detect population trend not abundance, yet the DEIS cites population estimates and densities of eiders based on these surveys. The ACP survey is designed to monitor waterbird species other than eiders. Accordingly, the survey has a broader geographic extent than the eider survey and is conducted in late June to early July, to correspond to the presence of non-eider waterfowl pairs. This survey has been conducted annually since 1986. **(Comment No. 260-660)**

Response To: Comment 260-660

The text has been revised. Please also see the response to comment 213-256 (Birds). The USFWS faults the presentation of data from several sources in Table III-07. Because a single report often does not contain all of the various datasets or transformations of interest, use of data from various sources was required. The table does not actually "directly compare" data from different sources; rather it presents available data in an attempt to describe general occurrence, abundance, and density of common species and those of particular concern. The densities, taken from the Larned et al. report, probably do not reflect entire breeding season densities since they were obtained in mid-June before the bulk of many returning species are evident; however; the values give a comparison of relative densities and are the only readily available multiple-species dataset that is obtained annually, thus providing a current estimate of this aspect of biological communities over a large area. In the final IAP/EIS, sources and any data manipulation will be more clearly indicated on the revised table, which also will be updated with recent data. The brant data was inadvertently labeled as molting birds; this has been corrected. Lapland longspur densities are not derived from aerial survey data. The clarifications presented by FWS have been included to the extent that can be done without overwhelming the basic intent to convey some idea of the diversity and abundance of bird populations in the NPR-A. The BLM is aware of the numerous caveats that make comparison of these two important datasets problematic.

Comment From: U.S. Fish and Wildlife Service (Comment Letter No. 260)

Throughout the Bird section of the DEIS the authors compare trends between the two North Slope surveys using non-significant trends, species that are not accurately monitored by the surveys, and without acknowledging inherent differences between surveys that would influence such trends. Reasons for apparent differences in population trends between the surveys are more extensive than described in the DEIS. It is critical to understand that the two surveys cannot be directly compared for the following reasons: comparisons should only be made between trends that are statistically significant; the geographic area covered by the two surveys is different, although there is some overlap in the northern area of the ACP survey; the time period from which trends are calculated is different between the two surveys (eider survey 1992-2002; ACP survey 1986-2002); the eider survey does not use visibility correction factors to calculate population estimates as does the ACP survey; seasonal differences in the surveys likely affect visibility of the birds due to increasing secretive behavior as the season progresses. The DEIS only acknowledges the visibility issue described above as a reason for caution. The surveys have geographic and temporal differences, which result in trends that are estimated based on different time lines. Therefore, results of the two surveys should not be compared. **(Comment No. 260-663)**

Response To: Comment 260-663

The BLM will verify with the surveyors, and qualify, or delete any comparisons between the two FWS aerial survey datasets appearing in the text.

Comment From: U.S. Fish and Wildlife Service (Comment Letter No. 260)

In general, the DEIS under-emphasizes the importance of the NPR-A to shorebirds. Consequently, the potential impacts associated with oil and gas development on shorebirds also are minimized. In Section III B 4 c (2) (page

III-53) the following points should be emphasized: 1. Shorebirds represent over 90 percent of the over 5 million waterbirds that occur on the Arctic Coastal Plain of the NPR-A. 2. The U.S. Shorebird Conservation Plan (Brown et al. 2001) identified 14 'Species of High Concern' in Alaska. Seven of these species occur in the NPR-A, including breeding American golden-plovers, ruddy turnstones, sanderling, red knot, bar-tailed godwits, whimbrels and buff-breasted sandpipers. 3. The buff-breasted sandpiper breeds throughout much of NPR-A. This species has experienced a marked decline from hundreds of thousands at the turn of the twentieth century to less than 15,000 worldwide. The species is being petitioned for inclusion on the threatened and endangered species list. Buff-breasted sandpipers may be particularly vulnerable to impacts associated with oil and gas development because of tendencies to nest in drier habitats, which are frequently used for industry roads and pads. 4. Breeding species that are abundant in the NPR-A include black-bellied plover, semipalmated sandpiper, Baird's sandpiper, pectoral sandpiper, dunlin, long-billed dowitcher, red-necked phalarope, and red phalarope. 5. The Arctic race of the dunlin, which migrates to Asia, is recognized by the Alaska Shorebird Working Group (2000) as a species of high conservation concern. 6. The Alaska Shorebird Working Group (2000) has identified oil and gas development as the primary threat to the conservation of shorebirds in the Arctic. **(Comment No. 260-685)**

Response To: Comment 260-685

The BLM is aware that shorebirds form an important segment of the Arctic Coastal Plain avifauna. However, there appears to be relatively little current, wide-ranging, and readily available information. The BLM has elected not to stress data presented in older sources because numbers may have change dramatically since obtained in, for example, the 1970's. Any species of concern that were omitted inadvertently have been added to the document. Any new data that FWS can provide will be incorporated. The BLM is unaware of literature documenting the presence of over five million waterbirds occurring on the Arctic Coastal Plain of the NPR-A.

Comment From: U.S. Fish and Wildlife Service (Comment Letter No. 260)

Map 36 in Volume 2 of the DEIS depicts the shorebird distribution across the Northwest Planning Area. As the only reference in the bibliography associated with the map pertains to polar bears, it is impossible to derive the source of the data for the map. The assumption is that the data were derived from aerial surveys, which are a poor means for counting shorebirds. The Service suggests that the map be reconfigured, using data from more accurate ground-based surveys. **(Comment No. 260-686)**

Response To: Comment 260-686

Map 36 has been revised to specify large shorebirds. These data were obtained from USFWS aerial surveys in 2002 (Larned), hence the notation does not indicate a specific report or publication. Any data on shorebirds the FWS contributes will be incorporated.

Comment From: U.S. Fish and Wildlife Service (Comment Letter No. 260)

In Table III-09, only one author is cited (Derksen et al. 1981) to indicate which species are present near Barrow. There are many additional references which should be reviewed regarding the distribution of shorebirds in the NPR-A, including review papers by Frank Pitelka, unpublished reports from industry-sponsored work in the eastern NPR-A, and unpublished data from the Fish and Wildlife Service. **(Comment No. 260-687)**

Response To: Comment 260-687

There actually are two citations given as sources for this table. The BLM's interest was in presenting a listing of

the most common species or those with other attributes recommending inclusion, rather than an exhaustive list of all species observed in the region.

Comment From: U.S. Fish and Wildlife Service (Comment Letter No. 260)

The DEIS states that 'potential impacts to birds from oil and gas development may result in minor local and regional population-level effects, although these usually are difficult to separate from natural variation in population numbers.' This gives the impression that an inability to detect a population-level impact is equivalent to a minor impact. Not all impacts to birds are masked by natural variation. Impacts to specific components of avian biology such as breeding success, for example, can be measured effectively irrespective of natural population fluctuations. Recovery from oil spills also can be estimated on the basis of existing population models. In some cases baseline information may not be sufficient to detect impacts, however, given enough time and effort, this can be overcome. The ability to detect change is both a function of the size of the change and the effort involved in measuring the change. **(Comment No. 260-688)**

Response To: Comment 260-688

The comment has incorrectly quoted the text in the EIS. The actual text is "Various species could be affected to some extent by disturbance events (e.g., passage of aircraft), although most incidents are expected to result in negligible effects from which individuals would recover within hours to 1 day. However, the cumulative effect of repeated disturbance could extend for longer periods and potentially may adversely affect physiological condition, molt, nest success, and productivity. Ultimately this could result in minor local and regional population-level effects although these usually are difficult to separate from natural variation in population numbers." The minor effects that may be masked by natural variation are specifically the effects of disturbance events as defined in the section and not from oil and gas development as a whole, as the comment incorrect presents as a quote. In any case, stating that minor effects may be indistinguishable from natural variation is not equivalent to claiming that any effects that cannot be distinguish from natural variation must be minor effects. If natural variation is great enough, it could mask moderate to severe effects.

Comment From: U.S. Fish and Wildlife Service (Comment Letter No. 260)

We recommend that a more thorough analysis of the potential impacts of the three Alternatives on shorebirds be included in the DEIS. Considering several of the species that breed in the NPR-A are on the Service's list of Birds of Conservation Concern and/or are recognized as species of high to moderate concern in the U.S. and Alaska Shorebird Conservation Plans, additional information and analysis is needed regarding the effects of the action Alternatives on shorebirds. The assumption might be that because these species are widespread and in many cases abundant, there will be no noticeable population-level effects regardless of the Alternative selected. However, for those species which are declining and already have small populations, the impacts could be severe. For example, the buffbreasted sandpiper is declining and has a population estimated to be around 15,000. This species may be severely impacted because most development is sited in habitat used by this species (i.e., drier habitats). The DEIS should address the possible impacts associated with each Alternative on shorebird populations in the NPR-A. **(Comment No. 260-689)**

Response To: Comment 260-689

The BLM has reviewed shorebird sections and made revisions as appropriate. With relatively little relevant information available on many species' abundance and distribution, it is difficult to estimate potential impacts with greater certainty. The BLM believes the level of detail in the analysis is appropriate in support of the pending leasing decisions. A greater level of detail would likely be available for a subsequent environmental review at the permitting stage for a proposed activity.

Comment From: U.S. Fish and Wildlife Service (Comment Letter No. 260)

Section II. B. 6. This section refers the reader to distribution maps of yellow-billed and red-throated loons (Map 37), brant and white-fronted geese (Map 40), king eider (Map 43), and spectacled eider (Map 62). Although the data presented in these maps appears to be based on the Fish and Wildlife eider surveys, there are no figure captions referencing the data source. In addition, Map 63 presents Steller's eider distribution, however, this map is not linked to the text and no data source is given in the figure caption. The source(s) of these data should be clarified both within the text and on the figure captions. **(Comment No. 260-719)**

Response To: Comment 260-719

The data sources for each map are listed under the figure legend, marked source. The Stellers eider Map 63 is referenced in Section III.B.6.c.

Comment From: U.S. Fish and Wildlife Service (Comment Letter No. 260)

Section III B. 4. c (1) (a) paragraph 1. The text and tables in this paragraph do not correspond. The text states population estimates are from aerial surveys between 1992 and 1996, then directs the reader to Table III-07, a table that is based on mean estimates between 1986-2000. Neither text nor tables cite the source of data. **(Comment No. 260-721)**

Response To: Comment 260-721

For consistency, all maps were taken from Larned's eider aerial surveys, which in the cited report is 1992-1996 (updated report has been used in the final document). This avoids some problems; data from Mallek's ACP aerial surveys 1986-2001 (updated report) will be used for the final maps for non-eiders. Data sources are given in the two introductory paragraphs to this section. Table III-07 lists data sources in footnotes below the table.

Comment From: U.S. Fish and Wildlife Service (Comment Letter No. 260)

Table III-07. This table cites population estimates from the ACP survey and density data based on the eider survey. This table should be clearly labeled to allow the reader to understand sources of data. **(Comment No. 260-722)**

Response To: Comment 260-722

Table III-07 has been revised.

Comment From: U.S. Fish and Wildlife Service (Comment Letter No. 260)

Section III B. 4. c (1) (a) paragraph 2 and Table III-07. The data should be updated in the text and table to reflect most recent Service survey data from the North Slope (Larned et al. 2003). **(Comment No. 260-723)**

Response To: Comment 260-723

Data portrayed on maps and in tables and text has been updated as noted in the response to comment 260-721 (Birds).

Comment From: U.S. Fish and Wildlife Service (Comment Letter No. 260)

Section III B. 4. c (1) (a) paragraph 2. Density data presented here is based on yellow-billed loon surveys across the northern portion of the North Slope. Density data for yellow-billed loons within the Northwest NPR-A Planning Area is more applicable. Contact Service biologist Bill Larned at 907- 262-9863 for details. **(Comment No. 260-724)**

Response To: Comment 260-724

As noted in the response to comment 260-721 (Birds) maps, tables, and text related to non-eider species used data from the Mallek's ACP surveys.

Comment From: U.S. Fish and Wildlife Service (Comment Letter No. 260)

Section III B. 4. c (1). Failure to cite the source of data is a problem throughout this section. The authors refer to breeding pair surveys interchangeably without indicating which survey they are citing. Citations should reflect either the eider surveys conducted by Bill Larned or the ACP survey conducted by Ed Mallek. **(Comment No. 260-725)**

Response To: Comment 260-725

Data sources are identified in the introductory paragraphs. Please also see the response to comment 260-721 (Birds).

Comment From: U.S. Fish and Wildlife Service (Comment Letter No. 260)

Section III B. 4. c (1). (d). In reference to white-fronted geese, the authors state that 'Following hatch, males care for the young from about six weeks or until they fledge in late August.' Although males are dominant, both parents care for their young. **(Comment No. 260-727)**

Response To: Comment 260-727

The text has been revised.

Comment From: U.S. Fish and Wildlife Service (Comment Letter No. 260)

Section III B. 4. c. (1). (f). 4). Mallek et al. (2002) states that his survey is not appropriately designed to monitor

common eiders. Making common eider population estimates from these surveys is inappropriate. Dau and Anderson (2002) conduct surveys specific to common eiders and is a more appropriate source. **(Comment No. 260-728)**

Response To: Comment 260-728

Dau and Anderson (2002) is used for population estimates of common eiders, although the highest number from Mallek et al. (2002) is also specified.

Comment From: U.S. Fish and Wildlife Service (Comment Letter No. 260)

Section III B. 6 b (1). The eider survey conducted by Bill Larned is designed to estimate population trend and is not corrected for detection bias; thus the survey presents a minimum population estimate that is useful to track trends, not abundance. In addition, the most recent survey data should be cited (Larned et al. 2003). **(Comment No. 260-731)**

Response To: Comment 260-731

The statement concerning estimated size of the Arctic Coastal Plain spectacled eider population has been qualified to indicate that it represents a minimum population estimate, and the citation has been updated to the most recent survey report.

Comment From: U.S. Fish and Wildlife Service (Comment Letter No. 260)

Section III B. 6 b (4) paragraph 1. Specify that June 22 was the median departure date for postbreeding males. **(Comment No. 260-733)**

Response To: Comment 260-733

The text has been corrected.

Comment From: U.S. Fish and Wildlife Service (Comment Letter No. 260)

Section III B. 6 b (4) paragraph 4. The use of the term 'Beaufort area' is confusing. The DEIS describes rapid movements through the Beaufort area, and supports this claim with on shore observations. **(Comment No. 260-734)**

Response To: Comment 260-734

The section has been revised to clarify the statements supporting the conclusion for eider movements.

Comment From: U.S. Fish and Wildlife Service (Comment Letter No. 260)

Section III B. 6 b (4) paragraph 4. Change estimated average population index.... to 'estimated average density.' **(Comment No. 260-735)**

Response To: Comment 260-735

The sentence has been revised to clarify that low spectacled eider numbers counted during USFWS aerial surveys are given as estimated density rather than as a population index.

Comment From: U.S. Fish and Wildlife Service (Comment Letter No. 260)

Section III B. 6 b (4) paragraph 4. It is not clear what is meant by 'relatively low proportion of initial locations of birds in the Beaufort Sea.' Please clarify what type of locations (satellite, etc.) are referenced. **(Comment No. 260-736)**

Response To: Comment 260-736

The statement concerning initial eider locations has been qualified as indicating initial locations of satellite-transmitter-equipped birds.

Comment From: U.S. Fish and Wildlife Service (Comment Letter No. 260)

Section IV C. 9. b. (1) (b). 1) Kasegaluk Lagoon should be identified as an area of high bird concentration and diversity. This area is of critical importance to many bird species and should be highlighted in this section. The DEIS should cite Johnson et al. (1993) which describes the importance of this area to waterbirds. **(Comment No. 260-751)**

Response To: Comment 260-751

References to Kasegaluk Lagoon were added to Sections III and IV.

Comment From: U.S. Fish and Wildlife Service (Comment Letter No. 260)

Section IV C. 9. b. (3) paragraph 2. The list of species of particular concern should be expanded to include yellow-billed loons and long-tailed ducks. **(Comment No. 260-752)**

Response To: Comment 260-752

The Yellow-billed loon and long-tailed duck have been added to the list of sensitive species.

Comment From: U.S. Fish and Wildlife Service (Comment Letter No. 260)

Section IV C. 11. c. (2) The authors acknowledge that if a spill were to reach coastal waters, effects on eiders could be more significant than if confined to onshore habitats. The DEIS should identify Smith Bay as an important staging area for female spectacled eiders. Recent satellite telemetry efforts have shown that most female spectacled eiders that breed in the central North Slope use this area during fall migration (TERA 2003). **(Comment No. 260-754)**

Response To: Comment 260-754

Smith Bay is identified as an area where eiders have been observed during aerial surveys in Section III; the report noted will be cited if a copy is made available.

Comment From: U.S. Fish and Wildlife Service (Comment Letter No. 260)

Section IV E. 11. c. In the first sentence of this paragraph, the word 'potentially' should be removed. Larned et al. (2001, 2002, 2003) showed that this area supports medium densities of spectacled eiders. **(Comment No. 260-757)**

Response To: Comment 260-757

The text has been revised.

Comment From: U.S. Fish and Wildlife Service (Comment Letter No. 260)

Section IV G. 9. This section should acknowledge that when birds contact spilled oil, mortality is the likely outcome. **(Comment No. 260-758)**

Response To: Comment 260-758

The BLM does not regard oil spills as unavoidable events. Please see Section IV.J.5.

Comment From: U.S. Fish and Wildlife Service (Comment Letter No. 260)

Section IV. J. 5. g. (1) paragraph 1. Common eiders are numerous in lagoon habitats throughout the summer. **(Comment No. 260-765)**

Response To: Comment 260-765

The indicated sentence states that the estimated relative numbers of each species mentioned are present for varying intervals; the latter has been further qualified to indicate that the period referred to is the entire summer and fall period. The present knowledge of the distribution and abundance of these species suggests that the statement indicating relative estimated numbers of each species present is as accurate a statement as currently can be made.

Comment From: U.S. Fish and Wildlife Service (Comment Letter No. 260)

Section IV. J. 5. g. (1) paragraph 1. Append the list of species that would be expected to contact oil to include red-throated and yellow-billed loons. **(Comment No. 260-766)**

Response To: Comment 260-766

A statement noting that red-throated and yellow-billed loons could also be contacted by oil has been added to this discussion.

Comment From: U.S. Fish and Wildlife Service (Comment Letter No. 260)

Section IV. J. 5. i. (2). (b). 1) paragraph 3. Recent data from satellite telemetry studies have shown that most female spectacled eiders that breed in the central Alaskan North Slope use the Beaufort Sea, particularly Smith Bay, for staging (TERA 2003). **(Comment No. 260-771)**

Response To: Comment 260-771

Please see the response to comment 260-754 (Birds).

Comment From: ConocoPhillips Alaska, Inc (Comment Letter No. 255)

Page IV-145, second para from bottom. The first sentence in this section says 'Most bird species are likely to be displaced from within 700 ft to about 3000 ft'causing a local decline in nesting attempts and success.' CPAI has studied bird displacement impacts from a variety of actual oilfield operations on the North Slope over the past 20 years. The most detailed and most relevant study to NPRA is the recently completed 6-year bird monitoring of the Alpine development. The Alpine airstrip and adjacent active camp are similar in design to this discussion of potential NPRA impacts from 'a large summer encampment.' The Alpine study concluded that most species of nesting birds did not show detectable differences in distribution relative to the airstrip, and that densities of waterbirds did not decline near the airstrip. Shorebird and passerine nest densities were found to be greatest in zones nearest to the airstrip. (Johnson et al 2003 in prep.) Nesting Greater White-fronted Geese did show displacement from the airstrip with nest densities reduced within about 3000 ft. These results are reported in Johnson et al (2003, in prep). In studies conducted in the Prudhoe Bay Unit, TERA found reductions in shorebird nests within 100 m of heavily traveled roads (TERA, 1993), and that nesting birds displaced by a well pad will nest in adjacent habitat away from the pad (Troy, D. and T. Carpenter, 1990). With this understanding of how these oilfield activities altered the distribution of some birds, but not 'most bird species,' CPAI believes the estimate used in this discussion, that "most birds are likely to be displaced out to 3000 ft'.' are excessive and do not reflect normal bird responses to this type of activity. While some displacement will occur near airstrips, monitoring data indicate that for many species, that zone is on the order of several hundred feet, not several thousand feet and that overall abundance is not reduced because of corresponding increases in numbers in adjacent habitat. **(Comment No. 255-832)**

Response To: Comment 255-832

The BLM has reviewed the recently completed Alpine avian monitoring study report for possible revision of this statement so that it conforms to the most recent research results. Some readers may object to deriving the potential effects of summer encampments from the reported effects of the Alpine airstrip study since the two

situations probably are not strictly comparable. Also, since we presume that shorebirds and passerines are not attracted to aircraft, it is assumed that placement of the facility in some manner modified their habitats to be more attractive to them or produced new habitat.

Comment From: Michael North (Comment Letter No. 80003)

First, I hope that the federal government will fully appreciate the irreplaceable natural resources that occur in the National Petroleum Reserve - Alaska (hereafter NPR-A). Among these resources is a unique molting area for four species of geese found north and east of Teshekpuk Lake. This area provides a predator-reduced environment containing a timely and unique nutrient-rich vegetation community that provides necessary minerals and vitamins for feather replacement. The fact that geese migrate hundreds of miles to this area from Canada, Siberia, and southwestern Alaska to utilize this resource for a short period of time provides empirical evidence that this unique combination of resources is not replicated anywhere else in western North America. The U.S. Fish and Wildlife Service has amply demonstrated through the use of experimental aircraft overflights the impacts that will occur to these molting geese if the former Lonely Defense Early Warning Radar Station is used for logistic support of oilfields in the NPR-A. **(Comment No. 80003-844)**

Response To: Comment 80003-844

The Teshekpuk Lake Special Area used by molting brant and other goose species is located in the Northeast NPR-A, and is not likely to be affected by activities occurring in the Northwest NPR-A. The fact that substantial numbers of geese molt in this area does not entirely exclude the possibility that its combination of resources exists elsewhere in North America. The former Lonely DEW radar facility has not been proposed as logistical base for Northwest NPR-A development.

Comment From: Michael North (Comment Letter No. 80003)

The NPR-A also provides significant breeding habitat for federally listed Steller s and spectacled eiders. The NPR-A supports what is essentially the only viable breeding population of Stellers eiders in North America. It is also the core of the North Slope breeding range of spectacled eiders, which is one of only two areas in North America where concentrations of spectacled eider breeding occurs **(Comment No. 80003-845)**

Response To: Comment 80003-845

The welfare of the spectacled and Steller's eiders, listed as threatened under the Endangered Species Act, has been given considerable attention by BLM and the USFWS. The habitat requirements and biology of these species are discussed in Sections III.B.6, IV.C.11, and V.B of the BLM NW NPR-A IAP/EIS. The USFWS has completed and is continuing research projects covering the distribution, movements and biology of these eiders, and annually completes an aerial survey of the entire North Slope area, specifically targeting eiders.

Comment From: Michael North (Comment Letter No. 80003)

Approximately 80% of yellow-billed loon breeding in Alaska occurs in the NPR-A and adjacent Colville River delta. Within NPR-A, the Meade, Chipp and Ikpikpuk Rivers are extremely important concentration areas. It is also extremely important to note that, although there may be greater numbers of yellow-billed loons nesting in Canada and Siberia, there are no known greater numbers. Yellow-billed loon populations could be sensitive to impacts of oilfield development, including 1) activities that alter the tundra physically, resulting in lake tapping, as occurs naturally on the Colville River delta; 2) increased egg and chick loss due to increased predator

populations (particularly raven, gull, and fox populations that benefit from human garbage; 3) direct displacement from breeding territories due to human disturbance; and 4) introduction of contaminants from spills, blowouts, roads, etc. that could contaminate the food chain. The first and last impacts will be long-term impacts that outlast the life span of the oilfields, and it is not a matter of arguing whether these impacts may occur. They will occur; the impacts that have occurred at Prudhoe Bay provide empirical, prima facie evidence of this fact. The only issue is the frequency and magnitude and location of the impacts. **(Comment No. 80003-846)**

Response To: Comment 80003-846

The BLM is aware of these factors and their potential for causing adverse impacts on yellow-billed loons. Several of the stipulations and ROP's address these issues. For example, activity setbacks from waterbodies and streams (Stipulation E-1) are likely to decrease potential for lake tapping and disturbance/displacement of loons; ROP A-1 concerning attraction of wildlife (e.g., predators) to areas where loons could be impacted; stipulations A-1 to A-3 and ROP's A-3 to A-8 will decrease the potential for environmental contamination. As directed under the USFWS Biological Opinion, BLM cooperates with the USFWS to decrease nesting and denning sites at oil and gas facilities that could enhance predator populations.

33. TOPIC : AIR QUALITY

Comment From: State of Alaska (Comment Letter No. 251)

Section IV.C.6.b.(1), Paragraph 7, Page IV-120. This section refers to relevant air emission details contained in the Beaufort Sea Planning Area Oil and Gas Lease Sale 144 Final Environmental Impact Statement. The Final IAP/EIS should provide a brief explanation of why the information from that EIS is appropriate to use here. **(Comment No. 251-194)**

Response To: Comment 251-194

The text has been revised to add to Section IV.C.6.b. (1) the following text: "Information from that Beaufort Sea Sale 144 Final EIS is relevant for Northwest NPR-A IAP/EIS because the Sale 144 EIS included the area immediately offshore from the Northwest NPR-A (as well as offshore of the Northeast NPR-A) and analyzed effects from a scenario including assumed greater oil development than assumed for the Northwest NPR A. Emissions analyzed for the Beaufort Sea also included some emission sources not applicable to operations on land in the NPR-A. Emissions from expected NPR-A operations would not include significant emission sources that were not analyzed for the Beaufort Sea Final EIS. Therefore, effects analyzed and pollutants analyzed are greater than would be expected for the Northwest NPR-A."

Comment From: State of Alaska (Comment Letter No. 251)

Section IV.C.7.b.(1)(a)1), last Paragraph, Page IV-127. This paragraph inaccurately states that 16 square ft. is 0.006 acres. This should be 0.0004 acres. Any calculations in the document that use 0.006 acres should be rechecked. 251-197 **(Comment No. 251-197)**

Response To: Comment 251-197

The text has been revised.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

The cumulative impacts section's analysis of air quality is cursory and superficial. See FEIS V-80 to V-82. In contrast to the DEIS dismissive approach to air quality issues, the NRC concluded that 'the most important potential accumulation of effects is likely to be a reduction in visibility and an increase in direct human exposures to pollutants caused by synergistic interactions between locally generated and globally transported contaminants.' NRC Report at 116. **(Comment No. 253-216)**

Response To: Comment 253-216

The cumulative impacts section referred to in the comment is that from the Beaufort Sea Final EIS, not from the Northwest NPR-A Draft IAP/EIS. Comments to the Beaufort Sea EIS were addressed therein. The cumulative impacts section in the current Northwest NPR-A Draft IAP/EIS (Section IV.F.8.f), however, is quite similar to the analysis in the Beaufort Sea EIS because it used that analysis extensively. The discussion includes a detailed analysis of cumulative air quality effects, including a discussion of visibility effects of Arctic haze and a rational prediction that any local contribution to that haze will probably decrease, due to a downward trend in expected regional oil production.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

The DEIS does not discuss potential health effects from diesel exhaust that increased diesel engine equipment usage associated with oil and gas activities may cause. Diesel exhaust causes respiratory effects and is a carcinogen. EPA, Health Assessment Document for Diesel Engine Exhaust, EPA/600/8-90/057F (May 2002), 1-3 - 1-7. Because it might affect public health or safety of workers or local residents, or natural resources, even a 'marginal degradation' of air quality from diesel exhaust could be 'environmentally significant' and therefore must be discussed in the DEIS. See 40 C.F.R. § 1508.7 ('Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.'). It is noteworthy in this regard that the industrial diesel engines on the North Slope (such as those present during oil and gas exploration activities) use relatively high sulfur diesel fuel, and that Alaska is otherwise exempt from the low sulfur diesel fuel requirement applicable to mobile sources. High sulfur fuel produces a greater volume of particulate matter, and therefore creates a higher risk for the inhalation of carcinogenic particles from diesel exhaust. The EIS must evaluate this potential impact, therefore. **(Comment No. 253-348)**

Response To: Comment 253-348

Emissions standards have been promulgated by the U.S. Environmental Protection Agency and are enforced by the Alaska Department of Environmental Conservation. Table III-05 of the IAP/EIS shows the measured air pollutant concentrations at Prudhoe Bay over the years 1986 through 1996. In that Prudhoe Bay industrial complex area during those years (and even now) a considerable number of diesel engines were and are used--many more that we anticipate could be used in the Northwest NPR-A, which we believe has a significantly lower potential for oil and gas production than does (or did) Prudhoe Bay. Since air emissions in the Prudhoe Bay area, including emissions from all the diesel engines used there, are substantially below the maxima permitted by the National Ambient Air Quality Standards, we believe that the lower emissions predicted for the Northwest NPR-A will not cause any problems in maintaining satisfactory air quality. We note especially that the maximum sulfur dioxide pollution measured at Prudhoe Bay was only from one to four percent of the standards, and the inhalable particulate matter pollution was at most fifteen to twenty percent of the standards.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

The EIS must discuss whether BLM intends to authorize the creation of so-called 'ambient air quality exclusion zones' around oil and gas facilities and what that will mean to existing air quality. In the Reserve's northeast corner, BLM authorized the creation of such zones in order to facilitate lessees' compliance with the National Ambient Air Quality Standards at oil exploration pads. This potential was never discussed, however, in the EIS for the northeast corner, which assured the reader that lessees would be required to comply with all air pollution laws. In fact, because it has allowed the creation of ambient air quality exclusion zones, BLM has not enforced compliance with the NAAQS at the edge of exploration ice pads where that compliance must, as a matter of both federal and state law, be enforced. If it intends to authorize such zones in the NW portion of the Reserve, BLM must discuss in the EIS the amount of additional pollution that will be allowed at each facility whenever an air quality exclusion zone is authorized at that facility. It also must identify the federal law or laws which it claims authorize it do devote federal lands in this manner, solely to accommodate a lessees desire to pollute more than might otherwise be necessary. If BLM intends to authorize the use of such zones in the NW of the Reserve, the EIS must explain why it is necessary to do so in lieu of requiring the lessee to use cleaner burning fuel, more modern equipment, best available pollution control technology, or better operational practices. **(Comment No. 253-349)**

Response To: Comment 253-349

The BLM does not have the authority or intention to designate any lands under its jurisdiction as "ambient air quality exclusion zones." Subject to both the Federal Land Policy and Management Act and the Clean Air Act, BLM cannot conduct or authorize any activity which does not comply with all applicable local, state, tribal and federal air quality laws, statutes, regulations, standards, and implementation plans. However, when establishing the Clean Air Act, the U.S. Congress determined that the National Ambient Air Quality Standards would not apply within industrial areas to which the general public does not have access. Alternatively, Occupational Safety and Health Standards for Air Contaminants apply to workers located within these areas. The ambient air quality standards are not applicable within areas to which the general public is excluded access. The U.S. Environmental Protection Agency has delegated the primary authority and responsibility for implementing the federal Clean Air Act to the State of Alaska, subject to EPA's continuing oversight. In addition, the State of Alaska has federal authority to establish ambient air quality standards which may be more (but not less) stringent than the federal standards. Therefore, BLM follows the guidance of EPA and the State of Alaska when determining whether or not its actions comply with applicable ambient air quality standards.

Comment From: NOAA Atmospheric Observatory Schnell (Comment Letter No. 183)

The Barrow Atmospheric Observatory is considered a national treasure and its future measurements would be compromised if drilling and oil production were to ever occur within the clean air sector. For instance, just one well or flare site in the Elson Lagoon would possibly force abandonment of the station. **(Comment No. 183-1032)**

Response To: Comment 183-1032

If and when exploration and/or development occurs in the areas in and around Elson Lagoon, a site-specific NEPA evalution would be performed and the proposed activities would be a component of the evaluation, and subject to rigorous mitigative circumstances.

Comment From: NOAA Atmospheric Observatory Schnell (Comment Letter No. 183)

Not leasing portions of the Beaufort Sea including Elson Lagoon that lie within the Barrow Atmospheric Baseline

Station Clean Air Sector. And, that this lease restriction be extended out 500 miles from the Barrow station within the arc of the clean air sector. **(Comment No. 183-1033)**

Response To: Comment 183-1033

Please see the response to comment 209-910 (Estuarine Water Quality) and 209-918 (Special Designation Areas).

34. TOPIC : IMPACT EVALUATION

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

Audubon's December 2002 report, Alaska's Western Arctic: A Summary and Synthesis of Resources contains significant new wildlife information and analyses that should be included in a revised DEIS for the Northwest Planning Area. We recommend Audubon's "Wildlife Habitat Alternative" be considered as the basis for new alternatives in the revised DEIS and/or the FEIS. Unfortunately, the DEIS fails to provide a full and adequate description of the wildlife resources and ecological conditions found in the Planning Area. The evaluation of potential impacts from oil development activities in the Northwest Planning Area is based upon a series of proposed development scenarios that are incomplete and unrealistic when evaluated in the context of existing development in the region. As a result, the nature and extent of potential impacts to wildlife are significantly understated in the DEIS. The following analysis illustrates the vulnerability of specific species in the Planning Area and the subsequent need for BLM to adequately address these concerns in a revised DEIS. **(Comment No. 253-218)**

Response To: Comment 253-218

The BLM believes that the description of the affected environment (Section 3) is appropriate for this IAP/EIS and in accordance with the provisions of NEPA regulations to keep EIS's concise and no longer than absolutely necessary (40 CFR 1502.2(c)) and to evaluate broad actions generally (40 CFR 1502,4(c)(2)). The description of the environment establishes sufficient information for use in estimating the potential impacts of the activities projected in the hypothetical scenario.

Comment From: Public Meeting on DEIS - Washington, DC (Comment Letter No. 80082)

The rapid development that has occurred has left permanent scars on the Arctic landscape, as evidenced in the recent report issued by the National Academy of Sciences. We must give more consideration to the impact on the land and the fauna that depend upon before rash decisions are made to move forward with development. **(Comment No. 80082-539)**

Response To: Comment 80082-539

The analysis in this Integrated Activity Plan/Environmental Impact Statement is intended to support a planning decision on the potential oil and gas leasing program in the Northwest National Petroleum Reserve-Alaska. The BLM believes that the analyses of potential impacts Are appropriate for the decision at hand. Site-specific environmental analyses will be prepared for proposed exploration and development activities. This "tiered" approach to NEPA compliance and decision making is encouraged by the NEPA regulations (see 40 CFR 1502.20 and 1508.28). The information and conclusions of the National Academy of Sciences National Research Council

(NRC) March 2003 report Cumulative Environmental Effects of Oil and Gas Activities on Alaska's North Slope report are considered in the cumulative analyses in the final IAP/EIS.

Comment From: Public Meeting on DEIS - Washington, DC (Comment Letter No. 80082)

We need to carefully assess the potential impacts of the different types of soil, vegetation, aquatic environment, and terrain, not to mention the myriad species that depend upon it. **(Comment No. 80082-541)**

Response To: Comment 80082-541

We have taken your comments into consideration in developing the Preferred Alternative.

Comment From: Public Meeting on DEIS - Washington, DC (Comment Letter No. 80082)

In light of the National Academy of Sciences report that came out just a few weeks ago, we see that the areas in which oil development has proceeded in Alaska's Northern Slope have been devastated, not just from an environmental standpoint but from a social standpoint as well. If anything, the National Academy of Sciences's report should tell us that before any more development proceeds we need to reexamine the way in which it has proceeded up in the Northern Slope of Alaska. **(Comment No. 80082-551)**

Response To: Comment 80082-551

The NRC (2003) report Cumulative Environmental Effects of Oil and Gas Activities on Alaska's North Slope was released after publication of the draft IAP/EIS. The information and conclusions of the NRC report are considered in the cumulative analyses in the final IAP/EIS. The NRC report is a review of current information and an assessment of that information. The report does not document significant adverse effects on the environment. Some of the conclusions in the report are not supported by the data presented in the report, and BLM and MMS subject matter experts do not necessarily concur with all of the conclusion presented in the report.

Comment From: Public Meeting on DEIS - Washington, DC (Comment Letter No. 80082)

Just last week, however, the National Academy of Sciences released a study on the long term impacts of oil and gas development on the North Slope of Alaska. This study was requested by members of the oil industry and Alaska's own Senator, Ted Stevens. The conclusions of this report were loud and clear. Oil and gas development on Alaska's North Slope does, in fact, have a negative impact on the surrounding environment and the future of the North Slope as well. **(Comment No. 80082-554)**

Response To: Comment 80082-554

Please see the response to 80082-551 (above).

35. TOPIC : TERRESTRIAL MAMMALS

Comment From: State of Alaska (Comment Letter No. 251)

Section IV, Effects of the Cumulative Case, Terrestrial Mammals, Page IV-420. The first paragraph on this page states the potential construction of an east-west road from the Dalton Highway to Nuiqsut would add to the cumulative effects on the CAH by creating an east-west barrier to movement in addition to the existing north-south barrier created by the Dalton Highway. There is no evidence presented in this document that indicates the Dalton Highway is a barrier to caribou movement or that a Dalton Highway-Nuiqsut road would serve as a barrier to movement. This section should be rewritten to note that movements may be temporarily impeded or altered by traffic rather than the roads serving as a barrier to movements. **(Comment No. 251-174)**

Response To: Comment 251-174

The wording in the document has been revised.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

The DEIS does not explicitly address how impacts of seismic exploration on denning bears can be minimized unless den locations are already known. **(Comment No. 253-257)**

Response To: Comment 253-257

Please see the response to comment 213-322 (Terrestrial Mammals).

Comment From: Audubon Alaska (Comment Letter No. 213)

The DEIS does not explicitly address how impacts of seismic exploration on denning bears can be minimized unless den locations are already known. **(Comment No. 213-322)**

Response To: Comment 213-322

Avoidance of dens is the only measure proposed to reduce impacts of seismic exploration on denning grizzly bears. The area of high oil potential has very low density grizzly bear habitat.

36. TOPIC : MARINE MAMMALS

Comment From: State of Alaska (Comment Letter No. 251)

Section III, Marine Mammals, Page III-64. This section briefly describes distribution and population status of marine mammals within the planning area. However, the information presented for ringed seal, spotted seal, bearded seal, and walrus is restricted to the Beaufort Sea reaches of the planning area. Information on the distribution and population status of these organisms that occur along the Chukchi Sea coastline and within Kasegaluk Lagoon also should be presented as a portion of the Northwest planning area contacts these waters. **(Comment No. 251-153)**

Response To: Comment 251-153

Information of the distribution of ringed seals, ice habitats, and other marine mammals in the Chukchi Sea off the Northwest NPR-A Planning Area, has been added to Maps 56, 57, and 59.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

Development in the Northwest Planning Area has the potential for affecting populations of several mammal species including caribou, grizzly bears, foxes, polar bears, beluga whales, and spotted seals. We believe that the DEIS does not adequately address potential impacts to selected species or provide sufficient protection for their habitats. **(Comment No. 253-250)**

Response To: Comment 253-250

The BLM recognizes that the NPR-A provides important habitat for arctic mammal species and this is addressed in the IAP/EIS. Protective stipulations provide additional protection to these species and their habitats. In some cases, the text was modified to better address impacts to certain species.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

The effects of global climate change on sea ice and ringed seals will directly affect polar bears throughout the Arctic (Sterling et al. 1999, Amstrup 2000, IUCN in press). The effects of climate change must be considered relative to other potential impacts to polar bears. The cumulative impacts of the potential threats described above are reason for concern and precautionary management of polar bears in the western Arctic. **(Comment No. 253-263)**

Response To: Comment 253-263

The IAP/EIS recognizes the potential effects on polar bears and ringed seals in the cumulative analysis. See Section IV.F.8.j.(2)(a) 8) Effects of Global Warming.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

Polar bear- human interactions should be minimized, and proper bear deterrence employed at developed sites. Important habitats, including 'ice-edge' habitats and polynyas, barrier beaches, and maternal denning habitat should be protected and managed to minimize deleterious effects from industrial disturbance during periods of seasonal bear use, as well as from habitat degradation and contamination. The effects of industrial activity (particularly seismic exploration) on denning bears should be assessed, monitored, and avoided during future exploration activity. Some areas of potential maternal denning habitat may be interpreted from aerial photographs (Durner et al. 2001) for identification and protection from alteration and disturbance. **(Comment No. 253-265)**

Response To: Comment 253-265

Guidelines for oil and gas operations in polar bear habitats have been established (USDOI MMS, 1993). These guidelines, if followed, would minimize polar bear-human interactions and include proper bear deterrence at exploration and development sites. Offshore polar bear habitats such as polynyas and 'ice-edge" habitats are not likely to be exposed to development in the Northwest NPR-A Planning Area. The USGS Biological Resource Division scientists are developing Forward Looking Infra-Red Radar (FLIR) techniques to locate occupied polar bear dens in areas where seismic operations are planned. These techniques along with photo identification of potential den habitats would help to mitigate seismic and other industrial activity effects on denning polar bears in the NPR-A.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

Caution must be exercised for future oil and gas and mineral development in important polar bear habitat along coastal and near-shore environments of the eastern Chukchi and southern Beaufort seas until oil and contaminant spills are more preventable and adequate spill cleanup methodology is developed. Effects of marine oil spills must be assessed as part of cumulative stress on this species. Other potential ecological concerns for polar bear conservation that should be assessed include the potential effects of global climate change, a Russian North Sea route, and expansion of commercial fishing and marine transportation (to move coal and minerals) in the Chukchi Sea. The cumulative effects of these activities should be evaluated for the ir influence on sea ice and seals, as well as directly on polar bears. **(Comment No. 253-267)**

Response To: Comment 253-267

Potential oil spills that may be associated with exploration and development in the Northwest NPR-A are likely to occur onshore along pipelines and near production facilities and not affect the marine environment. Cumulative effects of marine oil spills, global warming, and commercial fishing are discussed in Section IV.F.8.j (2)(a)3), 8),and 9), respectively.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

Beluga coastal concentration areas should be clearly identified and protected from unnecessary disturbance, particularly from June through August. Other important coastal habitats used by beluga whales, including Kasegaluk Lagoon, should be identified and protected from habitat degradation and contamination. **(Comment No. 253-269)**

Response To: Comment 253-269

The importance of Kasegaluk Lagoon for various arctic animals has been addressed in the development of the Preferred Alternative, which would defer leasing in the Kasegaluk area for 10 years. The Preferred Alternative is analyzed in this Final IAP/EIS. Consideration of conservation strategies regarding possible port development and shipping activities related to possible OCS oil and gas exploration and development in the Chukchi Sea would be further addressed at the subsequent permitting stages for those activities.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

The DEIS recognizes the risk for noise disturbance associated with development in the Reserve, but writes it off as negligible. Yet, the document fails to provide any scientific support for the assertion that such disturbance is not significant and therefore does not constitutes harassment under the ESA. Assessing the effect of industrial

noise on bowhead whales is complex. **(Comment No. 253-308)**

Response To: Comment 253-308

Potential noise impacts on the bowhead whale are not assessed as negligible for scientific reasons; rather, the low probability that most whales typically would approach land or even nearshore or lagoon waters (median distance = 32.2 km offshore) where seismic surveys or other sources of underwater noise (e.g., aircraft, other vessels, drill rigs) are in operation (essentially would occur primarily during fall migration, September and October) argues against whales being exposed to a significant source of industrial noise at a distance that would result in avoidance or impairment. The National Marine Fisheries Service (NOAA Fisheries, formerly NMFS), with which BLM consults on ESA on issues concerning the bowhead whale, does not consider this a significant issue.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

The DEIS fails to take a hard look at noise impacts from boat and air traffic and fails to analyze the cumulative impact of such traffic on bowheads from this project in conjunction with other boating activity in the bowheads migration area. **(Comment No. 253-310)**

Response To: Comment 253-310

Only under exceptional circumstances (fall migration of some individuals very near shore) would bowhead whales be expected to be exposed to aircraft overflights or vessel noise associated with oil and gas development in the Northwest NPR-A. Please also see the response to Comments 253-308 and 253-309 (Birds).

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

The DEIS portrays that an oil spill is unlikely to reach or occur in the marine waters and therefore unlikely to impact bowheads (DEIS p. IV-181). The agency reasoning is that the bowhead does not frequent near shore waters often. This reasoning is a broad generalization. In fact, bowhead whales may swim very close to shore on some occasions. Bowheads have been observed feeding not more than 1,500 ft (457 m) offshore in about 15 to 20 ft (4.6 to 6 m) of water. Smaller whales may swim in water depths of 14 to 18 ft (4.3 to 5.5 m). In general, bowhead wha les seemed to migrate closer to shore in light ice years and farther offshore in heavy ice years. Furthermore, due to the fact that virtually the entire bowhead population funnels through a relatively narrow area in the Beaufort Sea twice per year, bowheads are more vulnerable to an oil spill here than anywhere else on their range. **(Comment No. 253-312)**

Response To: Comment 253-312

Regardless of whether some bowhead whales migrate in nearshore waters in exceptional years, it would be a rare random event for such an occurrence to be coincident with a substantial oil spill, which may have some probability of reaching marine waters but whose probability of occurrence is very low (estimated mean number of large spills = less than 1, Table App. 9-05).

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

By failing to analyze the impacts of a commercial discovery being made, the DEIS is inadequate in its disclosure

of the potential impacts to bowheads. Furthermore, the DEIS tiers to the Beaufort Sea Sale 144 for a discussion of impacts of oil on whales. While we understand tiering is an accepted and often necessary technique we find it difficult to believe that more is not known about the impact of oil on whales in the seven years since the Beaufort Sea DEIS was issued. **(Comment No. 253-314)**

Response To: Comment 253-314

The Beaufort Sea Sale 144 Final EIS is cited as a source of basic analysis on the topic of potential effects of an oil spill on bowhead whales. Relatively little research has been done that would bear directly on the question of oil impacts on this species as it is extremely difficult to carry out realistic and statistically valid trials.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

The DEIS fails to draws a conclusion at all regarding impact levels of oil spills on endangered bowhead whales ' one of the most important resources to local residents. BLM has not proven that it can respond adequately to a spill; furthermore, it does not fully understand the impacts of such a spill. -BLM must provide a realistic, balanced and scientific analysis regarding impacts to the bowhead from development of the western NPR-A. **(Comment No. 253-316)**

Response To: Comment 253-316

The IAP/EIS does consider the impacts of a possible oil spill on bowhead whales. The BLM considers it unnecessary to include a more extensive analysis concerning a highly unlikely event such as bowhead whale contact by an oil spill. Regardless of whether some bowhead whales migrate in nearshore waters in exceptional years, it would be a rare random event for such an occurrence to be coincident with a substantial oil spill, which may have some probability of reaching marine waters but whose probability of occurrence is very low (estimated mean number of large spills = less than 1, Table App. 9-05). A statement to this effect has been included in the conclusion.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

The DEIS also fails to discuss disturbance to the bowhead from other discharges from wastes associated with the oil industry. **(Comment No. 253-319)**

Response To: Comment 253-319

Given modern oil exploration and development techniques, contact by a bowhead whale with discharges associated with oil and gas development onshore in the Northwest NPR-A is extremely unlikely--to the point of not having any remotely reasonable risk of occurrence.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

The DEIS fails to consider adequately the impacts that oil development and exploration may have on the polar bear population in the Planning Area, and it fails to provide adequate protections for this sensitive species. Specifically, the DEIS fails to consider adequately or provide sufficient protection for potential impacts of: seismic activity on denning bears, impacts of oil spills on the population directly and on polar bear food sources,

human disturbance such as exposure and habituation to human food and DLP kills, bioaccumulation of toxics caused by releases into the air and water, and climate change. **(Comment No. 253-320)**

Response To: Comment 253-320

The BLM believes that the IAP/EIS adequately assesses the potential impacts of NPR-A oil and gas exploration and development on polar bears and their habitats and food sources. For the most part, few polar bears are likely to be exposed to these industrial activities because few polar bear dens have been located on NPR-A (See Map 51). There are no known denning concentration areas in NPR-A. The USFWS regulations require industrial activities such as seismic operations to avoid occupied polar bear dens by a distance of one mile. Other measures to protect polar bears from human interactions are expected to be enforced. Please also see the response to comment 253-265 (Marine Mammals). Cumulative effects of bioaccumulation of toxins released into the air and water and climate change are considered in Section IV.F.j.(2)(a)6) Effects of Atmospheric Environmental Contaminants and 8) Effects of Global Warming.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

This DEIS provides BLM with an opportunity to begin effective protection for the polar bear. The agency, however, has not taken that opportunity. Instead, the effort to mitigate the devastating effects of oil and gas activities on polar bears consists of a statement in the DEIS that the oil industry will be alerted to known denning locations. Notification does not protect habitat and is not the level of protection envisioned by Congress when ratifying the Agreement. Further, as oil and gas development continues to spread across Alaska's Arctic, including the proposed development of large portions of the Northwest NPR-A, threats to polar bears continue to mount. **(Comment No. 253-323)**

Response To: Comment 253-323

The projected, primarily onshore, oil and gas exploration and development poses little risk to the polar bear populations in the Beaufort and Chukchi seas. Information on polar bear use of the NPR-A indicates that few polar bears den in the Planning Area (see Map 51). There is no evidence that the projected activities would have any effect on polar bear populations. Few bears are likely to be exposed to these industrial activities. There is no indication that the projected activities would violate the Agreement of the Conservation of Polar Bears. This agreement does not prohibit industrial activities within the range of polar bears. Existing cumulative oil development in the Prudhoe Bay area over the past 30 years has resulted in the loss of only a few bears and has had no measurable effect on the polar bear population. Existing USFWS regulations and "take" regulations under the Marine Mammal Protection Act have been successful in minimizing effects on polar bears. The implementation of these regulations is expected to be equally successful on the NPR-A.

Comment From: The North Slope Borough (Comment Letter No. 80065)

Polar bears occur along the barrier islands, within the inlets and lagoons, and onshore. Given that large congregations and denning are well known in the Elson Lagoon and surrounding region, it is inaccurate to portray the polar bear as an exclusively offshore species. In recent years, observations of polar bears in and around the Barrow area have been common. Gray and beluga whales are well known to enter lagoon systems for feeding and other reasons. Spilled oil could impact the habitat of these animals. These lagoon and inlet systems would likely make the avoidance of oil spills more problematic with shallow areas, and limited entry and exit points. Greater than the predicted exposure and effects could result. The oil spill scenario is far too simplistic and does not appropriately consider documented marine mammal use in the coastal area. **(Comment No. 80065-601)**

Response To: Comment 80065-601

Elson Lagoon is not known as a concentration area for polar bear denning. The recent large concentration of polar bears at Point Barrow that was associated with subsistence whale carcasses was a temporary event that is not likely to be affected by industrial activities in the NPR-A to the east and south of Barrow. After freeze-up of the Beaufort Sea the bears move offshore on to the ice to be distributed broadly over the Beaufort and Chukchi Seas. Few polar bears are likely to be exposed to oil and gas activities on the NPR-A. Gray and beluga whales are not known to enter Dease Inlet and Elson Lagoon and thus are not likely to be exposed to a potential spill in this area. Gray whales also do not enter either Peard Bay or Kasegaluk Lagoon. Belugas do use Kasegaluk Lagoon but NPR-A oil and gas leasing activities are not expected to occur in these inlets and lagoons. If a spill did occur in one of these lagoons it would be more easily contained and cleaned up than if it occurred outside of the lagoon where it could easily spread. Information on beluga whale use of Kasegaluk Lagoon has been added to Section III.5.b(6).

Comment From: Polar Bear Futures (Comment Letter No. 80008)

Appropriate current scientific studies and applicable research be conducted that could then be used as part of the basis for public policy recommendations and management decisions. **(Comment No. 80008-672)**

Response To: Comment 80008-672

The MMS, in cooperation with USGS Biological Resources Division and USFWS, is funding the following scientific studies on polar bears and other Arctic research: polar den surveys using infra-red sensors to locate polar dens in order to protect the bears from seismic operations that would avoid denning areas, use of satellite data on polar bear locations and ice information to understand polar bear use of ice habitats, a polar bear feeding study to under stand the behavior and bear use of whale carcasses, and marine mammal tissue collection and analysis to determine contaminate levels in marine mammals in the Arctic and monitor pollutants in the marine environment.

Comment From: Polar Bear Futures (Comment Letter No. 80008)

Special areas be designed on and off shore as protected polar bear habitats,, particularly to protect polar bear maternity dens. **(Comment No. 80008-673)**

Response To: Comment 80008-673

Although some small number of polar bears dens were located on or near the coastal of the NPR-A Northwest Planning Area (See Map 51) there are no "special" polar bear habitat areas identified in the Planning Area. Polar bear den locations vary from year to year depending on snow conditions. The dens are generally distributed broadly along the coast with a small number of dens located inland. Existing regulations require industrial activities to avoid known dens.

Comment From: Polar Bear Futures (Comment Letter No. 80008)

BLM states that it has three major questions to answer: 1. What lands should BLM offer for oil and gas leasing' 2. What measures should be developed to protect important surface resources from oil and gas activities' 3. Consistent with the existing statutory direction for the area, what non oil and gas land allocations should be

considered for this portion of the NPRA' This draft EIS does not answer any of those three questions in regards to polar bears. **(Comment No. 80008-674)**

Response To: Comment 80008-674

Take or "harassment" regulations under the Marine Mammal Protection Act require industrial operations in the NPR-A to avoid significant effects on polar bears, and other marine mammals that occur within or adjacent to the planning area. The recent large concentration of polar bears at Point Barrow that was associated with subsistence whale carcasses was a temporary event that is not likely to be affected by industrial activities in the Planning Area to the east and south of Barrow. After freeze-up of the Beaufort Sea the bears move offshore on to the ice to be distributed broadly over the Beaufort and Chukchi Seas. Few polar bears are likely to be exposed to oil and gas activities in the Northwest NPR-A. Other than avoiding seasonal den locations that vary from year to year, the issue of protecting important surface resources is not relevant to polar bears.

Comment From: Polar Bear Futures (Comment Letter No. 80008)

This draft EIS further neither adequately considers polar bears alone as a species to be substantively addressed, it also does not consider polar bears as part of a continuum in the Arctic with synergistic effects. For example, polar bears cat ringed seals. The effect of oil and gas development, PCBs and global warming on ringed seals is not specified and what the subsequent effect of those factors would be on polar bears is not examined. There is no scientific basis for any conclusions regarding polar bears in terms of synergistic effects. There is no scientific evidence to verify the effects of global warming, oil and gas development and persistent pollutants on polar bears. Not that traditional western science is the only basis on which public policy can be based, but it is greatly missing as an element for management decisions in this draft EIS. **(Comment No. 80008-675)**

Response To: Comment 80008-675

The potential cumulative and possible synergistic effects of PCB's and global warming on polar bears and the arctic environment have not been verified and are beyond the scope of this IAP/EIS. In regard to global warming, the source of the current warming trend (natural or man-made) is uncertain and environmental pollutants that accumulate in the Arctic come from global industrial sources that are not relevant to the management decisions on the NPR-A. The use of PCB's has been banned in the United States and many other countries.

Comment From: Polar Bear Futures (Comment Letter No. 80008)

It will be very easy to destroy the northwest NPRA for short-term gain. It would be very difficult ten or twenty or more years from now to try to replicate its habitat. The draft ELS states "much of the NPRA bears little mark of human presence. This fact raises the possibility that most or all of the Northwest NPRA might be designed as wilderness". Special areas on and off shore to be protected as polar bear habitat should be considered. **(Comment No. 80008-676)**

Response To: Comment 80008-676

Please see the response to 80008-674 (Marine Mammals).

Comment From: Polar Bear Futures (Comment Letter No. 80008)

Current scientific studies and applicable research should be conducted to provide a basis for substantive comprehensive public policy recommendations for polar bears. **(Comment No. 80008-677)**

Response To: Comment 80008-677

Please see the response to comment 80008-672 (Marine Mammals).

Comment From: Polar Bear Futures (Comment Letter No. 80008)

The increase in international shipping appears to increase exponentially with increased global warming and a greater number of routes opening through the Arctic. There are no recent scientific studies to document the effect of this shipping on polar bears. **(Comment No. 80008-678)**

Response To: Comment 80008-678

There is no evidence that global warming as yet, has resulted in an increase in international shipping in the Beaufort Sea adjacent to the NPR-A. An increase in shipping is not expected to affect polar bears, but the loss of ice habitat and decrease in availability of seals to polar bears would drastically affected polar bear abundance (see Cumulative Effects of Marine Mammals Section IV.F.8.j.(2)(a)8) Effects of Global Warming).

Comment From: Polar Bear Futures (Comment Letter No. 80008)

Current comprehensive studies must be conducted to thoroughly investigate the effects of chemicals on polar bears and polar bear reproduction. In "Marine Mammal Biology" by Hoelzel, it is stated that "The effects of chemical pollution on marine mammals are a growing concern but most research on the problem has consisted only of documenting tissue contaminant levels. Relatively little progress has been made towards understanding the nature of effects. Imunosuppression, thyroid hormone depiction and other non reproductive disorders have also been associated with the presence of contaminants in tissues of marine mammals. Focused studies are needed to combine immunology, toxicology and demography and that involves populations occurring over a gradient of environments from highly polluted to relatively pristine. **(Comment No. 80008-679)**

Response To: Comment 80008-679

Further study of the potential cause and effect relations between PCB's and other chemical pollutant levels in marine mammals and imunosuppression, thyroid hormone depletion and other disorders is impossible to determine without doing laboratory experiments on test marine mammals that would have to be sacrificed in order to clearly show cause and effect relationships. This issue is beyond the scope of the IAP/EIS.

Comment From: Polar Bear Futures (Comment Letter No. 80008)

The National Research Council in the document titled "Cumulative Environmental Effects of Oil and Gas Activities on Alaskas North Slope", dated March 2003, addresses these issues. "The main areas of concern with regard to effects on those animals from oil and gas activities are the potential for contamination and for disturbance caused by industrial noise in the air and water, pregnant females and those with newborn cubs in maternity dens both on land and on sea ice are sensitive to noise and vehicular traffic." There is a need for

scientific studies to determine how much noise, if any, polar bears can sustain without significant changes in their immune systems, physiology, denning habits and reproductive rates. **(Comment No. 80008-680)**

Response To: Comment 80008-680

Existing USFWS regulations require that industrial activities avoid known polar bear dens by one mile to avoid disturbance of denning bears.

Comment From: Polar Bear Futures (Comment Letter No. 80008)

S.C. Amstrup, USGS Alaska Science Center in his study on "Detecting Denning Polar Bears with Forward Looking Infra Red Imagery (FLIR)" has written that "polar bears give birth in snow dens in mid winter and remain in dens until early spring. Survival and development of neonates is dependent on the stable environment within the maternal den. Petroleum related activities currently span approximately 200 KM of the Alaskan Beaufort Sea coastal area. New and proposed developments are expected to dramatically expand the area influenced by petroleum activities, These activities are a potential threat to polar bears, especially as they might disturb denning females." **(Comment No. 80008-681)**

Response To: Comment 80008-681

The IAP/EIS recognizes the importance of maternity dens to newborn polar bear cubs see Section III.B.5.b(5) Polar Bears.

Comment From: Polar Bear Futures (Comment Letter No. 80008)

The National Research Councils report points out that "already there have been dramatic decreases in the extent and thickness of sea ice throughout the Northern Hemisphere and those trends are expected to continue throughout the next century. Negative effects on populations of truly arctic species (polar bears, ringed seals, and bearded seals) are likely to result from climate warming. Polar bears and ringed seals depend on sea ice and reductions in the extent and persistence of ice in the Beaufort Sea will almost certainly have negative effects on their populations. The earlier breakup gives hears a shorter feeding season. They are leaner when they come ashore and they must fast longer. Because of the close predator prey relationship between polar bears and ringed seals, decreases in ringed seal abundance can be expected to cause declines in polar bear populations. How these independent factors might combine to influence populations cannot be predicted with current knowledge. Climate warming at predicted rates in the Beaufort Sea region is likely to have serious consequences for tinged seals and polar bears, and those effects will accumulate with the effects of oil and gas activities in the region. **(Comment No. 80008-682)**

Response To: Comment 80008-682

The EIS recognizes the potential effects of global warming and climates change on polar bears and other marine mammals of the Beaufort Sea (see Section IV.F.8.j.(2)(a)8) Effects of Global Warming). The contribution of effects from potential activities in the Northwest NPR-A are expected to be insignificant or minor to the polar bear population.

Comment From: Polar Bear Futures (Comment Letter No. 80008)

The effects of global warming in just the last two or three years have dramatically changed the arctic environment for polar bears. There are no current studies of these effects and no projections based on scientific studies on which public policy could be reliability based **(Comment No. 80008-683)**

Response To: Comment 80008-683

Although there is evidence that the pack ice in the Beaufort Sea has been thinner in the past few years, there is currently no evidence that the polar bear population has been adversely affected. The number of polar bears has increased in recent years. There is no evidence that the polar bear environment in the Beaufort Sea has changed dramatically in recent years. The effects of global warming on polar bears in Hudson Bay have recently been studied (Stirling and Lunn, 2001).

Comment From: Polar Bear Futures (Comment Letter No. 80008)

There are numerous substantive changes in the Arctic that are recent and that directly effect polar bears and their habitat. They include an increase in international shipping, toxic chemical pollutants, increase in noise and industry, and global warming. Any one of these factors would require recent comprehensive studies to investigate the recent effects on polar bears. However, the real requirement is for studies of the cumulative and synergistic effects of all these changes combined on polar bears. There is insufficient data at this time to allow any greater stressors on the Arctic environment without the scientific information to determine if irreversible damage may already have been done to the polar bear population. **(Comment No. 80008-684)**

Response To: Comment 80008-684

There currently is no clear evidence that global warming and chemical pollutants have affected the distribution and abundance of polar bears throughout the Arctic. Climate warming has the greatest potential to adversely affect polar bears in Hudson Bay the most southerly part of their range (Stirling and Lunn, 2001). High PCB levels in Svalbard, Norway suggest that this polar bear population has been adversely affected (Cone 2003). However, lower PCB levels in polar bears in the Beaufort Sea adjacent to NPR-A haven't shown a decline in abundance or reproductive success but rather an increase in numbers of bears. The projected NPR-A oil and gas activities are not likely to significantly contribute to global warming nor significantly add chemical pollutants such as PCB's to the Arctic environment. The projected NPR-A activities are not likely to be a "greater stressor" on the Arctic environment in the Beaufort Sea. Projected NPR-A activities are not likely to add a "greater stress" to the polar bear population. In regard to existing oil and gas development in the Alaskan Beaufort Sea only three "lethal takes" of polar bears were related to industrial activities on the North Slope over the past 20 years (Gorbics, Garlich-Miller, and Schliebe, 1998). These small number of losses of polar bears have had no effect on the population. More than 40 exploration-drilling units (gravel islands, drill ships, and other platforms) have been installed or constructed in the Beaufort Sea as a result of past Federal and State oil and gas leases. These activities may have displaced a few bears during island construction but have had no detectable effect on the polar bear population. The Fish and Wildlife Service concluded that existing onshore development, proposed exploration activities, have negligible effects on polar bears (65 FR 16828). Oil and gas development in the NPR-A would potentially expose a small number of polar bears to industrial activities. These activities are not likely to have any lasting additive or synergistic effect on seal, walrus, beluga whale, and polar bear distribution and abundance in the Beaufort Sea.

Comment From: U.S. Fish and Wildlife Service (Comment Letter No. 260)

The Service believes that the DEIS accurately reflects risks to polar bears from large spills in marine waters, given that most exploration and development activities are expected to occur on the mainland, and polar bears

would more likely be encountered along barrier islands further off shore. We recommend that the following information be added, however, on coastal habitat use by polar bears: 1) in recent years, an increasing trend of polar bear use of coastal areas along Alaska's Beaufort Sea has been noted (Amstrup and Gardner 1994, Amstrup et al. 2000); and 2) based on recent observations and anecdotal reports from residents of the North Slope, more polar bears are observed on land in years when pack ice is far removed from shore. Given global climate change patterns which have reduced both ice cover and thickness in the last 20 years, the likelihood of decreased pack ice near shore during fall months will increase. Hence, the likelihood of encountering more bears along the coast may also increase. **(Comment No. 260-690)**

Response To: Comment 260-690

As stated in the comment, an increase in polar bear use of habitats along Alaska's Beaufort Sea coast may be related to an observed decrease in pack ice. The increase trend in polar bear use of habitats along Alaska's Beaufort Sea coast may also relate to the availability of whale carcasses at subsistence whaling sites at Barrow, Barter, and Cross islands, Alaska. Recently, an estimated 60 bears congregated to feed on the abundance of whale carcasses at Barrow, Alaska. The text in Section III under polar bears has been changed to reflect this response.

Comment From: U.S. Fish and Wildlife Service (Comment Letter No. 260)

If Alternative habitats of similar quality are not available and marginal habitats are used, reproductive rates may be compromised. Therefore, we suggest that a statement should be included to indicate that cumulative impacts from oil and gas activities, depending upon the level, frequency, location, and duration of activity, may affect short and long term polar bear habitat use and den site selection. **(Comment No. 260-691)**

Response To: Comment 260-691

Existing cumulative oil and gas exploration and development on the North Slope of Alaska and in the nearshore areas of the Beaufort Sea (such as Northstar and Endicott offshore facilities) do not appear to have affected short- or long-term habitat use and den selection by polar bears. Existing USFWS regulations (1 mile buffer around known occupied dens) and Letters of Authorization on "taking" of marine mammals under the Marine Mammal Protection Act, are expected to continue to minimize disturbance of denning polar bears on the North Slope (including the NPR-A) and in the Beaufort Sea. Based on photo identification of landscape features suitable for the accumulation of enough snow for den excavation, bears have a variety of locations and habitats that they can use for denning (Durner, Amstrup, and Ambrosius, 2001). These landforms have included an abandoned oil field pad (Durner, Amstrup, and Fischbach, 2003).

Comment From: U.S. Fish and Wildlife Service (Comment Letter No. 260)

Section III B. 5 b (4). We recommend replacing the word 'walruses' with 'Pacific walrus' to denote the difference between the Atlantic and Pacific stocks of this species. We further recommend that the first sentence be rewritten as follows: 'The current size and trend of the Pacific walrus population is unknown (U.S. Fish and Wildlife Service Stock Assessment 2002).' **(Comment No. 260-738)**

Response To: Comment 260-738

The text has been revised.

Comment From: U.S. Fish and Wildlife Service (Comment Letter No. 260)

Section III B. 5 b (5) paragraph 1. We recommend changing the words 'Icy Cape' to 'Point Hope' (U.S. Fish and Wildlife Service Stock Assessment 2002). **(Comment No. 260-739)**

Response To: Comment 260-739

The text has been revised.

Comment From: U.S. Fish and Wildlife Service (Comment Letter No. 260)

Section III B. 5 b (5) paragraph 1. Please add the following phrase to the end of the sentence: '...and come to shore to scavenge and feed on marine mammal carcasses during the fall open water period.' **(Comment No. 260-741)**

Response To: Comment 260-741

The text has been revised.

Comment From: U.S. Fish and Wildlife Service (Comment Letter No. 260)

Section III B. 5 b (5) paragraph 3. Please delete the words 'receiving consistent use' to reflect that, although den distribution in Alaska is not as concentrated as on Wrangel Island (note correct spelling), Russia, or Hudson Bay, Canada, the Alaska Beaufort Sea coast does consistently receive denning use. **(Comment No. 260-742)**

Response To: Comment 260-742

The text has been revised.

Comment From: U.S. Fish and Wildlife Service (Comment Letter No. 260)

Section III B. 5 b (5) paragraph 4. Please note that, in and adjacent to the NPR-A, dens have been reported to occur in the following locations: Colville River Delta, Atigaru Point, Cape Halkett, Smith Bay, Point Poleakoon, Lonely, Admiralty Bay, Kachiksuk Bluffs, Lake Sungovoak, Point Barrow, Nunuvak Bay, Hollywood, Walakpa Bay, Peard Bay, Skull Cliff, Point Franklin, Point Belcher, Sinaruruk River, Point Collie, Kuk River, Kilimantavi Point, Kasegaluk Lagoon, and Nokotlek Point (U.S. Fish and Wildlife Service Den Database, unpublished data). **(Comment No. 260-743)**

Response To: Comment 260-743

The text has been revised.

Comment From: U.S. Fish and Wildlife Service (Comment Letter No. 260)

Section III B. 5 b (5) paragraph 5. We recommend re-phrasing the first sentence as follows: 'Female polar bears do not usually use the same den sites each year, but they often do use the same substrate as their previous dens (either land, land-fast ice, or sea ice), as well as the same general geographic areas (Amstrup and Gardner 1994).' **(Comment No. 260-745)**

Response To: Comment 260-745

The text has been revised.

Comment From: U.S. Fish and Wildlife Service (Comment Letter No. 260)

Section III B. 5 b (5) paragraph 5. We recommend adding the following sentence: 'A recent trend for polar bears to increasingly use terrestrial habitat for denning along the Beaufort Sea coast has been observed (Stirling and Andriashek 1992, Amstrup and Gardner 1994).' **(Comment No. 260-747)**

Response To: Comment 260-747

The text has been revised.

Comment From: U.S. Fish and Wildlife Service (Comment Letter No. 260)

Section III B. 5 b (5) paragraph 6. Please change '1976' to '1973' and add the words 'on behalf of Greenland' after the word 'Denmark.' Please add the word 'former' in front of the phrase 'Union of Soviet Socialist Republics' (now known as 'Russia'). **(Comment No. 260-749)**

Response To: Comment 260-749

The text in Section III. B. 5. b. (5) paragraph 6 has been revised.

Comment From: Public Meeting on DEIS - Fairbanks, Alaska (Comment Letter No. 80076)

The impact on the marine environments of climate change is also tremendous, especially on the marine mammals and marine birds and, yet, we know little about the long-term consequences of this, but that is very much related to oil development and exploration. It's not that it can't occur, it has to be -- the problems have to be addressed and I don't think they've been adequately addressed in the report up to now. **(Comment No. 80076-902)**

Response To: Comment 80076-902

Please see responses to comments 80008-675 (Marine Mammals) and 253-212 (Global Warming).

Comment From: NOAA (Comment Letter No. 209)

Pg. IV-168, 169 Marine Mammals Please define or be consistent with the definition of short-term. For example paragraph 2 on page IV-168 states 'short-term (< 1 hour)' and page IV-169, paragraph 7 states 'short-term (< 1 year).' **(Comment No. 209-915)**

Response To: Comment 209-915

Both "< 1 hour" and "< 1 year" are considered to be short term in duration. Under Section b. Marine Mammals (1) Effects of Non-Oil and Gas Activities "short-term (< 1 hour)" displacement or harassment in the case of a particular event. Under (2) Effects of Oil and Gas Activities (a) Effects of Disturbances "short-term (< 1 year)" refer to more general and multiple disturbances events that may occur during one season.

Comment From: NOAA (Comment Letter No. 209)

Pg. IV-430 Bowhead Whale Commutative Analysis NOAA continues to be concerned with the cumulative effects of oil and gas activity on the Arctic population of bowhead whales. Repeated exposure of migrating bowhead whales to noise sources may be an example of synergistic impact. While whales may avoid a noise source by moving further offshore before resuming their normal course, and may make such avoidance movements around several sources (additive impact), at some point whales may remain offshore after exposure to multiple sources, even once noise is no longer present. Given the many potential noise sources associated with exploration, development, and production on the Beaufort Sea OCS, natives and scientists have considered this a real possibility. NOAA recommends further analysis of this issue in the final EIS. **(Comment No. 209-917)**

Response To: Comment 209-917

Exploration is expected to occur when bowhead whales are absent from the Northwest NPR-A Planning Area. There may be considerable difficulty in discriminating between cumulative and synergistic effects; however, there is little evidence for the latter from studies that have been completed thus far. Unless bowhead whales have a particular focus for resuming their migration along exactly the same route from which they were disturbed, such as to exploit a traditional foraging area, it would appear more efficient to continue the migration from the revised point of departure.

Comment From: Alaska Beluga Whale Committee (Comment Letter No. 271)

For these reasons, the Alaska Beluga Whale Committee strongly recommends that the northern end of Kasegaluk Lagoon within the Northwest Planning Area of NPR-A be designated a NO-LEASE area. We further recommend that Kasegaluk Lagoon be given permanent protection within NPR-A as a special area where no industrial development may take place. BLM's own analysis indicates that the Kasegaluk Lagoon area has LOW potential for oil and gas. Hence, protection of this area doesn't conflict with oil activity elsewhere. These recommendations will help to reduce future impacts of industrial development on beluga whales, the residents of coastal communities that rely on belugas for subsistence, and other important wildlife resources. **(Comment No. 271-961)**

Response To: Comment 271-961

Please see the response to comment 213-217 (Special Designation Areas).

37. TOPIC : CARIBOU

Comment From: State of Alaska (Comment Letter No. 251)

Section III, Terrestrial Mammals, Caribou, Population Status and Range, Page III-58. The 2002 population estimate for the Central Arctic Herd (CAH) is 31,857 caribou. **(Comment No. 251-150)**

Response To: Comment 251-150

The updated population information for the CAH has been included in Section III.

Comment From: State of Alaska (Comment Letter No. 251)

Section III, Terrestrial Mammals, Caribou, Population Status and Range, Page III-58. The 2002 population estimate for the Central Arctic Herd (CAH) is 31,857 caribou. **(Comment No. 251-151)**

Response To: Comment 251-151

The updated population information for the CAH has been included in Section III.

Comment From: State of Alaska (Comment Letter No. 251)

Section IV, Alternative A, Mammals, Caribou, Page IV-158. The reference for the citation Cameron et al. (2002) is not included in the Bibliography. In the second paragraph on Page IV-158, the text notes the traditional Western Arctic Caribou (WAH) calving area is southwest of the Northwest planning area. Even so, in many years since at least the mid 1980's, up to 30,000 WAH caribou have wintered in the Wainwright-Atqasuk-Umiat area. Development in the Northwest planning area could reduce access to the calving grounds for caribou that winter in the extreme northeastern portion of their winter range. The text in this section devoted to the calving period focuses mainly on displacement of caribou from traditional calving areas. It should be noted that access into calving areas from wintering areas must be maintained to ensure herd viability. The third paragraph on Page IV-158 discusses caribou and insect interactions. There is substantial overlap between periods of mosquito and oestrid fly harassment, and responses to these insects are complex. As such, one should not discern between the effects of mosquitoes and oestrid flies on caribou movements and behavior, but should characterize the insect season as beginning when the first mosquitoes emerge and ending when the last oestrids disappear. **(Comment No. 251-165)**

Response To: Comment 251-165

The missing reference has been added. Additional data on WAH winter range has been included in Section III.B.5.a.(1). The text has been revised in Section IV.C.10.a. to better reflect potential impacts on caribou movements between winter and calving grounds.

process during the environmental review of specific development facilities.

Comment From: State of Alaska (Comment Letter No. 251)

State of Alaska NW NPR-A Comments Page 16 Section IV, Alternative A, Mammals, Multiple Sales, Page IV-167. The second paragraph in this section is a mix of accurate and inaccurate statements regarding movements of WAH caribou during summer. The first two sentences are correct. The third sentence is inaccurate: during the first two weeks of July, the WAH is more concentrated than at any other time of year. Short term movement patterns seem less predictable for the WAH than for the CAH. Even so, for many years the WAH has exhibited a consistent general movement pattern during summer. The WAH has: 1) calved in the Utukok uplands during early June; 2) made a directed post-calving movement west to the Lisburne Hills during mid to late June; 3) formed large aggregations in the western De Long Mountains and western North Slope during early July; 4) moved rapidly through the De Long Mountains and associated foothills toward Howard and Anaktuvuk Pass during the 2nd week of July through August; 5) dispersed north and west onto the North Slope during late August and September; and 6) migrated southwest beginning in mid August toward winter habitat. This movement pattern would expose many WAH caribou to development structures multiple times during the course of each summer. Caribou movement patterns would sometimes parallel linear structures, (e.g. roads or pipelines), while at other times be perpendicular to them. **(Comment No. 251-171)**

Response To: Comment 251-171

Additional information on WAH movement patterns has been added to Section III.B.5.a.(1). Section IV.C.10.a. has been revised to better reflect potential impacts of development on WAH caribou. The comment described the general movement pattern of the WAH and stated that these movement patterns would expose WAH caribou to development structures multiple times during the summer. However, based on the description of these general movement patterns, most of the WAH is outside the Planning Area until late summer. These movement patterns are based on a limited number of satellite collars and do not reflect the movements of all the caribou in the WAH. Perhaps 10 percent of the herd would use the Planning Area during insect-relief season and be exposed to development structures during the peak insect season.

Comment From: Audubon Alaska (Comment Letter No. 213)

Changes to caribou distribution from industrial infrastructure and disturbance May reduce productivity of two caribou herds within NPR-A. Potential negative synergistic effects on the Teshekpuk Lake Caribou Herd could result if habitat protections around Teshekpuk Lake are relaxed in combination with disruptions to insect relief habitat east of Dease Inlet. **(Comment No. 213-204)**

Response To: Comment 213-204

Future changes to existing habitat protections around Teshekpuk Lake are not discussed in the cumulative impact analysis because such changes are speculative at this time and beyond the scope of this document. Any proposed changes would be addressed in a separate NEPA document and any decisions on changes would be made subsequent to that NEPA process. This IAP/EIS does discuss the cumulative effects on TLH caribou from all past, present, and reasonably foreseeable development that would impact that herd.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

Development in the Northwest Planning Area has the potential for affecting populations of several mammal

Comment From: State of Alaska (Comment Letter No. 251)

The second sentence of this paragraph is erroneous. Caribou under extreme insect harassment initially move rapidly to insect relief terrain. However, they usually do not simply stop when they reach the coast or a ridge top. Instead, they often travel rapidly along the coast (or through the mountains). This is an important point regarding insect avoidance by caribou: running per se is an avoidance mechanism that often results in long distances traveled. This paragraph correctly notes that caribou move inland (when they are in coastal relief habitat) after insect harassment abates. The paragraph fails to note that caribou are insensitive to disturbance under extreme insect harassment. It is when caribou are released from the strong stimulus of insect harassment and are drifting inland to feed, that roads and traffic may become temporary barriers to movement. **(Comment No. 251-166)**

Response To: Comment 251-166

The text has been revised in Section IV.C.10.a. to better reflect caribou behavior and potential impacts of development.

Comment From: State of Alaska (Comment Letter No. 251)

The last paragraph on page IV-158 notes important insect relief habitat from Smith Bay to the west side of Dease Inlet. The area west of Barrow also is an insect relief area. People commonly travel by boat in this area and hunt caribou that are along the coast for insect relief. In most years, probably 95% of the Teshekpuk Lake Caribou Herd (TLH) use the area between Kogru River and Dease Inlet, but in 2002 about 30% of the TLH used the area west of Barrow for insect relief. **(Comment No. 251-167)**

Response To: Comment 251-167

Reference to insect-relief habitat west of Barrow has been added to Section IV.C.10.a.

Comment From: State of Alaska (Comment Letter No. 251)

Within paragraph 2 on page IV-159, it is an oversimplification to say that mosquitoes always cause caribou to aggregate and oestrid flies cause them to disperse. Aberrant running and group fragmentation occur only under extreme oestrid harassment, and even small groups of caribou reconstitute into large aggregations. Coastal areas clearly provide critical insect relief habitat and movement corridors for caribou. Similarly, stating that caribou are more dispersed in mid July as oestrid fly harassment increases is an oversimplification. Although caribou are not at their maximum degree of aggregation in mid July (which occurs during the first two weeks of July), the Western and Central caribou herds are still far more concentrated than during fall and winter. Rates of travel can still be very high when insect harassment occurs. Caribou movements are affected by roads, gravel pads, and shaded areas beneath pipes and other structures that provide insect relief habitat under moderate harassment, and by roads, pipelines, and by development complexes that may act as temporary barriers to movement inland after insect harassment abates. **(Comment No. 251-168)**

Response To: Comment 251-168

The text has been revised to better reflect caribou behavior and potential impacts. However, by necessity, it remains somewhat of an oversimplification. Impacts on caribou would be further addressed during the NEPA

species including caribou, grizzly bears, foxes, polar bears, beluga whales, and spotted seals. We believe that the DEIS does not adequately address potential impacts to selected species or provide sufficient protection for their habitats. **(Comment No. 253-249)**

Response To: Comment 253-249

The BLM recognizes that the NPR-A provides important habitat for arctic mammal species and this is addressed in the IAP/EIS. Protective stipulations provide additional protection to these species and their habitats. In some cases, the text was modified to better address impacts to certain species.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

The DEIS does not adequately evaluate the cumulative effects of industrial development on caribou associated with both the Northwest and Northeast planning areas. It also does not address the potential of rolling back habitat protection for calving grounds within the Northeast Plan. **(Comment No. 253-251)**

Response To: Comment 253-251

Please see the response to Comment 213-300 (Caribou).

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

The DEIS did not adequately address the long-term potential impacts of oil and gas development on the WAH. **(Comment No. 253-252)**

Response To: Comment 253-252

Please see the response to Comment 213-307 (Caribou).

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

Assessment of cumulative impacts for any development within any portion of the TCH range must reflect current vulnerability to weather stress (Carroll 2002) and include all biological factors noted above and cumulative effects of all development and industrial growth in the western Arctic and throughout the TCH range. **(Comment No. 253-254)**

Response To: Comment 253-254

Please see the response to Comment 213-313 (Caribou).

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

Effects on Arctic caribou of roads and pipelines, their physical specifications, separation, orientation to caribou routes and to each other, and traffic types and rates must be investigated and monitored. **(Comment No. 253-255)**

Response To: Comment 253-255

Please see the response to Comment 213-317 (Caribou).

Comment From: Audubon Alaska (Comment Letter No. 213)

Caribou: Two caribou herds would be potentially affected by development in the Northwest Planning Area'the Western Arctic Herd (WAH) and Teshekpuk Lake Caribou Herd (TCH). Audubon's most significant concerns regarding the Northwest Plan DEIS include minimizing impacts of development on WAH and TCH summer ranges, the potential effects of new development on the TCH calving grounds within the Northeast Planning area, and the overall long-term cumulative effects of industrial development on both herds. The DEIS does not adequately evaluate the cumulative effects of industrial development on caribou associated with both the Northwest and Northeast planning areas. **(Comment No. 213-300)**

Response To: Comment 213-300

The text has been revised to better address effects of the alternatives on the Western Arctic Herd. Given the low potential for oil reserves under the WAH summer range, the level impact to this herd from the oil and gas operations in the Northwest Planning Area is expected to be minor. Currently most of the TLH core calving area is closed to leasing and/or surface occupancy. The effect of changing the status of these lands is beyond the scope of this document. Please also see the response to comment 213-204 above. The National Research Council (2003) noted in their cumulative effects analysis of the North Slope that major expansion of industrial activity into the WAH primary summer range or calving grounds is unlikely within the next 25 years, and effects should be minor and not accumulate significantly. Industrial development in the WAH calving grounds and primary summer range (in south NPR-A) is considered to be speculative at this time and is beyond the scope of this document. Stipulations in the Preferred Alternative provide additional protection to the TLH insect-relief habitat. Design requirements for pipelines, roads, and other facilities in the Planning Area would reduce impacts to caribou on the TLH summer range and peripheral WAH summer/winter range in the Northwest NPR-A Planning Area.

Comment From: Audubon Alaska (Comment Letter No. 213)

The DEIS did not adequately address the long-term potential impacts of oil and gas development on the WAH. **(Comment No. 213-307)**

Response To: Comment 213-307

Most of the WAH habitat lies outside of the Planning Area. A small percentage of the herd (about 10%) uses the Planning Area for wintering or for summer range (Jim Dau, personal communication). The primary calving ground and core insect-relief habitat (Lisburne Hills, De Long Mountains and Brooks Range) lie outside the Planning Area (either outside of NPR-A or in South NPR-A Planning Area). Future energy development in South NPR-A is considered too speculative at this time to include in the cumulative effect analysis for this document. Please also see the response to comment 213-300 (Caribou).

Comment From: Audubon Alaska (Comment Letter No. 213)

Assessment of cumulative impacts for any development within any portion of the TCH range must reflect current vulnerability to weather stress (Carroll 2002) and include all biological factors noted above and cumulative effects of all development and industrial growth in the western Arctic and throughout the TCH range. Nellemann and Cameron (1998) described a greater reduction of caribou tolerance to disturbance as development complexes grew. Cumulative and long-range effects of development impact on Arctic caribou may involve an increase of cumulative energy cost to a point where survival or productivity are significantly reduced (Yokel 1997). **(Comment No. 213-313)**

Response To: Comment 213-313

Additional discussion on vulnerability of caribou to weather stress has been added to the cumulative analysis. Future changes in the management of the Teshekpuk Lake herd (TLH) calving grounds are beyond the scope of this document. Please also see the response to comment 213-204 (Caribou). Stipulations in the Preferred Alternative provide additional protection to the TLH insect-relief habitat.

Comment From: Audubon Alaska (Comment Letter No. 213)

Many additional questions remain unanswered. Effects on Arctic caribou of roads and pipelines, their physical specifications, separation, orientation to caribou routes and to each other, and traffic types and rates must be investigated and monitored. Effects include impacts on caribou mortality, recruitment, movements, use of calving grounds, and nutrition and energy balances in all seasons. Effects of aircraft traffic and corridors must be assessed, particularly near calving grounds, before regular operation. Effects of pipeline spill cleanup are largely untouched in the literature (Yokel 1997). Potential effects of North Slope strip mining on permafrost and adjacent habitat and drainages must also be investigated. **(Comment No. 213-317)**

Response To: Comment 213-317

The BLM understands that many questions about the effects of oil and gas development on terrestrial mammals remain unanswered. Last September, the NPR-A Research and Monitoring Team (RMT) recommended the following two caribou projects among its highest priorities. These studies would address some of the concerns raised in your comment. 1. "Study of caribou demography, distribution and movement in relation to oil field infrastructure." This is a six-year study, to be conducted by ADFG with support from BLM and several other entities. 2. "Literature review of effects of pipeline height on crossing success of caribou." This effort was intended to review and synthesize all of the studies conducted on this subject over the last 20+ years. The BLM has withheld funding pending completion of a much broader literature review contracted out this winter. The BLM has not discussed research on the subject of aircraft vs. caribou, although there may be some work done in this area around the ConocoPhillips Alaska, Inc. Alpine facility. The BLM addresses this concern with seasonal stipulations on aircraft use to mitigate impacts to terrestrial mammals. The BLM has no current plans for research on the impact of pipeline spills cleanup. The NRC report (2003) states that since most spills have been small, have occurred on gravel pads, and have been cleaned up, the ecological effects of onshore spills have been small and localized, and hence have not accumulated. The IAP/EIS includes numerous stipulations and required operating procedures regarding handling of hazardous materials and response to spills. At this time, BLM has no plans to investigate the impacts of strip mining on permafrost and adjacent habitat and drainages. Strip mining would remove the permafrost in the affected area The environmental review of each gravel mining permit application would require that the gravel pit is sited so as to preclude drainage of nearby water bodies. Mined out gravel pits may eventually be attached to a stream to provide overwintering habitat for fish.

Comment From: Audubon Alaska (Comment Letter No. 213)

Although the significance of observed short-term effects on Arctic caribou from oil exploration and development is debated by the oil industry because some caribou still use habitats within the Prudhoe Bay and Kuparuk oil fields, particularly during the postcalving period (Cronin et al. 2000), the potentia l long-term and cumulative effects on caribou nutrition, reproduction, and mortality may be significant. Wolfe et al. (2000) have reviewed the extensive scientific literature regarding the response of reindeer and caribou to human activities. **(Comment No. 213-318)**

Response To: Comment 213-318

The National Research Council (2003) noted that cumulative effects from oil and gas development have negatively affected the CAH and may continue to do so unless the degree to which development disturbs caribou can be reduced. The majority of the potential cumulative effects on the CAH would be from ongoing and potential future development on State lands east of NPR-A. The additional cumulative impact from activities in the Northwest NPR-A on the CAH would be limited to a potential off-site pipeline to either Kuparuk or TAPS and would not constitute a significant addition to cumulative effects. Currently, 51 to 74 percent of the defined TLH calving grounds is either closed to leasing or designated as no surface occupancy. Stipulations provide additional protection for caribou in the Northeast NPR-A. Given this protection of calving grounds and proposed stipulations in the TLH insect-relief habitat within the Northwest NPR-A Planning Area, cumulative impacts to this caribou herd should not be significant. The NRC (2003) found that if the TLH calving grounds were protected, direct conflicts with parturient females are unlikely provided their movements are not impeded. Stipulations in the IAP/EIS requiring that oil and gas infrastructure and facilities be designed to facilitate caribou movements would reduce effects on caribou movements. Future changes to habitat protections around Teshekpuk Lake are not discussed in the cumulative impact analysis because such changes are speculative at this time and beyond the scope of this document. Any proposed changes would be addressed in a separate NEPA document and any decisions on changes would be made subsequent to that NEPA process. The NRC (2003) noted in their report that major expansion of industrial activity into the WAH primary summer range or calving grounds is unlikely within the next 25 years, and that effects should be minor and not accumulate significantly. Industrial development in the WAH calving grounds and primary summer range (in South NPR-A) is considered to be speculative at this time and is beyond the scope of this document.

Comment From: Audubon Alaska (Comment Letter No. 213)

On p IV-422, the DEIS identifies likely long-term cumulative effects on caribou calving distribution, representing a functional 'loss of habitat that may result in long-term effects of the caribou herd's productivity and abundance.' If global warming occurs, the DEIS suggests that 'much longer effects on Arctic terrestrial mammals may occur.' **(Comment No. 213-361)**

Response To: Comment 213-361

Additional information has been added to the cumulative effects section.

Comment From: Western Arctic Caribou Herd Working Group (Comment Letter No. 80004)

The Western Arctic Caribou Herd Working Group requests that BLM give recognition and apecial consideration in the Northwest Plan to the long-term conservation of the Western Arctic Caribou Herd. It also is important that development doesn't interfere with people's ability to access hunting areas or hinder people's subsistence opportunities. Two caribou herds would be potentially affected by development in the Northwest Planning Area--the Western Arctic Herd (WAH) and Teshekpuk Lake Caribou Herd (TLH). The Working Group's most

significant concerns regarding the Northwest Plan DEIS include minimizing impacts of development on WAH summer range within the Northwest Planning Area and the overall long-term cumulative effects of industrial development on caribou associated with the Northwest Plan. **(Comment No. 80004-527)**

Response To: Comment 80004-527

The BLM recognizes the importance of North Slope caribou herds for subsistence and this is reflected in the IAP/EIS. Stipulations in the IAP/EIS are aimed at maintaining access to both the TLH and WAH for subsistence hunting. The BLM recognizes that development in the Northwest NPR-A Planning Area could potentially affect both WAH and TLH caribou and this is reflected in the IAP/EIS. Stipulations in both the Northeast NPR-A IAP/EIS and the Northwest NPR-A IAP/EIS provide additional protection for TLH caribou and their important habitats. The BLM shares the Working Group's concern about minimizing the effects of long-term, cumulative effects of industrial development on the WAH. Given the low potential for oil reserves under the WAH summer range, impacts to this herd from Northwest NPR-A activities are expected to be minor. The National Research Council (2003) noted in their cumulative effects analysis of the North Slope that major expansion of industrial activity into the WAH primary summer range or calving grounds is unlikely within the next 25 years, and effects should be minor and not accumulate significantly. Industrial development in the WAH calving grounds and primary summer range (in south NPR-A) is considered to be speculative at this time and is beyond the scope of this document.

Comment From: Western Arctic Caribou Herd Working Group (Comment Letter No. 80004)

Although the significance of observed short-term effects on Arctic caribou by oil exploration and development is debated by the oil industry because some caribou still use habitats within the Prudhoe Bay and Kuparuk oilfield, particularly during the post calving period, the potential long-term and cumulative effects on caribou nutrition, reproduction, and mortality may be significant. The National Research Council (2003) recently prepared a report on the cumulative environmental effects of oil and gas activities on Alaska's North Slope. The Committee's consensus report summarized the following effects on caribou. "The combined effects of industrial activity and infrastructure and the stress imposed by insects in some summers reduced calf production in the Central Artic caribou herd and may have contributed to the reduction in hderd size from 1992 through 1995. In contrast, the herd increased in size from 1995 to 2001, when insect activity was lower." **(Comment No. 80004-528)**

Response To: Comment 80004-528

The National Research Council (2003) noted that cumulative effects from oil and gas development have negatively affected the CAH and may continue to do so unless the degree to which development disturbs caribou can be reduced. The majority of the cumulative effects on the CAH are from ongoing and potential future development on State lands east of NPR-A. The additional cumulative impact from the Northwest NPR-A IAP/EIS on the CAH is limited to a potential off-site pipeline to either Kuparuk or TAPS and will not constitute a significant addition to cumulative effects.

Comment From: The North Slope Borough (Comment Letter No. 80065)

The text fails to mention a possible decline in caribou harvest at Nuiqsut after 1993 (See Figure 1 below). This could be due to the displacement of subsistence hunters from the Kuparuk Oilfield area or a disruption of caribou migration into the traditional Nuiqsut hunting grounds. 0 200 400 600 800 1976 1984-5 1993 1994-5 year Figure 1. Numbers of caribou harvested at Nuiqsut by year. Note the possible trend in decreasing harvest numbers. Some hunters have attributed this to oilfield effects. The caribou harvest estimate for Nuiqsut in 1992 from Fuller and George (1997) should be included in this analysis. **(Comment No. 80065-588)**

Response To: Comment 80065-588

The text has been revised to discuss a possible decline in caribou harvest at Nuiqsut and to indicate a fourth possible explanation for the decline, i.e., disruption of caribou migration into traditional Nuiqsut harvest areas. Caribou harvest numbers for Nuiqsut in 1992 from Fuller and George have been included in the analysis in Section III.D.(5)(g).

Comment From: The North Slope Borough (Comment Letter No. 80065)

The text does not appropriately take into account the disturbance to caribou associated with clean up efforts. In some areas, alternate insect relief areas are not widely available, and a loss of preferred foraging habitat for two weeks or more is not incidental for an animal that is attempting to accumulate caloric (fat) and mineral body stores at a very fast rate in the short summer. This is a critical nutrional period prior to decreases in fall forage quality and in preparing for the harsh fall and winter. This loss of habitat is not just associated with oiled areas but the areas that will become disturbed by clean up operations. Increased susceptibility to winter conditions should also be considered as disturbed caribou may enter that stressful time of year in poor condition, resulting in mortality or potentially reduced calving success. **(Comment No. 80065-600)**

Response To: Comment 80065-600

Please see the response to comment 251-169 (Effects of Spills).

Comment From: The Kuukpik Corporation (Comment Letter No. 254)

The proposed Alternatives contain internal conflicts. The Draft EIS/IAP says that the wide open approach in Alternative A would most likely have only a minor impact on wildlife and subsistence activities unless development occurs within areas used by caribou for insect relief or there is an oil spill. Yet Alternative A does not address development in caribou insect relief habitat despite the fact that there is significant overlap between the areas with a high potential for oil and gas and areas used by the Teshekpuk Lake Caribou Herd (TLH) as insect relief habitat. A highly likely development scenario is effectively ignored. The Draft EIS/IAP even recognizes the dire consequences of Alternative A, concluding that cumulative oil and gas activities combined with Alternative A can cause long-term displacement and functional loss of caribou and in turn, 'this important subsistence resource [the caribou] could become unavailable, undesirable for use, or experience long-term population and productivity effects for a period longer than 5 years - a significant adverse effect. **(Comment No. 254-616)**

Response To: Comment 254-616

More specific language has been added to the text (please see Sections IV.C.10.a (2)(a) and Section V.B.10.a.(b)) relating to impacts to TLH caribou from development in the insect-relief habitat.

Comment From: The Kuukpik Corporation (Comment Letter No. 254)

We would like to see, and the Draft EIS/IAP supports the need for, stipulations protecting caribou calving and insect avoidance areas. The Draft EIS/IAP indicates that large groups of insect-harassed caribou changed their behavior over the course of 12 years in an 'moderate to high effects could be expected on the productivity of TLH

if development takes place in critical insect relief areas. If caribou populations become unavailable, undesirable for use, or experience population reductions for a period greater than 2 years, effects [SIC] subsistence-harvest patterns would elevate from low effects to moderate or high effects over the long-term. The Arctic Refuge Coastal Plain Terrestrial Wildlife Research Summaries, and the draft of the National Academy of Science Cumulative Impact Study also indicate that this is a very real concern. For these reasons, the protection of the TLH calving and insect relief areas in the Northwest NPR-A should be one of the BLM's top priorities. The protection of the sensitive areas where the TLH seeks refuge from insect harassment or calve their newborns can be accomplished with "No Permanent Improvement" zones covering the most heavily used areas. There should be no disagreement on this because the Draft EIS/IAP says 'cumulative impacts to caribou could be reduced by not allowing leasing in the most sensitive areas' in NPR-A. Since we would like to see oil and gas extracted from these areas if it can be done in an environmentally sound manner, we are not opposed to a stipulation allowing leasing and winter-only exploration, but prohibiting permanent surface facilities. If oil and gas is discovered in the No Permanent Improvement zone protecting sensitive caribou areas, horizontal drilling techniques can be used to extract some or all of any discovery. Even if today's technology cannot reach oil and gas in these areas, industry will be given an incentive to strive for horizontal drilling technological breakthroughs. effort to avoid Kuparuk's core industrial areas and instead now move primarily along Kuparuk's outer edges instead of through the center as the caribou once did. We have witnessed this change first hand and recently we have observed seen a reduction in the number of caribou on the Colville River Delta. Given historic fluctuations in caribou migration and populations, it is too soon to draw final conclusions, but we believe that this change is longterm and was caused by the construction of the Meltwater and Tarn pipelines, which create barriers to migration patterns. We are concerned that development in the TLH's insect relief habitat in the Northwestern NPRA will have a similar impact. In addition the Draft EIS/IAP concludes that development in the Prudhoe Bay-Kuparuk area has caused a shift in CAH calving distribution away from the oil fields.27 Unpredictability and changes in caribou movement negatively impact the success of our subsistence harvest. The Draft EIS/IAP notes that unpredictable movements of the Central Arctic and Teshekpuk Lake Caribou Herds among other things have caused Nuiqsut' s annual caribou harvest to fluctuate markedly. The shifting movement of caribou caused by Kuparuk and now Meltwater and Tarn is the type of unpredictable movement that negatively impacts hunting success. The Draft EIS/IAP shows that animals from the TLH are harvested by residents from many of the North Slope Communities inside the NPR-A. About one third of the subsistence food eaten by Nuiqsut residents are caribou harvested on the coastal plain. In recent years, due to poor fish harvests, caribou has been relied upon even more. With such a large part of our diet coming from caribou, our health and the health of the caribou is increasingly intertwined. The Draft EIS/IAP supports this concern saying:'moderate to high effects could be expected on the productivity of TLH if development takes place in critical insect relief areas. If caribou populations become unavailable, undesirable for use, or experience population reductions for a period greater than 2 years, effects [SIC] subsistence-harvest patterns would elevate from low effects to moderate or high effects over the long-term. The Arctic Refuge Coastal Plain Terrestrial Wildlife Research Summaries, and the draft of the National Academy of Science Cumulative Impact Study also indicate that this is a very real concern. For these reasons, the protection of the TLH calving and insect relief areas in the Northwest NPR-A should be one of the BLM's top priorities. The protection of the sensitive areas where the TLH seeks refuge from insect harassment or calve their newborns can be accomplished with "No Permanent Improvement" zones covering the most heavily used areas. There should be no disagreement on this because the Draft EIS/IAP says 'cumulative impacts to caribou could be reduced by not allowing leasing in the most sensitive areas' in NPR-A. Since we would like to see oil and gas extracted from these areas if it can be done in an environmentally sound manner, we are not opposed to a stipulation allowing leasing and winter-only exploration, but prohibiting permanent surface facilities. If oil and gas is discovered in the No Permanent Improvement zone protecting sensitive caribou areas, horizontal drilling techniques can be used to extract some or all of any discovery. Even if today's technology cannot reach oil and gas in these areas, industry will be given an incentive to strive for horizontal drilling technological breakthroughs. **(Comment No. 254-621)**

Response To: Comment 254-621

The TLH calving grounds are located outside of the Planning Area. The majority of the TLH calving grounds is currently closed to leasing or is designated as no-surface occupancy. Stipulations in the Preferred Alternative provide additional protection to the TLH insect-relief habitat.

Comment From: Public Meeting on DEIS - Anchorage, Alaska (Comment Letter No. 80073)

Can wildlife and oil development coexist' Absolutely. The Central Arctic Caribou Herd whose summer range includes the Prudhoe Bay oil field has grown from 5,000 in 1974 to 32,000 today, an increase of a staggering 537 percent. **(Comment No. 80073-1006)**

Response To: Comment 80073-1006

Caribou populations normally fluctuate over time depending upon a wide variety of factors. The onset of oil development in the Prudhoe Bay area happened to coincide with a low point in the CAH population. The WAH grew from 75,000 to 463,000 animals over the same general time period and they were not exposed to oil and gas development.

Comment From: ConocoPhillips Alaska, Inc (Comment Letter No. 255)

Page II-33. "Development in the 'TLH insect-relief'area could interfere with caribou movements and have adverse reproductive consequences.' While this level of interference potentially may happen, CPAI believes that there are many proven designs and operational techniques available to fully eliminate this potential impact. Knowing that the caribou disturbance is primarily associated with pipeline height, pipeline/road separation, and traffic stress, CPAI believes that proper road and pipeline designs, combined with traffic controls during the insect season, can fully eliminate this interaction. **(Comment No. 255-795)**

Response To: Comment 255-795

The BLM recognizes that proper road and pipeline design can greatly reduce impacts to free movement of caribou through oil field facilities; however, these measures will not totally eliminate such impacts. While under extreme insect harassment, caribou are relatively insensitive to disturbance and may readily move through oil field facilities. When caribou are released from the strong stimulus of insect harassment and are drifting inland to feed, facilities, roads, and traffic may become temporary deterrents to caribou movement. A gravel road bed raised above the flat coastal plain presents a visual barrier that may temporarily deter caribou while they are still some distance from the road. Implementation of traffic controls could further reduce caribou delays at road crossings. Traffic controls are not part of the proposed stipulation package being analyzed in this IAP/EIS and for analysis purposes, it is assumed that no traffic controls are in place. Traffic controls may be implemented as a result of environmental review during permitting.

Comment From: ConocoPhillips Alaska, Inc (Comment Letter No. 255)

Page IV-420, first para. This discussion states "' construction of a road from the Dalton to Nuiqsut...would create a barrier to caribou movement.'" All caribou monitoring studies have found that roads alone do not cause "barriers." The Dalton Highway does not cause a "barrier" as stated. High traffic rates do cause delays and some deviations. It is not clear if the point in this statement is that this potential road will have traffic at sufficient rates to cause these crossing delays. We believe it would be unrealistic to expect this road would have traffic at such high rates. This sentence needs to be clarified. **(Comment No. 255-952)**

Response To: Comment 255-952

The wording in the document has been clarified.

Comment From: Kellie Ward (Comment Letter No. 80023)

Open space is essential to migration patterns of certain species, such as the caribou. The coastal regions are crucial migration routes that can easily be disturbed with human interference. Road building and pipelines are very detrimental to these species and cause displacement. Alternative B and especially alternative A would likely have a negative impact on the migration patterns of these animals. A community of species within an ecosystem are very interactive with each other, therefore a potential loss of caribou would likely equate to a loss of its predators, including the brown bear, wolf and golden eagle **(Comment No. 80023-836)**

Response To: Comment 80023-836

The BLM recognizes that open space and coastal areas are essential for certain species, and that roads and pipelines may disrupt movements of some species. This is reflected in the draft IAP/EIS. The BLM does not anticipate any significant decreases in caribou populations under any of the alternatives. Therefore, no corresponding decrease in predator populations is expected. Additional text indicating that caribou are an important prey species for wolves and bears has been added to Section III.B.5.

Comment From: Public Meeting on DEIS - Nuiqsut, Alaska (Comment Letter No. 80077)

My biggest concerns are the substructures of what they're going on and stuff like that, like right now they're trying to change the standard ones when they come across the river and start going that way, moving them, what they call them, their sensors above and then make the pipeline like five feet and stuff and then right now it's living proof that when you go to Deadhorse now with the pipeline going from west to east that it acts like a snow fence and then you know the snow is building up underneath. And those are some of the things that concerns me. Are they going to be putting in any substructures because we're almost -- well, with NPR-A road and stuff like that, if they introduce that, we'll be impacted so much from all sides. **(Comment No. 80077-928)**

Response To: Comment 80077-928

The IAP/EIS addresses potential impacts to caribou movements and subsistence use access in the Planning Area (see Sections V.B.10.a and V.B.14). The protective measures developed for the Preferred Alternative (Section II.C.5) are intended to mitigate those impacts. For example, ROP E-7 minimizes impacts by requiring that roads and pipelines be designed to allow free movement of caribou and safe passage of people participating in subsistence activities. ROP H-1 requires the lessee/permittee to consult directly with affected communities to help prevent conflicts between subsistence uses and oil/gas development.

Comment From: ConocoPhillips Alaska, Inc (Comment Letter No. 255)

Page IV-420, 2nd para. We know of no study that has found that calving is reduced near pipelines without roads. **(Comment No. 255-953)**

Response To: Comment 255-953

The text has been revised.

Comment From: ConocoPhillips Alaska, Inc (Comment Letter No. 255)

Page IV-421 first para. The second half of this paragraph presents the hypothetical assumption presented in the early 1990s by one caribou biologist that caribou cows in the western segment of the CAH had reduced body weights relative to the eastern segment of the CAH, and that this condition would lead to reduced herd productivity. We believe if these hypothetical assumptions from 10 years ago are presented, then the current factual information that the CAH has grown at an above average rate since 1995, and is now larger than it has ever been at over 30,000 animals also needs to be presented so readers understand this issue. **(Comment No. 255-954)**

Response To: Comment 255-954

The information on the population size of the CAH is shown in Section III.B.5.a(1).

Comment From: ConocoPhillips Alaska, Inc (Comment Letter No. 255)

Page IV-421, 3rd para. The end of this paragraph talks about functional loss of TLH calving habitat, and displacement of calving caribou from disturbance from their calving habitat. This discussion is confusing and we don't clearly follow the linkage used to make this conclusion, since we understood that the entire TLH calving area is completely protected under the Northeast Planning Area leasing boundaries and stipulations and no surface facilities will be built, nor will any surface or aerial activity occur in that area during the calving season. **(Comment No. 255-955)**

Response To: Comment 255-955

These sections refer to cumulative effects on all three caribou herds, not just the TLH. Although surface facilities are prohibited in most of the TLH calving grounds (Map 48), a portion of the area historically used by the herd during calving is outside of the Teshekpuk Lake Special Protection Area. The CAH calving grounds are open to leasing. Some TLH and CAH caribou calving habitat could be affected by cumulative development on the North Slope.

Comment From: Hearing -Anaktuvuk Pass (Comment Letter No. 80072)

HEARING OFFICER BROWER: The gentleman's name is Gilbert Lincoln. Pertaining to the height of the pipeline, if the pipeline is built in the NPR-A. He knows that when a caribou is going to run for safety, they jump six to seven feet and they have their racks on so they have to be able to get underneath the pipeline if they're going to cross freely. So this is a rule of thumb that he would like to entertain in this hearing so that the caribou may not harm itself when it's running away if the pipeline's too low with its racks it could be running and hit the pipeline and then shear off its horns and it could cause it permanent or lethal damage to itself. **(Comment No. 80072-979)**

Response To: Comment 80072-979

Pipelines in the Planning Area will be designed to allow for free movement of caribou. The standard height is 5 feet above ground level to the bottom of the pipeline. Curatolo and Murphy (1986) reported no selection for particular surface-to-pipe clearances within the range of 1.5 to 4.3 meters (5 to 14 feet), indicating that the

standard of 5 feet is generally sufficient (Cronin et. al., 1994). Cronin et. al. (1994) evaluated the effectiveness of oilfield mitigation measures. One potential effect on caribou that they considered was accidental death. They did not report any accidental death or injury to caribou crossing under elevated pipelines. Under the Preferred Alternative, an average height of 7 feet is the design standard. Please see specifically Required Operating Procedure E-7.

38. TOPIC : THREATENED AND ENDANGERED SPECIES

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

Moreover, this failure to evaluate fully the adverse impacts of potential oil and gas operations implicates the agency's Endangered Species Act obligations. Given the inadequate analysis in the DEIS, BLM is unable to establish that the development alternatives in the DEIS will be consistent with the agency's ESA obligations to avoid jeopardy to listed species and to prevent unauthorized take of such species. **(Comment No. 253-271)**

Response To: Comment 253-271

The BLM has analyzed the potential impacts of the levels of routine activities associated with oil and gas exploration and development that could reasonably be expected to occur associated with the IAP/EIS for the Northwest Planning Area and within the framework of available data. Although the commenter fails to define "evaluate fully," it is not considered useful to speculate about potential impacts that could result from a worst-case scenario incident or activity when there is an extremely low probability of occurrence. With regard to BLM's obligation to avoid a jeopardy conclusion in the U.S. Fish and Wildlife Service (USFWS) Biological Opinion (BO) and prevent unauthorized takes of listed species, please refer to the non-jeopardy opinion contained in Appendix 10 . The BO was developed with the IAP/EIS analysis. This IAP/EIS and related BO are just the first steps in an incremental ESA consultation process with USFWS. If exploration and development were to be proposed, consultation would be reinitiated at that time.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

Until the BLM completes an adequate assessment of the full potential impacts of the development alternatives, it cannot demonstrate compliance with these obligations to conserve the spectacled and Steller's eiders and the bowhead. **(Comment No. 253-276)**

Response To: Comment 253-276

The BLM considers the analyses to be adequate and appropriate to the decisions to be made. The U.S. Fish and Wildlife Service (USFWS), by issuing a non-jeopardy BO for this portion of the plan, apparently is in agreement that the analyses are adequate. Please also see the response to comment 253-271 (Threatened and Endangered Species).

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

Table II-02 (Stipulations and Required Operating Procedures) are in place and enforced. No support, historical or otherwise, is provided to show this is a valid assumption rather than an optimistic hope. **(Comment No. 253-279)**

Response To: Comment 253-279

Potential impacts were analyzed assuming that stipulations and required operating procedures were in place. The potential effects of these protective measures are discussed in a separate section following the analysis. The application of stipulations and required operating procedures to oil and gas operations is not discretionary, but those that require, for example, preparation of a plan indicating how an operator will satisfy the stated requirements/standards, which will require the approval of an Authorized Officer, may involve some discretion where part or all of the requirements/standards are not explicitly defined (e.g., "Sufficient oil-spill cleanup materials shall be stored at all fueling points ....." ROP A-4).

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

Furthermore, the DEIS states that it assumes that the probability of crude oil being released during exploration is zero (DEIS p. IV-177). The agency has a responsibility to analyze all potential impacts, not just the optimistic best-case scenario. **(Comment No. 253-284)**

Response To: Comment 253-284

Although stipulations or ROP's that allow discretionary application may not always be applied in their most restrictive form, most applicable with regard to birds are not discretionary. To keep the analysis within reasonable bounds, discretionary measures were considered to be applied as stated, rather than in every possible form, to demonstrate at least one effect of the measure. As noted, the statistical probability of a crude oil spill during exploration is zero; however, unless a spill is assumed for purposes of analysis, a realistic analysis of all potential effects of development and production phases is not possible. By analyzing potential impacts of an oil spill, the IAP/EIS does not simply analyze only an optimistic best-case scenario as is evident from the analysis located in Section IV.C.11.c(2), Effects of Oil Spills. Although about 975 oil spills from all sources have occurred on the North Slope, their average size is 2.7 bbl. The BLM considers that analysis of a 900-bbl oil spill scenario is sufficiently inclusive to cover the impacts of all potential spill size scenarios, up to and including this volume.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

This assumption also seems unsupported by history. The total number of oil spills from activities on the North Slope from 1989 to 1996 was 975. (DEIS p. IV-430). It is inappropriate and counter to the spirit and intent of NEPA to perform an impacts analysis based on these unwarranted and unsupported assumptions. **(Comment No. 253-287)**

Response To: Comment 253-287

Although stipulations or ROP's that allow discretionary application may not always be applied in their most restrictive form, most applicable with regard to birds are not discretionary. To keep the analysis within reasonable bounds, discretionary measures were considered to be applied as stated, rather than in every possible form, to demonstrate at least one effect of the measure. As noted, the statistical probability of a crude oil spill during exploration is zero; however, unless a spill is assumed for purposes of analysis, a realistic analysis of all potential effects of development and production phases is not possible. By analyzing potential impacts of an oil spill, the IAP/EIS does not simply analyze only an optimistic best-case scenario as is evident from the analysis located in Section IV.C.11.c(2), Effects of Oil Spills. Although about 975 oil spills from all sources have occurred on the North Slope, their average size is 2.7 bbl. The BLM considers that analysis of a 900-bbl oil spill scenario is

sufficiently inclusive to cover the impacts of all potential spill size scenarios, up to and including this volume.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

We are concerned about the cumulative impact additional oil and gas leasing and other development will have on the spectacled and Steller's eiders and the bowhead whale. In order to satisfy NEPA, an EIS must evaluate in detail the 'cumulative effects of a proposed action with other proposed actions.' See Muckleshoot Indian Tribe V. U.S. Forest Service, 177 F. 3d (9th Cir 1999). The agency must analyze connected and similar actions affecting lands adjacent to the NW Planning Area including all past, present and future development on federal, state and private lands. In discussing the proposed plans, the DEIS must fully disclose analysis of how the direct and secondary impacts of each past, present, and reasonably foreseeable future action will affect the spectacled eider, Steller's eider and bowhead whale. Should a sale go forward as a result of this planning process, this would be the seventh lease sale in this area since 1993. (DEIS p. IV-173). One hundred twenty nine wells have been drilled in the NPRA to date. Thirteen of which were drilled between 2000 and 2002. In addition another 688 leases exist as part of federal offshore Beaufort Sea sale of which 52 are still active. The offshore Northstar facility is also now in operation in the area. While the DEIS does have a cumulative impacts section for T&E species, it fails to take the requisite 'hard-look' required by NEPA. The DEIS chooses to focus its assessment of impacts on threatened and endangered species on the leasing and exploration phases rather than the development and production phases. Since the greatest potential for impacts to these T&E species is associated with development and production, this analysis is fatally flawed. Exploration is expected to take 8 years, development 14 years and production is expected to last 22 years. Limiting the analysis in the DEIS to an 8 year rather than a 30 year time frame has enormous implications. Rather than confront the issues, the DEIS states that further consultation will occur in the future should commercially viable quantities of oil be discovered. Artificially limiting the scope of the DEIS analysis regarding impacts to T&E species to leasing and exploration, prevents the agency from educating itself and others about the larger context in which decisions affecting the species are made, thereby limiting the effectiveness of the NEPA process. For example, in discussing impacts to eiders, the DEIS states that initial development is likely to occur in the extreme northern portion of the Planning Area where a 'substantial number of spectacled eiders could be affected.' (DEIS p. IV-180). However, at the same time the DEIS limits its analysis to the leasing and exploration phases, conveniently enabling the agency to not take a hard look at such impacts as required. The discussion on development and production in relation to T&E species is cursory at best and clearly does not meet the 'hard- look' standard of NEPA. Limiting the scope of the EIS is inconsistent with the purpose, goals, and procedures of NEPA. The failure to take a look at all the foreseeable impacts that development in the area might have on the resources and uses prevents this DEIS from contributing to the quality of the agency's decision, in violation of the goals and 'action-forcing' purpose of NEPA. **(Comment No. 253-291)**

Response To: Comment 253-291

The analysis considers potential impacts of development as well as exploration, and thus has not been limited to the latter. The expanded timeframe thus considered still suggests that only one oil spill would occur offshore and five onshore within the reasonably foreseeable future, hence BLM considers the analysis adequate. The final document has been reviewed to assure adherence to required content. In the absence of definitive data, speculating beyond the scenario time frame serves little purpose. As stated, future proposed development would require reinitiation of endangered species consultation, at which time more specific information is likely to be available.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

We are concerned about the cumulative impact additional oil and gas leasing and other development will have on the spectacled and Steller's eiders and the bowhead whale. In order to satisfy NEPA, an EIS must evaluate in detail the 'cumulative effects of a proposed action with other proposed actions.' See Muckleshoot Indian Tribe V. U.S. Forest Service, 177 F. 3d (9th Cir 1999). The agency must analyze connected and similar actions affecting lands adjacent to the NW Planning Area including all past, present and future development on federal, state and

private lands. In discussing the proposed plans, the DEIS must fully disclose analysis of how the direct and secondary impacts of each past, present, and reasonably foreseeable future action will affect the spectacled eider, Steller's eider and bowhead whale. Should a sale go forward as a result of this planning process, this would be the seventh lease sale in this area since 1993. (DEIS p. IV-173). One hundred twenty nine wells have been drilled in the NPRA to date. Thirteen of which were drilled between 2000 and 2002. In addition another 688 leases exist as part of federal offshore Beaufort Sea sale of which 52 are still active. The offshore Northstar facility is also now in operation in the area. While the DEIS does have a cumulative impacts section for T&E species, it fails to take the requisite 'hard-look' required by NEPA. The DEIS chooses to focus its assessment of impacts on threatened and endangered species on the leasing and exploration phases rather than the development and production phases. Since the greatest potential for impacts to these T&E species is associated with development and production, this analysis is fatally flawed. Exploration is expected to take 8 years, development 14 years and production is expected to last 22 years. Limiting the analysis in the DEIS to an 8 year rather than a 30 year time frame has enormous implications. Rather than confront the issues, the DEIS states that further consultation will occur in the future should commercially viable quantities of oil be discovered. Artificially limiting the scope of the DEIS analysis regarding impacts to T&E species to leasing and exploration, prevents the agency from educating itself and others about the larger context in which decisions affecting the species are made, thereby limiting the effectiveness of the NEPA process. For example, in discussing impacts to eiders, the DEIS states that initial development is likely to occur in the extreme northern portion of the Planning Area where a 'substantial number of spectacled eiders could be affected.' (DEIS p. IV-180). However, at the same time the DEIS limits its analysis to the leasing and exploration phases, conveniently enabling the agency to not take a hard look at such impacts as required. The discussion on development and production in relation to T&E species is cursory at best and clearly does not meet the 'hard- look' standard of NEPA. Limiting the scope of the EIS is inconsistent with the purpose, goals, and procedures of NEPA. The failure to take a look at all the foreseeable impacts that development in the area might have on the resources and uses prevents this DEIS from contributing to the quality of the agency's decision, in violation of the goals and 'action-forcing' purpose of NEPA. **(Comment No. 253-292)**

Response To: Comment 253-292

The analysis considers potential impacts of development as well as exploration, and thus has not been limited to the latter. The expanded timeframe thus considered still suggests that only one oil spill would occur offshore and five onshore within the reasonably foreseeable future, hence BLM considers the analysis adequate. The final document has been reviewed to assure adherence to required content. In the absence of definitive data, speculating beyond the scenario time frame serves little purpose. As stated, future proposed development would require reinitiation of endangered species consultation, at which time more specific information is likely to be available.

Comment From: American Society of Mammologists (Comment Letter No. 249)

the draft EIS contains little real consideration of possible impacts of oil and gas activities on the endangered bowhead whale (Balaena mysticetus), an inhabitant of the coastal marine habitats adjacent to the NW NPR-A. None of the Stipulations listed in the draft EIS specifically apply to bowhead whales. Past and present oil and gas seismic exploration activities on Alaska's North Slope have significantly altered the fall migration routes of bowheads, which, in turn, may affect other associated behavioral traits such as feeding (Orians et al. 2003). This species is strictly protected by the Endangered Species Act and Marine Mammal Protection Act and absolutely requires fuller consideration in this draft EIS. Further, **(Comment No. 249-522)**

Response To: Comment 249-522

Consideration of potential impacts to bowhead whales in the IAP/EIS is in relation to the likelihood that these whales would be affected by activities primarily ongoing within the Northwest NPR-A Planning Area. Bowhead whales could respond to occasional supply vessel presence, but this is not likely to result in significant changes in

their distribution, nor does it appear to require specific stipulations. Treacy et al., (2000) has determined that the fall bowhead migration route (distance offshore) is principally affected by sea ice extent and severity. Only local course deflections have been recorded near sites of seismic exploration and drilling in the Beaufort Sea, thus it is unlikely that the fall migration route has been altered significantly.

Comment From: The North Slope Borough (Comment Letter No. 80065)

The section states that under most circumstances, contact of whales migrating through offshore waters during the open-water season likely would be brief.' This qualification as 'brief' is misleading as a shortterm expsoure may cause for severe effects from volatile components, especially via the pulmonary route. The section also states that 'based on conclusions from studies that have examined the effects of oil spills on cetaceans, exposure to spilled oil is unlikely to have serious direct effects on baleen whales.' This is a very misleading statement, as most of the studies were performed on small toothed whales (odontocetes) using small scale captive studies. Extrapolating from these studies to free ranging mysticetes in the Arctic is not justified. It is quite feasible that baleen whales traveling in heavily iced nearshore conditions could be forced to interact with oil at the surface. Multiple exposures to the respiratory and other critical systems (e.g., ocular) could occur. The effects of these interactions with oil could be lethal or very debilitating. The text does not make appropriate reference to the dramatic differences between bowhead baleen and the baleen of the four whale species that were the subject of the studies referred to. There is no data to suggest that fouling of bowhead baleen, which is long, flexible, and characterized by many hairlike filaments, should not be a significant concern in the event of an oil spill. **(Comment No. 80065-603)**

Response To: Comment 80065-603

The discussion of effects of oil on bowhead whale has been revised to include additional potential effects and/or severity.

Comment From: U.S. Fish and Wildlife Service (Comment Letter No. 260)

Spectacled eiders and the Alaska breeding population of Steller's eiders were listed as threatened under the Endangered Species Act of 1973, as amended, in 1994 and 1997, respectively. The Northwest Planning Area of the NPR-A provides nesting and brood-rearing habitat for significant numbers of threatened Steller's and spectacled eiders. The Service estimates that about 90 percent of the Alaska breeding population of Steller's eiders and about 70 percent of the North Slope population of spectacled eiders nest within this area. Given the uncertainty surrounding how much development may occur, how that development would be managed (Stipulations and Required Operating Procedures (ROPs)), and how Steller's and spectacled eiders may be affected by development, it is difficult to evaluate potential impacts of any of the Alternatives on these two species. If significant development occurs within areas of high concentrations of either species, we believe the potential for population-level impacts is high for North Slope breeding spectacled eiders and for the listed Alaska breeding population of Steller's eiders. **(Comment No. 260-644)**

Response To: Comment 260-644

Although it is difficult to forecast the absolute amount of oil and gas development that might occur in the Northwest NPR-A, it is likely that the northern portion surrounding Dease Inlet-Admiralty Bay, where potential is rated high and existing infrastructure is more accessible, will be explored first. Aerial survey data indicate highest spectacled eider densities to the west of the inlet mainly on Native Corporation and split estate lands, with a few areas to the east. This might suggest that some high density spectacled eider (Native Corporation) areas could be questionable for oil and gas activity in the future; at this point the likelihood of development on Native Corporation lands is unknown. The level of exploration and development expected is not likely to cause

population level impacts to the spectacled eider. Distribution of Steller's eider sightings is sufficiently diffuse to suggest that few would be impacted by the relatively low level of near term development expected.

Comment From: Michael North (Comment Letter No. 80003)

I am particularly troubled by evidence that previous recent leases of oil and gas in the NPR-A have ignored mitigation proposed by wildlife professionals, and have not included any safeguards for yellow-billed loons. To me, that demonstrates the inadequacy of existing regulatory mechanisms. Combine that with the present potential to threaten destruction or modification of the species habitat, the potential for increased predation, and the potential to introduce long-term and large-scale contamination of the species habitat (i.e., other man-made factors) and you have met four of the five criteria - any one of the which - that may be used for listing under the Endangered Species Act (16 U.S.C. 1533(a)). A key theorem that has emerged in both the regulated and regulatory public over the last decade or so is that it is better to undertake proactive measures in order to avoid having to list species. The NPR-A Planning Team has the opportunity to structure the locations, extent, and conditons of leases in the NPR-A in order to eliminate or greatly reduce threats to a sustainable yellow-billed loon population. It is my profound hope that you will take these required steps. **(Comment No. 80003-853)**

Response To: Comment 80003-853

Several stipulations and ROP's address mitigation of various factors (e.g., habitat modification, disturbance, environmental contamination, increased predator populations) that could have adverse effects on the yellow-billed loon (please also the response to comment North-3). Some protection by virtue of greater awareness of the species' sensitivity is accorded by its listing as a species of conservation concern by the USFWS.

39. TOPIC : OIL SPILLS AND SCENARIO

Comment From: State of Alaska (Comment Letter No. 251)

Section IV.A.2.c, Page IV-39. The State recommends that the Final IAP/EIS explain why an oil spill is not expected to occur in association with natural gas exploration or production. Fuels and other petroleum products will be used during natural gas exploration and production, just as they are with oil exploration and production. It is reasonable to expect that spills associated with petroleum transportation, storage, and use for natural gas exploration and production will occur. The effects of such spills would be the same as those already described in the Draft IAP/EIS. **(Comment No. 251-181)**

Response To: Comment 251-181

A large oil spill is not expected to occur in association with natural gas exploration and production. There are no large oil spills associated with any Alaska North Slope blowouts. The BLM agrees with the commenter that a refined petroleum product spill(s) could be expected to occur. The effects of refined spills during gas production are the same as those during oil production and are discussed in Section IV Environmental Consequences. We have added text to the EIS directing the reader to the analysis of small refined spills.

Comment From: State of Alaska (Comment Letter No. 251)

In addition, a well blowout could produce natural gas condensates and crude oil also. The potential effects from a

gas exploration or production well blowout should be analyzed and described in the Final IAP/EIS. **(Comment No. 251-182)**

Response To: Comment 251-182

Gas production is not anticipated to occur during the period analyzed in this IAP/EIS. Section IV.A.1.b.(8)(a) describes possible but unlikely scenarios, including the unexpectedly aggressive development of gas resources. Currently, there is no infrastructure (pipeline) for getting gas to market. If an exploration well discovered gas, and a company proposed a development, a gas blowout would be further evaluated during the environmental process.

Comment From: State of Alaska (Comment Letter No. 251)

It is essential that BLM consider these road proposals. We recommend that potential allseason community roads and mainline/trunk roads for oil and gas exploration and development be included in the alternatives and appropriately analyzed for human and environmental impacts as required by the National Environmental Policy Act. The assumption in the Draft IAP/EIS that private sector financing of roads makes roads unlikely needs to be revised in recognition that the State may finance roads in whole or part. In addition to providing overland transport of vehicles, the road corridors identified through the Northwest Plan may also function as electrical energy, consumer gasline and communications distribution routes. This potential infrastructure should be considered as well. **(Comment No. 251-201)**

Response To: Comment 251-201

Please see the response to comment 213-357 (Transportation).

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

Furthermore, the DEIS states that it assumes that the probability of crude oil being released during exploration is zero (DEIS p. IV-177). The agency has a responsibility to analyze all potential impacts, not just the optimistic best-case scenario. **(Comment No. 253-286)**

Response To: Comment 253-286

Although stipulations or ROP's that allow discretionary application may not always be applied in their most restrictive form, most applicable with regard to birds are not discretionary. To keep the analysis within reasonable bounds, discretionary measures were considered to be applied in their most restrictive form, rather than in every possible form, to demonstrate at least one effect of the measure. As noted, the statistical probability of a crude oil spill during exploration is zero; however, unless a spill is assumed for purposes of analysis, a realistic analysis of all potential effects of development and production phases is not possible. By analyzing potential impacts of an oil spill, the IAP/EIS does not simply analyze only an optimistic best-case scenario as is evident from the analysis located in Section IV.C.11.c(2), Effects of Oil Spills. Although about 975 oil spills from all sources have occurred on the North Slope, their average size is 2.7 bbl. The BLM considers that analysis of a 900-bbl oil spill scenario is sufficiently inclusive to cover the impacts of all potential spill size scenarios, up to and including this volume.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

This assumption also seems unsupported by history. The total number of oil spills from activities on the North Slope from 1989 to 1996 was 975. (DEIS p. IV-430). It is inappropriate and counter to the spirit and intent of NEPA to perform an impacts analysis based on these unwarranted and unsupported assumptions. **(Comment No. 253-290)**

Response To: Comment 253-290

Although stipulations or ROP's that allow discretionary application may not always be applied in their most restrictive form, most applicable with regard to birds are not discretionary. To keep the analysis within reasonable bounds, discretionary measures were considered to be applied in their most restrictive form, rather than in every possible form, to demonstrate at least one effect of the measure. As noted, the statistical probability of a crude oil spill during exploration is zero; however, unless a spill is assumed for purposes of analysis, a realistic analysis of all potential effects of development and production phases is not possible. By analyzing potential impacts of an oil spill, the IAP/EIS does not simply analyze only an optimistic best-case scenario as is evident from the analysis located in Section IV.C.11.c(2), Effects of Oil Spills. Although about 975 oil spills from all sources have occurred on the North Slope, their average size is 2.7 bbl. The BLM considers that analysis of a 900-bbl oil spill scenario is sufficiently inclusive to cover the impacts of all potential spill size scenarios, up to and including this volume.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

Each of these activities potentially could pose grave risks to the viability of this at-risk species. It is of crucial importance to recognize that because the spectacled and Steller's eider populations have experienced a more that 50% decline, that all the impacts the DEIS characterizes as negligible may have a moderate to large effect on the population's chance of long-term survival. **(Comment No. 253-295)**

Response To: Comment 253-295

The BLM considers that it has fairly represented and analyzed available data and characterized the potential impacts of various factors. There is little evidence to suggest that impacts characterized as negligible are in fact moderate or large.

Comment From: State of Alaska (Comment Letter No. 251)

Section IV.A.2, Page IV-35, Oil Spills, Second Paragraph. "Large spills have some moderate chance of occurring during the lifetime of the field. Small spills are expected to occur&" What science or historical data supports this statement' As with the Northstar EIS, the author does not have sufficient data relative to North Slope operations or the history of spills on the North Slope, and is probably using a hundred year average for the Gulf of Mexico. This leads the reader to an unrealistic assumption that oil spills are a typical occurrence on the North Slope, when in fact this is one of the most prestigious oil and gas developments in the world. **(Comment No. 251-417)**

Response To: Comment 251-417

The text has been revised regarding large spills to indicate this is the chance of occurrence for the $30.00/bbl price level scenario. Assumptions for large spills (>500 bbl) from production in the Northwest NPR-A Planning Area are based on the historic spill sizes from onshore Alaska North Slope industry spills from 1985 to 2000. The text has been changed to state that the data used is the history of spills on the Alaska North Slope as described in Appendix 9 of the IAP/EIS. The MMS contracted with Hart Crowser Inc to collect and document oil spills greater than or equal to 100 barrels from the Alaska North Slope, Trans Alaska Pipeline, and Arctic Canada. The Alaska

North Slope oil-spill analysis includes onshore oil and gas exploration and development spills from the Point Thompson Unit, Badami Unit, Kuparuk River Unit, Milne Point Unit, Prudhoe Bay West Operating Area, Prudhoe Bay East Operating Area, and offshore Duck Island Unit (Endicott). North Slope data include spills from onshore pipelines and offshore and onshore production and gathering facilities.

Comment From: State of Alaska (Comment Letter No. 251)

Section IV.A.2, Oil Spills, Page IV-35. The third paragraph states: "For analysis purposes, this IAP/EIS assumes no oil spill clean-up occurs." This statement is not only unreasonable, but extremely unrealistic. Before, during, and frequently for some period after any exploration or development activity, oil spill response equipment is stationed in strategic locations to prevent the migration of oil from an unlikely spill event, and oil spill response personnel are also on-site and on-call throughout any activity. This Draft IAP/EIS assumption predicates a worst-case scenario that simply would not occur, and goes on to elaborate its effects to the reader. **(Comment No. 251-418)**

Response To: Comment 251-418

The statement "For analysis purposes, this IAP/EIS assumes no oil spill clean-up occurs" is specifically referring to the analysis of impacts from the spilled oil. By assuming no clean-up, the analysis addresses the impact of the total estimated volume of the spill. For the analysis, we do not try to reduce the volume of oil in the environment by a certain percentage based on an assumed effectiveness of spill response. The analyses also address potential impacts of spill response, which we acknowledge would be required. The large spill sizes analyzed in the IAP/EIS are 500 or 900 barrels. Having regulations that require spill prevention and response and trained personnel does not guarantee that the oil will be cleaned up. Oil-spill cleanup estimates range from as low as none to as high as 99.0 percent. The variability in the amount of oil cleaned up is tremendous. The oil spills are analyzed without regard to cleanup because the variability is so high. The BLM acknowledges that the Northwest NPR_A is a remote area in a harsh climate. It is primarily a roadless area, limiting support for spills that spread by rivers, on lakes or lagoons, or into the Beaufort Sea. The area is noted for high winds in winter, currents, and the seasonal presence of moving ice in certain areas. The BLM acknowledges that there would be limits to current technology for responding to spills in adverse conditions. Historically, only a small percentage of spilled oil has been recovered at remote sites and in broken ice. Recently, higher recovery rates are being reached, but rates still typically do not exceed 80 percent. Response time and environmental conditions at the time of the spill are the two most critical factors in determining whether or not a spill effectively can be cleaned up at sea. Oil Discharge Prevention and Contingency Plans are required for exploration and development plans. At that time specific oil spill and response scenarios are outlined and evaluated prior to their approval.

Comment From: State of Alaska (Comment Letter No. 251)

Section IV, Page IV-492, Introduction. The AOGCC Senior Petroleum Engineer is familiar with both the Mallory and Fairweather documents and confirms the information that each presents. As noted, the Fairweather study covers a longer time period and tallies more incidents. Both studies account for the same number of incidents during the period studied by Mallory. The key point that both studies make is that in modern times, no blowout has resulted in a liquid hydrocarbon release. **(Comment No. 251-448)**

Response To: Comment 251-448

The comment has been noted in the text.

Comment From: The North Slope Borough (Comment Letter No. 80065)

The introduction to this section states that 'a very large oil spill is a low-probability event with the potential for severe effects.' It is critical that the actual risk, expressed as a probability over a specific time period, and associated confidence intervals (e.g. 95% C.I.), be clearly stated. The methods used to determine this risk should be clearly cited and explained. The North Slope Borough (NSB) Science Advisory Committee (SAC) (NSB-SAC-OR-130, February 7, 2003) recently reviewed the methodology used by the Minerals Management Service (MMS) in risk assessment and oil spill probability estimates. The review revealed significant shortcomings in the MMS approach, including a failure to provide an indicator of the reliability of the figures presented. In the case of the Northwest NPR-A Planning Area, the increase in pipeline mileage and pad numbers would intuitively increase the overall probability of small and major oil releases on the North Slope, and their impacts in combination with the accumulated effects already associated with expanded industrialization would be felt that much more severely. Throughout the entire Draft IAP/EIS, the presumption of predicted low risks is the foundation of many 'no impact' conclusions. If this low risk assumption is flawed, then so are the 'no impact' determinations based upon it. **(Comment No. 80065-591)**

Response To: Comment 80065-591

The recent review by the North Slope Borough Scientific Advisory Committee focused on Anderson and LaBelle (2000) and Bercha Group Inc. (2001). These reports were used in the analysis of spills for the cumulative case for Beaufort OCS and TAPS tankers in the Northwest NPR-A Draft IAP/EIS. The MMS is currently trying to address certain concerns of the North Slope Borough Scientific Advisory Committee regarding Anderson and LaBelle (2000) and Bercha Group Inc. (2001). The MMS has outlined to the North Slope Borough anticipated goals for addressing their concerns. The primary analysis of spills for Northwest NPR-A is based on the Alaska North Slope spill rate. Unlike the offshore, where no historical data exists, there is plenty of historical data for spills on the Alaska North Slope. The IAP/EIS has presented the best available information regarding very large spill occurrence from the oil and gas industry on the Alaska North Slope. The text does not present a quantitative risk analysis with confidence intervals. No quantitative estimates of spill probabilities are presented other than to summarize the existing available data. The purpose is to provide an order of magnitude comparison to rates for other areas and spill sizes. As listed in the text of this section there have been no large crude oil spills greater than 925 barrels on the North Slope of Alaska from 1985-2000 and even to date. The sample size for spills greater than or equal to 120,000 barrels is zero for the Alaska North Slope. Of the five blowouts that occurred while drilling approximately 4,600 wells on the Alaska North Slope none released hydrocarbons. The sample size for blowouts greater than or equal to 120,000 barrels for the Alaska North Slope is zero. The largest spill from a platform facility on the OCS is the Santa Barbara spill, which was 80,000 barrels. This spill occurred more than 30 years ago. Since that time, regulations have been implemented to prevent blowouts in general and specifically of that magnitude. The sample size for platform spills greater than or equal to 120,000 barrels for the OCS is 0. In order to estimate a probability for spills greater than 120,000 barrels you have to look at worldwide blowouts. For these blowouts or spills, the causes are due to war or drilling practices that are not allowed in the U.S. To spend a lot of time doing statistical analysis on spills that have causes that aren't relevant seems unnecessary. The analysis of the impacts of an oil spill assumes that the spill occurs. The analysis then goes on to describe the impact of that size spill on a particular environmental, social or economic resource. The analyst then frames the analysis by stating the likelihood of the event. The likelihood of an event occurring does not diminish the impact of an oil spill.

Comment From: The North Slope Borough (Comment Letter No. 80065)

It appears that the coastal regions of the planning area are among the highest hydrocarbon resource potential areas being considered for leasing. If these areas are offered for lease, the nearshore and offshore marine system beyond lagoons should be considered a target for oiling in the event of a spill. We question models which project that spilled oil would remain along the coast. Also, more than one concurrent point of oil release or the potential for a single release to result in mutiple entry points into marine and freshwater systems should be considered, and the corresponding impact on response efforts and environmental effects addressed. **(Comment No. 80065-592)**

Response To: Comment 80065-592

The assumptions for analysis do not include that the oil will remain along the coast. Several analysts state that an oil spill starting in the inlet or along the shore could transport oil offshore and contaminate marine waters. No trajectory analysis was performed for this analysis. Data from Launch Area (LA) 1 and in the Beaufort Multisale EIS, Appendix A (USDOI, MMS, 2003) provides information about trajectory analysis adjacent to Dease Inlet. A spill in the area of LA2 has a 10 to 17 percent chance of contacting shoreline, approximately 20 to 30 miles east and west of Dease Inlet, after 30 days during summer. Environmental Resource Area (ERA) 23 approximately 30 miles west of Barrow has a 3 percent chance of contact after 30 days during summer. There is an 11 percent chance of contacting ERA 30, 45 miles east of Dease Inlet, after 30 days during summer. There is a 3 percent chance of contacting ERA's 31 and 54/67, 75 miles east of Dease Inlet, after 30 days during summer.

Comment From: The North Slope Borough (Comment Letter No. 80065)

It is well documented that cattle, sheep, and horses utilizing grazing lands that support oil extraction operations are occasionally exposed to oil, and that this exposure can result in mortality and morbidity. This exposure may be to crude oil, but also may involve heavy metals, salt water, caustic chemicals, grease and other petroleum distillates. Ingestion typically results in pulmonary aspiration that can be acutely lethal or predispose the animal to infections. This exposure can also affect the CNS, digestive tract, and skin. This type of exposure should be considered in large spill and chroniclow level spill scenarios. See: Edwards, WC. (1985) Toxicology problems related to energy production. Vet Hum Toxicol 27 (2): 129-132 Edwards et al. 1979. Toxicoses related to the petroleum industry. Vet Hum Toxicol. 21: 328-337 **(Comment No. 80065-597)**

Response To: Comment 80065-597

Potential toxicology and other detailed effects of an oil spill on marine mammals reference OCS reports MMS 85-0031 and MMS 92-0012 for detailed discussion of this type of effects (See Section IV. C. 10. b. (2) (b) Effects of Oil Spill. Additional information has been added to Sections IV.J.5.h. (1).

40. TOPIC : ROADLESS AREAS AND DEVELOPMENT

Comment From: State of Alaska (Comment Letter No. 251)

Section III, Page III-139(2), Roadless. This section outlines the characteristics of a roadless area and states that the planning area meets the test for roadless. While this may be a correct statement in general terms, the desire of the communities to have road and electrical/communications transmission line infrastructure developed in the planning area should be recognized as well. ADOTPF, in concert with the NSB, will work closely with BLM to identify specific transportation/utility corridors that need to be established for future use. **(Comment No. 251-321)**

Response To: Comment 251-321

When inventorying lands for potential wilderness designation, BLM looks for roadless areas at the time of inventory. If the area is roadless and meets the definition of roadless, then the area meets one of the first hurdles for possible wilderness designation. The ADOTPF should certainly contact BLM and discuss future concerns as related to utility and transportation corridors, as wilderness areas would certainly preclude this type of

development. The BLM needs to evaluate through the EIS process the need for this type of development versus the need for wilderness designation. Not knowing exactly where these future transportation corridors may be located makes it difficult to analyze.

Comment From: State of Alaska (Comment Letter No. 251)

Section IV, Page IV-18 (c), Gravel Requirements. This section needs to include a discussion about the need for inter-community roads. **(Comment No. 251-380)**

Response To: Comment 251-380

This section specifically addressed the assumptions and scenarios for the Alternatives under consideration in this IAP/EIS. Inter-community roads within the Northwest NPR-A Planning Area are mentioned in the cumulative scenario and are considered speculative. The justification and feasibility of inter-community roads in NPR-A is beyond the scope of the present IAP/EIS. The BLM acknowledges that such studies are in progress with State DOT oversight. The final route selection, material requirements, and environmental impacts will undergo thorough NEPA review before ROW permits are approved.

Comment From: State of Alaska (Comment Letter No. 251)

Section IV, Page IV-394 (3) Transportation for 'Roadless' Development. This section needs to be reviewed and revised consistent with recent proposals to construct permanent roads to CD-South and to the Lookout Drillsite within the NW NPR-A. **(Comment No. 251-391)**

Response To: Comment 251-391

The proposed permanent roads to CD-South and Lookout Drillsite are within the Northeast NPR-A, not the Northwest NPR-A.

Comment From: State of Alaska (Comment Letter No. 251)

Section IV, Page IV-512, Bullet 7. The statement in this section that "the road system east of Nuiqsut would be partially funded with State of Alaska or Federal funds and open to the public' should be modified consistent with Section 118 (e) of the Transportation Enhancement Act (TEA-21). TEA-21 authorizes the expenditure of federal funds for resource development road construction projects without regard to the traditional 'public funds equals public access' caveat. It allows industrial use designation of these roads that precludes or limits public access eventhough state or federal funds are used. ADOTPF is now investigating the full implications of this statute on the North Slope roads development program currently underway. **(Comment No. 251-400)**

Response To: Comment 251-400

The State-advocated road between the Dalton Highway and Nuiqsut has been incorporated as a reasonably foreseeable activity under the cumulative scenario. This text has therefore been moved. Text has been added in the cumulative scenario to present the information on TEA-21 provided in the comment. The assumption in Bullet 7 has not been changed. In consideration of the history of the Dalton Highway relevant to the question of "public funds equals public access," the BLM believes that the assumption that a federally funded road between the

Dalton Highway and Nuiqsut would be open to public use is a reasonable assumption.

Comment From: State of Alaska (Comment Letter No. 251)

Section IV, Page IV-512, Bullet 8.
The State recommends that the language in this section regarding the funding and construction of a road system west of Nuiqsut by the lessees and closed to general public use be modified in recognition that ADOTPF funding from state and federal sources may be used to develop roads west of Nuiqsut into NPR-A. **(Comment No. 251-403)**

Response To: Comment 251-403

The State-advocated road between the Dalton Highway and Nuiqsut has been incorporated as a reasonably foreseeable activity under the cumulative scenario. This text has therefore been moved. Text has been added in the cumulative scenario to present the information on TEA-21 provided in the comment. The assumption in Bullet 7 has not been changed. In consideration of the history of the Dalton Highway relevant to the question of "public funds equals public access," the BLM believes that the assumption that a federally funded road between the Dalton Highway and Nuiqsut would be open to public use is a reasonable assumption.

Comment From: State of Alaska (Comment Letter No. 251)

Section IV, Page IV-512, Scenario for a Possible Permanent Road Connecting Northwest NPR-A to Outside of the Planning Area. The State recommends that this section be revised to incorporate: 1) the development of community roads between Barrow-Atqasuk-Wainwright that may also be used for oilfield development mainline of trunk road functions. This potential is well within the stated 15 to 20-year period used for modeling in the Draft IAP/EIS. 2) economic modeling for road access connecting to transportation systems outside the NPR-A consistent with possible public funding for a mainline or truck road development into NPR-A. As noted earlier, the economic model used in the Draft IAP/EIS that assumes roads are unlikely in the planning area because they are uneconomic to the private sector is flawed and should be reevaluated given that the State may choose to finance roads in whole or part. **(Comment No. 251-406)**

Response To: Comment 251-406

AK-069 Inter-community roads within the Northwest NPR-A Planning Area are mentioned in the cumulative scenario and are considered speculative at this time. The BLM acknowledges that such studies for such roads are in progress with State DOT oversight. The final route selection, material requirements, and environmental impacts will undergo thorough NEPA review before ROW permits are approved. The section referred to in the comment is on the Scenario for a Possible Permanent Road Connecting Northwest NPR-A to Outside of the Planning Area. The Barrow-Atqasuk-Wainwright road would be wholly within the Planning Area. The economic modeling for this IAP/EIS addressed activities under consideration in the Alternatives and the past, present, and reasonably foreseeable cumulative activities. As stated above, inter-community roads within the Northwest NPR-A Planning Area are considered speculative at this time.

41. TOPIC : CULTURAL RESOURCES

Comment From: U. S. Evironmental Protection Agency (Comment Letter No. 261)

Cultural Resource Sites Page III-83 indicates that about 400 cultural sites have been identified within the Northwest NPR-A Planning Areas. We realize the importance of maintaining the anonymity of these sites is critical for their protection. However, we recommend include a list of these cultural sites as a table. **(Comment No. 261-142)**

Response To: Comment 261-142

There are about 400 known cultural sites in the Northwest NPR-A Planning Area. The numbers for these cultural sites are the locators for the sites in the database of the State Historic Preservation Officer (the Alaska Heritage Resource Survey), which cannot be accessed by the public. In fact, publication of those numbers could very well jeopardize the FOIA exemption for those sites.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

According to the DEIS, cultural resources are protect through a number of means, 'such as restricting development along the Meade and Chipp Rivers and along the Kuk and Ikpikpuk Rivers and their major tributaries, or making these areas unavailable for leasing' (DEIS, p II-5). However, Alternative A shows no areas that are unavailable for leasing and no stipulations which restrict development along the listed rivers. Therefore, no means of protecting these resources has been established for this alternative. **(Comment No. 253-324)**

Response To: Comment 253-324

Section 106 of the National Historic Preservation Act (as amended) and the Archaeological Resource Protection Act provide protection for cultural resources in regard to any undertaking on the public lands of the United States. Section 106 requires consultation with the State Historic Preservation Officer and possibly other interested parties to develop ways to mitigate the adverse affect on significant resources; the Archaeological Resource Protection Act also makes it illegal to disturb archaeological sites. These requirements exist in law and need not be stipulated.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

50 The DEIS, BLM repeatedly makes reference to the fact that BLM is unsure about the severity of impact on cultural resources that would come from oil exploration and development, citing the scattered natural of the cultural deposits and the unknown locations of many deposits (DEIS, p. IV-193). However, in each case BLM acknowledges that such activities may have an impact on cultural resources. In addition, the DEIS notes that the more oil and gas associated activities, the greater the chance that locales of cultural resources would be impacted (DEIS, p. IV-449). Yet despite this, no effort has been made to protect the cultural resources in Alternative A. We urge BLM to ensure protection of these resources in the chosen alternative through stipulations specific to cultural resources as well as restricted development along the above-mentioned rivers. **(Comment No. 253-326)**

Response To: Comment 253-326

Please see the response to comment 253-324 above.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

In addition, BLM acknowledges that 'the single greatest potential impact to cultural resources in the Northwest Planning Area is the construction of a permanent road' both in terms of lineal coverage of ground and excavation of gravel (DEIS, p. IV-523). According to the DEIS, 'gravel deposits ' mineral material - that have surface exposure almost always support one or more cultural resource sites' (DEIS, p. IV-523) and 'therefore, the more gravel deposits that are excavated for the construction of permanent facilities associated with development, the more chances that significant impacts to cultural resources would occur' (DEIS, p. IV-450). While BLM goes on to explain that the construction of permanent gravel pads, roads or airstrips is considered unlikely (DEIS, p. IV-511), such construction is allowable under both Alternatives A,B and C. Plus, in light of the February 18 announcement by BLM of Conoco-Phillips' request to develop three fields within the Reserve and to connect them by permanent gravel road to Alpine, we believe the chances of such permanent roads in the Northwest is considerably higher than BLM has implied. In fact, the DEIS itself notes, if a road within the Northwest Planning Area 'were to be linked to a road traversing the Northeast Planning Area, which in turn were to be connected to a road tying into the Dalton Highway the potential impacts to the regional cultural resources would increase exponentially' (DEIS, p. IV-524). For these reasons, cultural resourcespecific stipulations and protections must be more adequately present in the chosen alternative. **(Comment No. 253-327)**

Response To: Comment 253-327

Please see the response to comment 253-324 (Cultural Resources).

42. TOPIC : ANILCA

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

The DEIS does not provide an adequate basis for determining compliance with section 810 of ANILCA. 16 U.S.C. § 3120. **(Comment No. 253-328)**

Response To: Comment 253-328

Section 810(b) of ANILCA states "If the Secretary is required to prepare an Environmental Impact Statement pursuant to section 102(2)(c) of the National Environmental Policy Act, he shall provide notice and hearing and include the findings required by subsection (a) as part of such environmental impact statement." It is because of this policy that EIS analyses and ANILCA 810 evaluations have been historically and inextricably linked. When an EIS is prepared, an ANILCA 810 analysis must accompany the EIS. Therefore, an ANILCA 810 finding was required, pursuant to ANILCA 810(b) and not necessarily NEPA. As a result, just as the EIS/IAP was a draft document, so was the ANILCA Analysis. Section 810(a) of ANILCA states that: "In determining whether to withdraw, reserve, lease or otherwise permit the use, occupancy or disposition of public lands under any provisions of law authorizing such actions, the head of the Federal agency having primary jurisdiction over such lands or his designee shall evaluate the effect of such use, occupancy, or disposition on subsistence uses and needs, the availability of other lands for the purposes sought to be achieved, and other alternatives which reduce or eliminate the use, occupancy, or disposition of public lands for subsistence purposes. No such withdrawal, reservation, lease, permit, or other use, occupancy or disposition of such lands which would significantly restrict subsistence uses shall be affected until the head of such federal agency— (1) gives notice to the appropriate State

agency and the appropriate local committees and regional councils established pursuant to section 805 (2) gives notice of, and holds, a hearing in the vicinity of the area involved; and (3) determines that (A) such a significant restriction of subsistence uses is necessary, consistent with sound management principles for the utilization of the public lands, (B) the proposed activity will involve the minimal mount of public lands necessary to accomplish the purposes of such use, occupancy, or other disposition, and (C) reasonable steps will be taken to minimize adverse impacts upon subsistence uses and resources resulting from such actions." Step (1) has been accomplished, with letters being sent out in December 2002/January 2003 to both the state and the local governments on the North Slope (this letter accompanied the flyers that were sent to various community governments announcing the ANILCA 810 Hearing/Public Meetings). Step (2), the holding of the Hearings, was accomplished in February 2003. All of the information that was collected at the ANILCA 810 Hearings/Public Meetings will be used to craft the final ANILCA 810 analysis, which will also analyze the preferred alternative. The determination of (3), above, could not be accomplished, because the hearings had not occurred. ANILCA 810(b) requires the ANILCA analysis be included in the IAP/EIS. Therefore, if the ANILCA analysis did not accompany the draft document, we would be in violation of ANILCA. It is BLM policy to complete a thorough and exhaustive ANILCA 810 analysis once the preferred alternative has been determined and to include the analysis in the Final IAP/EIS. This analysis includes all decisions required by ANILCA 810(a). During the 30-day review period between publication of the Final document and publication of the Record of Decision (ROD), the document will be available to the public for comment.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

First, as an initial defect the Analysis in Appendix 5 does not discuss how ANILCA 810 interrelates with the Environmental Justice Executive Orders, and the various Environmental Justice discussions in 1 DEIS Sections III and IV do not discuss this either. This failure must be corrected in the revised DEIS and/or FEIS. **(Comment No. 253-334)**

Response To: Comment 253-334

A section pertaining to how the ANILCA 810 corresponds to Environmental Justice statutes will be included in the Final IAP/EIS.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

Fourth, the DEIS makes an inadequate showing on the necessity and minimal land factors. As noted above, once an initial determination is made that subsistence uses may be significantly restricted, as the DEIS Appendix 5 so finds for some of the Alternatives and the Cumulative case, Section 810 requires that the Secretary give notice, hold hearings and make certain findings before the proposed activity can proceed. Specifically, the Secretary must determine that such a restriction is 'necessary and consistent with sound management principles for the utilization of public lands.' The Secretary must further determine that the proposed activity will involve the minimal amount of land necessary and that reasonable steps have been taken to minimize the effects on subsistence uses. Here, the DEIS fails to specify the size, frequency and timing of sales, making such a determination all but impossible. The DEIS does not contain sufficient justification for a conclusion that reasonable mitigation measures would be taken to minimize the effects on subsistence uses. Finally, as previously discussed, the DEIS has completely failed to demonstrate that this particular leasing program is necessary at this time. Thus, as a matter of both NEPA and ANILCA analysis, at the present time there is an insufficient basis for resolving the second tier requirements of ANILCA 810. **(Comment No. 253-338)**

Response To: Comment 253-338

Please see response to comments 253-40 (Legal) and 253-328 (ANILCA).

Comment From: The Kuukpik Corporation (Comment Letter No. 254)

The ANILCA Section 810 Analysis in Appendix 5 reaches a nearly identical finding that 'if development occurs in the insect relief areas of the TLH, significant impacts to the productivity of the herd could result, thus affecting an important subsistence resource." **(Comment No. 254-618)**

Response To: Comment 254-618

The BLM believes that Alternative A is potentially the most disruptive to TLH caribou. The BLM has developed a Preferred Alternative that incorporates greater protection for caribou and provides more mitigation for their protection, as well.

Comment From: The Kuukpik Corporation (Comment Letter No. 254)

BLM's role under ANILCA is to assure that such consequences will not fall on our subsistence lifestyle, so we are a little bothered that the Draft EIS/IAP says that this Alternative's impact will be minor while simultaneously identifying some potentially major, longterm impacts. These conclusions give us little or no confidence that Alternative A will protect subsistence resources and NPR-A communities. Alternative B fundamentally provides no more assurances to subsistence users than Alternative A. **(Comment No. 254-619)**

Response To: Comment 254-619

Please see the response to comment 254-618 (ANILCA).

Comment From: The Kuukpik Corporation (Comment Letter No. 254)

Because its proposed management of the Northwestern NPRA may substantially restrict subsistence use, the BLM has prepared an ANILCA section 810 analysis. This analysis is buried in the appendices to the Draft EIS/IAP. We feel that this should have been provided to the communities in the NPRA separately from the Draft EIS/IAP. Burying this analysis in an appendix to a complex two volume, several thousand page Draft EIS/IAP is not the way to get the word out to the North Slope's NPRA communities that their interests may be in jeopardy. **(Comment No. 254-668)**

Response To: Comment 254-668

Section 810(b) of ANILCA states "If the Secretary is required to prepare an Environmental Impact Statement pursuant to section 102(2)(c) of the National Environmental Policy Act, he shall provide notice and hearing and include the findings required by subsection (a) as part of such environmental impact statement." It is because of this policy that EIS analyses and ANILCA 810 evaluations have been historically and inextricably linked. Indeed, every EIS that has been produced in Alaska since 1985 contains an appendix that is the ANILCA 810 analysis. The ANILCA 810 analysis is included in Volume II of the IAP/EIS in Appendix 5: ANILCA Section 810 Analysis of Subsistence Impacts. Information on which the 810 evaluation is based must also be included as part of the environmental impact statement. Please see the response to comments 254-669 and 254-671 regarding comments made by local communities and tribal governments on the final ANILCA 810 Evaluation.

Comment From: The Kuukpik Corporation (Comment Letter No. 254)

Opportunity to comment (written and oral) on the Section 810 ANLICA analysis has been combined with public comment on the Draft EIS/IAP. This does not solicit meaningful comments from North Slope residents. This is especially true in a region where, for many adult residents, English is a second language. ANILCA and the National Environmental Policy Act ('NEPA') require different analysis. NEPA focuses on consideration of alternatives and the affected environment, but the impact to subsistence is only a small part of a much larger overall analysis. ANILCA section 810 requires an evaluation focusing on and limited to the effects on subsistence, the alternatives to the impacts on subsistence, and the reasonable steps necessary to minimize any such effect. Frankly, marrying the analysis of alternatives required in NEPA with the analysis of impacts to subsistence under ANILCA only muddies the waters and distracts attention from the Section 810 analysis. As a matter of policy and fairness, analysis and public comment on the Section 810 analysis needs to be separated from the NEPA EIS process. Subsistence rights and access are complex issues on the North Slope, issues that have remained unsolved by the State of Alaska for years. Adding several layers of hypothetical development scenarios on top of the enormous documentation and complexity of the EIS analysis is patently unhelpful and deprives subsistence communities of the ability to comment effectively. Those of us who are even aware of the existance of BLM's ANILCA Section 810 analysis are unable to effectively comment on it because it is not an analysis of how the BLM will actually manage the Northwestern NPRA planning area. We are left to discuss among ourselves and representatives from other Villages an analysis that is based on abstract alternatives, none of which are likely to reflect the way that the Northwest NPR-A Planning Area will be managed. Nor is it clear that we will get an opportunity in the future to comment on BLM's Section 810 findings or if BLM intends to consider this the required public process, then make the Section 810 findings without ever giving the affected Inupiaq the opportunity to review and comment on the specific findings before they become final and BLM considers the process completed. BLM has reserved from the present Section 810 analysis its determination of three critical factors factors that are preconditions for compliance. Under Section 810(a)(3), BLM must (1) determine whether restrictions on subsistence are necessary, consistent with sound managment, (2) whether the proposed activity will involve the minimal amount of public lands necessary, and (3) whether reasonable steps will be taken to minimize adverse impacts upon subsistence uses and resources. This is, of course, the heart of the whole discussion, but BLM has not yet given the public its analysis of those factors, but has simply pursued the separate notice and hearing portions of the requirements, thus raising the spectre that the only notice and public hearing may come at a point when no member of the public has BLM's analysis of the critical factors. The Draft EIS/IAP is silent on whether there will be an opportunity to review and comment on BLM's proposed findings and analysis on these three critical factors before BLM' s actual Section 810 conclusions are reached. Due to its failure to adequately notify and involve the affected communities of its ANILCA Section 810 analysis and the infirmity of conducting such an analysis based on abstract NEPA alternatives which are probably not representative of the management plan that will be adopted, we feel that the BLM should do a separate ANILCA 810 analysis once it reaches a decision on how it will manage the Northwest NPR-A. This is the only real way to incorporate Inupiaq input into the determination of what impacts the management of the Northwest NPR-A will have on subsistence, whether this management is consistent with sound management practices, and what steps should be taken to minimize impacts to subsistence. **(Comment No. 254-669)**

Response To: Comment 254-669

The meetings that were held after the release of the Draft IAP/EIS this past spring were two types: 1) Public Meetings, and 2) joint ANILCA 810 Subsistence Hearing/Public Meetings. Every meeting that was held on the North Slope (in the communities of Point Lay, Wainwright, Atqasuk, Anaktuvuk Pass, Nuiqsut, and Barrow) was an ANILCA 810 Subsistence Hearing/Public Meeting. The hearing officer at all of these meetings was Arnold Brower, Jr. (who also provided translation). Flyers, radio announcements, and letters sent to the various communities specified that the meetings were combined ANILCA 810 Subsistence Hearings/Public Meetings. At each hearing/meeting, BLM gave a PowerPoint presentation explaining that the meeting was an ANILCA 810 Subsistence Hearing/Public Meeting. Additionally, and as required by policy, the hearing officer read a statement before he began to take public comments in which it was stated that the purpose of the hearing was in response to the ANILCA 810 evaluation, but if anyone wanted to comment on other aspects of the plan, they could do so. The decision to combine the ANILCA 810 hearings with a joint public meeting was made for several reasons: 1. Most

communities on the North Slope have commented that they are experiencing "meeting burnout" in that too many meetings occur, and it is difficult to discern what information is actively being solicited at each. It was felt that if we had two separate meetings, one ANILCA 810 hearing, and one public meeting about the draft NW NPR-A Plan, that the same information, concerns, and issues would be identified at each, and we would be contributing to this burnout. 2. Precedent had been set, in that during the public meetings for the NE NPR-A, the ANILCA 810 hearing occurred simultaneously. Therefore, the decision of the planners to hold a joint Public Meeting/ANILCA 810 hearing was viewed as acceptable, since it had occurred before on the North Slope with no complaint. 3. ANILCA 810 provides that the notice, hearings, and findings required by that statute be presented as part of the EIS.

Comment From: The Kuukpik Corporation (Comment Letter No. 254)

We would ask that the final EIS/IAP specifically state that there will be an opportunity to so review and comment on BLM' s proposed findings on these three critica factors under the Section 810 analysis, as we do not believe any other procedure would comply with the purposes and language of Section 810. This opportunity is critical because, as this letter demonstrates, the Alternatives in the Draft EIS/IAP do not incorporate all of the reasonable steps that will minimize impacts to subsistence. **(Comment No. 254-671)**

Response To: Comment 254-671

When an EIS is prepared, an ANILCA 810 analysis must accompany the EIS. Therefore, an ANILCA 810 finding was required, pursuant to ANILCA 810(b) and not necessarily NEPA. As a result, just as the EIS/IAP was a draft document, so was the ANILCA Analysis. Section 810(a) of ANILCA states that: "In determining whether to withdraw, reserve, lease or otherwise permit the use, occupancy or disposition of public lands under any provisions of law authorizing such actions, the head of the Federal agency having primary jurisdiction over such lands or his designee shall evaluate the effect of such use, occupancy, or disposition on subsistence uses and needs, the availability of other lands for the purposes sought to be achieved, and other alternatives which reduce or eliminate the use, occupancy, or disposition of public lands for subsistence purposes. No such withdrawal, reservation, lease, permit, or other use, occupancy or disposition of such lands which would significantly restrict subsistence uses shall be effected until the head of such federal agency— (1) gives notice to the appropriate State agency and the appropriate local committees and regional councils established pursuant to section 805 (2) gives notice of, and holds, a hearing in the vicinity of the area involved; and (3) determines that (A) such a significant restriction of subsistence uses is necessary, consistent with sound management principles for the utilization of the public lands, (B) the proposed activity will involve the minimal amount of public lands necessary to accomplish the purposes of such use, occupancy, or other disposition, and (C) reasonable steps will be taken to minimize adverse impacts upon subsistence uses and resources resulting from such actions." Step (1) has been accomplished, with letters being sent out in December 2002/January 2003 to both the state and the local governments on the North Slope (this letter accompanied the flyers that were sent to various community governments announcing the ANILCA 810 Hearing/Public Meetings). Step (2), the holding of the Hearings was accomplished in February 2003. All of the information that was collected at the ANILCA 810 Hearings/Public Meetings will be used to craft the final ANILCA 810 analysis, which will also analyze the preferred alternative. The determination of (3), above, could not be accomplished, because the hearings had not occurred and a Preferred Alternative had not yet been selected. ANILCA 810(b) requires the ANILCA analysis be included in the IAP/EIS. Therefore, if the ANILCA analysis did not accompany the draft document, we would be in violation of ANILCA. It is BLM policy to complete a thorough and exhaustive ANILCA 810 analysis once the preferred alternative has been determined and to include the analysis and findings in the Final IAP/EIS. This analysis includes all findings required by ANILCA 810(a). During the 30-day review period between publication of the Final document and publication of the Record of Decision (ROD), the document will be available to the public for further comment.

Comment From: City and Native Village of Nuiqsut (Comment Letter No. 80026)

NPR-A IAP/EIS and ANILCA 810(a): The complex issues brought about by the need for subsistence determinations under ANILCA 810(a) are very difficult for our community to grapple with at the same time as dealing with the stipulations and issues with the NPR-A IAP EIS. The ANILCA 810(a) issue is very technical and should be the subject of a process separate from the Northwest NPR-A IAP/EIS as much as possible, and the subject of at least one additional separate public hearing in our community. **(Comment No. 80026-1018)**

Response To: Comment 80026-1018

Please see responses to comments 253-328 (Criterial for Range of Alternatives), 254-668 (ANILCA), and 80077-946 (Government-to-Government). See also the General Lease Stipulations and Required Operating Procedures for the Preferred Alternative, specifically Required Operating Procedures H-1 and H-2.

Comment From: Public Meeting on DEIS - Wainwright, Alaska (Comment Letter No. 80079)

HEARING OFFICER BROWER: There's a provision in ANILCA that would protect all of the subsistence. They would have to go around it. (In Native) **(Comment No. 80079-987)**

Response To: Comment 80079-987

The BLM depends on its Subsistence Advisory Panel to help bring local issues to our attention.

43. TOPIC : ENVIRONMENTAL JUSTICE

Comment From: U. S. Evironmental Protection Agency (Comment Letter No. 261)

While the draft IAP/EIS clearly reflects efforts taken to achieve meaningful public participation during the scoping process, the section which addresses Environmental Justice does not provide the public and decision maker with a clear understanding of the efforts taken to: 1. identify low income and people of color communities that will be impacted by the project; 2. identify whether the impacts of this project will be disproportionate on low income and/or people of color communities; and 3. describe the efforts that were taken to inform the communities about the impacts, what was heard from the community about the project, and how what was heard, was (or will be) incorporated into the decisions that were made about the project. Documentation of such efforts and analysis is needed to determine if federal Environmental Justice (EJ) requirements have been met. EPA recommends that the final IAP/EIS provides the detailed discussion on the criteria used in developing the EJ analyses for the final IAP/EIS. For your information, EPA's National Guidance for Conducting Environmental Justice Analyses (1998 Peer Review Version) contains recommended methodologies for conducting EJ analyses that may prove useful in the further development of the final IAP/EIS. This guidance (henceforth referred to as EPA's EJ Guidance) also provides the basis for our review of the EJ analyses presented in the draft IAP/EIS. We would be happy to provide a copy of this guidance document upon request. **(Comment No. 261-99)**

Response To: Comment 261-99

The BLM believes that the explanation in Section IV.C.16. Environmental Justice adequately details the criteria used to identify low income and people of color communities that potentially could be impacted by the project. This section, as well as Sections IV.D.16, IV.E.16, and IV.F.8.p, also clearly identifies any potential disproportionate impacts from activities in the Northwest NPR-A on low income and people of color

communities. This approach is in keeping with Executive Order 12898 for Environmental Justice, and with the latest Council on Environmental Quality and current EPA guidance for assessing disproportionate impacts on low income, minority populations. The EPA's new draft guidelines have never been finalized and have not been circulated, reviewed, and adopted by agencies other than EPA. Meaningful public participation by potentially affected low income, minority communities is discussed in detail in Section III.C.5 Environmental Justice and again in Section IV.C.16. Because the IAP/EIS is not a decision document and must be completed before a decision is made, it cannot reflect final decisions made about the leasing process or how community input affected that decision. Community input was considered in development of the Preferred Alternative. Please see Section VI.D of the IAP/EIS.

Comment From: U. S. Evironmental Protection Agency (Comment Letter No. 261)

While the draft IAP/EIS indicates that the population within the planning area is "homogeneous,"the final IAP/EIS should present the source(s) of information that form the basis for such a statement. As presently written, the draft IAP/EIS does not present this information. The draft IAP/EIS also uses 1993 average household income data for the State of Alaska to begin analysis of income, yet provides no discussion of why these data (now 10 years old) are still applicable and appropriate for use in the EJ analysis. The reasoning for use of these data, particularly when 2000 Census data are readily available, should be included in the final IAP/EIS. Income data must also be specific to the communities in the planning area. **(Comment No. 261-112)**

Response To: Comment 261-112

The BLM believes that the discussion provides adequate context for the population being characterized as "homogeneous." The 1993 income data are used to indicate the trend in the amount household and per capita incomes from then until 1999 (an increase). Borough data for 1999 and 2000 Census data are also cited in the text.

Comment From: Public Meeting on DEIS - Atqasuk, Alaska (Comment Letter No. 80074)

And that paragraph, I humbly request the Environmental Justice Order 12898 dated February 11, 1994, by President Clinton to be inserted in the final decision for Northwest EIS. Further executive summary indicated under subsistence activities, particularly hunting and fishing in the planning area are exceedingly important to the Native people of the Alaska North Slope and are vital toward the survival of an indigenous tribal existence. The Executive Order, I repeat Executive Order 12898 charges to identify subsistence consumption of our Inupiat nation. **(Comment No. 80074-887)**

Response To: Comment 80074-887

The BLM acknowledges the great importance of the Planning Area to Inupiat subsistence hunting and fishing and the importance of these subsistence activities to "the survival of an indigenous tribal existence." The BLM will include the text of Executive Order 12898 on Environmental Justice in the text of the Final EIA/IAP, and, if legal protocol allows, in the Record of Decision.

44. TOPIC : SUBSISTENCE

Comment From: U. S. Evironmental Protection Agency (Comment Letter No. 261)

Section II. D. of the draft IAP/EIS indicates that Alternatives A, B or C would all have high, disproportionate impacts on subsistence users in the project area. Although the draft IAP/EIS indicates that, for the most part, impacts would be short-term, minor or negligible in the general analysis, we have concerns that impacts ranging from one season to five years on a subsistence resource may not be 'minor' or 'negligible,' especially when that resource constitutes 50-80% of subsistence food supplies. **(Comment No. 261-107)**

Response To: Comment 261-107

The subsistence-harvest patterns and Environmental Justice analyses for Alternatives A through C do not say that impacts ranging from one to five seasons on a subsistence resource would be considered "minor" or "negligible." For Alternatives A and B, the text states that if development occurred in critical insect-relief areas, the Teshekpuk Lake Caribou Herd could experience long-term population and productivity effects—up to 5 years or longer. Because many critical habitats and harvest areas would be unavailable for leasing under Alternative C, potential population and productivity effects on the Teshekpuk Lake Caribou Herd would not be expected.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

The level to which subsistence resources will be degraded by oil and gas exploration and development is inextricably linked to the impact these activities will have on fish and wildlife resources both throughout the planning area and at sites specifically used for subsistence. As discussed previously, the DEIS fails to adequately assess the impact of oil and gas exploration and development on these resources, and on subsistence usage, on a site-specific basis. This failure to adequately disclose and analyze impacts to subsistence on a site-specific basis also violates NEPA. An adequate assessment of impacts would likely conclude that proposed activities under all Alternatives that allow any exploration (including seismic exploration allowed under one version of the No Action alternative) or development activities will, in fact, significantly restrict subsistence uses without regard to the cumulative case. In addition, given the uncertainty of information available concerning impacts on many wildlife species, BLM simply cannot justify any conclusion other than that a significant restriction may occur under each exploration and development **(Comment No. 253-336)**

Response To: Comment 253-336

Please see response to comment 253-328 (ANILCA).

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

53 Third, the Analysis does not discuss the Naval Petroleum Reserves Production Act (NPRPA). The NPRPA requires the Secretary of the Interior to give 'maximum protection' to 'any significant subsistence ... fish and wildlife ... values.' 42 U.S.C. § 6504(b). The House Report accompanying passage of NPRPA says that the statute requires that the 'Secretary of the Interior should take steps to minimize any adverse effects on native subsistence requirements and associated fish and wildlife values", and suggests scheduling of exploration activities as one way to reduce such impacts. U.S. House of Representatives, Interior and Insular Affairs Committee, House Report No. 94-81, Part I, p. 21 (March 18 and April 22, 1975), to accompany H.R. 49. The NPRPA, therefore, provides an independent basis for requiring the Secretary to chose an alternative, and mitigation measures, that satisfy any legitimate NPRPA oil and gas leasing objectives but which offers the maximum protection possible to subsistence resources. The ANILCA 810 discussion does not take into account the Secretary's NPRPA additional obligations concerning subsistence. **(Comment No. 253-337)**

Response To: Comment 253-337

A section pertaining to how the ANILCA 810 corresponds to the Naval Petroleum Reserves Production Act will be included in the Final IAP/EIS.

Comment From: Public Meeting on DEIS - Barrow, Alaska (Comment Letter No. 80075)

I also participated in the planning process of the Northeast Section of NPR-A. My general feeling about the two is that in the Northeast area there were very important wildlife issues because of the critical calving and insect relief areas for the Teshekpuk Herd and waterfowl molting and nesting areas. In the Northwest area there are wildlife issues but the major issue here is impact to the people that live here. Most of the residents of the North Slope live, hunt and camp in the Northwest region, so there is potential to impact more people. Because of this potential impact, the first thing I would like to request is enough time for us to have a town meeting and assistance from BLM to have a subsistence workshop to discuss how local people want to deal with potential impacts. The public process has been very rushed and I don't think most people really understand the implications of this new stage of development. During the planning process for the northeast region, we had a subsistence workshop in Nuiqsut and it gave us a good opportunity to discuss mitigation measures. It would be very useful if we could have a well-attended workshop in Barrow where people could discuss various options for how to minimize the impact of exploration and development on hunting and fishing camps and wildlife resources. It seems like we still have time before March 18th to have a town meeting and workshop and submit the recommendations that come from it. **(Comment No. 80075-412)**

Response To: Comment 80075-412

As requested at the Barrow Hearing, a Barrow community workshop was held on March 7, 2003. The meeting was organized jointly by the North Slope Borough, City of Barrow, Native Village of Barrow, and the Inupiat Community of the Arctic Slope. Staff from the Bureau of Land Management attended the meeting and provided a briefing for participants. Staff also made themselves available as the meeting progressed to answer questions or provide clarification when questions arose. With regard to scheduling a subsistence workshop similar to the meeting held in Nuiqsut for the Northeast NPR-A planning process, the information developed at that meeting was utilized during the scoping process. One of the recommendations adopted at the Nuiqsut meeting was the establishment of a NPR-A Subsistence Advisory Panel. Consequently, during scoping for the Northwest NPR-A plan, a subsistence workshop was conducted in Barrow in conjunction with a scheduled NPR-A Subsistence Advisory Panel meeting. Specific issues concerning access, cabins, and wilderness were posed to the panel and the audience. Information was recorded and made part of the scoping process.

Comment From: Public Meeting on DEIS - Barrow, Alaska (Comment Letter No. 80075)

Even though I know that it is legal, you know, from going to public meetings and stuff that it's legal for people to hunt within industrial activity and industry says that they're going to ensure that people could hunt and do what they normally do or have done in the past. But the big thing is that people aren't going to want to go there. If there is a pad there with a -- I'm not sure what the terminology is but if industry is there I'm not going to want to go there. I'm going to want to go someplace to camp or to hunt. So subsistence activity hunting patterns that have been traditional for a long time where people go, where families go like my family, may change. And I think it's the responsibility of BLM as well as industry to deal with this issue and to come up front with it because I don't want this to happen to our people. Pretty soon there's not going to be no place else to go. **(Comment No. 80075-507)**

Response To: Comment 80075-507

Please see the response to comment 254-612 (Subsistence).

Comment From: Public Meeting on DEIS - Barrow, Alaska (Comment Letter No. 80075)

And then the implications on subsistence hunter during, right now, there is a horrific impact going on to the hunters in so much that they are suspended from that area because of the seismic and that's the same impacts that is going to be associated in an area in the high use -- in the high area where you plan to have the most -- where we expect the most lease sales in the map on the right-hand, that has the low, high and moderate areas. The high area has to be the concentrate of the most likelihood of impacts and therefore when you impact a subsistence hunter that's gone on a small boat, you have created some liability for that man's life, for the family's life. Those are not taken into consideration. **(Comment No. 80075-511)**

Response To: Comment 80075-511

Please see the responses to comments 254-612 (Subsistence) and 80075-508 (Stipulations, Required Operating Procedures, and Mitigations).

Comment From: American Society of Mammologists (Comment Letter No. 249)

Further, the alteration of migration route in bowheads has negatively impacted the native Inupiat, whose culture depends on whale hunting. Instead of boating 1-2 miles out on the Arctic Ocean to hunt bowheads, the Inupiat are forced to travel 30 or more miles out on the Arctic Ocean to find bowheads, which can lead to increased mortality rates in the hunters. This factor must also be considered. **(Comment No. 249-523)**

Response To: Comment 249-523

For effects on bowhead whales, see Section IV.C.11.b.(1). This section states that "...only under exceptional circumstances—when whales migrate near the coast coincident with the presence of barge traffic, or possibly air traffic to supply a shoreline camp or aerial surveys along barrier islands or offshore areas—is it likely bowheads would be disturbed by activities associated with the management plan...effects from such exposure are likely to be negligible." As to negative impacts on Native subsistence whaling due to alteration in the bowhead migration route, no citation is offered by the commenter and no corresponding text is presented in Orians et al., 2003. Bowhead whale quotas have been consistently met for the last 15 years, and Inupiat have only rarely been forced to travel 30 miles or more. There is no existing evidence to suggest this effort has led to increased whaler mortality. More specifically, as Northwest NPR-A development would concentrate onshore and bowhead whale migration is typically well offshore, it is unlikely that whales would experience intense or even frequent disturbance from noise originating from Northwest NPR-A activities (see Sec. IV.C.14.b.(1) Effects on Subsistence-Harvest Patterns). In the longer term, Section IV.F.8.n., Cumulative Effects on Subsistence-Harvest Patterns states: "Limited monitoring data prevent effective assessment of cumulative subsistence-resource damage; resource displacement; changes in hunter access to resources; increased competition; contamination levels in subsistence resources; harvest reductions; and increased effort, risk, and cost to hunters. Effects cannot be properly projected without monitoring harvest patterns and the effectiveness of mitigating measures, and any effective monitoring regime must include serious attention to traditional Inupiat knowledge of subsistence resources and practices. Development already has caused increased regulation of subsistence hunting, reduced access to hunting and fishing areas, altered habitat, and intensified competition from nonsubsistence hunters for fish and wildlife (Haynes and Pedersen, 1989)." Orians et al. (2003) concurs with this lack of baseline information. The USDOI Minerals Management Service has begun the study "Quantitative Description of Potential Impacts of OCS Activities on Bowhead Whale Hunting and Subsistence Activities in the Beaufort Sea" to address just these issues.

Comment From: The North Slope Borough (Comment Letter No. 80065)

It is not our intention to allow permanent surface facilities in the entire planning area. In certain limited areas, we do not believe that such facilities and their associated activities can be made compatible with critical resource concentrations or subsistence uses. **(Comment No. 80065-571)**

Response To: Comment 80065-571

The BLM agrees that in certain critical habitat and harvest areas permanent surface facilities would never be compatible. With this in mind, BLM developed a Preferred Alternative that gives greater protection to critical areas for caribou and marine mammals. Given the present agency policies on oil development, it is difficult to guarantee the permanence of restrictions of any kind.

Comment From: The North Slope Borough (Comment Letter No. 80065)

This section states that 'seismic activities, overland moves, and exploratory drilling all occur during the winter when the ground is frozen and snow-covered and many species have migrated out of the area. These activities can briefly impact the species that remain through the winter.' It must be emphasized that the fall and winter represent a time when fish and wildlife resources are available to subsistence users beyond the coast and rivers that generally provide access in the summer. This expanded range of subsistence activities allows the harvest of ungulates and furbearers over a wider range than in the summer. The potential for industry and hunter contact and disruption of subsistence activities is therefore in some areas more likely in the winter. It is also likely that in the winter, wildlife resources are more vulnerable to natural environmental stresses. Many experience limited forage and thermoregulatory challenges, including severe cold, high winds, compacted snow and ice cover. The effect of addition stresses resulting from industrial activities may be more pronounced during this time. **(Comment No. 80065-584)**

Response To: Comment 80065-584

The text in the Executive Summary and in the effects discussions for the No Action Alternative (Sec.IV.B.14.b(2)), Alternative A (Sec.IV.C.14.a.), and Alternative B (Sec.IV.D.14.a) has been changed to include additional potential winter impacts to ungulates and furbearers from seismic activities.

Comment From: The North Slope Borough (Comment Letter No. 80065)

It is said that 'Alternative A will have the greatest impact primarily because it would likely lead to the most seismic surveys, exploratory drilling, and development', and the conclusion is reached that 'impacts to subsistence and recreation generally are classified as no more than minor.' It is unclear how such a conclusion can be reached if exploration and development are permitted in the entire planning area, including areas containing concentrations of subsistence cabins, camps, and use sites. As evidenced by the experience of our village of Nuiqsut, industrialization clearly displaces subsistence users from traditional use areas even if no legal impediments to access are imposed. Most subsistence use areas are concentrated along the seacoast, rivers, and lakes. Permitting development to occur in these areas would create a likelihood that large numbers of subsistence users would be displaced from traditional use sites, including cabins and campsites, which in some cases have been utilized for many generations. Such displacement would certainly constitute a far greater than minor impact. **(Comment No. 80065-586)**

Response To: Comment 80065-586

The statement that effects on subsistence resources and harvests would be no more than minor is based on the premise that exploration and development would not be permitted in the entire Planning Area. If exploration and development occurred in caribou insect-relief areas, effects are expected to increase to moderate or high levels. Stipulations prevent exploration and development from impacting subsistence cabins, camps, and use sites and provide setbacks along rivers and lakes. The Preferred Alternative defers exploration and development in Kasegaluk Lagoon and Peard Bay, and establishes restrictions on oil and gas activities in Dease Inlet, Admiralty Bay, and other coastal areas, thus reducing potential displacement of hunters from their traditional use sites. The text in Sections IV.C.14.d and IV.C.14.f and IV.D.14.d and IV.D.14.f has been changed to indicate potential impacts to subsistence cabins, camps, and traditional use sites.

Comment From: The North Slope Borough (Comment Letter No. 80065)

At the end of the summary of cumulative effects on Page Summary-v, it is stated that 'access to subsistence-hunting areas and subsistence resources, and the use of subsistence resources could change if oil development reduces the availability of subsistence resources or alters their distribution patterns.' The certainty of displacement under those circumstances must be clearly indicated in the document. **(Comment No. 80065-587)**

Response To: Comment 80065-587

The text has been revised in the Executive Summary and Section IV.F.8.n. to stress the certainty of displacement under the circumstances described.

Comment From: The North Slope Borough (Comment Letter No. 80065)

We do not agree that non-oil and gas activities will result in 'little net change' to community activities and subsistence hunting. We say this because such effects have been noted already in at least the three communities of Kaktovik, Nuiqsut and Barrow. Aerial surveys by fixed wing aircraft and helicopters have disturbed subsistence hunting. This section should cite interviews with subsistence hunters that have described such effects. In Kaktovik, hunters have noted that biological research was one of the most disruptive activities within the Arctic National Wildlife Refuge during a period of intensive research by the U.S. Fish and Wildlife Service in the 1980s and 1990s. **(Comment No. 80065-590)**

Response To: Comment 80065-590

The BLM analysts have read many scoping and public meeting transcripts over the years, and we are unaware of the body of comments that describe impacts on subsistence hunting in Nuiqsut and Barrow from fixed wing aircraft and helicopter aerial surveys. We are aware of the problems in Nuiqsut from increased flights by industry aircraft to and from the Alpine development. We have noted hunter concerns in Kaktovik from U.S. Fish and Wildlife biological research aircraft, but Kaktovik is too distant to experience effects from aerial surveys or potential exploration and development overflights from the NPR-A. The BLM would ask the commenter to provide BLM with the sources for these interviews with Barrow and Nuiqsut hunters where they describe impacts on subsistence from aircraft so this information can be included in future EIS analyses.

Comment From: The Kuukpik Corporation (Comment Letter No. 254)

Ultimately, the need for subsistence protections in Northwest NPR-A is only going to grow. As indicated in the increasing population figures in the Draft EIS/IAP, populations in the affected communities are rising, which increases demand on the subsistence resources.12 In addition, development is squeezing the Kuukpikmiut out of portions of our traditional subsistence range, which will force us west into the Northwest NPR-A. There has been substantial evidence, including that set out in our March 6, 2002 comment letter on the first two Alpine satellites ("March 6, 2002 EA Letter)13, that Nuiqsut subsistence users have been treating areas around the Alpine pipeline and other facilities as off limits to subsistence uses, probably as a result of past run ins with oil field security personnel at Prudhoe Bay and Kuparuk.14 pp. 17-18, 25. There have been no studies examining either the size of the areas Curtis Wilson April 2, 2003 Page 7 of 25 that have thus effectively been excluded from the Kuukpikmiut' s subsistence range or the impacts of the increased concentration of uses in the remaining areas. How big an area is being avoided' What does this do to the economics of subsistence, such as to the out-of pocket costs of fuel and outboard and snowmachine maintenance, especially if we are forced into travelling the longer distances from Nuiqsut into Northwest NPR-A' If the 5 proposed Alpine Satellites are constructed, how much more of our traditional subsistence range will be effectively eliminated' If even half of the other 10 possible Alpine Satellites which BLM has identified in the Alpine Satellite Development Plan are eventually constructed, there will be even more impacts.15 Based on the direct experience that we have had with the oil industry on Kuukpik-owned land and on lands within our traditional subsistence range, we want more established rules and more protections included as terms within leases, not less.16 **(Comment No. 254-612)**

Response To: Comment 254-612

The BLM acknowledges the need for additional subsistence protections in the Northwest NPR-A. To this end BLM formed the Subsistence Advisory Panel (SAP) and the Research and Monitoring Team (RMT) as part of the mitigation protocol for Northeast NPR-A leasing and exploration. The SAP is made up of area-wide members from local subsistence communities who report subsistence issues to BLM. Under a RMT study mandate, BLM held a North Slope Subsistence Impact Monitoring Program Workshop in Barrow in April 2003 with the intention of establishing and funding a cooperative monitoring program that would address local subsistence concerns slope-wide. These issues and concerns would be reported to BLM for action. See response to comment 80077-946 (Government to Government)for a discussion of the developing North Slope Science Strategy--a BLM research initiative that has superceded the RMT. One issue to be addressed by this program will be areas rendered off limits by exploration and development activities, especially by security personnel. The issue of potential conflicts between subsistence activities and security needs continues to exist. ROP H-1 in the Preferred Alternative outlines a procedure to address these potential conflicts. The MMS studies "Quantitative Description of Potential Impacts of OCS Activities on Bowhead Whale Hunting and Subsistence Activities in the Beaufort Sea," and "Subsistence Mapping of Nuiqsut, Kaktovik, and Barrow: Past and Present Comparisons" will address reductions in subsistence harvest areas, overconcentration in remaining harvest areas, and the changes in subsistence costs due to changes in areas. The BLM welcomes Kuukpik to submit written suggestions for further mitgation and protections that it believes should be attached to the terms of leasing.

Comment From: The Kuukpik Corporation (Comment Letter No. 254)

Draft EIS/IAP p. IV.458 (Emphasis supplied.) A similar dire sounding conclusion is reached on the cumulative sociocultural impacts if alternative A is adopted. Draft EIS/IAP IV-462 says: Because of the primary dependence of Point Lay, Wainwright, Barrow, Atqasuk, and Nuiqsut on the subsistence caribou harvest from the CAH, TLH, and WAH caribou, cumulative effects could potentially chronically disrupt sociocultural systems in the community for a period longer than 5 years - a significant effect. Effects from industrial activities, changes in population and employment, and the accompanying changes in subsistence-harvest patterns, social bonds, and cultural values would be expected to disrupt community activities and traditional practices for harvesting, sharing, and processing subsistence resources, but they would not be expected to displace sociocultural institutions, social organization, or sociocultural systems. This conclusion is not internally consistent. How could chronic disruption of the caribou herds not displace our sociocultural systems' **(Comment No. 254-617)**

Response To: Comment 254-617

The distinction being made here is between the "disruption" of sociocultural institutions, organizations, and practices and the "displacement" (or "replacement") of sociocultural institutions, organizations, and practices. The BLM believes that effects on caribou lasting 5 years or longer would produce a significant effect on sociocultural systems, but we do not believe that the practice of caribou hunting would be displaced or replaced. It would remain an important subsistence activity.

Comment From: The Kuukpik Corporation (Comment Letter No. 254)

Roads create easy avenues that can be used by outsiders who are not North Slope residents to compete with North Slope residents for caribou and other resources. To the extent that roads are permitted, BLM should prohibit a permanent road in the Northwest NPRA planning area from connecting with a road system or dock outside the Planning Area unless the local communities are in favor of it. More may be needed to protect local subsistence users from outside competition. If a road in the NPR-A is connected to a commercial airport, it would be fairly easy for Anchorage or Fairbanks sport hunters to access caribou in the NPRA by catching a commercial flight to Barrow and then renting or borrowing a highway vehicle. For this reason we ask that the BLM seriously consider whether protection of subsistence resources also requires that no permanent road in the Northwestern planning area connect to a commercial airport (although we recognize local communities may value access for themselves over impacts from access by other). Competition for subsistence resources can also come from the oil and gas workers temporarily brought to the North Slope to work. The BLM should adopt a stipulation prohibiting hunting and trapping by a lessee's employee, agents and contractors while on work status. This is standard oil industry practise across the North Slope, but it would be preferable to have it clearly stated in the leases. **(Comment No. 254-633)**

Response To: Comment 254-633

If roads are constructed for Northwest NPR-A activities, BLM's intent is that they will not connect with commercial airports or be open to public travel. These restrictions would prevent sport hunters from urban Alaskan areas from competing with local subsistence hunters.

Comment From: The Kuukpik Corporation (Comment Letter No. 254)

The Kuukpikmiut have already been cut off from approximately a third of our traditional subsistence hunting range by the closure of the Prudhoe Bay area to hunting and by our interactions with security guards at Kuparuk.52 Having lost so much already, we do not want to also lose any more of our traditional subsistence range to the oil industry. The impact of oil and gas infrastructure on subsistence hunting is not limited to restrictions on access. As noted above and as recognized by Phillips, Nuiqsut residents avoid oil facilities even where hunting is permitted. As facilities and infrastructure spread West from Kuparuk and Alpine into NPR-A, they will occupy areas used by more and more North Slope residents in Atkasuq, Barrow and Wainwright. The same avoidance mechanism that Nuiqsut has experienced will start reducing the subsistence ranges of those communities by far more than the footprint and legal buffer around the facilities. These impacts need to be taken into account in any cumulative impacts analysis, as well as in designing stipulations for subsistence protection. Facilities in the Northwest Planning Area will be among the greatest concentration of communities on the North Slope. Simply put, stipulations must build in buffers keeping oil facilities away from areas of high subsistence use (which may not be coterminous with the areas of high resource value, which should also have such buffers). **(Comment No. 254-635)**

Response To: Comment 254-635

Please see the responses to comments 254-612 and 249-523 (both in Subsistence).

Comment From: The Kuukpik Corporation (Comment Letter No. 254)

The Draft EIS/IAP notes that Nuiqsut residents have testified in the past that development in Prudhoe Bay and Kuparuk has already cut them off from a third of their traditional subsistence hunting range. Draft EIS/IAP p. IV.212. The lack of a stipulation guaranteeing subsistence users access to areas occupied by industry indicates to us that the BLM does a good job recording our concerns but a poor job addressing them. **(Comment No. 254-1009)**

Response To: Comment 254-1009

The BLM has considered your comment in developing the Preferred Alternative, see Section H "Subsistence Consultation for Permitted Activities" of the General Lease Stipulations and Required Operating Procedures.

Comment From: Olgoonik Corporation (Comment Letter No. 169)

The subsistence maps that are not in the draft should be updated as well as the cabins, campsites and designated historical sites. **(Comment No. 169-711)**

Response To: Comment 169-711

The subsistence harvest areas and the cabins, campsites, and historical sites on the maps in the draft EIS represent the best available information from the North Slope Borough, the ADF&G, and the recent subsistence report Passing on the Knowledge: Mapping Human Ecology in Wainwright, Alaska (Kassam, 2001). The BLM would appreciate any further map updates the community could provide.

Comment From: Paul Hugo (Comment Letter No. 187)

It is important that you are aware that we are directly affected, since this is our food. We all hunt them during both migration, storing the meat for winter and drying them during the fall season, as in the spring migration we again store and dry the meat for the summer season. **(Comment No. 187-963)**

Response To: Comment 187-963

The BLM is aware of concerns about potential effects on subsistence activities. The IAP/EIS evaluates potential impacts to subsistence resources, subsistence-harvest patterns, and sociocultural systems (see Section IV.B for the No Action Alternative analyses, Section IV.C for the Alternative A analyses, Section IV.D for the Alternative B analyses, Section IV.E for the Alternative C analyses, Section V for the Preferred Alternative analyses, and Section IV.F for the cumulative analyses). Additional measures to mitigate impacts to subsistence activities were developed for the Preferred Alternative.

Comment From: Public Meeting on DEIS - Wainwright, Alaska (Comment Letter No. 80079)

MR. BODFISH: My name is Homer Bodfish from Wainwright. I'm a tribal member of Wainwright. Here, I've got evidence of a book that you should know Passing the Knowledge, Mapping Human Ecology in Wainwright, Alaska. Plus we got a whole bunch of people that make this book a couple years ago. If you want to see it it's been in BLM. **(Comment No. 80079-985)**

Response To: Comment 80079-985

The BLM is aware of the report "Passing on the Knowledge. Mapping Human Ecology in Wainwright Alaska" by Kassam, K. and the Wainwright Traditional Council. It was been cited numerous times in the Subsistence-Harvest Patterns discussions in the Draft and Final IAP/EISs.

Comment From: The Kuukpik Corporation (Comment Letter No. 254)

The Draft EIS/IAP notes that Nuiqsut residents have testified in the past that development in Prudhoe Bay and Kuparuk has already cut them off from a third of their traditional subsistence hunting range. Draft EIS/IAP p. IV.212. The lack of a stipulation guaranteeing subsistence users access to areas occupied by industry indicates to us that the BLM does a good job recording our concerns but a poor job addressing them. Kuukpik-28 **(Comment No. 254-994)**

Response To: Comment 254-994

The BLM has considered your comments in developing the Preferred Alternative, see Section H "Subsistence Consultation for Permitted Activities" of the General Lease Stipulations and Required Operating Procedures.

45. TOPIC : FISH

Comment From: U. S. Evironmental Protection Agency (Comment Letter No. 261)

Figure III-25 depicts many of the fish species found in the arctic environment. The draft IAP/EIS describes the life histories of the freshwater (e.g., lake trout, arctic grayling, blackfish, northern pike, stickleback, etc.), anadromous and amphidromous (e.g., pink and chum salmon, arctic cisco, least cisco, rainbow smelt, humpback whitefish, etc.), and marine (arctic cod, saffron cod, arctic flounder, etc.) fish species in the NW Planning Area. Both the public and decision makers would benefit from maps identifying fish species and their distribution, summer and overwintering habitat, and spawning areas be included in the final IAP/EIS. In particular, some of the water bodies important for the migration, rearing, and spawning of anadromous fish may be available by the Alaska Department of Fish and Game (ADFG) in their anadromous stream catalogue. In addition, EPA recommends strengthening existing stipulations and ROPs to minimize potential adverse impacts to sensitive fish species and their habitat areas. Sampling of NPR-A lakes revealed that lakes or ponds deeper than 6-ft, with suitable spawning substrate, appeared to support the largest and most diverse populations of arctic fish (p. III-43). Map 11 and Map 89 identify the locations and depths of lakes and ponds in the NW NPR-A. Deep water lakes and ponds deeper than 6- ft, which provide for overwintering habitat should be managed under special considerations, such as appropriate and effective buffers, no water withdrawals, no gravel extraction, etc. EPA recommends that additional stipulations and ROPs, set backs and other measures be developed to manage deep water lakes and ponds based on best available information. **(Comment No. 261-125)**

Response To: Comment 261-125

The stipulations for setbacks (buffer zones) for deep-water lakes under the Preferred Alternative have been established at ¼ mile (Section II.C.6). This would prohibit gravel removal from the beaches of these lakes without special authorization. Waterbodies used by anadromous species as listed in the ADF&G Catalog of Waters Important for Spawning, Rearing, or Migration of Anadromous Fishes have been added to Map 86. Also, stipulations for water withdrawals have been revised to be consistent with ADNR and AOGCC.

Comment From: State of Alaska (Comment Letter No. 251)

Section IV, No Action Alternative, Fish, Effects of Disturbances, Page IV-59. This section discusses the possible impacts to fish populations from seismic operations. References that report the results of the described studies are listed below: Greene, C.R. 2000. Vibrator sounds in a frozen arctic lake during a winter seismic survey. Greeneridge Sciences Inc. San Francisco. Nyland, D.L. 2002. Water column pressures induced by vibrators operating on floating ice. The Leading Edge. Vol. 21:751-754. **(Comment No. 251-160)**

Response To: Comment 251-160

The suggested reference related to seismic operations (vibroseis) has been added.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

This symbol represents stipulations required in the Northeast Planning Area Record of Decision but dropped from the Northwest Planning Area DEIS without adequate analysis or rationale. In a few instances the dropped stipulation was replaced with a weaker stipulation or 'required operating procedure.' That change is noted in the following analysis directly beneath the dropped stipulation. **(Comment No. 253-363)**

Response To: Comment 253-363

The stipulations for water withdrawals (Section II.C.5) have been revised in the Preferred Alternative to be in agreement with State DNR and Alaska Department of Fish and Game, as to the restrictions applied to water usage where overwintering fish are present. No pumpage from rivers would be permitted. In this document, the term "resident" fish refers to species that spend most or all of their life in freshwater.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

The NRC (2003) concluded that there was inadequate information on water withdrawals to accurately assess the impacts on fish and aquatic ecosystems and that 'because of a lack of information it is not possible to determine whether biota associated with North Slope lakes are protected by regulations that cap water withdrawal from lakes' (p. 210). Therefore, such studies are necessary prior to completion of this draft NW Plan. **(Comment No. 253-365)**

Response To: Comment 253-365

Preliminary monitoring studies done by both BP and ConocoPhillips Alaska, Inc. indicates that there are no measurable effects when less than 15% of the under-ice water volume is removed. Currently, there is no data

available that would demonstrate that limited water withdrawals from deep-water lakes are harmful to overwintering fish.

Comment From: Public Meeting on DEIS - Barrow, Alaska (Comment Letter No. 80075)

On the essential fish habitat it is stated in a lot of public meetings such as this that they will not adversely affect the habitat and that have read the assessment but it does not guarantee anything. We are very concerned that disturbing habitat in this area may be contributing to the decline of fish and other subsistence resources that our tribal members depend on. **(Comment No. 80075-477)**

Response To: Comment 80075-477

The stipulations from this plan that create buffer zones along major subsistence fishing rivers and deep lakes are intended to minimize the chance of contaminating or degrading fish habitat.

Comment From: The North Slope Borough (Comment Letter No. 80065)

The assumption that of an estimated recovery of 3 to 5 years for fish (marine, anadromous, or freshwater) from a major oil spill does not consider that multiple cohorts (age, size) could be acutely and severely depleted. The reproducitve performance would likely not recover in that time frame considering the longevity and the very delayed age of sexual maturation of certain arctic species as compared to more southerly species of fish (e.g., many years may be required to replace a local stock's reproducive cohort). Severe oiling may also produce unsuitable habitat and fish will not return or be reproductively succesful well beyond 3 to 5 years. The persistence of oil in these North Slope brackish and freshwater ecosystems (weathering, biodegradation, etc.) is not known, and given that oil can penetrate many of the abiotic matrices (e.g., peat in lowland tundra, crevaces), the effects on fish can not be predicited with any certainty and could certainly persist beyond 3 to 5 years. **(Comment No. 80065-593)**

Response To: Comment 80065-593

The text has been revised per the comment to indicate recovery times may require a decade or more for essential fish habitat and marine fisheries resources to recover from an oil spill. Published and peer-reviewed studies confirm the discrepancy identified by the commenter.

Comment From: The Kuukpik Corporation (Comment Letter No. 254)

Stipulations should also be put in place to protect fish from harm caused by the withdrawal of water. In a land where lake ice can be more than 5 feet thick, overwintering habitat for fish is very important. To protect fish overwintering habitat the BLM should prohibit any water withdrawal from lakes less than 7 feet deep that are tapped, or tappable, by fish bearing streams or rivers. These lakes create only marginal overwintering habitat that cannot withstand the withdrawal of any water. Because fish bearing lakes change from year to year, depending on factors such as flooding, we believe that all marginal lakes should be protected. In other words, we simply are not comfortable with any relaxation of stipulations if the proponent of such activity has some evidence that no fish were present because fish may be introduced to a lake after it has been surveyed (through annual spring flooding, when rivers overflow their banks and spread out over large areas of the flat, already water-saturated tundra). When a lake is deeper than 7 feet, limited amounts (but not more than 15%) of the unfrozen water may be withdrawn before impacting fish overwintering habitat. Water withdrawal from these lakes in the Northwest NPR-A should be limited accordingly by stipulation. In addition, the compaction or

removal of snow from fish bearing lakes (except at approved ice road crossings) should be prohibited in order to prevent the lake or river from freezing even deeper. A stipulation should prohibit the withdrawal of water (not including ice chips taken from grounded ice) from streams and rivers. These water sources, and their fish spawning habitat, are too sensitive to be drawn from directly. Finally, to prevent the accidental introduction of fuel and other contaminants into the rivers and lakes in the NPRA, winter exploration camps and the refueling of winter exploration equipment should be set back a 500 feet from frozen rivers or lakes. **(Comment No. 254-662)**

Response To: Comment 254-662

Please see the response to comment 253-363 (Fish) above.

Comment From: ConocoPhillips Alaska, Inc (Comment Letter No. 255)

Lakes less than 7 feet deep are still important for use in the construction of ice roads and ice pads, which can be done in a manner that is fully protective of fish. Our research has found that the majority of lakes less than 7 feet deep do not support fish populations that could be sensitive to water withdrawal (broad whitefish, grayling, etc.) unless it has a seasonal connection to a stream. The fish that are in the more shallow lakes are typically nine-spined stickleback or Alaska blackfish, both species known to be resistant to water withdrawal. The literature has demonstrated that these fish can tolerate lower dissolved oxygen concentrations than other less resistant fish on the north slope (Lewis et al, 1972). **(Comment No. 255-760)**

Response To: Comment 255-760

Stipulations for water withdrawals (Section II.C.5) in the Preferred Alternative have been revised to be in agreement with ADNR and ADF&G regulations. Stipulations to address ice chip removal and shallow lake water withdrawals where nine-spine stickleback or Alaska blackfish reside are included under the Preferred Alternative.

Comment From: ConocoPhillips Alaska, Inc (Comment Letter No. 255)

Pages IV-99 & IV-136. Gravel Removal Section. See Comment #3 above. Recent studies by the U.S. Fish and Wildlife Service and the Alaska Department of Fish and Game recognize there are potential benefits to local fish and bird populations from locating and rehabilitating gravel pits within floodplains. **(Comment No. 255-824)**

Response To: Comment 255-824

Required Operating Procedure E-8 recognizes the potential benefits of gravel pits located within floodplains.

Comment From: NOAA (Comment Letter No. 209)

Pg. IV-61 Essential Fish Habitat Evidence exists of viable, self-sustaining salmon populations in the Northwest Planning Area that constitute an important subsistence food source. The Essential Fish Habitat (EFH) section needs to clarify whether the action will have an 'adverse effect' on EFH. A finding that the action may adversely affect EFH triggers an EFH Assessment and requires consultation with NOAA Fisheries. **(Comment No. 209-909)**

Response To: Comment 209-909

Additional discussion of EFH has been added to Section III of the final IAP/EIS. Based on that discussion and given the protection provided by the mitigation measures formulated for this IAP/EIS, the Preferred Alternative is not expected to adversely impact salmon or their habitat and has been assigned the EFH determination: May affect, not likely to adversely affect. That designation has been added to the EFH discussion in Section IV.

Comment From: NOAA (Comment Letter No. 209)

Pg. IV-143 Effects of Spills Paragraph 2. The concentration of petroleum in the water is one of many factors that measure the severity of oil or fuel spill impacts. The time of year, type of material spilled, the location of the spill, and exposure time are some other factors. In the arctic environment the potential for oil and fuel related spills to remain for long periods is high. Coastal bays and lagoons sheltered by barrier islands are natural traps for oil and fuel spills. Any oil under ice or in broken ice flows has a high chance of persisting. **(Comment No. 209-912)**

Response To: Comment 209-912

The recommended verbiage has been added to the EIS.

Comment From: NOAA (Comment Letter No. 209)

Pg. IV-144 Effectiveness of Stipulations and Required Operating Procedures, paragraph 1 The last sentence in this paragraph contradicts the first sentence and earlier statements. 'The potential for fuel and oil spills to contact marine fish would be mitigated for Alternative B by waste prevention, handling, and disposal requirements and spill stipulations (A-1 through A-3) and ROPs (A-3 through A-8). However, for the reasons explained above, fuel and oil spills associated with this alternative are not expected to have any measurable effect on marine fish. Hence, these stipulations are not expected to have any beneficial effect for marine fish populations.' Earlier statement - 'Waste prevention, handling, and disposal and spill stipulations A-1 through A-3 and ROP's A-3 through A-8 would be most likely to benefit marine fish populations [Pg. IV- 61, paragraph 3].' We recommend you revise this text, as well as the same statement on Pg. IV-275, to reflect the mitigative value of the measures you have identified. **(Comment No. 209-913)**

Response To: Comment 209-913

The contradictory statements have been revised. The Stipulations and ROP's have the potential to greatly mitigate the potentially adverse effects of introducing wastes and chemical spills into waters inhabited by marine fishes, by minimizing potential vectors of introduction to aquatic habitats, and by being prepared to respond to spills in a timely manner.

Comment From: NOAA (Comment Letter No. 209)

Pg. IV-275 Conclusion ' First Sale, paragraph 1 The DIAP/EIS estimates a 120,000 bbl oil spill from one sale in Alternative B, yet under the multiple sale section (next page) the estimate projects up to a 476 bbl spill. Please clarify or adjust these figures if they are incorrect. **(Comment No. 209-916)**

Response To: Comment 209-916

The Draft IAP/EIS provides an analysis for a very large (i.e., 120,000 bbl) oil spill. However, a very large spill is a low-probability event (see Section IV.J). The Draft IAP/EIS estimates a single large oil spill of 500 or 900 bbl, and multiple smaller spills (Table IV-19 and IV-20) as a result of the first sale. Multiple sales may result in additional spills as indicated in the tables.

46. TOPIC : RESEARCH AND MONITORING TEAM

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

The DEIS fails to clearly define and clarify the role of monitoring within the Reserve or provide a summary of what has been accomplished to date and a time line for additional monitoring in both the Northeast and Northwest Planning Areas. The monitoring program for the Reserve is inadequate and significantly behind schedule. To date, the Resource Monitoring Team (RMT) has focused largely on evaluating research priorities. Little, if any, work has been allocated to monitoring. **(Comment No. 253-29)**

Response To: Comment 253-29

The following list includes long-term monitoring studies that BLM has conducted in NPR-A: 1. Long-term monitoring of cliff-nesting raptors along the Colville River (surveys since 1952 and annually since 1978). 2. Monitoring of the Teshekpuk Lake Caribou Herd; movements, range use and demography (20+ year cooperative effort among ADFG, BLM and North Slope Borough Dept. of Wildlife Management). 3. Monitoring of impacts to tundra vegetation from seismic exploration and ice road construction in the NPR-A (since 1999). 4. Monitoring of land bird populations in the Umiat area. Since its beginning the Research Monitoring Team has been active in the development of BLM's monitoring program. The BLM's NPR-A Research and Monitoring Team provided a number of recommendations to the BLM in 2002, many of which the BLM has since begun to implement. These include the continuation of some existing efforts and the implementation of some new projects. They also included a suggestion for three workshops to bring together experts for discussion in specific areas: the impacts of oil and gas exploration activities on arctic tundra vegetation, the design and implementation of a cooperative monitoring program to document and mitigate the impacts of oil and gas exploration and development on subsistence activities, and the standardization of methods for aerial bird surveys conducted on Alaska's North Slope. Most of the projects recommended involved work with birds. These included studies to determine the relative importance of avian nest predators on the reproductive success of ground-nesting birds, the density and productivity of yellow-billed loons (a "rare" species) in the NPR-A, and the influence of oil and gas development on the nest success of shorebirds. The population distribution of molting geese in the Teshekpuk Lake area, which was studied in the late 1980's, will be looked at again to assess any changes and document selection of specific shoreline habitats. Another study will look at data on tundra swan distribution, collected since the mid-1980's, to see if there has been any shift in nesting distribution in response to oil field facility development and whether swan population trends in the oil fields differ from trends for swans throughout Alaska's North Slope. Finally, it was recommended that a long-term monitoring effort of cliff-nesting raptors along the Colville River be continued. Besides studies of birds, efforts were recommended in several other areas. Two studies related to subsistence users included a summary of existing data on subsistence harvest and seasonal land use activities for Nuiqsut, Barrow and Atqasuk, and a comprehensive effort to document local knowledge on the life histories of fish species important to subsistence. Another effort involving fish is a project to determine the impacts to fish overwintering in lakes of seismic exploration activities ("vibroseis") on the lake's frozen surface. And on the mammalian front, it was recommended that the BLM support a larger effort to study caribou demography, distribution, movement and reproductive success in relation to oil field infrastructure.

Comment From: U. S. Evironmental Protection Agency (Comment Letter No. 261)

EPA supports the ongoing efforts of the Research and Monitoring Team and their continued efforts for monitoring effectiveness of stipulations in the NW NPR-A. The team should be expanded to include other interested stakeholders such as Tribes, industry, and non-governmental organizations. **(Comment No. 261-81)**

Response To: Comment 261-81

The Research and Monitoring Team (RMT) has been replaced with a new organization that BLM is developing with additional Federal agencies, the State, the North Slope Borough and others. Please see section II.F.8. in the Final IAP/EIS for a description.

Comment From: Audubon Alaska (Comment Letter No. 213)

Monitoring: Audubon is very concerned that the monitoring program for the NPR-A is inadequate and significantly behind schedule. To date, the RMT has focused largely on evaluating research priorities. Little, if any, work has been allocated to monitoring. We request that BLM clearly define and clarify the role of monitoring within the NPR-A and provide a summary of what has been accomplished to date and a time line for additional monitoring in both the Northeast and Northwest planning areas. **(Comment No. 213-208)**

Response To: Comment 213-208

Please see discussions regarding the past and current efforts as well as the future role of the Research and Monitoring Team in responses 253-29 and 261-81 (Both in Research and Monitoring Team).

Comment From: Audubon Alaska (Comment Letter No. 213)

The Research and Monitoring Team will help guide the monitoring effort in the planning area.' To date, the RMT has focused largely on evaluating research priorities. Little, if any, work has been allocated to monitoring. Audubon is very concerned that the monitoring program for the NPR-A is inadequate and significantly behind schedule. Aud ubon requests that BLM clearly define and clarify the role of monitoring within the NPR-A and provide a summary of what has been accomplished to date and a time line for additional monitoring in both the Northeast and Northwest planning areas. **(Comment No. 213-367)**

Response To: Comment 213-367

See comment response 253-29 (Research and Monitoring Team).

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

The DEIS (p II-39) states that BLM will expand the Research and Monitoring Team (RMT) formed pursuant to the ROD for the Northwest Plan. The Northeast ROD stated: 'Monitoring will be undertaken to determine the status of the various resources in the planning area, to ensure compliance with the enforcement of plan decisions and with stipulations attached to separate land use authorizations, and to measure the effectiveness of protective measures. The Research and Monitoring Team will help guide the monitoring effort in the planning area.' To date, the RMT has focused largely on evaluating research priorities. Little, if any, work has been allocated to

monitoring. We are very concerned that the monitoring program for the Reserve is inadequate and significantly behind schedule. We request that BLM clearly define and clarify the role of monitoring within the Reserve and provide a summary of what has been accomplished to date and a time line for additional monitoring in both the Northeast and Northwest Planning Areas. **(Comment No. 253-374)**

Response To: Comment 253-374

Please see the response to 253-29 (Research and Monitoring Team).

Comment From: U.S. Fish and Wildlife Service (Comment Letter No. 260)

The Service supports the proposal to expand the mission of the Research and Monitoring Team pursuant to the Record of Decision for the Northeast Planning Area EIS. The Service recognizes that the amount we do not know about the ecology and dynamics of the Alaskan arctic far exceeds what we know. We believe that a collaborative effort to identify and fund the research that is needed is the only logical way to fill the data gaps that exist. We look forward to working with BLM in this effort. **(Comment No. 260-650)**

Response To: Comment 260-650

The Research and Monitoring Team has been replaced with a new organization that BLM is developing with other Federal agencies, the State, the North Slope Borough and others. Please see Section II.F.8. for a description.

47. TOPIC : OUTSIDE OF THE SCOPE OF THE IAP/EIS

Comment From: State of Alaska (Comment Letter No. 251)

Section IV, Page IV-18 (c), Gravel Requirements. This section needs to include a discussion about the need for inter-community roads. **(Comment No. 251-379)**

Response To: Comment 251-379

This section specifically addressed the assumptions and scenarios for the Alternatives under consideration in this IAP/EIS. Inter-community roads within the Northwest NPR-A Planning Area are mentioned in the cumulative scenario and are considered speculative at this time. The justification and feasibility of inter-community roads in NPR-A is beyond the scope of the present IAP/EIS. The BLM acknowledges that such studies are in progress with State DOT oversight. The final route selection, material requirements, and environmental impacts will undergo thorough NEPA review before ROW permits are approved

Comment From: State of Alaska (Comment Letter No. 251)

Section IV, Page IV-27-28, Roadless Development. This section needs to be revisited to incorporate recent road development planning in conjunction with the Alpine Satellite Development Project and roads proposed through the Northwest Planning process (see general comments). The economic and environmental assumptions supporting roadless development need to change consistent with changes proposed in the economic landscape

including a new potential for public sector participation in road development in this remote region of Alaska and concerns about the effects of reduced ice road seasons on economic development opportunities in NPR-A. Changing weather patterns, discussed and confirmed in this Draft IAP/EIS, point to a trunk road scenario if major discoveries are made during exploration activities in this region. The Final IAP/EIS should reflect these changes and concerns. 251-381 **(Comment No. 251-381)**

Response To: Comment 251-381

The draft IAP/EIS states that "short gravel roads...could connect nearby fields to allow sharing of infrastructure." The present IAP/EIS considers the character of development in the Northwest NPR-A Planning Area, therefore proposed activities in the Northeast NPR-A are not within the scope of the Alternatives for this IAP/EIS. These proposed roads are addressed as part of the cumulative scenario. The current plan for the Northeast NPR-A Planning Area does not allow permanent roads connecting to outside of the Planning Area. Exception to the current requirement could be made following additional analysis in the Alpine Satellite Development Project EIS. Public sector road development is also in the preliminary stage of analysis, and no final projects have been defined, proposed, approved, or funded. While the possibility exists for a future network of gravel roads in NPR-A, it is not considered reasonably foreseeable in the IAP/EIS for the Northwest Planning Area.

Comment From: Public Meeting on DEIS - Washington, DC (Comment Letter No. 80082)

The members of the Sierra club are greatly concerned when they look at the full-scale development proposal for the National Petroleum Reserve, the full- scale development for the Beaufort Sea off shore, on the Outer Continental Shelf of Alaska. It seems that the Bureau of Land Management, the Bush administration, and their allies in Congress are open to full-scale development every place, everywhere in Alaska's Northern Slope. **(Comment No. 80082-552)**

Response To: Comment 80082-552

The IAP/EIS for the Northwest National Petroleum Reserve-Alaska addresses potential alternative for an oil and gas leasing program. No development is proposed in the IAP/EIS. Historically, not all tracts offered for lease are actually leased, only a small percentage (less than 10%) of leases have been explored, and development proposed for a small percentage (less than 10%) of the leases explored. Environmental reviews are completed for both exploration plans and development plans. Similar statistics apply for the Beaufort Sea OCS where the MMS has proposed offering tracts for lease. No development has been proposed in the Beaufort Sea OCS.

Comment From: Public Meeting on DEIS - Nuiqsut, Alaska (Comment Letter No. 80077)

Now, I want to point out some issues that haven't been resolved in Prudhoe. There are rightful land owners that have no right over land in Prudhoe area, West Dock (ph), I'm going to point that out because it's with my family. My father and his father, they build a sod house, ice cellar, we lost it, we have no right over it, it's case closed with Native allotment, nothing, zero, zip. And that land rightfully belongs to my family but the Federal government says, no, you have no right over it. Now, what's wrong with that picture' **(Comment No. 80077-933)**

Response To: Comment 80077-933

The Prudhoe Bay area is well outside the Northwest NPR-A Planning Area and the scope of this IAP/EIS; thus this land ownership issue is outside the scope of this project. See also response to comment 80077-942 (Sociocultural Systems).

48. TOPIC : CUMULATIVE IMPACTS AND ANALYSES

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

The National Academy of Sciences National Research Council (NRC) March 2003 report Cumulative Environmental Effects of Oil and Gas Activities on Alaska's North Slope documents significant environmental and cultural effects that have accumulated as the result of three decades of oil development on Alaska's North Slope. Based on a review of the NRC report, the Northwest Planning Area DEIS does not adequately determine or describe the potential long-term cumulative effects of oil and gas development on wildlife and ecosystem processes. **(Comment No. 253-24)**

Response To: Comment 253-24

The National Academy of Science's National Research Council (NRC) March 2003 report Cumulative Environmental Effects of Oil and Gas Activities on Alaska's North Slope was released after publication of the draft IAP/EIS. The information and conclusions of the NRC report are considered in the cumulative analyses in the final IAP/EIS. The NRC report does not represent new information on the effects of cumulative oil development on Alaska's North Slope, rather it is a review of current information and an assessment of that information. The NRC report presents some important information and suggestions for areas of future research. The report does not document new "significant" effects on the environment. Projections of effects have been included in the NRC's report as appropriate. Some of the conclusions in the report are not supported by the data presented in the report and BLM and MMS subject-matter-experts do not necessarily concur with all of the conclusions presented in the NRC report. Differences of professional opinion still exist on effects of development activities on some resources including the caribou herds on the North Slope, especially the Central Arctic Herd which has significantly increased in population along with the increase in industry activity. Vegetation is a major focus of the report; effects from past, ongoing, and projected future activities have been evaluated along with projections for habitat recovery.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

In light of the information presented in the NRC Report, BLM should prepare a new DEIS. The Revised DEIS cumulative effects analysis for the Northwest planning Area should address the degree to which development in the planning area will exacerbate impacts associated with existing oil field operations elsewhere on the North Slope. In addition, an analysis of proposed development in the NPRA must include a discussion of potential activities on native corporation lands within NPR-A and adjacent state and private lands, particularly in light of existing oil leases on ASRC lands within NPR-A. There is no field-tested data to demonstrate that NPRA will not evolve into a far greater infrastructure of interconnected roads, pipelines, and drill pads, which could have significant impacts on NPRA's wildlife resources. Cumulative analysis should include all facilities, as well as secondary effects of development such as impoundments, dust shadowing, culvert failures and oil spill sites. This kind of trend analysis would show rates of gravel fill and extraction, rates of construction of roads and pipelines, number of drill pads and production pads, and distance between roads, pipelines, and other facilities within each oil field and between oil fields. The analysis that is contained in the DEIS's subsection on cumulative impacts is superficial and glosses over some serious problems. Some examples of this failure to take a hard look at specific cumulative impacts follows. BLM's prediction that future impacts may be smaller than past and present impacts is irrelevant to the cumulative impacts analysis. The task of the cumulative impacts analysis is to identify the past and present impacts and explain how they will interact and contribute with the future impacts of this project and other similar activities. Given that about 1% of oil facilities have been restored, NRC Report at 144, the DEIS should not dismiss these past developments'many of these developments are continuing to have effects that are accumulating. In analyzing each resource area, the DEIS mainly goes no farther than comparing the impacts

expected from the proposed development to those caused by past development and concluding that the impacts of the current proposal are small in comparison to past environmental impacts. This isn't the question, however. NEPA's cumulative impacts requirement is intended to uncover impacts that may seem relatively small individually, but create a significant impact when considered together. Thus, the question is 'is this the straw that breaks the camel's back.' The response, 'we're only adding one straw to the thousands that are already there,' isn't a useful answer. The DEIS is overly dismissive of the possibility of synergistic impacts. Synergistic environmental effects are commonly recognized and are more than theoretic effects that can only be 'demonstrated in the laboratory (for certain types of chemical reactions, for example) . . ..' DEIS at IV-383. For instance, the DEIS should have considered the interaction of global warming, which may stress polar bears and cause them to spend more time onshore, with increased onshore development. Similarly, global warming may have an effect on insect populations that needs to be considered in combination with the possible displacement of caribou from preferred insect relief habitat. **(Comment No. 253-148)**

Response To: Comment 253-148

The comment "there is no field-tested data to demonstrate that NPR-A will not evolve into a far greater infrastructure of interconnected roads, pipelines, and drill pads, which could have significant impacts on NPR-A's wildlife resources" alludes to the uncertainty of early predictions made for resource potential in an infrastructure-shy frontier area; this is a topic discussed in Appendix C of the NRC report. The NRC report notes that "these estimates work both ways, there tend to be more over-estimates of potential than underestimates." The appendix concludes, "(W)ith the full awareness of this uncertainty, a range of potential and cumulative effects of future oil and gas activities can be addressed. The best approach is to use the knowledge derived from known activity and its effects and project a likely case into the future, with a series of scenarios that vary the future activity within reasonably constrained limits. This approach will still not guarantee when, where, and how much. However, it should provide the most reasonable range of estimates of the overall effects of future activities." This is the approach embodied in the IAP/EIS. As noted in Section I.A of the IAP/EIS, the plan's objective is to encourage "oil and gas leasing in NPR-A while requiring protection of important surface resources and uses." In order to analyze potential effects of management actions in the Northwest NPR-A Planning Area, the IAP/EIS develops scenarios describing the full range of activities expected to occur for oil and gas exploration, initial development, additional future lease sales, and activities other than oil and gas exploration and development. These activities are described in detail in Section IV.A. In order to "rigorously explore and objectively evaluate all reasonable alternatives" as required by NEPA, the IAP/EIS examines an array of alternative packages created by varying the area within the Planning Area that might be offered for oil and gas leasing and the mitigating measures that would be applicable to that leasing. The alternatives (A, B, C, Preferred Alternative, and No Action) adequately cover the range of reasonable alternatives. Synergistic effects are difficult at best to determine in field conditions even with a comparable field control site. The abiotic resources of air and water quality are the best opportunities to identify synergistic effects but even these resources are subject to numerous highly variable parameters that do not readily translate to quantifiable effects. Global warming could be that parameter that on a grand global scale could produce synergistic effects, but the concern would then focus on ecosystem effects with some synergistic interactions suspect, but again probably not quantifiable. The projections for global warming are not a scientific certainty and may not be correct on a larger natural time frame. Global warming on a time scale that includes the ice age was not the result of industrial green house gases. Geologic history clearly shows that Earth's climate is dynamic and ever changing. While carbon dioxide as a constituent of Earth's atmosphere has been increasing since the Industrial Revolution, it has been similarly increasing since the earth started warming 18,000 years ago. Clearly, there are natural forces at work. Some experts claim global warming is more of a political issue than a scientific issue, but all sides agree the subject of climate change is a complex one.

Comment From: State of Alaska (Comment Letter No. 251)

Section IV, Page IV-394 (3) Transportation for 'Roadless' Development. This section needs to be reviewed and revised consistent with recent proposals to construct permanent roads to CD-South and to the Lookout Drillsite within the NW NPR-A. **(Comment No. 251-386)**

Response To: Comment 251-386

The proposed permanent roads to CD-South and Lookout Drillsite are within the Northeast NPR-A, not the Northwest NPR-A.

Comment From: Public Meeting on DEIS - Barrow, Alaska (Comment Letter No. 80075)

Cumulative Impacts. I am concerned about cumulative impacts that creep up on people, it's like a house. Like this week at my house. The mess may start in one room and when it gets to another it might not be alarming but when it spreads to your living room and then to your kitchen, then it becomes unbearable. Our hunting and fishing sites are spread out all around Dease Inlet and the rivers that pour into the inlet. BLM had identified the Dease Inlet area as having high oil and gas potential. My concern is that impacts may happen one well at a time. Before we know it we may be dealing with a much bigger area than was anticipated. How do we avoid that as a community' I don't have the answers, but the way the proposed lease sales are structured to deal with mitigating measures on a case by case basis without any lines being drawn on the map makes me concerned. **(Comment No. 80075-473)**

Response To: Comment 80075-473

Our document indicates that it is true that there will be some long-term cumulative effects on subsistence resources of development across the North Slope and that these effects may significantly impact subsistence and subsistence resources. This will be true whether there is oil and gas development in Northwest NPR-A or not.

Comment From: State of Alaska (Comment Letter No. 251)

It is essential that BLM consider these road proposals. We recommend that potential allseason community roads and mainline/trunk roads for oil and gas exploration and development be included in the alternatives and appropriately analyzed for human and environmental impacts as required by the National Environmental Policy Act. The assumption in the Draft IAP/EIS that private sector financing of roads makes roads unlikely needs to be revised in recognition that the State may finance roads in whole or part. In addition to providing overland transport of vehicles, the road corridors identified through the Northwest Plan may also function as electrical energy, consumer gasline and communications distribution routes. This potential infrastructure should be considered as well. **(Comment No. 251-512)**

Response To: Comment 251-512

Please see the response to comment 213-357 (Transportation).

Comment From: Western Arctic Caribou Herd Working Group (Comment Letter No. 80004)

As planning and development of NPR-A pushes westward, BLM should adequately describe potential transportation infrastructure with the region. Land managers must evaluate these changes and determine how they will be integrated within the entire western Arctic and the North Slope communities. Cumulative impacts from oil and gas development, coal extraction, hard-rock mining, and the associated transportation infrastructure within the NPR=A need to be fully analyzed relative to their potential impacts on Arctic caribou. The Working Group is concerned that the DEIS does not adqequately addreess these long-term cumulative effects. **(Comment No. 80004-530)**

Response To: Comment 80004-530

The cumulative scenario includes reasonably foreseeable expansions to oil and gas infrastructure. The cumulative scenario has been update for the Final IAP/EIS to include information from the recently submitted Alpine Satellite Expansion Project and the State-sponsored permanent road between Nuiqsut and the Dalton Highway. Coal extraction and hard-rock mining are not permitted in the NPR-A at this time or in the foreseeable future (15 to 20 years). Please also see the response to comment 213-358 (Cumulative Scenario).

Comment From: Public Meeting on DEIS - Washington, DC (Comment Letter No. 80082)

In the cumulative impact area, the DEIS is very insufficient. For one thing, you need to take into account the National Academy of Sciences report on cumulative impact on the North Slope from oil development, and not only to include the data and the information that they lay out in their report, but in fact to find or research the areas where they say there is wholly inadequate data. **(Comment No. 80082-547)**

Response To: Comment 80082-547

Please see the response to 80082-539 and 80082-541 (Impact Evaluation).

Comment From: The Kuukpik Corporation (Comment Letter No. 254)

In addition, development is squeezing the Kuukpikmiut out of portions of our traditional subsistence range, which will force us west into the Northwest NPR-A. There has been substantial evidence, including that set out in our March 6, 2002 comment letter on the first two Alpine satellites ("March 6, 2002 EA Letter: These are impacts that should be considered in the cumulative impacts analysis of this EIS. **(Comment No. 254-613)**

Response To: Comment 254-613

This cumulative scenario and analyses include assumptions regarding proposed and reasonably foreseeable oil and gas activities outside of the Northwest NPR-A Planning Area that may have impacts on the environmental and socioeconomic resources of the Planning Area. The Alpine Plan and initiation of the EIS process occurred after completion of the draft IAP/EIS. The Cumulative scenario and analyses have been revised to update the status of the Alpine development.

Comment From: Michael North (Comment Letter No. 80003)

For one thing, it does not incorporate the latest findings released only this month by the National Academy of Sciences regarding the extent to which cumulative effects of oil and gas development occur and go unmitigated. The findings of that report need to be incorporated into each of the alternatives presented in the draft EIS. **(Comment No. 80003-848)**

Response To: Comment 80003-848

The National Academy of Sciences National Research Council (NRC) March 2003 report "Cumulative Environmental Effects of Oil and Gas Activities on Alaska's North Slope" was released after publication of the draft IAP/EIS. The information and conclusions of the NRC report are considered in the cumulative analyses in the final IAP/EIS. Please also see response to comment 253-24 (Cumulative Impacts and Analyses).

Comment From: The Sierra Club (Comment Letter No. 80014)

The assessment of potential impacts from oil development is inadequate and unrealistic. The recent report, Cumulative Environmental Effects of Oil and Gas Activities on Alaskas North Slope by the National Academy of Sciences National Research Council (March 2003), documents the significant effects of widespread oil development across Americas Arctic. Those effects stretch far beyond the immediate footprint of the industrial complex itself, and are having lasting cumulative impacts on the land, water, people and wildlife of the region.- hi light of this new accumulation of information, BLM should significantly expand their analysis of the likely impacts of oil drilling in the Reserve. **(Comment No. 80014-860)**

Response To: Comment 80014-860

The BLM believes that the analytical method used to develop the exploration and development scenarios is sound, considering the degree of uncertainty about oil and gas resources and future economic conditions. A consistent methodology was used to develop the hypothetical scenario for oil and gas activities under each alternative. The BLM believes that the scope of the cumulative analysis is appropriate for this programmatic IAP/EIS and in accordance with the provisions of NEPA regulations to keep EIS's concise and no longer than absolutely necessary (40 CFR 1502.2(c)) and to evaluate broad actions generally (40 CFR 1502,4(c)(2). Please also see responses to comments 253-24 (Cumulative Impacts and Analyses), 253-146 (NEPA Process)and 253-148 (Cumulative Impacts and Analyses). The BLM believes that the cumulative effects analyses for subsistence-harvest patterns, sociocultural systems, and environmental justice look far past the existing industrial footprint and openly and adequately address the long-term effects on Native people and subsistence resources in the region. A discussion in Section IV.F.8.n., Cumulative Effects on Subsistence-Harvest Patterns, has been added to address the issues and concerns of the effects of global climate change and their impacts on the people and wildlife of the Arctic. The NRC report does not represent new information on the effects of cumulative oil development on Alaska's North Slope, rather it is a review of current information and an assessment of that information. The report does not document "significant" effects on the environment. Some of the conclusions in the report are not supported by the data presented in the report and BLM and MMS subject-matter-experts do not necessarily concur with all of the conclusion presented in the report. Relevant information from the NAS report has been incorporated into the analysis although the concept of lasting cumulative effects has been modified to include recovery times for the affected resources.

49. TOPIC : ECONOMY

Comment From: U. S. Evironmental Protection Agency (Comment Letter No. 261)

While the draft IAP/EIS indicates that the population within the planning area is "homogeneous,"the final IAP/EIS should present the source(s) of information that form the basis for such a statement. As presently written, the draft IAP/EIS does not present this information. The draft IAP/EIS also uses 1993 average household income data for the State of Alaska to begin analysis of income, yet provides no discussion of why these data (now 10 years old) are still applicable and appropriate for use in the EJ analysis. The reasoning for use of these data, particularly when 2000 Census data are readily available, should be included in the final IAP/EIS. Income data must also be specific to the communities in the planning area. **(Comment No. 261-404)**

Response To: Comment 261-404

The BLM believes that the discussion in the three preceding paragraphs creates adequate context for the population being characterized as "homogeneous." As for the use of 1993 income data, they are used to indicate trends in the amount that household and per capita incomes have increased from then until 1999. If the commenter had read the entire discussion on income, he/she would have noted that Borough data for 1999 have and 2000 Census data have been cited.

Comment From: State of Alaska (Comment Letter No. 251)

Section III.C.1.a.(2), Page III-77, Social Systems. State Revenues. The Alaska Administrative Code citation '19 AAC 50.050' should be '3 AAC 150.050.' **(Comment No. 251-449)**

Response To: Comment 251-449

The text has been corrected.

Comment From: State of Alaska (Comment Letter No. 251)

Section III.C.1.b.(3), Page III-79, Social Systems, State Unemployment in the North Slope Borough. It is not surprising that '24 percent of the resident labor force worked fewer than 40 weeks in 1998.' This is very typical for Alaska, which has a highly seasonal economy. Many Alaskans earn sufficient income from seasonal employment (tourism, construction, fishing, logging, fire-fighting, trapping, Native crafts, etc.) and have no need to work 52 weeks a year. The EIS implies that this 24 percent of the labor force is also under-employed, and we disagree. **(Comment No. 251-450)**

Response To: Comment 251-450

The sentence states: "...22 percent of the Borough's resident labor force believed they were underemployed, and 24 percent of the resident labor force worked less than 40 week in 1998." These statements on unemployment and perceived underemployment come from the 1998 NSB census. We have used the Borough's definitions of the data and believe the Borough is making an effort to better define unemployment and underemployment.

Comment From: Public Meeting on DEIS - Barrow, Alaska (Comment Letter No. 80075)

Tonight there's been a lot of good comments on this Environmental Draft-EIS, but there's a different area which the BLM has not done and I have stated time and again at previous meetings on the EIS system, and their programs is not -- it has been brought but a couple of times before tonight, is on the health or economic benefits or economic impacts, or social impacts or social benefits on this -- on the residents of the North Slope. And I believe that is a strong approach that needs to be done to revisit the program, on the EIS programs, how they create the EIS. Because that's one of the areas that needs to be revisited is on your process in doing an EIS. But it's mandatory by Federal statute to put this in documents, economic impacts or economic benefits or social impacts, but it's not done yet. And I have made comments in the past about previous EIS' done within the Northeast area, Prudhoe Bay area, is to go back and revisit the EIS on the previous, what the impacts are on the natural resources and that hasn't been done yet. **(Comment No. 80075-496)**

Response To: Comment 80075-496

A description of the economy is in Section III.C.1 and analysis of effects for Alternative A is in Section IV.C.12. Description of the sociocultural systems is in Section III.C.4 and analysis of effect for Alternative A is in Section IV.C.15.

Comment From: The North Slope Borough (Comment Letter No. 80065)

The Borough and our residents have a variety of goals with respect to maximizing the positive effects of oil and gas leasing, exploration, and development within the NPR-A. First, impact funds must come to the Borough in a timely manner to offset ongoing and increasing effects associated with NPR-A leasing and operations, first in the Northeast Planning Area, now in the Northwest planning Area, and likely in the Southern Planning Area in the near future. Second, every effort must be made to provide employment for North Slope residents in conjunction with any industrial operations within the NPR-A. Opportunities for economic participation by local regional and village corporations, businesses, and tribes must be aggressively developed. Agencies and the oil and gas industry must work now in our communities to encourage and train a skilled local workforce to take advantage of employment opportunities in the future. A local employment office staffed by a human resources professional, high school programs, job fairs, facility tours, and mentoring programs all would be a good start toward providing local residents with a sense that they may directly realize some of the potential benefits of expanding development. It is also a goal of the Borough to secure local sources of oil, gas, or electricity from NPR-A development to meet village energy needs. **(Comment No. 80065-577)**

Response To: Comment 80065-577

The NPR-A special revenue fund grants available for local communities are described in Section III.C.1. Fifty percent of lease sale revenues are transferred to the State of Alaska by BLM after each lease sale. The BLM believes the transfer of funds to the State from the two sales held for the Northeast NPR-A has occurred in a timely manner. The BLM believes that the State has passed on funds to potentially affected NPR-A communities in timely manner. The various aspects of employment are discussed in Section III.C.1.b and, in particular, the aspect of North Slope oil-industry employment of North Slope Borough resident Natives is discussed in Section III.C.1.b(4). The BLM cannot promote preferential hiring, but it can urge lessees to vigorously pursue existing local hire programs and encourage the development of new ones. The BLM encourages local and regional Native corporations and tribes to develop their own partnerships with the oil industry.

Comment From: Olgoonik Corporation (Comment Letter No. 169)

We strongly support the local hire from the affected communities. **(Comment No. 169-712)**

Response To: Comment 169-712

The various aspects of employment are discussed in Section III.C.1.b; the North Slope oil-industry employment of North Slope Borough resident Natives is discussed in subsection (4) of that section.

Comment From: City and Native Village of Nuiqsut (Comment Letter No. 80026)

Employment and Training: According to the State of Alaska, thirty-three percent (33%) of adults over the age of 16 are unemployed in our community. The continued lack of opportunity for employment in the oil industry is

distressing to our community. As a mitigation requirement in the Northwest NPR-A Integrated Activity Plan/Environmental Impact Statement we would like to see training to meet the necessary requirements for oil industry employment and employment programs that are effective in assuring community members work in the oil industry. **(Comment No. 80026-1014)**

Response To: Comment 80026-1014

Please see responses to comments 169-712 (Economy), 80065-577 (Economy), 80075-489 (Government to Government), and 80077-924 (Government to Government).

Comment From: Kellie Ward (Comment Letter No. 80023)

Appendix 2 mentions the economic effects in relation to employment, however it does not discuss a broader economic stance. There are important concepts to consider, such as benefits versus costs, especially marginal abatement costs. The proposal lacked projected costs for cleaning up the pollution caused by oil and gas activity. The ambient quality of this area will be greatly affected by such activity. What will the price be to obtain efficient levels of emissions where marginal abatement costs and marginal damage costs are equal' **(Comment No. 80023-835)**

Response To: Comment 80023-835

The BLM is a land management agency with the authority to lease appropriate public lands for oil and gas leasing. We do not fund research into alternative sources of energy or energy conservation. Other agencies are responsible for energy research.

Comment From: Public Meeting on DEIS - Nuiqsut, Alaska (Comment Letter No. 80077)

Kuukpik is blessed to have the land that they own, and they are for our people, and they are there to benefit for our people. And we have to fight so hard for what rightfully belongs to the people. We're left with broken promises by ConocoPhillips Alaska, Inc., especially with that Alpine. They promised us jobs. How many percent of Nuiqsut is working over there, three, four, out of 500 people. We're given promise after promise saying that they will take care of us and nothing, nothing ever comes that way. **(Comment No. 80077-934)**

Response To: Comment 80077-934

See responses to comments 80075-489 (Government to Government) and 80077-924 (Government to Government).

Comment From: Public Meeting on DEIS - Nuiqsut, Alaska (Comment Letter No. 80077)

Now, you are the key source that they have to overcome in order to go to NPR-A. You have to give them that EIS and you have to give them your blessings. And I don't know how or what or how can you put a clause in there that will benefit the communities that are impacted, directly impacted. We share NPR-A funds with Barrow, Atqasuk and Wainwright. They don't even see a rig. They don't see the first fruits of the oil industry. They haven't felt effects of it. In Nuiqsut you'll see the effects of it. Unemployment is high. Alcohol and drug abuse is high. You have to go a long ways for subsistence. I believe there needs to be some kind of socio-economic clause in there for

this community. Because if you go down to NPR- A then we'll have to go farther. And that 4.15 a gallon, how far do you think will go to hunt for our subsistence. It's an ongoing battle with the oil industry. **(Comment No. 80077-936)**

Response To: Comment 80077-936

See responses to comments 80077-926 (Impact Compensation), 80077-935 (Impact Compensation), and 80077-945 (Government to Government).

Comment From: Public Meeting on DEIS - Nuiqsut, Alaska (Comment Letter No. 80077)

Secretary of Interior Bruce Babbitt and Governor Knowles had a public hearing in Nuiqsut eight years ago before opening up NPR-A Northeast side. In broad public they stated they will open NPR-A and they promised the village with jobs. At that time we had 90 percent unemployment in the village. We still have about 70 to 80 percent unemployment in this community. When are you guys going to implement the true words from Washington, D.C., words were to this community' **(Comment No. 80077-940)**

Response To: Comment 80077-940

See responses to comments 80077-924 (Government to Government) and 80075-489 Government to Government).

50. TOPIC : REQUIRED PERMITS

Comment From: State of Alaska (Comment Letter No. 251)

Appendix 4-3, Alaska Department of Natural Resources. The water permitting reference should be changed to read - "Issues Temporary Water Use Authorizations and Water Rights under AS 46.15 for water use necessary for exploration, development, construction and operations." **(Comment No. 251-413)**

Response To: Comment 251-413

The text has been revised.

51. TOPIC : SOCIOCULTURAL SYSTEMS

Comment From: U. S. Evironmental Protection Agency (Comment Letter No. 261)

EPA recommends that the final IAP/EIS include a separate section that includes native Traditional Knowledge and the process of gathering this information. We believe it is important for DOI/BLM to explain in the final IAP/EIS how Traditional Knowledge is being incorporated into the planning process for the Northwest NPRA, development of reasonable alternatives, and selection of a preferred alternative. **(Comment No. 261-120)**

Response To: Comment 261-120

There is a discussion in Section III.C.5, Environmental Justice, regarding the process for gathering Traditional Knowledge and how Traditional Knowledge has been incorporated into the analysis and studies processes, as well as in the development of mitigating measures. Sources for Traditional Knowledge on all the topics mentioned are not always available. The BLM believes that the Traditional Knowledge incorporated into the affected environment and effects discussions for subsistence-harvest patterns, sociocultural systems, and environmental justice, when taken in aggregate, is a representative view of local knowledge as it relates to the proposed activities in the Northwest NPR-A Planning Area. The BLM notes the suggestion for a separate section for Traditional Knowledge and how it was gathered. We chose to present both the Traditional Knowledge and the Western Scientific discussion in the same section to ensure that a balanced delivery of both sources of information is available to the reader. Local Iñupiat Traditional Knowledge has been considered in the development of the Preferred Alternative, specifically in the 10-year deferral from leasing of important subsistence-resource habitat and harvest areas in the Kasegaluk Lagoon/Dease Inlet area and in the development of mitigation measures offering greater protection for caribou.

Comment From: State of Alaska (Comment Letter No. 251)

Section III.C.4.a., Page III-115, Social Systems, Characteristics of the Population. In 1990, 72.5% of NSB residents reported they were Alaska Native or American Indian. The Census did distinguish between Eskimo, Aleut and Indian (although Inupiat, Yup'ik, Cup'ik and Siberian Yup'ik are grouped together as 'Eskimos.' 'Indians' included numerous Athabascan tribes, Haida, Eyak, and Tsimpsians.) In 1990, 4,241 of the 5,979 residents of NSB were Eskimo. The large majority are Inupiat. In 2000, 73.8% of NSB residents reported they were all or part Alaska Native or American Indian (not 68.38%, which is the number who reported they were wholly Native/Indian.) And although the Census did not differentiate between Eskimo, Aleut and Indian, it asked a more specific question ' the individual's 'Alaska Native or American Indian tribe(s).' In 2000, 5,450 North Slope Borough residents (73.8%) reported they were Section III.C.1.b.(7), Page III-81, Social Systems, Personal Incomes. The Bureau of Economic Analysis is the only annual source of income data, and it is a valid one. BLM should add the U.S. Census income data, just released for Alaska on September 25, 2002. For example, 1999 per capita income for NSB residents was $20,540 (Anchorage $25,287; Fairbanks North Star $21,553). The 1999 median family income for NSB was $63,810 (Anchorage $63,682; Fairbanks North Star $56,478). **(Comment No. 251-451)**

Response To: Comment 251-451

The per capita and median family incomes have been included in the final IAP/EIS. The reason they were not included in the draft IAP/EIS is relative to how we analyzed effects in Section IV.C.12 (page IV-188). We measure changes in aggregate personal income for the various geographic areas. The reason we include U.S. personal income relates to why we cite Federal revenues from all sources. Comments on MMS EIS's have indicated that federal revenues generated by outer continental shelf lease sales are best described in Section III, Description of the Affected Environment. To be consistent, federal revenues from all sources need to be described also. In Section IV Environmental Consequences, the effects of the proposed alternatives are analyzed--specifically in this IAP/EIS, the revenue generated from the proposed alternative compared to federal revenues (see Section IV.C.12.b page IV-188 of the draft IAP/EIS). It is very small, less than a .004 percent change. While this appears to be a non-issue, we have added the data and analysis in response to multiple comments.

Comment From: State of Alaska (Comment Letter No. 251)

Section III.C.4.a., Page III-115, Social Systems, Characteristics of the Population. In 1990, 72.5% of NSB residents reported they were Alaska Native or American Indian. The Census did distinguish between Eskimo, Aleut and Indian (although Inupiat, Yup'ik, Cup'ik and Siberian Yup'ik are grouped together as 'Eskimos.' 'Indians' included numerous Athabascan tribes, Haida, Eyak, and Tsimpsians.) In 1990, 4,241 of the 5,979 residents of NSB were Eskimo. The large majority are Inupiat. In 2000, 73.8% of NSB residents reported they were all or part Alaska Native or American Indian (not 68.38%, which is the number who reported they were wholly Native/Indian.) And although the Census did not differentiate between Eskimo, Aleut and Indian, it asked a more specific question ' the individual's 'Alaska Native or American Indian tribe(s).' In 2000, 5,450 North Slope Borough residents (73.8%) reported they were Alaska Native or American Indian, and based on tribal data, at least 4,594 of the 7,385 NSB residents were Eskimo. [USDOC, Bureau of the Census, 2000 Census, SF1, Table PCT1]. The large majority are Inupiat. **(Comment No. 251-452)**

Response To: Comment 251-452

The text has been revised to indicate the more accurate percentages of Eskimo and Inupiat residents of the North Slope Borough.

Comment From: State of Alaska (Comment Letter No. 251)

Section III.C.4.b.(1), Page III-116, Social Systems, Socioeconomic Conditions in Point Lay. We recommend removal of the word 'traditional' from the last sentence of the first paragraph. The sentence may be misleading as written. Point Lay is the only unincorporated community in the NSB, but not the only 'traditional' village. There are six 'traditional' councils and three 'IRA' councils in the NSB, in addition to City governments. 251-452 **(Comment No. 251-453)**

Response To: Comment 251-453

The word "traditional" has been deleted from the text in Section III.C.4.b.(1).

Comment From: The North Slope Borough (Comment Letter No. 80065)

This section also seems realistic in considering the effects of 30 years of oil development on the North Slope. There have been rather profound changes to the Inupiat culture and the basic social systems. Some of these changes may be viewed as 'beneficial', including opportunities for steady employment, vastly improved social and community services, housing, education, and health care. Negative changes certainly have also occurred, including an erosion of cultural traditions. Subsistence activities, however, remaincentral to the Inupiat culture and continue to be the single most important factor binding together extended families, communities, and the North Slope as a whole. The critical importance of continued access to subsistence resources and continued subsistence harvest opportunities, both on land and in the ocean, must be fully recognized and addressed in the Final IAP/EIS. It is likely that with development in the Northwest NPR-A Planning Area, disruption of sociocultural systems will be felt more intensely in villages already directly affected by oil and gas activities, and that the disruption will be newly felt in communities experiencing industrialization of their traditional lands for the first time. Key issues in this regard are whether the benefits of oil and gas will outweigh the negative effects, and whether there are effective methods to mitigate anticipated negative effects. **(Comment No. 80065-589)**

Response To: Comment 80065-589

The critical importance of continued access to subsistence resources is discussed in Section IV.F.8.n., Cumulative

Effects on Subsistence-Harvest Patterns.

Comment From: Public Meeting on DEIS - Nuiqsut, Alaska (Comment Letter No. 80077)

They promised us natural gas. Where is it' They promised jobs. Where are they' They tell us we're not qualified. They always find some kind of loophole to make us like third class citizens, and by gosh yesterday I felt like a third class citizen. **(Comment No. 80077-939)**

Response To: Comment 80077-939

For a discussion of oil industry job programs and ongoing issues with the effectiveness of these programs, see the analysis of effects for Alternative A in Section IV.C.15 for Sociocultural Systems and for Environmental Justice in Section IV.C.16. See also the Cumulative analysis section for Sociocultural Systems in Section IV.F.8.o. It is BLM's understanding that ConocoPhillips Alaska, Inc. has completed the natural gas line to Nuiqsut and that the community is waiting for the Kuukpik Corporation and the North Slope Borough to coordinate and release an RFP for the construction of the distribution system within Nuiqsut. See also Responses to comments 254-612 (Subsistence), 80077-926 (Impact Compensation), and 80065-577 (Economy).

Comment From: Public Meeting on DEIS - Nuiqsut, Alaska (Comment Letter No. 80077)

We have -- I had seen unmarked grave along with an old sod house just recently, that they'd never been there in long time. When you implement your cultural historical site first before you fully develop the area of NPR-A, Northeast and Northwest site. The coastal area in the 1980s -- 1880s or so, the whole coastal area had hundreds of camp sites, where are they, you just marked three of them. But how many more are not -- unmarked yet' **(Comment No. 80077-942)**

Response To: Comment 80077-942

Section 106 of the National Historic Preservation Act requires that the lease holder identify any cultural resource, sites that might be impacted by their operations, and if the site is determined eligible for inclusion on the National Register of Historic Places (NRHP), impacts to the site must be mitigated. The NPR-A lease holders employ consultants and/or contractors who survey all areas (that might be impacted by lease holder operations) looking for cultural resource locales. In all cases, avoidance has been the mitigative procedure for any site regardless of whether it was eligible for inclusion on the NRHP or not. This information has been passed on to the Inupiat History, Language, and Culture Commission of the North Slope Borough.

52. TOPIC : VEGETATION

Comment From: U. S. Evironmental Protection Agency (Comment Letter No. 261)

The information in Table III-06. NW NPR-A Land Cover Classifications is useful, but would be better represented as a map to show the abundance, location, and distributions of the major and minor land cover classes in the NW planning area. EPA recommends comparing this type of land classification with the Cowardin et al. System for Classification of Wetlands and Deepwater Habitats used by the National Wetland Inventory (NWI) program of the U.S. Fish and Wildlife Service. **(Comment No. 261-121)**

Response To: Comment 261-121

The land cover classification developed by BLM and Ducks Unlimited has a resolution of 30m pixels. Although there is a general trend from north to south for landcover type to change, most of the 17 cover classes are present at some frequency in most all areas of the NPR-A. A map at this level of resolution would not provide additional support or value to the vegetation analysis and so was not included in the Draft IAP/EIS. However, it is available from BLM and is part of the administrative record. The report detailing the production of the map has been published. The first publication was by Ducks Unlimited. It has recently been republished as a BLM Technical Report and is available from BLM External Affairs in Anchorage: USDOI, BLM and Ducks Unlimited. 2002. National Petroleum Reserve - Alaska Earth Cover Classification. Technical Report 40. BLM, Anchorage, AK.

Comment From: U. S. Evironmental Protection Agency (Comment Letter No. 261)

Northwest NPR-A Land Cover Classification EPA recommends that the information regarding the NW-NPR-A land cover classification (Table III-06) be incorporated as a Map. This would help the public determine the distribution and location of each land cover category. **(Comment No. 261-134)**

Response To: Comment 261-134

Please see the response to comment 261-121(Vegetation).

Comment From: Public Meeting on DEIS - Washington, DC (Comment Letter No. 80082)

For instance, the recent National Academy of Sciences report on the impacts of oil development on the North Slope finds that nonacidic tundra is vitally important to wildlife, yet the DEIS does not identify areas where nonacidic tundra is present and analyze the 24 likely effect of oil exploration development. **(Comment No. 80082-550)**

Response To: Comment 80082-550

The author of the section of the National Academy of Sciences report to which this comment refers has done, with colleagues, some research on vegetation types across the North Slope of Alaska. That research has resulted in a relatively simple land cover classification system for the entire area that includes only six vegetation categories (Muller, S.V., A.E. Racoviteanu and D.A. Walker. 1999. LandSat MSS-derived land-cover map of northern Alaska: extrapolation methods and a comparison with photo-interpreted and AVHRR-derived maps. Int. J. Remote Sensing. 20:2921-2946). The same research also suggested that vegetation on moist, nonacidic soils, which are broadly distributed across the North Slope, may be important to wildlife. However, that importance has not been studied specifically. Because the BLM has developed a land cover classification specific to the NPR-A that includes 14 vegetation categories, and because the importance to wildlife of vegetation on nonacidic soils has not been studied, we did not include discussion of the above mentioned vegetation classification or the hypothesized importance of nonacidic soils in the DEIS.

Comment From: WesternGeco (Comment Letter No. 215)

6 A study of tundra disturbance by winter seismic surveys on the eastern portions of Alaska's North Slope (Jorgenson et al., 1996) indicated that 1 to 2 years after a survey, the disturbance level to the affected tundra

under seismic lines was little to none for 11 percent of the area, low for 64, percent, medium for 23 percent, and high for 2 percent. After 8 to 9 years, recovery' The reference (Jorgenson et al., 1996) does not exist in the bibliography. This study apparently evaluated the long-term impact to the tundra from of a seismic crew operating in the 1980's. The equipment used during this period was designed in the 1960's and 1970's. Therefore, the calculated levels of disturbance are only accurate if you assume that a seismic survey conducted today would use 30-40 year old technology. Since the latter half of the 1980's, WesternGeco has made substantial advances in reducing the environmental footprint of seismic crews operating in the Arctic. Therefore, WesternGeco contends that the damage assessments are far in excess of what could reasonably be expected. These estimates should be re-calculated using appropriate correction factors that account for the technological advances of the last two decades. **(Comment No. 215-798)**

Response To: Comment 215-798

Perhaps one major difference between the IAP/EIS and the comment is the use and meaning of the words damage and disturbance. A disturbance, or impact, occurs with every movement of a vehicle over snow. However, there may be no negative consequence. The disturbance may be limited to snow compression if the snow rests on ice, in which case no disturbance would be present in the summer. At the next level, the only observable disturbance in summer may be the compression of standing dead vegetation, leaving a visual "green trail for one to a few years. In the studies referenced, this may be measured as the "none to little" level of disturbance. The IAP/EIS seldom uses the word "damage," staying with "disturbance" or "impact" to avoid implication of a negative value judgment. When the total areal extent of impacts is summarized, the total estimated acreage traversed by vehicles is used without reference to the amount in each disturbance level. The text has been revised to indicate the age of the technology used in the 1984-85 seismic exploration of ANWR, and to include data from a study by ABR, Inc. of seismic activities conducted near the Colville Delta in 2001. The BLM does not have data for the NPR-A that are suitable for describing the distribution of initial impacts.

Comment From: WesternGeco (Comment Letter No. 215)

'Because 3-D seismic involves more tight turns by heavy equipment than does 2-D, the potential for vegetation damage is greater. For this reason, the medium and high disturbance levels to tundra may occur in greater proportions from 3-D seismic lines than presented for 2-D' This statement is incorrect. The line spacing for 3-D surveys was much smaller 20-25 years ago than it is today. The vehicles in use at that time were equipped with friction steering that had a tendency to disrupt surface vegetation if they turned too sharply. The receiver line spacing in use today is in excess of 1000 feet and the source line spacing is even greater than this. Since WesternGeco utilizes at least two source lines, a typical turn is on the order of 2640 feet. In addition, most of our vehicles are steered by articulation and not the braking action of one track. To prevent damage to surface vegetation, WesternGeco prohibits 'tight turns' with any vehicle in our operations. The damage due to 'tight turns' is a thing of the past. **(Comment No. 215-800)**

Response To: Comment 215-800

The text has been revised.

Comment From: WesternGeco (Comment Letter No. 215)

'The impacts of oil exploration would include vegetation disturbance on 33,800 to 549,000 acres per year from 2D and 3D seismic surveys over the entire exploration period (10 years). About 25 percent of the disturbance would be at a medium to high level'. See Attachment A. **(Comment No. 215-808)**

Response To: Comment 215-808

The information provided by the commenter is discussing the percentage of a seismic survey area that would be disturbed. The text referred to in the comment is discussing the percentage of the disturbed area assumed to have medium to high impacts for purposes of this analysis. These percentages do not refer to the same areas. No change is needed to the text.

Comment From: ConocoPhillips Alaska, Inc (Comment Letter No. 255)

Page IV-127, Seismic Activities. In the late 90's, CPAI and its seismic contractors began development of new equipment designs that would result in minimal tundra impacts. New articulated, rubber-tracked, low ground pressure (<1 to 4.5 psi) machinery has been designed, field tested and is now becoming standard equipment for North Slope seismic surveys. As stated previously, to evaluate the potential benefit from these new machines in protecting the tundra, CPAI recently completed a survey of tundra damage from seismic surveys shot in 1999, 2000, and 2001, in the NPRA and Colville River Unit. Overall, this study found that only about 8% of trails were judged to be moderate disturbance, and no areas of high disturbance were found. We point out this new study for two reasons: (1) to provide updated information on the benefits of the new machinery; and (2) to suggest that the large acreage of assumed tundra disturbance presented in this discussion should be updated to more accurately reflect future NPRA seismic impacts. We believe using these new techniques will significantly reduce the amount of disturbed acreage in NPRA. **(Comment No. 255-828)**

Response To: Comment 255-828

The text under the No Action Alternative, where impacts of seismic exploration to vegetation are first analyzed, has been revised to address the issue of more modern equipment and to compare the results of a more recent study of impacts (2001) with those from a 1986 study. The total acreage affected by seismic exploration, as reflected in this analysis, remains a result of the scenario used for estimating annual seismic exploration efforts by the industry. Please see the response to comment 215-798 (Vegetation).

Comment From: ConocoPhillips Alaska, Inc (Comment Letter No. 255)

Page IV-128, 5th para. This section assumes ponding will occur for 164 feet on all sides of gravel pads, which will impact 1000 acres in Alternative A. For clarification, based on our coperation experience, we do not see ponding on all four sides of gravel pads. When ponding occurs, it typically only occurs along one or two sides of any pad. Drill pads are very seldom built in a 'depression', where local drainage would carry and hold water against all four sides. Typically drainage is away from one or more sides of pads. Hence, disturbed acreage estimates in this discussion seem excessive. **(Comment No. 255-830)**

Response To: Comment 255-830

The author agrees that it is not likely that ponding would occur on both sides of a road or all four sides of a pad. However, the side(s) opposite of ponding may also be affected by drying due to lack of surface flow input. The text has been revised to present this. The total acreage presented for these types of effects over five oilfields (<1,000 acres) is a range, meaning that it is not expected to exceed 1,000 acres. The total acres presented in the summary include all effects (i.e., flooding, drying, dust, snow drifting, etc.) and these different impacts are not necessarily additive in areal extent. The flooding/drying situation has the potential to affect the greatest acreage, so it overshadows the others when discussing total acres of vegetation potentially altered.

Comment From: ConocoPhillips Alaska, Inc (Comment Letter No. 255)

Page IV-131, Conclusions. The acreage estimates of disturbed tundra resulting from seismic surveys seems excessive and based on equipment now longer used. New articulated, rubber tired, and low psi equipment developed in the past few years cause significantly less damage. See previous comments. This section needs to be updated so EIS reviewers have a more accurate impression of this potential impact. **(Comment No. 255-831)**

Response To: Comment 255-831

Please see the response to comment 255-828 (Vegetation).

53. TOPIC : WETLANDS

Comment From: U. S. Evironmental Protection Agency (Comment Letter No. 261)

According to the draft IAP/EIS, approximately 95% of the NW Planning Area would be classified as wetlands. EPA recommends that additional Stipulations and/or ROPs be developed for the NW planning area to minimize potential adverse impacts to important wetland resources and floodplains per Executive Order 11990 (Protection of Wetlands) and Executive Order 11988 (Protection of Floodplains). EPA recommends that additional guidelines be developed to ensure that impacts to wetlands for construction of roads, gravel source sites, well pads, and airstrips comply with the Clean Water Act Section 404(b)(1) Guidelines. The final IAP/EIS should address the potential direct and indirect effects (including cumulative effects), to wetlands resources from these development activities. **(Comment No. 261-123)**

Response To: Comment 261-123

The Lease Stipulation and Required Operating Procedures Package in the Draft EIS as well as the Final EIS were developed with the knowledge that activities would affect wetlands, as has all previous oil development on Alaska's North Slope. All developments would have to include consultation with the U.S. Army Corp of Engineers in compliance with the Clean Water Act, Section 404.

54. TOPIC : GOVERNMENT-TO-GOVERNMENT

Comment From: U. S. Evironmental Protection Agency (Comment Letter No. 261)

EPA commends DOI/BLM for engaging the Native Alaskan villages in meaningful public participation during the scoping process by producing scoping documents in the native language of the impacted communities. However, there is no indication that the draft IAP/EIS (or documents summarizing the draft IAP/EIS) was translated into Inupiat for the affected villages. Since comments from the Inupiats on the draft IAP/EIS are desired and should continue to influence decision-making, translation of important materials is also an important part of accomplishing 'meaningful participation' with the Inupiats. The final IAP/EIS should document the efforts taken by DOI/BLM in engaging the affected EJ communities by identifying written materials that have been provided in the Inupiat language as well as meetings held with EJ communities to discuss their concerns. Meetings with Native Alaskan villages may be necessary to explain the proposed alternatives, how these were developed, how Inupiat input from the scoping meetings affected alternative development for the final IAP/EIS,

and to request further input on the development of the IAP. **(Comment No. 261-102)**

Response To: Comment 261-102

The Executive Summary the final IAP/EIS will be available in the indigenous language of Iñupiaq.

Comment From: U. S. Evironmental Protection Agency (Comment Letter No. 261)

EPA recommends that the draft IAP/EIS for the NW-NPR-A include a separate section that addresses the federal government's (DOI/BLM's) Tribal Trust Responsibilities. The draft IAP/EIS should document the tribal consultation process used by DOI/BLM to formally consult and/or coordinate with interested Alaskan Tribes in the Northwest Planning Area on a Government-to-Government basis. 'Consultation' means the process of seeking, discussing, and considering the views of federally recognized Tribal governments at the earliest time. Typically, consultation means two-way communication that works toward a consensus reflecting the concerns of the affected federally recognized Tribe(s). The draft IAP/EIS indicates that public scoping meetings were held in the North Slope Borough communities of Wainwright, Atqasuk, Barrow, Nuiqsut, Anaktuvuk Pass, and Point Lay. While important, scoping meetings with the general public do not fulfill the tribal consultation responsibilities of the Federal government embodied in E.O. 13175. Formal consultation must take place with the interested tribal governments. The opportunity for effective consultation must be created to allow for meaningful Tribal input. The final IAP/EIS should document the Tribal Government-to-Government consultation process for the Northwest NPR-A. EPA believes that if a federal action is located in or adjacent to an Alaska Native Village, it is likely to be of concern to the Tribe. In addition, if a federal action is in an area where a Tribe may have historically used the area for hunting or subsistence purposes, this too may be of interest to the Tribe. EPA recommends that formal Government-to-Government consultation with interested Alaska Tribes be conducted with Federally Recognized Tribes in the following native governments of the Northwest Planning area of NPR-A: Village of Anaktuvuk Pass Atqasuk Village Native Village of Barrow Inupiat Traditional Government Inupiat Community of the Arctic Slope (ICAS) Kaktovik Village Native Village of Nuiqsut Native Village of Point Lay Village of Wainwright In general, Tribal consultation would commence by sending a written letter requesting formal Government-to-Government consultation to the Tribal governments identified above. EPA realizes that not all of these Tribes will have the interest, time, resources, or for other reasons, to respond to a formal request. However, even if the Tribe has not responded to the consultation letter, efforts should be made to follow up with information which allows Tribes to participate at a later date should they so choose. The development of a Tribal Government-to-Government consultation plan, including a schedule or time line, negotiated collaboratively with the Tribe, can help to ensure that Tribes are aware of the Federal action and the dates for significant involvement and decisions. At this stage of the NEPA process, EPA recommends that DOI/BLM conduct formal consultation with the Tribal Governments identified above regarding the draft IAP/EIS and the proposed alternatives. The Tribal Government-to-Government plan and consultation process should be documented in the final IAP/EIS for the Northwest NPR-A. **(Comment No. 261-119)**

Response To: Comment 261-119

A summary of the Government-to-Government consultation process that occurred with regard to the Northwest NPR-A is included in the Final IAP/EIS (see Section VI.D). Additionally, a brief description of the BLM's Tribal Trust responsibilities has been included separately from the Environmental Justice section.

Comment From: U. S. Evironmental Protection Agency (Comment Letter No. 261)

Section VI. Consultation and Coordination B. Agencies and Organizations Contacted. This section identifies Federal Agencies, State Agencies and Commissions, and Municipal Governments. Presidential Executive Order (E.O.) 13175 - Consultation and Coordination with Indian Tribal Governments (November 6, 2000; FR Vol. 65;

No. 218) refers to federally recognized Tribes as a sovereign government. EPA recommends that a separate heading entitled "Tribal Governments" be included in Section VI (B) and a list of the federally-recognized tribal governments be included. At a minimum, DOI/BLM must conduct Government-to-Government Consultation with the following affected Federally Recognized Tribes in the NW NPR-A planning area, and list them in a separate section under "Tribal Governments": Village of Anaktuvuk Pass Atqasuk Village Native Village of Barrow Inupiat Traditional Government Inupiat Community of the Arctic Slope (ICAS) Kaktovik Village Native Village of Nuiqsut Native Village of Point Lay Village of Wainwright **(Comment No. 261-129)**

Response To: Comment 261-129

The text has been revised to incorporate this comment.

Comment From: Audubon Alaska (Comment Letter No. 213)

Beluga coastal concentration areas should be clearly identified and protected from unnecessary disturbance, particularly from June through August. Other important coastal habitats used by beluga whales, including Kasegaluk Lagoon, should be identified and protected from habitat degradation and contamination. Special consideration must also be given to future Outer Continental Shelf oil and gas exploration and development as well as future port developments and resulting shipping activities. Conservation strategies should be developed in collaboration with Alaska Native villages and the Alaska Beluga Whale Committee. **(Comment No. 213-355)**

Response To: Comment 213-355

Under the Preferred Alternative, the BLM calls for Kasegaluk Lagoon to be designated a special area. This proposed special area would recognize this outstanding example of a barrier island/lagoon complex, as well as its wide variety of fish and wildlife resources, including beluga whales. In other areas, the protection of marine mammals and other species is addressed in Lease Stipulation K-3. With regard to future Outer Continental Shelf development, the Cumulative Case as presented in the Plan did include the analysis of 7 potential offshore discoveries that may be developed in the next 15 to 20 years. The Minerals Management Service manages the offshore waters of the Outer Continental Shelf area--not the BLM; however,if the need for conservation strategies for any resource or species arises, it will be addressed in collaboration with the pertinent entities, agencies, and tribal governments.

Comment From: Public Meeting on DEIS - Barrow, Alaska (Comment Letter No. 80075)

The Eastern Arctic NPR-A Example is another comment I'd like to make. The process for determining a preferred alternative that was eventually adopted by the Federal government was much more inclusive during the Eastern Arctic NPR-A lease sale. Nuiqsut. The village of Nuiqsut worked through a list of areas that they wanted to protect and they were effective representing themselves at all levels of the lease sale including the permitting process. North Slope Borough. When the land near Nuiqsut were being leased for oil and gas activity, there was a lot of opportunity for the village of Nuiqsut to come to consensus on mitigating on measures that were important to them. Representatives from the North Slope Borough Planning Department and Wildlife met with the residents of Nuiqsut to develop the Borough position. State of Alaska. Governor Knowles worked with the North Slope Borough to come to consensus with the local government on areas that should be protected for wildlife resources and for subsistence activities. We agreed to disagree on some issues, but the State of Alaska consulted with the people who would be most directly impacted by development. Again, this process was used to come up with stipulations that enable the local subsistence hunters and the industry to live with each other and it seems to be working as far as I can tell. **(Comment No. 80075-471)**

Response To: Comment 80075-471

A similar process to that used in Northeast NPR-A plan was employed for the Northwest NPR-A planning process. However, because more than one community was potentially affected by the plan, the Bureau extended the comment period, in part to provide more time for the North Slope Borough to coordinate community meetings, develop comments and help the Bureau craft the proposed Preferred Alternative. In addition, members of the North Slope Borough Wildlife Management Department attended a special stipulation workshop in Anchorage and later provided recommended language that was eventually incorporated into the lease stipulations and required operating procedures. Copies of the draft IAP/EIS were mailed directly to appropriate resources/regulatory agencies and their comments were solicited during the public review and comment period. Representatives of BLM, both management and staff specialists, met with various Federal, State, and Borough representatives to discuss their comments and concerns. In addition, as required by Section 7 of the Endangered Species Act, formal consultation was initiated with both the U.S. Fish and Wildlife Service and the NOAA Fisheries. Consistent with the National and State Programmatic Agreements and protocols, BLM also consulted with the State Historic Preservation Officer. In accordance with Executive Order 13175, Government-to-Government Relationships with Native American Tribal Governments, representatives of BLM met with the representative of the potentially affect Native villages of the North Slope to discuss their comments and concerns, as well as to discuss the development of the Preferred Alternative. A list of the agencies with resource protection and/or regulatory/permitting responsibilities is provided in Appendix 4. Interrelationships of various laws and regulatory agencies is discussed in Section II.F. An overview of consultation and coordination for this IAP/EIS is provided in Section 6.

Comment From: Public Meeting on DEIS - Barrow, Alaska (Comment Letter No. 80075)

Finally, it is your job, as a Federal agency to protect our interest and it is only fair to give some leeway for local people who will have to live with the impacts of development on NPR-A. Our local entities need time to work with people like myself who use the land for traditional subsistence activities. We need time to identify important areas and the types of protections that we need to sustain the use of our homeland. I expect our Federal government to take our collective efforts seriously and include them in their preferred alternative before the lease sale is held. What we need are stipulations that will make it tolerable for us to literally live next door to the oil industry. **(Comment No. 80075-474)**

Response To: Comment 80075-474

Pursuant to a formal request from the Mayor of the North Slope Borough to extend the public comment period, the Bureau of Land Management agreed. The rationale for the request was that the North Slope Borough needed additional time to conduct community meetings to solicit concerns from across the North Slope. As a result, the comments from the North Slope Borough were much more reflective of the wider North Slope community. The borough's comments had a major influence on the development of the Preferred Alternative.

Comment From: Public Meeting on DEIS - Barrow, Alaska (Comment Letter No. 80075)

Tonight I'm going to advocate for our membership to implement a plan into the NPR-A Northwest Planning Area to make sure that we get our local people working in these top of the line jobs, like in the seismic activities. Get our people trained properly to run equipment, that way we won't have any grumpy members out there looking for jobs and hurting for jobs. I would encourage the planners for the industry to advocate such a plan for our working people out there in the responsible oil and gas development that is happening here on the NPR-A. If that is not in the plans already, I would encourage you folks to put it into the plan. I'm just saying, let's start training our people out there properly to get them jobs and we just want to get along real good with the oil industry and I'm just here to encourage that. **(Comment No. 80075-489)**

Response To: Comment 80075-489

The BLM has long supported the hiring of local residents for oil and gas and related industry positions. In this regard, we have supported and encouraged the hiring of local subsistence representatives for seismic and ice road construction monitoring both from Barrow and Nuiqsut. We will continue to encourage the hiring of local residents who are knowledgeable of local subsistence concerns

Comment From: Public Meeting on DEIS - Barrow, Alaska (Comment Letter No. 80075)

Consultation with the Borough and other entities and the potentially affected communities must be made a component of such measures. **(Comment No. 80075-492)**

Response To: Comment 80075-492

The BLM has taken your comments into consideration in developing the Preferred Alternative. Please see Section H "Subsistence Consultation for Permitted Activities" of the General Lease Stipulations and Required Operating Procedures.

Comment From: Public Meeting on DEIS - Barrow, Alaska (Comment Letter No. 80075)

Because of the importance of the area around Puviaq which is located in the Eastern NPR-A and the Northwest NPR-A Planning Area, for our subsistence hunting,it is very important that the subsistence hunters who utilize this area, whether or not they own allotments in the area be consulted on any planned development related to Puviaq or the Northwest NPR-A Planning Area or any other nearby development that might be planned in the future. A model of this type of consultation exists already in the Open Water Season Conflict Avoidance Agreement. The Conflict Avoidance Agreement should be referenced and a similar type of consultation required by the North Slope Borough, the U.S. Army Corps of Engineers, and any other government agencies involved in permitting oil and gas activities in the vicinity of the Eastern NPR-A and the Northwest NPR-A Planning Area. **(Comment No. 80075-493)**

Response To: Comment 80075-493

Conflict avoidance agreements, among other mechanisms to address potential subsistence conflicts, are specifically mentioned in the General Lease Stipulations and Required Operating Procedures: Subsistence Consultation for Permitted Activities.

Comment From: Public Meeting on DEIS - Barrow, Alaska (Comment Letter No. 80075)

There was a memorandum dated February 4, 2002 from the Council on Environmental Quality Executive Office of the President of the United States urging Federal agencies to actively solicit for participation of State, tribal and local governments as cooperating agencies in implementing the Environmental Impact Statement process of the National Environmental Policy Act, NEPA 40 CFR 1508. Native Village of Barrow has submitted a letter of interest in assuming the responsibilities of becoming a cooperating agency under 40 CFR 1501.6. Currently, Native Village of Barrow is awaiting an answer for the request to become a cooperating agency. **(Comment No. 80075-498)**

Response To: Comment 80075-498

At this time we are not aware of any correspondence with the Native Village of Barrow regarding their request to be a non-federal cooperating agency. If a letter was sent, it was not received by the Northern Field Office in Fairbanks. The North Slope Borough and BLM have entered into an assistance agreement to provide assistance in development the Northwest NPR-A Plan. Given that the Planning Area extends well beyond the boundaries of the area of interest of the Native Village of Barrow, the decision to work directly with the North Slope Borough is deemed appropriate.

Comment From: Arctic Slope Regional Corporation (Comment Letter No. 186)

We support Alternative A, provided that exploration and development follow the consultative process that has successfully worked elsewhere on the North Slope, such as at the Alpine oil field in the Colville River delta. Exploration should be allowed in the area, and then reasonable decisions, through consultation with our local government and communities, can be made regarding development. **(Comment No. 186-558)**

Response To: Comment 186-558

Please see the response to comment 254-638 (Governmen- to- Government).

Comment From: Arctic Slope Regional Corporation (Comment Letter No. 186)

A leasing program for exploration and development in the Planning Area must recognize and account for the close ties that the Iñupiat people retain to their traditional lands. ASRC has observed over time that a consultative process ' both prior to exploration and again prior to any development - between the industry and our residents has been adequate in balancing the cultural and subsistence resources with the need for continued responsible development. **(Comment No. 186-562)**

Response To: Comment 186-562

Please see the response to comment 80065-586 (Subsistence).

Comment From: Arctic Slope Regional Corporation (Comment Letter No. 186)

ASRC wishes the Department of Interior to recognize the special closeness that the Iñupiat people have with the lands of Alaska's North Slope. Our success as a people is dependent upon a continuing respect for the land and its resources. Oil and gas development provides job opportunities for our residents, and improves the quality of life in our villages. The land and its living resources provide a foundation for our culture, nutrition for our bodies, and a home for our spirit. We are confident that the Department of Interior, like our local government, can foster development in the Planning Area in a way that respects the land and all that it means to our people. **(Comment No. 186-566)**

Response To: Comment 186-566

The BLM acknowledges the importance of the land and the living resources it contains to the Inupiat people and believes that the affected environment and effects discussions for subsistence-harvest patterns, sociocultural systems, and environmental justice reflect this recognition.

Comment From: The Kuukpik Corporation (Comment Letter No. 254)

Conflicts can arise between subsistence and industry when industry's operations are not consistent with subsistence activities or when operations interfere with subsistence activities. In order to avoid such conflicts in the Northwest NPR-A Planning Area, stipulations should require lessees to consult regularly and extensively with affected North Slope communities and the BLM. This kind of consultation is already required in the Northeast NPRA Planning Area, but its application has been less than perfect. Failures in consultation can be traced to two possible root causes: consultation with only the Subsistence Advisory Panel and/or failure to follow the stipulation at all. **(Comment No. 254-638)**

Response To: Comment 254-638

The BLM is in agreement that consultation is the foremost technique in effective conflict avoidance and mitigation. It is for this reason that the General Lease Stipulations and Required Operating Procedures (ROP's) that accompany the Preferred Alternative for the NW NPR-A Final Integrated Activity Plan contain an entire section regarding Subsistence Consultation. The BLM believes the Stipulations and ROP's in the NW Plan are an improvement over those that accompanied the NE Plan in the following ways: The NW Plan Stipulation • Sets the parameters for the types of communication that are considered consultation, and gives guidance to the industry with regard to what constitutes adequate consultation; • Requires documentation by all permit applicants of their consultation efforts be submitted to the BLM with their Plan of Operation; • Identifies the types of information to be included in the Subsistence Plans submitted by the permit applicants; and • Includes a specific Required Operating Procedure for consultation with regard to seismic operations, which contains additional requirements due to the nature of the activity. It is the hope of the BLM that the more exacting language used in the NW Plan Stipulations will aid the industry in understanding and fulfilling the requirement of the stipulation. In addition, specifying what is expected of the permit applicant allows the BLM to more accurately enforce adherence to the stipulation. Stipulation K-7 also establishes buffers along many rivers that are important subsistence areas.

Comment From: Olgoonik Corporation (Comment Letter No. 169)

In couple of the proposed plans where there were some lands identified within the corporate lands. Olgoonik Corporation should be involved before any exploration and development takes place this would also include in any of the multiple ownership lands. **(Comment No. 169-715)**

Response To: Comment 169-715

The Northwest Integrated Activity Plan/Environmental Impact Statement applies only to those lands under the stewardship of the BLM. Map 05 in the NW IAP/EIS ahows the breakdowns of lands in the NW Planning Area. For those lands that are split estates (where the surface is owend by a private individual or company, but the subsurface is owned by the federal government) the lands can be leased because the BLM owns the subsurface rights, but Surface Management Agreements would have to be in place before any activity, such as exploration and development, could occur on those lands.

Comment From: City and Native Village of Nuiqsut (Comment Letter No. 80026)

Geographic Response Strategies: Geographic response strategies individually developed for sites deemed critical to subsistence resources by the community and the Kuukpik Subsistence Oversight Panel are imperative as a mitigation measure. As is special consultations for owners of Native Allotments in order that they may understand the impacts at and near their properties. **(Comment No. 80026-1016)**

Response To: Comment 80026-1016

Please see responses to comments 80077-942 (Sociocultural Systems) and 80077-946 (Government to Government). See also the General Lease Stipulations and Required Operating Procedures for the Preferred Alternative, specifically Required Operating Procedure E-12.

Comment From: City and Native Village of Nuiqsut (Comment Letter No. 80026)

Consultation with local communities: Under all alternatives the required amount and character of consultation with local communities will decrease from that required under the NPR-A Northeast ROD. Has the BLM conducted a study among NSB communities to ensure that the community consultation required under the NPR-A Northeast management plan is effective for the communities' Has the Research Monitoring Team, established pursuant to the ROD for the Northeast NPR-A IAP/EIS, met with the Subsistence Advisory Panel to consult and cooperate in designing research efforts, specifically in relation to the effectiveness of stipulations and other mitigative management options' The Preferred Alternative, ROP H-1 should be strengthened by requiring full, not partial, funding of Subsistence Oversight panels in each affected community. These panels cannot be effective if they are not funded to perform duties with which they are charged. Funding would include amounts for a full-time executive director, part-time administrative help and part-time subsistence field observers and could be provided either by BLM or the lessee, or both. Tools and training for field observers are essential to develop the skills necessary for effective subsistence monitoring. **(Comment No. 80026-1022)**

Response To: Comment 80026-1022

Please see responses to comments 254-638 (Government to Government), 261-102 (Government to Government, 261-119 (Government to Government), 80026-1016 (Government to Government), 80075-471 (Government to Government), 80075-474 (Government to Government), 80075-493 (Government to Government), 80077-926 (Impact Compensation), 80077-946 Government to Government), and 80079-989 (Government to Government). See also the General Lease Stipulations and Required Operating Procedures for the Preferred Alternative, specifically Required Operating Procedures H-1 and I-1.

Comment From: Christine Henderson (Comment Letter No. 252)

Several questions remain unanswered with this new plan: Have the Inupiats been able to give their views on this proposal? How will the oil and gas development affect their subsistence living and culture? How will this development change their culture, will the economic benefits outweigh the negative, pathologic consequences? What studies have been done to confirm that the development of countless roads and drill pads will not negatively affect the wildlife and vegetation. What about migratory birds and mammals? How will it affect their traditional travel routes? Have plans been designed for mitigating the harmful effects once drill pads and roads are abandoned? Infrastructure for such development is extremely resistant to natural healing processes. These and other very important and critical factors must be taken into consideration before any exploratory or permanent development takes place. **(Comment No. 252-841)**

Response To: Comment 252-841

The meetings that were held after the release of the Draft IAP/EIS this past spring were two types: 1) Public Meetings, and 2) joint ANILCA 810 Subsistence Hearing/Public Meetings. Every meeting that was held on the North Slope (in the communities of Point Lay, Wainwright, Atqasuk, Anaktuvuk Pass, Nuiqsut, and Barrow) was an ANILCA 810 Subsistence Hearing/Public Meeting. The hearing officer at all of these meetings was Arnold Brower, Jr. (who also provided translation). Flyers, radio announcements, and letters sent to the various communities specified that the meetings were combined ANILCA 810 Subsistence Hearings/Public Meetings. At each hearing/meeting, BLM gave a PowerPoint presentation explaining that the meeting was an ANILCA 810 Subsistence Hearing/Public Meeting. Additionally, and as required by policy, the hearing officer read a statement before he began to take public comments in which it was stated that the purpose of the hearing was in response to the ANILCA 810 evaluation, but if anyone wanted to comment on other aspects of the plan, they could do so. The decision to combine the ANILCA 810 hearings with a joint public meeting was made for several reasons: 1. Most communities on the North Slope have commented that they are experiencing "meeting burnout" in that too many meetings occur, and it is difficult to discern what information is actively being solicited at each. It was felt that if we had two separate meetings, one ANILCA 810 hearing, and one public meeting about the draft NW NPR-A Plan, that the same information, concerns, and issues would be identified at each, and we would be contributing to this burnout. 2. Precedent had been set, in that during the public meetings for the NE NPR-A, the ANILCA 810 hearing occurred simultaneously. Therefore, the decision of the planners to hold a joint Public Meeting/ANILCA 810 hearing was viewed as acceptable, since it had occurred before on the North Slope with no complaint. 3. ANILCA 810 provides that the notice, hearings, and findings required by that statute be presented as part of the EIS.

Comment From: Public Meeting on DEIS - Atqasuk, Alaska (Comment Letter No. 80074)

The lease stipulations from the Northwest NPR-A Plan Babbitt Record of Decisions that were dropped in Northwestern Plan Draft-EIS in 2003, which we're looking at, Northwest and the Northwest Plan Lease Stipulations or ROP, Required Operating Practices. That will be left up to the discretions of the Bureau of Land Management bureaucrats in charge. That has no significant approach, neither addresses it, government to government, consultation policy, which falls under the Executive Order 13-175, which is the coordination with the tribal governments and the Department of Interior during the proposed changes made. I don't think when they made these stipulations that they did not follow up with government to government relations. **(Comment No. 80074-885)**

Response To: Comment 80074-885

We have taken your comments into consideration in developing the Preferred Alternative. Please see the responses to comments 249-524 (Stipulations, Required Operating Procedures and Mitigations) and 251-136 (Management).

Comment From: Public Meeting on DEIS - Atqasuk, Alaska (Comment Letter No. 80074)

MR. AIKEN: Yeah, when I was down in the Alaska Forum on the Environment and as I was listening to ConocoPhillips Alaska, Inc., they made a comment, they said, we consult with the tribal governments, tribal people, which is the North Slope Borough, he said, and I didn't -- I kind of didn't like his phrase when he mentioned North Slope Borough as the tribal government. It's not a tribal government. So somebody should tell ConocoPhillips Alaska, Inc. not to say that kind of a phrase again. They should consult with the tribal governments, tribal members and they should never, never, again, mention North Slope Borough as a tribal government. **(Comment No. 80074-896)**

Response To: Comment 80074-896

The BLM has forwarded your comment to ConocoPhillips Alaska, Inc..

Comment From: Public Meeting on DEIS - Nuiqsut, Alaska (Comment Letter No. 80077)

In 2002, ConocoPhillips Alaska, Inc. partnered with Arctic Slope Regional in offering training programs for North Slope residents interested in oil field maintenance and heavy equipment maintenance. This year 20 North Slope residents spent their summer working and training in these areas. ConocoPhillips Alaska, Inc.' employees are also volunteer mentors for the Nuiqsut High School students participating in the Alpine Career Quest Internship Program. In 2002, seven Trapper School students completed the winter Career Quest Program at the Alpine Oil Field, and about 12 students were involved in the summer program based in Nuiqsut. These programs will continue in 2003. **(Comment No. 80077-924)**

Response To: Comment 80077-924

This statement has been incorporated into the discussion on industry programs to employ local workers in Section IV.C.15, Sociocultural Systems, as well as in Section III.C.1.b(4), North Slope Oil-Industry Employment of North Slope Borough Resident Natives.

Comment From: Public Meeting on DEIS - Nuiqsut, Alaska (Comment Letter No. 80077)

HEARING OFFICER BROWER: She's stating that she supports Eli and Bernice's comments. The pipeline is already -- because the pipeline has already crossed the Kukpuk River, it seemed like that was sufficient for the industry to provide from the comments because they did allow that to come across and since then they have neglected the community of Nuiqsut. And for that reason, these people need to get back in communication with the village of Nuiqsut to meet those concerns and mitigated items that were done for the community of Nuiqsut because she, right now, hardly has enough cash to pay for her fuel, heating fuel. **(Comment No. 80077-943)**

Response To: Comment 80077-943

See Responses to comments 80077-945 (Government to Government) and 80077-946 (Government to Government).

Comment From: Public Meeting on DEIS - Nuiqsut, Alaska (Comment Letter No. 80077)

You know, I, along with them are frustrated. So if the industry and the State agencies and the Federal agencies would keep up their work and considering all the protection rights for lands and seas and animal life, they should also very closely look at the people, you know, because what affects the land, what affects the wildlife, ultimately affects the people. **(Comment No. 80077-945)**

Response To: Comment 80077-945

The BLM acknowledges that there are potential economic, social, and subsistence effects, and has evaluated these potential impacts for each alternative under the resource topics of Economics, Subsistence-Harvest Patterns, Sociocultural Systems, and Environmental Justice.

Comment From: Public Meeting on DEIS - Nuiqsut, Alaska (Comment Letter No. 80077)

And so I agree with what Bernice had said earlier with the economy. Something needs to be said now and some collaboration needs to be put together between the people, the industry, the State and the Federal level on figuring these out. And I'm pretty sure it's going to take some cooperation on all parts. **(Comment No. 80077-946)**

Response To: Comment 80077-946

The BLM has taken your comments into consideration in developing the Preferred Alternative. Please see Section H "Subsistence Consultation for Permitted Activities" of the General Lease Stipulations and Required Operating Procedures. See Section VI for additional discussion on subsistence resources and harvests. See Section II.F.8 for a discussion of local governmental participation in the developing North Slope Science Strategy and the North Slope Management Oversight Group. This group would be instrumental in initiating subsistence resource inventories, monitoring, and research.

Comment From: Paul Hugo (Comment Letter No. 187)

All activities within the NPR-A will follow guidelines set by the NSB Planning Commission. **(Comment No. 187-965)**

Response To: Comment 187-965

The BLM has worked closely with the North Slope Borough in developing the Preferred Alternative. Furthermore, permittees must observe all Federal, State and local laws and regulations applicable to the area.

Comment From: Paul Hugo (Comment Letter No. 187)

All activities are done in a timely manner with assistance from local observers. **(Comment No. 187-968)**

Response To: Comment 187-968

Several measures to minimize impact on caribou movement are included in the Preferred Alternative. However, these measures are focused on the Teshekpuk Lake Caribou Herd, not the Western Arctic Herd (WAH). Impacts to the WAH from oil and gas activities in the Planning Area are not specifically addressed because the winter range, calving area, primary migratory area, and most of the summer range of the WAH are outside of the Planning Area.

Comment From: Public Meeting on DEIS - Wainwright, Alaska (Comment Letter No. 80079)

HEARING OFFICER BROWER: Yeah, Enoch, we could allow that I guess since we're still in Wainwright. MR. OKTOLLIK: What I forgot to include is we have no choice. Like I picked that no action. But if we have no choice we want to make sure they're going to do studies that we have local observers. Also if there's development, also, that local observers are included in the development. **(Comment No. 80079-989)**

Response To: Comment 80079-989

Please see the response to 253-29 (Research and Monitoring Team).

55. TOPIC : GEOLOGY

Comment From: State of Alaska (Comment Letter No. 251)

Section III, Page III-4, Last Paragraph. The discovery date of the Alpine Field is the winter of 1994-95, not 1988. Also, the stated Alpine recoverable reserves of 500 Mmbo seem excessive when compared with the public disclosures by the operator which are in the range of 430 Mmbo. An economically recoverable reserve of 500 Mmbo is repeated throughout the Draft. IAP/EIS and should be corrected throughout. Section III.A.1.a(3), Oil and Gas Resource Assessment. See Appendix 7 comments. **(Comment No. 251-415)**

Response To: Comment 251-415

The 1988 reference for Alpine discovery in sentence 4 is incorrect and is contradicted by the 2nd sentence. The 1988 reference has been deleted. Sentence 3 in the subject paragraph has been re-written. For some years, Alpine field has been reported as having 429 MMbbl in oil reserves. More recently, company announcements about "debottlenecking" efforts to raise Alpine production from the originally planned 70,000 bpd to 120,000 bpd (150,000 bpd with satellites added) (Petroleum News, 2002, 7/39) suggest higher ultimate reserves. In December 2001, Dean Gingrich, lead ConocoPhillips Alaska, Inc. geophysicist for Alpine field, cited 500 MMbbl for Alpine field in a luncheon presentation to the Geophysical Society of Alaska. The 500 MMbbl estimate is the most recent public disclosure by an official representative of the operating company.

Comment From: U.S. Geological Survey (Comment Letter No. 164)

III: DESCRIPTION OF AFFECTED ENVIRONMENT; A. PHYSICAL CHARACTERISTICS; 1. Terrestrial Environment; a. Geology; (1) Mineral Potential; (d) Coal Resources; paragraph 3: "While the North Slope coal bed methane resources are strictly speculative at this time, the Alaska Division of Geological and Geophysical Survey estimates there are up to 700 trillion cubic feet (Tcf) of North Slope coal bed methane, based on simple basin calculations determining coal volumetrics and conservative estimates of gas yield." This statement should specify that the estimate is for in-place resources and that the volume recoverable is unknown. "This estimate dwarfs the 33 Tcf of booked natural gas reserves and 64 Tcf of estimated onshore conventional gas resources currently cited by the USGS (U.S. Geological Suvey, 2002)." This statement needs to be rewritten as follows: "This estimate dwarfs the 33 Tcf of booked natural gas reserves and 64 Tcf of estimated onshore undiscovered conventional gas resources currently cited by the USGS (U.S. Geological Suvey, 2002)." **(Comment No. 164-867)**

Response To: Comment 164-867

The text has been revised.

Comment From: U.S. Geological Survey (Comment Letter No. 164)

III: DESCRIPTION OF AFFECTED ENVIRONMENT; A. PHYSICAL CHARACTERISTICS; 1. Terrestrial Environment; a. Geology; (2) Petroleum Geology; paragraph 1: The statement, "'proven commercial oil reserves exceeding 17.8 Bbbl'," might be interpreted as indicating that there is still that much oil in "reserve." In fact, more than 13 Bbbl of the 17.8 Bbbl have already been produced so that, according to the State figures cited, current oil reserves are less than 5 Bbbl. **(Comment No. 164-868)**

Response To: Comment 164-868

The text has been revised for clarification.

Comment From: U.S. Geological Survey (Comment Letter No. 164)

III: DESCRIPTION OF AFFECTED ENVIRONMENT; A. PHYSICAL CHARACTERISTICS; 1. Terrestrial Environment; a. Geology; (2) Petroleum Geology; (a) Petroleum Activities in Northern Alaska; 1) Past Exploration Efforts; paragraph 3: "State lease sales in 1964 and 1965 were followed by the discovery of the super-giant Prudhoe Bay field in 1968. With 12.8 Bbbl of oil, Prudhoe Bay is the largest oil field ever found in North America." 3 The number cited here (12.8 Bbbl) is cumulative production and does not include remaining reserves. A clarification is needed. **(Comment No. 164-869)**

Response To: Comment 164-869

The oil reserve figure for Prudhoe Bay field is a few years old and can be updated. The 2002 summary published by the State of Alaska Division of Oil and Gas shows cumulative production of 10,634 MMbbl of oil and NGL (tbl. III.3) and forecasts 3,024 MMbbl in remaining oil reserves (tbl. III.1), for a new total estimate of original reserves of 13,658 MMbbl oil. The text has been amended and Figure III-01 and Map 101 have been updated accordingly.

Comment From: U.S. Geological Survey (Comment Letter No. 164)

III: DESCRIPTION OF AFFECTED ENVIRONMENT; A. PHYSICAL CHARACTERISTICS; 1. Terrestrial Environment; a. Geology; (2) Petroleum Geology; (a) Petroleum Activities in Northern Alaska; 1) Past Exploration Efforts; paragraph 4: Resumed exploration of the NPR-A in 1973 was initially conducted by the U.S. Navy. The USGS did not "coordinate" this exploration activity until 1976 when management of the petroleum reserve was transferred from the Navy to the Department of the Interior. **(Comment No. 164-870)**

Response To: Comment 164-870

The text has been corrected.

Comment From: U.S. Geological Survey (Comment Letter No. 164)

III: DESCRIPTION OF AFFECTED ENVIRONMENT; A. PHYSICAL CHARACTERISTICS; 1. Terrestrial Environment; a. Geology; (2) Petroleum Geology; (a) Petroleum Activities in Northern Alaska; 1) Past Exploration Efforts; paragraph 7, Figure III-01: Figure III-01 shows the Nanuq accumulation in the Upper

Jurassic, at the same stratigraphic horizon as the Alpine accumulation. Nanuq actually is in the Lower Cretaceous Torok Formation. **(Comment No. 164-871)**

Response To: Comment 164-871

Figure III-01 has been revised to associate the Nanuq field with the turbidites at the base of the Torok Formation. However, there is also production associated with a Kuparuk C sandstone (P/I Dwight's Plus Drilling Wire, 2001, 47/31, p. 1), which is why the Nanuq was posted next to the Beaufortian sequence.

Comment From: U.S. Geological Survey (Comment Letter No. 164)

III: DESCRIPTION OF AFFECTED ENVIRONMENT; A. PHYSICAL CHARACTERISTICS; 1. Terrestrial Environment ; a. Geology; (2) Petroleum Geology; (b) Geologic History and Stratigraphy; Map 27: In the legend of Map 27, the arrows point the wrong way on the arch symbol. **(Comment No. 164-872)**

Response To: Comment 164-872

The map symbol has been corrected.

Comment From: U.S. Geological Survey (Comment Letter No. 164)

III: DESCRIPTION OF AFFECTED ENVIRONMENT; A. PHYSICAL CHARACTERISTICS; 1. Terrestrial Environment; a. Geology; (2) Petroleum Geology; (c) Petroleum Potential ; 2) Future Petroleum Exploration: Considering the focus on the Mukluk well in the first two paragraphs of this section, it would be helpful to identify the well on at least one map and to refer to that map in this section. **(Comment No. 164-873)**

Response To: Comment 164-873

The Mukluk well has been added to Maps 26, 99, 100, 101, 102, 103, and 104.

Comment From: U.S. Geological Survey (Comment Letter No. 164)

III: DESCRIPTION OF AFFECTED ENVIRONMENT; A. PHYSICAL CHARACTERISTICS; 1. Terrestrial Environment; a. Geology; (2) Petroleum Geology; (c) Petroleum Potential ; 2) Future Petroleum Exploration; paragraph 5: "The Alpine facilities in the Colville delta, and the sales-oil pipeline under the Colville River connected to the Kuparuk River unit, have pioneered the infrastructure on the eastern border of the NPR-A." The underlined phrase in not clear and the sentence needs to be rewritten. It is unclear if this is a typographic error or if there is a missing section. **(Comment No. 164-874)**

Response To: Comment 164-874

We are unsure about the point of confusion but offer a revised sentence structure that clarifies the meaning to note that two pieces of new infrastructure, 1) the Alpine facilities and 2) the pipeline passing under Colville River, are pioneering westward extensions of North Slope infrastructure

Comment From: U.S. Geological Survey (Comment Letter No. 164)

III: DESCRIPTION OF AFFECTED ENVIRONMENT; A. PHYSICAL CHARACTERISTICS; 1. Terrestrial Environment; a. Geology; (3) Oil and Gas Resource Assessment; (b) Summary of Assessment Results; paragraph 1 and 2: The first paragraph, which summarizes estimates for conventionally recoverable resources, should specify the area to which these estimates apply. Based on context, one initially assumes these estimates are for the Northwest Planning Area; however, the second paragraph summarizes estimates of economically recoverable resources for the combined Northeast and Northwest planning areas. Clarification is needed. **(Comment No. 164-875)**

Response To: Comment 164-875

The text has been revised to clarify that the estimates for conventionally recoverable resources pertain to the combined Northeast and Northwest NPR-A Planning Areas.

Comment From: U.S. Geological Survey (Comment Letter No. 164)

III: DESCRIPTION OF AFFECTED ENVIRONMENT; A. PHYSICAL CHARACTERISTICS; 1. Terrestrial Environment; a. Geology; (3) Oil and Gas Resource Assessment; (b) Summary of Assessment Results; paragraph 3: "The resource potential is not uniformly distributed throughout the assessment areas, and only a few plays hold a majority of the undiscovered resource potential. The highest geologic and economic potential lies in the northern third of the coastal plain associated with the subsurface Barrow Arch. This structural feature has been a focal point for regional oil and gas migration, and all currently producing fields on the North Slope are located on or near the Barrow Arch. The high oil potential of the northern coastal plain in the NPR-A is generally recognized in this assessment as well as all previous petroleum assessments." The 2002 USGS assessment of NPR-A (see References) does not place particularly high resource potential in these rocks. **(Comment No. 164-876)**

Response To: Comment 164-876

The comment indicates that a new assessment by the USGS (2002) "does not place particularly high resource potential in these rocks." The commenter is evidently referring to the limited resource potential of Ellesmerian rocks along the Barrow arch (1% of overall USGS oil assessment for NPR-A). However, the three plays with the largest oil resources in the 2002 USGS assessment (collectively 79% of the overall NPR-A endowment) overlie or flank the Barrow arch. These plays have high oil potential, enjoy discovered reserves, and are the targets of active exploration precisely because of hydrocarbon migration updip toward the crest of the Barrow arch. The MMS-BLM and USGS assessments disagree in some detail about the resource potential of Ellesmerian rocks. However, the key point of the paragraph is the critical role of the Barrow arch in gathering migrating petroleum into traps along the arch. On this point, both the MMS-BLM and USGS assessments are in full agreement. The text has been revised to clarify that the high oil potential is associated with the Barrow arch. A comparison of the MMS-BLM and USGS assessments has been added to Appendix 7.F.

Comment From: U.S. Geological Survey (Comment Letter No. 164)

Appendix 7. Oil and Gas Resource Assessment; B. Geologic Assessment; paragraph 1: A reference to the new USGS oil and gas assessment of the entire NPR-A should be updated to indicate that the results were released in May 2002 in USGS Fact Sheet 045- 02 authored by Bird and Houseknecht (see References). **(Comment No.**

164-880)

Response To: Comment 164-880

The USGS 2002 assessment was made public two months after completion of the initial draft of Appendix 7. Since the announcement of the results of the USGS assessment in May 2002, several publications related to the assessment were available only at USGS websites. We were unable to view these publications because of court actions related to the Corbell vs. Norton lawsuit between American Native interests and the U.S. Department of the Interior. Since April 2003, access to the USGS websites has been restored. A comparison of the MMS-BLM and USGS assessments is appended as a new in section Appendix 7.F.

Comment From: U.S. Geological Survey (Comment Letter No. 164)

Appendix 7. Oil and Gas Resource Assessment; B. Geologic Assessment; 1. Summary of Plays; paragraph 8: "Along the Beaufort Sea coast, the westernmost occurrence of pooled oil is in the Simpson field and overlying surface oil seeps (Map 26). In the south, the westernmost occurrence of pooled oil is in the Umiat Oil field. This statement should be rewritten as follows: "Along the Beaufort Sea coast, the westernmost known occurrence of pooled oil is in the Simpson field and overlying surface oil seeps (Map 26). In the south, the westernmost known occurrence of pooled oil is in the Umiat Oil field." "This province evidently endowed more with natural gas than oil, lies west of the Umiat and Simpson oil pools." It is not clear which province is being discussed here. 6 Appendix 7. Oil and Gas Resource Assessment; B. Geologic Assessment; 2. Description of Plays; Play 23. Fortress Mountain Formation-Deep Detached Foldbelt (UBW A2300); paragraph 11, first sentence: This is the first mention of "Cobblestone unit" and no definition is included in the discussion. A short description of the unit would be helpful here. **(Comment No. 164-882)**

Response To: Comment 164-882

The text has been revised. The commenter is correct; Appendix 7 uses the undefined term "Cobblestone unit." This is a relict of earlier drafts of the description for play 23 in which "Cobblestone unit" was used to refer to the turbiditic sandstones in the lower Torok Formation as an extension of the terminology used by Kelley, 1988 (USGS OF88-42) for some outcrop exposures of sandstones within the Torok Formation in the Chandler Lake quadrangle. Although we have abandoned use of the term "Cobblestone unit" for the sake of simplicity, we remain convinced that the Torok turbidites flooring the Colville foredeep are different from the conglomeratic rocks of the Fortress Mountain Formation (sensu strictu) exposed in the foothills north of the Brooks Range. In keeping with other parts of the discussion of play 23, we have replaced "Cobblestone unit" with "Fortress Mountain Formation."

56. TOPIC : CUMULATIVE SCENARIO

Comment From: Audubon Alaska (Comment Letter No. 213)

Cumulative Effects : Based on a review of the DEIS and the recent NRC (2003) report on cumulative effects on the North Slope, Audubon does not believe that BLM has adequately determined or described the potential long-term cumulative effects of oil and gas development on wildlife populations and ecosystem processes within the planning area. **(Comment No. 213-206)**

Response To: Comment 213-206

The BLM believes that the scope of the cumulative analysis is appropriate for this IAP/EIS and in accordance with the provisions of NEPA regulations to keep EIS's concise and no longer than absolutely necessary (40 CFR 1502.2(c)), to evaluate broad actions generally (40 CFR 1502,4(c)(2)), and to use tiering to focus on the actual issues ripe for decision at each stage(40 CFR 1502.20). The National Academy of Sciences National Research Council (NRC) March 2003 report Cumulative Environmental Effects of Oil and Gas Activities on Alaska's North Slope was released after publication of the draft IAP/EIS. The information and conclusions of the NRC report are considered in the cumulative analyses in the final IAP/EIS. Please also see the responses to comments 253-24 (Cumulative Impacts and Analyses) and 253-146 (NEPA Process).

Comment From: Audubon Alaska (Comment Letter No. 213)

Cumulative impacts from oil and gas development and the associated transportation infrastructure within the western Arctic and NPR-A need to be fully analyzed relative to their potential impacts on Arctic caribou and other wildlife. The DEIS is inadequate in this regard. **(Comment No. 213-358)**

Response To: Comment 213-358

Infrastructure assessments have been made for past, present, and future activities. To the best of our knowledge, these projections are correct at this time. Certainly as future activities are formally proposed, the projections will become more accurate and have more site-specific detail. Future EIS's on specific proposed development activities will address these issues. Caribou interaction and effects have been extensively analyzed in this and previous documents. Fortunately caribou herds have increased to the greatest degree in areas of industry activity and infrastructure.

Comment From: Audubon Alaska (Comment Letter No. 213)

At a minimum, the cumulative effects analysis for the northwestern planning area of NPR-A should address the degree to which development in the planning area will exacerbate impacts associated with existing oil field operations elsewhere on the North Slope. In addition, an analysis of proposed development in the NPRA must include a discussion of potential activities on Native corporation lands within NPR-A and adjacent state and private lands, particularly in light of existing oil leases on ASRC lands within the NPRA. **(Comment No. 213-359)**

Response To: Comment 213-359

The environmental resources described in Chapter III and the impacting factors identified in Chapter IV that carry over into a cumulative context are addressed in Chapter IV.F. Other perturbations from both the past, ongoing, and future have been addressed to best define the layering of potential effects with time. The contribution of the activities in the Northwest NPR-A to overall effects is addressed as an incremental contribution to the cumulative effects on each of the designated resources, and overall effects are also assessed (Section IV.F.9).

Comment From: Audubon Alaska (Comment Letter No. 213)

Based on a review of the DEIS and the recent NRC (2003) report on cumulative effects on the North Slope, Audubon does not believe that BLM has adequately determined or described the potential long-term cumulative effects of development on wildlife and ecosystem processes within the planning area. **(Comment No. 213-362)**

Response To: Comment 213-362

There is more information available regarding the effects on a resource for the current leasing alternatives because the future is measured in a few years, not decades. Projections of activities and effects decades into the future are understandably less detailed and by necessity less precise. However, possible general trends in activities and effects for a given resource are probably good indicators of what could occur in the future. It is important to remember that future projections of impacts also must consider recovery over time or countervailing effects. The BLM believes that the scope of the cumulative analysis is appropriate for this IAP/EIS and in accordance with the provisions of NEPA regulations to keep EIS's concise and no longer than absolutely necessary (40 CFR 1502.2(c)), to evaluate broad actions generally (40 CFR 1502,4(c)(2)), and to use tiering to focus on the actual issues ripe for decision (40 CFR 1502.20). Please also see the response to comment 213-359 (Cumulative Scenario).

Comment From: State of Alaska (Comment Letter No. 251)

Section IV.F, Effects of the Cumulative Case. The "Alpine Satellite Development Program" NEPA review has been initiated since publication of the Draft IAP/EIS. Preliminary information in that study should be incorporated in the Final IAP/EIS to better define and constrain effects of the cumulative case. With the exception of Point Thomson (and possibly Liberty) the probability that many of those fields expected to be developed in out-years 15-20 is very low. ExxonMobil has announced that up to 75,000 b/d of condensate might be produced from the Point Thomson field by the end of 2006. Hence it should not be included in the 15 to 20-year category. Those facts should be emphasized and the incremental reserves and impacts re-evaluated appropriately. **(Comment No. 251-419)**

Response To: Comment 251-419

Regarding the development of the Alpine Satellite fields of Lookout, Spark, and Alpine West, information on the developmental timelines and reserve estimates of these fields is not publicly available . Accordingly, these fields will remain in the category of reasonably foreseeable future development. Exxon/Mobil is in the process of re-evaluating the development timeline for the Point Thompson field. The developmental final EIS for the field may be published in 2005. The permitting process would occur afterward. As yet, there are no timelines established for development, no infrastructure estimates, and no production profiles available. Until this information is available and the project has assumed a more definitive condition, the Point Thomson field remains in the category of reasonably foreseeable future development.

Comment From: State of Alaska (Comment Letter No. 251)

Section IV, Page IV-385, Fifth Paragraph. The next-to-last sentence regarding the exploration well success ratio on the North Slope is inaccurate. Since 1995, at least 52% of the exploration wells drilled onshore on the North Slope (including the NE NPR-A) have been described by operators as discoveries, and at least 32% have been classified as commercial. This represents a significant improvement over earlier exploration drilling results and is largely attributable to the use of 3-D seismic as a pre-drilling exploration tool and to advances in directional drilling technology. **(Comment No. 251-426)**

Response To: Comment 251-426

The commenter does not cite a reference for the exploration success statistics, and the status of all wells drilled recently on State North Slope land is not publicly available. However, the recent drilling results in the Northeast

NPR-A (based almost entirely on mapping from 3-D seismic surveys) could be used to evaluate future success ratios for wildcat wells. Thirteen wells were drilled since 1999 and six encountered oil or gas. Therefore the discovery ratio is 46 percent. Only two of these prospects are being considered for commercial development (Lookout and Spark, as satellites to Alpine). Therefore the commercial success ratio is 15 percent (consistent with the estimates of 10 to 20 percent in this IAP/EIS). However, if we consider the success rate for the discovery of new standalone fields found using 3-D seismic surveys, the results to date are zero. We acknowledge that 3-D seismic data and interactive workstations have made a significant contribution to petroleum exploration and that success rates are likely to be higher than using older 2-D data. However, we disagree that future commercial discovery rates in NPR-A are likely to replicate more mature areas on the North Slope (with success rates of 30 to 50 percent).

Comment From: State of Alaska (Comment Letter No. 251)

Section IV, Page IV-386, Sixth Bullet. The Yukon Gold well is onshore, not offshore. **(Comment No. 251-427)**

Response To: Comment 251-427

The text has been corrected.

Comment From: State of Alaska (Comment Letter No. 251)

Section IV, Page IV-387, Fourth Paragraph. Alpine reserves are listed here as 429 Mmbo. This is a more accurate figure, but does not agree with the reserves listed in the geology and assessment sections. **(Comment No. 251-428)**

Response To: Comment 251-428

The text has been corrected.

Comment From: State of Alaska (Comment Letter No. 251)

Section IV, Page IV-388, Second Paragraph. Point Thomson Gas Cycling Project should be listed in this category. The plan is under development, the tentative schedule has been set, and the project is currently undergoing NEPA review. This project should be included in Table IV-10 as well. **(Comment No. 251-429)**

Response To: Comment 251-429

The Point Thomson Gas Cycling Project has been included in Table IV-10 and the text has been revised to include the information provided in the comment.

Comment From: State of Alaska (Comment Letter No. 251)

Section IV, Page IV-389, Last Paragraph. The statement that the order of prospects listed in Table III-01 is indicative of the probabilities and sequence of development is misleading. Development and timing are often

controlled more by proximity to and availability of facilities than by potential field size. Also see previous comments regarding Point Thomson production schedule. **(Comment No. 251-430)**

Response To: Comment 251-430

The discoveries listed in Table III-01 are in chronological order and do not imply probabilities for future development. However, Table IV-12 does list these discoveries according to our opinions on the sequential order of future development. Table IV-12 criteria were primarily field size, proximity to existing infrastructure, and per-barrel cost.

Comment From: State of Alaska (Comment Letter No. 251)

Section IV, Page IV-391, Second Paragraph. The order of fields listed is correct on the basis of total historic production. However, the use of the term 'produciblility' might imply to some that those are the leading fields on the basis of current production rates. In January 2003, the four leading North Slope fields in terms of current rates were Prudhoe Bay, Kuparuk, Alpine and Milne Point. **(Comment No. 251-431)**

Response To: Comment 251-431

We do not use the term "producibility," rather we use the term "productivity" (or total reserves produced). The fields are correctly listed according to this definition. If we use a definition of current production rates, the proper order of listing would be Prudhoe Bay, Kuparuk, Alpine, and Milne Point, (as noted by the commenting organization.)

Comment From: State of Alaska (Comment Letter No. 251)

Section IV, Page IV-392, Third Paragraph. The exploration success ratio addressed in this paragraph might be reasonably accurate when viewed in the context of the entire history of North Slope exploration. More on point, however, is the significantly increased exploration success in recent years (see Page IV-385, fifth paragraph comments above). **(Comment No. 251-432)**

Response To: Comment 251-432

Please see the response to comment 251-426 above. It remains to be seen whether 3-D seismic data can produce the same commercial success ratios in untested areas where initial development requires very large, standalone oil fields. Recent results have shown that 3-D data is a much better predictor of natural gas or gas/condensate in reservoirs than of crude oil. Unfortunately, at the present time there is no market for natural gas on the North Slope. A general comment will be added to state that 3-D seismic surveys could contribute to exploration success rates and more efficient field development through better well placement.

Comment From: ConocoPhillips Alaska, Inc. Alaska, Inc (Comment Letter No. 255)

Page IV-380, General Comment - Effects of the Cumulative Case. No scale of size is presented to help readers understand the magnitude of these issues. In fact, as we read these sections there is an implied assumption in these sections that the problems are extensive and can be a large component of the affected area. We believe it is necessary to give the readers some perspective of how large an area is likely to be at risk from these impacts. For

example, in the discussion on page IV-401, without quantification and scale this section reads as if all streams are at risk for blockage, and all lakes and streams are at risk for shoreline and bank erosion, and that all miles of gravel road will block natural drainage patterns. With only 1400 acres of gravel fill in Alternative A, placed across the entire planning 8.8 million acre area, we believe these discussions must present some quantification of these potential impacts, and also needs to reference current design standards used to eliminate these problems. **(Comment No. 255-833)**

Response To: Comment 255-833

The text has been revised to include this information.

57. TOPIC : WATER QUALITY

Comment From: State of Alaska (Comment Letter No. 251)

Section IV.C.4.b.(2), Paragraph 8, Page IV-107. This section discusses potential effects from spills to freshwater quality, but the paragraph refers to Alaskan marine water quality criteria. The appropriate freshwater water quality criteria should be used in this discussion instead. **(Comment No. 251-192)**

Response To: Comment 251-192

The text has been revised.

Comment From: U. S. Evironmental Protection Agency (Comment Letter No. 261)

Figure III-25 depicts many of the fish species found in the arctic environment. The draft IAP/EIS describes the life histories of the freshwater (e.g., lake trout, arctic grayling, blackfish, northern pike, stickleback, etc.), anadromous and amphidromous (e.g., pink and chum salmon, arctic cisco, least cisco, rainbow smelt, humpback whitefish, etc.), and marine (arctic cod, saffron cod, arctic flounder, etc.) fish species in the NW Planning Area. Both the public and decision makers would benefit from maps identifying fish species and their distribution, summer and overwintering habitat, and spawning areas be included in the final IAP/EIS. In particular, some of the water bodies important for the migration, rearing, and spawning of anadromous fish may be available by the Alaska Department of Fish and Game (ADFG) in their anadromous stream catalogue. In addition, EPA recommends strengthening existing stipulations and ROPs to minimize potential adverse impacts to sensitive fish species and their habitat areas. Sampling of NPR-A lakes revealed that lakes or ponds deeper than 6-ft, with suitable spawning substrate, appeared to support the largest and most diverse populations of arctic fish (p. III-43). Map 11 and Map 89 identify the locations and depths of lakes and ponds in the NW NPR-A. Deep water lakes and ponds deeper than 6- ft, which provide for overwintering habitat should be managed under special considerations, such as appropriate and effective buffers, no water withdrawals, no gravel extraction, etc. EPA recommends that additional stipulations and ROPs, set backs and other measures be developed to manage deep water lakes and ponds based on best available information. **(Comment No. 261-421)**

Response To: Comment 261-421

The stipulations for setback (buffer) strips (II.C.5) have been increased to 0.25 mi. for deep-water lakes. This would prohibit gravel removal from the beaches of these lakes, without special authorization. Waterbodies used

by anadromous species as listed in the Alaska Department of Fish and Game (ADF&G) Catalog of Waters Important for Spawning, Rearing, or Migration of Anadromous Fishes have been added to the EIS on Map 86.

58. TOPIC : GRAVEL

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

Development - Gravel requirements. The DEIS fails to show sites of any potential gravel sources that may be developed in the Plan Area; therefore the potential effects cannot be analyzed. While it states that gravel could be 'extracted from river drainages within the NW NPR-A Planning Area,' (DEIS P.IV-19) it does not show these locations. The Draft NW Plan presents a circular argument regarding either the economic cost, or the environmental impact from this operation and never addresses the issue. The plan states, 'BLM has not studied the economic feasibility of gravel transportation in the NPR-A. It is premature to evaluate the possibilities without knowing the location or scale of future gravel- use activities' (DEIS p.IV-19). Yet, gravel use is essential for any oil field development, and the effects of gravel mining can permanently alter the nature of the habitat in river floodplains. (Walker J.D.1996). Furthermore, it recognizes 'gravel sources could be a major problem for inland sites in the southern part of the Northwest NPR-A Planning Area.' (DEIS p. IV-19). Further information on gravel is needed to assess the environmental effects of oil development in the NW Plan Area, as well as to accurately estimate the potential for economical oil development. **(Comment No. 253-98)**

Response To: Comment 253-98

Gravel resources are an important aspect of development and the impacts of gravel extraction are considered in the IAP/EIS. The amount of gravel needed is dependent on the location and amount of hydrocarbon resources discovered as well as on the technology proposed to exploit those resources. Rivers are noted as one possible source of gravel materials, but certainly not the only, preferred, closest, or least expensive source.

Comment From: U. S. Evironmental Protection Agency (Comment Letter No. 261)

The draft IAP/EIS indicates that development activities could include construction of gravel pads for wellheads, production and support facilities, infield roads and airstrips (p. IV-18). Future NPR-A developments for gravel requirements could range up to 5 million cubic yards (IV-19). However, there is no information regarding potential sources of gravel borrow source sites for the NW Planning Area. In order to evaluate potential direct and indirect effects (including cumulative effects) to wetlands, floodplains, lakes, ponds, and/or riverine pools from gravel borrow sites, the final IAP/EIS should identify the location of existing, and potential future gravel sources on a Map for the NW Planning Area. A Table should include estimates of the quantities (cubic yards) of gravel that would be required for each type of development activity. The DOI/BLM should develop management measures and stipulations for the siting and development of gravel borrow source sites in the NW NPR-A. EPA recommends that lakes and ponds deeper than 6-ft and used by fish for overwintering habitat be excluded from gravel source sites. Furthermore, we recommend that DOI/BLM make the commitment to require that decommissioned gravel source sites be rehabilitated or restored for fish and/or wildlife habitat. **(Comment No. 261-127)**

Response To: Comment 261-127

The stipulations for gravel removal will require site-specific environmental analysis for each proposed pit location and a rehabilitation plan (Section II.C.6). These will be evaluated using performance-based best management practices. Reconnaissance level maps of sources of surficial materials, including gravel borrow sites, have been

produced by the USGS and are available for the Planning Area. The BLM is developing an agreement with USGS to update mapping of the more important regions. The presence of gravel may not be as important as has been suggested simply because of the impact of technology change in industry. Significant changes have been made in all aspects of industrial development in the Arctic from size of pads to type materials needed. There are simply too many unknowns and too many variables to make a detailed analysis of gravel use meaningful at this stage. Additional NEPA analysis at the permitting stages would examine alternate material sites and pad designs.

Comment From: State of Alaska (Comment Letter No. 251)

Section IV, Introduction, Gravel Requirements, Page IV-19. The fourth paragraph on this page discusses alternate types of gravel pads that could be used to reduce gravel requirements and references Map 107 for examples. The referenced location probably should be Figure IV-02, which shows gravel pad construction designs. One of the pads depicted is termed the 'all- season pad' which contains 2 to 3 ft. of polystyrene insulation. The use of foam within or beneath gravel pads creates problems when the pad is rehabilitated. The foam will break into small pieces that can be carried offsite by wind if the material of the pad is required to be removed because of site contamination remediation or material reuse at site closure. Inclusion of foam in reuse gravel will likely make this material unsuitable for other uses. **(Comment No. 251-154)**

Response To: Comment 251-154

The proposed design of a pad goes through an engineering and environmental review during the site-specific plan and permitting phase. If mitigation is needed for potential problems of the types mentioned in the comment, appropriate measures would be identified at that time. The graphic reference has been corrected.>

Comment From: State of Alaska (Comment Letter No. 251)

Section IV, Introduction, Gravel Requirements, Page IV-19. The fourth paragraph on this page discusses alternate types of gravel pads that could be used to reduce gravel requirements and references Map 107 for examples. The referenced location probably should be Figure IV-02, which shows gravel pad construction designs. One of the pads depicted is termed the 'all- season pad' which contains 2 to 3 ft. of polystyrene insulation. The use of foam within or beneath gravel pads creates problems when the pad is rehabilitated. The foam will break into small pieces that can be carried offsite by wind if the material of the pad is required to be removed because of site contamination remediation or material reuse at site closure. Inclusion of foam in reuse gravel will likely make this material unsuitable for other uses. **(Comment No. 251-156)**

Response To: Comment 251-156

The graphic reference has been corrected. The proposed design of a pad goes through an engineering and environmental review during the site-specific plan and permitting phase. If mitigation is needed for potential problems of the types mentioned in the comment, appropriate measures would be identified at that time.

Comment From: ConocoPhillips Alaska, Inc. Alaska, Inc (Comment Letter No. 255)

Page IV-18, last paragraph. The discussion on gravel mining from rivers implies that significant environmental damage would occur from this activity, then goes on to recommend alternatives. While these negative impacts could occur without proper design and careful construction practices, CPAI believes that existing guidance issued by the U.S. Fish and Wildlife Service and Alaska Department of Fish and Game provides for development of floodplain gravel mines that will not only provide over wintering fish habitat but will also result in the

production of diverse wildlife habitat for waterbirds. If floodplain gravel mining occurs in the Northwest Planning Area, using the design guidelines in these manuals, these actions can prevent negative impacts from occurring (McLean, 1993). **(Comment No. 255-815)**

Response To: Comment 255-815

The BLM has established guidelines designed to substantially reduce the negative impacts of removing gravel materials from rivers. Recent development projects have attempted to avoid removing gravel materials from rivers. Use of gravel from rivers is a valid use of these resources.

59. TOPIC : NEPA PROCESS

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

The evaluation of potential impacts from oil development activities in the DEIS is based upon a series of proposed development scenarios that are incomplete and unrealistic when evaluated in the context of existing development in the region. As a result, the nature and extent of potential direct, indirect and cumulative impacts are significantly understated. While BLM has acknowledged the proposed actions for the Northwest Planning Area are of a level of significance to warrant a full NEPA review, BLM has failed to address the NEPA requirements for such an analysis in this document. A generic discussion of resources and potential impacts like that contained in the DEIS cannot suffice as the required site-specific analysis. **(Comment No. 253-22)**

Response To: Comment 253-22

The BLM believes that the analytical method used to develop the exploration and development scenarios is sound, considering the degree of uncertainty about oil and gas resources and future economic conditions. A consistent methodology was used to develop the hypothetical scenario for oil and gas activities under each alternative. The methodologies used for the geologic and economic assessments are discussed in Appendix 7. Impact levels may tend to be overstated in this IAP/EIS. The scenarios used for the analyses are optimistic (higher levels of exploration and development are based on $30/bbl oil in 2002) in projecting the types and levels of activities that could occur. In addition, the impact analyses for the Alternatives assume the maximum projected level of leasing, exploration, development, production, and support activities would occur. The analysis in this IAP/EIS is intended to support a planning decision on potential oil and gas leasing in the Northwest National Petroleum Reserve-Alaska. It is appropriate that the analysis in the IAP/EIS is broad in scope because the decisions on the leasing program and mitigation measures will be broad in scope. The subsequent NEPA analyses for proposed exploration and development activities would be prepared at the time that these actions are ripe for decision. This "tiered" approach to NEPA compliance and decision making is encouraged by the NEPA regulations (see 40 CFR 1502.20 and 1508.28).

Comment From: U. S. Evironmental Protection Agency (Comment Letter No. 261)

Section IV. Environmental Consequences describe the different types and levels of activities that are projected to occur in the NW Planning Area and the potential effects on important physical, biological, and social resources from activities for each of the four Alternatives. EPA's review found the information in the analysis of effects insufficient for an adequate comparison between alternatives. No quantitative data for the potential direct and indirect effects (including cumulative effects) was found in the draft IAP/EIS. The analysis of effects is weak. We recommend that the final IAP/EIS clearly define and/or explain effects in detail and in the context of environmental consequences with additional supporting information. The Council of Environmental Quality

(CEQ) regulations require that an EIS shall include discussions of the direct and indirect effects and their significance on physical, biological, and human social resources [40 CFR 1502.16]. The analysis of effects for the NW NPR-A draft IAP/EIS does not fully discuss the 'significance' of the effects on each of the resources identified. The final IAP/EIS should include an effects analysis that identifies the significance of the impacts on the resources considering such factors as the nature of the impact, the spatial and temporal extent of the effects, expected or known recovery times, and the effectiveness of mitigation from the proposed stipulations. The use of significance thresholds may be appropriate for assessing the significance of the expected effects from the alternative management approaches being evaluated in the final IAP/EIS. The MMS has recently incorporated '"significance thresholds" into their analyses of effects. In so doing, MMS defined significance thresholds for each resource category as the level of effect that equals or exceeds the adverse changes indicated in certain impact situations (refer to the final EIS for the Beaufort Sea Planning Area, Oil and Gas Leasing Sales 186, 195, and 202). EPA recommends that the effects analysis for the final IAP/EIS include a characterization of the significance of predicted effects, consistent with the NEPA regulations. The use of quantitative significance thresholds based on the best available data is encouraged. **(Comment No. 261-128)**

Response To: Comment 261-128

The BLM believes that the analytical approach taken in the effects analyses for physical, biological, and human social resources, such as subsistence-harvest patterns, sociocultural systems, and environmental justice, thoroughly identifies the significance of impacts on resources, including the nature of the impact, the spatial and temporal extent of the effects, recovery times, and the effectiveness of mitigation. The potential impacts of the alternatives are compared in Section II.D. The incremental contribution of the alternatives to cumulative impacts is compared in Section IV.F. A comparison of the effectiveness of the mitigation measures under the Alternatives is presented in Appendix 12. Existing quantitative information is presented in sections where appropriate; analyses attempted to avoid unnecessary repetition in discussing alternatives.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

The DEIS does not contain a full cumulative impacts analysis as required by NEPA. Although the DEIS contains a section titled 'effects of the cumulative case,' this section fails to ask the right questions and answers the questions it does address with cursory generalized analysis that is far from adequate. **(Comment No. 253-146)**

Response To: Comment 253-146

The BLM believes that the scope of the cumulative analysis is appropriate for this IAP/EIS and in accordance with the provisions of NEPA regulations to keep EIS's concise and no longer than absolutely necessary (40 CFR 1502.2(c)), to evaluate broad actions generally (40 CFR 1502,4(c)(2)), and to use tiering to focus on the actual issues ripe for decision (40 CFR 1502.20). Please also see the response to comment 253-24 (Cumulative Impacts and Analysis).

Comment From: State of Alaska (Comment Letter No. 251)

Map 20 depicting deep lakes in Lake Zone III is missing from the map section of Volume II of the Draft IAP/EIS. **(Comment No. 251-147)**

Response To: Comment 251-147

The text has been corrected.

Comment From: Audubon Alaska (Comment Letter No. 213)

The cumulative effects analysis of incremental development on wildlife within Northwest Planning Area are inadequate. **(Comment No. 213-205)**

Response To: Comment 213-205

The environmental resources described in Chapter III and the impacting factors identified in Chapter IV that carry over into a cumulative context are addressed in Chapter IV.F. Other perturbations from both the past, ongoing, and future have been addressed to best define the layering of potential effects with time. The contribution of the activities in the Northwest NPR-A to overall effects is addressed as an incremental contribution to the cumulative effects on each of the designated resources (Section IV.F.9). The major contribution to potential cumulative effects on TLH would be from ongoing and potential future development on State lands east of NPR-A. The additional cumulative impact from activities in the Northwest NPR-A would be limited to a potential off-site pipeline to either Kuparuk or TAPS and would not constitute a significant addition to cumulative effects. An analysis of the incremental contribution of activities that are projected from the Preferred Alternative has been added to the cumulative analysis.

Comment From: Audubon Alaska (Comment Letter No. 213)

In the absence of a comprehensive cumulative effects analysis and strategic planning on a landscape scale, we anticipate further piecemeal development across Alaska's Arctic landscape. We are concerned that such development could result in significant and unplanned environmental impacts and foreclose future conservation options. Therefore, future development in the Northwest Planning Area and elsewhere in NPR-A must be undertaken only under a comprehensive plan that minimizes cumulative environmental impacts. A comprehensive plan should include a protected areas network encompassing key areas of biological importance. **(Comment No. 213-209)**

Response To: Comment 213-209

We can only plan for public lands that we control. See response 261-87 (Planning) for a discussion of how we are trying to ensure the consistency of all our plans within NPR-A.

Comment From: Audubon Alaska (Comment Letter No. 213)

Audubon's western Arctic synthesis suggests that four additional sites within the Northwest Planning Area also merit special management. We request that these habitat conservation recommendations be considered as alternatives for the final environmental impact statement. **(Comment No. 213-210)**

Response To: Comment 213-210

Please see response 213-202 (Special Designation Areas).

Comment From: Public Meeting on DEIS - Barrow, Alaska (Comment Letter No. 80075)

HEARING OFFICER BROWER: Thank you, Nate. In summary, Nate's comments are that the book that was -- the documents that we received are pretty thick documents and cannot be quickly digested in such a short period of time that you've given us and perhaps, he's suggesting an extension of these comments and give us more time. Because in view of the 600-some allotments, applications not counting the Alaska Native Veteran allotees, my allotment, and those things, and his comments are not coming from the ICAS Board but are his own comments. And he feels the inadequacy of his comments are because of the voluminous presentation that you've given us in this short period of time. **(Comment No. 80075-494)**

Response To: Comment 80075-494

In response to public requests, the close of the public review and comment period on the draft IAP/EIS was extended from March 18, 2003, to April 2, 2003.

Comment From: Public Meeting on DEIS - Barrow, Alaska (Comment Letter No. 80075)

And one more comment that we -- even though the deadline is March 18th for the public comment, we should unite and call our representative or legislators to extend this comment period by at least six months. That's what we ought to do, is extend the draft comment period on this EIS until we have a clear understanding with a town meeting throughout the North Slope. **(Comment No. 80075-497)**

Response To: Comment 80075-497

In response to public requests, the close of the public review and comment period on the draft IAP/EIS was extended from March 18, 2003, to April 2, 2003.

Comment From: Public Meeting on DEIS - Barrow, Alaska (Comment Letter No. 80075)

During the discussions that were happening there it has been evident how the plan, this MMS [sic] plan has been in our hands for a very short period of time. We have not been given adequate time to review how it will impact us economically, subsistencely [sic], and we have heard time and time again this evening, from our leaders, how we need to come together to meet and review this proposed plan that BLM has proposed to us. **(Comment No. 80075-501)**

Response To: Comment 80075-501

In response to public requests, the close of the public review and comment period on the draft IAP/EIS was extended from March 18, 2003, to April 2, 2003.

Comment From: Public Meeting on DEIS - Barrow, Alaska (Comment Letter No. 80075)

BLM has known since 2002 that this was going to be happening and yet it's just, what, like 17, 18, 19 days before they have to make a decision and they start having public meetings, that's not fair. Come on, you guys get real. Have some village meetings like that have been suggested. Postpone the deadline for March 18 and maybe make it to June, where it will be more appropriate for everybody to have input instead of this rush, rush stuff on

everything that's going on today. **(Comment No. 80075-510)**

Response To: Comment 80075-510

As requested at the Barrow Hearing, a Barrow community workshop was held on March 7, 2003. The meeting was organized jointly by the North Slope Borough, City of Barrow, Native Village of Barrow, and the Inupiat Community of the Arctic Slope. Staff from the Bureau of Land Management attended the meeting and provided a briefing for participants. Staff also made themselves available as the meeting progressed to answer questions or provide clarification when questions arose. In response to public requests, the close of the public review and comment period on the draft IAP/EIS was extended from March 18, 2003, to April 2, 2003.

Comment From: American Society of Mammologists (Comment Letter No. 249)

The first comment that has to be made concerning the draft EIS document regards the comment submission process and comment period. We feel very strongly that a 60-day comment period with a 14-day extension is grossly insufficient for thorough review and commentary on a document that exceeds 1000 pages in length. The actions proposed in this document are too important and potentially consequential to receive such a short deadline; instead, a comment period of 90- to 120-days is warranted, consistent with comment periods for other draft EISs (some much shorter than this one). May we suggest a 90-day comment period for what we sincerely hope will be a revised version of this **(Comment No. 249-514)**

Response To: Comment 249-514

In response to public requests, the close of the public review and comment period on the draft IAP/EIS was extended from March 18, 2003, to April 2, 2003.

Comment From: American Society of Mammologists (Comment Letter No. 249)

Two extremely important recent publications (National Audubon Society 2002; Orians et al. 2003), both with tremendous relevance for oil and gas exploration and development in the NW NPR-A, were not used or cited anywhere in this document. Orians et al. (2003) is particularly important as it identifies a number of significant cumulative environmental effects of oil and gas activities on Alaska's North Slope, something that this draft EIS fails to consider or acknowledge. NPR-A Planning Team, from A.S.M. **(Comment No. 249-517)**

Response To: Comment 249-517

The Audubon (2002) Alaska's Western Arctic: A Summary and Synthesis of Resources was published after the draft IAP/EIS was at the printer. Orians et al. (2003) was released after publication of the draft IAP/EIS. The information in these reports is considered in the cumulative analyses in the final IAP/EIS. Please also see the responses to comments 253-24 (Cumulative impacts and Analyses) and 253-25 (Alternatives General).

Comment From: American Society of Mammologists (Comment Letter No. 249)

We are particularly concerned with the preponderance of 'gray' literature and paucity of peer-reviewed literature cited throughout the document. As you are probably aware, gray literature generally is not peer-reviewed and reliance on non-peer-reviewed documents can unduly weaken an otherwise workable. We strongly recommend

undertaking a serious review of the peer-reviewed literature germane to this EIS and citing it wherever possible in a revised draft EIS. **(Comment No. 249-525)**

Response To: Comment 249-525

The Department of the Interior retains a highly qualified staff of scientists and other professionally trained resource evaluation team members. Every individual that is responsible for analyzing the various resources potentially affected by a proposed action is obliged to research and investigate hundreds of pieces of documentation that include both peer and non-peer reviewed literature references. Many non-peer reviewed or "gray" references are products of Federal Government efforts to gather as much information as possible, which is then used in preparing documents that describe and evaluate the consequences of various proposed actions. As part of a government deliverable, in many cases, the preparer/contractor is required to publish the results of the project in appropriate science publications within a relatively short time frame. While taking your comment into consideration, we are confident the information included in this document is valid scientifically and supports the evaluation of the consequences of the pending land use decision.

Comment From: Public Meeting on DEIS - Washington, DC (Comment Letter No. 80082)

Additionally, we believe the DEIS fails to fulfill requirements under NEPA, inadequately addresses sociocultural impacts of potential drilling on the Native culture in the NPRA, fails to address cumulative impacts of full-scale drilling, and falls short in its consideration of wilderness and wild and scenic designations, and in the interests of time, I will highlight our NEPA concerns and our recommendations for permanent protections. From a process perspective, the DEIS we feel does not fulfill requirements under NEPA to address all reasonable alternatives. NEPA states that an EIS -- and I'm quoting here -- shall serve as a means of assessing 4 environmental impacts of proposed agency actions rather than justifying decisions already made. Given BLM's statement in the DEIS executive summary that the potential uses of the area for oil development is a major focus of the DEIS, we can hardly view the alternatives presented as unbiased and not skewed to support a predetermined action. **(Comment No. 80082-543)**

Response To: Comment 80082-543

You are correct that the DEIS summary identifies the potential uses of the area for oil and gas development as a major focus of the document. There is nothing in this statement that supports your assertion that we have made a prior decision regarding oil and gas leasing of the area. The EIS identifies many uses of the Planning Area, with oil and gas leasing and possible development being important ones.

Comment From: Public Meeting on DEIS - Washington, DC (Comment Letter No. 80082)

Furthermore, NEPA directs Federal agencies to identify and assess the reasonable alternatives to proposed actions that will avoid or minimize adverse effects of these actions upon the quality of the human environment. Alternatives A and B open up 100 percent and 96 percent of the Western Arctic to drilling respectively. These are hardly reasonable proposals, and they leave the DEIS without a middle ground alternative for the public to consider. **(Comment No. 80082-544)**

Response To: Comment 80082-544

Your comment ignores the existence of Alternative C which makes 47 percent of the area available. You also ignore the fact that we do not identify a Preferred Alternative and indicate in Chapter 2 that our final Preferred

Alternative may cut and paste from the existing ones or be entirely new. We also believe that it is important to judge an alternative not only by how much land is made available for leasing, but also by the stipulations and ROP's that provide protection for the natural and cultural resources of the Planning Area. The Preferred Alternative that we present here includes an 18-million-acre deferred area, Special Area status for Kasegaluk Lagoon and a strong package of setbacks and other restrictions that will provide protection to resources of concern.

Comment From: Public Meeting on DEIS - Washington, DC (Comment Letter No. 80082)

First, I would like to thank you for having this hearing today. I would like to say I was pleased to hear that the public comment period has been extended. However, much like several other people have testified today, I am a bit disappointed to know that this is the only hearing taking place outside of Alaska. **(Comment No. 80082-553)**

Response To: Comment 80082-553

The decision on the number and locations of public meetings is a balance between opportunities for public input and cost-effective use of public funds. The public meetings on this IAP/EIS were held in communities that would be potentially most affected by oil and gas leasing and other ground-impacting management actions in the Northwest NPR-A. Other stakeholders and interested parties were provided full opportunity to comment via mail, e-mail, fax, and website. The method of submission makes no difference in how comments are considered in development of the final IAP/EIS. All comments, regardless of method of submission, become part of the official administrative record.

Comment From: Olgoonik Corporation (Comment Letter No. 169)

The consensus of the group was that the time for the comment period be extended to April 18, 2003. **(Comment No. 169-695)**

Response To: Comment 169-695

In response to public requests, the close of the public review and comment period on the draft IAP/EIS was extended from March 18, 2003, to April 2, 2003.

Comment From: Wainwright Tribal Council (Comment Letter No. 80012)

The comment period should be extended to April 18, 2003, instead of March 18 of this year. The hearings should be a day of meeting instead of having two meeatings in two separate villages in one day. This would give people more time to express their concerns on the issues that oil entities have come to collect informaiton. **(Comment No. 80012-1028)**

Response To: Comment 80012-1028

Please see responses 80075-494 (NEPA Process), and 80082-553 (NEPA Process) concerning extending the comment period. For BLM's meeting and consultation protocol see comments 254-638 (Government to Government), 261-102 (Government to Government), 261-119 (Government to Government), 80026-1016 (Government to Government), 80075-471 (Government to Government), 80075-474 (Government to

Government), 80075-493 (Government to Government), 80077-926 (Impact Compensation), 80077-946 (Government to Government), and 80079-989 (Government to Government). See also the General Lease Stipulations and Required Operating Procedures for the Preferred Alternative, specifically Required Operating Procedures H-1 and I-1.

Comment From: Terry Woods (Comment Letter No. 80021)

First let me say that although this letter may be similar to others you receive, the ideas and views expressed are either my own or are consistent with mine. I recently read that an agency of the current Administration ignored 170,000 comments (out of 175,000) because they were considered "form" letters. How arrogant and disingenuous! That same agency uses "form" letters, as does Congress and the White House. If you disagree or feel obligated to go along with the payback of IOUs by the President then say so. Dont act like the "slick, fast-talking" trial lawyers the President is always deriding. Now that Ive gotten that off my chest, please consider my comments. **(Comment No. 80021-842)**

Response To: Comment 80021-842

The BLM received almost 100,000 letters, postcards, e-mails, faxes, and web-based comments on the draft IAP/EIS. Every comment submission was reviewed by BLM or MMS staff. Every e-mail was opened. No comments were ignored. Many, many of the comments received are form letters. Although duplicate letters are not reproduced in the final IAP/EIS and individual responses are not provided for every form letter, the opinions expressed in the form letters were considered in revising the draft IAP/EIS and in developing the Preferred Alternative. The comments that appeared in form letters or were expressed multiple times in multiple ways have been either summarized and responded to or addressed as a response to an example letter.

Comment From: Alaska Coalition (Comment Letter No. 80016)

BLM must analyze the full environmental effects of the indirect and cumulative effects of projected oil development, not just eh direct 'footprint.' BLM has a responsibility under NEPA to the communities and to the public to analyze the full environmental effects of the maximum development scenario. Do not repeat the mistakes of the Alpine where the agencies failed to look at the reasonable future.' **(Comment No. 80016-856)**

Response To: Comment 80016-856

The effects of the indirect and cumulative effects are analyzed in the alternative analyses and cumulative analyses, respectively. The analyses of the Alternative assume the maximum level of exploration and development activities projected for each Alternative. The analyses also consider supporting activities and infrastructure. The Alpine field development provided the model for the scenario for the Alternatives in this IAP/EIS. The actual configuration of supporting infrastructure and level of activities associated with any future development would depend on several factors. Location, reservoir characteristics, existing infrastructure, new technologies, and mitigation measures developed during site-specific environmental review are just a few of those factors. Reasonable foreseeable cumulative activities are discussed in Section IV.F.7 Major Factors Considered in the Cumulative Effects Analysis. Reasonably foreseeable activities are considered in the cumulative analyses.

Comment From: David van den Berg (Comment Letter No. 189)

The flaw with NEPA's steps is that correspondence is essentially one way. The public has an abiding interest, and at either of our two opportunities, we may not suggest the right measures, say exactly the right words. It is too

easy, then, for the BLM to categorize input and sweep it away. For the most part, there is not face-to-face contact in which the public can build and refine the terms of the negotiation to protect the Colville. (An example: Public says: 'please protect Colville to maximum extent.' Agency: 'I wish they'd be more specific. Put that one in category 6c. Tell them that we are protecting the Colville already.' A better way might be for BLM to be able to ask for clarifications, refinements on the idea.) **(Comment No. 189-1037)**

Response To: Comment 189-1037

The NEPA process provides specifically for two public input opportunities – scoping and public meeting on the draft EIS. The 45-day scoping period of the Northwest NPR-A IAP/EIS was formally initiated with publication of the Notice of Intent to Prepare an Integrated Activity Plan/Environmental Impact Statement and Call for Information and Comments in the Federal Register November 14, 2001. Scoping is specifically intended to give stakeholders and the public an opportunity to have input on the issues, alternatives, and mitigation measures of the EIS. Scoping comments can be as lengthy and detailed as necessary. In a sense, the draft EIS is the "reply" to the scoping comments. The issues, alternatives, and mitigation measures in the draft EIS are prepared with consideration of the scoping comments. The public review and comment period on the draft EIS provides stakeholders and the public another opportunity to comment on the issues, alternatives and mitigation measures as well as on the information and analyses in the EIS. If scoping comments were not understood or were not considered in the draft EIS, the public comment period is a opportunity to clarify or repeat a concern. The comment period on the draft Northwest NPR-A IAP/EIS was initially 60 days and was then extended an additional two weeks. Comments on the draft document were accepted through a variety of means – mail, fax, e-mail, website, and public meetings. The comments could be as lengthy and detailed as needed to fully convey concerns. Multiple comment letters can be submitted during the comment to provide additional detail as it occurs to the commenter. In addition to the formal public comment period and public meetings, the BLM has met with various individual and groups of stakeholders and interested parties – from State of Alaska representatives to for the Greater Fairbanks Chamber of Commerce.

Comment From: Public Meeting on DEIS - Wainwright, Alaska (Comment Letter No. 80079)

But then I see the huge expanse 8.8 million acres of land, including Wainwright and areas to the west of here and I'm realizing that we're asked to make decisions now that are of historic proportions. What we decide here is going to affect our families for the next 50 to 100 years and I'm feeling a little overwhelmed by what we're being asked to comment on in the short period of time that we're being asked to comment. Although, right now, for the record I am pro-development. I'm an engineer for petroleum development and I'm also environmentalist in nature supporting the subsistence and cultural aspects of my family, my Native family. Hard for me to decide what to do here and I don't feel I should be asked to decide at this time for this area around Wainwright which I consider home. Because of this, I support a no action alternative at this time. That's all. **(Comment No. 80079-986)**

Response To: Comment 80079-986

In response to public requests, the close of the public review and comment period on the draft IAP/EIS was extended from March 18, 2003, to April 2, 2003.

Comment From: Public Meeting on DEIS - Wainwright, Alaska (Comment Letter No. 80079)

By the time we digest what's really going on, the time period is over for comments. And I would recommend that they make it at least 90 days, you know, because a lot of the small communities have people who wear many different hats, not just me but there is a lot of people who need to digest what information that's given and think about it and talk to the people in the community. As you can see there's hardly anybody here. The room should

have been packed full of all the hunters, people who have allotments, who have concerns and they're not here. **(Comment No. 80079-988)**

Response To: Comment 80079-988

In response to public requests, the close of the public review and comment period on the draft IAP/EIS was extended from March 18, 2003, to April 2, 2003.

60. TOPIC : SPILL-PREVENTION AND RESPONSE

Comment From: State of Alaska (Comment Letter No. 251)

Section IV.A.2, Paragraph 4, Page IV-35. This section states that "The State of Alaska....requires an oil spill to be cleaned up except under certain specified conditions. The Final IAP/EIS should detail those conditions, namely: The Department, in consultation with the U.S. Coast Guard or the U.S.Environmental Protection Agency, as appropriate, determines that containment or cleanup is not technically feasible; or Containment or cleanup activities would result in greater environmental damage than the spill itself. **(Comment No. 251-178)**

Response To: Comment 251-178

The text has been revised.

Comment From: State of Alaska (Comment Letter No. 251)

Section IV.A.2, Paragraph 4, Page IV-35. The following statement is unclear and should be revised: 'In cases where an oil spill may reach open water, a facility operator must be prepared to contain and control a volume of oil appropriate to the type of activity that may occur within 72 hours '.' **(Comment No. 251-179)**

Response To: Comment 251-179

The text has been revised to conform to language in AS 46.04.030(k).

Comment From: State of Alaska (Comment Letter No. 251)

Except for a discharge permitted by the State for scientific purposes, any discharge of oil to land or water in Alaska is illegal under State law. Under State law, a person causing or permitting an oil spill is responsible for its immediate containment and cleanup. Certain facilities (which include oil exploration and production facilities, crude oil transmission pipelines, oil terminals, and noncrude oil tank vessels and barges among the proposed activities envisioned in the Draft IAP/EIS must have an oil discharge prevention and contingency plan approved by the Alaska Department of Environmental Conservation (ADEC). These facilities must demonstrate in their contingency plans how they will: · Except for noncrude oil vessels and barges, contain or control and clean up the portion of an oil spill of specified size that enters open waters within 72 hours; · Except for noncrude oil vessels and barges, contain or control within 72 hours, and clean up within the shortest possible time consistent with minimizing environmental damage, that portion of the oil spill of specified size that enters

the environment other than open water; · For noncrude oil vessels and barges, contain or control within 48 hours, and clean up within the shortest possible time consistent with minimizing environmental damage, that portion of an oil spill of specified size that enters open water; and · For noncrude oil vessels and barges, contain or control and clean up within the shortest possible time consistent with minimizing environmental damage, that portion of an oil spill of specified size that enters the environment other than open water. **(Comment No. 251-180)**

Response To: Comment 251-180

The BLM acknowledges that oil and gas operators would be required to obtain an oil discharge prevention and contingency plan approval from the Alaska Department of Environmental Conservation in Section II.F.6, Section IV.A.4, and Appendix 4.

Comment From: State of Alaska (Comment Letter No. 251)

Section IV.A.4, Paragraph 1, Page IV-44. Two corrections are needed. In the next to last sentence, the word 'prove' should be 'provide.' In the last sentence, the citation of '18 ACC75' should be '18 AAC 75.' **(Comment No. 251-183)**

Response To: Comment 251-183

The text has been revised.

Comment From: State of Alaska (Comment Letter No. 251)

Section IV.A.4, Paragraph 1, Page IV-44. In addition to providing ADEC with the authority to prevent and respond to oil pollution, A.S. 46.03 and 46.04 also provide the Department with civil, criminal, and administrative enforcement authorities. **(Comment No. 251-184)**

Response To: Comment 251-184

The text has been revised.

Comment From: State of Alaska (Comment Letter No. 251)

Section IV.A.4, Paragraph 1, Page IV-44. The Final IAP/EIS should acknowledge that U.S. Coast Guard regulations also may apply to the transportation and transfer of oil to or from barges or vessels. **(Comment No. 251-185)**

Response To: Comment 251-185

The text has been revised.

Comment From: State of Alaska (Comment Letter No. 251)

Section IV.A.4, Paragraph 5, Page IV-45. The Final IAP/EIS should also note that the U.S. Environmental Protection Agency (EPA) serves as on-scene coordinator for spills that reach inland waters. **(Comment No. 251-186)**

Response To: Comment 251-186

The text has been revised.

Comment From: State of Alaska (Comment Letter No. 251)

Section IV.A.4, Paragraph 6, Page IV-45. The second sentence should be reworded as follows: 'The ADEC also requires operators of facilities that must have an approved contingency plan and operators who drill for shallow natural gas (3,000 ft. below ground surface or less) to provide acceptable proof of financial responsibility for the cleanup of oil spills.' **(Comment No. 251-187)**

Response To: Comment 251-187

The text has been revised.

Comment From: State of Alaska (Comment Letter No. 251)

Section IV.A.4, Paragraph 6, Page IV-45. The second-to-last sentence should be rewritten to more accurately state Alaska's oil spill control and cleanup requirements, as described above. **(Comment No. 251-188)**

Response To: Comment 251-188

The text has been revised.

Comment From: State of Alaska (Comment Letter No. 251)

Section IV.A.4, Paragraph 6, Page IV-45. The Final IAP/EIS should state that the State also has oil and hazardous substance spill reporting requirements. Those requirements are found in 18 AAC 75.300. **(Comment No. 251-189)**

Response To: Comment 251-189

The text has been revised.

Comment From: State of Alaska (Comment Letter No. 251)

Section IV.B.6.b, Paragraph 6, Page IV-53. This section refers to a description of air emission sources associated with oil and gas exploration, development, and production in the report Air Quality Impact of Proposed OCS Lease Sale No. 95. The Final IAP/EIS should indicate that the descriptions in this report also are accurate for operations that would occur within the planning area rather than offshore waters. This same comment applies to Section IV.C.6.b. **(Comment No. 251-190)**

Response To: Comment 251-190

The text has been revised to add to Sections IV.B.6.b and IV.C.6.b the following text: "Information from that report is still relevant even for operations that would occur within the Northwest NPR-A Planning Area. Certain emission sources discussed therein obviously do not apply for operations occurring on land, but the report does include a fairly comprehensive analysis of activities and emission sources that do occur during oil and gas exploration, development, and production, regardless of the specific locations in which they may occur."

Comment From: State of Alaska (Comment Letter No. 251)

Section IV.C.5.b.(2), Paragraph 1, Page IV-114. This section should state that ADEC approval of oil prevent ion and discharge contingency plans also is required for oil barge and offshore exploration and production facilities in the planning area. State oil spill prevention requirements located in 18 AAC 75, Article 1 also would apply to these activities. **(Comment No. 251-193)**

Response To: Comment 251-193

Section IV.C.6.b.(3) states that ADEC requires that all oil spill prevention and contingency plans rely on the control, containment, and cleanup of spills as the primary response tools. Additional information on oil-spill response tools has been added to Section IV.A.4 Spill-Prevention and Response.

Comment From: State of Alaska (Comment Letter No. 251)

Section IV.C.6.b.(2), Page IV-121. The section states that 'In addition, in situ burning is a preferred technique for cleanup and disposal of spilled oil in oil-spill-contingency plans.' The State recommends that the discussion indicate that an ADEC-approved contingency plan would require an exploration or production facility operator to include plans for the control and containment of oil spills, including blowouts. While in-situ burning is a spill response technique that would be considered and may be used in appropriate circumstances, ADEC requires that all oil spill prevention and contingency plans rely on the control, containment, and cleanup of spills as the primary response tools. **(Comment No. 251-195)**

Response To: Comment 251-195

The 1999 U.S. Coast Guard Caps Review recognizes in situ burning as "the only effective countermeasure for broken ice conditions. Recovery on broken ice is possible, but again in situ burning is preferred." The BLM believes that in situ burning is an important response tool for coastal spills, regardless of whether broken ice conditions exist. As pointed out in response 251-194 (Air Quality), ADEC requires that all oil spill prevention and contingency plans rely on the control, containment, and cleanup of spills as the primary response tools. Recognizing that in situ burning of spilled oil is a viable, but not the primary tool under ADEC requirements, BLM has evaluated potential effects to resources that they believe would be potentially affected. .

Comment From: State of Alaska (Comment Letter No. 251)

Section IV.C.6.b.(3), Paragraph 1, Page IV-122. This section discusses well blowouts on the U.S. Outer Continental Shelf. The Final IAP/EIS should provide a brief explanation of why information concerning blowouts on the Outer Continental Shelf is relevant here. 251-196 **(Comment No. 251-196)**

Response To: Comment 251-196

The State of Alaska does not maintain a blowout database that can be used to calculate a quantitative blowout rate. The OCS blowout rate is used as a proxy rate for Northwest NPR-A until better information becomes available. Similar regulations and standards cover drilling and production operations in both Northwest NPR-A and the OCS. We consider blowouts to be unlikely events. Blowout events are often equated with catastrophic spills; however, in reality very few blowout events have resulted in spilled oil, and the volumes spilled are often small. For blowouts in the outer continental shelf database, all five of the blowout events >1,000 barrels occurred between 1964-1970. Following the Santa Barbara blowout in 1969, amendments to the Outer Continental Shelf Lands Act and implementing regulations significantly strengthened safety and pollution prevention requirements for offshore activities. Well control training, redundant pollution prevention equipment, and subsurface safety devices are among the provisions that have been adopted in the regulatory program. From 1971 to 2000, 199 blowouts occurred on the OCS while drilling approximately 29,000 wells and producing 11.4 Bbbl of oil. Twenty eight of those 199 blowouts resulted in oil spills of crude or condensate with the amount of oil spilled ranging from <1 bbl to 200 bbl. The total volume spilled from those 28 blowouts is approximately 1,200 barrels. The volume spilled from blowouts was approximately 0.00001 percent of the volume produced. There are no spills > 1,000 bbl from blowouts in the last 30 years on the OCS. The record for Alaska North Slope blowouts is not validated, but is presented as the best available information. Well control training, redundant pollution prevention equipment, and subsurface safety devices are among the provisions that have been adopted in the regulatory program nationwide. The State of Alaska record generally parallels the OCS record where blowouts in the early days were more common. There are two written reports regarding blowouts on the Alaska North Slope, Mallory (1998) and Fairweather (2000). Fairweather (2000) found 10 blowouts, 6 that Mallory had identified and 4 prior to 1974. Of the 10 blowouts, 9 were gas and 1 was oil. The blowout of oil in 1950 was unspectacular and could not have been avoided, as there were no casings of blowout preventors available (Fairweather, 2000). These drilling practices from 1950 would not be relevant today. A third study confirmed that no crude oil spills greater than or equal to 100 barrels from blowouts occurred from 1985-1999 (Hart Crowser, Inc., 2000). In Cook Inlet, a minimum, and perhaps a maximum, of three natural gas blowouts have occurred: 1. The Pan American blowout occurred during drilling on August 1962 from the Cook Inlet State No. 1 well. The well encountered natural gas and blew gas from August 23, 1962, to October 23, 1963. Pan American Petroleum Corporation drilled a relief well, No. 1-A, to stop the blowout. 2. A short-term natural gas blowout occurred at the Grayling Platform in May 1985. Union Oil Company was drilling well G-10RD into the McArthur River Field when the blowout occurred. The event lasted from May 23 to May 26. The platform was evacuated, and observers noted a plume of gas, water, and mud reaching a height of 600 feet above sea level. Union prepared to drill a relief well, but the blowout stopped on its own because of bridging. Bridging seals off the escaping fluids and gases when part of the formation around the well bore collapses into the well bore and naturally closes it. The operator regained permanent well control by pumping cement through the drill pipe in G-10RD. There was no fire or injuries, and personnel shut in all oil wells prior to evacuating the platform. 3. A blowout occurred at the Steelhead Platform from well M-26 on December 20, 1987. Marathon Oil Company was drilling into the McArthur River Field. The gas blowout lasted from December 20, 1987, until December 28, 1987. A relief well was started, but the blowout bridged before the relief well was completed. The well blew out natural gas, water, coal, and rocks. The escaping gas caught fire, which damaged the deck of the platform.

Comment From: State of Alaska (Comment Letter No. 251)

Section IV.J.2, Page IV-493. We recommend that the discussion on blowout assumptions discuss the basis for using 15 days as a likely duration for a potential well blowout. Recent DEC decisions on the approval of North

Slope contingency plans have been hallenged administratively and in a civil complaint, in part, because a 15-day duration assumption was used in well blowout spill scenarios. It also should be noted that ADEC requires that contingency plans plan for a realistic maximum oil discharge, not a worst case discharge. **(Comment No. 251-198)**

Response To: Comment 251-198

The time period was chosen based on the analysis of typical oil-industry oil-spill-discharge prevention and contingency plans submitted to the State of Alaska. Operators in Alaska's North Slope and Cook Inlet areas typically use 15 days as their response-planning standard, and the standard is codified in the Alaska Clean Seas manuals. We have included this information in the text of the EIS. The wording "worst case discharge" is not used. The words "greatest possible discharge" are taken from 18 AAC 75.430(a): Response planning standards. Notwithstanding the response planning standards set out in 18 AAC 75.430 - 18 AAC 75.442, the plan must demonstrate the general procedures to clean up a discharge of any size, including the greatest possible discharge that could occur, subject to the provisions of AS 46.04.020 and AS 46.09.020.

Comment From: State of Alaska (Comment Letter No. 251)

Section IV.J.5.l, Page IV-507. The discussion on the potential effects of a very large oil spill needs to be expanded to include the potential effects on all subsistence resources. The section discusses potential effects on caribou herds within the planning area, but does not discuss potential effects on other subsistence resources, most notably marine mammals, birds, and fish. **(Comment No. 251-199)**

Response To: Comment 251-199

A discussion of impacts on marine mammals, birds, and fish has been included in Section IV.J.5.l., Effects of a Very Large Oil Spill on Subsistence-Harvest Patterns.

Comment From: State of Alaska (Comment Letter No. 251)

Section IV, Page IV-44, Spill-Prevention and Response. In paragraph 1, reference is made to the size of the reserve pit. It is doubtful that an excavated reserve pit will be authorized for drilling operations in the planning area. Also, the AOGCC is responsible for H2S planning for drilling operations. We recommend that the first sentence in paragraph 3 be changed to read - 'Regulations administered by the AOGCC and BLM require the operator to maintain well control at all times during drilling and production. **(Comment No. 251-447)**

Response To: Comment 251-447

The text has been revised.

Comment From: NOAA (Comment Letter No. 209)

Pg. IV-114 Estuarine Water Quality ' Effects of Spills The final EIS should include further description or studies on the successfulness of oil spill recovery under the ice or in broken ice situations. The 'under the ice' and 'in broken ice' oil spills seem difficult to address with current recovery techniques. As oil becomes immobilized in the ice, it has the potential to be released over long periods of time and could affect the local habitat for years.

(Comment No. 209-911)

Response To: Comment 209-911

Oil spill prevention and response, including effectiveness of spill response, is discussed in Section IV.A.4 of the IAP/EIS.

61. TOPIC : COASTAL ZONE MANAGEMENT

Comment From: State of Alaska (Comment Letter No. 251)

Section IV.C.17, Alternative A, Coastal Zone Management, Page IV-238. Parts of the description of the statewide Habitats standard in the first paragraph of this section is not technically correct. Minor proposed changes such as those incorporated in the following paragraph would improve the statement. Part (a) of the statewide Habitats standard lists 8 types of habitat that are subject to the ACMP including offshore areas, estuaries, wetlands and tideflats, rocky islands and seacliffs, barrier islands and lagoons, exposed high-energy coasts, rivers, streams and lakes and important upland habitat. Part (b) of the standard requires that these 8 habitats be managed to maintain or enhance the biological, physical and chemical characteristics of habitat. Part (c) provides management guidance for the first 7 of the habitats. Part (d) includes a provision to allow uses and activities to occur that do not conform to parts (b) and (c) of standard if: 1) there is significant public need, 2) there are no feasible and prudent alternatives, and 3) all feasible and prudent steps to maximize conformance with the standard have been taken. The second to last sentence in the second paragraph of the discussion of the Habitats standard on page IV-238 states that there are no conflicts with the Habitats standard under Alternative A. This statement may not be correct. Until specific proposals are submitted and reviewed, it would be premature to assume that there will not be conflicts with this standard. 251-469 **(Comment No. 251-998)**

Response To: Comment 251-998

The suggested changes to the description of the Habitat standard have been made. The second to the last sentence has not been modified. This statement is correct for an oil and gas lease sale. The last sentence, as is exists, clearly states that as specific proposals are brought forward a more focused analysis may identify site-specific concerns.

Comment From: State of Alaska (Comment Letter No. 251)

Section IV.C.17, Alternative A, Coastal Zone Management, Page IV-241. The discussion of effects of spills in the third paragraph on page IV-241 appears to imply that because a large spill is unlikely, it is not reasonably foreseeable. The discussion on large spills on page IV-36, however, supports the contention that a large spill is reasonably foreseeable. Under Alternative A with the price of oil at $30/bbl, the probability of a spill is 38 percent. AK-117 **(Comment No. 251-999)**

Response To: Comment 251-999

Section IV.A.2.a addresses the potential for large oil spills. The discussion states that for Alternatives A and B, with the price of oil at $30/bbl, the percent probability for an oil spill is 38 and 33 percent, respectively, over the lifetime of the project. The conclusion, however, states that the most likely number of large spills for all

alternatives is zero. Oil spills are accidental events and a large spill is not likely. This analysis supports the conclusion that a large spill is not a reasonably foreseeable event.

Comment From: State of Alaska (Comment Letter No. 251)

Section IV. D. 17. Alternative B, Coastal Zone Management, Page IV-309. Under the discussion of effects of spills, the last sentence states that a large spill would be unlikely. The analysis on page IV-36, however, states that the probability of a spill under Alternative B at $30/bbl is 33 percent. **(Comment No. 251-1000)**

Response To: Comment 251-1000

Please see the response to comment 251-999 (CZM).

Comment From: State of Alaska (Comment Letter No. 251)

In general, the Draft IAP/EIS discussions on coastal zone management need to state more clearly when Alaska Coastal Management Program (ACMP) reviews are required for activities proposed in the NPR-A. Specifically, for a federal activity, such as an oil and gas lease sale, an ACMP review is required because there are reasonably foreseeable effects to coastal uses and resources. A consistency determination prepared by the Bureau of Land Management initiates the state's review for each lease sale. For federally permitted activities in the coastal area of NPR-A, projects must undergo an ACMP review if they require a listed federal authorization (15 CFR 930.53(a)(1)). Projects in NPR-A located outside of the coastal area may undergo an ACMP review if the state demonstrates, and the federal Office of Coastal and Resource Management agrees, that there are reasonably foreseeable effects to coastal resources or uses. The state consistency review of projects requiring a listed federal authorization begins when the state receives a consistency certification and necessary data and information. **(Comment No. 251-454)**

Response To: Comment 251-454

The text has been revised to more clearly state when Alaska's Coastal Management Program reviews are required. Throughout the section, the text has been changed to clearly identify the "consistent to the maximum extent practicable" standard applied to federal activities and the requirement that certain federally permitted activities must be consistent.

Comment From: State of Alaska (Comment Letter No. 251)

Section III.C.6(b)(1), Page III-128. The statement in the second sentence of the last paragraph should be reworded to reflect that the purpose of enforceable policies is to ensure that reasonably foreseeable effects on any coastal use or resource are consistent with the state's coastal management program. The statement is incorrect because it implies that the Coastal Zone Management Act (CZMA) only considers development and use of lands and resources within the coastal zone. Enforceable policies include the statewide standards in 6 AAC 80 and the enforceable policies in an approved coastal district program. 251-454 **(Comment No. 251-455)**

Response To: Comment 251-455

The text has been revised.

Comment From: State of Alaska (Comment Letter No. 251)

Section III.C.6(b)(1), Page III-129. The third sentence of the second paragraph should remove the words 'to the maximum extent practicable' or limit the discussion to only federal activities. While federal activities must be consistent to the maximum extent practicable with enforceable policies of the ACMP (15 CFR 930.32), federally permitted activities must be 'conducted in a manner consistent with approved management programs' (15 CFR 930.50). **(Comment No. 251-456)**

Response To: Comment 251-456

The text has been changed to remove the phrase "maximum extent practicable." No changes were made to the text to further clarify that both statewide standards and coastal district policies are enforceable. That language already exists in the last sentence of the paragraph.

Comment From: State of Alaska (Comment Letter No. 251)

The discussion in the second paragraph should be expanded to include requirements of 15 CFR 930. For example, in addition to spillover effects, an ACMP review is required when an activity requires a listed federal authorization and occurs within the coastal area of federal land (15 CFR 930.53(a)(1)). (The coastal area of the NPR-A is depicted on maps within the Coastal Zone Boundaries of Alaska publication.) 251-456 **(Comment No. 251-457)**

Response To: Comment 251-457

The text has been revised.

Comment From: State of Alaska (Comment Letter No. 251)

Section III.C.6.b.1, Page III-129-130. The discussion about the statewide ACMP standards needs to be rewritten to reflect the statewide standards more accurately. The standards are listed under two sections in the state regulations: Resources and Habitats and Uses and Activities (6 AAC 80). **(Comment No. 251-458)**

Response To: Comment 251-458

The text has been revised.

Comment From: State of Alaska (Comment Letter No. 251)

On page III-129 under the 'Coastal Habitats' heading, it should be clarified that there is only one statewide Habitats standard (6 AAC 80.130). This standard addresses 8 types of habitats and includes specific management principles for 7 of these habitats. The last paragraph under the Coastal Habitats section is correct as written. **(Comment No. 251-460)**

Response To: Comment 251-460

The text has been revised.

Comment From: State of Alaska (Comment Letter No. 251)

Under the heading 'Uses and Activities' on page III-130, the sentence after the 9 standards limits the policies that are relevant to 5 policies. Two additional policies could be relevant to ACMP reviews in the NPR-A: Geophysical Hazard Areas (6 AAC 80.050) and Mining and Mineral Processing (6 AAC 80.110). **(Comment No. 251-461)**

Response To: Comment 251-461

The text has been revised to remove the phrase "maximum extent practicable." No changes were made to the text to further clarify that both statewide standards and coastal district policies are enforceable. This language already exists in the last sentence of the paragraph.

Comment From: State of Alaska (Comment Letter No. 251)

Section III.C.6(b)(1), Page III-131. The discussion regarding enforceable policies that minimize negative impacts should be rewritten to indicate that policies in this section apply to all applicable development. The current language implies that only certain types of activities. **(Comment No. 251-462)**

Response To: Comment 251-462

The text has been revised.

Comment From: State of Alaska (Comment Letter No. 251)

Section IV.B.17, No Action Alternative, Coastal Zone Management, Page IV-84-85. The last sentence of the first paragraph should be rewritten as follows: '. . . must be consistent with the enforceable policies of the Alaska Coastal Management Program (ACMP) including the statewide standards in state regulation (6 AAC 80) and the enforceable policies of the affected coastal management program.' The proposed language removes the term 'maximum extent practicable' because this standard only applies to federal activities, not federally permitted activities. Also, the new language clarifies that both the statewide standards and the coastal district policies are enforceable policies. **(Comment No. 251-463)**

Response To: Comment 251-463

The text has been revised to remove the phrase "maximum extent practicable." No changes were made to the text to further clarify that both statewide standards and coastal district policies are enforceable. This language already exists in the last sentence of the paragraph.

Comment From: State of Alaska (Comment Letter No. 251)

The last paragraph on page IV-84 that continues to the next page should move the discussion on seismic activities to the next section since seismic surveys are an oil and gas-related activity. The last sentence of the first paragraph on page IV-85 should be reworded. It is possible that some non-oil and gas activities could have effects described in the definition of 'a use of direct and significant impact' in A.S. 46.40.210. **(Comment No. 251-464)**

Response To: Comment 251-464

Seismic surveys are included in this discussion because they may occur whether or not an oil and gas lease sale is held.

Comment From: State of Alaska (Comment Letter No. 251)

The last paragraph on page IV-85 should be rewritten. Again, because activities could have effects described in the definition of a 'use of direct and significant impact,' it would be premature to assume otherwise without doing a consistency review. Also, the term 'maximum extent practicable' in the second sentence only applies to federal activities. This standard does not apply to federally permitted activities. **(Comment No. 251-465)**

Response To: Comment 251-465

The text has been revised to remove the phrase "maximum extent practicable." The conclusion that no direct and significant impacts are anticipated has not been changed. It is anticipated that activities described in this section can proceed given the protections provided by existing regulatory structure, including consistency processes, and the oversight and permitting authorities of BLM.

Comment From: State of Alaska (Comment Letter No. 251)

Section IV.C.17, Alternative A, Coastal Zone Management, Page IV-234-235. The last paragraph that continues to page IV-235 should be rewritten to clarify the applicability of enforceable policies. Any project located in the coastal portion of the NPR-A requiring a listed license or permit would be subject to the ACMP enforceable policies including the statewide standards and the NSB enforceable policies (15 CFR 930.53(1)). **(Comment No. 251-466)**

Response To: Comment 251-466

Text has been added to clarify that projects requiring a listed license or permit will be subject to Alaska's Coastal Management Program review. The existing text states that both the statewide standards and the Borough district policies apply. No change was made.

Comment From: State of Alaska (Comment Letter No. 251)

Section IV.K.3.P, Possible but Unlikely Permanent Roads, Page IV-529. The discussion regarding applicability of ACMP reviews should be rewritten to clarify that if a project in the coastal area of NPR-A requires a listed federal authorization, an ACMP review would be required (15 CFR 930.53(a)(1)). AK-119 **(Comment No.**

251-1001)

Response To: Comment 251-1001

The text has been revised.

Comment From: State of Alaska (Comment Letter No. 251)

On page IV-235, the second to the last sentence of the discussion of the Coastal Development standard should reference the Coastal Zone Management Act (CZMA) rather than NEPA. The CZMA regulations, located at 15 CFR 930, provide guidance for determining whether an enforceable policy is relevant to a review. **(Comment No. 251-1002)**

Response To: Comment 251-1002

It is through the NEPA analysis that a determination is made whether or not there may be reasonably foreseeable effects. We have retained the NEPA reference and added a reference to the Coastal Zone Management Act.

62. TOPIC : KASEGALUK LAGOON

Comment From: State of Alaska (Comment Letter No. 251)

Kasegaluk Lagoon. Little information regarding the biological resources of Kasegaluk Lagoon is presented in this document. Birds make extensive use of Kasegaluk Lagoon during the open water season. Brant use the northeastern section of Kasegaluk Lagoon in mid August through early September for feeding prior to or during their southward migration. The y are the most numerous bird species using the lagoon, followed by shorebirds. Molting male long-tailed ducks also use the lagoon. Shorebirds use the mudflat and marsh habitats extensively during August and early September. Belugas are present from late June to late July, with an estimated population of 2,000 to 3,500 animals traveling through the area. Significant numbers of spotted seal use the spits and shoals within Kasegaluk Lagoon and Avak Inlet from July through October. It is estimated that from 1,000 to 3,000 seals use the area. **(Comment No. 251-144)**

Response To: Comment 251-144

The use of Kasegaluk Lagoon by several waterbird species, brant in particular, has been described in Section III of the IAP/EIS. Kasegaluk Lagoon has been highlighted as an area of high species diversity in late summer and fall.

Comment From: State of Alaska (Comment Letter No. 251)

As a result of the presence of significant concentrations of biological resources, notably brant, beluga, and spotted seal, which make Kasegaluk Lagoon different from any other arctic Alaska lagoon system, the State of Alaska recommends restricting permanent facilities in the lagoon and surrounding onshore areas. The specific boundaries of the area should be identified by a working group of federal, state and local regulatory and

resource agencies and incorporated in the Final IAP/EIS. This will provide the necessary measures of protection for these biological resources. Refer to the following reference for information on bird and mammal use of Kasegaluk Lagoon: LGL Alaska Research Assoc., Inc. and Alaska Department of Fish and Game. 1992. Use of Kasegaluk Lagoon, Chukchi Sea, Alaska, by marine birds and mammals. OCS Study MMS 92-0028. Unpubl. Rept. for U.S. Minerals Management Service, Herndon, VA. 627 pp. **(Comment No. 251-145)**

Response To: Comment 251-145

Please see the responses to comments 251-135 (Management), 251-144 (Kasegaluk Lagoon).

63. TOPIC : PIPELINE CONSTRUCTION

Comment From: State of Alaska (Comment Letter No. 251)

Section IV, Introduction, Pipeline Construction, Page IV-26. This section provides assumptions regarding pipeline design and construction that are the basis for analyses in the rest of the document. It states that wide, shallow rivers could be crossed by trenching and burying insulated pipelines in the riverbed. This section should be modified to note that fewer impacts would occur to the stream, streambanks, riparian habitat, and aquatic resources if a properly designed elevated pipeline crossings were used. Potential problems associated with maintenance, corrosion, and abandonment also would be less with an elevated crossing versus a buried crossing. **(Comment No. 251-159)**

Response To: Comment 251-159

The scenarios discuss a wide range of construction situations and current technologies, therefore analysts evaluating potential environmental impacts consider a variety of conditions. This section of the IAP/EIS is not intended to dictate approved construction methods. Regarding the advantages of elevated pipeline crossings for wide, shallow rivers, there are also disadvantages, including changes to flow characteristics of the braided channel, scour problems around mid-channel supports, visual impacts, and higher project costs. Future project designs will be based on site specific conditions and the tradeoffs between project economics and mitigation measures.

Comment From: City and Native Village of Nuiqsut (Comment Letter No. 80026)

Aboveground Pipeline Elevation: Required Operating Procedure (ROP) E-5 stipulates aboveground pipeline height of at least 5 ft under Alternative C, but specifies no minimum height for Alternatives A and B. The Preferred Alternative should stipulate aboveground pipeline height at a minimum of 10 feet, as measured from the ground to the bottom of the pipe, except where the pipeline intersects a road, pad or a ramp installed to facilitate wildlife passage and subsistence passage and access. Pipeline heights of 5 feet are not adequate to allow caribou and other game free passage under the pipelines, especially taking snowfall levels into account. Additionally, we recommend more crossings and more vertical expansion. **(Comment No. 80026-1021)**

Response To: Comment 80026-1021

Please see responses to comments 251-159 (Pipeline Construction) and 80065-571 ((Subsistence). See also the General Lease Stipulations and Required Operating Procedures for the Preferred Alternative, specifically

Required Operating Procedures E-7 and K-5 and Stipulation K-6.

64. TOPIC : WATER RESOURCES

Comment From: State of Alaska (Comment Letter No. 251)

Section IV, Alternative A, Water Resources, Gravel Removal, Page IV-100. The text notes that because of scarce gravel resources, composite pads made of a mixture of gravel, sand and silt, layered with styrofoam and geotextiles would reduce gravel requirements significantly. While this may be true, as mentioned earlier, the use of foam within or beneath gravel pads creates problems when the pad is rehabilitated. **(Comment No. 251-161)**

Response To: Comment 251-161

The use of foam underlayment for insulating gravel roads, work pads, etc. when encountering ice-rich permafrost is widespread throughout Alaska. The Alaska Department of Transportation, as well as oil and gas operators, utilizes this in gravel road and pad construction. Not using foam would require a much thicker gravel layer, which has negative impacts in terms of much greater gravel requirements, increasing the size and number of pits, in addition to widening the footprint to accommodate the side slopes required by the increased depth of fill. The foam also greatly reduces thermokarst, which is responsible for much of the increased sedimentation and flow diversions associated with road and pad construction in the arctic.

Comment From: ConocoPhillips Alaska, Inc (Comment Letter No. 255)

Page IV-97 2(b)(1) CPAI would like to point out that the water withdrawal limit cited by BLM of 15% of under-ice volume is preferred by the Alaska Dept of Fish and Game for fishbearing lakes. There are no water withdrawal limits for those lakes determined to be devoid of fish. CPAI typically collects information on fish presence/absence in lakes targeted for potential winter water withdrawal. According to numerous lake recharge studies conducted by CPAI consultants, removal of water from lakes rarely approaches 15% of the available amount of water under 7- feet of ice, and the amount of recharge during summer breakup typically meets or exceeds the amount of water used during winter exploration activities (Michael Baker, Jr., 2002). **(Comment No. 255-823)**

Response To: Comment 255-823

Please see the response to comment 253-363 (Fish).

Comment From: ConocoPhillips Alaska, Inc (Comment Letter No. 255)

Page IV-100, 2nd para. The discussion of potential pad and road induced drainage problems refers primarily to gravel fill techniques used in the 1980s and 1990s. Impoundment problems created from these designs are largely the problem of older oilfields (e.g. Prudhoe Bay). Current engineering standards and new BMP manuals used to locate and install cross-pad drainage structures, including larger and more frequently deeply buried culverts and more use of small bridges, have significantly reduced impoundment and thermokarsting issues. **(Comment No. 255-825)**

Response To: Comment 255-825

Impacts were determined as a range of consequences from the development scenarios (Section IV.A.1.b(4)), the stipulations that would govern these development activities (Section II.C.5), and the potential adverse impacts as referenced in the literature. The alternatives with fewer and more limited stipulations (Alternatives A and B) would have greater impacts than would Alternative C, with a greater number and more encompassing stipulations. These impacts would indeed be lessened by the construction methods noted in the comment, however, we did not assume these best management practices to be in place for analysis purposes.

Comment From: ConocoPhillips Alaska, Inc (Comment Letter No. 255)

Page IV-100, oil pipeline paragraph. It is not clear what is meant by the reference to impoundments along pipelines. Oil pipelines are elevated and impoundments typically do not occur along these alignments. Ice roads used to construct pipelines typically melt only a few days later that the adjacent tundra, hence impoundments along the ice road also are not usual features associated with this activity. **(Comment No. 255-826)**

Response To: Comment 255-826

The impoundments were assumed to occur during and/or immediately after elevated pipeline construction when work pads, ice roads, or equipment activities might create berms, dikes, ditches, or depressions that could impede or divert surface water. After all pipeline work is completed, few impoundments or diversions would be expected. If all work on the pipelines was done during winter, these impacts would be greatly reduced, but this is not a requirement of the scenarios (Section IV.A.1.b(6)).

Comment From: ConocoPhillips Alaska, Inc (Comment Letter No. 255)

Page IV-101, "Conclusions." This section concludes that the impoundment problems associated with roads, pads, and pipelines in oilfields built in the 80's and early 90's will still be a serious component of new fields and lead to significant habitat loss. CPAI has put considerable engineering effort into correcting these problems in the last few years and believes new Engineering Cross-pad Drainage Manuals and BMP's will substantially reduce these losses. New techniques allow correctly buried culverts that are properly sized for break-up flow events with more frequent placement to prevent sheet-flow impoundments. Also more frequent use of small bridges and larger culverts reduce gravel washouts. Using these new techniques, impoundments and thermokarsting should not result in the habitat loss that occurred in older fields. We believe the discussion and conclusion for this issue should be updated to reflect these new designs. Assumptions that disturbed acreage from impoundments and thermokarsting would be double the actual gravel footprint are no longer accurate. **(Comment No. 255-827)**

Response To: Comment 255-827

A study of the impacts of oil-field activities in Prudhoe Bay (Walker 1987) found that 15 years after construction began, the areas adjacent to the road system still showed an increase in thermokarst growth and that flooding from impoundments and diversions was more than double that of the primary impact of gravel placement. Please see the response to comment 255-825 (Water Resources).

Comment From: ConocoPhillips Alaska, Inc (Comment Letter No. 255)

Page IV-401. Water Resources. In all chapters throughout the document, the discussions of impacts to water

resources have been excessively descriptive of serious negative impacts to water resources resulting from "implied" extensive amounts of soil erosion, melting of permafrost, blockages of natural channels and floodplains, stream bank and lake bank erosion, sedimentation, and drainage of lakes and river pools for ice road construction. While hypothetically these impacts can occur with poor design, in reality, standard engineering design and operation of newer oilfields have basically eliminated these impacts. Even in the older Prudhoe Bay Unit and Kuparuk River Unit oilfields, built with engineering standards of the 1970s and 1980s, when these impacts did occur, they were relatively minor on the scale of the total landscape. **(Comment No. 255-951)**

Response To: Comment 255-951

The Water Resources Section analyzes the range of impacts that can occur within each scenario, given a specific set of stipulations. Though the conclusions may differ, this same type of analysis was used for the Northeast National Petroleum Reserve-Alaska IAP/EIA (USDOI, BLM and MMS, 1998), and it is very similar to that used in the Alpine Development Project Environmental Evaluation Document (Parametrix, Inc. 1996) submitted by Arco and Anadarko to the U.S. Army COE, for their oil and gas development project. The former concluded that the alternative that opened all of the Planning Area for leasing and development would result in the greatest "long-term impacts (melting of permafrost and disrupting drainage patterns)" of all the alternatives (USDOI, BLM and MMS, 1998:Section IV-F-3). The latter document states that "The proposed in-field facilities are expected to cause minor or negligible impacts from increased sedimentation resulting from drainage impedance during large flood events;" then concludes in the same paragraph that "Wash outs of portions of the in-field facility access roads could occur during large floods" (Parametrix 1996, 4-16). This represents a local, but substantial, impact. The primary purpose of an environmental impact statement is to "provide a full and fair discussion of significant environmental impacts and shall inform decision makers and the public of the reasonable alternatives which would avoid or minimize adverse impacts" (40CFR1502.1). The discussion in the environmental consequences section "will include the environmental impacts of the alternatives including the proposed action, any adverse environmental effects which cannot be avoided should the proposal be implemented" (40CFR1502.16), and that these "environmental effects must be expressed in the context of locality" (40CFR 1508.27). While localized impacts may seem "relatively minor on the scale of the total landscape" (ConocoPhillips Alaska, Inc., 2003), the long term and cumulative impacts may not be minor when viewed locally. If the methods used to mitigate impacts are not required in the stipulations, they cannot be assumed to be in place when assessing the impacts of the alternative.

65. TOPIC : ESTUARINE WATER QUALITY

Comment From: State of Alaska (Comment Letter No. 251)

Section IV, Alternative A, Estuarine Water Quality, Effectiveness of Stipulations and Required Operating Procedures, Page IV-115. This section states Stipulation D-1 would prohibit exploratory drilling that might cause more than minimal impacts to hydrologic conditions. However, Stipulation D-1 refers to exploratory drilling in freshwater systems including shallow lakes, streams, lake beds, and active floodplains. Activities in these locations may have limited or no effects to estuarine conditions. The description of Alternative A does not appear to include mitigation measures designed specifically to protect estuarine water quality. **(Comment No. 251-162)**

Response To: Comment 251-162

The text has been revised to explain that Stipulation D-1 would have an indirect benefit on estuarine waters. The stipulation would reduce the likelihood of spills that might drain into streams and relatively quickly into estuarine waters.

Comment From: State of Alaska (Comment Letter No. 251)

Section IV, Estuarine Water Quality, Docks, Page IV-113. The text states East Dock within Prudhoe Bay is one mile long. In reality, its length is closer to 1000 **(Comment No. 251-163)**

Response To: Comment 251-163

The text has been revised to indicate that East Dock is approximately 1300 feet long.

Comment From: NOAA (Comment Letter No. 209)

Pg. IV-113 Estuarine Water Quality - Docks The DIAP/EIS is unclear as to whether any consideration has been given to utilizing existing docking and staging facilities in Barrow or the construction of centralized facilities at Ikiak or Cape Simpson. This would reduce the likelihood of oil and fuel spills in the undeveloped pristine estuaries and bays. **(Comment No. 209-910)**

Response To: Comment 209-910

Utilizing previously constructed facilities would be preferable to constructing new facilities in pristine areas. This would reduce potential impacts to undisturbed coastal settings, and it could be more cost effective from an industry standpoint. The location of possible staging areas is given on Map 107. Past exploration programs in Northwest NPR-A have utilized coastal staging facilities, primarily at Barrow or Camp Lonely. Cape Simpson is centrally located in the high petroleum potential area, and therefore, would be a good site for a new staging facility to support future activities in Northwest NPR-A. The first petroleum activities on the North Slope occurred on Cape Simpson in the early 20th century. Two phases of government exploration between the 1940's and early 1980's conducted operations in this area. With its natural oil seeps and long history of oil-related activities, the Cape Simpson area could be considered the least pristine, though undeveloped, coastline in northwestern Alaska. Please see specifically the provisions for using existing sites included in Stipulation K-6.

66. TOPIC : EFFECTS OF SPILLS

Comment From: State of Alaska (Comment Letter No. 251)

Section IV, Alternative A, Mammals, Effects of Spills, Page IV-163. This section describes the potential direct effects of oil, natural gas, or seawater spills on wildlife and vegetation. Although some direct effects of these substances on mammals may occur, a greater impact would be the disturbance associated with recovery, cleanup, and rehabilitation of a large spill area. A greater emphasis should be placed on the disturbance effects to mammals in this discussion. **(Comment No. 251-169)**

Response To: Comment 251-169

The BLM recognizes that in the case of terrestrial mammals, impacts from oil spill response may occur. These impacts would range from temporary displacement and disturbance of larger more mobile animals to possible mortality of smaller, less mobile animals. Additional analysis has been added to Sections IV.F.8.j., IV.C.10.A.,

and IV.J.5.h.

Comment From: State of Alaska (Comment Letter No. 251)

Section IV.K.3. The State recommends that this section be supplemented with additional discussion on potential effects from transportation-related spills of oil and other substances. Small oil spills of up to 10,000 gallons could occur as the result of bulk fuel tanker accidents. These and other types of spilled substances could have local, temporary effects on soils, vegetation, water quality, and perhaps other resources. **(Comment No. 251-200)**

Response To: Comment 251-200

The potential effects of small spills on environmental resources in the Planning Area are discussed in the Alternative analyses. The scenario for these spills includes spills from both oil and gas activities and non-oil and gas activities. The cumulative oil spill scenario also includes spills from both oil and gas and non-oil and gas activities.

67. TOPIC : BASIC ASSUMPTIONS/SCENARIO

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

Finally, the DEIS also states that oil exploration and development in the Reserve is necessary to meet the country's future need for petroleum and to reduce our dependence on foreign sources of oil. Nonetheless, the DEIS contemplates overseas sales of the oil extracted. Indeed, it goes so far as to provide a schematic of the proposed tanker routes to the Far East (DEIS Map 97.) **(Comment No. 253-48)**

Response To: Comment 253-48

In a free market, oil and gas are sold for the highest netback value possible. Netback value is the market price minus the transportation cost. During various times of the year, usually winter, the netback value is higher in Asia than the U.S. West Coast, and some tankers are redirected to this temporary market. This does not cause a shortage on the West Coast because lower cost oil is available from other sources (generally Indonesia). The increase in domestic demand is a slow, long-term condition driven by population and economic growth. New sources of energy from Alaska will help to fill this demand, as the North Slope has supplied up to 25% of domestic production since 1977. As the commenter noted, even when exports to Asia were occurring they amounted to only 5% of total North Slope production. As of 2001, Alaska supplied 1.0 million barrels per day of a total domestic production of 7.7 million barrels per day (15%). Meanwhile, net oil imports totaled 10.9 million barrels per day to balance domestic demand of 18.6 million barrels per day. If 5% of Alaska production (or 50,000 barrels per day) was again redirected to Asia, it would amount to 0.27% (0.00268) of total domestic demand—hardly a reason for concern, particularly when it is replaced by lower cost oil from other sources. There is no stipulation that oil from NPRA must be sold and consumed in domestic markets. It is in the country's best interest (from both a consumer and economic growth perspective) that the lowest cost energy is available. A free market system is usually very efficient in doing just that. Occasional exports of minor volumes of oil to foreign markets will not upset the balance. In any case, Congressional legislation regarding the potential export of oil from NPRA is beyond the scope of this document.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

The DEIS estimates that 'the mean undiscovered economically recoverable oil and gas volumes for the Northwest Planning Area range from zero at the $18/bbl of oil and $2.56/Mcf of gas price levels to 2.1 billion barrels (Bbbl) and 7.3 trillion cubic feet (Tcf) at the $30 bbl and $4.27/Mcf of gas price levels. These estimates are further based on the assumption that the entire area is open to leasing with unrestricted exploration and development.' (Emphasis added). These assumptions appear to unrealistic and require reassessment, especially given the available resources from the United States Geological Survey and the Energy Information Administration which contradict the assumptions made on forecast petroleum prices and economically recoverable reserves. **(Comment No. 253-50)**

Response To: Comment 253-50

An independent petroleum assessment was completed by MMS/BLM prior to the release of the 2002 USGS assessment. Our assessment covers a different area, uses different computer models, and is based on different data. As discussed in Appendix 7, our assessment of the conventionally recoverable resources is followed by an assessment of the economically recoverable resources. At the initial stage of the analysis, it is premature to factor in possible area closures or restrictions that could preclude successful discovery and development. These considerations are incorporated as reductions in the economic petroleum potential for the Alternatives (see Table IV-06). Thus, a full spectrum is provided between the total development potential (without regulatory restrictions) and full protection of the area (no leasing or development). With regard to the USGS assessment of National Petroleum Reserve-Alaska, meetings were held with the two groups to generally coordinate the fundamental assumptions common to both assessments. However, there are clear differences between the methodologies used by two groups. The USGS does not have access to all available data (proprietary well and seismic data) or mapping technology (interactive computer workstations). The USGS computer models also require somewhat different input parameters, and the assessment area was larger (entire NPR-A). Despite these differences, the results generated by the two groups are very consistent (see Appendix 7, Section F). The fundamental point we stress is that technically recoverable resource assessments are made without economic considerations of cost and profitability, not "regardless of cost" as stated by the reviewer. At very high commodity prices, economically recoverable resource volumes would approach technically recoverable (or conventionally recoverable) resource volumes. The bracketing prices assumed in the MMS/BLM assessment ($18 and $30) compare well with 2000 Environmental Information Administration forecasts for future prices ($18.71 for the low-price scenario, adjusted to 2002$; and $31.84 for the high-price scenario, adjusted to 2002$). Given the volatility of oil prices, these differences are inconsequential.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

The DEIS does not appear to factor in the anticipated higher production costs in the Northwest and throughout the Reserve for that matter. According to the Energy Information Administration, 'oil exploration and production is expected to be about 30 percent more expensive than is typical for the North Slope of Alaska.' Energy Information Administration, Annual Energy Outlook 2003 DOE/EIA-383 (2003) p. 82. The DEIS is accurate recognizing that '[t]he lower price level would not support economically viable development of oil or gas in the Northwest NPR-A Planning Are.' However, the lower price range may actually be to high given the USGS analysis and EIA price forecast summaries, calling into question whether any economically recoverable quantities of oil or gas can be recovered within the area. **(Comment No. 253-51)**

Response To: Comment 253-51

The resource assessment reported in the Draft EIS/IAP does include cost adjustments for exploration, development, and production operations. General "remoteness" factors range from 0.25% to 0.50% per mile (depending on the operation) and are scaled from the nearest road-connected facility (Kuparuk's Central Processing Facility-2). The EIA's cost adjustment of 30% would be applicable to operations in Northeast NPR-A

(distances of 60-120 miles), but would underestimate the cost differential for more remote operations in the Northwest Planning Area. Again, our economic models included cost adjustments for location and types of operations. As discussed in the response to comment 253-50, there are differences between the scope, assumptions, and computer models used by the MMS and USGS. Figure App-04 shows that there are no economically recoverable oil resources (for the mean case) below a price of $18 per barrel. The USGS assessment concluded that economic resources are not recoverable (at the mean case) below a price of $21 per barrel. This is a minor difference considering the methodologies followed by the two groups. At $30 per barrel, the USGS reported that 5.6 billion barrels are economically recoverable at the mean case. The MMS/BLM assessment reported that 5.7 billion barrels are economically recoverable. Considering that the assessment area for the MMS/BLM work is smaller (northern 2/3 of NPR-A) than the USGS work (entire NPRA), one could conclude that the MMS/BLM was also more optimistic at high-end prices. These differences should not prompt revisions to the development scenarios, given that both agencies are estimating undiscovered oil and gas resources and the scenarios are speculative. At prices averaging $25 per barrel (OPEC's target price), both USGS and MMS/BLM estimate large volumes of economic resources in NPR-A (USGS 3.7 billion barrels; MMS/BLM 4.2 billion barrels). Government assessments and recent industry activities confirm the attractiveness of the NPR-A for future exploration and development

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

The DEIS's impacts analysis flounders out of the starting gate. To provide a useful analysis of impacts, the analysis must be based upon a realistic development scenario. The DEIS, however, is based upon a series of proposed development scenarios that are incomplete and unrealistic when evaluated in the context of existing development in the region. As a result, the nature and extent of potential impacts are significantly understated. The DEIS fails to describe adequately potential scenarios for oil field exploration and production activities and infrastructure. The requisite site-specific analysis necessary to authorize exploration and development leases is not provided. Indeed, BLM concedes that development is described 'only in a general sense.' (DEIS at IV-7.)
(Comment No. 253-70)

Response To: Comment 253-70

As stated in the draft IAP/EIS (Section IV.A), the environmental analysis is based on hypothetical scenarios that are conceptual views of possible future activities. It is difficult to accurately predict events decades into the future. Most competent analysts accept (and deal with) the uncertainties associated with incomplete information. The commenter is correct in that scenarios are largely built on projections of existing technology and trends, and the BLM believes that is a logical basis for analysis. It is difficult to quantify the effects of technology or new trends that no one can currently define. This would raise speculation of future events to another level that is entirely unsupported by facts. In the same light, no one can predict exactly where new commercial oil discoveries would be made in a largely untested area. Thus, this analysis of the activities and potential impacts is based on reasonable scenarios which are in turn based on current information on oil and gas potential. When commercial discoveries are identified, additional NEPA analysis to mitigate the effects of a specific development will be conducted at that time.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

The DEIS's impacts analysis flounders out of the starting gate. To provide a useful analysis of impacts, the analysis must be based upon a realistic development scenario. The DEIS, however, is based upon a series of proposed development scenarios that are incomplete and unrealistic when evaluated in the context of existing development in the region. As a result, the nature and extent of potential impacts are significantly understated. The DEIS fails to describe adequately potential scenarios for oil field exploration and production activities and infrastructure. The requisite site-specific analysis necessary to authorize exploration and development leases is not provided. Indeed, BLM concedes that development is described only in a general sense. (DEIS at IV-7.)
(Comment No. 253-71)

Response To: Comment 253-71

As clearly stated in the draft IAP/EIS (Section IV.A), the environmental analysis is based on hypothetical scenarios that are only conceptual views of possible future activities. Other scenarios are plausible if based on sound professional judgment. It is difficult, if not impossible, to accurately predict events decades into the future. Most competent analysts accept (and deal with) the uncertainties associated with incomplete information. The commenter is correct in that scenarios are largely built on projections of existing technology and trends. We believe that is a logical basis for analysis. How can we quantify the effects of technology or new trends that no one can define today' This would raise speculation of future events to another level that is entirely unsupported by facts. In the same light, no one can predict where new commercial oil discoveries would be made in a largely untested area. Thus, only a general analysis of the activities and potential impacts is realistic at this early stage of exploration. When commercial discoveries are identified, site-specific analysis to mitigate the effects of development would be more accurate and meaningful.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

Resource estimates. Better documentation of the resource estimates is needed because this is a fundamental basis of both the oil potential that could meet the national needed, as well as for the assumptions of environmental impact. The DEIS gives biased information on petroleum resources because 'these estimates are further based on the assumption that the entire area is open to leasing with unrestricted exploration and development.' (DEIS p. IV-8.) In doing so, the DEIS fails to provide an analysis of the impacts of potential environmental restrictions. It is necessary to understand what factors have the biggest economic effect regarding the amount of economically recoverable oil that might be expected if the agency is going to presume that mitigation measures or leasing deletions, deferrals, or other mitigation measures cannot be done. Furthermore, the BLM has failed to address how development and production in the Northeast Planning area of the Reserve would influence the subsequent economics of the Northwest Planning area, despite the fact that these are integrally related. **(Comment No. 253-72)**

Response To: Comment 253-72

The resource assessment methodology is discussed in detail in both Section III.A.1.a(2) and Appendix 7. As stated in the response to comment 253-50, the first part of the assessment evaluates the entire recoverable petroleum endowment without reductions for cost, profitability, regulatory restrictions, or environmental consequences. The economic phase of the assessment considers only the timing, cost, and logistics of producing new discoveries in relation to changing commodity prices. The economic assessment provides a full development model that can be scaled back as mitigation and area closures reduce the potential for petroleum production. Reductions in the potential for petroleum production to account for the cost of required mitigation for environmental effects are treated under the Alternatives for leasing. The factors considered when making the reductions for "mitigation costs" are largely related to area and access issues. Area closures and seasonal restrictions reduce the likelihood that discoveries would be made. Access to exploration and development sites is a key factor in designing a viable commercial project. These general principles are recognized by government and industry, and they are discussed in qualitative terms in "Differences in Activity Levels for Leasing Alternatives" (Section IV.A.1.b.(7)(c)). Development activities in the Northeast Planning Area are important, but perhaps not vital, to new commercial developments in the Northwest Planning Area. Shorter distances for pipeline or road construction, access to closer staging areas or processing facilities, and experience with operations in a similar area would all contribute to lowering the cost of development in the Northwest Planning Area. The resource assessment included assumptions for developmental synergy among plays in the same general area (which could span both the Northeast and Northwest Planning areas). We assumed that many of the resource-poor plays (likely to be uneconomic as standalone projects) would share infrastructure with the resource-rich plays (more likely to have large, standalone pools). Because the engineering assumptions were simulated over thousands of trials, it is difficult to separate the economic impact of individual components of the analysis.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

Petroleum Operations ' Past experience. This section (DEIS P. IV-10) is extremely cursory and needs to be updated with the latest science from the National Academy of Sciences NRC Study (2003), and U.S. Geological Survey Study (2002). It also fails to document the on-going impacts of past exploration in the National Petroleum Reserve- Alaska, such as 110 wells that still need to be properly capped and serious contamination at Umiat and at locations within the Northwest Planning Area (AK Journal of Commerce Aug 18. 2002). **(Comment No. 253-74)**

Response To: Comment 253-74

The section titled "Petroleum Operations in Arctic Conditions" provides a brief overview of activities in Alaska and Canada, highlighting the key projects in their historical context. A more lengthy description of past petroleum activities is given in Section III.2.a.1. The NRC report also provides an excellent summary of past activities in NPR-A, but it falls short in discussing petroleum activities in other Arctic areas (Canada and Russia, among others). The NRC report also fails to discuss the 110 wells (most of which were not properly abandoned by government-sponsored drilling programs—not industry); nor does it discuss in detail the location and status of the "abandoned and orphan wells" on State lands on the North Slope. Readers of the IAP/EIS will note the statement "no attempt is made to cite all literature relevant to the NPR-A," but key references are offered. The NRC report has been added to the references relied upon in the EIS Analysis of the cumulative impacts of past operations in NPR-A is discussed in the EIS/IAP in Section IV.F.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

Petroleum Operations ' Technology Advancement. This section claims that a number of operations will have less environmental impact, yet does not provide references for this information. None of these technologies are any different than what had been described in the Northeast Plan in 1998. Therefore, these cannot be used as justification for deviating from the environmental stipulations contained in the Northeast FEIS and leases. Instead of just touting the benefits of technological advances, the DEIS should also acknowledge their limitations. For instance, the NRC reported noted the limits to reducing footprint size by placing wells more close together: In the current design, which is used for pads at the Alpine oil fields, wells at 43c (109f) are spaced only 3m (10 ft) apart (Hazen 1999). Accommodating such a concentration of heat in permafrost requires sophisticated design with extensive refrigeration by passive heat pipes (or thermo-siphons) and insulation. Hazen (1999) calculated that, without refrigeration the thaw chimneys would coalesce at all depths, and all the permafrost'about 300 m (1,000 ft) thick'under the row of wells would thaw. Then, the natural surface, gravel pad, and well houses would settle nonuniformly from 2 to 6 m (6.5 to 20 ft). With refrigeration to a depth of 15 m (50 ft) and insulated conductor pipe to 24 m (80 ft), Hazen (1999) estimated that all of the permafrost except for the top 12 m (40 ft) will thaw. NRC at 109. **(Comment No. 253-76)**

Response To: Comment 253-76

The environmental benefits of the newer technologies are briefly summarized and generally self-evident (e.g., a smaller footprint produces lower impact). With a few exceptions these are the same technologies that were listed in the previous EIS/IAP for the Northeast Planning Area. With less than five years between these documents, there has not been much in the way of public literature released with case studies. However, listing these current technologies was not intended to provide justification for revising the environmental regulations. The primary justification for this revision in policy was to convert to performance-based regulations based on site-specific conditions, rather than relying on simple exclusionary mechanisms. In regards to possible subsidence problems related to oil wells through permafrost, industry has 35 years of experience on the North Slope and has developed

successful methods to mitigate the problems. Closely spaced wellheads have been used for over a decade in several fields without catastrophic subsidence occurring. Obviously, realizing that a problem exists is the first step to mitigating it. The commenter erroneously assumes that proven mitigation strategies would not be followed by future operations. This is not realistic.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

Petroleum Operations ' Timing. This section should provide timelines showing what activities are expected during development and production throughout each month of the year, so that the environmental effects on wildlife and human communities and subsistence can be more clearly understood. The DEIS should make clear that oil production activities on the North Slope take place throughout the year, particularly air and road transportation access to the oil fields, and the production of oil. **(Comment No. 253-92)**

Response To: Comment 253-92

The scenarios offered in this document are reasonable views of the future, but have varying degrees of uncertainty given the set of assumptions for each scenario. Trying to predict the exact timing of future activities is highly speculative because of changing economic conditions that influence industry actions. A general timetable for a typical development project similar to the Alpine field is given in Table IV-02, but a variety of factors could change this example by many years. A schedule given at a monthly scale would be ridiculous and misleading. Typical schedules for exploration, development, and production activities are discussed on a seasonal level in Section IV.A.1.a. Exploration is expected to, for the most part, occur during winter months (December to May) at sites scattered throughout the area. Development (construction) activities are also expected to occur in winter because of transportation feasibility. Production operations (including well drilling and oil production) would occur year round for perhaps decades. Table IV-03 provides a general life-span timetable for typical petroleum activities in northern Alaska.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

Exploration ' Seasonal roads and drilling pads . This section needs to describe the constraints to ice road use for parts of the Northwest Plan area where there are few lakes (the southern part); the full water needs for gravel pads, ice road networks, and ice airstrips should be described here. Furthermore, if the entire Northwest Planning Area is located more than 50 miles from existing oil field road networks, and the 'maximum practical length of overland ice roads is less than 50 miles, considering permitting requirements, opening dates for tundra travel, ice road construction time, and the seasonal window for winter drilling,' (DEIS p. IV-13) then the DEIS needs to explain the degree to which ice roads will be used. The DEIS is not clear at all about how much reliance there will be on ice roads, compared with driving directly on the tundra ('rolligon trails' or 'off- road travel') or construction of permanent roads. If indeed, access is more likely to be done by driving directly onto the tundra, with hundreds of trips with very heavy loads needed for moving drillrigs, etc., this needs to be explained as one of the assumptions and the impacts of the likely transportation modes need to be discussed fully. **(Comment No. 253-94)**

Response To: Comment 253-94

A variety of transportation options are available to move supplies and equipment to the Northwest Planning Area. These could include: ice roads, packed-snow roads, rolligon trails, gravel roads, air lifts to temporary ice landing strips or permanent gravel strips, and marine barging. It is likely that a combination of these methods would be used, depending on the activity and site. Some logical explanations can be offered. Inland sites would probably rely more on air transport than sites closer to the coast (access by marine barges) or sites near existing infrastructure (access by ice roads). Other strategies could include reducing the drilling rig size to facilitate

transport as lighter modules (for rolligons and aircraft) and constructing multi-year staging sites closer to operations in the Northwest Planning Area. These options are discussed in general terms in the DEIS document because the location of exploration and development sites is not established at the present time.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

Development- Field layout. The DEIS presents a muddled picture regarding whether ice roads will be used at all for access for development, given that 'for practical and economic reasons, winter ice roads are likely to be limited to 50 to 100 mi in overall length,' (p. IV-17), a distance far exceeding the distance away from existing gravel road network. Therefore, the DEIS needs to assess the environmental impact of construction of permanent gravel roads in the Northeast Planning area, or in the Northwest Planning area, or both. The DEIS states that a permanent road connecting this area to the coast or to the Northeast Planning Area is unlikely (DEIS p. IV-34), yet it also provides the data that shows ice roads are infeasible. Analysis of the effects of permanent roads, both within oil fields, connecting to satellites, and connecting outside the planning area should be done since there are no prohibitions of this infrastructure. **(Comment No. 253-96)**

Response To: Comment 253-96

The practical distance for seasonal ice roads construction is commonly assumed to be approximately 50 miles on land and 100 miles on near-shore grounded ice. Because the Northwest Planning Area is located beyond this distance from existing Prudhoe-Kuparuk infrastructure, the commenter incorrectly assumes that ice roads would not be feasible. However, there is no requirement that all ice roads emanate from existing infrastructure on State lands. Ice roads would connect remote sites to other staging areas (e.g., Barrow, a new coastal base, inland gravel airstrips, or new production facilities) in the Northwest Planning Area. Potential staging sites are shown on Map 107. Regarding permanent gravel roads, it is important to distinguish the types and use of the roads. It is likely that gravel roads would connect drilling/production pads (a few miles apart) within individual oil fields. It is possible that some gravel roads would connect outlying satellite fields (within 20 miles or so) to central processing facilities. It is less likely that long gravel roads would be constructed across NPR-A to connect oil field infrastructure or villages in the area. Several factors (construction cost, availability of gravel, cost-benefit, and environmental effects) would limit the feasibility of long gravel roads across NPR-A. The IAP/EIS evaluates the impacts of gravel roads in Section V.II. Economics would largely dictate character of new infrastructure (including gravel roads) in NPR-A.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

Development and Production- Well Drilling. The assumptions given for extendedreach wells document a number of limitations that cast into doubt the likelihood that the best available technology will actually be used for field development. The DEIS states that 'extended-reach drilling methods are rarely employed for exploration wells, because they are far more costly than vertical wells'alternative field designs must consider the cost tradeoffs between fewer pads with more extended-reach wells as opposed to more pads containing conventional wells. In most instances, it is more practical and cost effective to drill conventional wells from an optimum site, [than] it would be to drill ERD wells from an existing drill site.' (P. IV-20, IV-21). As well, the DEIS has dropped an important stipulation from the NE Plan related to this issue, Stip 32. Lessees shall use maximum economically feasible extended-reach drilling for production drilling to minimize the number of pads and the network of roads between pads. **(Comment No. 253-100)**

Response To: Comment 253-100

The utility of extended-reach drilling (ERD) is discussed in the document (Section IV.A.1.b.(4)(d)). For exploration wells, there are a number of issues other than cost that limit the usefulness of ERD wells. For

production drilling, project designs attempt to balance the higher costs for ERD wells with the cost of additional pads and connecting roads. Basic economics dictate that companies would try to lower the development costs as much as possible. For example, if part of an oil field extended under a large river, it probably would be cheaper to drill ERD wells than it would be to construct a pad and connecting road, bridge, and pipeline across the river. Economic forces have a greater effect than the stipulation contained in the Northeast NPR-A Plan.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

Development and Production ' Water Demand. This section only addresses water used for drilling and camp use, but ignores water needed for ice roads in the event that production sites are not located on a road network. If ice roads are not needed during the production phase because roads will be built, this should be clearly stated. **(Comment No. 253-103)**

Response To: Comment 253-103

Water requirements are discussed under several sub-headings in Section IV. Section IV.A 1.b.(3)(a) discusses water demand for seasonal ice roads (1.0-1.5 million gallons per mile). Section IV.A 1.b.(3)(d) discusses water demand associated with exploration drilling and camps. Section IV.A 1.b.(4)(f) discusses water demand for construction and development drilling. Section IV.A 1.b.(5)(c) discusses water demand for waterflooding operations during production.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

Many of these new developments will connect to the Alpine field facilities. Accordingly, if BLM is going to use Alpine as a model scenario, then it is necessary to include the entire picture of what facilities may result. Tables IV-10 (Known fields) and IV-11 (proposed infrastructure and development) is inaccurate as they do not include the known NPR-A fields, Liberty, Pt. Thomson, and other fields for which NEPA review is concurrent. **(Comment No. 253-111)**

Response To: Comment 253-111

Alpine is used as an example of a typical standalone field in order to judge environmental impacts of similar-sized fields (if discovered) in Northwestern NPR-A. ConocoPhillips Alaska, Inc. postulates that from 5-15 additional fields near Alpine might someday share the Alpine infrastructure, but they have located only 5 of these satellite fields by discovery wells. Tables IV-10 and IV-11 will be updated to reflect current proposals for development in the Alpine and Point Thomson areas.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

Current activities are also ignored. A map of hypothetical pipeline routes (map 106) does not show the current proposal for 19 miles of pipelines in the NE area that will connect to Alpine. Is it expected that this current proposal located north of the one that is shown going into the NW Plan area, so that multiple sprawling networks of pipelines, roads, and airstrips (if no connecting roads) are built' No staging areas are show to be located along the northern pipeline route. Wouldn't another one be needed' **(Comment No. 253-113)**

Response To: Comment 253-113

The Draft IAP/EIS for Northwest NPR-A Planning Area was published prior to the announcement of the ConocoPhillips Alaska, Inc. plan to expand the Alpine development into the Northeast NPR-A Planning Area. Proposed pipeline routes for satellite fields in the Northeast Planning Area are shown as dashed lines on Map 25. When they are actually constructed, they will be shown as solid lines. The hypothetical pipeline corridors shown on Map 106 are large-diameter oil and gas trunklines that could carry large production volumes from numerous fields in Northwest and Northeast NPR-A to the existing pipeline system connected to TAPS. It is unlikely that smaller flowlines from the proposed Alpine satellites or the Alpine sales oil line would have sufficient capacity to handle additional production streams from large new fields. The location of the northern hypothetical trunkline is uncertain because new fields have not been identified in areas farther west. It is unlikely that a permanent staging area would be required to construct the new trunkline. However, one or more pump stations might be required along the corridor depending on pipeline design. It is impossible to specify the location of pump stations when we can't accurately define the route of the pipeline itself.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

General scenarios. It is unclear whether the most recent U.S. Geological Survey Assessments of oil potential in the NPR-A were incorporated into the oil and gas resource information described in the DEIS. The USGS information should be compared with the BLM/ MMS assessment results, as they may provide different bases for the assumptions of potential development. **(Comment No. 253-114)**

Response To: Comment 253-114

The USGS assessment of NPR-A was released as a summary announcement in May 2002, two months after the completion of the Draft IAP/EIS. A comparison of the MMS/BLM and USGS assessments has been added as new section Appendix 7. Please also see the response to comment 164-880 (Geology).

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

The DEIS assumes at least one commercial oil field (Alpine-equivalent plan) in the northern part of the planning area, (DEIS p. IV-9) but it fails to describe exactly what this scenario means. Later it said ' the first field' would anchor development'[and] allow the economic development of number of surrounding satellite fields. It is assumed that satellite fields would be located within 20 mi of the main field. No attempt was made to include satellite developments in the representative activity schedule for the first large field.' (DEIS pp. IV-30-31). Yet, there would be environmental impact from the subsequent development. This document evaluates only a segment of the environmental impacts of the field development by ignoring the later, piecemeal additions. To consider the complete environmental impact, these subsequent fields connected to the main field need to be included, as they can involve considerable aircraft traffic or road transportation, further fragmentation of the landscape, need for gravel mines, pipelines, etc. For example, the entire Alpine scenario actually includes up to 15 eventual satellites now described by ConocoPhillips Alaska, Inc., and all of the road and airport transportation requirements associated with it.i **(Comment No. 253-116)**

Response To: Comment 253-116

For purposes of environmental analysis, we have assumed that at least one large oil pool, similar to Alpine, would be discovered and developed in the northern part of the Northwest Planning Area. Geologic analysis has indicated that the Alpine-equivalent play is present in this part of the Planning Area (Beaufortian Play 8, see Map 102), and it could contain pools large enough to support a standalone field (see Figure App-03). However, we cannot speculate about the size, number, and location of unidentified satellite pools that may be in the proximity to the example Alpine-like pool. Estimating the timing of discovery and development of satellite pools could be highly

inaccurate. Estimates of the total scope of development associated with the various leasing Alternatives are given in Table IV-07. For example, under Alternative A at high ($30) oil prices, we estimated that 16 production pads would ultimately be installed in the Northwest Planning Area. How many of these would be associated with Alpine-size developments (2 pads), satellite expansions (5-15 additional pads tied to the main field), or other standalone fields (2 or more pads) cannot be accurately predicted. The materials requirements and environmental impact analyses are based on the totals given in Table IV-07 without assumptions as to which fields would be connected together.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

Furthermore, the DEIS assumes a large natural gas field in the southern part of the Planning Area (DEIS p.IV-11), but fails to describe the potential corridors and locations for road, airport, and pipelines and the activity levels and their ecological effects. Why is a large gas field assumed to be located here, when Map 106 shows this a 'low' potential area' **(Comment No. 253-118)**

Response To: Comment 253-118

For purposes of environmental analysis, a large gas field is assumed to occur in the southern part of the Northwest NPR-A Planning Area. As this hypothetical field has not been identified, we cannot accurately define the location of pads, roads, airports, and pipelines. However, a possible main gasline corridor is shown on Map 108 to illustrate that gas production in NPR-A would probably be gathered back to a central processing facility and future pipeline head in the Prudhoe Bay area. The southern area is labeled as "low potential" largely on the basis of oil prospects and the economics of development. The southern area is considered to be "gas prone" and large oil pools could be rare. However, oil discoveries made in Northwest NPR-A could be transported to market through the existing TAPS system. On the other hand, there is no gas transportation system from the North Slope to handle gas production, and all gas discoveries would be stranded until a system is built. Although many proposals are being discussed for a North Slope gas pipeline, the completion of this line could be a decade or more in the future (or not at all). Therefore, the development potential for the southern (gas-prone) area is labeled as low.

Comment From: State of Alaska (Comment Letter No. 251)

Section IV, Introduction, Pipeline Construction, Page IV-26. This section provides assumptions regarding pipeline design and construction that are the basis for analyses in the rest of the document. It states that wide, shallow rivers could be crossed by trenching and burying insulated pipelines in the riverbed. This section should be modified to note that fewer impacts would occur to the stream, streambanks, riparian habitat, and aquatic resources if a properly designed elevated pipeline crossings were used. Potential problems associated with maintenance, corrosion, and abandonment also would be less with an elevated crossing versus a buried crossing. **(Comment No. 251-157)**

Response To: Comment 251-157

The scenarios discuss a wide range of construction situations and current technologies, therefore, analysts evaluating potential environmental impacts consider a variety of conditions. This section of the IAP/EIS is not intended to dictate approved construction methods. Regarding the advantages of elevated pipeline crossings for wide, shallow rivers, there are also disadvantages, including changes to flow characteristics of the braided channel, scour problems around mid-channel supports, visual impacts, and higher project costs. Future project designs will be based on site specific conditions and the tradeoffs between project economics and mitigation measures.

Comment From: State of Alaska (Comment Letter No. 251)

Section IV, Buried Gas Line. At a number of locations within the document, including Page IV-9, buried natural gas lines are discussed. These buried natural gas lines are assumed to be constructed in trenches 5 ft. deep along the same route as the oil line. The text also states permafrost is a good material in which to install overland high pressure gas pipelines. However, no discussion is presented describing the potential problems associated with construction, operation, maintenance, and abandonment of long distance chilled buried gas pipelines. Some of these potential problems include: pipeline thaw settlement; subsidence or erosion of backfill material; ditch integrity and stability; interception and channelization of water along the buried pipeline ditch; unintentional drainage of wetlands or lakes; ponding over the pipeline; pipeline exposure; corrosion protection; leak detection; and summer access, repair, and rehabilitation of the backfilled ditch. Buried gas line trenching trials conducted in winter 2002 in the Prudhoe Bay area produced substantial site thermokarsting, permafrost thawing, backfill subsidence, and backfill erosion during the following summer. **(Comment No. 251-176)**

Response To: Comment 251-176

The impacts to vegetation that are likely to happen as a result of the issues in this comment are discussed in the final IAP/EIS. Please see Section V.II.7 under the Preferred Alternative.

Comment From: State of Alaska (Comment Letter No. 251)

A thorough assessment of both buried and elevated gas pipeline alternatives should be included in the document for those subsections that discuss impacts of pipelines on various phys ical and biological resources. **(Comment No. 251-177)**

Response To: Comment 251-177

Please see the response to comment 251-176 above.

Comment From: U. S. Evironmental Protection Agency (Comment Letter No. 261)

The final IAP/EIS should establish and identify the available minimum amount of public lands necessary to carry out a successful leasing program at normal price levels ($18 per barrel or $30 per barrel, etc.) while still excluding or restricting oil and gas leasing or surface activities in the areas most critical for subsistence and cultural uses, environmental resources, fish and wildlife habitat, and historic or scenic values. Other criteria and standards that should be considered include, but should not be limited to, the following: (1) economics of operations in remote areas; (2) distances and costs from existing infrastructure; (3) accessibility to oil and gas reserves; (4) future variations in oil prices that must be anticipated; (5) restrictions imposed on surface activities and facilities which increase environmental and subsistence protections, but also increases the costs to industry; (6) environmental sensitivity of the area; and (7) subsistence resources. **(Comment No. 261-329)**

Response To: Comment 261-329

It is a difficult, if not impossible, task to establish the minimum land area required for a successful leasing program. Very little of the proposed Northwest plan area is covered by seismic surveys and the few exploration wells there are decades old. The newer geologic plays are entirely stratigraphic and require state-of-the-art, 3-D

seismic surveys to identify potential drilling targets. Many of the prime targets in Northeast NPR-A failed to hold commercial amounts of oil when they were actually drilled. Using all available geologic information (public and proprietary), we have a reasonable working concept of the area of highest potential for commercial oil discoveries. However, no one can define today exactly where commercial-size fields will be located. Offering larger areas for leasing and exploration will increase the chance that commercial fields will eventually be discovered and developed. After discoveries are made, site-specific measures can be taken to minimize environmental impacts. The development scenarios analyzed in the EIS/IAP are based on a petroleum resource assessment that includes many of the factors listed in this comment, such as economics of remote operations (time tables and logistic costs), distance from infrastructure (transportation costs), variations in future oil prices (bracketed by $18 and $30 average prices), regulatory restrictions (costs and delays for mitigation measures), and surface restrictions (increased development costs). However, our resource assessment models are designed to evaluate petroleum volumes and do not include societal costs related to environmental sensitivity or subsistence values. It is difficult to place a monetary value on these variables, so a non-quantitative approach is used to reach decisions to balance the concerns of stakeholders.

Comment From: Public Meeting on DEIS - Barrow, Alaska (Comment Letter No. 80075)

When the oil industry was promoting Alpine they sold it as a small footprint. It was an improvement over past practices because they could drill in many directions from one pad, so the amount of tundra that was covered by gravel was greatly reduced. They said that the development would be roadless and it would have little impact on the area. However, since that time, they started the process of adding on satellite fields. These fields will be connected to Alpine by pipelines, roads and bridges. Instead of having a small footprint, the entire project will be a spider web of production facilities, roads and pipelines and encompass a very large area. There's already a huge area to the east of Nuiqsut that they don't use for hunting because it is tied up in oil production and this will tie up another large section of their hunting area. Most of the oil finds in NPR-A will probably be relatively small, so it is likely that the development here will follow the Alpine pattern. It will be compromised of many drill sites all connected by pipelines and sometimes roads. Instead of small footprints, we'll most likely have a spider web of development here, too. This will tie up large sections of land which will probably not be used by local residents for hunting, fishing and camping. **(Comment No. 80075-408)**

Response To: Comment 80075-408

The purpose of conducting lease sales and exploring for oil is to find as many commercial-size fields as possible. No one can accurately predict when or where these fields will be discovered. Alpine was discovered in the winter of 1994 (5 years before the NE NPR-A sale was held in 1999). When Alpine was developed, the companies had no knowledge (or leases) of additional fields in NPR-A. Later leasing and exploration resulted in discoveries that could become commercial fields if they were tied into the existing Alpine infrastructure. The nature of oilfield development is that it spreads from a central (or core) area. It remains to be seen if infrastructure will continue to spread to the west into NPR-A. This will depend on successful leasing and exploration drilling. However, it is unlikely that the scale of roads, pipelines, and facilities present in the Prudhoe-Kuparuk complex will be replicated in NPR-A because the fields are likely to be much smaller.

Comment From: State of Alaska (Comment Letter No. 251)

Section IV.A.1.b(4)(a), Page IV-17, Development, Field Layout. The author states that, "To be economically feasible, the first field developed in the NW NPR-A would need to be at least an Alpine-size field." This statement is not backed by any economic or other analysis. The possibility of an independent oil company discovering a smaller field, and partnering with other independents exists, and could allow smaller developments. **(Comment No. 251-416)**

Response To: Comment 251-416

The commenter is correct and the statement will be clarified. Economic analysis as part of our petroleum assessment has shown that a minimum reserve of approximately 400 to 500 MMbbl would be required for a new standalone project in the NPR-A Northwest Planning Area. This minimum oil volume (equivalent to an "Alpine-size" field) is needed to supply a central processing facility and a long overland pipeline. The existing text will be revised to clarify that the minimum reserve volume does not necessarily have to be located in a single pool. Several smaller pools within a radius of 20 miles owned by different operators could share the costs of new infrastructure. Gathering several satellite fields into a central facility and oil pipeline could make the combined, multi-owner development economically viable.

Comment From: State of Alaska (Comment Letter No. 251)

Section IV. Page IV-11, Technology Advancement. The modular portable drilling/production platform now being tested on the North Slope by the Anadarko Petroleum Corporation for the "Hot Ice" project should be mentioned in this section. **(Comment No. 251-420)**

Response To: Comment 251-420

A short description of Anadarko's new modular drilling system has been added to Section IV.A.1.b(2)(b).

Comment From: State of Alaska (Comment Letter No. 251)

Section IV, Page IV-13. In the second paragraph, the term "geophysical" is misused. "Hydrological" might be preferable. **(Comment No. 251-423)**

Response To: Comment 251-423

The text has been revised.

Comment From: State of Alaska (Comment Letter No. 251)

Section IV, Page IV-25, First Paragraph. Although the practice is no longer prohibited, North Slope oil is not currently shipped to foreign markets, it all goes to domestic refineries. Several years ago British Petroleum shipped several tanker loads to Pacific Rim markets, but has since discontinued the practice. **(Comment No. 251-424)**

Response To: Comment 251-424

The text has been revised.

Comment From: State of Alaska (Comment Letter No. 251)

Section IV, Page IV-25. The assumption articulated in the last paragraph that NPR-A oil and liquids will not be

transported through the Alpine facilities might burden the economic analysis unnecessarily. Additional and more recent information regarding the disposition of NPR-A production might be made available in the Colville Delta EIS process and should be incorporated here. **(Comment No. 251-425)**

Response To: Comment 251-425

The assumptions regarding the use of the Alpine facility and oil pipeline for new production from Northwest NPR-A are clearly stated in the text. The primary reason is that there may not be capacity in Alpine infrastructure to handle the high production volumes expected from the first large fields in the Northwest Planning Area (please also see the response to comment 251-416). We believe production from a number of known satellites (5) and postulated fields (up to 15) tied into the Alpine facility will fill its capacity for the next decade. Capacity would have to double to handle the additional production from Northwest NPR-A fields. Not being able to use Alpine infrastructure would have a minor effect on the economics of projects in the Northwest NPR-A. Processing and gas handling could occur at a hypothetical new central facility in the Northwest NPR-A, but a second Colville River crossing and 35 miles of pipeline to reach the Kuparuk River Unit would be required. As the Alpine Satellite Development EIS is in preparation at this time, it is inappropriate to cite any of its conclusions in this IAP/EIS.

Comment From: State of Alaska (Comment Letter No. 251)

Appendix 7, Oil and Gas Assessment. The assessments of conventionally and economically recoverable oil and gas reserves are very well done, as are the descriptions of the methods employed. Play descriptions, their distribution and potential are consistent with current understanding of North Slope petroleum systems and with the most recent methodologies employed by the USGS and the MMS. However, all published reserve estimates appear to be for the combined NW and NE NPR-A Planning Areas with no breakdown for each area. Reserve estimates should be published for only the planning area in this IAP/EIS. This is particularly true because, as correctly stated in the assessment, reserves are not evenly distributed across the NPR-A. We recommend that reserve estimates for the NE NPR-A area be incorporated in only the cumulative effects section. **(Comment No. 251-433)**

Response To: Comment 251-433

A revised table (App 7-02) provides a breakdown for economic play resources in the Northwest NPR-A Planning Area. Readers should note that these estimates are for undiscovered resources, not proven reserves. The commenter is correct in observing that the resources are not uniformly distributed between the two areas. For example, at a price of $30 per barrel, only 2.1 Bbbl (37%) of the total economic resources in the combined assessment area (5.7 Bbbl) is present in the Planning Area. Considering that the Northwest NPR-A Planning Area is twice the size of the Northeast NPR-A Planning Area, the richness on a per-acre basis is far lower.

Comment From: State of Alaska (Comment Letter No. 251)

Section IV, Page IV-11, Third Bullet. The comment mentions that reserve pits have been replaced by bladder tanks. This is not correct. The rigs presently used on the North Slope have steel pits within the rig structure to contain the active mud. Drilling wastes may be contained within ice-bermed areas during winter exploration (as permitted by ADEC). During thawed periods within the developed fields, drilling wastes are initially moved to a holding tank outside the rig where 'super suckers' and vac trucks pick up the waste and haul it to the processing plant. Some rigs may have their own processing equipment that can prepare the waste for disposal. **(Comment No. 251-437)**

Response To: Comment 251-437

The text has been revised.

Comment From: State of Alaska (Comment Letter No. 251)

State of Alaska NW NPR-A Comments Page 30 Section IV, Page IV-20, Development and Production Well Drilling. The authors provide a good discussion with regard to using directional drilling to reduce surface impacts. The record departure well in Alaska, NK-11, is specifically mentioned and reference is made to the current world record departure (BP's Wytch Farm'). While these references show what can be achieved, it may be more appropriate to provide information on some of the more routine departures drilled in the presently developed fields on the North Slope. An important factor for this discussion is the ratio of the departure (distance) and the true vertical depth (TVD) where the productive horizon occurs. For while NK-11 may hold the departure record, 3 of the selected wells from Milne Point have departure/depth ratios greater than 2. Following is some selected information from historic drilling activities among the various operators on the North Slope. Operator Pool Well Name TVD Departure Departure TVD Year Drilled Phillips West Sak 1C-104 3688 5914 1.60 2002 Phillips Kuparuk 2K-19 6579 7733 1.17 1989 Phillips Meltwater 2P-427 5853 7800 1.33 2002 Phillips Kuparuk 1D-34 6646 8112 1.22 2000 BP Schrader Bluff MPU S-29 4314 9201 2.13 2002 Phillips Tarn 2N-315 5373 9273 1.73 1998 ARCO Pt. McIntyre Pt. Mac 12 9288 10845 1.17 1991 BP Schrader Bluff MPU E-24 6563 11058 1.68 1998 Phillips Alpine CD1-09 6898 11631 1.69 1999 Phillips Kuparuk 2M-35 6478 12411 1.92 1996 BP PBU/Aurora S-107 6824 13170 1.93 2001 BP PBU/Niakuk NK-17 9395 14050 1.49 1997 BP Milne Point/Kuparuk MPU F-92 7746 16667 2.15 1998 BP Milne Point/Kuparuk MPU F-34 7653 18140 2.37 1997 BP PBU/Niakuk NK-11 9392 18219 1.94 1998 Elsewhere in the text, the reduced surface impact of the Alpine development is discussed. The development pad surface area and total field area are given in acres, about 100 and 40,000 respectively. It may be more appropriate to give these areas or at least the field area in square miles. Making that reference change may make the concept easier to grasp. In this case the Alpine field area is about 62.5 square miles and is being developed from two drill sites that occupy 0.16 square mile. Neglecting the pipeline corridor, the occupied surface area is 0.25 % (1/4 %) of the field area. Since the field is roughly rectangular and each drill site develops about half of the field area, each drill site at Alpine is developing the oil resource in some 31 square miles. The advance of technology is very evident when the Alpine developed area per pad is compared with the area per pad for the main development in Kuparuk. The majority of Kuparuk pads developed 4 square miles of reservoir. On a per pad basis, Alpine is developing nearly 8 times as much reservoir from a single surface site. **(Comment No. 251-441)**

Response To: Comment 251-441

The text has been revised to note the historical drilling on the North Slope as provided by the State of Alaska in this comment. It is also important to distinguish what has been achieved on the North Slope compared to extended reach drilling in other parts of the world. Geologic, environmental, and economic conditions are often unique in each operating region and dictate the feasibility of drilling operations. At this time, a lateral reach of 4 miles (21,120 ft) or departure ratio of 2.5 could be considered the maximum feasible limit for drilling on the North Slope.

Comment From: State of Alaska (Comment Letter No. 251)

Elsewhere in the text, the reduced surface impact of the Alpine development is discussed. The development pad surface area and total field area are given in acres, about 100 and 40,000 respectively. It may be more appropriate to give these areas or at least the field area in square miles. Making that reference change may make the concept easier to grasp. In this case the Alpine field area is about 62.5 square miles and is being developed from two drill sites that occupy 0.16 square mile. Neglecting the pipeline corridor, the occupied surface area is 0.25 % (1/4 %) of the field area. Since the field is roughly rectangular and each drill site develops about half of

the field area, each drill site at Alpine is developing the oil resource in some 31 square miles. The advance of technology is very evident when the Alpine developed area per pad is compared with the area per pad for the main development in Kuparuk. The majority of Kuparuk pads developed 4 square miles of reservoir. On a per pad basis, Alpine is developing nearly 8 times as much reservoir from a single surface site. 251-442 **(Comment No. 251-442)**

Response To: Comment 251-442

Although the overall size of the Alpine pool is frequently given as 40,000 acres, the "core area" currently undergoing development drilling is probably smaller. Evaluating the number of wells and drainage area of each well leads us to believe that the core area is approximately half as large as the total pool area. The well lengths given for Alpine also would support the concept of a smaller "core area". The suggested conversion from acres to square miles may not be appropriate to others who typically use the metric system (square kilometers). By either set of reckoning, the gravel footprint (100 acres) represents less than 0.5 percent of the subsurface pool area. The environmental effects (for example, noise, visual disturbance, air emissions, among others) could extend beyond the surface footprint of the gravel pads and roads

Comment From: State of Alaska (Comment Letter No. 251)

Section IV, Page IV-21, Drilling Mud and Rock Cuttings. Reference is made to Figures IV-03 and IV-04 regarding mud processing and disposal. Figure IV-04 shows annular waste disposal that is one of two methods available. Class I or Class II injection can be illustrated by reversing the 'deep' arrows on the drawing and moving them from the pay zone. **(Comment No. 251-443)**

Response To: Comment 251-443

Figure IV-04 does show only one of two methods for subsurface disposal; however, the suggested revisions would unduly complicate this simple illustration. It is not materially important whether waste products are injected in the well annulus (in producing wells) or through downhole tubing (in disposal wells). The main point is that wastes can be injected into non-pay zones in the subsurface. The text has been revised to make this point.

Comment From: State of Alaska (Comment Letter No. 251)

Section IV, Page IV-22, Second Paragraph. The language in this paragraph should be reworded to state: 'Wastewater, spent fluids, chemicals, drilling solids and drilling mud may be disposed in Class I disposal wells approved by the EPA or Class II wells administered by the AOGCC. Disposition of fluids and solids into Class I or Class II wells depends on their source, makeup and applicable regulatory requirements. Solid wastes " **(Comment No. 251-445)**

Response To: Comment 251-445

The text has been revised.

Comment From: Public Meeting on DEIS - Barrow, Alaska (Comment Letter No. 80075)

The first one would be on the corridor, where is it and who will be designating a corridor for pipelines' I don't

see any notation of corridor anywhere on these maps. **(Comment No. 80075-483)**

Response To: Comment 80075-483

Potential future pipeline routes are given on Map 108. These routes are speculative because fields have not been discovered in these areas. The location of the routes shown on Map 108 is based on our concepts of where commercial discoveries are more likely to be made in the future. An accurate location of pipeline corridors will be possible only after leasing, exploration drilling, and permitting studies are completed. The description of the economy is in Section III.C.1 and analysis of effects for Alternative A is in Section IV.C.12. The description of the sociocultural systems is in Section III.C.4 and analysis of effect for Alternative A is in Section IV.C.15.

Comment From: Public Meeting on DEIS - Barrow, Alaska (Comment Letter No. 80075)

And I would very much like to see some sort of -- some kind of a corridor system instead of this pipeline sprawl because it displaces calving areas. **(Comment No. 80075-503)**

Response To: Comment 80075-503

It would serve everyone's purpose to minimize the number of pipelines across NPR-A. Industry would benefit because their development costs would be lower. Government would benefit because fewer pipelines would be easier to monitor. The residents of the North Slope would benefit by having less restrictions caused by pipelines. When enough fields are discovered in NPR-A, it is likely that some coordinated effort will be made to minimize the construction projects required to produce the oil. Designated pipeline corridors could be established sometime in the future, but it is impossible to do so now when no one knows where the commercial discoveries will be made.

Comment From: American Society of Mammologists (Comment Letter No. 249)

It appears that the evaluation of potential impacts from oil and gas development activities in the draft EIS is based upon a series of development scenarios that are incomplete and unrealistic in the context of existing oil and gas development activities in the region. As a result, the nature and extent of potential direct, indirect, and cumulative impacts are significantly understated in the draft EIS. Further, while the BLM has stated that these proposed actions warrant a full NEPA review, it has failed to address the NEPA requirements for such an analysis in this draft EIS. The generic discussion of resources and potential impacts given in the draft EIS fall far short of the required site-specific analysis required by NEPA. (**(Comment No. 249-518)**

Response To: Comment 249-518

At the leasing stage, scenarios are general in nature because no one can accurately foresee development exactly before exploration has even occurred. The current IAP/EIS does provide site specific information necessary for the leasing decision to be well informed. All subsequent exploration and development activities will require additional NEPA analysis and permits with special consideration given to site-specific conditions in the area of operations. A major new field development will undoubtedly require a NEPA review. The analysis in this Integrated Activity Plan/Environmental Impact Statement is intended to support a programmatic-level planning decision on the potential oil and gas leasing program in the Northwest National Petroleum Reserve-Alaska. It is appropriate that the analysis in the IAP/EIS is broad in scope because the decisions on the leasing program and mitigation measures will be broad in scope. The site-specific NEPA analyses for proposed exploration and development activities would be prepared at the time that these actions are ripe for decision. This "tiered"

approach to NEPA compliance and decision making is encouraged by the NEPA regulations (see 40 CFR 1502.20 and 1508.28). Please also see the responses to comments 253-22 (NEPA Process), 253-70 (Basic Assumptions/Scenario), and 253-92 (Basic Assumptions/Scenario).

Comment From: Public Meeting on DEIS - Washington, DC (Comment Letter No. 80082)

And I have read a lot of these environmental impact statements over the years, and what I always see is systematic minimization of what the impacts might be, and if you're not going to put in roads, people talk about ice roads, then you're going to have airports, so Alpine has an airport. They predicted there would be 13 flights a month in the summer. They talked about minimizing the impacts to geese in the summer. How many did they have' In the year of construction in 2000, or 2001, 1,900 flights in and out in 45 days. **(Comment No. 80082-535)**

Response To: Comment 80082-535

Please see the response to 80082-532 (Roads).

Comment From: Tacoma-Pierce County Chamber (Comment Letter No. 168)

For Alternative B, we understand that it would not allow access for development on the most prospective area, located within 25 miles of the shoreline, where every commercial hydrocarbon discovery on Alaska's North Slope has been made. This is in seeming contradiction to the summary's statement that Alternative B would make available 100% of the area of high oil and gas potential available. **(Comment No. 168-568)**

Response To: Comment 168-568

Under Alternative B, a one-half mile set back inland from the shoreline would be required (Table II-02, Stipulation E-1.v). Alternative B includes a No Surface Occupancy Stipulation for permanent facilities in coastal waters (bays, inlets, and lagoons); these areas would be made available to leasing but any development would be through extended reach drilling. If the draft IAP/EIS specified no development access within 25 miles of the shoreline, then it was an error and the text will be corrected if found.

Comment From: The Kuukpik Corporation (Comment Letter No. 254)

The Draft EIS/IAP heightens this concern because it depicts three possible pipeline corridors between the Northwest NPR-A Planning Area and the Trans Alaska Pipeline. One corridor follows the existing Alpine Sales Oil pipeline right of way. One parallels the Alpine Sales Oil pipeline, but just to the south of Nuiqsut. The third passes from Umiat to Trans Alaska Pipeline Pump Station #2.42 These latter two possible pipelines, especially the possible pipeline running just south of Nuiqsut concern us greatly. We would like the BLM to mandate that only one elevated pipeline corridor may leave the Northwest NPR-A planning area and that such a corridor must join and follow the Alpine Oil Sales pipeline right-of-way unless it is shown that following the Alpine Oil Sales pipeline route is not environmentally preferable. **(Comment No. 254-631)**

Response To: Comment 254-631

Fewer infrastructures do not always equate to less impact, but may equate to different impacts and, in some cases, more of some types of impacts. For example, a smaller storage pad would have a smaller footprint, may require

less sand and gravel, have direct impact on a smaller area of vegetation, be less visible to recreationists, and be a smaller apparent obstruction to caribou. A smaller storage pad may also mean significantly more frequent restocking trips by aircraft, watercraft, and/or off-highway vehicles. The balance between infrastructure and various factors is also considered during the subsequent environmental review for individual permits.

Comment From: The Kuukpik Corporation (Comment Letter No. 254)

To further minimize the impact of infrastructure, stipulations on the use of airstrips and roads in the Northwest NPR-A should be adopted by the BLM. In the March 6, 2002 EA Letter, the main local organizations in Nuiqsut highlighted how aircraft traffic at the Alpine development exceeded what we, and the U.S. Army Corps of Engineers, were told to expect.43 The Draft EIS/IAP seems to accept that the excessive number of flights that were actually observed at Alpine can be expected during the construction of all future roadless developments.44 We don' t think that' s an acceptable response to project creep. This concerns us because of the disruption and impact on wildlife, including caribou, of such heavy air traffic.45 Aircraft destined for roadless developments in the NPR-A will likely fly over the Colville River Delta, too, increasing the level of noise. No one should accept the air traffic at Alpine as the future norm for the construction and development of roadless facilities. Simply put, future roadless development should require fewer flights than what was needed at Alpine. BLM should adopt a stipulation to achieve this end instead of institutionalizing the Alpine experience. One response is to re-examine the tradeoff between an extra acre or two of pad size at a roadless facility and the impact of extensive air traffic. In efforts such as Alpine and in proposals for ANWR, the oil industry has made a mantra of reducing pad size. So much so that there is a real danger of more harm being caused to land and resources from the consequences of constructing a pad using underestimations of on-pad storage needs than would have been done by a slightly larger pad. We think that most people in Nuiqsut would have traded an extra couple of acres in pad size at Alpine for a reduction in overflights and takeoff and landing traffic. A corollary, though, is that the operator has to use the right equipment. In our March 6, 2002 EA Letter, we complained that the amount of air traffic at Alpine had far exceeded the projections on which the Alpine Record of Decision had been based (by a factor of 10).46 Phillips claimed in response that the increase in flights had been a result of complaints made by Nuiqsut residents about large aircraft, 737s and DC-6s.47 Not so. We had complained about 737s, but DC-6s are perfectly acceptable. Whereas the CASA owned by Phillips has a cargo capacity of 8,000 to 11,500 pounds, a DC-6 has a cargo capacity of about 50,000 pounds, versus about 66, 000 pounds for a 737. A single DC-6 will carry the load of between 4 and 6 or more CASA flights.48 If Phillips had contracted for DC-6s (better still, a Herc) instead of using its own CASA, the offending flights would have been greatly reduced. The point is, however, that BLM shouldn' t simply roll over and accept49 an increase of ten times the projected level of a harmful activity without scrutiny of the procedures that led to estimates that were so far off. Moreover, without substantial solid investigation of alternatives to reduce such levels of harmful activity, BLM shouldn' t be accepting similar increased levels of air traffic for other, future roadless projects. That kind of response does not give the Native community and us in particular a great deal of confidence in the federal government' s follow through and policing of the requirements that are intended to protect us and our subsistence resources. That type of problem can' t be cured with a new stipulation, as a term of the lease or as a ROP. Such problems have to be cured with inspections and follow through. We' re open to suggestions as to how to address that type of problem in the EIS, but it clearly can' t be simply ignored or it means that all of the cumulative impact analysis is understated and inaccurate. **(Comment No. 254-632)**

Response To: Comment 254-632

The BLM has dealt with this issue by drafting proposed Required Operating Procedure F-1 that will govern air traffic for permitted activities over key habitat and subsistence-use areas of the Northwest NPR-A. Required Operating Procedure F-1 calls for aircraft operations to be conducted in such a manner so that effects to wildlife and birds will be minimized.

Comment From: Public Meeting on DEIS - Anchorage, Alaska (Comment Letter No. 80073)

Audubon's Wildlife Habitat Alternative also provides significantly more industry access to areas of high oil and gas potential than BLM's Alternative C. **(Comment No. 80073-1004)**

Response To: Comment 80073-1004

The commenter is correct in stating that the Audubon proposal provides more area for leasing in the high potential part of Northwest NPR-A, as compared to BLM's Alternative C (which provides only 2% of the identified high potential area for leasing). However, the statement is misleading with regards to access. Although in the Audubon proposal much of the high potential area is open for leasing, all post-lease activities will be encumbered by regulatory restrictions that will largely prevent open access for exploration and development. Area and seasonal restrictions will to some extent inhibit leasing, reduce the level of exploration drilling, and could preclude economic development of some discoveries burdened by added costs for impact mitigation. The Audubon proposal will result in significantly lower development potential compared to BLM's Alternatives A and B with fewer area and regulatory restrictions.

Comment From: Public Meeting on DEIS - Anchorage, Alaska (Comment Letter No. 80073)

All the producing fields on the North Slope are located within this 25 mile coast as well as all pending developments. Eliminating any acreage within this belt as recommended in Alternatives B and C would be a significant mistake. If similar restrictions had been in place prior to leasing in the Central North Slope, the discovery of Prudhoe Bay and Kuparuk would have been jeopardized. **(Comment No. 80073-1007)**

Response To: Comment 80073-1007

The commenter is correct that all producing fields on the North Slope are located within 25 miles of the coast (see Map 25). Geologic conditions that formed these fields are expected to trend westward into NPR-A. As revealed by the petroleum assessment conducted for the Northwest Plan EIS/IAP, the highest potential area is also located on the northern coastal plain (see Maps 101, 102, and 105). Reducing the area offered for leasing and development within the recognized high potential area will reduce the opportunities for industry to make discoveries leading to commercial oil development.

Comment From: Public Meeting on DEIS - Anchorage, Alaska (Comment Letter No. 80073)

Discovery and development of new oil fields is also important for the nation's future energy and economic security. American oil production is at its lowest level in four decades and more than half of the oil now used in the United States is imported. According to the Department of Energy, U.S. oil reserves have fallen 30 percent since 1977 and production has declined more than 25 percent since 1986. The Energy Department estimates imports may account for as much as 68 percent of U.S. oil supplies by 2015. Oil from the Petroleum Reserve can help change this trend. **(Comment No. 80073-1008)**

Response To: Comment 80073-1008

The commenter is generally correct that domestic crude oil reserves and production have dropped dramatically in the last few decades, and increasing amounts of imports will be needed to supply U.S. markets in the future. As the commenter did not supply references for his information, our review of the DOE literature found slightly different numbers (which did not change the basic conclusion). Domestic oil production peaked in 1970 at about 9.4 MMbbl per day and as of 2000 was about 6 MMbbl per day (for a 36% reduction). Projecting the trend to present (2003) indicates a production decline over the last three decades of approximately 40%. Oil production

declines in the Lower 48 have been partly offset by supplies from Alaska, which peaked in 1988 at 2 MMbbl per day and are now also in decline (currently at about 1 MMbbl per day). Oil production from NPR-A or other new development areas in northern Alaska could help to flatten the production decline trend and reduce the need for oil imports from overseas.

Comment From: U. S. Evironmental Protection Agency (Comment Letter No. 261)

The final IAP/EIS should establish and identify the available minimum amount of public lands necessary to carry out a successful leasing program at normal price levels ($18 per barrel or $30 per barrel, etc.) while still excluding or restricting oil and gas leasing or surface activities in the areas most critical for subsistence and cultural uses, environmental resources, fish and wildlife habitat, and historic or scenic values. Other criteria and standards that should be considered include, but should not be limited to, the following: (1) economics of operations in remote areas; (2) distances and costs from existing infrastructure; (3) accessibility to oil and gas reserves; (4) future variations in oil prices that must be anticipated; (5) restrictions imposed on surface activities and facilities which increase environmental and subsistence protections, but also increases the costs to industry; (6) environmental sensitivity of the area; and (7) subsistence resources. **(Comment No. 261-33)**

Response To: Comment 261-33

It is a difficult, if not impossible, task to establish the minimum land area required for a successful leasing program. Very little of the proposed Northwest plan area is covered by seismic surveys and the few exploration wells there are decades old. The newer geologic plays are entirely stratigraphic and require state-of-the-art, 3-D seismic surveys to identify potential drilling targets. Many of the prime targets in Northeast NPR-A failed to hold commercial amounts of oil when they were actually drilled. Using all available geologic information (public and proprietary), we have a reasonable working concept of the area of highest potential for commercial oil discoveries. However, no one can define today exactly where commercial-size fields will be located. Offering larger areas for leasing and exploration will increase the chance that commercial fields will eventually be discovered and developed. After discoveries area made, site-specific measures can be taken to minimize environmental impacts. The development scenarios analyzed in the EIS/IAP are based on a petroleum resource assessment that includes many of the factors listed in this comment, such as economics of remote operations (time tables and logistic costs), distance from infrastructure (transportation costs), variations in future oil prices (bracketed by $18 and $30 average prices), regulatory restrictions (costs and delays for mitigation measures), and surface restrictions (increased development costs). However, our resource assessment models are designed to evaluate petroleum volumes and do not include societal costs related to environmental sensitivity or subsistence values. It is difficult to place a monetary value on these variables, so a non-quantitative approach is used to reach decisions to balance the concerns of stakeholders.

Comment From: U.S. Fish and Wildlife Service (Comment Letter No. 260)

Alternative C is supposedly the most restrictive of the Alternatives offered by the DEIS. The DEIS states that, under this scenario, up to 53 percent of the land in the Northwest Planning Area (98 percent of the highest oil and gas potential) would be unavailable for oil and gas leasing. The unavailable areas are outlined on Map 19, however, there is no text in the DEIS which corresponds to the map or that specifically identifies these areas as off-limits to oil leasing or development. **(Comment No. 260-716)**

Response To: Comment 260-716

Map 19, NW NPR-A Alternative C Areas of Availability for Oil and Gas Leasing is referenced in Section II.C.4, which is the description of Alternative C. A description of the lands that would be withheld from leasing under Alternative C are described in the text (Section II.C.4) and outlined on Map 19 (the light gray areas on Map 19

are specifically identified as "Unavailable for Leasing for Oil and Gas"). Oil and gas exploration drilling and development can occur only on leased lands.

Comment From: U.S. Fish and Wildlife Service (Comment Letter No. 260)

The DEIS also states that oil and gas development is unlikely under Alternative C, unless modifications and/or exceptions are made to the Stipulations and ROPs. In Section II of the DEIS, which outlines the Stipulations and ROPs for each Alternative, there are no Stipulations or ROPs which would restrict this much land from development. In fact, the only area specifically identified as a 'no-lease' area in the Stipulations and ROPs for Alternative C is Kasegaluk Lagoon. Most of the land restrictions for Alternative C occur in Stipulation E-1 (a-v) and would require set-backs of one-half mile from designated rivers, waterbodies, and high-density waterfowl and raptor nesting areas. The coastal areas of lagoons and bays also would have one-half mile restrictions. These Stipulations are the same under Alternative B, except that the setbacks are stated as maximums (up to one-half mile). It is unclear how, if the maximum set-backs are applied under Alternative B, any less land (especially that of the highest oil and gas potential) would be available for leasing under Alternative C than under Alternative B. Map 19 depicts areas which would be unavailable for leasing for oil and gas under Alternative C. Map 84 however, shows sensitive biological and natural areas under Alternative C, which may require one-half mile setbacks around nests and brood-rearing colonies. All of the areas depicted in Map 84 are included in the 'no-lease' areas shown in Map 19. It is unclear, therefore, whether these areas are actually off-limits to oil and gas leasing and development, or may be developed with one-half mile set-backs. Clarification is needed regarding the locations and extent of the areas that would be unavailable for development under Alternative B versus Alternative C, and which Stipulations and ROPs would determine the restrictions which would be implemented under these two Alternatives. **(Comment No. 260-717)**

Response To: Comment 260-717

Alternative C is considered the most restrictive alternative (besides the No Action Alternative) because, as the commenter noted, 98 percent of the area with the highest potential for the occurrence of oil and gas resources would not be made available for oil and gas leasing. Map 19 shows that most of the northern coastal plain and the southern foothills would be "unavailable for leasing" under Alternative C. Stipulations and Required Operating Procedures represent restrictions on exploration and development activities within the areas that would be offered for leasing. Although commercial (economically viable) discoveries are not expected in low potential areas that would be offered for lease under Alternative C, the additional restrictions would likely preclude commercial development even if sizeable discoveries are made. If tracts are not leased (not made available for lease or else offered and not purchased by industry), then no one owns the rights to develop oil/gas under the lease. Exploration activities (e.g., seismic surveys) might occur on non-leased tracts, but development would only be permitted on active leases. Possible setbacks around rivers or waterfowl colonies are a moot issue in areas "unavailable for leasing" as shown on Map 19 because no development activities would be allowed.

Comment From: ConocoPhillips Alaska, Inc (Comment Letter No. 255)

Page IV-92, 1c Pipelines. It is unclear if the discussion in paragraph 2 on buried pipelines is applicable only to gas lines. The sentence that reads 'Buried pipeline, a common construction method for gas pipelines, would cause a dramatic shift for disturbed soils' leads the reader to believe that the discussion is only about buried gas pipelines. While this is consistent with the discussion beginning on page IV-25, it needs to be clarified in this section. If this section is intended to discuss buried oil lines or three-phase pipelines then it needs to be drastically expanded to discuss the serious technical and economic limitation of such lines. **(Comment No. 255-818)**

Response To: Comment 255-818

At this stage in the planning and environmental analysis process, we assume that only long-distance, chilled, high-pressure gas pipelines will be buried. Warm oil pipelines and three-phase lines are assumed to be installed on VSM's. Gas flowlines over short distances (within fields or between a satellite field and a processing facility) will also be installed on VSM's. A number of technical problems have been encountered for oil pipelines buried in permafrost regions, and burial of oil lines is generally not proposed for new projects. In contrast, for safety and technical reasons most new projects involving large-diameter, high-pressure gas pipelines call for buried lines. Cold ground temperatures tend to minimize flow problems with volatile natural gas liquids and can increase the distance between compression stations.

Comment From: David Pray (Comment Letter No. 80002)

For the various alternatives you quote percentages for the amount of high oil and gas potential that would be made available for oil and gas leasing. While you did a pretty good job making the GIS data for the plan available to the public, the layers used to produce these calculations (also in maps 105 and 106) was not provided. In an attempt to obtain these GIS layers I was told that they no longer exist. I was provided with an early version of map 105 which included boundaries between the various levels of oil and gas potential. I was able to georeference this map and digitize the boundaries myself. However, this data I received and the data used in the report are not the same. I was quoted from BLM staff that the high oil and gas potential unavailable in Alternative C to be 1,728,000 acres. My analysis determined 1,036,000 acres for this same area based on the data BLM made available to me. How can I trust any of the figures for oil and gas potential when the data I am given obviously is not the same used in the document' Good science should be reproducible. Apparently, one is not able to recreate your oil and gas analysis. **(Comment No. 80002-1041)**

Response To: Comment 80002-1041

The data layers for general oil and gas potential do still exist. We apologize that you were given incorrect information. Omission of data layers from Maps 105 and 106 in the draft IAP/EIS was an unfortunate oversight. It's unclear where you obtained the draft version of Map 105. This would have been a working map and would not necessarily be identical to the final version published in the draft IAP/EIS. It's also unclear which BLM staff quoted you a number of acres unavailable under Alternative C. No such number is stated in the Draft IAP/EIS. Good science should be reproducible. The fact that an acreage number that was not published in the document could not be reproduced by using draft data sets from unspecified sources is not surprising and has no relevance to the content of the Draft IAP/EIS.

68. TOPIC : SOILS

Comment From: State of Alaska (Comment Letter No. 251)

Section IV.C.1.b.(1)(b), Page IV-92. The State suggests that BLM review the acreage disturbance associated with material sites. The Draft IAP/EIS estimates that each material site would disturb 20 to 50 acres. Currently, the proposed development at Point Thomson estimates the disturbance from a material site at more than 76 acres, including about 46.5 acres for the mine, 18.8 acres for overburden storage, and 11.2 acres for gravel storage. Any changes to the analysis of acreage disturbance caused by material sites would need to be incorporated throughout Section IV. **(Comment No. 251-191)**

Response To: Comment 251-191

The BLM believes that the acreage range for a material site is appropriate and sufficient for this analysis. The actual acreage of disturbance for any particular site would depend on many factors including the topography of the site, the depth of the overburden, the thickness of the gravel or sand deposit, and the total volume of gravel or sand needed. Any proposed material site would go through a permitting process and additional environmental review.

Comment From: WesternGeco (Comment Letter No. 215)

"The footprint would be unlikely to destroy more than 1500 acres of soil or'.' Soil is not destroyed it is displaced. Replace the word 'destroy'. **(Comment No. 215-785)**

Response To: Comment 215-785

The text has been revised.

Comment From: ConocoPhillips Alaska, Inc (Comment Letter No. 255)

Page IV-93 (d), 2nd para. Winter exploration is conducted off ice pads, which results in minimal impact or disturbance to soils. The disturbance is much less than 1 acre and in most cases is less than 0.01 acres. The sentence also needs to be revised to read "disturbance from well cellars (collars).' **(Comment No. 255-819)**

Response To: Comment 255-819

The text has been revised.

Comment From: ConocoPhillips Alaska, Inc (Comment Letter No. 255)

Page IV-93 (d), 3rd para. Revise 3rd sentence. "of these impacts to soils would be permanent.' North slope researchers have been evaluating methods for growing vegetation on gravel pads, thus there is the potential for creating wildlife habitat at the completion of the field life. **(Comment No. 255-820)**

Response To: Comment 255-820

Although research has progressed toward the reuse of gravel pads and the recovery of soils, current trends are more toward reduction in size of pads and improved design as tools to reduce soil impacts.

69. TOPIC : SEISMIC SURVEY ACTIVITY

Comment From: U.S. Fish and Wildlife Service (Comment Letter No. 260)

Summary; Summary of Impacts, paragraph 2. The first sentence states 'Seismic activities, overland moves, and exploratory drilling, all occur during the winter.' This is not always the case because offshore seismic surveys

often occur in the area during the summer months. **(Comment No. 260-718)**

Response To: Comment 260-718

Seismic surveying in the NPR-A occurs in the winter. Waters seaward of the barrier islands are outside of the NPR-A.

Comment From: WesternGeco (Comment Letter No. 215)

After careful review and analysis by leading professionals, we have concluded that the estimates of the potential acreage impacted by seismic operations are incorrect. It appears that the impact estimates contained in the IAP/EIS are based on decades old technology and methodologies of the 1980's. The reader should keep in mind that, over the last decade, WesternGeco has significantly reduced the environmental impact of Arctic seismic operations. **(Comment No. 215-774)**

Response To: Comment 215-774

WesternGeco and its heritage companies have indeed conducted a great deal of geophysical data collection in the NPR-A. Today, there are three companies performing similar data collection efforts in the NPR-A. While WesternGeco may speak for itself and its record, not every company continuously works to the same standard. We believe that the acreage figure of 10 acres of disturbance used in the Northeast IAP/EIS is an appropriate generalization for all geophysical permits programs in the NPR-A. When this acreage figure was carried forward to the Northwest IAP/EIS, it suggested an additive condition where the same level of disturbance would occur in each Planning Area. To clarify, the area of disturbance figure covers all programs over the entire NPR-A. As the concentration of geophysical activities shifts from one year to the next, the area of disturbance shifts, some years more to the east, while in other years, more to the west.

Comment From: WesternGeco (Comment Letter No. 215)

"Individual fish, mammals, and birds would probably die or" This statement is speculative and conveys a bias against responsible development. The sentence should be removed or reworded. **(Comment No. 215-783)**

Response To: Comment 215-783

The statement is presented out of context. The statement that individual animals would probably die or be displaced as a result of oil and gas development within their habitat is supported by the analyses in this IAP/EIS.

Comment From: WesternGeco (Comment Letter No. 215)

'Seismic vehicles would be a combination of tracked vehicles from small Nodwell 110's for surveyor travel to Caterpillar tractors for pulling seismic camp trains. Buggy style vehicles such as rolligons and Deltas are possible (Rice, 1997). Except for a new buggy design that may lessen the need to have a lead snowplow in deeper snow, most of the seismic vehicles in use are types that have been used on the North Slope for one to three decades... Most of the information contained in this paragraph is outdated and incorrect. For example, Nodwells are no longer present on any of our seismic crews. Most of the Vehicles that were in use 10 to 30 years ago had steel tracks. All modern seismic units are equipped with low ground pressure rubber tracks or large floatation

tires. This greatly reduces the potential impact to the vegetative cover. WesternGeco believes the entire paragraph is misleading and should be rewritten or eliminated. **(Comment No. 215-786)**

Response To: Comment 215-786

The discussion on equipment has been deleted and reference made to the seismic scenario in Section IV.A.1.b(3)(b).

Comment From: WesternGeco (Comment Letter No. 215)

'Carefully regulated seismic operations conducted in ANWR from 1984 to 1986 resulted in damage to vegetation in some tussock tundra and moist sedge-shrub tundra, but not to lower, moist sedge and wet tundra (Felix et al., 1989)' There was no seismic activity in ANWR at any time during 1986. The author cites a report that claims there was damage on 29 percent of the seismic trails. Stating damage in this manner is highly misleading. Most of the seismic lines were several miles long but tundra damage occurred a few feet at a time. What the author fails to mention is that during the 1984 season, there was very little snow in ANWR and on many of the elevated areas there was no snow cover at all. Normally, seismic operations would not take place under these conditions. However, the USFW was under extreme political pressure to complete the Congressional mandated exploration program. Most of the tundra damage occurred during camp moves and not on the actual seismic lines. Inexperienced government monitors chose the actual camp-move routes and, in many cases, the camp was pulled over large areas of exposed tundra. We find it interesting that the author cites a 19 year old 'worst case' example from ANWR but does not cite an example from the thousands of miles of seismic lines obtained in NPR-A. The IAP/EIS deals with NPR-A and not ANWR. **(Comment No. 215-788)**

Response To: Comment 215-788

The dates have been changed and text has been revised. While the depth of snow cover does mitigate some of the impacts of seismic activities, disturbance has been documented even where the snow depth exceeded two feet (Felix and Raynolds 1989). The study cited (Felix and Raynolds 1989) represents the only long-term study of such impacts.

Comment From: WesternGeco (Comment Letter No. 215)

'Persistent high damage has been estimated to occur on 13 acres per seismic survey' The author provides no reference for the high damage estimates. We know from years of records that the '13 acres' is not even remotely accurate. It is too high by several orders of magnitude. The author goes on to state that thermokarst erosion due to seismic operations has never been observed. In spite of this, he makes estimates of the total area that will be affected by themokarst erosion and down- flow water quality. We believe that this entire paragraph contains incorrect information and unfounded speculation. It should be deleted from the EIS. **(Comment No. 215-790)**

Response To: Comment 215-790

The text has been revised.

Comment From: WesternGeco (Comment Letter No. 215)

Long-term impacts, such as diversions of shallow water tracks and limited ponding, are estimated at 2 acres affected by a 2-D seismic operation and about 8 acres by a 3-D seismic operation' Again, the estimates are much too high. It is clear that these estimates are based on decades old technology and methodologies that no longer exists. As an example, WesternGeco currently reports all disturbed surface impacts to the North Slope Borough. Last year alone we filed over 600 incidents from our seismic crew operating in the NPRA. The average disturbance affected an area of approximately 4 square inches. This yields a total of 17 square feet of minor surface damage over a survey area of 800 square miles (22,302,720,000 square feet). In other words, this represents a percentage of 0.00000007.6 % (negligible). WesternGeco had a total of 8 tundra contacts that were considered 'other than minor'. In each case an on site Environmental Observer (a resident of the North Slope Borough) investigates the incident. A GPS reading of the location is taken and a '24 hour reportable' form is filed with the Borough. Each incident is revisited the next summer to determine possible long-term impacts. In all cases, a finding of no significant impact (FONSI) was determined. It should be pointed out that the environmental observers are highly respected and knowledgeable residents of the North Slope Borough. **(Comment No. 215-796)**

Response To: Comment 215-796

The text has been revised.

Comment From: ConocoPhillips Alaska, Inc (Comment Letter No. 255)

Page IV-15, second paragraph. The DEIS states that a typical 3-D program consists of 50 to 80 people and can collect from 2 to 4 square miles of data per day. The crew size on current 3-D seismic operations range from 70 to 110 people and will collect 3 to 6 square miles of data per day. This general statement applies to several sections in the DEIS and should be correct in each. **(Comment No. 255-810)**

Response To: Comment 255-810

The text has been revised.

Comment From: ConocoPhillips Alaska, Inc (Comment Letter No. 255)

Page IV-15, third paragraph. The DEIS states that seismic camps are re-supplied using both ground vehicles and light fixed-wing aircraft. We do not believe the term 'light fixedwing' applies to the type of aircraft used to deliver fuel and suggest deleting the word 'light' from the last sentence of this paragraph. This general statement applies to several sections of the DEIS and should be corrected in each. **(Comment No. 255-811)**

Response To: Comment 255-811

The text has been revised.

Comment From: ConocoPhillips Alaska, Inc (Comment Letter No. 255)

Page IV-15, fourth paragraph. The DEIS states a train would consist of 10 to 15 vehicles. This could be updated to 17 vehicles for 3-D seismic operations. This general statement applies to several sections of the DEIS and should be corrected in each. **(Comment No. 255-812)**

Response To: Comment 255-812

The text has been revised.

Comment From: ConocoPhillips Alaska, Inc (Comment Letter No. 255)

Page IV-48, 3.b Effects of Oil and Gas Activities. The discussion on 3-D seismic impacts needs to be updated. Current 3-D seismic operations do not require tighter turns and therefore the estimates of impacts are overstated. **(Comment No. 255-816)**

Response To: Comment 255-816

Surveying techniques have never required maneuvers that cause undue disturbance on the tundra. It has been a matter of custom, attitude, or poor management control that has allowed for the lack of care that brought the issue of impacts from vehicle maneuvering to light some years ago. The BLM agrees that it is no longer an issue that needs to be in the discussion of seismic surveying. The issue is better addressed in terms of general driving or terrain negotiating skills in a discussion of overland travel methods.

Comment From: ConocoPhillips Alaska, Inc (Comment Letter No. 255)

Page IV-50, 4.b Effects of Oil and Gas Activities. CPAI believes the second paragraph fails to recognize the significant improvements made in recent years to much of the equipment used in seismic operations. This paragraph states that 'most of the seismic vehicles in use are types that have been used on the North Slope for one to three decades.' CPAI seismic operations in recent years have been conducted almost entirely with new, rubber tracked or rubber wheeled low ground pressure vehicles. Use of 'steel tracked' tractors is minimized. **(Comment No. 255-817)**

Response To: Comment 255-817

The aspect of seismic operations that could cause the greatest disturbances to the land surface is the camp. Camp design has not changed significantly in the last one to three decades. Steel-tracked vehicles are needed to move the camps. Alternative lower-ground-pressure vehicles are used for all other activities where possible.

Comment From: ConocoPhillips Alaska, Inc (Comment Letter No. 255)

Pg IV-97 3(b)(1) Paragraph 1. Reference is made to the potential impacts from seismic activities from 'tighter turns by seismic equipment required by closer spaced grid patterns.' Since the late 1990s the seismic industry has been evaluating seismic equipment and developing equipment that exerts minimal ground pressure (in many cases <3psi) on the underlying tundra. Additionally, conducting tight turns during seismic work has been discontinued following activities in the late 1990s where CPAI determined that the Cross Line Swath pattern, a wider spaced pattern would alleviate the problems exhibited by earlier activities where tight turns were the norm. CPAI requests that this evolution in seismic technology be acknowledged in this document. **(Comment No. 255-822)**

Response To: Comment 255-822

The text has been revised based on the information provided. Also, please see comment response 255-816 (Seismic Survey Activity).

Comment From: Wainwright Tribal Council (Comment Letter No. 80012)

Reports of the seismic activities/oil development should be reported to the Wainwright City Council, Olgoonik Corporation and Wainwright Tribal Council. **(Comment No. 80012-1031)**

Response To: Comment 80012-1031

For BLM's meeting and consultation protocol see comments 254-638 (Government to Government), 261-102 (Government to Government), 261-119 (Government to Government), 80026-1016 (Government to Government), 80075-471 (Government to Government), 80075-474 (Government to Government), 80075-493 (Government to Government), 80077-926 (Impact Compensation), 80077-946 Government to Government), and 80079-989 (Government to Government). See also the General Lease Stipulations and Required Operating Procedures for the Preferred Alternative, specifically Required Operating Procedures H-1 and I-1. We recommend that the Wainwright City Council, Olgoonik Corporation, and Wainwright Tribal Council contact BLM concerning their participation in BLM's developing North Slope Science Strategy and the North Slope Management Oversight Group. This body could appropriately address local concerns about the timely reporting of seismic activities and oil development and the sharing of this information with the community.

70. TOPIC : ROADS

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

First, none of the development alternatives prohibit the construction of permanent roads (DEIS pp. IV-34-35, IV-511-12), and Alternatives A and B permit construction of a permanent road connecting the Northwest to areas outside the Planning Area, (id. at 512-14.) Moreover, Alternatives A, B, and C permit permanent facilities in the Colville River Special Area. An alternative in which that area is closed to permanent construction should be considered. **(Comment No. 253-63)**

Response To: Comment 253-63

None of the alternatives, including the Preferred Alternative, preclude or support a possible road connecting the Planning Area to outside of the Planning Area. We do consider the possible impacts of a State-sponsored road between the Dalton Highway Road and Nuiqsut in the cumulative effects section of the Final IAP/EIS. A decision on a proposed road would not be made until a NEPA analysis is completed. The BLM believes it will be at least 10 years before any proposal comes forward. The Preferred Alternative includes a one-mile setback from the Colville River for permanent development.

Comment From: State of Alaska (Comment Letter No. 251)

State of Alaska NW NPR-A Comments Page 23 Section III, Page III-150, Road Systems. This section should be modified to incorporate the general comments noted earlier regarding the Northwest Planning process and

identification of road proposals supported by the State, NSB, and North Slope villages. Section IV, Page IV-3, Introduction and Basic Assumptions Ground-Impacting Management Activities. This section needs to include a discussion of community roads between Barrow-Atqasuk-Wainwright. **(Comment No. 251-376)**

Response To: Comment 251-376

Please see the responses to comments 251-373 (Transportation) and 315 (Right of Way), and 213-357 (Transportation).

Comment From: State of Alaska (Comment Letter No. 251)

Section IV, Page IV-3, Introduction and Basic Assumptions Ground-Impacting Management Activities. This section needs to include a discussion of community roads between Barrow-Atqasuk-Wainwright. 251-378
(Comment No. 251-378)

Response To: Comment 251-378

Construction of a Barrow-Atqasuk-Wainwright road during the life of this plan is not considered likely. A discussion of permanent roads is found in Section IV.A.1. A permanent road between the Dalton Highway and Nuiqsut has been added to the cumulative scenario. Permanent roads are also considered in Section IV.K. Please see the response to 251-315 (Right of Way).

Comment From: State of Alaska (Comment Letter No. 251)

Section IV, Page IV-34-35 (8) (c), Possible But Unlikely Activities, Permanent Roads. This section, specifically the prohibition on road connection to the outside road network, needs to be reviewed and revised consistent with the proposed Barrow-Atqasuk- Wainwright transportation corridors and the potential for a permanent road into NE NPRA that could in time form the mainline or trunk road for production operations in NW NPR-A.
(Comment No. 251-384)

Response To: Comment 251-384

At this time, roads proposed in the easternmost part of the Northeast NPR-A Planning Area have not been approved or constructed. Construction of the proposed roads would not materially affect operations in the Northwest Planning Area. The regulations for the Northwest Planning Area do not preclude construction of permanent roads, and studies are underway for the feasibility of inter-connecting roads between villages in western NPR-A. A permanent road between the Dalton Highway and Nuiqsut has been added to the cumulative scenario. Please also see the responses to comments 251-373 (Transportation), 251-380 (Roadless Areas and Development), 251-381 (Outside Scope of Plan), and 351-382 (Transportation).

Comment From: State of Alaska (Comment Letter No. 251)

Section IV, Page IV-512, Bullet 7. The statement in this section that "&the road system east of Nuiqsut would be partially funded with State of Alaska or Federal funds and open to the public" should be modified consistent with Section 118 (e) of the Transportation Enhancement Act 21 (TEA-21). TEA-21 authorizes the expenditure of federal funds for resource development road construction projects without regard to the traditional public funds

equals public access caveat. It allows industrial use designation of these roads that precludes or limits public access eventhough state or federal funds are used. ADOTPF is now investigating the full implications of this statute on the North Slope roads development program currently underway. Section IV, Page IV-512, Bullet 8. The State recommends that the language in this section regarding the funding and construction of a road system west of Nuiqsut by the lessees and closed to general public use be modified in recognition that ADOTPF funding from state and federal sources may be used to develop roads west of Nuiqsut into NPR-A. **(Comment No. 251-402)**

Response To: Comment 251-402

The State-advocated road between the Dalton Highway and Nuiqsut has been incorporated as a reasonably foreseeable activity under the cumulative scenario. This text has therefore been moved. Text has been added in the cumulative scenario to present the information on TEA-21 provided in the comment. The assumption in Bullet 7 has not been changed. In consideration of the history of the Dalton Highway relevant to the question of "public funds equals public access," the BLM believes that the assumption that a federally funded road between the Dalton Highway and Nuiqsut would be open to public use is a reasonable assumption.

Comment From: State of Alaska (Comment Letter No. 251)

Section IV, Page IV-512, Bullet 8. The State recommends that the language in this section regarding the funding and construction of a road system west of Nuiqsut by the lessees and closed to general public use be modified in recognition that ADOTPF funding from state and federal sources may be used to develop roads west of Nuiqsut into NPR-A. **(Comment No. 251-405)**

Response To: Comment 251-405

The text has been revised to indicate that this assumption is meant to apply to oil and gas-related roads and is not intended to mean inter-community roads.

Comment From: State of Alaska (Comment Letter No. 251)

It is essential that BLM consider these road proposals. We recommend that potential allseason community roads and mainline/trunk roads for oil and gas exploration and development be included in the alternatives and appropriately analyzed for human and environmental impacts as required by the National Environmental Policy Act. The assumption in the Draft IAP/EIS that private sector financing of roads makes roads unlikely needs to be revised in recognition that the State may finance roads in whole or part. In addition to providing overland transport of vehicles, the road corridors identified through the Northwest Plan may also function as electrical energy, consumer gasline and communications distribution routes. This potential infrastructure should be considered as well. **(Comment No. 251-513)**

Response To: Comment 251-513

Please see the response to comment 213-357 (Transportation).

Comment From: Public Meeting on DEIS - Washington, DC (Comment Letter No. 80082)

Getting a little more specific about this plan, you hear a lot about the, quote, new technology. Well, how are they proposing to develop in NPRA' It is gravel roads, the same old gravel roads you would have in the Prudhoe Bay Oilfield, the Kuparik oilfield. From the Alpine oilfield there is proposed 19 miles into NPRA. This is the Northeast corner of the first sale area, but it was, quote, the model. There was going to be two gravel pads. That's what they focus on. Now, Alpine, the first oilfield just on the border of NPRA, now moving in with three gravel pads in the petroleum reserve will be up to 15 pads, roads, an airport here and there. It is a lot of activity. **(Comment No. 80082-532)**

Response To: Comment 80082-532

The purpose of conducting lease sales and exploring for oil is to find as many commercial-size fields as possible. No one can accurately predict when or where these fields will be discovered. Alpine was discovered in the winter of 1994 (5 years before the NE NPR-A sale was held in 1999). When Alpine was developed, the companies had no knowledge (or leases) of additional fields in NPR-A. Later leasing and exploration resulted in discoveries that could become commercial fields if they were tied into the existing Alpine infrastructure. The nature of oilfield development is that it spreads from a central (or core) area. It remains to be seen if infrastructure will continue to spread to the west into NPR-A. This will depend on successful leasing and exploration drilling. However, it is unlikely that the scale of roads, pipelines, and facilities present in the Prudhoe-Kuparuk complex will be replicated in NPR-A because the fields are likely to be much smaller.

Comment From: The Kuukpik Corporation (Comment Letter No. 254)

BLM should require that all future development in the Northwest NPRA planning area be roadless unless this is not environmentally preferable. **(Comment No. 254-626)**

Response To: Comment 254-626

It is unrealistic to make final decisions now about what roads will be allowed for future development. Decisions as to whether there will be roads associated with future development will be made on a case-by-case basis depending on the nature of the development, and assessments of the impacts on the resources present. Compliance with NEPA will also be required at that time. Please see Section II.C.6 for a description of Required Operating Procedure E-1.

Comment From: Gordon Brower (Comment Letter No. 48)

This make it clear that we must plan these lease sales to incorporate new and positive designs, with the help of the State industrial roads program to spark a renewed interest in working together, this will reduce the cost of development that industry has always said was not feasable and prudent. **(Comment No. 48-975)**

Response To: Comment 48-975

Once oil and gas fields are discovered and delineated, it is both economically and environmentally prudent to minimize construction of supporting infrastructure. The BLM would encourage planning infrastructure to be able to support anticipated future needs.

Comment From: Gordon Brower (Comment Letter No. 48)

The State Industrial Roads program to build a road cooridor that would be multi use, The road may be used to hold within it a flowline eliminating a mayor portion of elevated pipelines. The road may end up near the coal fields in the heart of NW NPR-A, which would spur the development of coal exports, a section of road may connect to Barrow, which may become to port of development of the area, and the road would provide for refined oil from a nearby field to help displaced subsistence hunters to hunt other location by providing a less cost fuel supply, current moter gas in Barrow is $3,25 a gallon, with a nearby limited fuel refinery on slope the fuel cost may drop subtancially, mayby $1,25 a gallon. This would help keep our ocean clean and would stop mayor fuel haul barges, which travel in ice infected arctic waters, the impact would lessen. Furthermore, the industrial road would bring the cost of living down, goods for sale may now be shipped over land by truck, residents may enjoy the benifits. This is the type of control that would promote a proper industrialization to NPR-A, one that would benifit all. **(Comment No. 48-976)**

Response To: Comment 48-976

Decisions about roads are beyond the scope of this plan.

Comment From: Hearing -Anaktuvuk Pass (Comment Letter No. 80072)

Then my other concern is that if they find the gas and oil over Western NPR-A, then if they build a road that's going to change our subsistence again like pipeline. Pipeline has really changed our caribou hunting because Porcupine Herd used to cross the river, cross the road this way and come out to our Anaktuvuk and Anaktuvuk Valley from east, it doesn't happen no more. Once they build a road up here from -- from Alpine area to -- all the way across to NPR-A, once they build a road it's going to change the subsistence just like every one of those coastal villages, if they build a road that's going to change their subsistence. **(Comment No. 80072-980)**

Response To: Comment 80072-980

Please see the response to comment 80072-979 (Caribou).

71. TOPIC : RIGHT OF WAY

Comment From: State of Alaska (Comment Letter No. 251)

Section II'Alternatives. The scope of the current alternatives, which is primarily oil and gas activities, should be expanded to include the Barrow-Atqasuk-Wainwright roads/transmission line projects that will proceed as funding allows. Alternatives should also include an analysis of the need for oil and gas mainline roads in light of reduced ice road seasons. **(Comment No. 251-311)**

Response To: Comment 251-311

Construction of a Right of Way (ROW)for the Barrow – Atqasuk – Wainwright transmission line is an externally generated ROW proposal that does not need to be considered as part of the Northwest IAP alternatives. The plan does not preclude such a development and it is allowed under the authority of FLPMA and the NPRPA. If the Borough should decide to proceed with the ROW, variations on the route can be considered at the time through

the required environmental analysis. As to including alternatives that consider other oil and gas mainline roads to support oil and gas development, it is felt that until there is a discovery this exercise would be highly speculative and of little value. Prior to development, additional environmental analysis will be required, which will consider the impacts of mainline roads.

Comment From: State of Alaska (Comment Letter No. 251)

Map 17, Potential Right of Way Sites. This map should be modified to incorporate transportation/utility transmission corridors to support community roads between Barrow-Atqasuk-Wainwright as identified by ADOTPF, the NSB, and the affected villages in the Northwest Plan. **(Comment No. 251-315)**

Response To: Comment 251-315

A designated Right-of-Way (ROW) corridor is not required to grant a transmission line or road ROW across the NPR-A. A corridor designation is usually used to identify preferred locations for future ROWs. There is not sufficient information available at present to make such a determination. However, an application for the Barrow-Atqasuk-Wainwright road/transmission line ROW was received in 1981. The BLM has received no other ROW applications for community roads. The road/transmission line ROW was not shown on any map because it has been on file for over 20 years and BLM felt that when the proposal went forward it could be modified based on 20 years of new information, technology, and other circumstances. Nevertheless, we have added the route of proposed road/transmission line ROW to Map 20.

72. TOPIC : IMPACT COMPENSATION

Comment From: Public Meeting on DEIS - Barrow, Alaska (Comment Letter No. 80075)

And if our natural habitat is touched, we can't go out -- we can't get what we want to hunt, what is your compensation going to be' I know beef is not what my stomach wants, but the Native food that we eat is what my stomach is going to hunger for. And I don't think beef would be something that is a natural habitat for the Natives up in the north. So there's a consideration that you guys should think about, **(Comment No. 80075-487)**

Response To: Comment 80075-487

Federal law requires that the State, in allocating its 50 percent share of sales, rentals, and bonus royalties from any leasing in the NPR-A, give "priority to use by subdivisions of the State most directly or severely impacted by development of oil and gas" in the Reserve (P.L. 96-514). Under the law (AS 37.05.530), funds the State receives from leasing on the NPR-A are placed in the NPR-A Special Revenue Fund. These impact funds are distributed to communities through a grant program (19 AAC 50) administered by the Department of Community and Economic Development. If a community feels that the State has violated the Federal law, its remedy is to bring suit against the State in the courts. The BLM believes that these grants are the type of compensatory assistance that could enable local communities to upgrade local medical, public safety, and municipal services.

Comment From: Public Meeting on DEIS - Barrow, Alaska (Comment Letter No. 80075)

As production begins and if production begins, there should be a percentage of royalties set aside to offset the economic disturbances that the oil industries enterprises will generate. And this should be considered very

carefully. And it should be designed to benefit and create innovative opportunities through innovative programs to benefit North Slope residents in socio-economic opportunities not related to oil industrial development, not related to lease sale development. It should be a sustainable program for the long-term benefit and sustenance of the North Slope residents. We are most affected by oil development in attending public meetings such as this, looking at the different plans and we are disturbed by oil development in our subsistence way of life. We have a conflict here, oil development and Inupiat culture. United States government and oil development versus Inupiat culture. Let's face the fact of it, this is the bottom line. Everything that has been said of protecting this area, protecting this area, and protecting that area has dealt with animals that Inuit depend on and that is the subsistence way of life that's the base of our culture, and this is being eroded to a degree and has been eroded to a degree that you do not see a single Inupiat in here wearing fur clothing, which was traditional. We're speaking a different language which is not traditional. We enjoy all these modern conveniences but that's part of our American Dream. But as a country, when you deprive the people of their resources and of their culture and their economic opportunities outside of oil and gas industry, there's something wrong. And I hope you will take this time to consider correcting that opportunity. **(Comment No. 80075-509)**

Response To: Comment 80075-509

In allocating monies from the State's share from any leasing in the NPR-A, Federal law requires that the State give priority to subdivisions of the State most directly or severely impacted by development of oil and gas. The BLM believes that these grants are the type of compensatory assistance that could enable local communities to upgrade local medical, public safety, and municipal services. Please also see the response to comment 80075-487 (Impact Compensation).

Comment From: Arctic Slope Regional Corporation (Comment Letter No. 186)

First, our Iñupiat institutions and our local government must derive benefit from and actively participate in the terms and conditions that regulate development of these resources. **(Comment No. 186-555)**

Response To: Comment 186-555

Please see responses to comments 80074-893 (Impact Compensation), 80075-509 (Impact Compensation), 80077-926 (Impact Compensation), 80077-935 (Impact Compensation), 80077-939 (Sociocultural Systems), and 80077-945 (Government to Government).

Comment From: Olgoonik Corporation (Comment Letter No. 169)

We would also like to see that there are monies set aside in the event that there is an oil spill, tundra damage or any corrective measure that needs to be done as well as any displacement of the subsistence resources. **(Comment No. 169-714)**

Response To: Comment 169-714

Federal law requires that the State, in allocating its 50 percent share of sales, rentals, and bonus royalties from any leasing in the NPR-A, give "priority to use by subdivisions of the State most directly or severely impacted by development of oil and gas" in the Reserve (P.L. 96-514). Under the law (AS 37.05.530), funds the State receives from leasing on the NPR-A are placed in the NPR-A Special Revenue Fund. These impact funds are distributed to communities through a grant program (19 AAC 50) administered by the Department of Community and Regional Affairs. Please see comment response 254-612 (Subsistence) for mitigating measures and processes to prevent

losses of subsistence resources.

Comment From: City and Native Village of Nuiqsut (Comment Letter No. 80026)

Financial support: As a mitigation measure, our community deserves financial support, in the form of user fees paid to the City, for the increased demand NPR-A oil exploration and development creates for additional services such as health and public safety, and infrastructure, and the general disruption created by the overwhelming amount of activity in or near our small arctic community. **(Comment No. 80026-1013)**

Response To: Comment 80026-1013

Please see responses to comments 80074-893 (Impact Compensation), 80075-509 (Impact Compensation), 80077-926 (Impact Compensation), 80077-935 (Impact Compensation), 80077-939 (Sociocultural Systems), and 80077-945 (Government to Government).

Comment From: City and Native Village of Nuiqsut (Comment Letter No. 80026)

NPR-A Federal Mitigation Funds ' These funds should go directly from the federal government to NPR-A development impacted communities. Now these funds are funneled through the State of Alaska and communities are subject to competing against one another for grant funds, with the State as the authority, and grant funds are not always fairly distributed based on impacts to specific communities. **(Comment No. 80026-1023)**

Response To: Comment 80026-1023

Please see response to comments 80077-926 (Impact Compensation) and 80026-1013 (Impact Compensation).

Comment From: Public Meeting on DEIS - Atqasuk, Alaska (Comment Letter No. 80074)

I am in agreement to Alternative C until such time we have adequate environmental studies to cover archeological fishing measures and lastly to make the NPR-A Impact Funds made available in direct to Inupiat Community of the Arctic Slope rather than being controlled by the state government. **(Comment No. 80074-893)**

Response To: Comment 80074-893

Federal law requires that the State, in allocating its 50 percent share of sales, rentals, and bonus royalties from any leasing in the NPR-A, give "priority to use by subdivisions of the State most directly or severely impacted by development of oil and gas" in the Reserve (P.L. 96-514). Under the law (AS 37.05.530), funds the State receives from leasing on the NPR-A are placed in the NPR-A Special Revenue Fund. These impact funds are distributed to communities through a grant program (19 AAC 50) administered by the Department of Community and Economic Development. If a community is dissatisfied after discussing allocations with the State, the law provides recourse through litigation.

Comment From: Public Meeting on DEIS - Nuiqsut, Alaska (Comment Letter No. 80077)

You cause a lot of social ills to our community. And that's the things that are devastating to our young people. The obstructions to try to meet the requirements to obtain employment prevent us from being able to come out to the fields and work. There are increased efforts with our corporation working very hard to try to obtain some of these things, but you're still having limited number of slots available to get our people certified to get out there and work. There's no way we can get all of the requirements -- you have how many different requirements even for your basic employments. Those are things that are not readily accessible in our community, yet it's a requirement for us to step in our backyard to go to work. All of these problems are causing us a lot of issues. All of our public services are hit heavily by these influx of activities related to development activities. Our clinic gets used. Our public safety gets used. Our municipal services get used, but yet there's no assistance to our municipal services to provide these extended needed services. **(Comment No. 80077-926)**

Response To: Comment 80077-926

Federal law requires that the State, in allocating its 50 percent share of sales, rentals, and bonus royalties from any leasing in the NPR-A, give "priority to use by subdivisions of the State most directly or severely impacted by development of oil and gas" in the Reserve (P.L. 96-514). Under the law (AS 37.05.530), funds the State receives from leasing on the NPR-A are placed in the NPR-A Special Revenue Fund. These impact funds are distributed to communities through a grant program (19 AAC 50) administered by the Department of Community and Economic Development. If a community feels that the State has violated the Federal law, its remedy is to bring suit against the State in the courts. The BLM believes that these grants are the type of compensatory assistance that could enable Nuiqsut to upgrade local medical, public safety, and municipal services. Nuiqsut has received State approval for eight grants totaling $8,896,200 from monies made available from proceeds from Northeast NPR-A lease sales. Please see comment responses 254-612 (Subsistence) for mitigating measures and processes to prevent losses of subsistence resources and 80077-924 (Government to Government) for industry employment initiatives.

Comment From: Public Meeting on DEIS - Nuiqsut, Alaska (Comment Letter No. 80077)

I felt like a third world citizen yesterday when I went to KOC. You know we go use the restroom and I ask, well, can we buy dinner, no, you just get yours to go and you have to go. We're third world citizens with the oil industry, they don't treat us like people. And as for opening this NPR-A, I want to oppose until Nuiqsut gets what rightfully belongs to them. I'm glad that we have that NPR-A Impact Fund, that's not enough. What kind of revenue comes to this community' And they trample all over our land. Only time we see money coming into this community is by the royalty and it's just a fraction. It's just a fraction compared to what they make, and, yet, we are the ones that are impacted. **(Comment No. 80077-935)**

Response To: Comment 80077-935

Section III.C.1 describes the way the State of Alaska administers the NPR-A Special Revenue Fund grants under the NPR-A Impact Program. If there are inequities in the distribution of these funds among local communities, this should be taken up with the Alaska Department of Community and Economic Development and/or the State legislature. Please also see the response to comment 186-555 (Impact Compensation), 80077-926 (Impact Compensation), and 80077-945 (Government to Government). Section III.C.4 describes the socioeconomic and sociocultural conditions in Nuiqsut and other potentially affected communities as mentioned in the comment.

Comment From: Public Meeting on DEIS - Nuiqsut, Alaska (Comment Letter No. 80077)

If you're going to open this I want to see some kind of clause in this EIS declaring Nuiqsut some kind of economic impact fund for this community to keep it viable. **(Comment No. 80077-937)**

Response To: Comment 80077-937

See response to comment 80077-926 (Impact Compensation).

Comment From: Public Meeting on DEIS - Nuiqsut, Alaska (Comment Letter No. 80077)

And as for subsistence, I like to fish. I like to fish and I like to hunt caribou. And you heard what I said about driving out that way. You drive out there, you look. You see if there's caribou. Drive out that way and see if you see anything. Then you ask one of these guys to drive you that way where there's nothing yet, see if you'll see a caribou and right now you're not going to see a caribou that way. And if it's going to be opened we're going to lose some of our subsistence and I want to make sure this community gets due rightfully what is their's by way of impact funds or I don't know, you know, there's got to be a way. **(Comment No. 80077-938)**

Response To: Comment 80077-938

See responses to comments 80077-926 (Impact Compensation) and 80077-945 (Government to Government).

Comment From: Paul Hugo (Comment Letter No. 187)

As we know that Federal Funds are given to the villages in the NPR-A Region, not as penny is given to our village from this fund, and still, majority of our resdent's will be affected by activities in the NPR-A with the high employment rate and high cost of store goods, fuel, electricity, housing, the caribou herd migration becomes more and more important to us, to get us by for the year. **(Comment No. 187-964)**

Response To: Comment 187-964

Please see responses to comments 80074-893 (Impact Compensation), 80075-509 (Impact Compensation), 80077-926 (Impact Compensation), 80077-935 (Impact Compensation), 80077-939 (Sociocultural Systems), and 80077-945 (Government to Government).

Comment From: Paul Hugo (Comment Letter No. 187)

Funds should be available for our community if there is a impact by activities in the NPR-A . **(Comment No. 187-967)**

Response To: Comment 187-967

See response to comment 187-964 (Impact Compensation).

73. TOPIC : STIPS SPECIFIC

Comment From: The North Slope Borough (Comment Letter No. 80065)

Stipulation A-3, Page II-18. This stipulation prohibits refueling of equipment within 500 feet of any fishbearing waterbody and 100 feet from non-fish-bearing waterbodies for Alternatives A and B. Under Alternative C, the setback is 500 feet from any waterbody. We recommend the stipulation language used in Alternatives A and B, with setbacks of 100 feet from non-fish-bearing waterbodies and 500 feet from fishbearing waterbodies, be used for all alternatives. ROPs A-1 through A-8, Pages II-18 and II-19. These mitigation measures pertaining to waste prevention, handling, disposal, and spills all should be converted to stipulations. They pertain to major issues. Potential lessees and the public must know what is expected in these subject areas as early as possible in the planning process. The qualifying phrase 'except as specifically provided" in ROP A-3 must be explained or deleted. In ROP A-6, notification of government entities should be 'as required by law or permit'. Stipulation B-1, Page II-20. This stipulation discusses winter water withdrawal within the planning area. For Alternatives A and B, the stipulation states the AO may authorize winter water withdrawal from lakes, creeks, or rivers. The Borough supports the approach taken in Alternative C prohibiting winter water withdrawal from rivers and streams, and recommends it be adopted for all proposed alternatives. The stipulation should be modified to limit water withdrawal in fish-bearing lakes to 15% of the under-ice volume for those lakes with depths less than 7 feet. Stipulation B-2, Page II-20. This Alternative C stipulation prohibiting compaction of snow cover or snow removal from ice over fish-bearing waterbodies except at approved ice road crossings and lake water pumping stations, should be applied to all alternatives. Stipulation C-1, Page II-20. Consultation in C-1a should include the Borough and potentially affected communities. In C-1b, the exact dates for the opening of ground operations should be 'determined annually by the AO'. ROP C-1a-g, Page II-21. ROPs C-1a-e should be made stipulations, and applied to all alternatives. ROP C-1g regarding refueling of equipment near waterbodies should be eliminated as redundant of Stipulation A- 3, which should be applied to all alternatives. Stipulation C-2-a, Page II-21. This stipulation regarding use of motorized ground vehicles near raptor nest sites should be applied to all alternatives. The stipulation should be modified to prohibit motorized ground vehicle use within ½ mile of known or observed active raptor nesting sites. Stipulation D-1, Page II-22. This stipulation restricts exploratory drilling in certain waterbodies. The stipulation should be written to prohibit exploratory drilling in rivers, streams, and lakebeds, as determined by the active floodplain, and applied to all alternatives. Stipulation D-2, Page II-22. This stipulation prohibits the construction of certain permanent facilities during the exploration phase of oil and gas development, should be expanded to include gravel drilling pads, and should be applied to all alternatives. Stipulation E-1, Page II-22. This stipulation presents setbacks for permanent oil and gas facilities, including roads, airstrips, and pipelines from specified waterbodies and other resources. To say the least, this Henri Bisson April 2, 2003 Page 7 stipulation as presented is confusing. Under Alternative B, it is unclear when the 'specific investigation' would be conducted to determine whether significant resources occur within a particular land area. It is unclear who would conduct the investigation. It is unclear what 'NEPA analysis' would be required to minimize impacts, and what would trigger such analysis. All setbacks of 'up to' a specified distance from the physical feature or biological resource identified for protection do not provide any certain measure of protection for these resources. All must be made certain. The stipulation under Alternative C provides the necessary certainty, and should be applied to all alternatives with the following modifications: Stipulation E-1) Road crossings of the Colville River within the setback areas defined in E-1s may be allowed on a case-by-case basis in consultation with appropriate federal, state, and North Slope Borough regulatory and resource agencies where no other suitable sites are available. b, d, h, i, j, and l: ½-mile setback increased to ¾-mile. u: Identification of waterfowl nesting and brood-rearing areas requiring the ½-mile setback must be accomplished in a multi-agency workshop mapping effort in consultation with local communities. v: ½-mile setback from Dease Inlet, Elson Lagoon, Peard Bay, and Kasegaluk Lagoon increased to ¾- mile, and ½-mile setback from Kuk River increased to 3 miles. In addition, the ¾-mile setback should be applied along the entire coastal area west of Point Barrow, up to and including Kasegaluk Lagoon to provide protection for caribou insect relief habitat and the spring lead system along the Chukchi Sea coastline that is used by, and is vital to, bowhead whales, beluga whales, seals, seaducks, and the subsistence users who depend on the harvest of these resources. Stipulation E-2, Page II-26. The term 'independent remote oil fields' must be defined to mean single projects targeting a single reservoir. If not, an expansive network of roads could result. The currently proposed Alpine Satellite Development Project, for instance, envisions at least five widely dispersed drillsites, and it is unclear whether if constructed the five together would be considered a single 'independent remote oilfield'. Roads are not proposed to connect all of these sites, but this example should highlight that the goal of this stipulation should be to prohibit a road network. It should be worded accordingly. ROP E-1-4, Page II-27. Each of these should be made a stipulation, with the modification of E-2 to specify that lessees must also consolidate facilities within and between projects or must bear the burden of demonstrating why consolidation is not feasible. ROP E-5, Page II-27. The two versions of this

ROP should be combined, made a stipulation, and specify that burial of pipelines is encouraged and required at locations of concentrated caribou movement and subsistence user travel routes as identified through consultation with affected communities. The elevation of pipelines where above ground should be raised to 7 feet, and it should be required that they be finished with a dull non-reflective surface. Stipulation E-5, Page II-28. This stipulation under Alternative C regarding causeways, docks, artificial gravel islands and bottom-founded structures should be applied to all alternatives. ROP F-1, Page II-29. This ROP under Alternative C defines altitudes and distances for raptor nest site avoidance should be applied to all alternatives and should be made a stipulation. Stipulation H-1, Subsistence, Page II-30. This stipulation should be modified to include setbacks of 1 mile from established subsistence cabins and camps. ROP H-1, Page II-30. This ROP regarding subsistence consultation should be made a stipulation. Henri Bisson April 2, 2003 Page 8 ROP I-1, Page II-31. This ROP regarding environmental orientation and conflict avoidance should be made stipulation. Stipulation J-2, Page II-32. This stipulation under Alternative C prohibiting petroleum exploration and production activities within ½ mile of occupied grizzly bear dens should be applied to all alternatives. ROP J-1, Page II-32. This ROP requiring bear interaction plans should be made a stipulation. **(Comment No. 80065-583)**

Response To: Comment 80065-583

We have taken your recommendations into consideration in developing the Preferred Alternative.

74. TOPIC : LAND OWNERSHIP AND USES

Comment From: The North Slope Borough (Comment Letter No. 80065)

It is also stated with respect to development that 'because the land likely to be disturbed is a very small percentage of the 8.8 million surface acres BLM manages in the Planning Area, impacts to soil, vegetation, water, and paleontological and cultural resources will almost certainly be very minor.' It must be recognized that even a small area of physical disturbance can result in significant effects to the resources mentioned. There are key areas that must be protected from even the small footprint of present day industrial facilities and their associated effects. The vastness of the region does not justify loss of key wildlife habitat and subsistence use areas that are not duplicated across the North Slope. **(Comment No. 80065-585)**

Response To: Comment 80065-585

The BLM recognizes that regionally minor impacts can be locally or even regionally significant. The text has been revised to clarify the meaning.

75. TOPIC : WATER WITHDRAWAL

Comment From: U. S. Evironmental Protection Agency (Comment Letter No. 261)

The draft IAP/EIS indicates that on the North Slope, the oil industry uses about one billion gallons of water annually (p IV-395). Freshwater is used for drilling operations, construction maintenance, ice roads, pads, camp use, water flooding, and other purposes. In order to evaluate the potential direct and indirect effects (including cumulative effects) from water withdrawals, the final IAP/EIS should identify the location of existing and potential future water source sites on a map for the NW Planning Area. Estimates of water need for each type of development activity should be summarized in a Table. In addition, we recommend that DOI/BLM should develop

management measures and stipulations for the siting of water withdrawal areas in the NW NPR-A. EPA recommends that lakes and ponds deeper than 6- ft and which provides overwintering habitat for arctic fish be exempt from water withdrawal. Additional stipulations and/or ROPs may be required to ensure adequate protection. **(Comment No. 261-126)**

Response To: Comment 261-126

Preliminary monitoring studies done by both BP and ConocoPhillips Alaska, Inc. indicate that there are no measurable effects when less than 15 percent of the under-ice water volume is removed. There currently are no data available that would demonstrate that limited water withdrawals from deep-water lakes are harmful to over-wintering fish. Exact locations of future exploration and development are unknown. Water withdrawal impacts are assessed for the Planning Area as a whole.

Comment From: U. S. Evironmental Protection Agency (Comment Letter No. 261)

Water Withdrawal Areas EPA recommends that the final IAP/EIS incorporate a map that identifies the locations of potential water withdrawal areas and sources. **(Comment No. 261-141)**

Response To: Comment 261-141

A subsequent environmental analysis would be necessary for any ice road or pad construction; this would require the locations of water-source lakes. It is not possible to determine the exact location of potential water-source lakes prior to any exploration plans being proposed. ConocoPhillips Alaska, Inc. has released a report (MJM Research, 2002) on deep-water lakes between the Ikpikpuk River and Barrow that could be used as water-source selected lakes.

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

While the Northeast ROD prohibited removal of winter water from rivers and streams, the Northwest DEIS does not. The Northwest DEIS solely addresses fish resources, and has no restrictions on water withdrawals from shallow lakes or large lakes that do not contain 'fish'. The standard for setting unacceptable water withd rawals is very low, and fish habitat could be damaged, or many fish killed, so long as the 'population' is not 'endangered.' This is the entire regional population, and it is unclear if it has to be listed endangered under the definition of the Endangered Species Act' Further, it is unclear what is meant by 'resident' fish species; does this include anadromous species that are not in the area all year. The Northwest DEIS has no voluntary guidelines seeking new, less damaging procedures. **(Comment No. 253-364)**

Response To: Comment 253-364

The stipulations for water withdrawals (Section II.C.5) have been revised in the Preferred Alternative to be in agreement with State DNR and Alaska Department of Fish and Game, as to the restrictions applied to water usage where overwintering fish are present. No pumpage from rivers would be permitted. In this document, the term "resident" fish refers to species that spend most or all of their life in freshwater

Comment From: The Wilderness Society, et al. (Comment Letter No. 253)

The NRC (2003) concluded that there was inadequate information on water withdrawals to accurately assess the impacts on fish and aquatic ecosystems and that 'because of a lack of information it is not possible to determine whether biota associated with North Slope lakes are protected by regulations that cap water withdrawal from lakes' (p. 210). Therefore, such studies are necessary prior to completion of this draft NW Plan. **(Comment No. 253-366)**

Response To: Comment 253-366

Preliminary monitoring studies done by both BP and ConocoPhillips Alaska, Inc. indicates that there are no measurable effects when less than 15% of the under-ice water volume is removed. There currently is no data available that would demonstrate that limited water withdrawals from deep-water lakes is harmful to overwintering fish

Comment From: City and Native Village of Nuiqsut (Comment Letter No. 80026)

Water withdrawal for Ice Roads: Stipulations for drawing water from lakes, streams and rivers for ice roads should be the same as the Northeast IAP/EIS, again for our subsistence resources and environmental protection. **(Comment No. 80026-1020)**

Response To: Comment 80026-1020

Please see responses to comments 261-126 (Water Withdrawals) and 80026-1017 (Stipulations, Required Operating Procedures, and Mitigations). See also the General Lease Stipulations and Required Operating Procedures for the Preferred Alternative, specifically Required Operating Procedure C-4 and Stipulations D-1 and K-2.

76. TOPIC : VISUAL RESOURCE MANAGEMENT

Comment From: WesternGeco (Comment Letter No. 215)

The classification system proposed for visual resource management (VRM) is subjective and poorly defined (Appendix 3). There are no clear examples listed for any of the 4 classes. For instance, a 4 wheeler driving across the tundra would leave some sort of visual mark. What class would this fall under' As defined, the VRM classification is subject to perceptive interpretation. **(Comment No. 215-776)**

Response To: Comment 215-776

The BLM's Visual Resource Management manual recognizes that the VRM classification process is subjective. The 8400 manual states: "Assigning values to visual resources is a subjective process. The phrase, "beauty is in the eye of the beholder," is often quoted to emphasize the subjectivity in determining scenic values. Yet, researchers have found consistent levels of agreement among individuals asked to evaluate visual quality. Designers have used the basic design elements of form, line, color, and texture to describe and evaluate landscapes for hundreds of years. Modifications in a landscape which repeat the landscape's basic elements are said to be in harmony with their surroundings. Modifications which do not harmonize often look out of place and are said to contrast or stand out in unpleasing ways. These basic design elements and concepts have been incorporated into the VRM system to lend objectivity, integrity, and consistency to the process. The VRM system

is designed to separate the existing landscape and the proposed project into their features and elements and to compare each part against the other in order to identify those parts which are not in harmony. Then ways are sought to bring them back into harmony." There are no clear-cut criteria for the classes assigned in the VRM process. The VRM process is a tool to classify different landscape values based on landform characteristics, sensitivity and distance zones, arriving at objectives. The process then identifies impacts to those values. The VRM process is used by the Field Manager as a basis for deciding the amount of visual change that is acceptable for a given area.

Comment From: WesternGeco (Comment Letter No. 215)

Under Alternative A, it states that OHV use is allowed throughout the planning area. Does this imply VRM classified areas do not restrict OHV use' **(Comment No. 215-778)**

Response To: Comment 215-778

Assigning VRM Classes to areas does not preclude any activities in and of itself, what VRM does is provide guidance of how activities are best designed to limit impacts to the visual qualities of each area. The Visual Resource Management (8400) manual states: "Public lands have a variety of visual values. These different values warrant different levels of management. . . .Visual values are identified. . . and are considered with other resource values in the. . . [planning] process. The VRM process establishes management objectives.

Comment From: WesternGeco (Comment Letter No. 215)

'Approximately two hundred miles of green trails from overland moves and seismic surveys also would be visible during summer months for 2 to 5 years. The number of miles of 'green trails' does not conform to the number of miles that are stated in Section IV.B.20.b.1, "Approximately 100 mi of intermittent green trails from seismic activities would be visible from the air during any summer season'. The concept of Visual Resource Management (VRM) may be applicable to National Parks but it makes little sense to apply these restrictions to the National Petroleum Reserve. This is especially true when considering the fact that green trails "are difficult to recognize from the ground' (Sec. IV.B.20.b.1). Under the Federal Land Policy and Management Act (FLPMA) the Secretary of the Interior has authority to regulate use, occupancy, and development of public lands and to take whatever action is required to prevent unnecessary or undue degradation of public lands (43 U.S.C.§ 1732). We feel that 'green trails' do not constitute undue degradation of public lands. VRM policy simply creates another level of unnecessary regulation that will substantially reduce seismic data quality if implemented. We further maintain that VRM directly conflicts with the President's energy policy to 'consider additional environmentally responsible oil and gas development, based on sound science and the best available technology, through further lease sales in the National Petroleum Reserve- Alaska' (Sec. I.A.1). The National Petroleum Reserves Production Act (NPRPA) stipulates that the Secretary 'shall assume all responsibilities'for any activities related to the protection of environmental, fish and wildlife, and historical or scenic values' (42 U.S.C. § 6503(b)). Since green trails are usually difficult to recognize from the ground (Sec. IV.B.20.b.1), we do not believe the intent of the 'historical or scenic va lues' phrase in (42 U.S.C. § 6503(b)) applies to views from airborne craft. **(Comment No. 215-807)**

Response To: Comment 215-807

Section IV.B.20.a in the IAP/EIS identifies 100 miles of green trails associated with overland moves related to non-oil and gas activities. Section IV.B.20.b identifies 100 miles of green trails associated with seismic operations for oil and gas activities. Section IV.B.20.d identifies the sum of green trails from both non-oil and gas activities and oil- and gas-associated activities, thus the total of 200 miles of green trails.

77. TOPIC : EDITORIAL

Comment From: State of Alaska (Comment Letter No. 251)

Section III, Page III-21, Oil and Gas Exploration Activities. Reference is made to table III-02 and the list of abandoned wells. It is important to note that a number of the wells listed in table III-02 are not plugged. **(Comment No. 251-435)**

Response To: Comment 251-435

As the title of the table indicates, these are wells that have been abandoned. This table does not differentiate whether or not the wells have been plugged. The downhole condition of the well and plugging status do not constitute factors in determination of a potential hazardous materials site as defined under the Comprehensive Environmental Compensation and Liability Act (CERCLA).

Comment From: U.S. Fish and Wildlife Service (Comment Letter No. 260)

Section III. B. 4. paragraph 3. The last sentence of the paragraph requires two citations: one after the description of trends in recent decades (Suydam et al. 2000) and one after the description of recent trends in Alaska (Larned et al. 2001). Please update reference of Larned et al. 2001 to Larned et al. 2003. **(Comment No. 260-720)**

Response To: Comment 260-720

References have been added or updated as appropriate.

Comment From: U.S. Fish and Wildlife Service (Comment Letter No. 260)

Section III B. 4. c. (1). (f). 4). Update citation of Dau and Anderson (2001) to Dau and Anderson (2002). **(Comment No. 260-730)**

Response To: Comment 260-730

The Dau and Anderson citation has been updated.

Comment From: U.S. Fish and Wildlife Service (Comment Letter No. 260)

Section III B. 5 b (5) paragraph 1. Please change 'Lentifer' to 'Lentfer' here and throughout the document. **(Comment No. 260-740)**

Response To: Comment 260-740

The text has been revised.

Comment From: U.S. Fish and Wildlife Service (Comment Letter No. 260)

Section IV. J. 5. g. The outline structure is scrambled. IV. J. 5. g. is used for vegetation and again for birds; IV. J. 5. g. is used for fish resources and again for mammals. **(Comment No. 260-759)**

Response To: Comment 260-759

The text headings have been corrected.

Comment From: U.S. Fish and Wildlife Service (Comment Letter No. 260)

Section IV. J. 5. g. (1) paragraph 1, sentence 2. 'Beaufort Sea terrestrial habitats' is a mistake in nomenclature. Change terrestrial habitats to 'coastal habitats.' **(Comment No. 260-762)**

Response To: Comment 260-762

The intent of the statement was to indicate terrestrial habitats; however, coastal habitats also are terrestrial; thus, coastal will be added to increase the inclusiveness of the statement.

Comment From: U.S. Fish and Wildlife Service (Comment Letter No. 260)

Section IV. J. 5. g. (1). Citation in the second sentence of the first paragraph is misspelled. Change 'Fisher' to 'Fischer.' **(Comment No. 260-764)**

Response To: Comment 260-764

The citation has been corrected.

Comment From: U.S. Fish and Wildlife Service (Comment Letter No. 260)

Section IV. J. 5. i. (2). (a). The authors incorrectly reference Fischer et al. (2002) and Fisher misspelled (2002). Both of these reports cite male spectacled eiders in offshore waters in late July. **(Comment No. 260-767)**

Response To: Comment 260-767

The statement has been amended to include offshore spectacled eider males in late July.

Comment From: WesternGeco (Comment Letter No. 215)

Under Alternative A, seismic activities probably would increase relative to that expected under the No Action Alternative (Sec.IV.A.1.c)' Several references are made to (Sec.IV.A.1.c). This section does not exist in the draft EIS. **(Comment No. 215-791)**

Response To: Comment 215-791

The text has been corrected.

Comment From: ConocoPhillips Alaska, Inc (Comment Letter No. 255)

Pg I-4, subsection A-2, para 1. delete 'dash' between Conoco-Phillips Alaska, Inc. **(Comment No. 255-792)**

Response To: Comment 255-792

The text has been revised as requested.

Comment From: WesternGeco (Comment Letter No. 215)

Sec. IV.B.8.a.2.a is not listed in the index (Page 59 not included). **(Comment No. 215-802)**

Response To: Comment 215-802

The index for the draft IAP/EIS did not go down to this level of subheadings. The index for the final IAP/EIS will be expanded.

Comment From: WesternGeco (Comment Letter No. 215)

'In an effort to quantify pressure wave action, Nyland (unpublished data, 2002) conducted a field test on an unnamed fish bearing lake' The paper referred to was published in August 2002. The reference is: Nyland, D.L., 2002, Water column pressures induced by vibrators operating on floating ice. Journal: The Leading Edge, 21, 751-760 **(Comment No. 215-804)**

Response To: Comment 215-804

The suggested reference related to seismic operations (vibroseis) has been added.

Comment From: WesternGeco (Comment Letter No. 215)

'A longer lasting impact from overland moves would be from 'green trails' which are discussed under Visual Resources (Section IV.B.21). Reference is made to the Visual Resources Section (Section IV.B.21). However, the correct reference is Section IV.B.20. **(Comment No. 215-806)**

Response To: Comment 215-806

The text has been corrected.

Comment From: U.S. Geological Survey (Comment Letter No. 164)

Appendix 7. Oil and Gas Resource Assessment; B. Geologic Assessment; 1. Summary of Plays; paragraph 7: "The Arctic platform and Barrow Arch play groups are further separated into those areas lying east or west of Meade Arch, which passes south from Point Barrow (Map 64)." Map 64 is the wrong map number. **(Comment No. 164-881)**

Response To: Comment 164-881

The text has been corrected to show Map 27 as the correct reference.

78. TOPIC : PALEONTOLOGICAL RESOURCES

Comment From: ConocoPhillips Alaska, Inc (Comment Letter No. 255)

Page IV-94, Paleontological Resources. CPAI expends significant resources before any exploration or development activity to assess the potential for paleontological resources to be present in an area of interest. The IHLC in Barrow and ADNR's SHPO office in Anchorage are advised of any proposed activity and the results of our field clearance work. Activities are rerouted to avoid disturbance to any resource. **(Comment No. 255-821)**

Response To: Comment 255-821

This is generally correct. As noted in the draft IAP/EIS, lessees are required by law (Sec. 106 NHPA and the Antiquities Act of 1906) to assess the potential for paleontological resources. There are other mitigation methods in addition to avoidance. During the exploration phase, avoidance is the easiest and simplest method. In the development and production phase, this is not always the case.

Comment From: U.S. Geological Survey (Comment Letter No. 164)

III: DESCRIPTION OF AFFECTED ENVIRONMENT; A. PHYSICAL CHARACTERISTICS; 1. Terrestrial Environment; e. Paleontological Resources; paragraph 1: It is not clear from the discussion if the paleontologic resources discussed are limited to those occurring on the surface or both surface and subsurface resources. Presumably, microfossils are not included in this discussion, although in one of the lists of fossils, ostracodes, a type of microfossil, are included. Regarding the oldest fossils reported in the NPR-A, those would probably be the Early to Middle Devonian plant fossils from a core in the Topagoruk well. Even older microfossils (Ordovician and Silurian) are present in cores from some of the Barrow wells. **(Comment No. 164-877)**

Response To: Comment 164-877

All fossils reside in some type of a stratigraphic deposit. If a given deposit is exposed on surface, then the fossil material it contains is on surface; if the strata is buried, then the fossils contained therein are also buried. Depending on the context, fossils in the same deposit can be both on surface and buried. This situation is discussed quite clearly in the Draft IAP/EIS on Page IV – 400 in the third paragraph. The commenter is correct in identifying ostracodes as a microfossil. The list has been revised accordingly. Also, as requested, the text has been revised to be more specific.

Comment From: U.S. Geological Survey (Comment Letter No. 164)

III: DESCRIPTION OF AFFECTED ENVIRONMENT; A. PHYSICAL CHARACTERISTICS; 1. Terrestrial Environment; e. Paleontological Resources; paragraph 2: The statement about terrestrial plant fossils originating in the middle Jurassic is incorrect: A Late Silurian age (about 415 Ma) for the first land plants in the geologic record would be correct. It is doubtful that there are any middle Jurassic plant fossils anywhere in northern Alaska. **(Comment No. 164-878)**

Response To: Comment 164-878

The text has been revised.

Comment From: U.S. Geological Survey (Comment Letter No. 164)

III: DESCRIPTION OF AFFECTED ENVIRONMENT; A. PHYSICAL CHARACTERISTICS; 1. Terrestrial Environment; e. Paleontological Resources; paragraph 4: The reference Gangloff et al., 2002, is not in the bibliography. **(Comment No. 164-879)**

Response To: Comment 164-879

The text has been corrected.

79. TOPIC : TRADITIONAL LAND USE SITES

Comment From: Public Meeting on DEIS - Atqasuk, Alaska (Comment Letter No. 80074)

Another thing that is really disturbing, too is traditional land use sites. (In Native) There's a lot of our sites, especially in Ikpikpuk area, Meade River area, (In Native) the people from the Barrow area goes up there now with our fast snowmachines to go hunt wolves, whatever, these traditional land use sites will be entered in. So I'd like for the people to listen to some of these things, these traditional land use sites. And I'm glad that we've got North Slope Borough Inupiat History Cultural Commission to recommend some of these, which I think we all would have to work together with the North Slope Borough and our village corporations. **(Comment No. 80074-884)**

Response To: Comment 80074-884

Please see response to comment 80065-586 (Subsistence).

80. TOPIC : POTENTIAL IMPACTS

Comment From: Public Meeting on DEIS - Nuiqsut, Alaska (Comment Letter No. 80077)

We've done it how many seasons, after seasons, after seasons, we go without. We don't have the number of fish we used to get. We don't have the number of caribou, even though they're all out there, during our modes of transportation when we can get them, we can't get them because there's so many flight activities happening around us. So these kind of things need to be addressed with this activity. They're going to develop regardless of what we say at these meetings, but we need to align out what the answers are to try to address the problems before they get started out there. **(Comment No. 80077-927)**

Response To: Comment 80077-927

We have taken your comments into consideration in developing and analyzing the Preferred Alternative; please see Section H "Subsistence Consultation for Permitted Activities" of the General Lease Stipulations and Required Operating Procedures and Stipulations K-1, K-3, K-6, and K-8. Also, please see response to 254-612 (Subsistence) for mitigating measures and processes to prevent losses of subsistence resources.

81. TOPIC : STUDIES

Comment From: City and Native Village of Nuiqsut (Comment Letter No. 80026)

Studies: Wildlife, subsistence and socio-cultural studies are being conducted currently and not shared with our community. We recommend requiring presentation of such studies to communities affected by NPR-A development affected communities be a stipulation of the Northwest NPR-A IAP/EIS. **(Comment No. 80026-1024)**

Response To: Comment 80026-1024

We have taken your comments into consideration in developing the Preferred Alternative. Please see responses to comments 80077-930 (Studies) and 80077-946 (Government-to-Government). We recommend that the City of Nuiqsut and the Native Village of Nuiqsut contact BLM concerning their participation in BLM's developing North Slope Science Strategy and the North Slope Management Oversight Group. This body could appropriately address local concerns about the sharing of results of current scientific research with the community.

Comment From: Public Meeting on DEIS - Nuiqsut, Alaska (Comment Letter No. 80077)

I happen to hear one of these guys saying that he has been here a number of years but I don't think there is enough adequate studies, fish studies and stuff like that of knowing all the lands and impactments that they're going to do to the rivers and the lakes that are connected to the rivers. And then the high flood zones of the rivers and stuff like that, that they're going to be facing and stuff. So I'd like to see a lot more study being done to the environment before they end up getting permanently damaged or somewhat, some way like all our fish, because

we've already experienced that with our whitefish here in Nuiqsut. **(Comment No. 80077-930)**

Response To: Comment 80077-930

The BLM agrees that there is always more to be learned about the natural resources of the National Petroleum Reserve-Alaska and the North Slope. We also believe there is adequate data, collected over at least several decades, to make responsible management decisions. It is important to recognize that prior to the authorization of any potentially ground-disturbing activity, BLM reviews the proposal and conducts additional site-specific analysis. From this review and analysis, additional mitigation would be developed if needed.

82. TOPIC : TUNDRA TRAVEL

Comment From: The Kuukpik Corporation (Comment Letter No. 254)

Of course, winter exploration is not perfect and some traces are left behind. Some of these traces, such as greener tundra where ice roads were built or where seismic and rolligon trails once existed cannot be prevented. To ensure that these telltale traces do not become more evident, the same location should not be used for such acivities for more than one season. **(Comment No. 254-1010)**

Response To: Comment 254-1010

We have tried to address this concern through Required Operating Procedure C-2, however, no long-term documentation exists to help determine which action has the least overall impact: (a) offsetting routes to reduce the impact on each route but increase the total area affected over the years, vs. (b) using the same route year after year, perhaps increasing the effect on that route, but keeping at a minimum the total area affected.

83. TOPIC : PERMITTING

Comment From: State of Alaska (Comment Letter No. 251)

Section II, Page II-37, Future Interrelationships. Reference is made to Appendix 4 for a listing of the various other state and federal agencies with permitting authority in NPR-A. A bullet list of permits of ADEC is included on page II-38. The AOGCC is not mentioned in this section or Appendix 4. See general comments. Suggested additions for this section and Appendix 4 are: 'The Alaska Oil and Gas Conservation Commission (AOGCC) is responsible for issuing drilling permits, production, injection and disposal plan approvals during exploration and development on lands within the State of Alaska. Regulatory requirements are contained in 20 AAC 25 including but not limited to: 20 AAC 25.05 Permit to Drill 20 AAC 25.080 Annular Disposal of Drilling Waste 20 AAC 25.105 - .172 Plugging, Abandonment and Location Clearance 20 AAC 25.200 - .245 Production Practices 20 AAC 25.252 Class II Waste Disposal and Storage 20 AAC 25.280 Workover Operations 20 AAC 25.300 - .320 Reports 20 AAC 25.402 - .460 Enhanced Recovery' **(Comment No. 251-434)**

Response To: Comment 251-434

The information has been added to Appendix 4.

Comment From: State of Alaska (Comment Letter No. 251)

Section II.F.6, Future Interrelationships, Page II-37. This section discusses some permits that would be required by various agencies during exploration or development activities. Other required permits are listed in Appendix 4. For ease of reference, the state recommends that this section be expanded to include all permits and agencies currently listed in Appendix 4. AK-B **(Comment No. 251-997)**

Response To: Comment 251-997

The BLM believes this type of detailed support is more appropriately presented in an appendix. The list of specific permits in Section II.F.6 has been moved to Appendix 4.