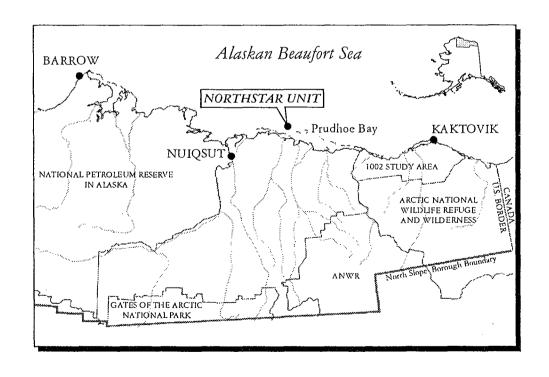


U.S. Army Engineer District, Alaska

Scoping Report

Beaufort Sea Oil and Gas Development/ Northstar Project



SCOPING REPORT

BEAUFORT SEA OIL AND GAS DEVELOPMENT/

NORTHSTAR PROJECT

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TABLE OF CONTENTS

Sect	tion	n Title			
1.0	INTE	RODUC	CTION	1	
2.0	THE	NATIO	ONAL ENVIRONMENTAL POLICY ACT PROCESS	1	
3.0	SUM	OF SCOPING PROCESS	4		
	3.1	NOTI	FICATIONS AND PUBLIC SCOPING MEETINGS	4	
	3.2	WRIT	TEN COMMENTS RECEIVED DURING SCOPING	5	
	3.3	PUBL	IC INVOLVEMENT TRACKING PROCESS	5	
4.0	ISSU	ES IDE	ENTIFIED DURING SCOPING	6	
	4.1	SUM	MARY OF ISSUES IDENTIFIED AT PUBLIC SCOPING MEETING	S 6	
		4.1.1	Barrow Meeting	6	
		4.1.2	Kaktovik Meeting	7	
		4.1.3	Fairbanks Meeting	7	
		4.1.4	Valdez Meeting	8	
		4.1.5	Anchorage Meeting	8	
		4.1.6	Nuiqsut Meeting	8	
	4.2	SUM	MARY OF ISSUES IDENTIFIED BY STATE AGENCIES AND NSB	9	
		4.2.1	Office of the Governor, Division of Governmental Coordination	9	
		4.2.2	Department of Natural Resources, Division of Oil and Gas	9	
		4.2.3	Department of Environmental Conservation	9	
		4.2.4	Department of Fish and Game	10	
		4.2.5	North Slope Borough	11	
	4.3	SUM	MARY OF EPA TELECONFERENCE	11	
	4.4	SUM	MARY OF ALL COMMENTS RECEIVED DURING SCOPING	12	
5.0	REF	ERENC	CES	18	

APPENDICES

Appendix A	Federal Register Notice of Intent
Appendix B	Project Mailing List
Appendix C	Project Newsletters and Comment Card
Appendix D	Advertisements, Television and Radio Scripts, and Notices for Posting
Appendix E	Public Scoping Response Letters
Appendix F	Agency Scoping Response Letters
Appendix G	Transcripts from Scoping Meetings
Appendix H	Public Scoping Meeting Sign-In Sheets
Appendix I	Agency Scoping Meeting Sign-In Sheet

FIGURES

Figure 1 Northstar Unit Leasing Tracts

Figure 2 NEPA Environmental Review Process

LIST OF ACRONYMS AND ABBREVIATIONS

BPXA BP Exploration (Alaska) Inc.

CEQ Council on Environmental Quality

Corps U.S. Army Engineer District, Alaska

DEC Alaska Department of Environmental Conservation

DFG Alaska Department of Fish and Game

DOG Division of Oil and Gas

EIS Environmental Impact Statement

EPA U.S. Environmental Protection Agency

km kilometer

MMS Minerals Management Service

NEPA National Environmental Policy Act

NMFS National Marine Fisheries Service

NPDES National Pollutant Discharge Elimination System

NSB North Slope Borough

PII Public Involvement and Information

USFWS U.S. Fish and Wildlife Service

1.0 INTRODUCTION

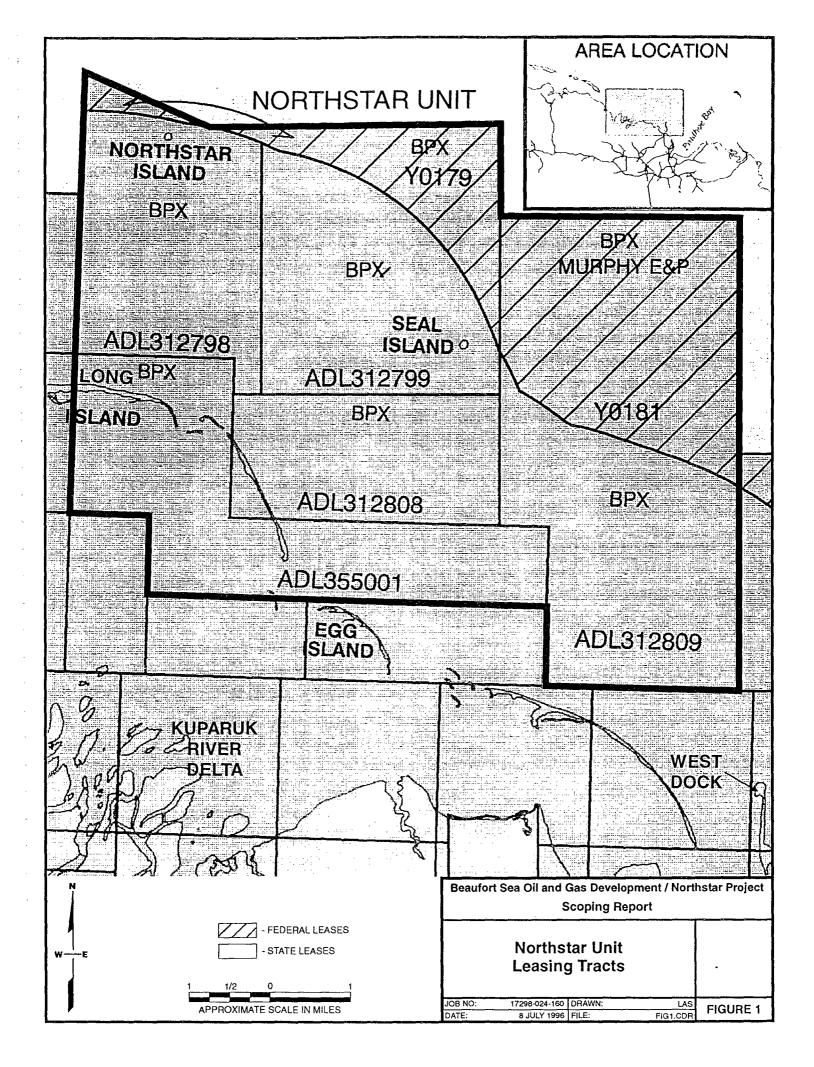
Exploration activities by the oil and gas industry indicate that there may be commercial quantities of oil reserves in the Alaskan Beaufort Sea. BP Exploration (Alaska) Inc. (BPXA) is interested in developing the Northstar Unit, located from 2 to 8 miles offshore of Prudhoe Bay (Figure 1). Since this proposed project would be the first oil production project in the Alaskan Beaufort Sea, five federal agencies and the North Slope Borough are cooperating to prepare an Environmental Impact Statement (EIS). The National Environmental Policy Act (NEPA) requires that an EIS be prepared when a major federal action (such as issuing a permit) may significantly affect the quality of the human environment. NEPA requires that the EIS identify and evaluate a full range of reasonable and feasible alternatives, and evaluate the potential effects that these alternatives may have.

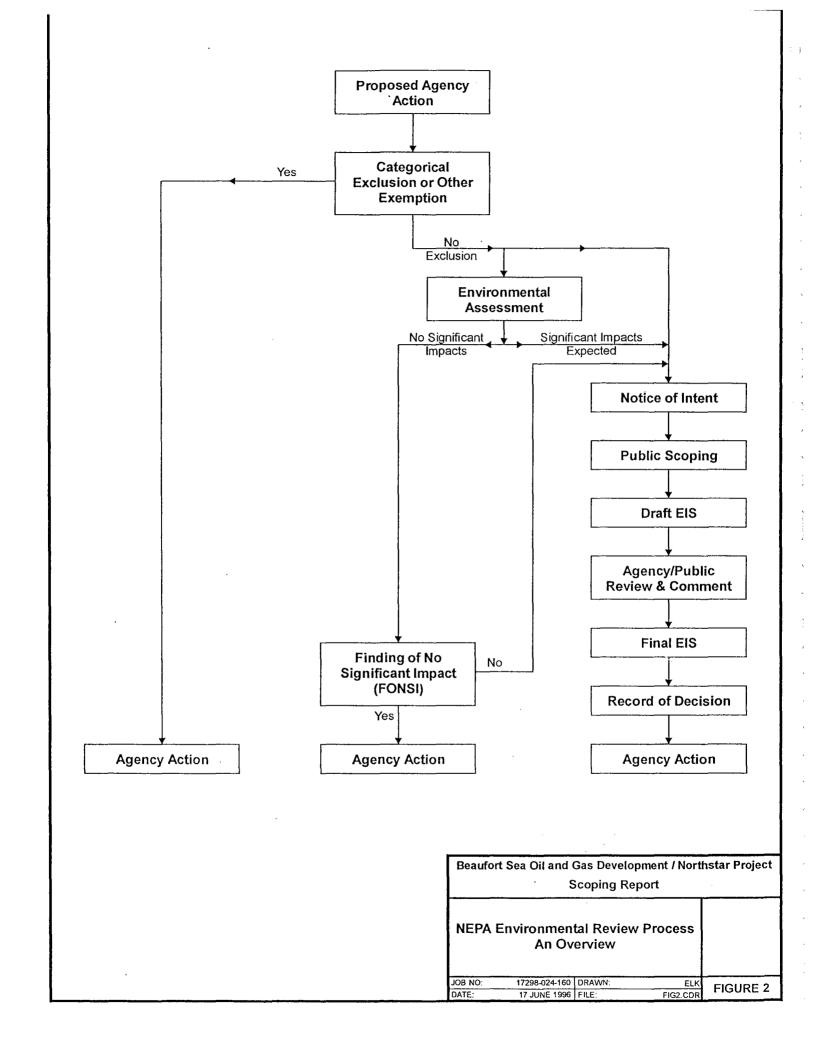
The U.S. Army Engineer District, Alaska (Corps), the lead Federal agency, has entered into a cooperative agreement with the Minerals Management Service (MMS), U.S. Fish and Wildlife Service (USFWS), National Marine Fisheries Service (NMFS), North Slope Borough (NSB), and the U.S. Environmental Protection Agency (EPA) to prepare an EIS on oil and gas development in the Alaskan Beaufort Sea, including BPXA's Northstar Development Project. This is a third-party EIS funded by BPXA and prepared at the direction of the agencies.

2.0 THE NATIONAL ENVIRONMENTAL POLICY ACT PROCESS

NEPA is a procedural law which outlines a structured decision-making process for Federal agencies. The Council on Environmental Quality (CEQ) regulations (40 CFR 1500-1508) are the primary implementing regulations for NEPA. Implementation of the NEPA process is a step process, as illustrated on Figure 2.

NEPA is a national charter for protection of the environment. It applies to Federal actions, actions supported by Federal funds, or actions which require major Federal approvals or permits. NEPA requires an evaluation of the proposed project to identify the potential environmental consequences of implementing the project. NEPA directs the evaluation of reasonable alternatives that are available to meet the needs of the proposed project and the identification of mitigation measures to minimize potential adverse impacts associated with the project. NEPA requires Federal agencies to provide other agencies and the public with an objective understanding of





the environmental consequences associated with a project. This information is used by agencies and the public to provide informed comments to decision-makers.

3.0 SUMMARY OF SCOPING PROCESS

3.1 NOTIFICATIONS AND PUBLIC SCOPING MEETINGS

A *Notice of Intent* was published in the Federal Register on November 24, 1995, announcing the anticipated preparation of an EIS for the proposed project and the opportunity for public input. A copy of the *Notice of Intent* is included as Appendix A of this document.

Newsletters were mailed to approximately 5,000 interested parties. Appendix B presents the initial mailing list for this project. Advertisements were placed in four newspapers throughout the state: the Anchorage Daily News, the Fairbanks Daily News-Miner, the Valdez Vanguard, and the Arctic Sounder. Public announcements were scheduled on the Alaska Public Radio Network, KBRW (Barrow Radio), Barrow Cable Television, and Kaktovik Television, and poster-sized notices were posted in public places in communities where public meetings were held. A copy of the newsletter is provided in Appendix C and the advertisements, radio and television scripts, and notices for posting are presented in Appendix D of this document.

The public scoping process for this EIS was initiated in March. Six public scoping meetings were scheduled for the locations and dates listed below.

- Barrow March 25, 1996
- Kaktovik March 26, 1996 (with Inupiag translator)
- Nuigsut March 27, 1996 (postponed⁽¹⁾)
- Fairbanks March 28, 1996
- Valdez April 2, 1996
- Anchorage April 3, 1996
- Nuiqsut May 7, 1996 (with Inupiaq translator)
- (1) Postponed due to weather on March 27 and postponed at community request on March 28. Rescheduled for May 7, 1996.

In conjunction with this Scoping Report, a newsletter will be mailed to the public summarizing the information gathered during scoping (Appendix C). In addition, this report will be available for public review in the Loussac Library in Anchorage, public libraries in Fairbanks, Barrow, and

Valdez, and will be available to interested parties upon request. Issues and concerns raised at the public scoping meetings are summarized in Section 4.1 of this document.

In addition to the scoping meetings held in various communities, an agency scoping meeting was held on April 1, 1996. The purpose of the meeting was to: 1) review the potential permits that may be required for the proposed project, and 2) to solicit comments and/or concerns regarding issues that should be addressed in the EIS. Agency comments from this meeting are summarized in Section 4.2.

3.2 WRITTEN COMMENTS RECEIVED DURING SCOPING

In addition to oral comments received at the public scoping meetings and at the agency meeting, written comments on the project have been solicited and received. Copies of all written comments received to date are included in Appendix E. This includes comments from the cooperating federal agencies. Copies of all state, federal, and local agency scoping letters are included in Appendix F. By the end of June 1996, 26 written responses containing over 137 individual comments have been received. Issues identified in this correspondence are summarized in Section 4.4 of this document.

3.3 PUBLIC INVOLVEMENT TRACKING PROCESS

The Public Involvement and Information (PII) system developed for this project by Dames & Moore is designed to track correspondence to and from all interested parties, beginning with the scoping process and continuing through the development of the Final EIS.

Each individual comment received is assigned a unique comment identifier and keywords to describe the content of the comment. Comments received have been categorized by group affiliation: Federal agencies, industry, local agencies, media, native groups, NSB, private citizens, special interest, and State agencies. Each comment entered is linked to the author's group and personal citation in the mailing list (Appendix B). For example, each comment is assigned a group designation, a document number, and individual comment number. An individual comment, therefore, has a discrete designation, such as Group NG (native group), Document 015, Comment 003. The links in the PII system allow for all incoming and outgoing correspondence to be tracked for the duration of this EIS process and ensure that the comments will be addressed in the EIS.

4.0 ISSUES IDENTIFIED DURING SCOPING

4.1 SUMMARY OF ISSUES IDENTIFIED AT PUBLIC SCOPING MEETINGS

A total of 115 people signed the attendance sheets at the six community public scoping meetings. Issues identified at each of these public meetings are summarized in the following sections. Copies of the meeting transcripts are provided in Appendix G and copies of the sign-in sheets for the meetings are provided in Appendix H.

Comments related to the following topics are not within the scope of relevant issues:

- The purpose and need for revisions to state royalty payments received from the Northstar Unit.
- Development in the Arctic National Wildlife Refuge as opposed to offshore development in the Beaufort Sea.
- Alaska statehood rights.
- U.S. or Alaska constitutional rights.

4.1.1 Barrow Meeting

Twenty-two people signed in at the scoping meeting in Barrow on March 25, 1996 (Appendix H). Issues raised at the Barrow meeting included the following:

- Oil spill response concerns and spill response times,
- The desire for continued involvement in the EIS process,
- Issues regarding the potential for subsequent additional development within the Northstar Unit or adjacent areas,
- Potential noise impacts on whales and incorporation of noise reduction measures into project designs,
- · Potential ice effects on the integrity of the proposed gravel island and subsea pipelines,
- Consideration of comments on EIS,
- The strong desire to integrate local traditional knowledge into the EIS,
- A variety of subsistence harvest concerns,
- Potential for use of community impact funds,
- Need for protection of archeological sites,
- Compliance with federal regulations, and
- Adequacy of technical information.

4.1.2 Kaktovik Meeting

Fourteen people signed in at the scoping meeting in Kaktovik on March 26, 1996 (Appendix H). Issues of concern raised at the Kaktovik meeting included the following:

- Oil spill effects on migrating marine mammals and waterfowl, and on lower food chain,
- Oil spill cleanup technology concerns in ice and broken ice conditions,
- Community opposed to offshore production until spill cleanup technology is proven,
- The strong desire to incorporate traditional knowledge into the EIS process,
- Potential effects on local fish populations,
- Potential effects of noise on marine mammal populations/distribution.
- Potential effects of oil spills on subsistence lifestyle,
- Potential for future development,
- · Impacts from pipeline construction and placement of backfill,
- The integrity of buried pipelines,
- Concern over facility characteristics, specifically lighting, flaring, and color,
- Noise from resupply vessels and effects on whales, and
- The need for community impact funds and their distribution.

4.1.3 Fairbanks Meeting

Fourteen people signed in at the scoping meeting in Fairbanks on March 28, 1996 (Appendix H). Issues raised at the Fairbanks meeting include the following:

- Potential pipeline construction and corrosion concerns,
- Possible pipeline subsidence in permafrost areas,
- Potential for public access to the Arctic Ocean for recreational use,
- Transportation of personnel and supplies to and from island,
- Effects of wind and waves on the artificial island,
- Pipeline integrity related to ice scour,
- Multi-year ice and ice flow impacts on design,
- Effects of heat transfer from pipelines in permafrost areas, and
- Timing of drilling related to whaling season.

4.1.4 Valdez Meeting

Three people signed in at the scoping meeting in Valdez on April 2, 1996 (Appendix H). Issues raised at the Valdez meeting included the following:

- Pipeline route selection concerns,
- Cumulative effects from possible future development in the area,
- Maintenance of subsea pipelines, and
- Issues related to the future development of the field, including possible natural gas.

4.1.5 Anchorage Meeting

Twenty-eight people signed in at the scoping meeting in Anchorage on April 3, 1996 (Appendix H). Issues raised at the Anchorage meeting included the following:

- Possible development scenarios, including reinjection of natural gas and produced water,
- The integration of traditional knowledge into the EIS process.

4.1.6 Nuigsut Meeting

Thirty-four people signed in at the scoping meeting in Nuiqsut on May 7, 1996 (Appendix H). Issues raised at the Nuiqsut meeting included the following:

- Oil spill prevention and response concerns, particularly in ice-infested waters,
- · Potential impacts on whale migration, including noise issues,
- Protection of subsistence lifestyle and cultural survival,
- Possible assistance to whalers in emergency situations,
- Marine mammal disturbance/distribution,
- Local hire concerns and use of local companies,
- Impacts to fisheries and bottom dwelling species,
- The effects of currents and ice movement on island and pipeline integrity,
- · Possible air quality and health problems,
- Pipeline route selection concerns,
- · Limitations on drilling/noise during whaling season,
- The establishment/use of community impact funds,
- Waste disposal issues,

- Type of armoring of structure,
- · Access to hunting areas,
- Flaring and visual impacts,
- Consideration of comments on EIS, and
- Impacts of potential future development.

4.2 SUMMARY OF ISSUES IDENTIFIED BY STATE AGENCIES AND NSB

On April 1, 1996, the EIS project team met with State of Alaska agencies and NSB representatives. The purpose of the meeting was to receive comments on the issue of Beaufort Sea oil and gas development in general, and the proposed Northstar Project specifically. The representatives discussed a number of issues, and asked questions on topics important to the mission of their agencies. A copy of the sign-in sheet from the meeting is attached as Appendix I and a transcript of the agency scoping meeting is included in Appendix G. Individual agency concerns are summarized below.

4.2.1 Office of the Governor, Division of Governmental Coordination

The Division of Governmental Coordination stated that it is necessary to address the guidelines of the Coastal Development Standard of the Alaska Coastal Management program for siting facilities and operations in the EIS.

4.2.2 Department of Natural Resources, Division of Oil and Gas

The DOG stated that the EIS should not be a catchall for other possible Beaufort Sea development projects in the future, and that just the Northstar Project should be analyzed in this EIS.

4.2.3 Department of Environmental Conservation

Issues that the Department of Environmental Conservation (DEC) stated should be discussed in the EIS are listed below.

- Worst case analysis of under ice spills, related technical problems, potential impacts, and the likely outcome of a spill response, need to be addressed.
- The possibility of the requirement for a National Pollutant Discharge Elimination System (NPDES) permit should be addressed.

- Potential ice movement and overall pipeline integrity concerns.
- Underground injection of waste offshore and how it is different from underground injections onshore.
- Methods for pipeline maintenance and repair in the offshore area, (seasonal effects) and a discussion for valving pipelines needs to be discussed.
- The migration of offshore islands needs to be considered in pipeline routing decisions.

4.2.4 Department of Fish and Game

The issues the Department of Fish and Game (DFG) wanted addressed in the EIS focused on the overall effect of the production facility on the fish and wildlife habitat, as listed below.

- Aboveground pipeline effects on caribou post-calving and insect-relief movements.
- The issue of waterbird strikes against an aboveground pipeline through the near-shore areas.
- Human-polar bear interaction, particularly in the long-term, including the potential for bears to be killed in defense of life and property/human injury, etc.
- Habitat changes resulting in: increased seal use of the gravel island area, changing habitat for bears from water discharges potentially creating open leads, and the possibility that the rubble collar could provide a way for bears to access the offshore structure.
- The potential for development-related contaminants to be released to the environment.
- Determine what fish, wildlife, and marine resources used by the affected North Slope communities for subsistence purposes occur in, or adjacent to, the area. Assess how these resources, access to harvest areas, and seasonal harvest activities might be affected by the project, and what steps can be taken to avoid or mitigate potential impacts.
- Cumulative effects of the proposed project and the potential for other oil and gas activities in adjacent areas need to be evaluated.

- A monitoring program may need to be established to assess effectiveness of mitigation.
- The affected NSB communities should have a role in establishing effective mitigation measures based on their years of experience in dealing with oil and gas activities.

4.2.5 North Slope Borough

The NSB stated that it is very important that the EIS reflect a different treatment of traditional knowledge and address the following concerns/issues.

- Vessel traffic related to resupply alternatives and how they might affect seasonal subsistence activities.
- The impacts of oil spills on carcass feeding aggregations of polar bears should be addressed.
- Concerns about real and perceived risks of consumption of Native food sources following an oil spill should be addressed.

4.3 SUMMARY OF EPA TELECONFERENCE

On May 16, 1996, EPA (Seattle) held a teleconference with the EIS Team to provide scoping comments on the issue of Beaufort Sea oil and gas development in general, and the proposed Northstar Project specifically. The following is a summary the issues discussed which relate to what the EPA felt should be covered in the Draft EIS. A copy of the meeting transcript is included in Appendix F.

An ocean dumping permit may be required and a chemical evaluation of the material to be dumped may need to be done. This is a heads up that incorporating the ocean discharge criteria in work being done now will help accommodate all of EPA's needs at once. The NPDES process should track with the EIS process. If an Ocean Discharge Criteria Evaluation is required, it should be out with the Draft EIS. The endangered species consultation process should be coordinated with the issuance of an NPDES permit.

An air quality conference was requested by the Village of Nuiqsut because the community leaders believe that there have been increases in bronchitis, asthma, and other related problems. They believe they have been seeing more particulate matter related to the Kuparuk and Prudhoe

developments and would like better indications of possible health risks associated with the "haze" they see to the east.

The EPA asked about the status of cumulative impact analyses, which need to be clearly defined for each alternative.

There are some Class 1 Underground Injection Permit issues that need to be addressed before the EPA can issue the permit for disposal of waste fluids. These include a discussion of disposal options and related impacts if a permit is not eventually approved.

For air quality permitting, the EIS needs to include predominant wind patterns and sufficient data to complete an air quality analysis. Whether or not the project goes into Prevention of Significant Deterioration status may drive the level of detail necessary in the data collection, in particular for modeling analyses.

EPA concerns related to the potential onshore components of the project were brought up and include the following:

- A discussion of the use of existing pads, roads, and possibly West Dock, needs to be included in the Draft EIS,
- Constraints and opportunities for use of onshore structures and facilities need to be identified,
- An analysis of the location of gravel for a potential gravel island needs to be included, and
- Impacts to caribou movement along the coastline from potential pipeline locations also need to be discussed.

4.4 SUMMARY OF ALL COMMENTS RECEIVED DURING SCOPING

This section contains a summary of oral and written comments received from the public and federal agencies during the scoping period.

Air quality and its impact on health needs to be analyzed.

- Offshore waste injection needs to be evaluated, and how it may differ from onshore injection described.
- The Coastal Standard of the Alaska Coastal Management Program needs to be integrated into the EIS, and all pertinent issues addressed. There may be a need for a permit (NPDES) from EPA for discharges into navigable waters.
- The EIS should address the possibility of provision of community impact funds.
- There is the general concern that approval of this development will increase the likelihood of further offshore oil and gas development in the Alaskan Beaufort Sea.
- The EIS should not be a catchall for all other possible projects in the Alaskan Beaufort Sea in the future, although there was also concern that a focused EIS would not consider a full range of alternatives.
- The EIS should describe the differences between exploration and production activities.
- The EIS needs to consider cumulative effects of a number of offshore developments, all planned individually for the least cost. How cumulative effects of this potential and future potential developments will be evaluated needs to be addressed.
- There is concern that a warm pipeline may have some effects on sea floor freezing and thawing. The thawing of the transition zone between permafrost and thawed ground may be a problem for pipeline integrity.
- Ice dynamics need to be analyzed and considered. Heavy multi-year ice needs to be understood and used as a design consideration.
- There needs to be forethought on prevention and avoidance of negative whaler/industry interaction. Guidelines should be established early in the project to prevent potential conflicts. In addition, there may need to be temporary work stoppages to allow for whale hunting and to minimize disruption during offshore subsistence hunts.
- Information on the long-term (continuous) versus short-term disturbance of bowheads should be evaluated.

- Impacts on whale migration and possible deflection from the proposed island should be evaluated. Advance planning may be necessary for reducing noise during the fall whale migration.
- Oil spill impacts on polar bears from eating oiled carcasses should be evaluated.
- Determine impacts to resident seals, since there is the potential to create habitat which could result in increased seal use of the area.
- Assess comanagement of marine mammals as a way of working with indigenous people
 of the North Slope; this could be a method for incorporation of traditional knowledge into
 the EIS process.
- Human/polar bear interactions, particularly related to attraction to human activity resulting in bears being killed in defense of life and human injury, as well as construction effects on denning bears, should be addressed.
- Creation of an artificial lead from warm water discharge may attract bears, which can also increase the potential for bears to gain access to contaminants on the island.
- Noise, including helicopters, from the proposed development may impact the migration route of the bowhead whale. The EIS should describe how noise reduction will be achieved.
- An oil spill will not only affect marine mammals in the nearby habitat, but wind and currents will spread the oil to outlying areas. Information on spill planning needs to include a seasonal discussion of sensitive species and habitat. Impacts of oil spills to the subsistence lifestyle need to be discussed.
- Spill planning for a pipeline break is necessary prior to development, and spill cleanup equipment needs to be in place prior to start of drilling.
- Lessons learned from the *Exxon Valdez* spill related to oil spill impacts to marine mammals need to be addressed in the EIS.
- Include local people in oil spill response planning activities.

- Numerous questions were raised about the oil industry's ability to prevent oil spills, and
 to clean up spilled oil in the Arctic, particularly in broken ice. Cleanup technology needs
 to be demonstrated to work in ice-infested waters. A critical assessment of available
 technology for prevention and cleanup under both open water and ice conditions needs to
 be included.
- The response time for repairing a break in the subsea pipelines needs to be presented, and there needs to be consideration of the different alternatives in spill scenario discussions.
- Birds fly through the North Slope area from all over the world, and impacts of an oil spill on migrants need to be discussed.
- There is a lot of existing data from aerial, acoustical, and visual surveys, some of which need further analysis. There were questions regarding the adequacy of existing technical information.
- There were concerns about pipeline integrity issues, since there are some technical aspects of the project which have never been implemented in the Beaufort Sea.
- Concerns were raised about the type of armor planned for the proposed island, and which type would work best.
- Wave and storm tide height at the site need to be taken into consideration for design of the offshore structure.
- Corrosion of the pipeline is a concern, particularly as it relates to the life and integrity of the pipeline. Valving of the pipeline also needs to be addressed.
- Questions were raised regarding the ability of the pipeline to withstand shifting ice, and the need for emergency plans for repairing the proposed pipeline if damages occur due to gouging or corrosion. This response issue should be discussed on a seasonal basis.
- Concerns also expressed regarding potential ice movement and overall pipeline integrity.
- Other pipeline issues included the methods for pipeline maintenance and repairs and the need to consider migration of offshore islands during pipeline routing decisions.

- Onshore pipeline routing concerns related to caribou post-calving and insect relief need to be addressed.
- Onshore pipeline routing should avoid lakes and high value wetland areas when possible.
- Impacts to bird populations due to strikes on an aboveground pipeline through the nearshore areas also need to be analyzed.
- Use of local companies for construction, etc., should be addressed.
- Local hire issues need to be addressed in the EIS.
- The EIS should identify steps that can be taken to avoid or mitigate potential impacts to subsistence resources and access thereto.
- The EIS should assess possible indirect/direct effects of proposed actions on endangered species and marine mammals. The EIS should identify and assess:
 - How Alaska Natives might be affected by production-related changes in marine mammal distribution, movements, and abundance, and exposure to contaminants through consumption of contaminated marine mammals.
 - Cumulative effects of human activities throughout the ranges of potentially affected species.
- The EIS should address the possibility that contaminants could enter the food web at low trophic levels, be bioconcentrated, and consumed by Alaska Natives.
- The EIS should include assessments of both direct and indirect effects and should consider other possible sources of disturbance and habitat degradation that may result from human activities throughout the ranges of potentially affected species.
- The EIS should describe monitoring programs to verify there are no non-negligible, longterm effects, if there are uncertainties concerning the long-term effects or marine mammals or their habitat.

- There are concerns about maintaining long-term access to hunting areas and risks related to food supply following an oil spill.
- The importance of subsistence harvests, particularly marine mammals, to the communities of Kaktovik, Nuiqsut, and Barrow needs to be discussed. The EIS should describe fish, wildlife, and marine resources used by affected North Slope communities for subsistence, and how these resources might be affected by the project.
- The Inupiat people need to be consulted regarding subsistence resources, and their information needs to be integrated into the EIS. This should include accessing the whaling captains as a source of information as well.
- Traditional ecological knowledge of elders and whaling captains will be an important source of information in the EIS, and should be incorporated. Traditional knowledge should be an integral part of the EIS decision-making process.
- There are periods of the year when surface transportation offshore will not be possible. Alternate modes of access need to be analyzed. The EIS should discuss transportation during freeze-up and break-up.
- There needs to be a discussion of the alternatives for resupply of the island and how they might affect seasonal subsistence activities.
- Planning needs to occur to lessen the impact to public access to the shore of the Arctic Ocean.
- Vessel traffic during operations and impacts to subsistence need to be evaluated.
- Known archeological sites need to be protected.
- Monitoring programs may need to be established to assess the effectiveness of mitigation measures.
- The affected communities should have a role in establishing effective mitigation measures, based on their years of experience in dealing with oil and gas activities.

- The EIS Section 7 consultation process should include the level of detail necessary for the EPA and MMS to complete their permits.
- The rehabilitation of the island, and the re-establishment of the near-shore ecosystem after production ends should be discussed.
- Cover restoration and rehabilitation of fisheries, marine mammals, and habitat and include it in the analysis of cumulative impacts and the alternatives.
- The EIS should identify and describe actions that will be taken to ensure compliance with the relevant provisions of the Marine Mammal Protection Act and the Endangered Species Act.
- Endangered species at risk from oil tankers moving from Valdez along the southern transportation route to points in southern California need to be analyzed.
- The EIS should focus on the Northstar project only and not cover all other possible Beaufort Sea development projects in the future.
- People weren't satisfied with how their comments have been dealt with in past EIS reviews.

5.0 REFERENCES

Bass, R. and A. Herson. 1993. Mastering NEPA: A Step-by-Step Approach. Solano Press Books. Point Arena, CA.

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