



**Environmental Assessment
National Petroleum Reserve-Alaska**

**5-Year Winter Exploration Drilling/Well Testing Program
2008-2013**

**DOI-BLM-LLAK01000-2009-0004-EA
ConocoPhillips Alaska, Inc.**

Preparing Office: Arctic Field Office

Project Title/Type of Action: National Petroleum Reserve-Alaska (NPR-A)
5-Year Winter Exploration Drilling/Well Testing Program

Serial/Lease/Case File Number: AA081785, AA081779, FF092931

Land Use Plan: Leases: *Northeast National Petroleum Reserve-Alaska Integrated Activity Plan/Environmental Impact Statement (IAP/EIS) October 7, 1998*
ROW: *Northeast National Petroleum Reserve-Alaska Supplemental Integrated Activity Plan/Environmental Impact Statement (IAP/EIS) July 16, 2008*

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Date: December 17, 2008

Lands Involved:

Proposed access routes inside the NPR-A totaling approximately 27 miles of new Right-of-Way (ROW) to drill sites, storage sites, and water supply lakes. Two new proposed drill sites located within the Greater Moose's Tooth Unit, and temporary use of 26 new water supply lakes on federal land in the NPR-A.

TABLE OF CONTENTS

LIST OF ACRONYMS	4
1 INTRODUCTION	6
1.1 Background.....	7
1.2 Land Status.....	7
1.3 Purpose and Need for the Project.....	8
1.4 Public Involvement	8
1.5 Issue Identification and Decision to be Made.....	9
2. PROPOSED ACTION AND ALTERNATIVES	11
2.1 Description of the Proposed Action.....	11
2.1.1 Access and Construction.....	13
2.1.2 Water Use.....	14
2.1.3 Drilling Operations and Support	15
2.1.4 Waste Management.....	16
2.1.5 Contingency Plans.....	16
2.1.6 Abandonment and Restoration.....	16
2.2 No-Action Alternative	17
2.3 Conformance.....	17
3. AFFECTED ENVIRONMENT	18
3.1 Introduction.....	18
3.1.1 Water Resources	18
3.1.2 Fish.....	20
3.1.3 Subsistence.....	20
3.1.4 Floodplains and Wetlands.....	20
4 ENVIRONMENTAL IMPACTS.....	21
4.1 Direct and Indirect Effects	21
4.1.1 Water Resources	21
4.1.2 Fish.....	22
4.1.3 Subsistence.....	26
4.1.4 Floodplains and Wetlands.....	27
4.2 Cumulative Effects.....	28
4.2.1 Water Resources	28
4.2.2 Fish.....	29
4.2.3 Subsistence.....	29
4.2.4 Floodplains and Wetlands.....	29
4.3 Residual Impacts	30
4.4 Mitigation and Monitoring.....	31
4.5 Additional Mitigation and Monitoring.....	31
4.6 Summary of Environmental Consequences	33
5 CONSULTATION AND COORDINATION	34
5.1 Agency Coordination	34
5.2 Public Coordination	34
5.3 List of Preparers.....	34
6 REFERENCES	35

LIST OF TABLES

Legal Description of Two Proposed Drilling Pads (Umiat Meridian)..... 4
 Legal Descriptions of Proposed New Ice Road Corridors (All Umiat Meridian) 5
 Legal Descriptions of Proposed New Water Sources (All Umiat Meridian)..... 5

Table 1.1 Permits and Authorizations for Proposed Project in the NPR-A..... 6
 Table 1.2 Existing Permits and Regulatory Approvals..... 7
 Table 1. 3 Community Meetings Held in Relation to the Proposed Project Area. 8
 Table 1.4 Issues Considered in Evaluating Impacts 9
 Table 2.1 Staking and Field Inspection..... 11
 Table 2.2 Summary of Proposed Project. 11
 Table 2.3 Potential Vehicles Used during Ice Road and Pad Construction..... 13
 Table 2.4 Volumes per NPR-A Exploration Location..... 14
 Table 4.1. New Water Sources Requested for Exploration 24
 Table 4.2 Water Sources Currently Permitted by State that May Be Utilized for Exploration.... 25

LIST OF FIGURES

Figure 1. Location of proposed well pads and access routes. 12
 Figure 2. Permitted access corridors and past staked and drilled exploratory wells. 19

LIST OF ACRONYMS

ADEC.....	Alaska Department of Environmental Conservation
ADFG.....	Alaska Department of Fish and Game
ADNR.....	Alaska Department of Natural Resources
ANILCA.....	Alaska National Interest Land Conservation Act
AO.....	(BLM) Authorized Officer
BLM.....	Bureau of Land Management
CEQ.....	Council of Environmental Quality
CFR.....	Code of Federal Regulations
C-Plan.....	Oil Spill Discharge and Contingency Plan
EA.....	Environmental Assessment
EFH.....	Essential Fish Habitat
EIS.....	Environmental Impact Statement
EO.....	Executive Order
EPA.....	U.S. Environmental Protection Agency
ESA.....	Endangered Species Act
FLPMA.....	Federal Land Policy and Management Act of 1976
IAP.....	Integrated Activity Plan
LPV.....	Low-Pressure Vehicle
NE.....	Northeast
NEPA.....	National Environmental Policy Act
NHPA.....	National Historic Preservation Act
NPDES.....	National Pollutant Discharge Elimination System
NPR-A.....	National Petroleum Reserve – Alaska
NPRPA.....	Naval Petroleum Reserve Production Act
NSB.....	North Slope Borough
ODPCP.....	Oil Discharge Prevention and Contingency Plan
ROD.....	Record of Decision
ROP.....	Required Operating Procedure
ROW.....	Right of Way
SAP.....	Subsistence Advisory Panel
SPCC.....	Spill Prevention, Control, and Countermeasures
TWUP.....	Temporary Water Use Permit
USDOI.....	U.S. Department of Interior

Land Descriptions (BLM Managed Lands)

Legal Description of Two Proposed Drilling Pads (Umiat Meridian)

Well Name	Township	Range	Section
Grandview #1 East	09 North	01 East	5
Pioneer #1	09 North	03 East	7

Legal Descriptions of Proposed New Ice Road Corridors (All Umiat Meridian)

Township	Range	Sections
09 North	03 East	7-12, 14-18
09 North	02 East	8, 10-13
09 North	01 East	2-5

Legal Descriptions of Proposed New Water Sources (All Umiat Meridian)

Lake	Township	Range	Sections	New Sections to be permitted
M0802	09 North	03 East	1,12	1,12
M0802	09 North	04 East	6,7	n/a
M0804	09 North	02 East	1,12	1,12
M0804	09 North	03 East	6, 7	6
M0805	09 North	03 East	8, 9	8,9
M0806	09 North	03 East	16,17,20,21	16,17
M0807	09 North	03 East	17,18,20	17,18
M0808	09 North	03 East	18,19	18
M0809	09 North	02 East	11	n/a
M0016	09 North	01 East	3,4,9,10	3,4,9,10
M0810	09 North	01 East	11,12	11
R0059	09 North	01 East	9,10	9,10
R0060	09 North	01 East	10,11	10,11
R0067	09 North	01 East	11,12,13,14	11,14
L9811	10 North	4 East	17,18,19	17
L9816	10 North	3 East	13,14,23,24	n/a
M0420	10 North	3 East	25,36	n/a
M0420	10 North	4 East	31,31	n/a
M0702	10 North	4 East	19,30	n/a
M0703	10 North	4 East	30	n/a
M0704	10 North	4 East	31	n/a
M0704	9 North	4 East	6	n/a
M0705	9 North	4 East	4,5,8	4,8
M0706	9 North	4 East	7,8	8
M0707	9 North	4 East	8,9,17	8,9,17
M0708	9 North	4 East	20,21	20,21
M0709	9 North	3 East	36	36
M0709	9 North	4 East	31	n/a
M0710	9 North	3 East	11- 14	11-14
M0711	9 North	3 East	21,22,27	22
M0712	8 North	3 East	10,14	n/a
M0803	10 North	3 East	32,33	n/a
R0062	10 North	2 East	34	34

1 INTRODUCTION

ConocoPhillips Alaska, Inc. (CPAI) has applied for permits and/or posted notices to access and drill on valid oil and gas leases during a 5-year winter exploration program in the Northeast (NE) National Petroleum Reserve-Alaska (NPR-A). CPAI (the Applicant) has submitted permit applications to Federal and State agencies and the North Slope Borough (NSB), including the Bureau of Land Management (BLM) Right-of-Way (ROW) application (Table 1.1).

Table 1.1 Permits and Authorizations for Proposed Project in the NPR-A

<i>Federal Authorizations and Approvals</i>	
Bureau of Land Management (BLM)	Right-of-Way (ROW) Application for Permit to Drill and Surface Use Plan Threatened and Endangered Species Determination Essential Fish Habitat Assessment (EFH) ANILCA 810 Evaluation and Findings Archaeological and Cultural Resources Clearance Waste Management Plan Orientation Program
U.S. Fish and Wildlife Service (USFWS)	Letter of Authorization for Incidental Take of Polar Bear Concurrence on BLM Threatened and Endangered Species Determination
U.S. Environmental Protection Agency (EPA)	Spill Prevention, Control, and Countermeasures Plan (SPCC) (drilling/testing contractor)
<i>State Authorizations and Approvals</i>	
Alaska Oil and Gas Conservation Commission (AOGCC)	Authorization to Drill Well Sundries
Alaska Department of Environmental Conservation (ADEC)	Temporary Storage of Drilling Wastes Air Quality Minor Source General Permit (MGP-1) Authorization for Temporary Storage of Drilling Waste Oil Discharge Prevention and Contingency Plan (ODPCP) Certificate of Financial Responsibility
Alaska Department of Natural Resources (ADNR)	Temporary Water Use Permits Coastal Consistency Review & Determination
Alaska Department of Fish and Game (ADFG)	Fish Habitat Permits
<i>Local North Slope Borough (NSB) Authorizations and Approvals</i>	
North Slope Borough (NSB)	Development Permits (for related elements) Administrative Approval

Additionally, several existing permits apply to the proposed CPAI project (Table 1.2). These permits were applied for and received in conjunction with past projects in the same general area as the current proposed project.

Table 1.2 Existing Permits and Regulatory Approvals

Approval Type	Approval #	Issue Date	Expiration Date
Air Quality Minor General Permit	MPG1	TBD	TBD
Temporary Water Use Permits	TWUP A2006-48	6/15/2006	6/14/2011
	TWUP A2007-118	12/20/2007	12/19/2012
	TWUP A2007-119	12/20/2007	12/19/2012
	TWUP A2007-120	12/20/2007	12/19/2012
	TWUP A2008-87	3/25/2008	3/24/2013
BLM ROW Approval	FF092931	11/2007	11/2012
EPA NPDES Wastewater Discharge	AKG-33-000	n/a	Open

1.1 BACKGROUND

This Environmental Assessment (EA) has been prepared to meet requirements of the National Environmental Policy Act (NEPA), evaluate conformance with the relevant Integrated Activity Plan (IAP) and associated Environmental Impact Statements (EIS), and to support U.S. Department of Interior (USDOI) BLM decision-making on issuing permits required to construct and implement the proposed project. This EA is tiered to the NE NPR-A IAP/EIS (USDOI BLM 1998a), NE NPR-A IAP/EIS Record of Decision (ROD) (USDOI BLM 1998b), NE NPR-A Supplemental IAP/EIS (USDOI BLM 2008a) and the NE Supplemental ROD (USDOI BLM 2008b). The scope of this EA includes analysis of the effects of the proposed exploration activity and alternatives.

This EA is the most recent in a series of NEPA documents prepared by the BLM in evaluating potential and proposed oil exploration and development in the NPR-A (see USDOI BLM 2008a, Vol. 5, Bibliography). This EA incorporates relevant portions of these documents, as described in more detail in this analysis.

1.2 LAND STATUS

The proposed drill sites are located in the Greater Moose's Tooth Unit in the NPR-A held by CPAI, in part with Anadarko Petroleum Company, under BLM jurisdiction. Access to drilling areas and water supply lakes requires approximately 27 miles of new ROWs for drill site and lake access corridors, as well as continued use of ROWs previously authorized by the BLM. The proposed project lies wholly within the NPR-A, inside the boundaries of the NSB. Traditional land use sites (e.g., cabins and campsites) are avoided. The BLM does not authorize use of

private property, and access across private lands requires authorization of the land owner. Within the NE Planning Area, the BLM has designated areas where special stipulations apply.

1.3 PURPOSE AND NEED FOR THE PROJECT

The purpose of the proposed project is to determine whether lease holdings contain economically recoverable oil and gas in a 5-year exploration drilling and well testing program. The project is needed to provide detailed information regarding potential reserves of oil and gas within the NPR-A. Revenues from production are needed to support local, state, and national economies.

CPAI is currently proposing to drill at two new sites in the NE NPR-A, with access via packed snow trail and ice road. The proposed exploration program is intended to span up to 5 winter drilling seasons, beginning in late 2008, with the drilling schedule contingent upon permitting, weather, ongoing data analysis, and funding.

1.4 PUBLIC INVOLVEMENT

Development of the NE Supplemental IAP/EIS (USDOI BLM 2008a) involved extensive input from Federal agencies, the State, the NSB, thousands of individuals, and many institutions. Project-specific permit applications (see Table 1.1) are available for public review prior to agency decision making. CPAI has also posted their permit applications on the internet (available at: www.conocophillipsalaska.com/permits) to provide additional opportunities for public input and involvement.

A number of meetings and consultations have been held in Nuiqsut, Barrow, Anaktuvuk Pass, Atqasuk, Point Lay and Wainwright by both the applicant and the BLM in order to discuss the current proposed activity by CPAI. The Applicant has held community meetings in Atqasuk, Nuiqsut, Anaktuvuk Pass, Barrow, and Wainwright (Table 1.3). The applicant has also submitted a Subsistence Plan to the BLM that details the strategy to be employed by CPAI in order to ensure ongoing opportunities for local public involvement as the project proceeds.

Table 1. 3 Community Meetings Held in Relation to the Proposed Project Area.

Meeting Date	Location	Event
April 2, 2008	Fairbanks	Subsistence Advisory Panel Meeting
October 6, 2008	Anchorage	Pre-Application Meeting
October 8, 2008	Anaktuvuk Pass	Community Meeting
October 9, 2008	Atqasuk	Community Meeting
October 28, 2008	Nuiqsut	Community Meeting & Kuukpik Subsistence Oversight Panel
October 30, 2008	Barrow	NSB Planning Commission
November 11, 2008	Wainwright	Community Meeting
December 4, 2008	Barrow	Subsistence Advisory Panel Meeting

1.5 ISSUE IDENTIFICATION AND DECISION TO BE MADE

This EA will provide the information necessary to evaluate the impacts associated with the Proposed Action and No Action alternatives, and to consider any additional alternatives. The decision-maker will take into account technical, economic, environmental, and social issues (Table 1.4) and the purpose and need of the proposed project. The BLM NEPA analysis will evaluate whether the proposed project should be approved, rejected, or modified, and if additional mitigation is needed. This EA will be based on findings, management controls and protective measures of the two applicable NE NPR-A RODs (USDOI BLM 1998b, 2008b), as well as other laws and regulations. The scope of this EA includes analysis which enables BLM to select among alternatives that meet the purpose and need, and are within the BLM's jurisdiction [40 CFR 1506.1(a) (2)].

BLM resource specialists have identified the following issues for further evaluation in this EA: (1) water resources, (2) fish, (3) subsistence, (4) floodplains and wetlands.

Table 1.4 Issues Considered in Evaluating Impacts

Issue Considered	Determination	Basis of Determination
Air Quality	NI	Air quality impacts likely to remain below applicable ambient air quality standards and increments. Protection provided by: ADEC air permit; 40 CFR 2020(c)(2), and NE ROP A-9
Cultural and Paleontological Resources	NI	Archaeological and Cultural Resources Clearance by BLM required under the NHPA. Cultural resources survey was completed. Cultural resources expected to remain unaffected based on location; no impacts to paleontological resources expected, based on identified locations and <i>de minimus</i> surface disturbance. Protection provided by NE ROP C-2, E-13, and I-1.
Subsistence	PA	Large game could be deflected from areas of activity, but effects are expected to be short-term and minor. ANILCA 810 Evaluation and Findings by BLM required. Additional protection provided by: NE Stipulations 27, 28 and 67 (1998 ROD); NE ROPs A-1- A-7, A-11, B-1, B-2, C-4, F-1, H-1, H-2, and I-1 [See Note 2.]
Environmental Justice	NI	No disproportionately high and adverse human health or environmental effects to Nuiqsut residents has been identified for the proposed project. Impacts to subsistence use are not expected to be more than minor and short term. Protection provided by NE Stipulations 27, 28 and 67; NE ROPs A-1 – A-7, B-1, B-2, F-1, H-1, H-2, and I-1. EO 12897 [See Subsistence]
Waste (Hazardous/Solid)	NI	Protection provided by ADEC waste storage permit and the Conoco Waste Management Plan Protection provided by required C-Plans and SPCC Plans, and BLM-required Orientation and Subsistence Protection Plans. Other protections provided by NE ROPS A-1 – A-7.
Water Resources	PA	Applicants request to exceed the Requirement/Standard of Required Operating Procedure (ROP) B-2. Construction of ice roads/pads, with some thickened to accommodate topography; some pads thickened and insulated for over-summer storage. Water Quality protected by frozen, snow-covered water bodies as well as USCOE, EPA, ADEC, ADFG and ADNR required permits. Other protections provided by: NE Stipulation 28, ROPs A-1 – A-7, B-1, B-2, C2 – C-4, I-1.

Issue Considered	Determination	Basis of Determination
Floodplains & Wetlands	PA	New heavy traffic patterns on cross-country snow roads possible. Impact evaluation required under EO 11990 and EO11988. Additional protection provided by NE Stipulation 27 and 67 (1998 ROD), and ROPs A-3 – A-7, B-2, C-2 –C-4, I-1;
Wildlife, Mammals	NI	Caribou, grizzly bear, polar bear, and small mammals (weasel, rodents, and shrews) may inhabit the area. No impacts expected other than those already covered in NE NPRA Final Supplemental IAP/EIS. Protection provided in that document by NE ROPs A-2 – A-6, A-8, C-1, E-9, F-1, I-1.
Wildlife, Birds	NI	Snowy owls, gyrfalcons, raven and ptarmigan may inhabit the area during the operations period. No impacts expected other than those already covered in NE NPRA Final Supplemental IAP/EIS. Protection provided in that document by NE ROPs A-2 – A-6, E-9 and I-1.
Threatened & Endangered Species	NI	Species included in this section are Steller’s eider, spectacled eider and polar bear ³ , all of which are listed as Threatened under the Endangered Species Act. No impacts expected other than those already covered in NE NPRA Final Supplemental IAP/EIS. Protections specific to these species are provided in that document by NE ROP C-1. USFWS concurred with the BLM ESA finding of <i>not likely to adversely affect</i> .
Fish	PA	Primary fish and fish habitat concerns are due to lake water use and ice road channel crossings. Applicants request to exceed ROP B-2. Protection provided by NE Stipulation 28; NE ROPs A-1 – A-6, B-1, B-2, and C-2 – C-4; additional mitigation and monitoring required by this EA (Section 4.4); and ADFG Division of Habitat required permits. EFH assessment finding is <i>not likely to adversely affect</i> .
Wildlife, Mammals	NI	Caribou, grizzly bear, polar bear ³ , and small mammals (weasel, rodents, and shrews) may inhabit the area. No impacts expected other than those already covered in NE NPRA Final Supplemental IAP/EIS. Protection provided in that document by NE ROPs A-2 – A-6, A-8, C-1, E-9, F-1, I-1.

Key to Table 1.4:

NI – Present, but not affected to a degree that further analysis is required.

PA – Present, with potential for impacts requiring further analysis.

Notes, Table 1.2:

¹ Determination tiered from: 2008 NE IAP/EIS Vol. 2, Chap. 4; 2008 NE ROD; and laws and regulations as noted.

² Under the required Subsistence Plan, the Applicant will hire subsistence advisors (SAs) who will be familiar with local subsistence activities and will be on-site at all times. SAs will monitor ongoing activities and identify issues that have the potential to impact subsistence.

³ The polar bear has recently been added to the Threatened and Endangered Species list. No federally designated Critical Habitat exists within or adjacent to the planning area. The Endangered Species Act Consultation is summarized in the 2008 NE ROD. The Biological Assessment prepared by the BLM and submitted to the USFWS found that the Preferred Alternative may affect, but was not likely to adversely affect, the polar bear. The USFWS concurred with BLM’s findings on the polar bear and issued its Biological Opinion (BO) for the northern planning areas (2008 NE ROD, p. 2). The BO included Reasonable and Prudent Measures that are implemented through non-discretionary Terms and Conditions. In the NE Planning Area, ROP C-1b specifically provides protection for polar bear denning. There are no polar bear den sites and sightings reported in or near federal lands associated with the project (2008 NE IAP/EIS, Vol. 6, Map 3-29). The BLM has made a Threatened and Endangered Species “No Effect Determination” for this project.

2. PROPOSED ACTION AND ALTERNATIVES

The proposed project includes exploration drilling at 2 sites during a 5-year winter program in the NE NPR-A. The proposed exploration program will begin in winter 2008-2009, with the drilling schedule contingent upon permitting, weather, ongoing data analysis, and funding. Table 2.1 documents the Notices of Staking (NOSs) dates and field inspections, as required for BLM approval of the CPAI surface use plan. Access routes have been identified and field examined. Locations of the drill sites and local access routes are depicted on Figure 1.

Table 2.1 Staking and Field Inspection

Drill Site	Notice of Staking date	Field Inspection date
Grandview #1 East	10/1/2008	8/22/2008
Pioneer #1	10/1/2008	8/22/2008

2.1 DESCRIPTION OF THE PROPOSED ACTION

The proposed project is described below, with main project components summarized in Table 2.2. The proposed project is similar to exploration programs completed in the NPR-A during the past nine winter seasons. Details are provided in the Applicant's Plan of Operations, submitted to multiple agencies including the BLM, Alaska Department of Natural Resources (ADNR), and the NSB. All lands encompassed by the Grandview #1 East and Pioneer #1 prospects are within the Greater Moose's Tooth Operating Unit. All lands in the requested ROW application cover leases held either in part or whole by CPAI. Additional analysis on the effects of winter operations and access on NPR-A resources and uses is detailed in the NE NPR-A IAP/EIS (USDOI BLM 2008a, Volume 2, Chapter 4.2).

Table 2.2 Summary of Proposed Project.

Project Component	Program Total
Ice Drill Pads and Wells	Up to two drill pads each approximately 500 ft × 500 ft (approximately 7.4 acres). Multiple wells may be drilled from a single pad.
Construction/ drilling support ice pads	A 300 ft × 300 ft (approximately 2.1 acres) staging area/remote camp pad will be constructed near each well (approximately 60 people, 40 people at testing sites) and small camps of 30 people for testing
Access	Approximately 27 miles of new access corridor, (up to approximately 63.3 acres) including access to lakes not previously approved, along with previously approved ROWs to drill pads and water supply lakes.
Water requirement	Approximately 20 million gallons per drill site for the two project sites. Total of 52.45MG for the entire project.

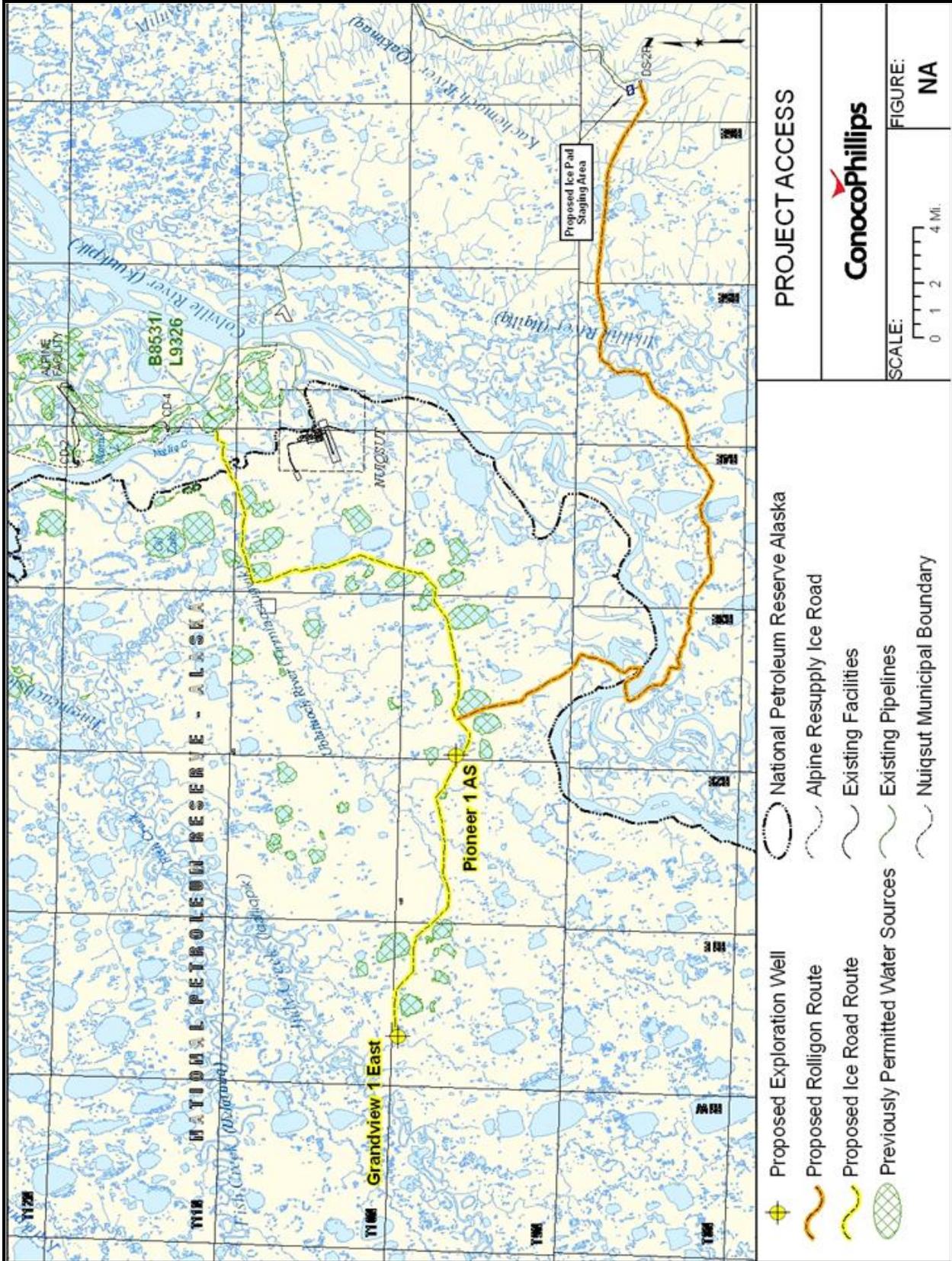


Figure 1. Location of proposed well pads and access routes.

2.1.1 Access and Construction

The proposed schedule calls for mobilization and ice pad and road construction to begin in December 2008 or January 2009 with drilling expected to begin in February 2009. CPAI proposes to drill the Grandview #1 East well first with anticipated operations occurring between 21 February and 18 March of 2009. Upon completion they plan to proceed to the Pioneer #1 well site. The drill sites are located approximately 12 miles southwest of Nuiqsut (see Figure 1). Approval to drill at either of the proposed sites or to re-enter a well during any winter season throughout the 5-year period was requested to accommodate changes in drilling strategy and funding priorities as new data become available.

Primary access will be by winter snow trail and ice roads. A snow trail starting from Kuparuk, crossing the Colville River at, or near, Ocean Point and accessing drill site locations in the NPR-A is authorized by existing local, state, and federal permits. The main ice road system begins near Kuparuk drill pad 2L, and extends along the Alpine pipeline westward into NPR-A. The ice road system will be authorized by local, state, and federal permits.

Rolligon units and/or other vehicles will be used to transport equipment and personnel to construct ice pads and roads associated with a particular year's winter exploration program at the sites (Table 2.3). Rolligons and/or ATVs maybe used to pre-pack the ice road or side cast water on the ice road route to expedite the penetration of frost. Ice roads will generally be 25-35 feet wide and 6-inches thick. Depending on drilling rig and vehicle requirements the ice roads may be smaller. Rig mats or other similar items may be used on or in the construction of ice roads at selected locations as necessitated by field conditions encountered during ice road construction or during equipment movement. Such devices will be removed prior to the end of the operating season each year.

Table 2.3 Potential Vehicles Used during Ice Road and Pad Construction.

Up to 6 Vac trucks	Up to 3 super suckers	Up to 2 winch trucks
Up to 2 bed trucks	Up to 15 pick-up trucks	Up to 2 diesel tankers or fuelers
1 potable water truck	1 grey water truck	Up to 2 loaders
Up to 6 light plants	Up to 6 portable heaters	1 crew change-out bus
1 crane	1 snow melter	2 Rolligons

The access route will be within an approximately 0.5-mile corridor along the alignment depicted on Figure 1. This flexibility is needed to accommodate minor rerouting due to field conditions, animal dens, changes in creek crossing characteristics, or other field conditions. CPAI proposes a total of approximately 27 miles of potential new access corridor with spurs to permitted lakes, off of their existing approved route. Ice road maintenance would involve practices that protect the tundra and support safe operations (USDOI BLM 2008a).

A remote camp and staging area pad may be built at a location near Lakes MO806, M0807, or MO808 (Figure 1) to facilitate the construction activities of the snow road and ice pad, and provide support during drilling operations. The pad will be approximately 300 ft × 300 ft.

2.1.2 Water Use

The freshwater requirements for constructing the project features (ice road/pads construction, maintenance, drilling operations, and camp use) are approximately 52.45 MG (Table 2.4). CPAI plans to utilize water from previously approved lakes and new proposed lakes for this exploration program. CPAI has also requested approval to harvest ice aggregate from lakes. A total of 34 lakes will be used as water sources (see Tables 4.1 and 4.2 for more detail).

Potable water will be hauled from an ADEC approved source or local lake water and will be processed through the drilling contractor's ADEC approved water purification system. Potential potable water sources will be analyzed to ensure drinking water standards are met before water is introduced into the camp's potable water treatment system.

Water and ice chips for road and pad construction will be pumped from permitted lakes and transported by trucks. Lakes will be accessed via snow trail or ice road spurs from the main winter trail using the most direct route possible. Signs will be placed at lake access points to identify each permitted lake that is being actively used. All water intake hoses will have screens at the intake points to prevent entrapment of fish, regardless of whether the lake has been identified as fish-bearing. CPAI plans to work with ADFG to ensure that screen designs comply with state requirements including 0.5 feet per second or less intake velocity, and screen mesh no greater than ¼ inch.

Table 2.4 Volumes per NPR-A Exploration Location

Construction	Gallons/Day	Grandview #1 East Total Gallons	Pioneer #1 Total Gallons
Snow/Ice Road	1,000,000	~12 miles = 12,000,000	~22 miles = 22,000,000
One Ice Lay Down Pad	200,000	1,000,000	1,000,000
One Ice Drill Pad	500,000	5,000,000	5,000,000
Total Construction		18,000,000	28,000,000
Operating (30 day est.)	Gallons/Day	Grandview #1 East Total Gallons	Pioneer #1 Total Gallons
Road & Pad Maintenance	80,000	2,400,000	2,400,000
Rig Use	20,000	600,000	600,000
Camp Use	7,500	225,000	225,000
Operating Total		3,225,000	3,225,000
Total Estimate		21,225,000	31,225,000
Grand Total:			52,450,000

2.1.3 Drilling Operations and Support

CPAI proposes to drill one or more wells during the 2008/2009 season. All wells drilled this season will be drilled using the Doyon 141 drill rig. The planned well design will be similar to that employed in previous North Slope exploration wells and in accordance with a Permit to Drill from the BLM and the Alaska Oil and Gas Conservation Commission (AOGCC). Due to the exploratory nature of the wells, nearly all information regarding the downhole aspects of the wells are confidential. The drilling program will include one or more reservoir penetrations and one ice drill pad at the drilling location.

Production tests would be performed as needed after production casing is set. Testing would occur once the drilling rig has moved on to its next location and may include extended flow periods to determine the productivity of the well.

CPAI may erect a communications tower on either of the drill pads and on the mid-camp pad, all of which are within the NPR-A. The tower locations will be determined by the actual rig locations in the NPR-A, proximity to existing communications stations, and other similar factors. Typically the tower would be in a corner away from the well head and near camp. These towers, which are about 70 feet tall, will be anchored with guy wires attached to concrete deadmen with dimensions of approximately 4 ft x 4 ft x 4 ft. Depending on the actual site configurations, deadmen may be placed on small ice pads (e.g. about 5 ft x 5 ft) located just off the edge of the drilling pad. The towers will be removed at the end of the season.

All equipment necessary for drilling and formation evaluation (except for possibly vibroseis units for vertical seismic profiling) will stay on the ice pads throughout the operating period. The drilling pad will include the drilling rig, rig camp buildings, warm and cold storage areas, maintenance buildings, and other equipment necessary to conduct the operations. The camp facilities will have the capability to accommodate a maximum of 70 people. Additionally, small camps (house up to 30 people) may be utilized on well sites where well testing operations are conducted with the drilling rig off site.

Light plants will be placed on frozen lakes at the water houses and road intersections for safety purposes. Light plants are portable units about the size of a small generator unit with a stand of lights about 10 feet into the air. The light plants will be refueled on the frozen lakes following CPAI's standard procedures for fuel transfers. All light plants will have 110% containment.

Up to 75,000 gallons of diesel fuel and up to 317,000 gallons of crude oil (for wells that are tested) will be stored at each well site in lined, bermed fuel storage areas. All fuel transfers will follow best management practices associated with pollution prevention, and will be conducted in accordance with CPAI's Flammable and Combustible Fluid Transfer Policy. A spill technician with Alaska Clean Seas will be on site at each drilling location.

Vertical Seismic Profiles (VSPs) may be acquired using vibroseis trucks. These trucks are off-road vehicles approved for tundra travel. The operation typically requires the vibroseis units to move along a line starting at the well bore and stop at varying distances from the well out to a total distance dependent on the depth of the well and the magnitude of any deviation of the well.

The VSP's would use 2 trucks to lay out for approximately 15 days. The vibroseis units would probably remain on the snow/ice roads or pad. If the trucks do leave a pad, all VSP lines will lie within a 2-mile radius of the snow/ice roads or pad.

2.1.4 Waste Management

Wastes will be handled according to the comprehensive waste management plan required by the BLM under NE NPR-A IAP/EIS ROP A-2, as summarized below.

Water-based drilling muds will be used which includes used to maintain desired drilling fluid properties and density. Excess drilling mud that cannot be reused would be transported to an approved Class II injection well in the Alpine, Kuparuk, or Prudhoe Bay fields, injected down the well, or potentially disposed of down an AOGCC approved annulus by annular injection. An average of 20,000 gpd of waste liquid from the well may require disposal, although all efforts to minimize this amount will be undertaken.

Solid, non-burnable waste will be deposited in large dumpsters or other suitable containers located at each site. These containers will be back-hauled to the NSB landfill at Prudhoe Bay or taken to the Kuparuk. The food waste that could attract wildlife either will be stored in enclosed conex containers pending periodic hauling or will be hauled each day to a secured disposal site.

Camp wastewater will be processed either through the drilling contractor's wastewater treatment system and discharged in accordance with Arctic General Permit No. AKG-33-0000, or hauled to an approved disposal facility at Alpine or Kuparuk. All treatment systems used will meet the ADEC requirements. The rig camp could generate about 6,500 pgd of domestic wastewater.

After testing, the oil will be either injected back into the formation from which it was produced or hauled to Alpine or Kuparuk and processed through their facilities. Produced gas will be flared.

2.1.5 Contingency Plans

CPAI will have a number of contingency plans in place. These include an Oil Discharge Prevention and Contingency Plan (C-Plan), an oil spill and hazardous materials Spill Prevention Control and Countermeasures (SPCC) Plan, and a Bear Interaction Plan.

CPAI has an approved spill control package and oil discharge prevention and contingency plan (ODPCP) will be kept on site at all times for use in controlling and cleaning up any accidental discharges of fuels, lubricants, or produced fluids. CPAI is requesting a minor amendment to the "North Slope Exploration ODPCP" for the NPR-A exploration locations.

2.1.6 Abandonment and Restoration

Upon completion of drilling and evaluation operations, all debris will be hauled to an approved disposal site. The ice pads will be chipped or scraped to pick up any spills and the scrapings will be hauled to an approved disposal well. The NPR-A exploration well will be plugged and

abandoned or temporarily/operationally suspended, pending further evaluation. Any well abandonment or suspension plans will be in accordance with applicable BLM and AOGCC regulations, and will be approved prior to enactment. Final site closure will be approved by appropriate agencies.

2.2 NO-ACTION ALTERNATIVE

With the No-action alternative, exploratory drilling under existing, valid oil and gas leases would not be allowed as proposed. Permit applications to the BLM would be denied, and no access of 27 new miles of ice road construction, no ice drill pads, no use of up to 52.45 MG of water (project total) from 34 water supply lakes, no drilling of up to two exploratory wells, or drilling support activities on Federal Lands in the NE NPR-A would be allowed. While this alternative is contrary to the current Administration's policy and lease rights, analysis is required by NEPA.

2.3 CONFORMANCE

The proposed action is in conformance with the NE IAP/EISs (USDOI BLM 1998a, 2008a) and associated RODs (USDOI BLM 1998b, 2008b), National Petroleum Reserve Product Act (NPRPA), Federal Land Policy Management Act (FLPMA), Alaska National Interest Lands Conservation Act (ANILCA), Endangered Species Act, Executive Order (EO) 11988, EO 11990, and terms of the federal leases.

In the NE NPR-A IAP/EISs (USDOI BLM 1998a, 2008a), the BLM evaluated the direct, indirect, and cumulative effects of winter exploration in the NPR-A. This analysis concluded that the stipulations and ROPs provided adequate protection for surface resources and subsistence activities in the planning area. In the associated RODs (USDOI BLM 1998b, 2008b), several changes were made to those protective measures to address new data, new regulations, and new public concerns.

As part of the most recent analysis, the BLM considered site-specific evaluations of exploration programs in the NE Planning area over the past 9 years, all of which received a Finding of No Significant Impact by the BLM. Findings for these winter exploration programs included analysis of Threatened and Endangered Species, Essential Fish Habitat (EFH) and Subsistence Use under ANILCA 810, as well as coordination with the State Historic Preservation Office. In addition to BLM permits, other required Federal, State, and local authorizations were issued.

The proposed project involves conventional methods and procedures for exploration on the North Slope in general, including the NE NPR-A. Except as noted below, the proposed action has incorporated all of these protective measures. As provided for in the NE RODs (USDOI BLM 1998b, 2008b), the applicant has asked for:

1. A deviation from standard water withdrawal limits.
2. Deferred timing of some community involvement requirements. The applicant has asked to extend the time frame for meeting with all affected communities and the NPR-A Subsistence Advisory Panel. The BLM has approved this delay, and no further discussion in this EA is needed.

3. AFFECTED ENVIRONMENT

Previous federal exploration in the NPR-A has taken place in the general area of the proposed action. The relation of the project area to previously-drilled exploratory wells and permitted access corridors in the project area is shown in Figure 2.

3.1 INTRODUCTION

Environmental characteristics of the general project area have been extensively described in the NE NPR-A IAP/EIS (USDOI BLM 2008a, Vol. 1, Chapter 3), to which this analysis is tiered, with some site-specific features described below. Proposed activities will take place on the Arctic Coastal Plain, where temperatures average below freezing for 8 months of the year. A dramatic change to higher temperatures and longer day length occurs during the other 4 months. Annual precipitation is low, averaging 8 inches per year, with more than half falling as snow. Snow cover is typically established in late September/October and disappears late May/mid-June. North Slope air quality meets the National Ambient Air Quality Standards and State of Alaska air quality regulations. Concentrations of regulated air pollutants are far less than the maximum allowable levels (USDOI BLM 1998, Vol.1, p.III-A-53; USDOI BLM 2003, Vol.1, p.III-43).

The topography of the project area is generally flat to gently rolling, dominated by permafrost-related geomorphic features including polygonal patterned ground, shallow lakes, and extensive areas of wetland interlaced with small, meandering streams. Permafrost ranges from 650 to 1,330 feet deep, with an active thaw layer typically 1 to 2 feet deep.

The proposed new ROW segment crosses channels and tributaries of the Ublutuoch River and Judy Creek drainage system. CPAI has identified 26 new lakes and 8 (34 total) previously permitted lakes in the NE NPR-A which may be utilized as water sources.

Proposed drilling activities are located approximately 12 to 21 miles southwest of Nuiqsut. The overland corridor runs from the Alpine ice road three miles north of Nuiqsut over an established ROW to Lake L9804, at which point it deviates from the previously permitted route and follows a new proposed corridor to the south approximately eight miles, and then veers west six miles to Pioneer #1 and continues 11 miles further west to Grandview #1 East. Residents of Nuiqsut may use the project area to harvest subsistence resources.

Based on the proposed project and the issue identification in Section 1.5, the following discussion of the affected environment covers those issues that warranted further consideration within this EA: water resources, fish, subsistence, and floodplains and wetlands.

3.1.1 Water Resources

The project area has numerous permitted lakes which range in depth from less than 4 feet to greater than 28 feet. The majority of the ROW traverses the Ublutuoch River drainage, an important subsistence fishery and site for over-wintering fish. CPAI has identified a total of 34 lakes on federal land in the NE NPR-A that would be used for water supply to construct ice roads



Figure 2. Permitted access corridors and past staked and drilled exploratory wells.

and pads and for drilling operations (see Table 4.1). The volume of water authorized for use is based on depth and habitat value for fish. Based on available data, water quality of potential sources for this project appear to be within the general ranges of water quality in the NPR-A. Recharge of lakes in the NPR-A occurs through melting snow, stream overbank flooding, and rainfall.

3.1.2 Fish

Lake fish are classified according to their susceptibility to low levels of dissolved oxygen. Some species are considered “resistant” due to their greater tolerance to low dissolved oxygen while other species are considered “sensitive.” Generally, for the fish most commonly encountered in the NE NPR-A, ninespine stickleback and Alaska blackfish are classified as “resistant” and all other fish species are classified as “sensitive”. Details on fish inhabiting water source lakes that may be used for Pioneer #1 and Grandview #1 East can be found in MJM Research (2000; 2003; 2005; 2007; 2008) and Rainer & Associates (2000). Any of the fish species found in the area of the proposed action may utilize overwintering habitat in channels or connected to channels that ice roads cross.

3.1.3 Subsistence

The proposed project is located within both the Barrow and the Nuiqsut subsistence use areas (USDOI BLM 2008a, Map 3-38). Barrow, a community of over 4,500 residents is located approximately 200 miles to the northwest of the project area. Nuiqsut, a community of 403 residents, is located within the general project area. The primary subsistence use of the area during the proposed project dates of January 2009 through May 2009 will be by residents of Nuiqsut, for the purposes of caribou, small mammal, bird and furbearer hunting. Under ice fishing may also occur during the latter part of the project timeline. Many residents may simply travel through the project area in order to access hunting cabins or camps located outside of the project area. Access will primarily be by snow machine.

3.1.4 Floodplains and Wetlands

Vegetation over most of the project area is predominantly dwarf shrubs, herbaceous plants, lichens and mosses, which grow close to the ground. With the exception of Tall Shrubs, more than 95% of the planning area is considered wetlands using one of the three sets of criteria mentioned in the NE IAP/EIS (USDOI BLM 2008a, Vol.1, Chapter 3). For the purposes of this EA, it is assumed most all of the proposed project area is classified as wetlands; some of the higher relief and well-drained topographic rises may not meet this classification (USDOI BLM 2008a, Section 3.3.3).

The general definition of a floodplain is the lowland and relatively flat area adjoining inland and coastal waters, including (at a minimum) that area subject to a 1 percent or greater change of flooding in any given year (also referred to as the 100-year floodplain). A portion of the access route crosses floodplains of the Ublutuooh River and Judy Creek as well as other unnamed drainages. All drill sites are outside the 100-year floodplain. All stream crossings will be conducted in the winter when the ground is frozen and snow-covered.

4 ENVIRONMENTAL IMPACTS

If authorized, the proposed project would be the 15th winter exploration drilling program in the NPR-A since the 1999/2000 winter drilling season. Ten of these drilling programs have been in the NE Planning Area. Figure 1 shows the relationship of the proposed new sites to those that have been drilled previously and those that have been permitted but not drilled.

Activities proposed by CPAI are similar to previously authorized exploration activities in the NPR-A over the past 9 years. All of these programs have been approved and monitored on the basis of full implementation of relevant restrictions, protective measures, and the mitigation set forth in the applicable RODs, as well as state and local permits, and compliance with enforceable standards of the NSB coastal Management Program, where applicable. To date, authorizations to conduct winter exploration in the NPR-A have resulted in no long-term significant impacts to the environment, or access to and the use of subsistence resources.

Because the proposed activities are not substantially different from those previously evaluated, and because no significant new scientific information or analyses have been developed since the most recent related evaluation (i.e., May 2008), this NEPA analysis will focus on impacts due to the project-specific/site-specific differences of the proposed action.

4.1 DIRECT AND INDIRECT EFFECTS

The proposed action is built on experience gained from decades of similar operations on the North Slope. This EA is tiered from the 2008 NE IAP/EIS and its ROD. Related discussions of impacts is found in: 2008 NE NPR-A IAP/EIS, Vol. 2, Chapter 4.6 (Environmental Consequences of Alternative D, the preferred alternative).

Issues specifically identified in Section 1.5 for further analysis in this EA are discussed below.

4.1.1 Water Resources

Proposed Action

Impacts to water quantity and quality can result from disruption of natural drainage patterns during breakup, spills, runoff from melting ice, surface disturbance or removal of vegetation along riverbanks and lake water withdrawal. Ice bridges can temporarily block or impede fish passage if not removed and may result in scour immediately downstream of the ice road crossing, thereby depositing sediments and increasing turbidity. Numerous ROPs from the NE IAP/EIS and its ROD (USDOI BLM 2008a, 2008b) are protective of water resources and water quality and are described in Section 4.1.2. Impacts of spills on water quality depend on type, size, location, and duration of the discharge, but are expected to be minor and short-term. An approved C-Plan, where applicable, including the mandated “end date” for drilling, will help ensure that required cleanup would occur under winter conditions to the extent practicable. Fish stream crossings will comply with approvals from ADFG. Lakes used for water supply are expected to recharge, with timing dependent on amount withdrawn and hydrologic and climatic conditions. Additional mitigation and monitoring requirements in Section 4.4 will provide further protections and information regarding management decisions.

Related effects are expected to be minor, localized, and short-term, typically lasting only one season, with mitigation provided by regulatory requirements for water use and discharge, existing protective measures of the NE ROD, and site-specific mitigation (see Section 4.4).

No-Action Alternative

There would be no spills associated with CPAI transportation and drilling activities in the project area. There would be no ice road or pad construction; therefore, no disruption of natural drainage patterns during breakup. There would be no crossing of streams on federal land inside the NPR-A, or potential ice dams at crossing sites. Additionally, there would be no withdrawal of up to 52.45 MG of water from a total of 34 lakes in the project area.

4.1.2 Fish

Proposed Action

Impacts to fish would most likely result from water withdrawals, ice road stream crossings, and/or fluid spills. A potential direct impact could occur by having young-of-the-year fish killed or injured on water intake screens. Other potential impacts would be indirect and could include changes in water quality (e.g. dissolved oxygen concentrations) or water quantity in lakes used as water sources, additional freeze-down of water in overwintering habitat at snow/ice road stream channel crossings, barriers to fish passage at snow/ice road channel crossings in the spring, and degraded water quality resulting from spills. BLM protective measures limit the potential impacts on fish and fish habitat and permits issued by ADFG Division of Habitat also provide protection.

BLM requires that water intake screens be used in all water sources, even where no fish have been documented (ROP B-2g). This helps avoid the accidental removal of fish from lakes where they are believed to be absent, which occurred in the NPR-A in March of 2004. All intake screens must be approved by ADFG Division of Habitat which has developed specifications that significantly limit water velocity around the structure. This design has proven effective in numerous lakes over a period of several years, although a few isolated incidents have occurred where fish have been killed or injured around a screen. In these cases the fish were apparently extremely small young-of-the-year ninespine stickleback. Slightly reducing the pumping rate or moving the pumping location in these instances provided an effective solution.

BLM protective measures also limit water withdrawals from lakes and prohibit winter water withdrawals from streams (ROPs B-1, B-2a-f). Limits on lake water removal utilized by BLM follow current guidelines established by the State. ADFG Division of Habitat issues water use permits on a case by case basis and normally requires additional monitoring if volumes are permitted in excess of standard guidelines. In the existing areas of oil exploration and development on the Arctic coastal plain, lakes pumped solely for winter exploration activities have recharged in the spring (Streever et al. 2001; URS 2001; Baker 2002, 2007; Holland et al. 2008). This includes lakes where ice chips were utilized in addition to permitted free-water volumes (Baker 2007). Although there is some indication that winter water withdrawals can reduce the amount of dissolved oxygen available for fish (Cott et al. 2008), changes are not

apparent at current levels of withdrawal on the North Slope (Hinzman et al. 2006; Chambers et al. 2008).

Water for CPAI's 2008-2009 exploration program may be utilized from lakes that will require new water use permits from the State (Table 4.1) or from lakes that are currently permitted (Table 4.2). For many of these lakes, CPAI is requesting to use ice chips in addition to the maximum liquid water volumes typically allowed, which exceeds BLM's ROP B-2f. BLM approves the request to use ice chips in addition to the maximum liquid water amounts based on results from earlier coastal plain lake recharge studies and the consideration that the removal of this grounded ice places no additional stress on overwintering fish. However, BLM will require recharge monitoring at lakes that contain sensitive fish species (Section 4.4). There is also one lake with only resistant fish species that is currently permitted for substantially more than 30% of the water under five feet of ice (R0061/L9911), which exceeds BLM's ROP B-2b. The BLM concurs with the State's decision to permit this with the stipulation that if CPAI does pump more than 30% they will be required to conduct recharge monitoring (Section 4.4). Approval for water use in future years beyond the guidelines outlined in ROP B-2 will depend on the results and observations from this exploration season.

BLM's ROPs regarding stream crossings (ROPs C-3, C-4) are designed to reduce the probability of impacts to overwintering fish, fish migrating during spring break-up, and channel morphology. Ice roads must cross stream channels at shallow areas whenever possible and travel on streambeds is restricted. Snow or ice bridges across stream channels must be removed, breached, or slotted before spring break-up. ADFG Division of Habitat issues permits for stream crossings and requires that they be slotted, breached, or weakened at the end of winter. The proposed ice road route for CPAI's 2008-2009 winter exploration crosses four stream channels utilized by fish, including the Ublutuooh River and three of its tributaries. Actual crossing locations may vary depending on conditions encountered during ice road construction. Additional mitigation measures (Section 4.4) will help document conditions at channel crossings during ice road construction and slotting or breaching techniques utilized at the end of operations. Observations at these locations in the spring will help document the efficacy of these techniques. The BLM will require that the ice bridge across the Ublutuooh River be largely removed in the spring (i.e. beyond standard slotting) (Section 4.4). In previous years the ice bridge crossing the Ublutuooh River did not sufficiently blow out during break-up with standard slotting techniques. Although this year's crossing is in a different location, this will be done as a precaution due to the river's high habitat value to fish. An alternative breaching strategy was successfully implemented by CPAI on the lower Ublutuooh River crossing in 2006.

The risk of water quality degradation due to winter oil and gas exploration is low due to BLM protective measures and the timing of activities. Several ROPs address concerns about handling and storing industrial fluids and waste as well as responding to spills (ROPs A-2 – A-6, Stipulation 28). Spills are also relatively easy to clean up during winter when the contaminated snow or ice can be entirely removed, significantly reducing the chance of polluted runoff entering surface waters in the spring.

Table 4.1. New Water Sources Requested for Exploration

Lake ID ^a	Latitude (N) (WGS84)	Longitude (W) (WGS84)	Most Recent Survey	Max Depth (feet)	Surface Area (acres)	Sensitive Fish Species Present ^b	Resistant Fish Species Present ^c	15% of Water Under 7 ft of Ice (MG)	30% of Water Under 5 ft of Ice (MG)	20% of Total Lake Volume (MG)	Liquid Water Volume Requesting (MG)	Ice Chip Volume Requesting (MG)	Requires BLM Approval per NE ROP B-2f	BLM Approves Exceeding NE ROP B-2 ^d
L9811	70.20870	151.16803	2004	8.0	1034.0	BDWF/GRAY	NSSB	0.940	52.100	--	0.94	31.35	Yes	Yes*
L9816	70.21676	151.29542	2007	7.6	197.8	none	none	0.002	0.434	31.690	31.69	13.22	No	--
M0016	70.16151	151.87878	2008	6.2	306.2	none	NSSB	0.000	4.790	82.320	4.79	5.904	Yes	Yes
M0420	70.20991	151.22279	2004	6.0	125.8	BDWF/GRAY	NSSB	0.000	0.010	--	0	9.04	Yes	Yes*
M0702	70.19700	151.22756	2007	6.7	119.0	none	NSSB	0.000	3.930	37.190	3.93	1.39	Yes	Yes
M0703	70.18773	151.20613	2007	6.2	57.5	none	NSSB	0.000	0.211	14.410	0.21	1.63	Yes	Yes
M0704	70.17240	151.21803	2007	6.0	276.2	none	NSSB	0.000	0.564	49.010	0.56	11.77	Yes	Yes
M0705	70.15990	151.16922	2007	<4.0	166.6	--	--	ice chips	--	--	0	13.04	No	--
M0706	70.14780	151.21684	2007	6.2	236.3	none	NSSB	0.000	3.790	60.610	3.79	6.81	Yes	Yes
M0707	70.14296	151.17517	2007	6.4	328.1	none	NSSB	0.000	5.730	86.560	5.73	8.59	Yes	Yes
M0708	70.11957	151.14898	2007	28.9	323.2	BDWF/PIKE+	NSSB	69.980	193.340	227.590	69.98	2.46	Yes	Yes*
M0709	70.11513	151.23351	2007	<4.0	46.0	--	--	ice chips	--	--	0	3.6	No	--
M0710	70.13611	151.27399	2007	6.5	603.6	none	NSSB	0.000	6.060	133.120	6.06	18.36	Yes	Yes
M0711	70.11554	151.36328	2007	<4.0	124.8	--	--	ice chips	--	--	0	9.77	No	--
M0712	70.08731	151.31685	2007	14.4	109.3	BDWF/PIKE	NSSB	13.810	45.530	63.590	13.81	0.9	Yes	Yes*
M0802	70.15950	151.24899	2008	7.2	244.1	none	NSSB	0.004	11.969	77.420	11.97	3.651	Yes	Yes
M0803	70.17522	151.41209	2008	8.5	55.4	none	NSSB	0.841	6.910	17.510	6.91	1.583	Yes	Yes
M0804	70.15385	151.48829	2008	11.3	143.0	GRAY	NSSB	4.884	26.580	57.330	4.88	2.479	Yes	Yes*
M0805	70.15103	151.40257	2008	8.5	78.7	none	NSSB	0.471	7.480	24.180	7.48	2.144	Yes	Yes
M0806	70.13490	151.40376	2008	7.1	481.2	none	NSSB	0.010	32.180	140.020	32.18	11.534	Yes	Yes
M0807	70.12562	151.43828	2008	<5.0	370.9	--	--	ice chips	--	--	0	10.784	No	--
M0808	70.12723	151.48948	2008	6.1	172.4	none	NSSB	0.000	1.940	39.660	1.94	5.506	Yes	Yes
M0809	70.14870	151.55138	2008	<5.0	21.7	--	--	ice chips	--	--	0	1.701	No	--
R0059	70.14982	151.88116	2008	7.6	35.3	none	none	0.050	2.550	11.620	11.62	0.642	No	--
R0060	70.14619	151.83354	2008	8.2	115.0	none	NSSB	0.050	9.230	38.330	9.23	2.069	Yes	Yes
R0062	70.17724	151.61686	2000	<4.0	48.8	--	--	ice chips	--	--	0	3.65	No	--

Key:

MG = million gallons; -- = not estimated or not applicable

Notes:

^a Sources: MJM Research (2000, 2003, 2005, 2007, 2008) and Reanier & Associates (2000).

^b BDWF = broad whitefish; GRAY = Arctic grayling; LSLS = least cisco; PIKE = northern pike; + = additional species also caught

^c NSSB = ninespine stickleback

^d * = additional monitoring required (see Section 4.4 Mitigation and Monitoring)

Table 4.2 Water Sources Currently Permitted by State that May Be Utilized for Exploration

Lake ID ^a	Latitude (N) (WGS84)	Longitude (W) (WGS84)	Most Recent Survey	Max Depth (feet)	Surface Area (acres)	Sensitive Fish Species Present ^b	Resistant Fish Species Present ^c	15% of Water Under 7 ft of Ice (MG)	30% of Water Under 5 ft of Ice (MG)	20% of Total Lake Volume (MG)	Liquid Water Volume Permitted (MG)	Ice Chip Volume Permitted (MG)	Requires BLM Approval per NE ROP B-2	BLM Approves Exceeding NE ROP B-2 ^d
L9308/N77097	70.29379	151.16922	2007	5.1	855.1	none	NSSB	0.000	0.002	167.190	0	8.36	Yes	Yes
L9804	70.24378	151.21208	2004	5.2	252.7	none	NSSB	0.000	0.000	--	0	2.36	Yes	Yes
L9817	70.23330	151.34066	2004	9.3	62.3	none	NSSB	0.450	5.490	--	5.49	0	No	--
R0061/L9911	70.17119	151.78711	2000	8.0	540.3	none	NSSB	0.080	29.540	--	59.08	0	Yes	Yes*
R0066/M0151	70.14619	151.76211	2007	9.6	248.2	GRAY	--	5.030	41.470	101.800	5.06	0	No	--
R0068/M9917	70.18732	151.80140	2000	9.8	62.9	GRAY	--	7.900	--	--	1.22	0	No	--
M0810	70.14901	151.79664	2008	8.3	26.8	none	NSSB	0.230	3.350	9.890	3.354	0.391	Yes	Yes
R0067	70.14296	151.79068	2008	7.5	80.5	none	NSSB	0.040	4.820	24.060	4.825	1.92	Yes	Yes

Key:

MG = million gallons; -- = not estimated or not applicable

Notes:

^a. Sources: MJM Research (2000, 2003, 2005, 2007, 2008) and Reanier & Associates (2000).

^b. BDWF = broad whitefish; GRAY = Arctic grayling; LSCS = least cisco; PIKE = northern pike; + = additional species also caught

^c. NSSB = ninespine stickleback

^d. * = additional monitoring required (see Section 4.4 Mitigation and Monitoring)

Due to existing ROPs in the NE NPR-A ROD, impacts from the proposed action are expected to be minor, localized, and temporary; no population level impacts are likely. Additional mitigation and monitoring requirements in Section 4.4 will provide further protections and information regarding the efficacy of management decisions.

An Essential Fish Habitat (EFH) Assessment for salmon was completed for the proposed action, as required by the National Marine Fisheries Service. The finding is “*not likely to adversely affect*” and no EFH consultation is required.

No-Action Alternative

There would be no water withdrawn from any fish-bearing lakes in the region of proposed activity. There would also be no physical intrusion into stream channels at proposed ice road crossings and zero risk of polluting surface waters from human or industrial waste or fluids.

4.1.3 Subsistence

Proposed Action

The proposed project involves winter activity in an area with important subsistence value. While the wintertime is not the primary season for subsistence harvesting, it is the principal time period for furbearer harvesting. Other subsistence activities that occur during the winter, and thus could be impacted by the proposed exploratory drilling program, include caribou, small mammal, and bird hunting. These activities are frequently based from subsistence cabin or camp locales, which are accessed during the winter by snow machine. Ice fishing may also occur. The two proposed exploratory drilling sites, as well as the associated access routes, are located in an area utilized by subsistence harvesters from Nuiqsut and Barrow. The primary activities associated with the project that could affect subsistence use include ice road construction, overland moves, and the month-long duration of the exploratory drilling and associated camps at the Grandview #1 East and Pioneer #1 pad locations. Local knowledge, as elicited through public testimony at NPR-A Subsistence Advisory Panel (SAP) meetings, indicates that exploratory activity displaces resources from the area of effect. This displacement can lead to hunters having to travel further to harvest resources. In most cases, these activities are expected to cause only short-term, minor displacement and/or disturbance, usually only the time period in which the construction activity or camps are active.

Mitigation measures that minimize impacts to subsistence use have been adopted by the BLM (USDOI BLM 1998; 2008b), including winter-only exploration, measures that protect fish and wildlife, and consultation requirements by the company with affected communities. CPAI has developed a Subsistence Plan that includes the use of local subsistence advisors to identify and help mitigate potential impacts of the proposed project to subsistence use. The plan also includes methods for increased communication between the community and the company.

No-Action Alternative

Under the No-Action Alternative, CPAI would not drill at the two well locations and there would be no need for the construction of an ice road. No activity would occur within the subsistence use areas for the communities of Barrow and Nuiqsut, therefore, no potential displacement of

resources from the area would occur. There would be no impacts to subsistence resulting from ice road construction, overland moves or the camps associated with the drilling locations.

4.1.4 Floodplains and Wetlands

Proposed Action

Proposed operations will occur only during winter, when wetlands and floodplains are frozen and snow covered. Ice pads, ice roads, and packed snow trails, as alternatives to permanent structures, are designed to minimize impact to wetlands and floodplains. The direct, surface-disturbing activities expected are *de minimis* acreage lost to construction of well cellars (approximately 6-foot diameter collar; 0.0006-acre footprint per well); and minor, short-term impacts from ice road construction and LPV travel (e.g., limited extent of scuffing, compaction, crushing, or breakage). Studies on the North Slope have shown that willows recover quickly from 1 to 2 years of this type of impact (McKendrick, 2003; Yokel et al., 2007). Ice roads are typically constructed to accommodate the load they will bear.

The BLM completed an evaluation of impacts on wetlands and floodplains in compliance with EO 11990 and EO 11988, respectively. Results of those evaluations were summarized in the NE ROD (USDOI BLM 2008b, pp. 24-28), and are incorporated by reference.

No feasible or prudent locations to avoid wetlands are available. Mitigation of potential impacts to wetlands may be provided by decreasing the thickness and extent of an ice pad when the pad is no longer needed for drilling activities. Ice aggregate removed from the pad may have the potential for reuse in other ice pad/road construction or maintenance of existing roads and pads for winter use (see Section 4.4).

None of the proposed drilling operations in the NPR-A will be in active floodplains. Depending on the final alignment each year, segments of winter trail on federal land inside the NPR-A will cross floodplains when the ground, rivers, and streams are frozen. Based on associated regulatory authorizations, requirements for tundra opening (e.g., ADNR tundra travel/opening criteria), protective measures of the NE ROD, and BLM field examinations, site-specific impacts of proposed activities in floodplains are expected to be short-term and minimal. No feasible or prudent crossing locations to avoid active floodplains are available.

In consideration of activities evaluated in the NE IAP/EIS (USDOI BLM 2008a), the BLM completed impact analyses and made findings contemplated by both EO 11988 (floodplain management) and EO 11990 (protection of wetlands). The 2008 NE ROD concluded that the long-term effects of exploration and development activities, both direct and cumulative in nature, on wetlands and floodplains are expected to be insignificant.

No-Action Alternative

There would be no ice road or potential for associated impacts on federal land associated with the CPAI exploration program in the NPR-A (up to 27 miles in the NPR-A). There would be no construction of ice airstrips, storage pads, or drill pads.

4.2 CUMULATIVE EFFECTS

The BLM has evaluated the cumulative effects of past, present, and reasonably foreseeable oil and gas activities in and around the NPR-A in a series of recent NEPA analyses. This EA tiers to the most recent cumulative impact analysis in the NE NPR-A IAP/EIS (USDOI BLM 2008a, Volume 3, Chapter 4, Section 4.7). That analysis was based on a timeframe of approximately 1900 through 2100, and a geographic range incorporating the entire North Slope of Alaska and adjacent marine waters. Based on the requirements of 40 CFR 1508.7, and guidance in the Council on Environmental Quality handbook on cumulative effects (CEQ, 1997), this analysis of winter exploration drilling considers a narrower temporal and spatial framework (i.e. approximately 30 years past and future and influences limited to a distance of approximately 21 miles from the access corridor and drilling areas). The causes and impacts of climate change are global in scope, with associated impacts evaluated in the NE NPR-A IAP/EIS (USDOI BLM 2008a). The primary influences in the current analysis include: oil and gas activities; the community of Nuiqsut; and subsistence, research/inventory, and recreation activity, as analyzed in the NE NPR-A IAP/EIS (USDOI BLM 2008a).

Since the NE NPR-A ROD (USDOI BLM 2008b), one new potential gas project has been identified: a small diameter gas pipeline for instate delivery to the Railbelt (Enstar Natural Gas Company). The impacts of such a gas pipeline would be similar in nature, albeit on a reduced scale, to those analyzed for the potential gas pipeline (USDOI BLM 2008a, Sections 4.7.3.3 and 4.7.7). Other local exploration projects either recently approved or currently being revised are: Anadarko gas exploration programs at Gubik and Chandler, a Renaissance exploration program at Umiat, and Chevron's White Hills exploration program southwest of the Prudhoe Bay field.

To date, no recent exploration activities authorized by the BLM in the NPR-A, individually or in combination, have caused significant direct, indirect, or cumulative adverse impacts to the environment. There have been some minor, short-term, local adverse impacts as a direct result of activities associated with approved winter exploration programs. The small number and minimal severity of the impacts occurring from 1999 to 2008 demonstrates the overall effectiveness of the environmental protections that are applied to winter exploration activities in the NPR-A.

Results of previous analyses that have been incorporated by reference, and considerations of existing and proposed protective measures in the NPR-A, are key factors in limiting the cumulative impacts analysis to the issues listed below. Neither the Proposed Action nor the No-Action Alternative would add substantially to the incremental past, present, and future impacts described below.

4.2.1 Water Resources

Past studies have shown that impacts of lake water withdrawal and associated water quality changes during exploration have been short term, and that lakes fully recharge and water quality returns to baseline levels. The proposed project is in a region of sufficient water resources to meet the requirements of winter drilling operations. It is possible that construction of ice roads and pads could have an additive demand for water from the same sources. Neither the BLM nor

ADNR permit water withdrawal from a lake to exceed the authorized withdrawal limit, regardless of the number of authorized users. This limitation, along with other protective measures of the RODs, would reduce cumulative impact to water resources. The cumulative impacts of water withdrawal would not differ between the Proposed Action nor the No-Action Alternatives.

4.2.2 Fish

As discussed in the NE NPR-A IAP/EIS (USDOI BLM 2008a, Section 4.7.7), restricted winter habitat for fish makes many species highly vulnerable to the impacts of oil and gas exploration. Some effects may accumulate, but based on federal and state protective measures, effects to fish at the population level are not anticipated. Any difference between the Proposed Action and the No-Action Alternative would be negligible.

4.2.3 Subsistence

BLM protective measures have been applied in the NPR-A during the winter drilling seasons without any significant individual or collective direct, indirect, or cumulative impacts to subsistence resources. Activity levels are expected to be similar in the future, such that cumulative impacts are expected to remain insignificant for both the Proposed Action and the No-Action Alternative. In addition, a stipulations and ROPs have been developed to avoid the potential for significant restriction of subsistence uses or access to subsistence resources (USDOI BLM 1998, 2008b).

Multi-year winter exploration drilling projects and the potential for concurrent operations within and adjacent to the NPR-A have been discussed with local residents through meetings with the local communities, NSB, regulatory and resource agencies in order to minimize project-specific and cumulative effects to subsistence resources or access.

In addition to winter activities, summer activities including studies, monitoring, and recreational use occur in the NPR-A. These include aircraft support for fish and wildlife studies, as well as inspections of proposed drilling sites and abandonment inspections. Helicopters are frequently used as the basic means of air support. Helicopter activity can result in deflection of wildlife and disturbance to people engaged in subsistence activities. This disturbance is usually localized to the area in which the helicopter is operating, and temporary in nature, in that it only occurs during the period in which the activity is taking place. Fixed wing aircraft are used for local passenger and freight transportation, subsistence, and recreation. Although every effort is made to minimize the effects of aircraft activity, aircraft transportation is crucial to many activities. Summer activities in the NPR-A require separate BLM authorization(s), with associated assessment of potential environmental impact.

4.2.4 Floodplains and Wetlands

A large percentage of the defined area for evaluating cumulative impacts is comprised of wetlands and floodplains. Wetlands and floodplains have been impacted by past activities, and are susceptible to alteration from future activity and (possibly) from climate change. Federal and

State protective measures include restrictions on development, winter tundra travel, and stream crossings, and as a result, cumulative effects on wetlands and floodplains are expected to be minimal, and there would be negligible differences in cumulative effects between the Proposed Action and the No-Action Alternative.

Large volumes of traffic on snow trails may result in impacts to wetlands and floodplains that could be mitigated by implementation of new mitigation measures (e.g., offset of snow trails in a manner similar to ice roads). At this time, however, no significant cumulative impacts are foreseen.

4.3 RESIDUAL IMPACTS

Despite the system of controls in place, and the modern technology and methods proposed, some minor impacts from the proposed action cannot be avoided. The impacts include:

Temporary surface disturbance by winter drilling at well sites.

Temporary increase in industrial activity affecting wintertime local tranquility and solitude.

Temporary minor impacts to tundra from ice roads and pads. Longer-term, but relatively minor, visual impacts from multiple green and/or brown trails along portions of the spur routes to ice pads and water supply lakes.

Short-term visual and noise impacts of drill rig, camp, traffic, etc.

Temporary disturbance, with possible displacement of some wildlife, in the area while exploration activities are underway. Possible additive effect on winter wildlife mortality.

Possible minor, temporary impact on subsistence resources and activities if caribou or other animal movements shift away from places where winter activity occurs.

Possible loss of some small mammals (e.g., lemmings, voles, and ground squirrels) due to ice road/pad construction and the hardened overland trail. This would be an adverse impact to those individuals lost, but not to any local wildlife population.

Temporary, localized, minor degradation of air quality and, possibly water quality (oxygen depletion, wastewater disposal, and spills).

Possible temporary restriction of public access to land around drill sites during active drilling activities to meet air quality requirements and increase public safety.

Residual effects have been broadly evaluated for those areas considered for leasing, leased, and subsequently explored (USDOI BLM 2008a, Vol. 3, Section 4.8). With the additional mitigation measures described in Section 4.4, below, the site-specific effects expected from the proposed

action are consistent with those previously-discussed impacts, and none of the impacts are expected to be significant for the proposed action.

4.4 MITIGATION AND MONITORING

In consultation with agencies and local residents, North Slope operators have actively worked to develop winter exploration technologies that create minimal impacts to the environment and to local residents. Many of these enhancements, such as ways to reduce damage to tundra, have been incorporated into operational plans, including the proposed project.

The BLM will continue to monitor the following resources as the proposed action is implemented:

1. Access to subsistence use areas and displacement of subsistence resources
2. Cultural resources
3. Tundra/vegetation
4. Fish habitat
5. Lake recharge

BLM monitoring measures will involve: 1) the drilling operation, including the drill rig and ancillary facilities, and 2) other surface activities. The former involves geotechnical and engineering considerations such as the presence of hydrogen sulfide gas. The latter includes the movement of equipment, supplies, and personnel to and from the drilling operations and the continuing protection of vegetation, fish, and wildlife habitat, as well as subsistence activities.

The objective of this monitoring program is to ensure that all terms and conditions of the Federal oil and gas leases, the NE RODs (USDOI BLM 1998b, 2008b), the NPRPA, and FLPMA (where applicable) are met.

4.5 ADDITIONAL MITIGATION AND MONITORING

The BLM will incorporate the following additional mitigation measures into approvals for the CPAI Applications to Drill and ROW permit. CPAI shall:

1. Provide the BLM Arctic Field Office with a weekly activities summary report. This report shall include all required reports identified below. The report shall be delivered in digital format every Monday through the applicable season(s) for the life of this project.
2. If well is suspended, attach a secure covering to the wellhead in order to minimize access by raptors and to prevent littering.

The following seven permit stipulations implement practices that will help reduce the likelihood of impacts to fish habitat and water resources (Noel et al. 2008).

3. At the time of ice road construction, take the following measurements at stream or river channel crossings *prior to* the addition of any snow or ice and provide data to the BLM

within one week of collection. Measure the ice thickness and water depth under ice (if not grounded) at a minimum of three locations (mid-channel; at road midline and road boundary on each side).

4. Provide the BLM with an as-built of all snow/ice roads and Rolligon trails, and as-built corner locations of ice pads at the time structures or routes are ready for utilization. The as-builts shall be submitted in digital format on a CD or from an accessible internet location (such as an ftp site) as follows:
 - a. digital GPS file(s) referencing WGS Datum of 1984 (WGS84) with a defined projection; and
 - b. digital ESRI shapefile(s) or geodatabase(s) feature referencing the North American Datum of 1983 (NAD83) with a defined projection and supplementary metadata (text or .xml file).
5. Post a sign on the access road to each lake being utilized as a water source, clearly identifying the lake by its number.
6. Maintain a daily record of water removed in liquid form and in the form of ice chips for each lake utilized as a water source. Provide the BLM with the daily tracking record on a weekly basis. The completed weekly spreadsheet should be submitted to the BLM within five days of the week's end. The BLM will provide Conoco with a formatted spreadsheet that must be used for the reporting.
7. Notify the BLM within 24 hours if water/ice removal exceeds the volume approved at any lake in the NPR-A.
8. Notify the BLM within 24 hours of any observation of dead or injured fish on intake screens or in the hole being used for pumping. Temporarily cease pumping from that hole until discussions with the BLM or ADF&G Division of Habitat result in the application of additional preventative measures to avoid further impacts to fish.
9. Provide the BLM with photographs documenting breaching/slotting/removal of ice road channel crossings at the end of the winter season.

The following three monitoring activities are required for the removal of ice chips and liquid water during the winter of 2008-2009 in excess of guidelines in BLM's ROP B-2. Based on results of this year's program, the BLM may add, delete, or modify mitigation measures for water use in future years of exploration covered by this EA. Before conducting work in future years CPAI must have written concurrence from BLM regarding water use.

10. At the end of winter operations, conduct snow surveys adjacent to each of the following lakes and provide data to the BLM within one week of collection:
 - a) L9811, M0708, M0712, and M0804 if the combination of liquid water and ice chips utilized exceeds the calculated volume of 15% of water under 7 feet of ice.
 - b) L9813 and M0420 if the amount of ice chips utilized exceeds the calculated volume of 30% of water under 5 feet of ice.

-
- c) L9803, L9805, and R0061 if the amount of liquid water utilized exceeds the calculated volume of 30% of water under 5 feet of ice.
11. At each of the following lakes survey water levels and document conditions at the outlet of each of the following lakes with photographs immediately after spring breakup, at the end of June, and at the end of August.
- a) L9811, M0708, M0712, and M0804 if the combination of liquid water and ice chips utilized exceeds the calculated volume of 15% of water under 7 feet of ice.
 - b) L9813 and M0420 if the amount of ice chips utilized exceeds the calculated volume of 30% of water under 5 feet of ice.
 - c) L9803, L9805, and R0061 if the amount of liquid water utilized exceeds the calculated volume of 30% of water under 5 feet of ice.
12. Submit to the BLM any water quality data that is collected at water source lakes in the NPR-A as a requirement by ADFG State Fish Habitat Permits or is collected at water source lakes under any other program. In-situ field measurements must be submitted within one week of collection and water sample analytical data must be submitted within one week of receiving results from a lab.

The following mitigation measure is required for building an ice road channel crossing (ice bridge) on the Ublutuoch River. CPAI shall:

13. Remove as much of the ice bridge as is reasonable without damaging streambanks or the streambed.

4.6 SUMMARY OF ENVIRONMENTAL CONSEQUENCES

This analysis has considered, tiered from, and incorporated by reference, previous studies and findings on oil and gas winter exploration activities on the North Slope and, specifically, in the NPR-A. Also considered were the requirements and restrictions for water withdrawals and fish stream crossings included in Fish Habitat permits. Based on this analysis, it is concluded that direct, indirect, and cumulative impacts from the proposed action should be relatively minor and short-term, with no significant impacts foreseen.

5 CONSULTATION AND COORDINATION

5.1 AGENCY COORDINATION

The preparers of this EA have consulted with the following contacts in setting the scope of analysis and alternatives to be addressed:

ADNR, Division of Mining Land and Water
ADFG

In preparing its plan of operations, CPAI conducted a series of meetings with resource agencies, regulatory agencies, and local governments. The proposed project has recently undergone review by the NSB, as well as other State and Federal agencies, as described in Section 1.5.

CPAI provided the BLM with permit applications and support documentation that summarize the proposed project and their compliance with applicable stipulations. The BLM has inspected the proposed drill sites at Grandview #1 East, Pioneer #1 and access routes. The BLM and CPAI discussed the proposed action as the proposed program was being developed. These discussions will continue as the project progresses.

5.2 PUBLIC COORDINATION

In preparing its plan of operations, CPAI conducted meetings with affected North Slope community residents, as described in Section 1.5. Local residents provided Traditional Knowledge that was considered in the project plan and in this EA.

CPAI has prepared a Subsistence Plan that presents measures to mitigate potential impacts on subsistence resources and access.

5.3 LIST OF PREPARERS

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AA081785 et al
3160.00

Finding of No Significant Impact

Type of Action: Application for Permit to Drill, 3100.00
Right-of-way, 2884.01

Serial Number: **AA081785, AA081779, and FF092931**

Applicant:

ConocoPhillips Alaska, Inc.
P.O. Box 100360
Anchorage, Alaska 99510-0360

District: Arctic Field Office

Planning Unit: National Petroleum Reserve in Alaska (NPR-A), Northeast Planning Area,
Greater Moose's Tooth (GMT) Unit

Lands Involved: The lands are described as proposed drilling locations within lease tracts with associated access routes. The legal descriptions can be found in the referenced case files. The drill sites are in the following locations:

Township 09 North Range 01 East Section 05 Umiat Meridian (Grandview 1 East)
Township 09 North Range 03 East Section 07 Umiat Meridian (Pioneer #1)

Context and Intensity of Environmental Impacts

Based upon a review of the EA and the supporting documents, I have determined that the proposed action will not have a significant effect on the quality of the human environment, individually or cumulatively with other actions in the general area. No environmental effects meet the definition of significance as defined at 40 CFR 1508.27. Therefore, an environmental impact statement is not required. We reviewed the context of the Proposed Action and found that it would not result in any significant effects to resources and values in NPR-A and surrounding lands. The Proposed action would provide new benefits through economic development to the area and potentially energy resources for the Alaska and the Nation. Meanwhile, the mitigation measures and environmental protections would ensure that the Proposed Action would not add significantly to incremental impacts to NPR-A and surrounding lands.

The following factors have been considered in evaluating significance for this proposal (40 CFR 1508.27):

- 1. Impacts that may be both beneficial and adverse:** The beneficial effects of the Proposed Action include continued exploration and development of energy resources, and associated economic benefits to Alaska and the Nation. Adverse impacts could occur to water resources, fisheries, wildlife, and subsistence.
- 2. Degree of effect on public health and safety:** The Proposed Action would have no effect on public health and safety.
- 3. Unique characteristics of the geographic area such as proximity to cultural or ecologically critical areas:** The Proposed Action, which would be implemented with mitigation and existing protections, would not impact any cultural or ecologically critical areas. In addition the proposed action would not impact park lands or prime farmlands. Impacts to wetlands and floodplains would be localized and not significant, based on impact analysis done in compliance with Executive Orders 11990 and 11988. The long-term effects of exploration activities both direct and cumulative in nature on wetlands, soils, water resources, and fresh estuarine water quality are expected to be insignificant (minimal to negligible) in this area and would be mitigated to the greatest extent practicable.
- 4. The degree to which the effects on the quality of the human environment are likely to be highly controversial:** There is no scientific controversy over the nature of the environmental impacts of the Proposed Action.
- 5. Degree to which the possible effects on the quality of the human environment are highly uncertain or involve unique or unknown risk:** No highly uncertain or unknown risks to the human environment were identified.
- 6. Degree to which the action may establish a precedent for future actions with significant effect:** The proposed action was considered within the context of past, present, and reasonably foreseeable actions and no significant cumulative effects are expected.
- 7. Whether the action is related to other actions with individually insignificant but cumulatively significant impacts:** No individually or cumulatively significant impacts were identified for the proposed action. The cumulative effects are analyzed in Section 4.2 of the EA.
- 8. Degree to which the action may adversely affect district, sites, highways, structures, or other objects listed on the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural or historical resources.** The proposed action will not adversely affect any historic, cultural, or scientific resources in the NE NPR-A. There are no districts, sites, highways, structures or other objects listed on the National Register of Historic Places in the area where the project is proposed.

9. The degree to which the action may adversely affect an endangered or threatened species or its habitat:

A “no effect” determination was made for the federally listed threatened species, spectacled eider and Steller’s eider, and polar bear by a BLM biologist. The US Fish and Wildlife Service issued a letter of concurrence on December 3, 2008. There are not expected to be any long-term, significant impacts to these threatened species. Additional clearances have been completed, such as cultural and Essential Fish Habitat (EFH). A cultural clearance of the proposed project features in accordance with the NHPA was completed during August 2008 with a report of clearance on December 17, 2008. An EFH finding of “Not likely to adversely affect, and no EFH consultation is required” was completed on December 4, 2008.

10. Whether the action threatens a violation of federal, state, local or tribal law, regulation or policy imposed for the protection of the environment, where non-federal requirements are consistent with federal requirements:

The Proposed Action does not violate any known federal, state, local, or tribal law or requirement imposed for the protection of the environment. The evaluation and finding completed to comply with Section 810 of ANILCA found “The proposed action will not significantly restrict subsistence uses. No reasonably foreseeable and significant decrease in the abundance of harvestable resources or in the distribution of harvestable resources, and no reasonably foreseeable limitations on harvester access will result from the proposed action. The Subsistence Monitoring Plan is intended to resolve concerns at a very early stage, thereby reducing or eliminating subsistence conflicts.

Monitoring and Mitigation

BLM will monitor on the ground activities throughout the winter season. This will be accomplished through periodic on-site compliance inspections of all project components including drilling, camp construction, ice roads, snow trails, pads, and other facilities. If any instances of non-compliance are observed BLM will work with ConocoPhillips to remedy the problem.

When winter activity ceases, BLM will continue to monitor the project area through periodic on-site inspections to ensure that all standards have been met and that the areas of operations are clean and free of debris.

Mitigation measures will be implemented as described in Section 4.4 and 4.5 of the EA.

APPROVED:

Lon Kelly
Arctic Field Office Manager

Date