



United States Department of the Interior

BUREAU OF LAND MANAGEMENT
ARCTIC FIELD OFFICE
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Fairbanks, Alaska 99709-3899

ENVIRONMENTAL ASSESSMENT

Title: Atigaru Point Clean Up Project

EA Number: LLAKF012000-2009-0009

Type of Action: NPR-A Right-of-Way (2884.01)

Serial Number: F-95503

Applicant: Bureau of Land Management, Fairbanks District Office
Arctic Field Office
1150 University Ave.
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Lands Involved

Atigaru Point, North Kalikpik and lands/waters in between, at T. 14 N., R. 2 W.; T. 14 N., R. 1 W.; T. 13 N., R. 2 W.; and T. 14 N., R. 1 E., Umiat Meridian. Sites and ice roads will consist of approximately 75 acres.

This Environmental Assessment is tiered to the following environmental document which is available for review in the Fairbanks District Office, Bureau of Land Management, 1150 University Avenue, Fairbanks, Alaska, 99709, (907) 474-2200.

Record of Decision, Northeast National Petroleum Reserve – Alaska, Supplemental Integrated Activity Plan, dated July 16, 2008

I. INTRODUCTION

(A) Purpose and Need

The Naval Petroleum Reserve #4, now called the National Petroleum Reserve – Alaska (NPR-A), is an area of more than 23 million acres in the northernmost part of Alaska, and was established by executive order on February 27, 1923. During early exploration programs, the U.S. Navy (1994-1953) and the U.S. Geological Survey (1975-1982) drilled over 100 wells and core holes termed “legacy wells” ranging from 100 to 20,335 feet. Some wells were cased and tested and remained test wells. Some were core tests with no casing or wellhead installed. Many were left unplugged or partially plugged.

Since 1976 (NPRPA) the Bureau of Land Management has been responsible for both the surface and subsurface management of the Petroleum Reserve, including the legacy wells. The BLM has assessed the condition of the wells and embarked on a program to plug and abandon them. The BLM has actively pursued plugging wells which pose a potential risk to the environment. At least 10 wells have been plugged by BLM since 2002. Where appropriate, accompanying reserve pits have been remediated.

This 2009 project will deal with the well and reserve pit at Atigaru Point. The Atigaru Test Well #1 drill site is within the National Petroleum Reserve – Alaska. The site is approximately 103 miles from Barrow and about 30 miles southeast of the Point Lonely Dewline station. The well was drilled for the Navy and USGS in 1977. The well was drilled to a depth of 11,535 feet and currently the upper 2,155 feet of casing contains diesel for use by the USGS to monitor permafrost temperatures.

Ongoing deterioration of the well site could result in exposure of contaminated soils, and cause migration of contaminants into the coastal environment and could cause adverse physical, biological and social impacts at and near the Atigaru Point Test Well #1 site. A project to plug and abandon the well at the site is needed to prevent future environmental damage.

Removal of the reserve pit with disposal at North Kalikpik would also occur. Solid waste would be disposed of in the Oxbow Landfill. A long-term management plan is being developed for the North Kalikpik Test Well #1 Reserve Pit which currently contains reserve pit material from East Teshekpuk Lake Test Well #1(2008 project). This management plan will be included in this environmental document and will be administered by the BLM.

On January 30, 2009, the Arctic Field Office requested, of itself, that an NPR-A right-of-way be granted to conduct this environmental remediation. Contracts were let to MarshCreek, LLC. to complete all phases of the project. The application was filed in accordance with the regulations contained in 43 Code of Federal Regulations (CFR) 2800, and under the authority in Naval Petroleum Reserve Production Act of 1976 (PL. 94-258 Stat. 303)(NPRPA).

(B) Issues and Decision to be Made

Staff members within the Arctic Field Office, Fairbanks District, have raised the following issues and concerns after reviewing the proposal: (1) Potential impacts to fisheries resources, (2) Potential impacts to T&E Resources, (3) Potential impacts to subsistence, (4) Potential impacts from hazardous and solid wastes.

There has been no public comment on this proposal thus far. This is one of the issues regularly discussed at the quarterly Barrow Restoration Advisory Board (RAB) meeting.

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 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.

(C) Required Permits, Licenses, etc.

The Bureau is consulting with the US Fish & wildlife Service regarding polar bear issues.

(D) Relationship to Statutes, Regulations, Policies, Plans or other Environmental Analyses

The area within which the proposed action would take place is covered by the following planning and environmental document:

Record of Decision, Northeast National Petroleum Reserve – Alaska, Supplemental Integrated Activity Plan, dated July 16, 2008

The action, as proposed, is consistent with the objectives outlined in these documents and not in conflict with other resources in the area. The proposed use is in conformance with current policy of the Arctic Field Office, BLM.

The surface and subsurface estates of the lands involved are under the jurisdiction of Kuukpik Corporation of Nuiqsut, Alaska, and Arctic Slope Regional Corporation of Barrow, Alaska, respectively.

(E) Lands Status and Adjacent Land Uses

While the actual site of Atigaru is privately-owned land, everything around Atigaru (land & water) is under the jurisdiction of the Bureau of Land Management. The route to North Kalikpik and the North Kalikpik site is also under BLM jurisdiction.

II. PROPOSED ACTION AND ALTERNATIVES

(A) Introduction and Access

This section describes the Proposed Action in sufficient detail to analyze their impacts. The descriptions include all design features and discrete actions which have the potential to affect the environment, including those intended to avoid or minimize adverse environmental impacts.

No Action

Removal off-site of the reserve pit and plug & abandonment of the Atigaru Point #1 Test Well

Under the **“no-action”** alternative, the potential for contamination would remain on site, and the reserve Atigaru Point Clean Up EA and FONSI

pit would soon be washed over by seawater endangering human and wildlife. The drill pipe will eventually corrode spilling several hundred barrels of diesel fuel into the subsistence rich Kogru River and Harrison Bay. The no-action alternative meets none of the clean-up criteria for Atigaru however its evaluation is required by NEPA

Under the ***“removal of the reserve pit and P&A of the test well”*** the danger of contamination and health issues for human and wildlife at the Atigaru Point site are eliminated. The diesel is removed to a proper disposal site and the drilling mugs are relocated to a properly managed / monitored disposal site at North Kalikpik. Debris discovered during this operation will be disposed of at the Oxbow Landfill. **This is the preferred alternative for the remedial action at the Atigaru Point Test Well #1 and North Kalikpik storage site.**

Applicable Arctic Field Office policy or program requirements and standard procedures are described as Standard Stipulations. These are not discretionary, and apply equally to the Proposed Action and any alternative to BLM as they would to any other land user. All activities shall conform to these and any Project Specific Stipulations attached to the Decision Record. In addition, all activities shall conform to the regulations contained within 43 Code of Federal Regulations 2800, and all written orders of the Authorized Officer.

(B) Proposed Action and Access

Proposed Action

The Proposed Action as submitted by the applicant is that of construction, operation, and maintenance of an NPR-A right-of-way to support an environmental clean-up at Atigaru Point. This project has several phases including plug and abandonment of an oil well, removal of a reserve pit and long-term management/storage of the contaminated materials/muds, etc. from Atigaru. This long-term storage will be at the North Kalikpik reserve pit which currently holds similar materials removed in 2008, at the East Teshekpuk wellsite and reserve pit.

A moveable 30-35 man camp will be used to support the activity at Atigaru and a small warm-up shack will be located at North Kalikpik. This camp will be self-contained with living, mess area, wash rooms, incinerator and shops. All will be periodically moved to preserve ice conditions.

Once the camp is established phase #1 of the project (P&A activity) will commence. The Atigaru Point Test Well #1 contains approximately 320 barrels of diesel fuel. After this diesel is pumped out of the well bore it will be replaced with water leaving space to place a mechanical plug and allowing for 200 feet of arctic-type cement. The diesel is removed to an ADEC approved disposal area. The well bore or cellar and surrounding soils will be removed to allow the casing to be cut off at the base of the cellar or 5-10 feet below projected mean sea level, whichever is deeper. A steel (1/4 inch plate) cap will be welded to the end of the well bore with location and identity inscribed on the plate.

A second phase of the project, beginning simultaneously with the P&A work, is the removal of the reserve pit. Similar equipment to that use at the East Teshekpuk and JW Dalton projects (trimmers & excavators). The excavator is used to remove hotspots identified in a 2005 USGS survey, followed by the trimmer until visual and laboratory confirmation sample results indicate the drilling waste has been removed from the pit. With no noticeable pad to use as a short-term staging site at the reserve pit, wastes will be hauled to North Kalikpik as it is removed

The final phase of this project is long-term storage of waste at North Kalikpik. The North Kalikpik Reserve Pit was constructed during the USGS / Husky Oil exploration of the National Petroleum Reserve – Alaska, and is regulated by the Alaska Department of Environmental Conservation (ADEC) as a specialized landfill. Originally, the reserve pit was capped with 203 feet of gravel obtained from the surrounding pad and was thought to remain permanently frozen. However, water accumulated on the surface of the cap and ponding developed, in nonconformity with ADEC guidance. To conform with ADEC guidance, additional drilling mud waste from East Teshekpuk and Atigaru will do the job. This was started in 2008, with the clean-up at East Teshekpuk and will continue with this project. Clean capping materials from both drill sites will be added which will develop a grade of the North Kalikpik Reserve Pit above the level of the surrounding pad so as to prevent accumulation and ponding of water on the cap. In 2007, ADEC approved the North Kalikpik Disposal Plan as a 20 year temporary facility, subject to renewal.

An annual monitoring plan is discussed in the Waste, Hazardous & Solid write up in Environmental Consequences section (Chapter III).

(C) Access

Atigaru Point access will be on shore-fast sea ice from Oliktok Point to Atigaru Point. Then by continued movement on the Kogru River to a point north of North Kalikpik and then a constructed ice road to the North Kalikpik site. Ice is under the jurisdiction of the State of Alaska, Department of Natural Resources or the Bureau. Once on shore, ice road routes are BLM managed lands.

III. ENVIRONMENTAL CONSEQUENCES

(A) Introduction

This section provides the evaluation of direct, indirect and cumulative environmental impacts of the Proposed Action. Impacts may be to society, the economy, or the biological or physical environment. Any issues or concerns raised by Bureau staff are discussed below. If these resulted in any measures to mitigate the environmental impacts, those measures are also discussed in this section. Finally, any residual impacts to the environment, despite applications of mitigation measures, are identified here.

The affected environment for the area of the Proposed Action is discussed in the following document:

Record of Decision, Northeast National Petroleum Reserve – Alaska, Supplemental Integrated Activity Plan, dated July 18, 2008.

This document also address impacts resulting from actions similar to the Proposed Action

(B) The following Critical Elements of the human environment are subject to requirements specified in statute, regulations or Executive Orders. These Critical Elements have been analyzed for the Proposed Action:

Critical Elements	May be Affected	May be Mitigated
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1.	ACEC's	NO	
2.	Air Quality	NO	
3.	Cultural & Historic	NO	
4.	Farmland, Prime or Unique	NO	
5.	Fisheries Habitat	YES	YES
6.	Flood Plains	YES	YES
7.	Nat. Amer. Relig. Concerns	NO	
8.	Paleontological	NO	
9.	Threatened / Endangered	YES	YES
10.	Visual Resources	NO	
11.	Waste, Hazardous / Solid	YES	YES
12.	Water Quality	YES	YES
13.	Wetlands / Riparian Zones	YES	YES
14.	Wild & Scenic Rivers	NO	
15.	Wilderness Values	NO	
16.	Wildlife Resources	NO	
17.	Environmental Justice	NO	

Fisheries Habitat

Essential Fish Habitat Assessment

Proposed Action: The purpose of the proposed action is to permit Marsh Creek LLC to conduct remediation and plugging and abandonment work for the BLM at Atigaru in the NPR-A.

Essential Fish Habitat

On October 11, 1996, the Sustainable Fisheries Act (Public Law 104-297) became law which, among other things, amended the habitat provisions of the Magnuson Act. The re-named Magnuson-Stevens Act calls for direct action to stop or reverse the continued loss of fish habitats. Toward this end, Congress mandated the identification of habitats essential to managed species and measures to conserve and enhance this habitat. The Act requires federal agencies to consult with the Secretary of Commerce regarding any activity, or proposed activity, authorized, funded, or undertaken by the agency that may adversely affect essential fish habitat (EFH).

For the purpose of this environmental assessment, EFH means those waters and substrate necessary for salmon spawning, breeding, feeding, or growth to maturity (Magnuson-Stevens Act, 16 U.S.C. 1801 et seq). The National Marine Fisheries Service recognizes salmon waters cataloged under AS 16.05.870 (Waters Important for the Spawning, Rearing or Migration of Anadromous Fishes) as EFH. The most current information on the distribution of anadromous fish, as approved by the Alaska Department of Fish and Game, is available on the worldwide web (ADFG 2008; Johnson et al. 2004). There are no listed anadromous waters for salmon that occur within the area of activity.

Estuarine habitat that supports young salmon as they exit freshwater for life in the sea is also EFH. This outmigration takes place from the time the ice moves out through August. Equipment mobilizing to and from this project would travel on near shore sea ice over estuarine EFH.

Potential Effects: All surface travel and activities would occur during the winter when most surface waters are frozen, including sea ice over estuarine EFH, significantly reducing the potential to impact EFH. Given the timing of the operation and required operating procedures established in the NE NPR-A Supplemental IAP/EIS (USDOJ 2008), impacts to EFH are unlikely.

EFH Finding: The proposed action is not expected to impact salmon or their habitat and is assigned the EFH determination: *not likely to adversely affect*. No further EFH consultation is required.

Affected Environment

Details on fish species, distribution, and life histories can be found in the NE NPR-A Supplemental IAP/EIS (USDOJ 2008). Besides adult Pacific salmon, any of the freshwater, amphidromous, or anadromous fish discussed in that document may be overwintering in streams, rivers, or lakes in the area of proposed action. Fish in lakes 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 other species are classified as “sensitive”.

Environmental Consequences

Proposed Action - Potential impacts on fish include effects from water withdrawals, ice road stream crossings, and fluid or contaminated material spills. A direct impact could occur by having small fish killed or injured on water intake screens. Possible indirect impacts 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 stream channel crossings, and degraded water quality resulting from spills. BLM protective measures limit the potential impacts on fish and permits issued by ADFG Division of Habitat also provide protection.

The BLM requires that water intake screens be used in all water sources, even where no fish have been documented (ROP B-2g), in order to avoid the accidental removal of fish from lakes where they are believed to be absent. 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 reported to be 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 for winter exploration activities have recharged in the spring (Streever et al. 2001; URS 2001; Baker 2002; Baker 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 Atigaru Point Clean Up EA and FONSI

water withdrawals can reduce the amount of dissolved oxygen available for fish (Cott et al. 2006), changes are not apparent at current levels of withdrawal on the North Slope (Hinzman et al. 2006; Chambers et al. 2008).

Lakes W-2 and W-3 are assumed to only sustain winter populations of resistant fish based on the relatively shallow depths (5.79 and 5.71 feet, respectively). As such, Marsh Creek is permitted by the State to use 30% of the liquid water below 5 feet. However, Marsh Creek is requesting to use ice chips from both lakes in addition to the maximum liquid water volume allowed, which exceeds BLM's ROP B-2f. BLM approves this request to use extra water in the form of ice chips 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.

Only very short stretches of ice road would be constructed to haul materials to the North Kalikpik site and to access water source lakes. This would be entirely across the tundra and would not cross any fish-bearing stream channels.

The risk of water quality degradation 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 through A-7, D-1). 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. This includes proper handling of materials removed from the well and reserve pit and sufficient containment of materials at the North Kalikpik reserve pit. This was successfully done in 2008 when cleaning up the East Teshekpuk site.

Due to existing ROPs in the NE NPR-A ROD, impacts from the proposed action on fish would be very minor, localized, and temporary; no population level impacts are probable. Additional mitigation and monitoring requirements (below) based on recommendations from Noel et al. (2008) would 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 - There would be no water withdrawn from any fish-bearing lakes in the region of proposed activity. There would also be zero risk of polluting surface waters from human or industrial waste or fluids from the proposed action. However, without the clean up activities there could be an increased risk of waste migrating into the environment due to erosion and corrosion of the unplugged well. Ultimately, the risk of environmental damage from the no action alternative would be greater than from the proposed action.

Mitigation and Monitoring

- 1.) Maintain a daily record of water removed in liquid form and in the form of ice chips from lakes W-2 and W-3. Provide the BLM with this daily tracking record within two weeks of the end of the project's field operations.
- 2.) Notify BLM personnel on-site within 24 hours of any observation of dead or injured fish on water intake screens or in the hole being used for pumping water from lakes. Temporarily cease pumping from that hole until consulting with BLM personnel on-site to avoid further impacts by reducing the pumping

rate and/or moving the pump site.

3.) Notify BLM personnel on-site within 24 hours if water/ice removal exceeds the volume approved at any water source lake.

Threatened / Endangered Species

Affected Environment

The polar bear, listed in May 2008, is the only listed animal species likely to be present in the Atigaru Point #1 reserve pit and North Kalikpik disposal areas during project activities. Polar bears may be found all year along the Beaufort Sea coast or on off-shore ice. Pregnant female polar bears select denning sites on land or on sea-ice in October or November, giving birth in the December or January time and abandoning their dens and moving offshore with their cubs by the end of March or beginning of April. Den sites have previously been identified close to the Atigaru Point #1 Reserve Pit Remediation and phase one of the North Kalikpik disposal plan project areas: at the Eskimo Islands, Atigaru Point, and Cape Halkett. The USF&WS have produced maps that identify potential denning habitat on nearly every part of the coastline involved in this project. **The project contractor (Marsh Creek LLC) would be required to request Letters of Authorization (LOAs) for the Incidental and Intentional Take of polar bears from USF&WS, to comply with USF&WS mitigation measures and to provide BLM with a copy of the Service issued Letters of Authorization for the Incidental and Intentional Take of polar bears issued under sections 101 (a)(4)(A)(c), 109(h) and 112(c) of the Marine Mammal Protection Act prior to this right-of-way being granted. In accordance with section 7 of the Endangered Species Act of 1973, as amended (ESA), issuance of these LOAs also fulfills the requirements for Tier 2 Consultation of the Programmatic Biological Opinion for the activities described within.**

The threatened spectacled and Stellers eiders, and the endangered bowhead whale, are migratory summer visitors to the area, and would not be expected to be present during the March-May project timeframe. The eiders begin moving into the arctic coastal plain in late May to early June, and depart in late August. Bowhead whales may begin entering the Beaufort Sea in mid-May; however, during their spring migration the ice cover on nearshore waters tends to keep them several miles from shore.

Environmental Consequences

Proposed Action - There would be potential for direct effects (incidental take) to polar bears from this project through disturbance (by vehicle traffic and human activities during project mobilization, reserve pit remediation and material disposal and demobilization) of denning female bears. Disturbance may cause premature abandonment of den sites and may result in the death of cubs. Bears could also be attracted to garbage and debris at camps, and are at risk of ingesting chemicals during the landfill removal process. An essentially continuous band of potential denning habitat for polar bears has been identified by the USF&WS along the project access route and operations area.

There would be no direct impacts to the two threatened eider species, as they are not found in the area of concern at the time that the permitted activities will occur. There is potential for indirect impacts to these eiders due to impacts to wetland and riparian vegetation that these eiders use when they are present in the permit area but no "take" of either eider species is anticipated. The proposed action is considered to be wholly beneficial to both eider species as the plugging and abandoning of the well and removal and secure relocation of reserve pit contents ensures that habitat contamination will not occur and the action is taking place on a previously disturbed site so no additional eider habitat is in risk of being disturbed.

No direct impact to bowhead whale would occur as they are not found in the area of concern at the time of the permitted activities. The proposed action is considered to be wholly beneficial to bowhead whales as the plugging and abandoning of the well and removal and secure relocation of reserve pit contents ensures that habitat contamination will not occur.

No Action - The potential for disturbance impacts would not be a factor under the no action alternative, and polar bears would not be at risk of ingesting garbage or contaminated food at camp sites. However, if the erosion were allowed to continue there is potential for a breach of the existing well and for a subsequent spill of well contents (diesel oil) and reserve pit materials (barium, chromium and bentonite clay) into the environment. If these compounds become exposed into the environment they could get into the food chain, and eventually such chemicals could be ingested by polar bears.

If this project does not occur (no action alternative) there is potential of contaminants (diesel oil, barium, chromium and bentonite clay) leaking into the surrounding environment and the possibility of threatened eider species and bowhead whales coming into direct or indirect contact with the contaminants resulting in the potential for harm to these species.

Mitigation and Monitoring

Intentional take of denning polar bears due to the proposed action will be mitigated using the following measures which were determined in consultation with the USF&WS:

1. A polar bear den detection survey would be conducted along the coastline of the planned 20-mile ice road alignment on the southern edge of the Kogru River from Atigaru Point to the tundra “jump-off” near North Kalikpik prior to the commencement of remediation of the site.
2. A set-back of ½ mile (approximately 800 meters) from coastal bluff habitats on shorefast ice would be imposed to limit the disturbance of possible denning polar bears along the transportation corridor from the initial staging area to Atigaru Point. If necessary, the route may be placed closer to the coast, up to 1,000 feet (320 meters) from the coastline. This stipulation would be removed after April 1, 2009.
3. All travel along the coast would be restricted to designated areas that have been previously surveyed for polar bear den sites of those areas with mitigation measures in place to reduce disturbance to denning bears.
4. If denning polar bears are found along the access route or at the project operations area a one mile no access buffer around the den site will be required for all activities.

Flood Plains, Water Quality and Wetlands / Riparian Zones

Affected Environment

The arctic coastal plain is covered with a network of small ponds, lakes, lagoons, and meandering streams. The arctic plain in general is underlain with continuous permafrost, which limits or prevents the drainage of surface water into the soil. Shallow channels carry snowmelt during the spring melt, but may be dry the rest of the year. Perched groundwater above permafrost is found during the summer months when the surface layer thaws. This zone above permafrost is called the active zone, as it freezes and thaws with seasonal temperature changes. Permafrost acts as a barrier to vertical movement of groundwater. Surface features impact the subsurface distribution of permafrost as they influence heat transfer. Permafrost may be present at greater depths near large waterbodies, such as rivers and deep

lakes. Permafrost is absent under the ocean, except along the coastline and shallow shelf areas. The coastline is a transition zone at which the depth of permafrost gradually deepens and eventually becomes absent.

Permafrost on the Atigaru Point may be deeper than on the inland coastal plain, or may be discontinuous, due to proximity to the ocean. The land along the coastline at Atigaru shows polygonal land features, but less dense a distribution of ponds and lakes that is seen on the coastal plain a few miles further inland, perhaps due to better drainage as the depth to permafrost deepens. No active streams are present in the Atigaru Point area, although multiple shallow drainage channels cross the project area. The nearest major river is the Colville, the delta of which enters the Beaufort Sea roughly 25 miles southeast. The much smaller Kalikpik River enters Harrison Bay about 8 miles southeast of Kogru. Between the Kalikpik River and the Colville River, Fish Creek is joined by Judy Creek and the Oblutuoch River, and drains into Harrison Bay just west of the Colville River delta.

Environmental Consequences

Proposed Action - The proposed action would remove less than one acre of wetlands. In addition any wetland that would be removed has been previously been altered by previous activities at the site. The removal of contaminated soil and debris from the area would be a net benefit to the surrounding wetland habitat.

No Action - Under the no action alternative the wetlands would be more vulnerable to erosion, and there would be increased risk of environmental contamination compared to the proposed action.

Mitigation and Monitoring

No specific mitigation to protect wetlands have been identified, although the protections described for other environmental concerns (fisheries habitat, and hazardous waste) would also protect wetlands.

Waste, Hazardous / Solid

Affected Environment

Documentation exists indicating that fuel, hazardous wastes spills, or contamination have been identified within the proposed operations area. Reserve Pit closure plans for the Atigaru and North Kalikpik reserve pits have been approved by the Alaska Department of Environmental Conservation (ADEC). This information has been compiled into the contractor's site specific health and safety plan prepared for the project.

Environmental Consequences

The major concerns are petroleum product contamination in the soils surrounding the well head, and within the drilling mud wastes within the reserve pit: measures would need to be taken to minimize or prevent cross-contamination of the plugging and abandonment personnel and equipment.

Petroleum products would be transported, stored, handled, and utilized for the duration of the proposed action. Maintenance of vehicles and heavy equipment would occur during the winter operations. Leaks or spills of petroleum products could occur, which would then negatively impact the snow and ice, which would later thaw and negatively impact marine waters, freshwater lakes, and/or the tundra environment.

Petroleum contamination has been confirmed in the drilling mud wastes within the reserve pit and is

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suspected in the soils surrounding the wellhead. These materials would be removed, transported, and deposited in the North Kalikpik Reserve pit. If any contaminated soils should enter the tundra or sea ice environment through an accidental discharge, and is not removed, then during the spring and summer (thaw) months, petroleum sheening would occur from the spilled soils. Marine mammals, fish, or wildlife and birds could come into contact with or ingest the contaminated soils. Localized, minimal acute and long term deleterious impacts would result from the petroleum contamination.

Complete capping of the North Kalikpik Reserve Pit was planned in the 2005 pit closure design. However, ADEC has agreed that, if sufficient clean soils are not available to completely cap the reserve pit above the level of the surrounding pad, then the pit can remain as an open pit. Since the western half of the pit is receiving a limited quantity of drilling muds and soils from Atigaru, it is likely that the eastern half of the reserve pit would remain open. An open pit is vulnerable to continued thermokarst action. Portions of the western pit covered with nine feet of clean capping materials could subside and become covered with water. Any water remaining in the pit could be susceptible to sheen, if petroleum products from the buried drilling muds become exposed. Observations of sheening have not been recorded at the North Kalikpik reserve pit since construction of the pit in the late 1970's. However, the possibility would remain if a portion of the pit remains water covered.

Mitigation and Monitoring

The following stipulations are recommended to prevent and/or reduce the impacts of spills to the environment:

Stipulation 1. All equipment, storage, and petroleum products containers, including barrels and propane tanks, shall be marked with the operator's (responsible party) name. Petroleum products containers shall also be marked with product type, and year filled or purchased (e.g. Company Name, Hydraulic Fluid, 2009).

Stipulation 2. Sorbent pads will be stored and used at all fueling points and maintenance areas. Drip basins and/or sorbant pads will be placed under all non dry-disconnect-type fuel line couplings and valves. Drip basins shall be placed under stored vehicle oil pans.

Stipulation 3. Storage of fuel and other petroleum products in excess of 1,320 gallons, shall require a Spill Prevention Control and countermeasure (SPCC) Plan in accordance with 40 CFR 112.

Stipulation 4. All fuel spills should be controlled and cleaned up immediately. Spills (including the Latitude/Longitude location of each spill) shall be reported to the Alaska Department of Environmental Conservation (1-800-478-9300) as soon as possible (Alaska Statute Title 18, Chapter 75, Article 2) and to the Authorized Officer.

Stipulation 5. Annual summer monitoring of the North Kalikpik Reserve pit shall be conducted and documented with a letter report. The report shall include photographs and documentation of the physical status of the reserve pit, the reserve pit cap, and the surrounding pad. If sheening of surface waters, gravel or soil staining, or breaching of the reserve pit is observed, the Alaska Department of Environmental Conservation Reserve Pit Division should be contacted, and plans made for maintenance or reconstruction.

Additional stipulations. All stipulations related to Human and Solid Wastes included in the NE NPR-A Atigaru Point Clean Up EA and FONSI

IAP/EIS should adequately mitigate any negative impacts, and thus should be applied to this proposed action.

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 considers a narrower temporal and spatial framework (i.e. approximately 30 years past and future and influences limited to a distance of approximately 10 miles from the access corridor and clean-up area).

The primary human activities in the current analysis include: oil and gas exploration and development; additional clean-up activities at other sites (e.g., Kogru); and subsistence, research/inventory, and recreation activity, as analyzed in the NE NPR-A IAP/EIS (USDOI BLM 2008a). In addition, the causes and impacts of climate change are global in scope; an assessment of the state of knowledge of climate change impacts is described in NE NPR-A IAP/EIS (USDOI BLM 2008a).

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.

Fisheries Habitat: As discussed in the 2008 NE IAP/EIS (Section 4.7.7), restricted winter habitat for fish in the Arctic makes many species highly vulnerable to the impacts of surface activities. Some effects may accumulate, but based on federal and state protective measures, effects to fish at the population level are not likely. No action could result in an increased cumulative risk to fisheries habitat, especially if no action were taken at other sites where erosion risks are high (e.g., Kogru).

Threatened / Endangered Species: The proposed action would not result in cumulative impacts to Stellar's and spectacled eiders or bowhead whales because the activities would not occur at times that the animals would be present. No impact to eider nesting habitat is expected as the activity will take place on a previously disturbed site so no additional eider habitat is at risk of being disturbed. The no action alternative could result in an increased risk of long term environmental contamination that could affect birds that feed and nest in or bowhead whales that use the area.

Polar bears could be affected cumulatively from oil and gas exploration, additional clean-up work at sites such as Kogru, subsistence activities, as well as research and monitoring activities from scientists,

industry, and agency personnel. A continuous band of potential denning habitat for polar bears has been identified by the USFWS along the project access route and operations area. The increased activity associated with this project would add a slight, temporary increase in potential disturbance to polar bears. Mitigation measures described above would reduce the frequency and proximity of disturbance. There would be no incremental increase in human activity with the no action alternative.

Flood Plains, Water Quality and Wetlands / Riparian Zones: 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 alternatives.

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.

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 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.

Waste, Hazardous / Solid: The actions associated with the clean up at Atigaru would be similar to the proposed action at Kogru, which is also slated for winter/spring 2009. There would be short term impacts, and slight risks of spills, but there would be a long-term environmental benefit from the clean-up activities.

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 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 from well plugging, camp activity, and vehicle traffic

Temporary disturbance, with possible displacement of some wildlife, in the area. Possible additive effect on winter wildlife mortality.

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).

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 this document, 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.

IV. Agencies, Organizations and Individuals Consulted

No public notification of the Environmental Analysis preparation has been undertaken.

There has been no public comment on this proposal thus far. Consultation with other agencies or individuals concerning this action included the U.S. Fish & Wildlife Service.

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USDOI, BLM and MMS (USDOJ). 2008. Northeast NPR-A Supplemental Integrated Activity

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V. ANILCA Requirements

Section 810 Subsistence Evaluation

This action is not likely to cause any significant restriction to the subsistence resources of the area (see attached ANILCA Section 810 Evaluation, dated 2/6/09).

Finding of No Significant Impact

Type of Action: NPR-A Right-of-Way (2884.01)
And plug and abandon oil well at Atigaru Point

Serial Number: FF-95503

Applicant: Bureau of Land Management, Fairbanks District Office
Arctic Field Office
1150 University Avenue
Fairbanks, AK 99709

District: Fairbanks District Office, Arctic Field Office

Lands Involved: Atigaru Point, North Kalikpik and lands/waters in between, at T. 14 N., R. 2 W.; T. 14 N., R. 1 W.; T. 13 N., R. 2 W.; and T. 14 N., R. 1 E., Umiat Meridian. Sites and ice roads will consist of approximately 75 acres.

Context and Intensity of Environmental Impacts

Based upon a review of the Environmental Assessment (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, or surrounding lands. Meanwhile, the mitigation measures and environmental protections would ensure that the proposed action would not add significantly to incremental impacts to NPR-A, 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 clean-up of contaminated soils and debris at a formerly used oil well at Atigaru Point. This site is particularly vulnerable to coastal erosion and removal would prevent migration of contaminants into the environment. Adverse impacts could occur to fisheries habitat threatened / endangered species, wetlands, floodplains and riparian areas, and waste (hazardous and solid).
- 2. Degree of effect on public health and safety:** The proposed action would have no adverse 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 highly localized and not significant, based on impact analysis done in compliance with Executive Orders 11990 and 11988. The long-term effects of the clean up to the environment 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 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 February 24, 2009. 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). An EFH finding of “Not likely to adversely affect, and no EFH consultation is required” was completed on February 5, 2009. A cultural clearance of the proposed project features in accordance with the NHPA was completed during August 2008 with a report of clearance on February 6, 2009.

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 periodically during the winter season. 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 the EA.

APPROVED:

/s/ Lon Kelly

Lon Kelly

March 4, 2009

Date