



# United States Department of the Interior

BUREAU OF LAND MANAGEMENT  
ARCTIC FIELD OFFICE  
1150 University Avenue  
Fairbanks, Alaska 99709-3899

## **ENVIRONMENTAL ASSESSMENT**

**Title:** Kogru Landfill Cleanup Project

**EA Number:** LLAKF012000-2009-0012

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

**Serial Number:** F-95509

**Applicant:** US Army, Corps of Engineers  
Alaska District  
P.O. Box 6898  
Elmendorf Air Force Base, Alaska 99506

**Date Prepared:** February 2009

**Prepared By:** Bureau of Land Management, Fairbanks District Office  
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### **Lands Involved**

Legal description includes the route to the site on BLM managed lands as well as the landfill site itself. Sec. 17-18 & 20-24, T. 14 N., R. 1 E., Sec. 13, 20-24, 29-30, T. 14 N., R. 1 W., & Sec. 16, 20-25, 14 N., R. 2 W., all within the Umiat Meridian. Total acreage approximately 50.

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 U.S. Air Force operated the dewline station at Kogru, or Pow-B from 1954 until 1958. The facilities included a radar tower, composite building, shop and warehouse building. An aboveground fuel cache, various gravel pads and an airstrip were all part of the complex. The site was abandoned in the early 1960's, and completely dismantled during several stages with most debris being buried in several landfills west of the former facilities. The first cleanup effort took place in 1981, but resulted in the burial of drums at the site, including in the subject landfill. The Corps conducted site investigations and debris removal actions in 1989 and 1998. A follow-up investigation in 2003 found a petroleum sheen and metals contamination in the marine waters at the toe of the landfill. The BLM and USGS conducted a geophysical investigation at the site that identified four cells of buried debris within the limits of the landfill west of the former station. The cell currently eroding into the Kogru River, Cell#4, was estimated to have an area of 16,200 square feet. Further sampling by the Corps in 2007 confirmed the presence of petroleum sheen and elevated metals concentration in water at the toe of Cell#4. In 2007, the Alaska Department of Environmental Conservation (ADEC) requested that the Corps take action to remove or stabilize the landfill.

Ongoing coastal erosion is exposing contaminated soils at the landfill, and appears to be causing migration of contaminants into the marine environment. In addition to the fuels and metals already released, the landfill is suspected to contain polychlorinated biphenyls (PCBs) and pesticides used at the dewline station. If the proposed action is not undertaken then harmful contaminants would become exposed to the environment. Such contamination would result in adverse physical, biological and social impacts at and near the Kogru site.

On December 17, 2008, the Alaska District, Corps of Engineers submitted an application to utilize the public lands in and around Kogru. The use requested would allow for the mobilization, landfill removal and demobilization of a COE contractor to conduct the necessary work. Time period is mid-March until mid – late May, depending on weather conditions.

The application was filed with the Arctic Field Office. Bureau of Land Management (BLM) in accordance with the regulations contained in 43 Code of Federal Regulations (CFR) 2800, and under the authority in the Naval Petroleum Reserve Production Act of 1976 (PL. 94-258, 90 Stat. 303)(NPRPA).

### **(B) Issues**

Staff members within the Arctic Field Office, Fairbanks District, have raised the following issues and concerns after reviewing the COE Preliminary Environmental Assessment: (1) Potential impacts to fisheries resources, (2) Wildlife Resources (T&E), (3) Potential impacts to Wetlands/Riparian zones, (4) Potential impacts from hazardous and solid wastes, (5) Potential impacts to Soil, Air and Water Resources.

There has been no public comment on this proposal thus far.

### **(C) Required Permits, Licenses, etc.**

Licenses and permits may include a North Slope Borough Development Permit, Alaska Coastal Management review and Alaska Department of Natural Resources permit for travel over non-federal waters (ice). Letter of Authorization (LOA) from USF&WS: polar bears.

**(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 documents:

**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 / subsurface estates of the lands and waters involved are under federal jurisdiction.

The proposed action is located on lands and waters that are in the National Petroleum Reserve – Alaska. Lands and waters in the NPR-A were originally set aside as the Naval Petroleum Reserve #1 by Executive Order 3797-A, dated February 27, 1923. Jurisdiction of the land was transferred to the Department of Interior from the Department of Navy by the Naval Petroleum Reserve Production Act of April 5, 1976 (PL.94-258, Stat. 303)(NPRPA). United States jurisdiction over coastal tidally influenced waters, and associated submerged lands, was affirmed in *United States v. Alaska, (Dinkum Sands case)* 117 S. CT 1888(1997).

**(E) Lands Status and Adjacent Land Uses**

All lands and waters in and around Kogru are within the jurisdiction of the United States. Outside of NPR-A and to Oliktok the waters/ice are under the jurisdiction of the State of Alaska.

**II. PROPOSED ACTION AND ALTERNATIVES**

**(A) Introduction**

This section describes the proposed action as well as other alternatives considered 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  
Erosion control  
Excavation of the landfill, and relocation of contaminants to a site further inland  
Excavation of the landfill, and the off-site disposal of contaminants

Under the **“no action”** alternative, the contaminated soil would remain on site, and the landfill would

continue to erode into the marine environment. Risks to the environment and human health would remain because exposure routes to contaminants would still exist. The no action alternative meets none of the clean up criteria however its evaluation is required by NEPA.

Under the “*erosion control*” alternative, activity would involve a barrier of gabions (large super-sacks) to protect the landfill from further erosion along the Kogru River. The contaminated soil and debris would remain in place at the site. The effectiveness of this alternative is uncertain, as the performance of the barrier, and its ability to prevent further migration of site contaminants is difficult to predict. The Air Force had only limited success with this method when it was used at Barter Island. Due to this uncertainty, this alternative will not be considered further.

Under the “*excavation of landfill and on-site disposal*” alternative, contaminated soil and debris would be excavated and moved approximately 500 feet inland. The soil and debris would be placed on top of another landfill. This approach would create a short term solution but not a long term remedy. This alternative has limited acceptance from regulators as it does not provide a long term solution. This would also be creating a new landfill which is in contradiction to current BLM policy. Therefore, this alternative will not be considered further.

Under the “*excavation of landfill and off-site disposal*” contaminated soil and eligible debris would be excavated from the eroding landfill and removed from the site for proper disposal at either a landfill in Deadhorse or a disposal facility outside Alaska. This alternative offers a long term solution to the landfill erosion, and is acceptable to the landowner and regulators. **This is the preferred alternative for the remedial action at the Kogru landfill.**

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. 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

The proposed action as submitted by the applicant is for the removal and off-site disposal of the landfill at Kogru identified as “**Landfill Cell #4**”.

The Corps of Engineers and its contractors will stage this project at the Oliktok Dewline station and using shore-fast sea ice, mobilize to the Kogru site. COE will approach their ice road requirements by either building their own road or through agreement with other companies also operating ice roads on shore-fast ice. The initial travel will be conducted on shore-fast ice under the jurisdiction of the State of Alaska, Department of Natural Resources. Upon entering the Kogru River inlet, waters and lands are managed by the Bureau of Land Management.

A 20-man camp will house all personnel associated with this project at the Kogru site. Camp services will include food and lodging, office space, aircraft loading/unloading, outside communication and fuel storage. Weekly camp usage of potable water has been determined to be 7,000 gallons. This water will be hauled each week however suggestions of acquiring a water withdrawal permit from the state of Alaska have been made. All blackwater will be containerized and backhauled to Deadhorse. Graywater

may be hauled as well. Regular camp moves (on ice) at a pre-determined schedule will be allowed and encouraged.

Re-supply and personnel movement will take place by use of a constructed ice airstrip. If the airstrip is for VFR day conditions it need only meet standard visual requirement (1 mile visibility). If it is to be a 24 hour operation the strip must be lit.

The primary objective of this proposed action is for the excavation work to remove contaminated soil from Cell #4 of the landfills at the Kogru Dewline station. Debris encountered during excavation would also be removed (to allow access to all areas of contaminated soil) and disposed of off-site. The Draft Work Plan for the Kogru West Landfill Cell #4 Removal Action, prepared in December 2008 by Jacobs Engineering Group, Inc., is being finalized. The Work Plan will be utilized for the project and is incorporated into this document by reference. The Work Plan for the clean-up action is summarized as follows:

The contractor would excavate the landfill in a systematic manner along a pre-established 15-foot grid (figure 4) during the 2009 winter construction season. The decision unit dimensions for the excavation work are 15 feet wide by 15 feet long and 2 feet deep, resulting in a decision unit volume of roughly 17 cubic yards. Soil samples from each decision unit volume would be analyzed in a field laboratory. The field analytical results would dictate how the soil from each decision unit is segregated, handled, stockpiled, and containerized onsite. A photo-ionization detector (PID) will be utilized to field screen for volatile organic compounds (VOCs). Other field screening will be conducted for diesel range organics (DRO), benzene, lead (Pb), and polychlorinated biphenols (PCBs). The action limits for screening results will be 9, 375ppm (DRO), 5ppm (benzene), 0.9ppm and 45ppm (PCBs), 200 ppm (lead), and 20 ppm (VOCs).

The results of field laboratory analyses will be confirmed through the analysis of selected samples at an off-site commercial laboratory. Laboratory analysis of 23 samples will be conducted for: total RCRA metals (arsenic, barium, cadmium, chromium, lead, selenium, and silver), total mercury, hexavalent chromium, PCBs, gasoline range organics (GRO), DRO, residual range organics (RRO), VOCs, semi-volatile organic compounds (SVOC), polycyclic aromatic compounds (PAHs), organochlorine pesticides, herbicides; ignitability, reactivity, and toxicity characteristic leaching procedure.

Excavation of Cell 4 would require the use of several types of heavy construction equipment. A Caterpillar® 385, or similar excavator, with frost teeth would act as the primary bulk removal machine. The excavator would be preceded by a Hitachi® 200 or similar excavator with a quick-change hydraulic jackhammer attachment. The jackhammer would work along the predetermined excavation grid lines and break up the frozen soil for bulk removal. A Caterpillar® 966 or similar loader with chained tires would be used to move soil as necessary from the immediate excavation site, and would be used for loading dump trucks. The excavation work would precede unit-by-unit until the limit of solid waste is reached and analytical samples indicate a clean boundary. The State of Alaska Department of Environmental Conservation has approved the use of Arctic Zone level for DRO of 500 ppm as the “clean” standard for this site.

No excavation of beach sediment would occur in this removal action. Incidental solid waste encountered along the shoreline during excavation activities would be picked up and added to the

debris waste stream, but no attempt would be made to retrieve debris trapped in or under the sea ice.

The material removed from the landfill would be segregated into separate stockpiles of clean soil, contaminated soil, hazardous debris requiring special containerization and manifesting (e.g., transformers), and non-hazardous debris. Material stockpiles will be placed adjacent to the north cutbank of the Kogru River, out of prevailing NE winds and will be covered, if necessary, to minimize fine sediment becoming windborne. All solid waste will be mechanically separated from excavated soils. Clean soils would be reserved and used as backfill in the excavation area to aid in contouring and resurfacing the excavation. If possible, the current vegetative cap (estimated to be approximately 1 foot deep) will be segregated, stockpiled, and then used to backfill the excavation.

If items of historic or cultural valued are discovered, the State Historic Preservation Office (SHPO), the U.S. Army Corps of Engineers archaeologist, and BLM archaeologist will be notified.

### **Transportation of Landfill Wastes**

Generally, material will be segregated, then containerized and transported off-site, as it is generated. Non-hazardous debris and low-level fuel-contaminated soil would be transported off-site in covered dump trucks (or similar all-terrain bulk transport vehicles) for permitted disposal at the Oxbow Landfill in Deadhorse. Hazardous debris, containerized waste, and highly-contaminated soil would be transported off-site in Supersacks®, drum overpacks, or lined bulk intermodal containers, as appropriate. These materials would be ultimately transported to Anchorage or a facility outside of Alaska for proper treatment and disposal.

### **Landfill Site Restoration**

The finished excavation would not be backfilled because active shoreline erosion at the rate of approximately 5 feet per makes stabilization impractical. The sidewalls of the excavation would be contoured to leave sloping sides less vulnerable to surface erosion. Clean soil reserved from the excavation would be spread over the re-contoured excavation. No other erosion control measures would be implemented.

#### **(C) Access**

Kogru access will be on shore-fast ice from Oliktok Point to the Kogru site. Ice is under the jurisdiction of the State of Alaska, Department of Natural Reserves or, the Bureau of Land Management, depending on location. Polar bear denning sites (USF&WS consultation) will determine final access route.

## **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 28, 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
1. ACEC's	NO	
2. Air Quality	NO	
3. Cultural & Historic	NO	
4. Farmland, Prime or Unique	NO	
5. Fisheries Habitat	NO	
6. Flood Plains	YES	YES
7. Nat. Amer. Relig. Concerns	NO	
8. Paleontological	NO	
9. Threatened / Endangered Species	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	

**Waste, Hazardous / Solids**

Potential Impacts of Hazardous Wastes: The winter mobilization, resupply, waste hauling, and demobilization transportation across sea ice could result in accidental spills or leaks onto the sea ice and/or equipment breaking through the sea ice. Fuel transfer and equipment use and maintenance operations could result in leaks or spills of petroleum products onto the ice or snow.

Removal of landfill contents with subsequent sorting, storage, and transport operations on sea ice: landfill sediments could be dropped and imbedded into the sea ice at all phases of the operation, thus introducing discreet, dispersed contaminants to the water column after spring break-up. Small lightweight sediments from the sorting/stockpile areas could be blown and scattered in the prevailing

wind direction. Operational delays could mean that only a portion of the landfill cell is removed. The remaining landfill contents could continue to slough off into the Kogru River, therefore continuing to provide onshore and near shore physical hazards and degradation of surface waters and sediments.

As proposed, the removal is only an interim action and is planned to State of Alaska Arctic Zone cleanup standards. The possibility of petroleum-based sheen developing on the shoreline and near shore waters of the Kogru River is high.

Since the winter operation period occurs on frozen ground and snow cover, the infiltration of spilled or leaked petroleum products, or landfill contaminants will be limited. As mitigation, all stipulations included in the NE NPR-A IAP / EIS of 2008, related to petroleum products apply to this operation.

Potential Impact of Human and Solid Wastes: Solid wastes commingled with petroleum, heavy metals, PCB, or other contaminants may not be completely removed from the site. Winter removal actions can miss substantial solid wastes and scrap metals hidden by snow and ice. The COE definition of the removal of “eligible” debris, as discussed in their Environmental Assessment is not detailed. The possibility is high that small amounts of solid wastes or debris could be left at the site which would be a visual nuisance; would be a physical hazard to wildlife; and would continue to serve as a near shore navigational hazard. Lightweight debris could become windborne and could become an air navigational hazard.

The winter camp will produce gray water, camp solid waste, and human wastes. If gray water is discharged directly from the camp modules to the sea ice, slipping/tripping hazards can develop; and the camp modules could end up becoming frozen in place. All stipulations related to Human and Solid Wastes included in the NE NPR-A IAP / EIS of 2008 should adequately mitigate any negative impacts, and thus should be applied to this proposed action. Also review additional site specific attached to the grant.

### **Flood Plains, Water Quality and Wetlands / Riparian Zones**

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 Kogru peninsula may be deeper than on the inland coastal plain, or may be discontinuous, due to proximity to the ocean. Investigations at the Kogru landfill bluff have reported ice lenses, but no visible permafrost. The land along the coastline at Kogru 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

on the Kogru peninsula, 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 27 miles southeast of the Kogru site. The much smaller Kalikpik River enters Harrison Bay about 10 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.

Impacts to wetland were described by USACE (2009), and are summarized as follows. The proposed project would remove less than one acre of wetlands. In addition any wetland that would be removed has been previously been altered by the installation of the landfill. The removal of contaminated soil and debris from the area would be a net benefit to the surrounding wetland habitat.

Drainage patterns and hydrology would be permanently altered in a limited area at the landfill site. The excavation and subsequent re-contouring would reform the slope along roughly 200 feet of shoreline. The landscaping would be less vulnerable to being undercut by wave action. As coastal erosion advances over time, the swale may become a small, shallow cove, but is not expected to have a significant effect on the long-term rates of erosion along the north shore of the Kogru River.

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

### **Threatened / Endangered Species**

*Affected environment:* The polar bear, listed in May 2008, is the only listed animal species likely to be present in the Kogru area 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 December or January 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 within 5 to 15 miles of Kogru: at the Eskimo Islands, Atigaru Point, and Cape Halkett. The USF&WS have mapped and identified potential denning habitat on nearly every part of the coastline involved in this project. **The COE will be required to request a Letter of Authorization (LOA) for the Intention 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 Letter of Authorization for the 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 this LOA 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:*

There is potential of direct effects (incidental take) to polar bears from this project through disturbance (by vehicle traffic and human activities during project mobilization, landfill removal 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. Intentional take of denning polar bears will be mitigated using the following measures which were determined in consultation with the USF&WS:

1. A polar bear den detection survey will 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 south of the Kogru Dew line site prior to the commencement of remediation of the site. This alignment will be used until April 1, 2009 if no denning polar bears are present within the project area of Kogru River inlet.
2. A set-back of ½ mile (approximately 800 meters) from coastal bluff habitats on shorefast ice will be imposed to limit the disturbance of possible denned 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 will be removed after April 1, 2009 if no denned polar bears are present along the corridor.
3. All travel along the coast will 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 denned 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.

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 then contaminants such as PCBs could become exposed into the environment and these could get into the food chain, and eventually such chemicals could be ingested by polar bears.

There will 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 removal of the contaminated waste 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.

If this project does not occur (no action alternative) there is potential of contaminants leaking into the surrounding environment and the possibility of threatened eider species coming into direct or indirect contact with the contaminants resulting in the potential for harm to the birds.

There will be no direct impact to bowhead whale as they are not found in the area of concern at the time that the permitted activities will occur. The proposed action is considered to be wholly beneficial to bowhead whales as the removal of the contaminated waste ensures that habitat contamination will not occur. If this project does not occur (no action alternative) there is potential of contaminants leaking into the surrounding environment and the possibility of bowhead whales coming into direct or indirect contact with the contaminants resulting in the potential for harm.

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 10 miles from the access corridor and clean-up area). 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; additional clean-up activities at other sites (e.g., Atigaru); and subsistence, research/inventory, and recreation activity, as analyzed in the 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.

*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.

*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 Atigaru, 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.

*Waste, Hazardous / Solid*

The actions associated with the clean up at Atigaru would be similar to the proposed action at Kogru. There would be short term impacts, and slight risks of spills, but there would be a long-term environmental benefit from the clean-up.

#### **IV. Agencies, Organizations and Individuals Consulted**

No public notification of the Environmental Analysis preparation has been undertaken by BLM however the COE did conduct a public meeting in Barrow on February 17, 2009.

There has been no public comment on this proposal thus far. Consultation with other agencies included the United States Fish & Wildlife Service,.

##### **List of Preparers**

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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 February 11, 2009).

# STATE OF ALASKA

## DEPARTMENT OF NATURAL RESOURCES

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February 12, 2009

File No.: 3130-1R COE/Environmental  
3330-6 HAR-087

SUBJECT: Cleanup of Cell 4 of the Kogru West Landfill under FUDS program

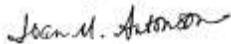
Guy McConnell  
Chief, Environmental Resources Section  
U. S. Army Corps of Engineers, Alaska District  
Environmental Resources Section  
P. O. Box 6898  
Anchorage, AK 99506-0898

Dear Mr. McConnell,

The State Historic Preservation Office has reviewed your correspondence (received January 30, 2009) regarding the referenced project under Section 106 of the National Historic Preservation Act. For tracking purposes, we have assigned the Alaska Heritage Resources Survey (AHRS) number, HAR-087, to the Kogru DEW line station. While the DEW line station was previously determined eligible for the National Register of Historic Places, we concur that the landfill is not a contributing element. Consequently we also concur with your finding that no historic properties will be adversely affected by this project.

Please contact Stefanie Ludwig at 269-8720 if you have any questions or if we can be of further assistance.

Sincerely,



*Deputy* Judith E. Bittner  
State Historic Preservation Officer

JEB:sl

## ***Finding of No Significant Impact***

Type of Action: Application for Right-of-way, 2884.01,  
And radar site cleanup at Kogru Landfill

Serial Number: FF-95509

Applicant:

U.S. Army Corps of Engineers  
Alaska District  
P.O. Box 6898  
Elmendorf Air Force Base, Alaska 99506

District: Fairbanks District Office, Arctic Field Office

Planning Unit: National Petroleum Reserve in Alaska (NPR-A), Northeast Planning Area

Lands Involved: Legal description includes the route to the site on BLM managed lands as well as the landfill site itself. Sec. 17-18 & 20-24, T. 14 N., R. 1 E., Sec. 13, 20-24, 29-30, T. 14 N., R. 1 W., & Sec. 16, 20-25, 14 N., R. 2 W., all within the Umiat Meridian

## ***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. 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 clean-up of contaminated soils and debris at a formerly used defense site in the NPR-A. This site is particularly vulnerable to coastal erosion and removal would prevent migration of contaminants into the environment. Adverse impacts could occur to landfill waste (hazardous and solid), wetlands, floodplains and riparian areas, and threatened / endangered species.

**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 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). A cultural clearance from the SHPO was received on February 12, 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 Section 4.4 and 4.5 of the EA.

**APPROVED:**

/s/ Lon Kelly

February 26, 2009

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Lon Kelly  
Arctic Field Office Manager

Date