



Alaska District
U.S. Army Corps of Engineers

Date: 29 October 2013 Identification No. ER 14-01
Please refer to the identification number when replying.

Environmental Resources Section

Public Notice

The U. S. Army Corps of Engineers (Corps) has prepared an environmental assessment (EA) and finding of no significant impact (FONSI) for the following action:

Removal Action
Containerized Waste & Petroleum-Contaminated Soil
Cold Bay/Fort Randall Former Military Facilities
Cold Bay, Alaska
F10AK0845-03
Formerly Used Defense Sites Program

The proposed action and potential environmental impacts are described in the enclosed EA. The EA is available for public review and comment for 30 days from the date of this notice. The EA and unsigned FONSI may be viewed on the Alaska District's website at: <http://www.poa.usace.army.mil>. Click on the Reports and Studies button and look under Documents Available for Review, Environmental Cleanup.

The comment period will close 30 days from the date of this notice. Written comments received on or before this date will become part of the official record. The FONSI will be signed upon review of comments received and resolution of significant concerns, if any. Please submit comments regarding the proposed action to the following address:

U.S. Army Corps of Engineers, Alaska District
ATTN: CEPOA-EN-G-ER (Floyd)
P.O. Box 6898
Joint Base Elmendorf-Richardson, Alaska 99506-0898

Please contact Mr. Christopher Floyd of the Environmental Resources Section at (907) 753-2700 if you have any questions about the proposed action. Comments or requests for additional information may also be submitted electronically to the email address: Christopher.B.Floyd@usace.army.mil.


Michael R. Salyer
Chief, Environmental Resources Section



**US Army Corps
of Engineers**

Alaska District

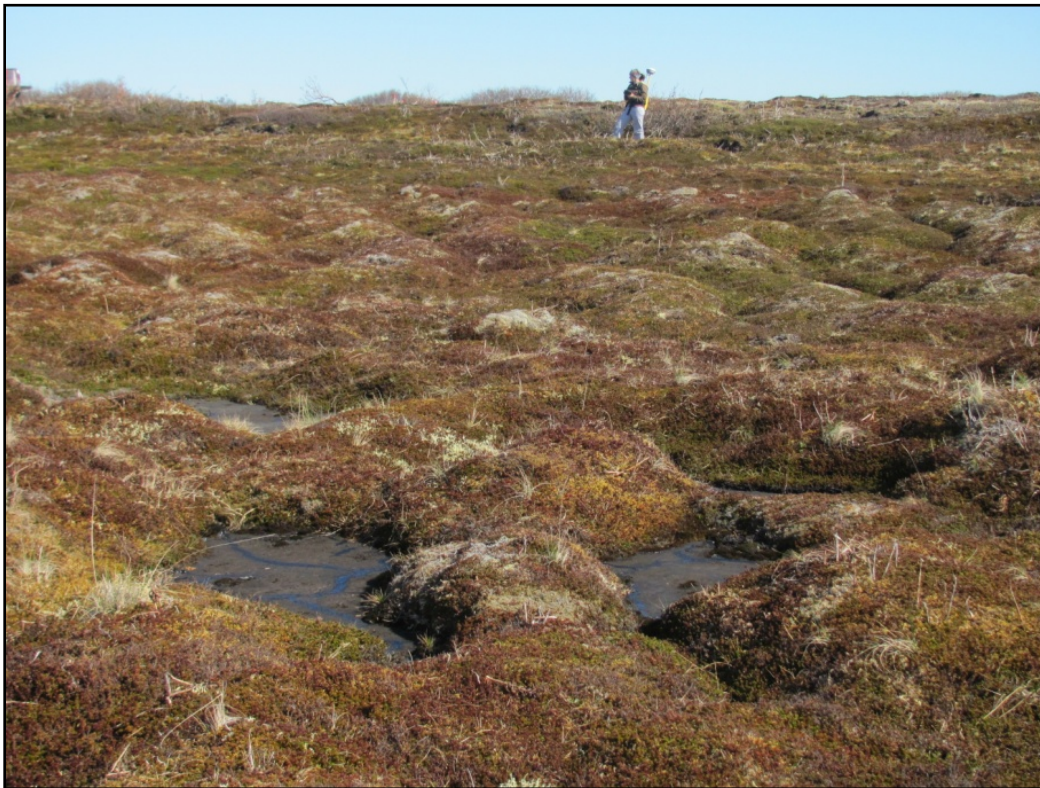
Environmental Assessment and Finding of No Significant Impact

Removal Action
Containerized Waste & Petroleum-Contaminated Soil

Cold Bay/Fort Randall Former Military Facilities

Cold Bay, Alaska
F10AK0845-03

Formerly Used Defense Sites Program



October 2013

FINDING OF NO SIGNIFICANT IMPACT

In accordance with the National Environmental Policy Act of 1969, as amended, the U.S. Army Corps of Engineers, Alaska District (Corps) has assessed the environmental effects of the following action:

**Removal Action
Containerized Waste and Petroleum-Contaminated Soil
Cold Bay Former Military Facilities
Cold Bay, Alaska**

This action has been evaluated for its effects on several significant resources, including fish and wildlife, wetlands, threatened or endangered species, marine resources, and cultural resources. No significant short-term or long-term adverse effects were identified.

This Corps action complies with the National Historic Preservation Act, the Endangered Species Act, the Clean Water Act, the Magnuson-Stevens Fishery Conservation and Management Act, and the National Environmental Policy Act. The completed environmental assessment supports the conclusion that the action does not constitute a major Federal action significantly affecting the quality of the human and natural environment. An environmental impact statement is therefore not necessary for the removal action at Cold Bay.

Christopher D. Lestochi
Colonel, Corps of Engineers
District Commander

Date

Environmental Assessment

1.0 PURPOSE AND NEED OF REMEDIAL ACTION

1.1 Introduction

The U.S. Army Corps of Engineers (Corps) prepared this environmental assessment (EA) under the National Environmental Policy Act (NEPA) to address the excavation and removal of buried drums and released petroleum product (i.e. asphalt) at the former military facilities at Cold Bay, Alaska. The Corps' proposed actions are authorized under the Department of Defense (DOD) Environmental Restoration Program – Formerly Used Defense Sites (DERP-FUDS), which provides the means to clean up waste materials, contaminated soil, and unsafe structures and debris from areas formerly used by the DOD. Most FUDS projects follow Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) processes, which would not include preparation of an EA under NEPA. However, the proposed project involves the excavation and removal of containerized waste and petroleum products, both of which fall outside the purview of CERCLA.

1.2 Site Description and History

Cold Bay and its airfield are on the Alaska Peninsula, about 630 miles southwest of Anchorage, Alaska. The asphalt burial area is within the southwest angle of the airfield's intersecting north-south and east-west runways (figure 1), centered at roughly 55.19°N, 162.73°W. The U.S. Army completed the airfield in 1942 as part of defensive works constructed in Southwest Alaska during World War II. The military base at Cold Bay was named Fort Randall and included extensive fuel storage and piping systems, docking facilities, and troop quarters as well as the airfield. By 1950, Fort Randall was closed and abandoned, leaving many structures and utilities in place (USACE 2005).

The proposed project is the removal of buried drums of asphalt and exposed asphalt and other petroleum products from disposal sites near the airfield. These drums were disposed of in trenches and are believed to be excess material left over from the paving of the airfield runways. Two trenches containing buried drums have been identified, along with two areas of exposed asphalt on the ground surface. Geophysical surveys performed in 1999 and 2012 indicate both trenches measure approximately 125 feet long by 25 feet wide. The north trench is estimated to contain 1,130 cubic yards of drums, drum contents, and contaminated soils; the south trench is estimated to contain 1,210 cubic yards. The two trenches are estimated to hold 3,263 drums, of which 979 are believed to still hold contents. Most of the drums are believed to contain asphalt; however, analysis of a drum sample collected in 2002 indicated the drum contained petroleum mineral oil (USACE 2013).

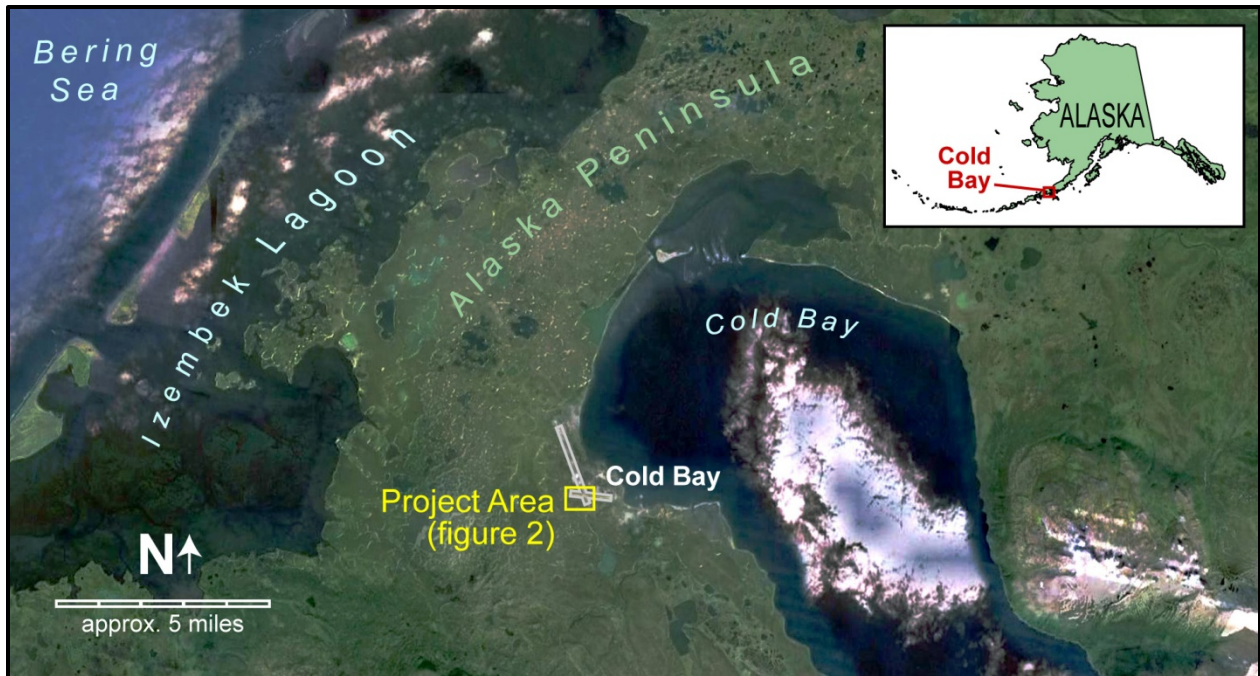


Figure 1. Location and vicinity of the Cold Bay project site.



Figure 2. Project features in relation to airport facilities.

At Asphalt Seep #1, the exposed asphalt is highly viscous and has collected in pools between hummocks of tundra grass adjacent to Lake Burns. Roughly 223 cubic yards of exposed asphalt is believed to be present in pools ranging from 6.5 to 14 inches thick and covering an area of about 6,000 square feet. Asphalt Seep #2 is on the ground surface above the two drum-burial trenches, and involves an area of about 200 feet by 100 feet covered with brittle, fragmented chunks of hardened asphalt.

1.3 Need for Action

Environmental sampling performed in 2002 suggested that the released asphalt was not generating significant toxicological contamination of nearby groundwater, surface water, and sediment. However, the viscous asphalt exposed on the ground surface presents an immediate fouling and entrapment hazard for wildlife and people, with the potential of a greater release as the buried drums continue to deteriorate. The presence of this uncontrolled release of potentially hazardous material on State of Alaska lands is a violation of State environmental regulations.

2.0 ALTERNATIVES

2.1 No-Action Alternative

Under the no-action alternative, the containerized waste and contaminated soil would remain in place. This would potentially allow the migration of chemical contaminants to nearby wetlands and the marine environment. The no-action alternative would avoid the short-term disruptions to the local environment that would be caused by the operation of heavy equipment and excavation of drums and soil.

2.2 Removal Action Alternative

Asphalt, a very dense, inert, and non-volatile petroleum product, would not be affected by natural attenuation or *in situ* remediation techniques, and much of it is still containerized. Excavation and removal of the asphalt from the environment is the only feasible means of removing it from the area in a timely fashion. It is also possible that much of the asphalt can be reconditioned and reused. The major components of the preferred alternative would be:

- Excavation of buried drums, tar, and petroleum-contaminated soil
- Transportation of drums to a treatment/disposal facility
- Transportation of drum contents to a treatment/disposal facility
- Transportation of asphalt to a treatment/disposal facility or recovering the tar for reuse
- Confirmation soil sampling
- Backfill of the excavation with clean material
- Site re-vegetation

2.3 General Work Practices and Environmental Protection

Excavation and removal work would involve standard construction machinery, such as large excavators and heavy dump trucks. Drum over-packs or other containers would be needed to

repackage the asphalt drums. Backfill material would be obtained from an established, clean local borrow source.

Environmental protection steps would primarily consist of standard construction best management practices (BMPs) to avoid unnecessary disturbance or damage to the local environment; these BMPs would be developed more fully in the contractor's work plan. Erosion control BMPs may include covering exposed soil with brush, netting, erosion blankets or mulches (e.g., chipped brush), limiting off-road travel, and placing silt fences where applicable to control sediment runoff from the project site perimeter and to protect any nearby creeks or drainage channels. The re-vegetation strategy would need to take into account the persistent winds at Cold Bay.

All fuels and fluids used in machinery and excavation equipment would be stored at least 50 feet from creeks and beaches. Equipment and trucks containing fuel would park at least 50 feet from creeks and beaches when not in use. Emergency spill response procedures and materials would be provided on all equipment; materials would include sorbent mats, socks, and pads for absorbing fuels and fluids used on site.

The backfilled excavations would be contoured to match the existing surface, but re-vegetation would not be attempted, given the persistent high winds in the Cold Bay area and generally poor success rate of re-vegetating tundra environments. If the site is re-vegetated, a suitable grass mixture designed for the local climate would be used.

3.0 AFFECTED ENVIRONMENT

3.1 Community

Cold Bay had an estimated 2012 population of 98 and serves as a regional transportation center with its large paved runway, state-owned airport, a Federal Aviation Administration (FAA) flight service center, and ocean dock. Several Federal and State agencies have offices in Cold Bay due to its transportation infrastructure and proximity to commercial fishing areas and national wildlife refuges. The city is surrounded by Izembek National Wildlife Refuge and the Alaska Peninsula National Wildlife Refuge (ADCRA 2013).

3.2 Current Land Use

The asphalt area is currently owned by the State of Alaska Department of Transportation and Public Facilities (ADOT-PF) as part of the Cold Bay Airport grounds. The land in the project area is vacant with some gravel pads and access roads, and is used by ADOT-PF for temporary storage. The remains of a large aircraft rest on a large gravel pad.

3.3 Climate

Positioned on a narrow peninsula between the Bering Sea and the Pacific Ocean, and surrounded by mountain peaks, Cold Bay is known for windy conditions. Temperatures range from about 25 to 60°F; precipitation averages roughly 36 inches of rain and 55 inches of snowfall (ADCRA 2013).

3.4 Topography, Soils, and Hydrology

The general terrain around Cold Bay is similar to the Aleutian Islands: rolling, treeless tundra dotted with ponds and lakes. The elevation of most of the Cold Bay area is generally less than 100 feet above sea level. Mount Frosty, the nearest dormant volcano, has an elevation of 5,784 feet and is about 4 miles southwest of the community. Soils in the Cold Bay area are generally coarse sands and gravels, with fines concentrating around water bodies. In the asphalt area, the soils are known to be poorly graded brown silty sands, and the groundwater is believed to be roughly 15 feet below ground surface. Lake Burns is immediately south of the asphalt seep areas and Burial Pit #1. Lake Burns receives runoff from the north, east, and south. It appears that prior to the installation of Engineers Road, an intermittent stream or drainage pathway may have run near the asphalt seeps and discharged into Stapp Creek. Construction of Engineers Road during World War II may have blocked the drainage pathway, thereby creating Lake Burns (JEG 2003).

3.5 Air Quality and Noise

Cold Bay presumably enjoys good air quality because of the community's isolation, the small number of pollutant emission sources, and persistent winds from the nearby ocean. The primary source of air pollutants are the community's electric generator along with individual fuel oil or wood stoves, and vehicles such as trucks, cars, boats, and snow machines. There is no established ambient air quality monitoring program at Cold Bay, however, and little existing data to compare with the National Ambient Air Quality Standards (NAAQS) established under the Clean Air Act (CAA). These air quality standards include concentration limits on the "criteria pollutants" carbon monoxide, ozone, sulfur dioxide, nitrogen oxides, lead, and particulate matter. The community is not in a CAA "non-attainment" area, and the "conformity determination" requirements of the CAA would not apply to the proposed project at this time.

No specific noise data exist for Cold Bay, but it is probably comparable with other small coastal Alaskan communities. Air traffic, boat traffic, vehicles, construction equipment, and generators are the most likely sources of man-made noise.

3.6 Biological Resources

Vegetation in the Cold Bay area is predominantly tundra made up of grasses, lichens and heath-type plants such as Labrador tea, blueberries, and crowberries. Brushier vegetation, such as willow and alder, are found in the dryer areas. Of greatest value are the wetlands adjacent to Stapp Creek, which supports both chum and coho salmon (USACE 1998).

The Cold Bay area supports diverse wildlife. The most prominent mammals in the area are brown bears, which are often seen feeding on spawning salmon in area streams during the summer months. Other mammals inhabiting the area include caribou, fox, river otter, mink, wolverine, wolf, ground squirrel, ermine, hare, and vole.

Marine mammals frequenting the estuarine and coastal waters include seals and sea otters, which congregate in rookeries along sand and rock beaches. Steller's sea lions are seen occasionally in estuaries and use offshore rock islands for haul-outs and rookeries. Gray, humpback, fin, and

minke whales migrate along the coastline, with rare visits to area bays and lagoons (USACE 1998).

Izembek National Wildlife Refuge is critically important to migratory waterfowl, especially the black brant. In addition, large numbers of emperor geese migrate through the refuge. Large concentrations of ducks and shorebirds inhabit the area during the summer months. Northern pintails, mallards, oldsquaw, harlequin ducks, and rock sandpipers are among the most common species observed. Steller's eiders are the most abundant winter duck species. Numerous species of passerine birds and raptors also inhabit the area (USACE 1998).



Figure 3. Photograph of the shoreline of Lake Burns from June 2012, showing the tussock grass and lichen tundra predominating in the project area.

3.7 Wetlands

The Corps has not delineated the project site for wetlands, and the site is not in an area covered by the U.S. Fish & Wildlife Service (USFWS) National Wetlands Inventory. However, judging from photographs taken at the project site (figure 3), those areas around the project sites that have not been filled for roads, gravel pads, or past waste disposal are a grass-lichen tundra that is presumed to be wetlands.

3.8 Threatened and Endangered Species

Species listed as threatened or endangered under the Endangered Species Act (ESA) that may be found in and around Cold Bay include (NMFS 2013b; USFWS 2013a):

- Steller’s eider (threatened),
- Northern Sea Otter (Alaska Southwest “distinct population segment; threatened),
- Short-tailed albatross (endangered),
- Steller sea lion (endangered),
- Humpback whale (endangered),
- North Pacific right whale (endangered),
- Sperm whale (endangered).

All species listed above except Steller’s eider are found wholly in marine habitats. Steller’s eiders (*Polysticta stelleri*) do not nest on the Alaska Peninsula, but may be found wintering in coastal waters near Cold Bay between November and early April each year. In addition, Steller’s eiders use nearby Izembek Lagoon as a gathering place for an annual autumn flightless molting period lasting about 3 weeks. A series of shallow lagoons along the north shore of the Alaska Peninsula, including Izembek Lagoon, have been designated by the USFWS as critical habitat for Steller’s eiders (USFWS 2012a, USFWS 2013b).

Two candidate species for the ESA may potentially be found in the Cold Bay area during certain times of the year. Yellow-billed loons (*Gavia adamsii*) nest on freshwater lakes in the arctic Alaska tundra, but like Steller’s eiders, could be found wintering in marine waters near the project area. No critical habitat has been designated for this species. Kittlitz’s murrelet (*Brachyramphus brevirostris*) is a small diving seabird that nests inland. In Southeast and Southcentral Alaska, it selects a nest site on the ground or on barren, steep-sided mountains or ledges of steep, rocky cliffs adjacent to the coastal waters where it feeds on small fish and crustaceans. In the Aleutian Islands nests are found on mountain slopes with approximately 40 percent cover from low growing forbs and grasses. No critical habitat has been designated for this species (USFWS 2013b).

3.9 Essential Fish Habitat and Anadromous Streams

The project area is about 1 mile from the shoreline and does not contain habitat for marine fishes (NMFS 2013a). No water bodies cataloged by the Alaska Department of Fish & Game (ADFG) Anadromous Waters Catalog (AWC) are present in the project area, although one cataloged unnamed stream (AWC #283-34-10250, which appears to be called Stapp Creek in some Corps documents) is reported to contain coho salmon approaches to within about 1,000 feet southeast of the asphalt area (figure 2). Another stream, Trout Creek (AWC #283-34-10300), a spawning stream for chum, coho, and pink salmon, winds to within a half-mile west of the asphalt area (ADFG 2013). Some small fish, probably stickleback, have been reported in Lake Burns.

3.10 Cultural and Historic Resources

According to the Alaska Department of Community and Regional Affairs (ADCRA) website, archaeological sites dating to the last ice age indicate the area around Cold Bay was once inhabited by a large Native population, and the Cold Bay region likely played an important role in the migration of Asiatic people to North America due to its location near the southern end of the

Bering land bridge (USACE 1998). European hunters and trappers also used the area throughout the 19th century.

As discussed in Section 1.2, the U.S. Army completed the airfield in 1942 as part of defensive works constructed in Southwest Alaska during World War II. The Alaska Historic Resource Survey (AHRS) database shows the project site as adjacent to the Cold Bay Airfield historic property (AHRS number XCS-147) and within the polygon representing the larger Fort Randall historic property. The AHRS entry for XCS-147 states that the “runways and associated taxiways and revetments still evoke some of the historic feeling of a World War II air base and Cold War airport. However, the airfield has lost the overall integrity required for inclusion onto the NRHP (National Registry of Historic Places).” The State Historic Preservation Officer (SHPO) determined in 2002 that the Cold Bay Airfield is not eligible for the NRHP (AOHA 2013).

4.0 ENVIRONMENTAL CONSEQUENCES OF ALTERNATIVES

4.1 No-Action Alternative

The no-action alternative would avoid the short-term disruptions to the local environment that would be caused by the operation of heavy equipment and excavation of soil. However, the contaminated soil and waste materials would remain in place, which would limit the use of the area by the community and potentially allow the migration of chemical contaminants to the nearby environment.

4.2 Preferred Alternative

Under the preferred alternative, contaminated soils and waste materials would be removed from the site to the extent practicable. The potential environmental consequences are described below.

4.3 Effects on Community and Land Use

The project is on land owned by the State of Alaska for the operation of the airport and is thus not generally open to public use. Site security and the timing of site access and other project activities would be coordinated with the airport managers, but work at this remote and little-used corner of the airport property would not be expected to interfere with airport operations.

4.4 Effects on Air Quality and Noise

Air quality may be affected during the project period from the use of heavy equipment, construction vehicles, and generators. The Corps believes any increase in pollutant emissions caused by the project would be transient, highly localized, and would dissipate entirely at the completion of the project.

4.5 Effects on Topography, Soils, and Hydrology

The small areas of excavation would not significantly alter the topography or patterns of overland water flow in the area.

4.6 Effects on Biological Resources

The planned activities would be highly localized in their impacts and affect an area already altered by the former military construction and past cleanup efforts. A small amount of brush may need to be cleared to access specific features. The activities would have little effect on local wildlife and no long-term negative impact on their habitat. The project sites are surrounded by areas of similar, higher-quality habitat, and any wildlife displaced from the project area by noise and activity should be able to quickly resume their natural behavior.

Ground-nesting birds are likely to be the most vulnerable animal species at the site. The destruction of active nests, eggs, or nestlings is a violation of the Migratory Bird Treaty Act (MBTA). The U.S. Fish and Wildlife Service advises that the period 1 May through 15 July should be considered the nesting window for birds nesting on open ground on the Alaska Peninsula (USFWS 2009). The project activities may overlap this nesting window; if the proposed work takes place in late summer or early autumn, the potential impact on nesting birds would be negligible.

4.7 Effects on Wetlands

The intrusive excavation of buried waste would occur mostly in areas already filled with debris and borrow material. The backfilling of completed excavations with clean material may constitute a discharge to wetlands and be subject to Section 404 of the Clean Water Act. However, any backfilling activity would be authorized under Nationwide Permit No. 38, "Cleanup of Hazardous and Toxic Waste."

4.8 Effects on Endangered and Threatened Species

As stated in Section 3.7, those species in the Cold Bay area listed under the ESA are primarily marine species that would not be found at the inland project site or are other species that do not have critical habitat at the project site. Steller's eiders winter in marine waters along the Alaska Peninsula and Aleutian Islands, and use shallow lagoons on the Bering Sea coast (such as nearby Izembek Lagoon) as gathering-places for their autumn molt. However, Steller's eiders do not nest on the Alaska Peninsula, and would not be expected to be present in or near the inland project site, especially during the summer. Izembek Lagoon is relatively close to the project site (roughly 5 miles at its nearest extent; figure 2). The period during autumn that molting Steller's eiders spend in Izembek Lagoon could potentially overlap with the project field season if the project runs into late summer. However, the eiders are flightless during their molt and would be confined to the lagoon and adjacent coastal waters; the eiders would be very unlikely to be at or near the project site during their molt and should not be affected by the proposed activities. Yellow billed loons would only be present near the project site during the winter. The onshore distribution of Kittlitz's murrelet in the Cold Bay area is not well known. However, their preferred nesting habitat of steep, sparsely vegetated mountainsides does not exist in or near the project area.

The Corps determines that this project would have no adverse effects on endangered or threatened species.

4.9 Effects on Essential Fish Habitat and Anadromous Streams

The project would not require entry into or alteration of water bodies, including anadromous streams. Best management practices such as silt fencing or other appropriate sediment control would be employed to minimize the risk of runoff reaching nearby Lake Burns during excavation. The intent of the project is to remove contamination from the environment, which should have a net positive effect on local fish habitat. There is no marine EFH in the project area, and the Corps determines that the project would have no adverse effects on fish habitat.

4.10 Effects on Cultural Resources

Cultural resources are not expected to be effected by the project. The planned activities would occur in an area already disturbed by the former military facility and past cleanup efforts. Most of the World War II facilities have been destroyed or altered, and there are no known cultural or archaeological sites in the project vicinity. The WWII airfield facilities have been found to be ineligible for the National Registry of Historic Places. The Corps will seek concurrence from the State Historic Preservation Officer that the project would have no adverse effect on historic properties.

4.12 Effects on Coastal Zone Management

Alaska's Coastal Zone Management Program expired on 31 July 2011. Project proponents are no longer required to evaluate projects for consistency with enforceable standards of coastal management plans.

4.13 Effects on Environmental Justice

Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," requires Federal agencies to identify and address any disproportionately high and adverse human health effects of its programs and activities on minority and low-income populations.

The express purpose of the proposed project is to reduce future risks to human health and welfare in the region by removing contaminants and physical risks from the environment. The Corps does not anticipate adverse impacts from this project to the human population.

4.14 Cumulative Effects

Federal law (40 CFR 651.16) requires that NEPA documents assess cumulative effects, which are the impact on the environment resulting from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions.

The proposed project would have the ultimate net effect of removing a large mass of chemical contamination from the environment. The immediate incremental impacts of air pollutants and noise from construction machinery would be of short duration and would not contribute to long-term cumulative effects. Given the current restricted public access to the land near the airport and its ownership by the State of Alaska, the restoration of the site would not be expected to encourage development of the area.

5.0 Permits and Authorizations

This continuing project would require no resource permits and few authorizations. The Corps will seek concurrence from the State Historical Preservation Officer that the soil excavation work would not cause adverse effects to historical properties or cultural resources. The backfilling of excavations during the project may constitute a discharge into wetlands; however, such a discharge would be authorized by Nationwide Permit No. 38, "Cleanup of Hazardous and Toxic Waste."

6.0 CONCLUSION

The continued environmental cleanup efforts at Cold Bay, as discussed in this document, would have some minor, largely controllable short-term impacts, but in the long term would help improve the overall quality of the human environment. This assessment supports the conclusion that the proposed project does not constitute a major Federal action significantly affecting the quality of the human environment; therefore, a finding of no significant impact will be prepared.

7.0 PREPARERS OF THIS DOCUMENT

This Environmental Assessment was prepared by Chris Floyd and Diane Walters of the Environmental Resources Section, Alaska District, U.S. Army Corps of Engineers. The Corps of Engineers Project Manager is Andy Sorum.

8.0 REFERENCES

Alaska Department of Fish and Game (ADFG). 2013. Anadromous Fish Distribution Database: <http://www.sf.adfg.state.ak.us/SARR/AWC/index.cfm/FA/maps.interactive>.

Alaska Office of History and Archaeology (AOHA). 2013. Department of Natural Resources, Alaska Heritage Resource Survey online database (restricted access).

Jacobs Engineering Group, Inc. (JEG). 2003. 2002 Remedial Investigation Report, Final, Cold Bay, Alaska. January 2003.

NMFS. 2013a. Essential Fish Habitat Mapper: http://sharpfin.nmfs.noaa.gov/website/EFH_Mapper/map.asp

National Marine Fisheries Service (NMFS). 2013b. Protected Species; Cetaceans (Whales and Dolphins) in Alaska Waters website: <http://alaskafisheries.noaa.gov/protectedresources/whales/default.htm>

U.S. Army Corps of Engineers (USACE). 2013. CON/HTRW Removal Action Authorization Memorandum, Drum Burial Area, Project #F10AK0845-03, Cold Bay ACS COM – Fort Randall, Cold Bay, Alaska. 23 July 2013.

USACE. 2005. 2005 Field Season Alaska District TERC Project Briefings, Cold Bay FUDS C3 Zone #17.

USACE. 2012. Geophysical Survey of the Drum Burial Area, Formerly Used Defense Site, Cold Bay, AK. July 2012.

USACE. 1998. "Thornburgh Field/Fort Randall," Environmental Assessment and Finding of No Significant Impact, Defense Environmental Restoration Program, Formerly Used Defense Sites.

U.S. Fish & Wildlife Service (USFWS). 2013a. USFWS Alaska Region Endangered Species Act Consultation website:

<http://www.fws.gov/alaska/fisheries/fieldoffice/anchorage/endangered/consultation.htm>

USFWS. 2013b. USFWS Alaska Region Endangered Species Act Listing website:

<http://www.fws.gov/alaska/fisheries/endangered/listing.htm>

USFWS. 2012. Fact Sheet – Steller's Eider,

http://alaska.fws.gov/fisheries/endangered/pdf/stellers_eider_factsheet_v2.pdf

USFWS. 2009. ADVISORY: Recommended Time Periods for Avoiding Vegetation Clearing in Alaska in order to Protect Migratory Birds.