



Alaska District
U.S. Army Corps of Engineers

Date: 27 March 2017 Identification No. ER-17-04
Please refer to the identification number when replying.

Environmental Resources Section

Public Notice

**Environmental Assessment and Finding of No Significant Impact
CON/HTRW Removal Action
Attu Former Military Facilities (F10AK005-08/-09)
Attu Island, Alaska**

The U.S. Army Corps of Engineers (Corps) proposes to excavate and remove buried drums and released petroleum product (i.e. asphalt) at the former military facilities on Attu Island, 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.

Information on the proposed action and anticipated environmental effects are discussed in the attached environmental assessment (EA) and unsigned Finding of No Significant Impact (FONSI), which are also available for public review and comment at the following Corps' website:

<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 15 days from the date of this notice. All 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.

Please send electronic comments on EA/FONSI to Christober.B.Floyd@usace.army.mil and written comments to the following address:

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

No public meeting is scheduled for this action. If you believe a meeting should be held, please send a written request to the above address during the 15-day review period explaining why you believe a meeting is necessary.

Please contact Mr. Chris Floyd of the Environmental Resources Section via his email address, by phone at 907-753-2700, or write to him at the Corps' address if you would like additional information concerning the proposed project.

A handwritten signature in black ink, appearing to read 'Chris Floyd for'.

Michael Noah
Chief, Environmental Resources Section



**US Army Corps
of Engineers**

Alaska District

Environmental Assessment and Finding of No Significant Impact

CON/HTRW Removal Action **Attu Former Military Facilities**

Attu Island, Alaska

F10AK005-08/-09

Formerly Used Defense Sites Program



March 2017

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:

**CON/HTRW Removal Action
Former Military Facilities
Attu Island, 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 Attu Island.

Michael S. Brooks
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 on Attu Island, 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

Attu Island is the western-most of the Aleutian Islands in United States possession, located approximately 1,500 miles southwest of Anchorage, Alaska, and 410 miles west of the nearest inhabited U.S. Aleutian island, Adak Island. During World War II, Japanese military forces invaded and occupied Attu Island in 1942, killing or imprisoning most of the Alaska Native

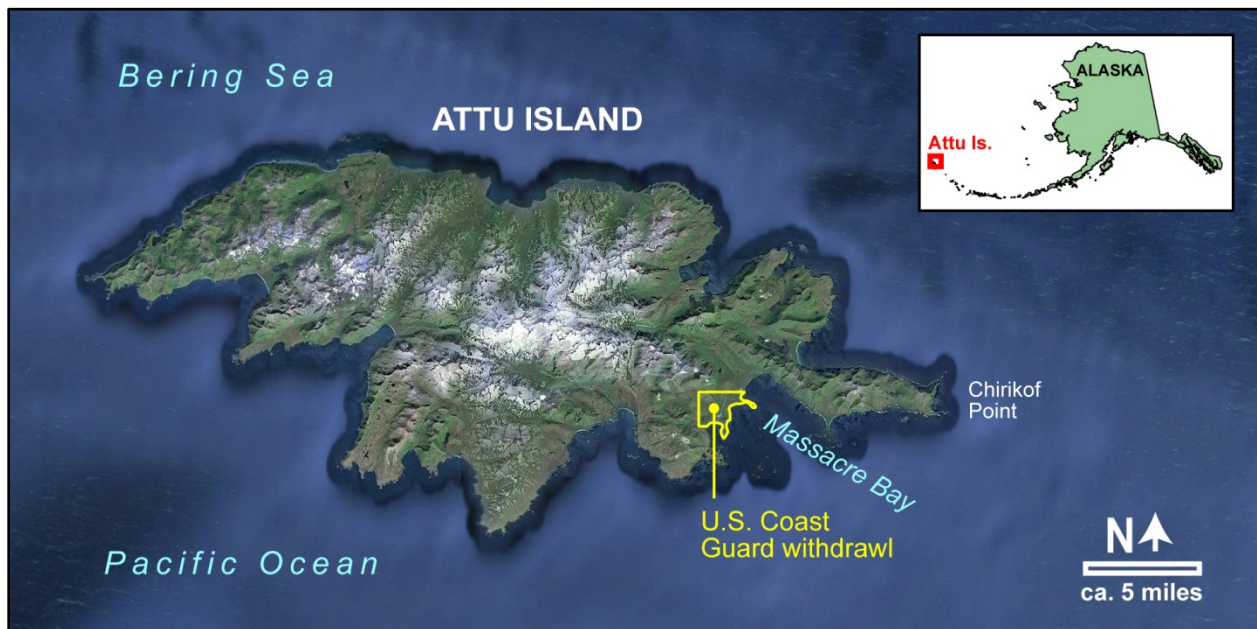


Figure 1. Location and vicinity of Attu Island and former military facilities within the current U.S. Coast Guard reservation.

inhabitants. The U.S. military recaptured the island in May 1943, and in 1943-1944 began construction of military facilities. Naval construction included accommodations for 7,650 personnel; storage for materials, fuel, and ordnance; an airfield and seaplane base; hangars and repair shops; small-craft and submarine piers; a dry dock and repair shops; a radio station; and maintenance shops.

1.3 Need for Action

Significant environmental contamination from previous military activities remains at Attu Island. Several site investigations have been conducted by the U.S. Fish and Wildlife Service (USFWS), U.S. Coast Guard (USCG), and the Corps. The Corps contracted a source removal action that in 2016 removed approximately 100 tons of a tar/asphalt material and associated drums, along with 5,000 tons of petroleum-contaminated soil, 100 tons of lead-contaminated soil, and other containerized wastes from areas-of-interest (AOIs) #1 and #5. The proposed 2017 removal action is a continuation of the 2016 effort at AOIs #1 and #5, and will include removal and off-site disposal of drums and drum debris, lead-acid batteries, paint containers, transformers, and other containerized waste, and the excavation and off-site disposal of soil impacted by releases of contaminants from the containers.



Figure 2. Photograph taken June 2016 showing an excavator loading drum carcasses, leaked asphalt, and contaminated soil into a polymer shipping bag.

The NEPA requirement for the 2016 source removal action was addressed through a “Record of Environmental Consideration” memorandum describing the action as primarily the removal of surface debris, contamination sources, and wildlife entrapment hazards. Upon review of the 2016

activities, the Corps decided that the continued excavation of large quantities of contaminated soil in 2017 warranted evaluation in an EA.

2.0 ALTERNATIVES

2.1 No-Action Alternative

The no-action alternative would avoid the short-term disruptions to the local environment that would be caused by the removal of containerized wastes and excavation of soil. However, under the no-action alternative, the waste products and contaminated soil would remain in place. This would potentially allow the migration of chemical contaminants to nearby wetlands and other wildlife habitat.

2.2 Removal Action Alternative

Excavation of contaminated soil and removal of contaminant sources is the only action alternative presented in this EA. The Corps' experience with environmental cleanup projects in Alaska has shown that *in situ* remediation or natural attenuation strategies tend not to be practicable or economically feasible at small, remote contaminated sites due to cold temperatures and the high costs of maintenance and monitoring. In such situations, direct removal and disposal of contaminant sources and contaminated soil is generally the fastest, surest, and most economical means of eliminating or reducing environmental contamination.

2.3 Preferred Alternative

The action alternative of continuing to remove containerized wastes and contaminated soil is the preferred alternative. The project work plan (Ahtna 2016) presents the proposed removal action in detail, and is incorporated by reference. The general scope of work is to:

- Mobilize personnel, equipment, and materials to Attu Island
- Establish and maintain a camp for field personnel, Corps personnel, and visitors
- Excavate, recover, and properly dispose of from AOIs #1 and #5:
 - Up to 400 tons of asphalt/tar drums and impacted drum carcasses/debris
 - Up to 150 tons of chemical drums, drum carcasses, and associated soil
 - Up to 2,000 tons of batteries and lead-contaminated soil/debris
 - Up to 8,000 tons of asphalt/tar-contaminated soil within AOIs #1 and #5
 - Up to 100 tons of transformers and polychlorinated biphenyl- (PCB-) contaminated soil within AOI #5
- Demobilize personnel, equipment, and materials from Attu Island

2.4 General Work Practices and Environmental Protection

The contractor plans to mobilize project equipment, tools, and supplies to Attu Island in late April or early May 2017, using one ramp barge and one mainline barge with an inboard crane. The barges will land at the previously used Navy Town barge landing beach in Pyramid Cove,

Massacre Bay (figure 3); personnel will arrive by chartered aircraft landing at the existing airfield. A project camp for up to 25 personnel will be set up on an existing gravel pad adjacent to the former U.S. Coast Guard LORAN station. Minor improvements to existing roads may be necessary, including placing a temporary steel bridge across Navy Town Creek, laying gravel obtained from existing sources, and brush removal. Wooden rig mats or low ground-pressure vehicles will be used to minimize impacts of moving vehicles into areas where existing roads do not reach (Ahtna 2016).

Some drums and drum carcasses will be crushed and placed into lined 20-foot intermodal shipping containers, while other waste streams will be containerized in specialty polymer soil bags. The filled soil bags and shipping containers will be staged along existing roadways and concrete pads to await loading on the barges. Demobilization from Attu Island is expected to occur in early July. The containerized wastes will be transported to Seattle, Washington, where waste management subcontractors will take over the final transfer to an appropriate waste disposal facility. No equipment, materials, or camp-generated waste will remain on Attu at the end of the project (Ahtna 2016).

The contractor's work plan includes an environmental protection plan (EPP), which details steps that will be followed to avoid and minimize impacts to the environment. These include:

- Daily inspections of vehicles, fuel containers, and other potential contaminant sources for leaks, and maintenance of spill-response equipment and materials in accordance to the project accident prevention plan (appended to the work plan).
- Decontamination of project excavation and waste-handling equipment to prevent spread of contaminants.
- Minimization, evaluation, and treatment, where necessary, of project wastewater, including water that may collect within excavations.
- Preparing and implementing a Storm Water Pollution Prevention Plan (SWPPP) to restrict sediment and contaminants from escaping the work site and entering water bodies, in accordance with the State of Alaska General Permit for Discharge from Large and Small Construction Activities. A copy of the project SWPPP is appended to the work plan.
- Protecting native vegetation and soil by using existing roads, trails, and pads to the maximum extent possible, and limiting damage during off-road travel through the use of pads and low ground-pressure vehicles. Excavated or otherwise disturbed ground will be contoured and graded, but not re-vegetated.
- Watching for and avoiding marine mammals during operations of the barges and support vessels.
- Watching for possible ground-nesting birds near the work sites and following EPP procedures to protect any nests discovered.
- Implementing rat prevention and control measures to avoid transporting rats onto Attu, or spreading the existing Attu rat population.
- Implementing the EPP procedures to protect and report cultural resources (Ahtna 2016).

3.0 AFFECTED ENVIRONMENT

3.1 Community

Attu Island is currently uninhabited, although visited regularly by USFWS and other government agency personnel, and by birding and history tour groups (Ahtna 2016).

3.2 Current Land Use

Most of Attu Island is included in the Aleutians Island Wilderness area established in 1980 and administered by the USFWS as part of the Alaska Maritime National Wildlife Refuge. Two areas excluded from the Wilderness designation are a 1,800-acre reservation leased by the U.S. Coast Guard at Massacre Bay and the historic site of Attu Village, which was conveyed to the Aleut Corporation in 1999. The project areas are located entirely within the USCG reservation.

3.3 Climate

The weather on Attu is characterized by small temperature variations, heavy precipitation, and significant cloud and fog with little or no freezing rain, except during winter. The respective mean minimum and maximum temperatures for February are 25.6 °F and 34.1°F, respectively; in August, the mean minimum and maximum temperatures are 44.4°F and 55.2°F (Ahtna 2016).

3.4 Topography, Soils, and Hydrology

While much of Attu Island is mountainous, the project sites within and near the former military facilities are in a relatively flat, grass-covered region bounding the west shore of Massacre Bay. Soils consist of organic peaty soil overlying a dense glacial till consisting of silty clay with cobbles. Numerous streams, including Navy Town Creek, Peaceful River, and West Massacre Creek, flow into Massacre Bay from the mountains to the west and north. Ephemeral ponds in this area join via small streams during periods of heavy precipitation. During dry periods, these streams stop flowing and the ponds become stagnant or dry out. Groundwater appears to be limited to shallow alluvial deposits, present within larger stream channels, and fractured bedrock intervals (Ahtna 2016).

3.5 Air Quality and Noise

Remote and uninhabited Attu Island presumably enjoys excellent air quality because of the near-absence of pollutant emission sources and persistent winds from the adjacent ocean. Aircraft, ships, and ground vehicles occasionally operating at the island would be the only emission sources, along with generators and stoves for temporary camps. Large volcanic eruptions on the Kamchatka Peninsula may conceivably influence air quality on Attu. There is no established ambient air quality monitoring program at Attu, 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 island 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 Attu Island, but man-made background noise would consist solely of that generated by ship, boat, and aircraft traffic.

3.6 Habitat and Wildlife

Vegetation on Attu Island is largely maritime tundra, with meadows occurring in sheltered valleys and heaths on more exposed slopes. Grasses, forbs, mosses, and lichens are abundant. Woody vegetation is limited to dwarf shrubs, such as willow and blueberry (USFWS 2014).

There are no native terrestrial mammals on Attu. Norway rats, probably introduced during World War II, are common along coastal areas. Arctic foxes were introduced for fur-farming in the 18th Century but were eradicated by 1999. Marine mammals found in coastal waters include Steller sea lion, northern sea otters, northern fur seal, harbor and spotted seal, and a variety of whale, porpoise, and dolphin species (USFWS 2014).

Attu Island hosts several large seabird colonies, including significant populations of black-legged kittiwake, common murre, thick-billed murre, tufted puffin, horned puffin, and red-faced cormorant. Other bird species include rock sandpiper, red-necked phalarope, gray-crowned rosy finch, Lapland longspur, Pacific wren, and snow bunting. Attu has a well-established population of Aleutian Canada geese and an endemic subspecies of rock ptarmigan (USFWS 2014). Most species of birds breeding on Attu Island are ground or cavity-nesting birds by necessity, given the lack of trees or large shrubs.

3.7 Protected Species

Endangered Species Act. Table 1 below summarizes the species protected under the Endangered Species Act, under the jurisdiction of either the National Marine Fisheries Service (NMFS) or the USFWS that are identified as potentially being in the project activity area, including the marine waters of Massacre Bay.

Table 1. ESA Species Potentially Present in the Project Area.

Species	Population	Status	Agency Jurisdiction
Steller sea lion, <i>Eumetopias jubatus</i>	Western DPS	Endangered	NMFS
Humpback whale, <i>Megaptera novaeangliae</i>	W. Pacific DPS	Endangered	NMFS
	Mexico DPS	Threatened	NMFS
N. Pacific right whale, <i>Eubalaena japonica</i>	All	Endangered	NMFS
Sperm whale, <i>Physeter macrocephalus</i>	All	Endangered	NMFS
Fin whale,	All	Endangered	NMFS

<i>Balaenoptera physalus</i>			
Blue whale, <i>Balaenoptera musculus</i>	All	Endangered	NMFS
Western No. Pacific gray whale, <i>Eschrichtius robustus</i>	All	Endangered	NMFS
Northern sea otter, <i>Enhydra lutris kenyoni</i>	S.W. Alaska DPS	Threatened	USFWS
Stellers eider, <i>Polysticta stelleri</i>	All	Threatened	USFWS
Short tailed albatross, <i>Phoebastria albatrus</i>	All	Endangered	USFWS

DPS: Distinct Population Segment

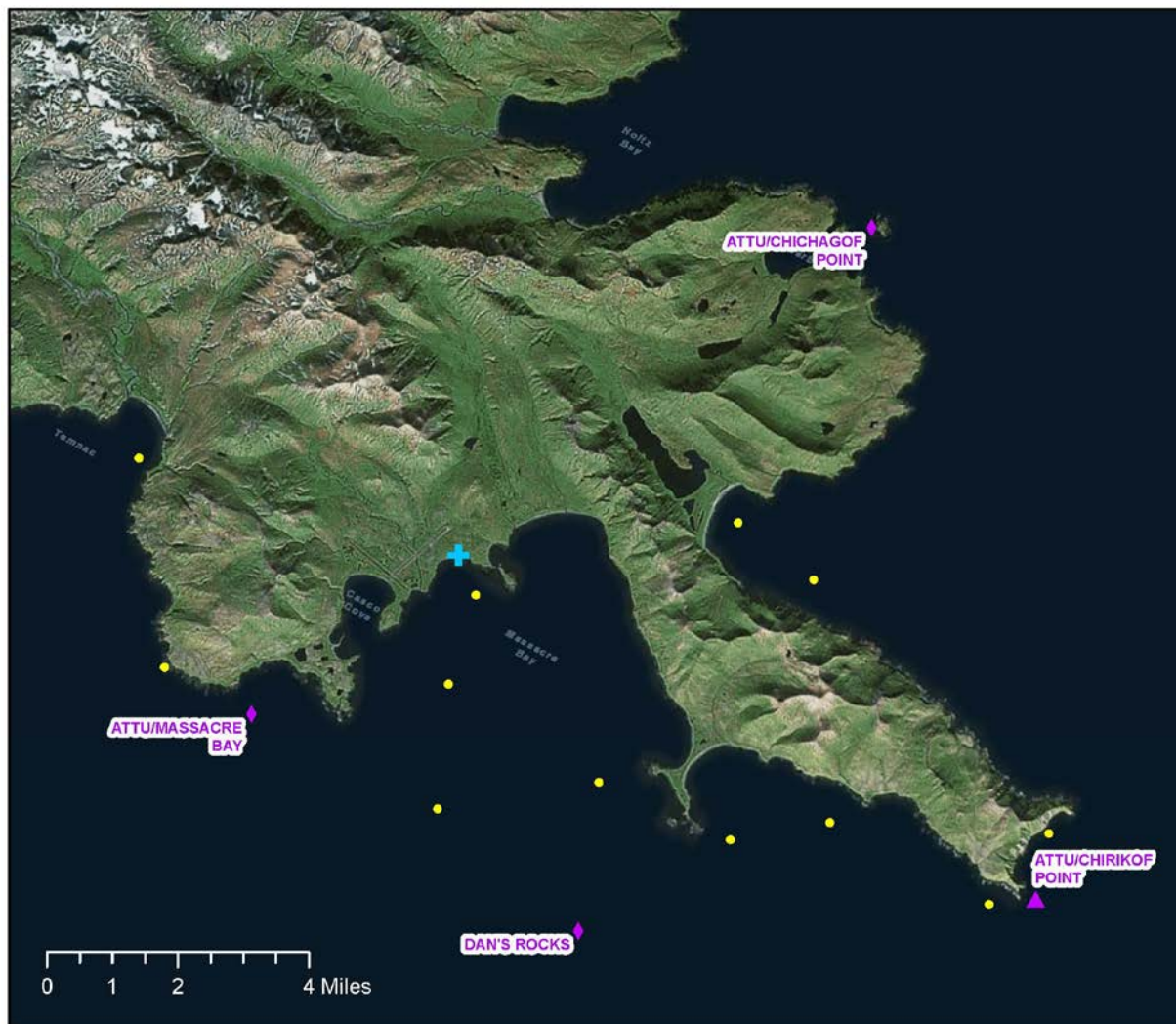
Steller sea lions are known to be present in the Massacre Bay area. The nearest critical habitat areas for Steller sea lions designated in 50 CFR 226.202 are:

- Attu/Chirikof Point haulout – extreme east end of Attu Island, about 8.5 nautical miles (nm) east of Pyramid Cove (figures 1 and 3)
- Alaid Island haulout – west end of Alaid Island, 25 nm east of Pyramid Cove
- Attu/Kresta Point rookery – extreme west end of Attu Island, 27 nm west of Pyramid Cove
- Agattu/Gillon Point rookery - western point of Agattu Island, 27 nm south of Pyramid Cove

The NMFS has provided information on several other Steller sea lion haulouts at the east end of Attu Island (figure 3; Balogh 2015, 2017):

- Attu/Massacre Bay: south of Massacre Point, 2.5 nm southwest of Pyramid Cove;
- Attu/Dan’s Rocks: offshore of Alexai Point, 4.2 nm east of Pyramid Cove;
- Attu/Chichagof Point: northeast side of Attu Island, roughly 7 miles overland northeast of Pyramid Cove.

With no rookeries present at Massacre Bay, it is presumably used by Steller sea lions mainly as a foraging area. Steller sea lions in the far western Aleutian Islands feed primarily on Atka mackerel, rockfish, sandlance, octopus, and other species available year round, but will adjust



Steller Sea Lion Critical Habitat

- ★ Major Rookery* ▲ Major Haulout
- ★ Major Rookery** ▨ Foraging Area

*Site with survey count ≥50 pups in any year since 1970
 **Site with no survey count ≥50 pups in any year since 1970

Important Note :In Alaska, designated Steller sea lion critical habitat includes the following areas, as described at 50 CFR §226.202: 1) terrestrial zones that extend 3,000 feet (0.9 km) landward from each major haulout and major rookery; 2) air zones that extend 3,000 feet (0.9 km) above the terrestrial zone of each major haulout and major rookery; 3) aquatic zones that extend 3,000 feet (0.9 km) seaward of each major haulout and major rookery that is east of 144° W. long.; 4) aquatic zones that extend 20 nm (37 km) seaward of each major haulout and major rookery that is west of 144° W. long.; and 5) 3 special aquatic foraging areas, specifically, the Shelikof Strait area, the Bogoslof area, and the Seguam Pass area, as specified at 50 CFR §226.202(c).

◆ Other Known Steller Sea Lion Haulout (AFSC/MML 2016)

● Observed Harbor Seal Haulout Location (London et al. 2015)

+ Cleanup Site/Access Reference Point

Projection: Alaska Albers equal area conic

Map date: March 1, 2017

Steller sea lion sites file: SSL_sites_Fritz_v_3.shp

Project file name: 20170301_FUDS_cleanup_Attu

Figure 3. A graphic provided by the NMFS showing Steller sea lion critical habitat sites and other known haulout locations along eastern Attu Island, as well as haulout locations used by harbor seals.

their foraging patterns to exploit locally and seasonally abundant species such as salmon and cod (NMFS 2008). A number of salmon streams discharge into Massacre Bay, including Peaceful River, Henderson River, Massacre Creek, and Alexai Creek. The adult salmon in-migrations for the streams are believed to begin around early to mid-July and peak around mid-August to early

September (Keyse 2015). The Attu field work is expected to last from late April or early May to mid-July. Therefore, if there is any concentration of sea lions at Massacre Bay in response to the salmon runs, there would be a minor overlap of a couple of weeks with project activities in Massacre Bay. Most adult Steller sea lions occupy rookeries during the pupping and breeding season, which extends from late May to early July (NMFS 2008). The nearest rookeries are about 27 nm away from the project area on Agattu Island and the far west end of Attu Island. For much of the April-July project period, therefore, the sea lion breeding population of the Near Islands would be expected to be moving and congregating to the west and south away from the Massacre Bay area.

Humpback, sperm, fin, blue, Western North Pacific gray, and Northern Pacific right whales are far-ranging species and would be encountered only incidentally by the project vessels. Of these species, only the Northern Pacific right whale has designated critical habitat in the form of two large off-shore areas of the Bering Sea and Gulf of Alaska designated in 78 FR 19000, more than 1,000 miles to the east of Attu Island. Recent guidance from the NMFS on humpback whales (NMFS 2016) discusses the three DPS of humpback whales that occur in Alaskan waters: the Western North Pacific DPS (an endangered species under the ESA), the Mexico DPS (a threatened species), and the Hawaii DPS (not listed under the ESA). Whales from these three DPSs overlap to some extent on feeding grounds off Alaska. An individual humpback whale encountered in Aleutian waters has an 86.5 percent probability from being from the unlisted Hawaii DPS, an 11.1 percent chance of being from the threatened Mexico DPS, and a 4.4 percent chance of being from the endangered Western North Pacific DPS.

Northern sea otter critical habitat designated by the USFWS (USFWS 2009) includes all of coastal Massacre Bay. The critical habitat final rule also identified four primary constituent elements (PCEs) for sea otter habitat:

1. Shallow, rocky areas where marine predators are less likely to forage, which are waters less than 2 meters (6.6 ft) in depth.
2. Near-shore waters that may provide protection or escape from marine predators, which are those within 100 meters (328.1 ft) from the mean high tide line.
3. Kelp forests that provide protection from marine predators, which occur in waters less than 20 meters (65.6 ft) in depth.
4. Prey resources within the areas identified by PCEs 1, 2, and 3 that are present in sufficient quantity and quality to support the energetic requirements of the species.

Short-tailed albatrosses breed on several small islands off the coast of Japan, but range across much of the North Pacific Ocean as adults and sub-adults. In the marine environment, the species tends to concentrate in regions along the break of the continental shelf, where upwelling and high primary productivity result in zones of abundant food resources, namely squid and pelagic fishes. The short-tailed albatross may be found in near-shore waters but commonly only where such upwellings occur near the coast. No critical habitat is currently designated for this species (USFWS 2008).

Steller’s eiders may winter in coastal waters surrounding Attu Island, but nest in northeastern Siberia and limited areas of mainland Alaska, and would not be present at Attu during the spring-summer project activities.

Marine Mammal Protection Act. The MMPA provides protection for all whales, dolphins, porpoises, seals, sea lions, and sea otters, regardless of a species’ listing under the ESA. The NMFS ESA/MMPA mapper website (NMFS 2017c) identifies harbor seal, northern fur seal, ribbon seal, Dall’s porpoise, harbor porpoise, killer whale, Minke whale, Pacific white-sided dolphin, Baird’s beaked whale, and Stejneger’s beaked whales as non-ESA marine mammals that potentially may be found offshore of Attu Island. Harbor seals make notable use of the numerous rocky islets along the eastern Attu Island coast, as reported by the NMFS (figure 2; Balogh 2017).

Bald and Golden Eagle Protection Act. This Act prohibits takings such as killing eagles or destroying nests, as well as regulates human activity or construction that may interfere with eagles’ normal breeding, feeding, or sheltering habits (USFWS 2011). Neither bald nor golden eagles are expected to be present at or near the project site, except possibly as transient individuals. Bald eagles are common throughout much of the Aleutian Islands, but are believed to no longer breed in the far-western Near Islands group to which Attu Island belongs (Byrd & Williams 2008).

Migratory Bird Treaty Act. With the exception of State-managed ptarmigan and grouse species, all native birds in Alaska (including active nests, eggs, and nestlings) are protected under the Migratory Bird Treaty Act (MBTA; USFWS 2009).

3.7 Wetlands

The project area has not been delineated for jurisdictional wetlands. However, project areas that have not been previously filled as roads and pads are presumed to be wetlands, based on photographs and descriptions of soil types, vegetation, shallow groundwater, and areas of standing water (Ahtna 2016).

3.8 Anadromous Streams and Essential Fish Habitat

The Alaska Department of Fish and Game (ADFG) identifies in its Anadromous Waters Catalog (AWC; ADFG 2017) six anadromous streams flowing into Massacre Bay through the general area of the former military facilities

Table 2. Anadromous Streams in the Massacre Bay Watershed.

Stream Name	AWC #	Salmon species and stream use
Massacre Creek	309-15-10600	Pink present
Henderson River	309-15-10550	Chum, Coho, Pink, & Sockeye spawning
Navy Town Creek	309-15-10500	Pink spawning
Peaceful River	309-15-10400	Chum spawning & rearing, Pink present
King Fisher Creek	309-15-10200	Pink spawning

Casco Creek	309-15-10010	Pink spawning
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The marine waters of Massacre Bay are within areas designated by the NMFS under the Magnuson-Stevens Fishery Conservation and Management Act (MSA) as essential fish habitat (EFH) for northern rockfish, arrowtooth flounder, rock sole, sculpin, walleye Pollack, chum salmon, pink salmon, coho salmon, sockeye salmon, and chinook salmon. The waters around Attu Island are also within the NMFS-designated Aleutian Islands Habitat Conservation Area, which restricts certain types of commercial fishing (NMFS 2017b).

3.9 Cultural and Historic Resources

The Corps archaeologist has evaluated the proposed project and examined the Alaska Historic Resources Survey (AHRs) database maintained by the State of Alaska Office of History and Archaeology. Twenty-five historic properties were identified in the vicinity of the proposed action, including the Attu Battlefield and U.S. Army and Navy Airfields National Historic Landmarks (NHL). The former LORAN-C station, operated by the USCG until 2010, is identified as both a historic district and as multiple features.

Six historic properties exist within the project area of potential effect (APE) that are eligible for the National Register of Historic Places (NHRP): the Attu Battlefield and U.S. Army and Navy Airfields NHL (AHRA no. ATU-006); the Attu LORAN-C Station District (ATU-201); the Attu LORAN-C Station Warehouse (ATU-255); the Attu LORAN-C Station Well Pump Building (ATU-256); the Office and Officer’s Quarter’s Foundation (ATU-269); and the Warehouse Foundation (ATU-270; Eldridge 2016a).

ATU-006 is the site of the only World War II land battle fought in North America. It was nominated for the National Register of Historic Places (NRHP) in 1985 under Criterion A and is listed as a National Historic Landmark. All of the structural remains present in Old Navy Town in 1944 are considered to be contributing properties to ATU-006, as is ATU-255, ATU-269, and ATU-270. Excluded from the NHL nomination are “all post-1945 structures, developments, and trash pits in the Massacre Bay area, including the U.S. Coast Guard Loran Station, pier ruins, and an abandoned concrete building at Casco Cove.” ATU-201 is a historic district associated with the USCG LORAN-C Station on Attu Island. Although the district was determined ineligible for the NRHP in 1997, it was reanalyzed in 2010 and determined to be eligible. No determination of eligibility has been done for the water pump building associated with the LORAN-C Station (ATU-256; Eldridge 2016a).

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, where it will continue to present a

physical hazard 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.

4.2.1 Effects on Community and Land Use

The project sites and surrounding areas of Attu Island are uninhabited, and are expected to stay that way for the foreseeable future. The proposed activities will neither encourage nor inhibit future development on Attu. The project is being closely coordinated with the Refuge, such that unanticipated conflict between multiple agencies use of the airfield and other existing infrastructure is unlikely to occur.

4.2.2 Effects on Topography, Soils, and Hydrology

The small areas of excavation will not significantly alter the area topography or patterns of overland water flow in the area. Since the excavations will not be backfilled, but only contoured to blend with the surrounding land to avoid entrapment hazards, highly localized changes in topography and hydrology may remain after the project is completed, such as shallow depressions that may become small ponds.

4.2.3 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 assesses that any increase in pollutant emissions caused by the project would be transient, highly localized, and would dissipate entirely at the completion of the project. The area 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.

The project sites are not near any residences. The noise generated by project activities may temporarily displace animals using nearby habitat into similar habitat nearby.

4.2.4 Effects on Habitat and Wildlife

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.

4.2.5 Effects on Protected Species

The only species in the area protected under the ESA or other specific laws are found in the marine environment. The principle threats to marine animals in general consist of:

- Ship strikes
- Direct impacts from human fishing (e.g. entanglement in fishing gear)
- Indirect impacts from human fishing (e.g. competition for food resources)
- Contaminants and pollutants
- Habitat degradation caused by human activities and disturbance
- Hunting and predation

The project's main potential adverse effect on marine mammals would be ship strikes as the barge and landing craft make their two round trips to Attu Island and back, and as the landing craft shuttles equipment and material between the barge and the shore. While ship strikes on whales are an issue of increasing concern (Neilson et al, 2012; Jensen & Silber 2004), the relatively low speed of an ocean-going barge and tug (typically no more than 9 knots), together with a barge's blunt prow and shallow draft, make it far less likely to strike and inflict injury upon a whale than larger, faster ocean-going vessels such as cruise ships and cargo ships.

To minimize the potential effects of vessel movement on protected marine mammals, the Corps proposes:

- Project vessels will be limited to a speed of 8 knots, or the slowest speed above 8 knots consistent with safe navigation, when within the confines of Massacre Bay or within 3 nautical miles of any of the Steller sea lion haulouts described above to reduce the risk of collisions with protected species. The project vessels are not expected to approach any Steller sea lion rookeries.

Small, maneuverable watercraft such as skiffs have a greater risk of harming or disturbing sea otters and other small marine mammals than large, slow-moving vessels. If skiffs are used during the Attu project, the Corps will require its contractors to adopt USFWS guidance for small craft operators, as presented in the USFWS 2009 "Skiff Operation Guidance to Avoid Disturbing Sea Otters":

- While operating skiffs in near-shore areas, scan the water surface ahead of the boat vigilantly for otters. In choppy water conditions sea otters are difficult to spot. If you are boating with another person, place them in the bow to help search. You may encounter otters as individuals, a mother and a pup, or rafts of 10 or more.
- When you see an otter(s), alter your course and slow down to avoid disturbance and collision. Once you have spotted an otter(s), you should not assume that the otter(s) will dive and get out of the way. Even if they are alert, capable, and do dive, your action of knowingly staying your course would be considered harassment.
- Do not operate a skiff at any rate of speed heading directly at the otter(s). A good rule of thumb is that your buffer should be great enough that there is ample room for the otter(s) to swim away without startling them. It is your responsibility to minimize the stimulus and threat of a loud boat approaching quickly.

- The more otters you see, the wider the berth you need to give. Also, do not pass between otters, but rather go around the outside perimeter, plus add a buffer.
- It is illegal to pursue or chase sea otters. Do not single out or surround an otter(s).

Leaks and releases of fuel and other chemical products from the project vessels also have the potential to cause adverse effects. The Corps will be removing potentially harmful materials from Attu Island, including lead residue and petroleum products. These materials will be sealed into salvage drums and impermeable polymer “Supersacks” before being transported from the island and carefully secured aboard the barge for transportation to proper disposal facilities. The Corps has conducted the transfer of containerized waste material from shore to transport vessels at numerous cleanup sites without incident, and considers the risk of a release of these materials into the marine environment to be very low.

With the avoidance and minimization steps outlined above, the Corps determines that the project activities may affect, but are not likely to adversely affect the ESA-listed species below or any designated critical habitat, and has requested concurrence from the NMFS on those determinations (USACE 2017) :

- Steller sea lions (Western DPS),
- Humpback whales (Western Pacific and Mexico DPSs),
- North Pacific right whales,
- Western North Pacific gray whales,
- Fin whales,
- Blue whales,
- Sperm whales.

Concurrence from the NMFS on these determinations is pending; the Corps anticipates concurrence as little new information on these species at Attu Island has arisen since conducting informal consultation with the NMFS in 2015-2016.

The Corps provided a letter to the USFWS dated 7 December 2015 making a determination of may affect, but not likely to adversely affect northern sea otters (Southwest Alaska DPS) or their critical habitat. The USFWS concurred in a letter dated 31 December 2015 (USFWS 2015). When asked whether the USFWS wished to see a new determination letter for the 2017 activities at Attu, the USFWS responded that as long as the activities are the same as described in the previous evaluation, there is no need for a new determination and concurrence, and the USFWS concurrence for the 2016 effort (USFWS 2015) is still valid for the activities continuing in 2017 (Cooper 2017).

Table 3. Summary of ESA Species, Determinations, and Concurrences

Species	Population	Agency Jurisdiction	Corps Determination	Agency Concurrence
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Steller sea lion,	Western DPS	NMFS	May affect, but not adversely affect	Pending
Humpback whale	W. Pacific DPS	NMFS	May affect, but not adversely affect	Pending
	Mexico DPS	NMFS	May affect, but not adversely affect	Pending
N. Pacific right whale	All	NMFS	May affect, but not adversely affect	Pending
Sperm whale	All	NMFS	May affect, but not adversely affect	Pending
Fin whale	All	NMFS	May affect, but not adversely affect	Pending
Blue whale	All	NMFS	May affect, but not adversely affect	Pending
Western No. Pacific gray whale	All	NMFS	May affect, but not adversely affect	Pending
Northern sea otter	S.W. Alaska DPS	USFWS	May affect, but not adversely affect	Concur (2015) ¹
Steller's eider	All	USFWS	No effect	Not applicable ²
Short tailed albatross	All	USFWS	No effect	Not applicable ²

1. Previous project concurrence is extended for 2017 activities (per USFWS 2015).

2. USFWS and NMFS do not provide concurrence under the ESA for “no effect” determinations.

The Corps assesses the probability of the project vessels encountering, let alone affecting, the rare and widely-dispersed short-tailed albatross to be very low. Steller's eiders will not be present in Attu Island coastal waters during the spring-summer project period. The Corps determines that the project activities will have no effect on short-tailed albatrosses or Steller's eiders.

The Corps determines that the project activities are unlikely to result in the taking of an animal protected under the Marine Mammal Protection Act, with the adoption of the avoidance and minimization measures described above for marine ESA species.

Nesting eagles are not expected at Attu Island, especially not in the low-relief, treeless terrain bordering Massacre Bay where project activities will be taking place. A few transient adult bald eagles may be seen from the project area, but the Corps anticipates a very low risk of a taking under the Bald and Golden Eagle Protection Act.

Nesting birds are likely to be the most vulnerable terrestrial 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 in shrub or open habitat in the Aleutian Islands (USFWS 2009) and that any brush-clearing activities should be scheduled for prior to or after this window. The project activities will overlap this nesting window; however, the activities will be focused in areas already heavily impacted by human activity and providing

less than ideal nesting habitat. The contractors will be instructed to watch for signs of ground-nesting birds, but the Corps considers the risk of a taking under the MBTA to be low.

4.2.6 Effects on Wetlands

Where native soils are removed in the course of removing contamination and debris, wetlands will necessarily be impacted. However, no backfilling of excavations or creation of new pads or roads is planned, so no discharge to wetlands under Section 404 of the Clean Water Act will occur. The wetlands affected by project activities will be those already heavily impacted by chemical contamination and debris; the removal action will protect and improve the surrounding wetland habitat by removing contamination and physical obstructions and hazards.

4.2.7 Effects on Anadromous Streams and Essential Fish Habitat

The project would not require entry into or alteration of water bodies, including anadromous streams. The project work plan (Ahtna 2016) describes a temporary steel bridge to be placed over Navy Town Creek, but this bridge will be a simple, self-supporting span extending from bank to bank that does not extend into the stream channel. Best management practices such as silt fencing or other appropriate sediment control would be employed to minimize the risk of runoff reaching streams during excavation. The intent of the project is to remove sources of contamination from the environment, which should have a net positive effect on local fish habitat.

The project will not adversely affect EFH. The only project activity occurring in the local marine environment is the landing of the transport barges described in section 2.4. The two brief landings at Massacre Bay (expected to be 36 hours or less each) will have a negligible impact on EFH. The pre-packaging of waste materials on shore will minimize the risk of discharging contaminants into the marine environment, and the contractor's spill prevention plan will address potential releases of fuel or other chemicals from the project vessels.

4.2.8 Effects on Cultural Resources

The Corps originally determined that the proposed removal action would result in no adverse effect on historic properties within the National Historic Landmark and that three Old Navy Town structures are not eligible for the National Register of Historic Places (Eldridge 2016a). A separate determination of no adverse effect was provided in a letter dated October 4, 2017, concerning warehouse foundation ATU-268 (Eldridge 2016b). The State Historic Preservation Officer (SHPO) responded in a letter dated November 16, 2016, concurring with the determination that the three Old Navy Town structures are not eligible for the NRHP, but not concurring with the finding of no adverse effect (OHA 2016a). Following a consultation meeting between the Corps and the National Park Service (NPS), the SHPO concluded that the removal of contaminated soils and debris from within the footprints of structures with remaining floorboards will result in an adverse effect to the NHL. Subsequently, the Corps re-initiated NHPA consultation with the SHPO, the NPS, the USFWS, and other parties on the development of a Programmatic Agreement (PA) to address FUDS actions on Attu and elsewhere in the Aleutian Islands. In a subsequent letter (Eldridge 2016c), the Corps found that the cleanup action

would have adverse effects on two structures within the NHL, which the Corps proposed to mitigate by producing scaled drawings of the two structures in question, plus before and after photographs of all cleanup areas. The SHPO concurred with this finding and with the proposed mitigation, contingent upon the development of a Memorandum of Agreement (MOA) that would formally stipulate measures to resolve adverse effects (OHA 2017).

4.2.9 Effects on Coastal Zone Management

Alaska withdrew from the voluntary National Coastal Zone Management Program (<http://coastalmanagement.noaa.gov/programs/czm.html>) on July 1, 2011. Within the State of Alaska, the Federal consistency requirements under the Coastal Zone Management Act do not apply to Federal agencies, those seeking forms of Federal authorization, and state and local government entities applying for Federal assistance.

4.2.10 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.

4.2.11 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 continue to pursue an MOA on historic properties that may be adversely affected by the project activities and expects to receive concurrence on its determinations under the ESA from the NMFS prior to the start of field work. The Corps has been closely coordinating its proposed activities with the USFWS Alaska Maritime Wildlife Refuge.

6.0 CONCLUSION

The continued environmental cleanup efforts at Attu Island, 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 Andrew Sorum.

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