



US Army Corps
of Engineers
Alaska District

Public Notice

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In reply refer to above Identification Number

DEFENSE ENVIRONMENTAL RESTORATION ACCOUNT PORT HEIDEN AND PORT MOLLER, ALASKA

The U.S. Army Engineer District, Alaska, proposes to clean up debris at former Department of Defense "White Alice" communication sites and an abandoned World War II Army base. The proposed action is to remove and dispose of unsafe and unsightly structures and associated debris, including toxic and/or hazardous materials (THM) identified on-site.

In response to concerns raised in a previous review of Port Heiden/Port Moller environmental assessments (Public Notices dated December 16, 1985), the two revised Environmental Assessments and Findings of No Significant Impact (FNSI) are transmitted for your review and comment. Supplemental information includes THM sampling results, safeguards employed to minimize impacts, and identification of solid waste disposal sites.

Interested parties are invited to submit in writing any comments or objections they may have concerning the proposed work. There is no public hearing scheduled for the proposed action. However, any person may request, in writing, within the comment period specified below, a public hearing to consider the described action. A request for public hearing shall state, with particularity, the reasons for holding a public hearing.

The FNSI will be signed upon review of comments received and resolution of significant objections, if any.

Comments should be mailed to the address below within 30 days of receipt of this notice to ensure consideration. Additional information can be obtained from Ms. Lizette Boyer of my Environmental Resources Section by calling (907) 753-2637.

U.S. Army Engineer District, Alaska
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Roy S. Carlson, Jr.
Lieutenant Colonel, Corps of Engineers
Acting District Engineer

Attachments

FINDING OF NO SIGNIFICANT IMPACT

In accordance with the National Environmental Policy Act of 1969, as amended, the U.S. Army Engineer District, Alaska, has assessed the environmental impacts of the following action:

Defense Environmental Restoration Account Port Heiden, Alaska

The project consists of removal and disposal of:

1. 280 Quonset huts.
2. 150 collapsed wood frame buildings.
3. Two 250,000-gallon fuel tanks.
4. Three radio towers (two 100-foot, one 50-foot).
5. 8,000 55-gallon barrels.
6. A White Alice site: four 60-foot parabolic troposcatter antennas and feedhorns; one (30,000 sq. ft.) reinforced two-story concrete building with a central five-story tower (45 x 45 ft.); interconnecting electrical conduits; one 24,000-gallon freshwater storage tank; two 20,000-gallon buried fuel tanks; two small concrete buildings (150 sq. ft.); and a septic system.
7. Miscellaneous material, including: metal scraps, equipment, vehicles, steel pipe, wire, and other debris.
8. Asbestos material (approximately 80 cu. yds.).
9. Residue and waste POL, less than 3,000 gallons.

These debris and structures are located on the flat tundra plain adjacent to Port Heiden on the site of Fort Morrow, a World War II Army air base. Structures and debris are found in several distinct areas within a five-mile radius of the Fort Morrow runway. Cleanup plans involve collapsing the quonsets and transport of the debris to burial sites. Other metal debris, including barrels, sheet metal, equipment, vehicles, towers, pipe, and other miscellaneous materials will be collected and moved to specified sites for burning. Equipment and vehicular use will be limited to sites on or near the existing road system. Machinery usage in areas away from any roads will be restricted to soft, rubber-tired vehicles or prohibited. Removal of the White Alice site will involve demolishing the concrete buildings by drilling and blasting, using heavy equipment, or use of a wrecking ball. Metal towers will be dismantled, and buried if no use is found. Any petroleum products will be drained or pumped from tanks or fuel lines for reuse or disposal. All disturbed sites will be revegetated following cleanup activities.

Disposal methods and specifications will follow State, Federal, and local regulations and procedures. Ground surface disturbance and equipment noise, are unavoidable short-term impacts. Burning wood materials and equipment operation will produce smoke which will quickly dissipate in the

strong, steady winds. Cleanup will promote the long-term positive effects on visual aesthetics, by removing dangerous debris and structures, and by removing the potential for petroleum products to leach from rusting tanks, fuel lines, and barrels. Environmental restoration will occur through natural processes once structures and debris are removed.

The environmental assessment (EA) identifies that no significant environmental effects will occur from cleanup of Department of Defense structures and debris at Port Heiden. The appropriate resource agencies have been contacted and informed of the proposed action. Comments were received, and the U.S. Fish and Wildlife Service (USFWS), Western Alaska Ecological Services objected to deficiencies in the assessment. The EA was identified as being incomplete in three areas: 1) the lack of site-specific information regarding the chemical nature of hazardous and/or toxic substances and the extent of their habitat contamination; 2) the presence of generic, unsubstantiated statements regarding the environmental safeguards to be employed to minimize impacts; and 3) identification of solid waste and/or hazardous waste disposal sites. During meetings and consultation with the USFWS, the objections were addressed with the following resolutions: that the Corps would improve the assessment in order to incorporate the USFWS concerns; to include the USFWS in the project plans and specifications review; to provide the results of Toxic/Hazardous Material sampling and determine the effects of these materials on the environment; to provide details of criteria used for establishing disposal sites; and to establish a closer working relationship with the USFWS.

The EA, supplemental material, and document review support the conclusion that the proposed project does not constitute a major Federal action significantly affecting the quality of the human environment. Therefore, an environmental impact statement is not necessary for the proposed cleanup of DOD debris at Port Heiden.

Wilbur T. Gregory, Jr.
Colonel, Corps of Engineers
District Engineer

Date

ENVIRONMENTAL ASSESSMENT
DEPARTMENT OF DEFENSE
DEFENSE ENVIRONMENTAL RESTORATION ACCOUNT
PORT HEIDEN, ALASKA

1987

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ENVIRONMENTAL ASSESSMENT
PORT HEIDEN

SUMMARY

The U.S. Army Engineer District, Alaska, will remove and dispose of abandoned Department of Defense (DOD) facilities, structures, and debris at Port Heiden, Alaska. Cleanup includes removing and disposing of debris at both Fort Morrow, a World War II Army base, and an abandoned White Alice Communications System (WACS) site. Cleanup will involve demolishing buildings, dismantling structures, burning wooden debris, and burying non-salvaged material in Alaska Department of Environmental Conservation (ADEC) approved on-site landfills. Fuel and water tanks will be drained, cleaned, and crushed before burial. Several tanks have been identified for salvage and will remain intact as will several wooden buildings. Petroleum products will be collected, placed in containers, and tested for Toxic/Hazardous Material (THM), as will any other materials suspected of being toxic or hazardous. All THM contaminated materials and petroleum products will be removed from Port Heiden and transported to approved disposal sites. ~~Petroleum contaminated soil will be excavated, tested for THM, and removed from the area or cleaned and replaced if practicable.~~ Asbestos containing material within the WACS station main building/composite building will be removed prior to demolition; the material will then be placed in plastic bags and also buried in the landfill.

Materials and equipment will be barged into Port Heiden for use during cleanup. Workers can be housed in existing facilities at the Port Heiden airport. Work will occur when the ground is thawed and landfill pits can be excavated. Most work will occur on existing gravel roads and construction pads, however, removal of many of the quonset huts and wooden debris will involve working on the tundra.

The site is located on the coastal plain adjacent to a large shallow bay, and in several different habitats--the beach, low shrub/ericaceous tundra, and the low wet/bog types. The area is considered good wildlife habitat, utilized seasonally by caribou, waterfowl, brown bear, seabirds, and marine mammals. Some wildlife disturbance will occur during removal and demolition activities as a result of noise and equipment operation. Work will primarily occur away from any water bodies and low-wet habitat. The effects of debris removal and construction activity should have minimal effect on the terrestrial and aquatic environment.

The village of Meshik and developments at the Port Heiden airport should not be affected by the proposed project. Any effects will be beneficial providing an increase in employment opportunities and commerce, and allowing cleanup of large amounts of debris and abandoned buildings and structures. No archeological or historic sites or structures will be effected by the proposed project.

The cleanup project will produce a positive long-term effect on the natural and human environment. Work will improve the quality of the environment through removal of the unsightly, prominent WACS buildings, quonset huts and antennas; by providing for disposal of residual petroleum products and THM; and through dismantling of the structurally deteriorating and potentially dangerous buildings and other structures.

1.0 PURPOSE AND NEED FOR PROPOSED ACTION

The U.S. Army Engineer District, Alaska, is initiating cleanup of abandoned Department of Defense sites throughout Alaska. This program, the Defense Environmental Restoration Account (DERA), provides the authorization and means for removing unsightly and unsafe buildings, structures, and debris at former DOD sites. The abandoned Port Heiden WACS site and Fort Morrow are two of the sites identified for cleanup under this program (Figure 1).

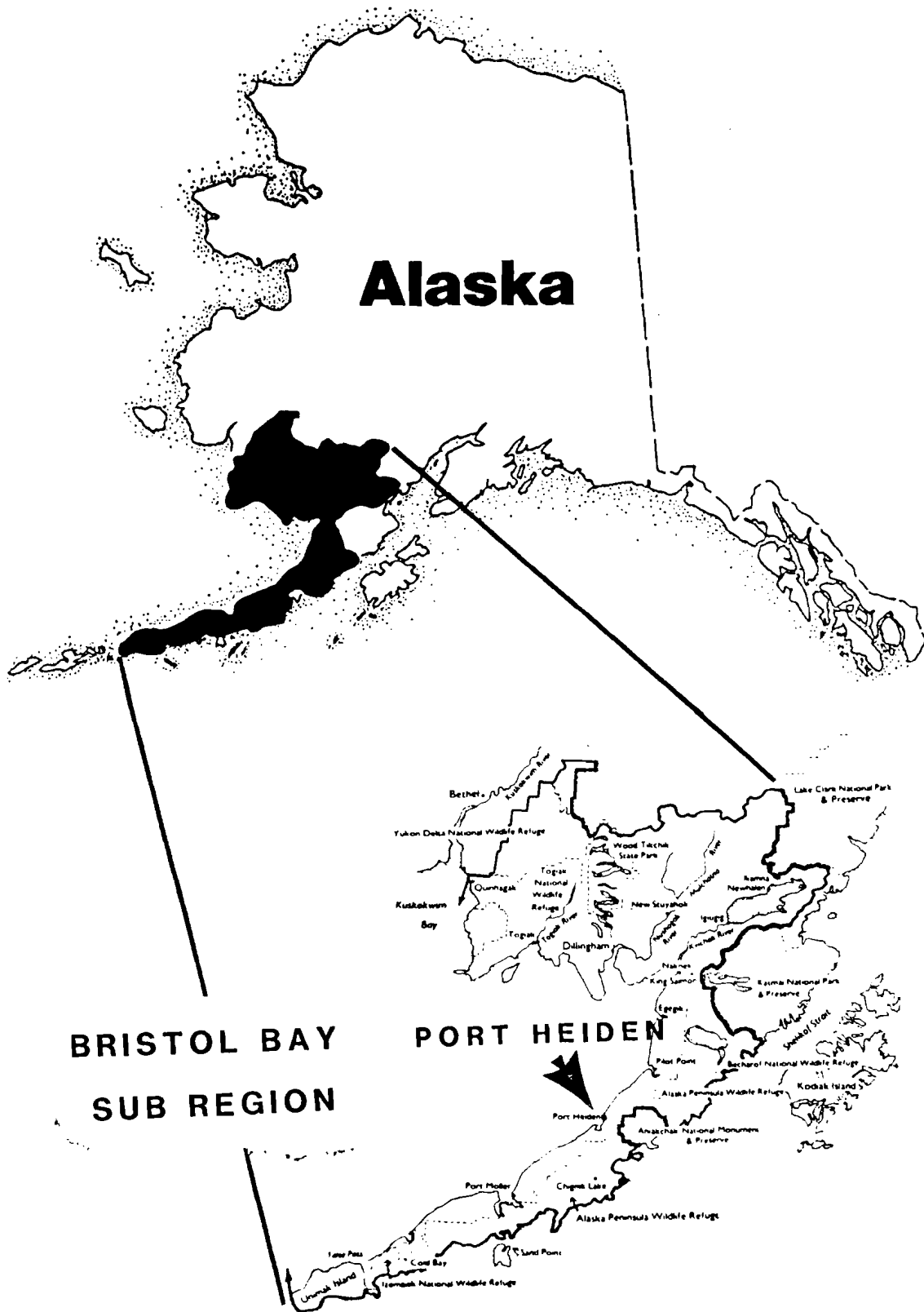
Port Heiden is located on the flat coastal plain of Bristol Bay about halfway down the northern side of the Alaska Peninsula. The Port Heiden area includes Port Heiden Bay, the village of Meshik, and the delta of the Meshik River. The nearest large settlement is King Salmon approximately 140 miles to the northeast.

Fort Morrow was authorized for construction in December 1941 as an airfield and necessary protective garrison for the air defense of Alaska and the naval base at Dutch Harbor. Construction began in July 1942 and included cantonment buildings, a hospital, and docking facilities. In addition, the Fort was utilized for storing large volumes of aviation gasoline in drums. Buildings included housing, hospital facilities, 46,880 square feet of warehouses, 36,000 cubic feet of cold storage, a Kodiak "T" hanger with technical facilities, an east/west and a north/south runway, and a barge dock. Due to a reduction in the authorized garrison strength, a curtailment program was initiated in the summer of 1943. Various authorized features were eliminated and the project completed in December 1943. Following the war the site was abandoned.

Fort Morrow, abandoned for 40 years (figure 2), consists of 286 quonset huts (fallen or standing), several standing wood frame buildings, wooden debris from approximately 150 fallen buildings and sheds, three (one 50-ft., two 100-ft.) toppled radio towers, 55 gallon-drums (8,000+), several garbage dumps, various types of machinery and equipment, and miscellaneous metal debris.

The project will include demolition of all unused standing wood and metal structures. Metal materials including towers, quonsets, equipment, barrels and machinery, will be transported to disposal pits for burial. Wooden debris will be burned and the residue collected and buried. The existing road system and runways are to remain intact. Structures, barrels, wood, and other debris will be picked up and transported to disposal or burning sites using equipment and procedures to minimize soil

FIGURE 1. Project Location.
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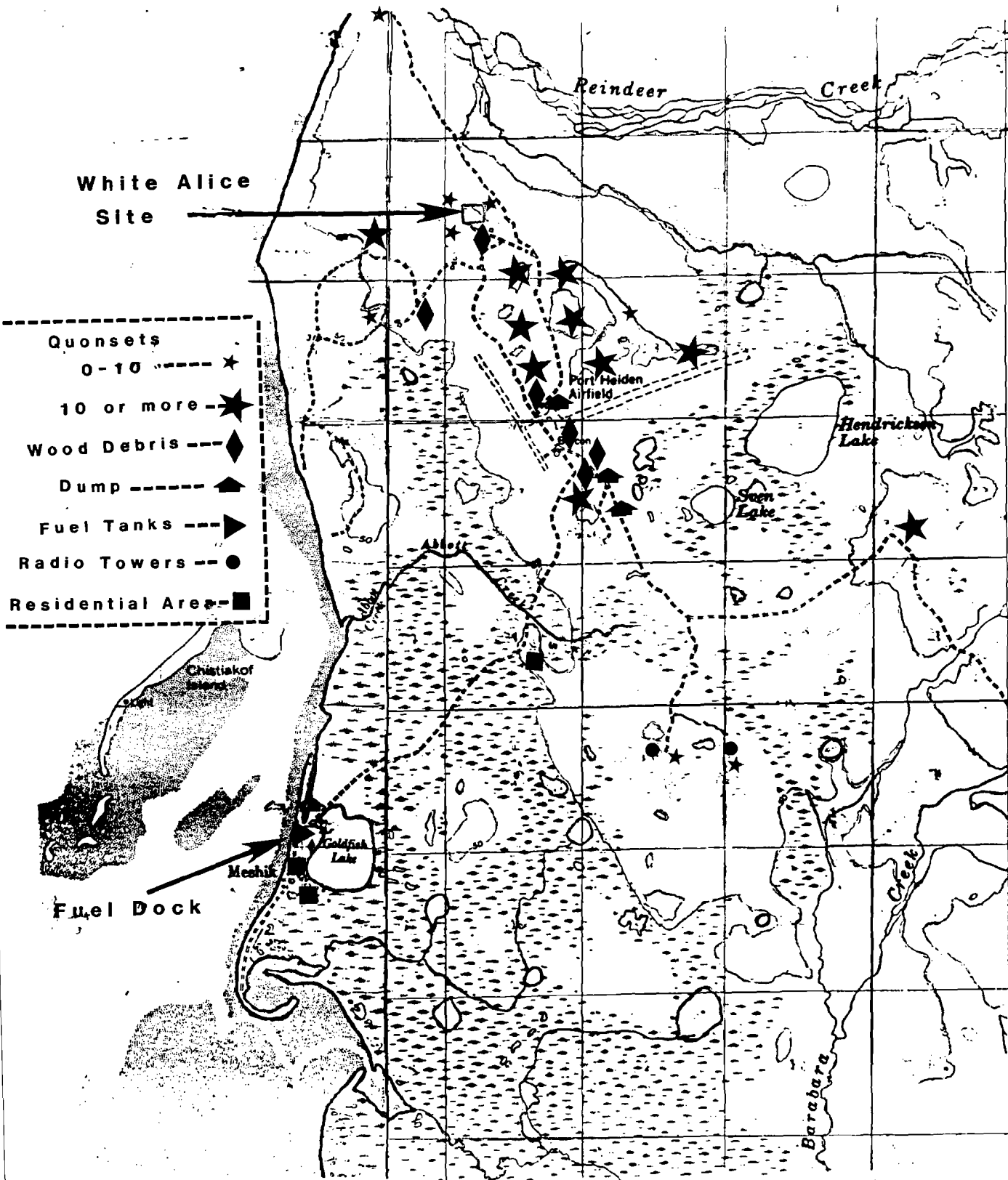


Figure 2. The location of debris at Port Heiden.

and vegetation disturbance. Outlying debris away from a road system may remain since removal equipment would produce more damage than the long-term effects of leaving the structure or material. However, debris may be removed using soft, rubber-tired equipment or by hand. Whatever means is used will follow procedures designed to minimize vegetation disturbance.

The project will also include demolition and removal of the Port Heiden WACS site. Constructed in the late 1950's during expansion of the Defense Early Warning System (DEW Line), the stations formed an interconnected communications network to help guard against a Soviet military invasion, and provided voice communications for both the military and civilian populations. With the advent of remote satellite communications and satellite earth stations in the 1970's, the WACS sites became obsolete and were abandoned.

The Port Heiden site is typical of WACS sites and includes a large (30,000 sq. ft.), two-story reinforced concrete building with a central 45 x 45 foot, five-story tower. The self-contained building held equipment, four diesel generators, living quarters, shop areas, a kitchen, and operation facilities. Surrounding the building are four 60-foot parabolic troposcatter antennas and connecting conduits, a 24,000-gallon water storage tank, two buried 20,000-gallon fuel tanks, separate 150 sq. ft. concrete pump and generator buildings, and two 250,000-gallon fuel storage tanks located in a separate area connected to the site by a pipeline. Removal will involve demolition of the concrete building by using equipment, explosives, or wrecking ball, and transport of debris to approved disposal sites or on-site burial. The antennas are to be dismantled and the metal debris either removed for salvage or buried. The large water and fuel tanks will be excavated, or cleaned for reuse, or collapsed and buried after any residual POL or waste material is removed. The unused fuel pipelines will remain if buried, after crimping the exposed ends. Any exposed pipe sections will be cut out and disposed in the landfill.

Asbestos materials found in the composite building will be collected and buried in plastic bags in an ADEC approved disposal site. Asbestos was used in the manufacture of acoustic tile, floor tiles and insulating material. An estimated 80 cubic yards of these products occur in this building.

Demolition of the WACS site will impact the immediate area around the site. Cleanup will involve using heavy equipment, drilling and blasting, or using a wrecking ball to demolish the large reinforced concrete building, dismantling microwave antennas, removal or collapsing and in-place burial of the water and fuel storage tanks and the disposal of debris. A hole dug on site would alleviate transport and locating a disposal site. Material at the dock area includes WACS fuel tanks, buildings (in use) and a large garbage dump. The origin, use and responsibility for cleanup of this dump will be determined before initiation of this project. Cleanup would be beneficial to both the

environment and the human population. The garbage dump may be buried or the material hauled to an approved site for disposal and burying. The mixture of World War II and more recent debris may produce problems with disposal.

The ground surface would be damaged if work occurs during the breakup period (May to mid-June). Work at this time would be difficult as the soil becomes very soft and travel nearly impossible. In addition, the gravel airstrip at Port Heiden is closed to large commercial airplanes during this period, restricting access to the community for up to six weeks (May to mid-June).

Prior to cleanup, the Port Heiden White Alice site and Fort Morrow site were sampled, by the Corps chemists, for the presence of THM (Appendix A). During the sampling visit, POL, soil, and water samples were taken and later analyzed for THM contamination. Samples were drawn from fuel tanks and building work areas, and from creeks and ponds near the site. Areas sampled in each location include obvious oil spills and areas void of vegetation. The preliminary sampling is judgemental and representative of the site as a whole. The Corps chemists' efforts are primarily directed at determining the types and location of THM contamination.

In general, sample analysis is adjusted to enable identification of those materials that are expected to occur at a site. By identifying the original site function and equipment used, the chemists are able to determine where and what chemicals or fuels may be located. A preliminary sampling plan was written and reviewed prior to sampling. This plan identifies probable types, locations, and relative quantities of THM and POL. Testing usually includes analysis for: PCB, metals, organic-semi-volatile compounds, and asbestos. Once the results of the analyses are available, the types and amounts of THM are identified and the necessary cleanup operations incorporated into the project.

Some testing of suspected THM material or POL cannot occur prior to actual removal activities; in such cases, sampling and analysis will occur during cleanup. Examples of this include: asbestos in walls, electrical components, buried tanks, and other undetected sources. The project Plan and Specifications mandate the contractor to hire an Environmental Monitor/Engineer to oversee environmental protection of workers and the environment during cleanup. This person will be responsible for sampling for THM as additional materials are located. Proper care of the debris will be the responsibility of the contractor and controlled by Federal and State regulations as outlined in the project Plan and Specifications. Removal and disposal criteria are also found in the project plan, the Environmental Protection Plan, and in Federal and State regulations (Appendix B).

Any THM that may be located during cleanup will be identified, sampled, placed in THM designated transport containers, and transported to a Federal approved hazardous waste disposal site. If THM is located during cleanup, work will stop in the immediate area and the material sampled and analyzed.

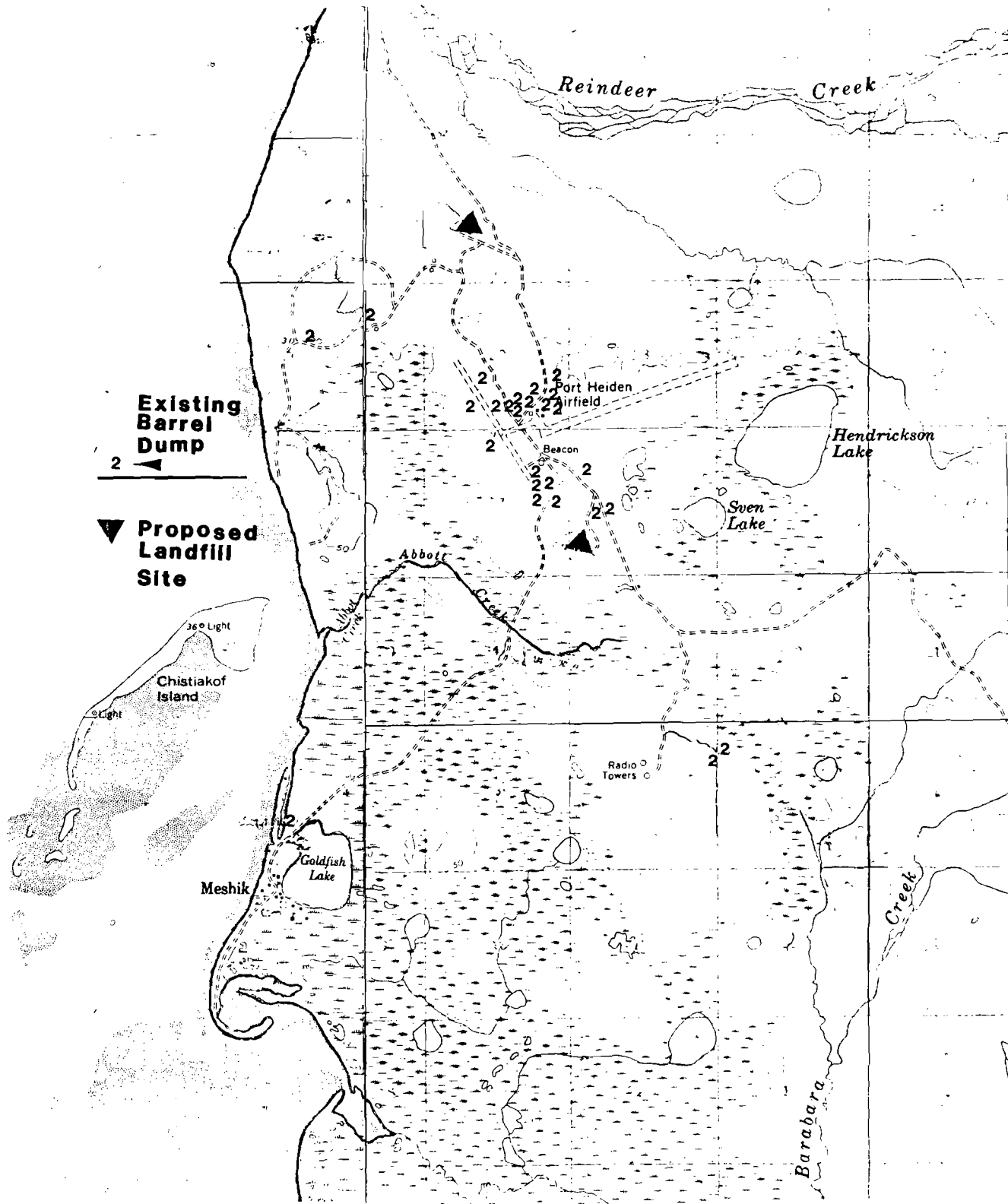


Figure A. Port Heiden Site Map.

By using approved procedures and personnel, as outlined in the Environmental Protection Plan, The contaminated material will then be removed or excavated and placed in containers before work at the specific site continues.

Characteristically, White Alice sites were known to contain materials with PCB's, asbestos, and varying quantities of POL, primarily diesel fuel. The readily identifiable PCB containers, transformers, capacitors and switches were removed during an Air Force cleanup, however, oil spills, fuel storage tanks, and overflow drains from shop and maintenance areas may also contain these materials. Sampling has identified the presence of PCB contaminated soils in close proximity to the White Alice composite structure. PCB soils with PCB levels above 10 ppm will require excavation per RCRA rulings, and must be disposed of as hazardous waste. The use of PCB transformers and other equipment was almost exclusively within the composite building at the White Alice site. However, any transformers found in other areas will be tested for PCB's.

A landfill will be constructed on the site as required and permitted by the ADEC (Figure A). Stipulations regarding site location, depth to water table, soil material, filling, compacting debris, final covering, and revegetation are outlined in the landfill permit. All debris will be disposed in the permitted landfill following these stipulations. The permit will be obtained prior to work in the area and adherence to guidelines administered by the Corps. The landfills will be surveyed and monumented for future reference once they are closed and revegetated. Signing will warn of the asbestos buried there.

2.0 ALTERNATIVES CONSIDERED

2.1 No Action

The No Action alternative would leave the area in its present condition. Through continued neglect, the vegetation on each site would increase in form, diversity, and abundance and the biota would remain undisturbed. Over a long period, the roads and building pads would revegetate but the structures would remain unchanged. With no action, debris, wastes and structural conditions at the sites could endanger visitors, the visual and aesthetic character of Port Heiden would continue to be marred by the debris strewn landscape, and the potential for any residual POL's to leach into the ground water would continue if no action is taken.

2.2 Total Cleanup

This alternative involves cleanup of all debris generated by the DOD including; buildings, tanks, towers, roads, and earthworks in an attempt to return the area to its pre-World War II condition. The action would provide for removal of dangerous and collapsing structures, loose debris, rusting fuel containers that may contain POL and provide a great improvement of the visual aesthetics. Cleanup will allow maintenance and improvement of surface and groundwater quality by natural processes once the debris is removed and

buried. Work would produce short-term problems from disruption of biota by cleanup actions, vegetation disturbance, and possible short-term effects on water quality. Cleanup could also cause possible damage to historical or archeological sites, and short-term impacts on air quality from burning and equipment exhausts. The purpose of environmental restoration would be fulfilled with total cleanup, however, this option would not reflect current human use of the area. Though total cleanup would produce jobs, put money into the local economy, and create an influx of equipment and supplies into the area, the removal of usable buildings, and all visible evidence of Fort Morrow would be counter productive to the human quality of life. Thus, a complete, total cleanup may not be a viable alternative.

2.3 Partial Cleanup (Alternative A)

The partial cleanup option involves cleanup of existing debris, unused buildings, fuel tanks, towers, and would exclude removal of roads and earth works. This alternative would produce similar impacts to total cleanup, however, the human use of Fort Morrow would be maintained. In addition, earthworks around quonsets and building sites would remain, allowing visitors to identify these banks and pits as building sites, and to visualize the original fort layout. Erosion from roads would occur, and additional problems could be caused by continued vehicle access. However, this option best accomodates the human population and use of the area while allowing cleanup and eliminating problems and impacts of DOD debris and is, therefore, the preferred alternative.

3.0 EXISTING ENVIRONMENTAL SETTING

Site Description: The project site is located adjacent to Bristol Bay on the flat coastal plain typical of the northern side of the Alaska Peninsula. Fort Morrow is located on an area of low alluvial hills, and vegetated dunes adjacent to Bristol Bay and Port Heiden. The terrain is generally flat with local relief to about 180 feet. The small hills are interspersed with larger low marsh areas, lakes, and small streams and gullies. Next to the ocean are wide beaches and dunes with old beach lines cut into the higher hills and alluvial terraces. To the south the terrain slopes gently upwards to the higher volcanic mountains and ridges. Fort Morrow and the WACS site are located on several of these small hills which provide relief from the lower, wet tundra areas, and are connected by a series of gravel roads. A dock area is located on dunes adjacent to the beach and the village of Meshik.

3.1 Climate

Port Heiden is located in a transitional climatic zone where the weather is influenced by both the mainland, continental climate (warm summers, cold winters), and the North Pacific climate (wet, moderate temperatures). The area is dry with 13 inches of precipitation per year (29 inches of snow) and moderate temperatures; summers average 40-59° and winters 14-33°. There is an almost constant wind, predominantly blowing from the SSE off the mountains. Frequent storm fronts pass through the area producing winds that can reach velocities of over 70 miles per hour.

3.2 Soils

Soils are primarily of volcanic origin consisting of shallow, silty ash overlying volcanic cinders. They are easily disturbed and subject to erosion from wind and water action. Soil depths vary with vegetation type and exposure to wind, the deepest found in the most protected sites and bare ground on exposed ridges. Soils are rich with nutrients and free of permafrost. Low lying wet marsh soils are peatlike and rich in organic nutrients. Soil on dunes is sparse or lacking depending on exposure to wind and water action. Protected leeward sides of older dunes retain some soil and are vegetated.

3.3 Geology

The Alaska Peninsula is an area of recent volcanic and tectonic activity. Two volcanoes occur in the Port Heiden area, Aniakchak Crater and Mt. Veniaminof, thus being the major geologic features. Fort Morrow and the village of Meshik are located on a gentle, sloping alluvial plain below Aniakchak crater. Rocks in the area are primarily volcanic, however, some sedimentary material does occur. The area also exhibits glacial features including moraines and paraglacial lakes in addition to fluvial surface processes which have produced outwash, flood plains, alluvial fans, beaches, spits, and deltas. The resulting topography is varied and continually changing.

3.4 Terrestrial Ecology

The terrestrial environment of the northern side of the Alaska Peninsula is very diverse. Habitats within the project area include open low shrub/ericaceous tundra found on the tops and windward sides of the small hills, ridges and exposed sites. This type is dominated by heaths and includes crowberry, bearberry, lichens, dwarf willows, and mosses. Additional species include low bush cranberry, yarrow, fireweed, grasses, sedges, and others. The leeward sides of the hills and protected areas support the same species, however, the growth form is taller and lusher with some additional species including sedges, alder, willows, cow parsnip, grasses, dewberry, monkshood, dwarf birch, Devil's club and others. On some protected leeward slopes alder and willow shrubs form a continuous canopy and reach heights of approximately 6 feet. Along streams and floodplains are found willow and alder shrubs interspersed with bare gravel bars, marshes, ponds, and grassy areas supporting primary successional species of herbs, grasses, and forbs. Dunes and beach areas support beachgrass and other grasses and a variety of forbs. Lower wet/bog habitat is found throughout the Port Heiden area. These areas of saturated soils support plant communities dominated by sedges (cottongrass), mosses, and water-tolerant shrub species. The affected habitat for this project is located primarily in the open low shrub/ericaceous tundra type with a limited portion in beach dune habitat.

3.4.1 Wildlife. The northern portion of the Alaska Peninsula and the surrounding waters support a large and diverse number of species of terrestrial wildlife, marine mammals, and birds. The major land mammals include caribou, moose, and brown bear. Caribou are the principal species that could be affected by the proposed project. A portion of the Alaska Peninsula caribou herd passes through the Port Heiden area during spring and fall migrations. During February and March caribou begin moving down the Peninsula from winter range between the Ugashik and Naknek Rivers to calving grounds primarily south of Port Heiden on a plain between Bear River and Port Heiden Bay. However, calving has occasionally occurred northeast of Port Heiden between Port Heiden and the Cinder River. During migration, most cows follow a straight line paralleling the coast between the mouths of the Ugashik and Meshik Rivers reaching calving grounds by mid-May. They return by the same route in late September and in October. As a result of these movements caribou are generally in the Port Heiden area in April and May, and in late September and October.

Moose are found generally inland on the higher elevation foothills and along stream courses. Bears utilize the area as a function of available food sources. Predators including red fox, wolves, wolverine, river otter, mink, least weasel, ermine, and occasionally lynx and arctic fox inhabit the area in addition to herbivores including muskrat, beaver, lemmings, porcupines, arctic ground squirrels, and others. Red foxes are found denning under old quonset huts and hunting in the thick vegetation around them.

3.4.2 Bird Species. Port Heiden is an important migratory stop for large flocks of geese, ducks, passerine species, and shorebirds. They feed and rest in the shallow bay during spring and fall migrations. During the summer the area supports low density populations of waterfowl and habitat for nesting passerine species. The bay is also utilized by pelagic bird species, and provides year round habitat for neritic (shallow water) seabirds and raptors.

Bird species that would be most affected by cleanup would include rock and willow ptarmigan, ravens, gulls, swallows and raptors. Swallows use the rafters in old quonset huts for nest sites. The tall dense patches of willows grasses and plants around quonsets are used for escape and nesting cover by passerine species. Raptors including the peregrine falcon use the microwave towers as perching and nesting sites. Bird nesting is primarily on the ground, water, or in the available short willows and alders. Any work will directly affect some ground and shrub nesting species through nest destruction or disturbance.

3.5 Aquatic Ecology

3.5.1 Marine. Port Heiden supports a diverse and abundant number of marine species including waterfowl, seabirds and mammals, and species using marine waters for feeding or resting. The Port Heiden Bay and estuary are designated as an Alaska State Critical Habitat Area, and the Meshik River and drainages flowing into it as critical salmon habitat.

Bristol Bay supports an abundance of marine life including 22 species of marine mammals, shellfish, salmon, bottomfish, and marine birds. Port Heiden provides important habitat for harbor seals, sea otter, sea lions and whales which concentrate in it in response to the large influx of salmon into the Meshik River system. The system also supports a local commercial fishery important to the residents of Meshik. The presence of larger animals in the shallow water marine environment indicates an abundance of dissolved nutrients in the offshore water. These nutrients support rich seasonal crops of phytoplankton providing the primary forage food for the larger species. The shallow bay and ocean provide food for waterfowl, terrestrial birds, seabirds, marine mammals, and land mammals. Dense beds of kelp and eelgrass are found a short distance offshore providing essential habitat to numerous marine species.

3.5.2 Freshwater. Several small shallow ponds, small lakes, and creeks are found in the immediate area of Fort Morrow. Interspersed areas of wet bog and tundra also occur throughout the site. All are very shallow, and support a variety of aquatic plant species. The streams and interconnected ponds and lakes provide habitat for pink, chum and coho salmon, and Dolly Varden trout. Vegetation in lakes and ponds includes an abundance of pondweeds, sedges, and rushes around the fringes and in the shallow portions which provide essential habitat for salmon and trout fry and other aquatic species. The nutrient content of the bottom material is rich and enables growth of plants and other aquatic species in very limited areas and in abundance. Waterfowl and shorebirds use these ponds and lakes for feeding and resting on their yearly migrations.

3.6 Endangered Species

No endangered species are known to occur in the project area. The Aleutian Canada goose is known to fly over the southern tip of the Alaska Peninsula probably well southwest of Port Heiden. Peregrine falcons use the area for feeding and nesting. The falcons found on the Alaska Peninsula are identified as "Peales" subspecies which is not endangered in contrast to the "American" subspecies which is endangered. Based on location and subspecies distinction the falcons occurring there are not considered endangered.

3.7 Land Use

The Port Heiden area, outlined in the Bristol Bay Regional Management Plan (1985), is to be managed primarily for fish and wildlife habitat and harvest, recreation, and future oil and gas exploration and development. Future land use as identified, includes a community expansion settlement, oil and gas exploration and development on National Wildlife Refuge lands (Alaska Peninsula National Wildlife Refuge), a trans-peninsula transportation corridor (roadway, pipeline), and mineral exploration and development. Land in the Fort Morrow site was selected for conveyance to the Meshik Village Council and Bristol Bay Native Corporations and includes the village of Meshik and the WACS station. The State of Alaska is interested

in acquiring ownership of the Port Heiden State Critical Habitat area located on the northwest edge of Port Heiden. Two national conservation system units are also located adjacent to Port Heiden, Aniakchak National Monument and Preserve, and the Alaska Peninsula National Wildlife Refuge. Portions of these lands are under review for inclusion into the National Wilderness Preservation System. The Meshik River may be studied for possible designation as a wild and scenic river.

Current land use of Fort Morrow and the WACS site is determined by the road system and location of useable structures. The road system provides transportation routes for hunting and fishing, berry picking, and other subsistence and recreational activities. The airport is important both to the economy and as the only transportation link outside of the community. Possible community expansion or camp construction may occur in response to oil and gas development in the area. Borrow sites are located throughout the site associated with existing roads and the airport. Future upgrading of the existing runways will utilize additional gravel sites. More recently borrow pits and selected areas were used by the Air Force for disposal of wastes and material from the WACS site. Adjacent to the old military dock is a garbage disposal area used by the military and more recently by the village of Meshik. The dump is now a mixture of partially buried metal debris and garbage. Use of old wooden buildings on the Fort by local residents is occurring primarily in the airport and dock sites. Buildings are used for storage or shop space.

3.8 Cultural Resources

No unique or historic buildings or sites were found or identified within the project area. The fuselage and wings of a P-38 World War II aircraft were located in an existing disposal site adjacent to the airport. The remains of the aircraft will be taken from the dump prior to any work in the area.

No archeological sites were identified within Fort Morrow or at the beach area. The village of Meshik is located on a centuries old archeological site adjacent to the World War II dock and WACS fuel storage tanks. The immediate dock area was searched for archeological remains, but due to the great deal of ground disturbance produced by development of the dock area, and beach erosion, no visible remains were located.

3.9 Socioeconomic Conditions

The population of Meshik is currently less than 100 permanent residents of which a majority are Native Eskimo. There are few permanent jobs and most work is only seasonal. Residents supplement this seasonal wage income with subsistence hunting and fishing. This lifestyle allows residents to meet many of their basic needs and to remain in Port Heiden all year. Most income is from outside sources, primarily commercial fishing, commercial guiding (fish, waterfowl, big game), schools and government, and commerce

generated by the airport. The local native village corporation provides services within the village and represents the residents on a regional and statewide basis. A local school system provides education for children from grades 1-12. Regular daily air service is available, except during spring breakup, in addition to seasonal barge service from Seattle. New, modern housing is present in addition to electricity, phone, mail, fire, and EMT service. Houses have private water and sewer systems and a fenced garbage disposal site is located east of town. The road system is maintained in useable condition and there are numerous vehicles and ATV's.

Shipping costs, both air and barge, are very high which limits the types and quantity of materials brought into the community. Services are expensive and the residents are dependent on outside support and subsidy. Most goods are shipped by mail or barge or obtained by subsistence hunting and fishing. Future oil and gas development may dramatically change the socioeconomic conditions of the area.

4.0 ENVIRONMENTAL CONSEQUENCES

4.1 Terrestrial Environment

Debris removal will have varying effects on the natural environment. Removing quonsets and other debris from the tundra and brush areas will cause some vegetation disturbance around each site. Removal and demolition requires equipment entry into quonset pits and building sites which are generally surrounded by berms. Loading material into transport vehicles and driving to and from each site will produce further degradation of adjacent vegetation and the soil surface. The existence of roads to most sites will alleviate some problems, as would equipment fitted with large, soft tires or a large backhoe capable of working outside the berm. Though disruption will be visible initially, the areas should revegetate and recover with no significant long-term impact.

Wildlife will be minimally affected with proper timing and care to limit disturbance. The wildlife species that could be affected by the cleanup include nesting birds and migrating caribou. The effects on birds are unavoidable as cleanup is possible only during the summer nesting season when the ground is thawed and firm enough to support equipment. Caribou will be in the area during spring and fall migrations. Spring migration--April, May--will occur when the ground is thawing and human travel is limited by soft ground and mud. Fall migration occurs after freezeup--late September, October--when the contractor will be finished with cleanup or unable to do work in the area because of weather and frozen ground. If work did occur during the fall migration, caribou would avoid the work areas, possibly influencing the distance hunters would have to travel to hunt. The noise and activity would have little effect on the caribou.

Work will produce the short-term effects of causing some wildlife to avoid the noise and activity at the project site, disrupting ground and shrub nesting birds at removal sites, and by removing structures that have provided protective cover for birds, small mammals and red foxes. A peregrine falcon nest located on the southwest troposcatter tower at the WACS site would be destroyed and raptor perching sites removed without replacement. The use of structures is an adaptation from the existing natural environment and their removal should not be viewed as loss of nest or perch sites but returning conditions to natural. All effects are short-term and overall the environmental quality will continue to improve.

The effects of PCB contamination on the natural environment of Port Heiden are presently unknown. The PCB material was confined to the main composite building at the White Alice site. Since the building was used into the 1970's and is still relatively intact, the probability of PCB's in the soil and water is minimal. Oil spills with PCB contamination are possible, however, the chances of vegetation growing on these spills, absorbing PCB's, and being ingested by animals are slight. The site is on a hill and a distance from any water bodies or streams, therefore, the opportunity for PCB's to enter these systems is considered remote.

The effects of POL products on the natural environment are probably minimal due to the small quantities of materials spilled onto the soil. The existing presence of POL at Fort Morrow after the base has been abandoned for 40 years indicates that some contamination of soils and waters has occurred. Cleaning up residue, barrels containing POL, and POL spills will prevent further contamination from occurring.

The effects of low concentrations of POL on wildlife are not well understood, however, long chain hydrocarbons and metals from POL are accumulated in the fatty tissue of marine mammals. The effects on the benthic food chain are not known though bioaccumulation apparently occurs. Land mammals could also accumulate these materials in their tissue though their exposure to contaminants would be very brief and the probability of their ingesting of POL is slight. The greatest problem would occur if POL enter or have entered the water source for the human population at Port Heiden. A majority of the POL is found near the airport, where the Airport Manager lives. The water in this well should be tested for POL contamination. The two large 250,000 gallon fuel tanks are located next to the beach and Meshik Lake, which may be the primary source of water for the village. The tanks are to remain for use by the village, and the opportunity for contamination will continue.

Wetlands within the project area will not be affected as most sites are on higher, dry land. Gravel roads connect many sites and timing construction to periods when the ground is dry or frozen and by minimizing vegetation disruption, little wetlands siltation or disturbance is anticipated. Any removal of debris or structures at the beach fuel dock site would have little negative impact compared to benefits. Dismantling and removing the tanks and other debris would both improve the visual quality and any problems from fuel or garbage within the beach area.

Removing the debris from the beach garbage dump or burying the garbage with material trucked to the area would greatly improve the quality of this wetlands site. Any amount of wastes leaching from this garbage would decrease with burial but remain in the soil. Removal of garbage from the site and burial at an upland site would reduce the amount of waste material in the soil and the potential for any health or water quality problems in Meshik. The environmental quality of this wetlands site will improve regardless of disposal method. The effects of cleanup activity will depend on whether the tanks will remain for use, and the cleanup method used at the garbage dump.

4.2 Endangered Species

Peregrine falcons inhabit the site, however, they are identified as the Peales subspecies which is not endangered. Aleutian Canada geese migrate up the Alaska Peninsula a distance to the south and west of Port Heiden. No other endangered species of plants or animals are known to occur at Port Heiden.

4.3 Aquatic Environment

The aquatic environment and water quality should improve as a result of the proposed cleanup. Any short-term effects produced by debris removal will be mitigated by the long-term improvement of water quality. Soil and vegetation disturbance could produce an increase in siltation and runoff into streams, ponds and lakes though any lasting effect is unlikely because there are few water bodies near cleanup sites. The long-term effect of debris removal on the aquatic environment will be positive. Benefits will include disposing of POL and cleaning up spills to help keep petroleum products from leaching into the soil and water, and burial of metal and wooden debris. This action will reduce the probability of debris in lakes and streams and the continued leaching of materials into the soil and water. The marine environment should be little effected by the proposed project, as no marine work will occur. Cleanup of the port area dump will reduce the possibility of leachates from entering the marine system, and also garbage spreading into the Bering Sea.

4.4 Air Quality

Burning of collected wood debris will produce clouds of smoke during the duration of the burns. Due to the constant, frequently strong winds in the area an accumulation of smoke should not be a problem. The age and dry condition of the wood should produce a hot fire with little smoke. Any smoke problems would be of short duration, and all burning will be regulated by an ADEC permit.

Release of smoke and hydrocarbons from equipment exhausts will occur with any work and are of little or no significance. Air quality in the area is pristine and changing rapidly from the constant wind. Burning or construction equipment operation should not produce a significant impact on air quality.

4.5 Aesthetics

The visual aesthetics of Meshik and Fort Morrow will improve dramatically with cleanup. Soil disturbance and solid waste disposal sites will remain distinguishable until they are planted and revegetate. Leaving earthworks around quonsets and building sites will allow retention of the historic quality of the area as building sites can be identified. Removal of quonsets, barrels, fallen and standing wooden buildings, machinery and garbage will improve the aesthetics of the area, while removing safety and environmental hazards. Demolition of the WACS site will allow an unbroken view of the terrain free of any manmade structures. The site is now visible from many miles in all directions. A visual cleanup will promote tourism to the area for both its wilderness and historic potential. A total cleanup would involve removal, obliterating and revegetating all roadways, earthworks, gravel pits, and building sites.

4.6 Noise

Noise levels will increase at the project site during cleanup, primarily from demolition of the WACS site using drills or explosives. Demolition activities will take several days to weeks to complete, affecting raptor and other avian use of this site. Temporary equipment noise will accompany any work throughout the area. Caribou movements through Port Heiden will be affected if activity occurs during the migration periods (April & May, late September and October). Animals would avoid the project site, returning after the activity ceases. Timing of construction to periods when large numbers of caribou are not in the area will be important. The impacts of noise during the project are only temporary, having no significant effects on the environment or wildlife.

4.7 Socioeconomics

Debris removal will benefit the local community in several ways: creating temporary jobs and generating income in the local community; increasing services during construction; generating an influx of construction equipment and supplies; removing unsightly and potentially hazardous debris; returning the area to a more natural condition; removing garbage and POL; and improving visual aesthetics.

The project should occur at a time to not interfere with subsistence activities by the Meshik villagers, especially the caribou migration. The road system should remain as is, because it is used extensively by the local residents for various activities. Notification of when cleanup will occur is necessary to allow villagers to obtain useable materials from the site before disposal. Local hire is an important topic to village residents and it should be encouraged. Removal of solid waste will improve the attractiveness of the area while eliminating the possibility of accidents due to flying debris during high winds. Removal or disposal of POL will help prevent contamination of water wells and public drinking water. The project will have no significant negative impact on the local population. Most impacts will be positive, improving the quality of life in Meshik.

5.0 CONCLUSIONS

The conclusion, derived from this environmental assessment, is that cleanup can be accomplished with very little negative effect on the human or natural environment of Port Heiden. Any impacts will be minor and of short duration. The accompanying EA and document review support the conclusion that the proposed project does not constitute a major Federal action significantly affecting the quality of the human environment. Therefore, an environmental impact statement is not necessary for the proposed cleanup of DOD debris at Port Heiden.

6.0 REFERENCES

McCartney, Allen P.

1979 Working Draft Environmental Impact Statement for World War II Debris Removal and Cleanup, Aleutian Islands and Lower Alaska Peninsula, Alaska. Prep for: U.S. Army Engineer District, Alaska by Tetra Tech, Pasadena, CA. Appendix J, Archeology and History. 197p.

Selkregg, Lidia L., Ed.

1975 Alaska Regional Profiles, Southwest Region. University of Alaska, Arctic Environmental Information and Data Center. Prepared for State of Alaska and Joint Federal/State Land Use Planning Commission for Alaska. 200+p.

U.S. Army Engineer District, Alaska

1979 Aleutian Islands and Lower Alaska Peninsula Debris Removal and Cleanup, Draft Environmental Impact Statement. Prepared by Tetra Tech, Pasadena, CA. Appendices. 300+p.

U.S. Department of the Interior

1985 The Bristol Bay Regional Management Plan and Final Environmental Impact Statement. Prepared by U.S. Fish and Wildlife Service, Region 7, Anchorage, Alaska. Vol I. 430pp.

U.S. Fish and Wildlife Service

1985 Alaska Peninsula National Wildlife Refuge Final Comprehensive Conservation Plan, Environmental Impact Statement and Wilderness Review. Prepared by U.S. Fish and Wildlife Service, Region 7. Anchorage, Alaska 426pp.

7.0 AGENCIES AND PERSONS CONSULTED

Contact was made with representatives of the following resource agencies and businesses concerning the DERA program and sites under investigation for cleanup. Contacts concerning Port Heiden were made to:

- U.S. Fish and Wildlife Service, Endangered Species Office,
Mr. Dennis Money
- U.S. Environmental Protection Agency, Mr. Jacques Gusmano
- U.S. Air Force, Elmendorf AFB, USAF HQ, AAC/DEPV, Mr. Jim Hostman
- U.S. Department of Interior, Bureau of Land Management, Regional
Office
- Alaska Department of Environmental Conservation, Regional Office
- Alaska Department of Transportation and Public Facilities
- Port Heiden Airport, Mr. David Chamberlain
- Alaska Department of Natural Resources, State Historic Preservation
Office
- Meshik Village Council
- City of Port Heiden, Ms. Pamila Christensen
- Reeves Aleutian Airways, Mr. A. B. Chamberlain, Mr. David Chamberlain

Initial contacts were made by letter, during the permit process, or by the contracted consultant during field investigations.

7.1 COASTAL ZONE MANAGMENT AND LAND USE

The proposed action will occur in a manner consistent and compatible with the Alaska Coastal Management Program. This determination is based on the description of the proposed cleanup activity and assessment of its effects, and review of the Bristol Bay Regional Management Plan (1985). A copy of the assessment has been provided to the State of Alaska, Division of Governmental Coordination for concurrence.

APPENDIX A
TOXIC AND HAZARDOUS MATERIALS (THM) SUMMARY

Port Heiden WACS site and Fort Morrow were sampled for the presence of THM during a field visit by the Corps in June 1986. POL in spills and drums, soils, water bodies, and sumps were sampled and analyzed for THM contamination. Areas sampled included obvious oil spills and areas void of vegetation. Preliminary sampling was judgemental and representative of the site as a whole. The Corps' chemist's efforts were directed at determining the types and location of THM contamination. A tabulation of analysis of the results follows.

SAMPLING LOCATIONS: Port Heiden, Fort Morrow, WACS Site.

SAMPLES

DESIGNATION	LOCATION	SAMPLE TYPE
10 SL	WACS site auto shop	Soil
11 SL	WACS site wave guide	Soil
12 SM	Outside, generator room	Soil matrix
13 SL	Outside, generator room	Soil
14 SM	WACS site, landfill	Soil matrix
15 SL	Area 2, barrel lot	Soil
16 SM	Area 4, barrel, quonset	Soil matrix
21 SL	Area 7, ACS station	Soil
22 SL	Area 10, near hangar	Soil
23 DR	Area 13, Meshik tank farm	Drum
24 SL	Area 13, Meshik landfill	Soil
25 WA		Water
26 SD	HUD road, landfill	Sediment
27 SD	HUD, landfill	Sediment
28 SL	Area 12, towers	Soil
29 SL	Area 12	Soil
30 SL	Area 12	Soil
31 WA	HUD road, north side	Water
32 SL	Area 8, north of Reeve hangar	Soil
33 SL	Area 8, north of Reeve hangar	Soil
34 SD	Area 10, pumphouse lake	Sediment

ANALYSIS RESULTS

DESIGNATION	HEAVY METAL**	ACUTELY TOXIC SUBSTANCES***	PBC/PPM
10 SL	N.T.*	N.T.	15.0
11 SL	N.T.	N.T.	0.23
12 SM	None	N.T.	N.T.
13 SL	N.T.	N.T.	3.5
14 SM	None	N.T.	N.T.
15 SL	None	N.T.	N.T.
16 SM	None	N.T.	N.T.
21 SL	N.T.	N.T.	N.T.
22 SL	None	N.T.	N.T.
23 DR	N.T.	N.T.	N.T.
24 SL	None	N.T.	N.T.
25 WA	None	None	N.T.
26 SD	None	N.T.	N.T.
27 SD	None	None	N.T.
28 SL	N.T.	N.T.	N.T.
29 SL	N.T.	N.T.	9.9
30 SL	N.T.	N.T.	None
31 WA	None	None	N.T.
32 SL	None	N.T.	N.T.
33 SL	None	N.T.	N.T.
34 SD	None	N.T.	N.T.

* N.T. - Not tested.

** Samples were analyzed for 8 metals, including: Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Selenium, and Silver.

*** Identification testing for 64 organic, semi-volatile compounds was done for each sample. The chemicals are identified as Toxic or Hazardous.

APPENDIX B

Applicable Regulations for Cleanup of Port Heiden:

Alaska Department of Environmental Conservation (ADEC)

- 18 AAC 20 Financial Responsibility (1981)
- 18 AAC 50 Air Quality Control Regulations
- 18 AAC 60 Solid Waste Management Regulations
- 18 AAC 72 Wastewater Disposal Regulations
- 18 AAC 75 Oil and Hazardous Substances Pollution Control (1981)
- ADEC Asbestos Policy (1985)

Alaska Department of Labor (ADOL), Division of Labor, Standards of Safety Emergency Regulations of Asbestos Abatement, Certification, October 1, 1985 Occupational Safety and Health Standards (OSHS) (1974 Ed.) General Safety Code and Occupational Health and Environmental Control AS 60.068 Alaska Right to Know Law (1984)

U.S. Department of Labor, Occupational Safety and Health Administration (OSHA) 29 CFR 1910 General Industry Standards (1983)

U.S. Environmental Protection Agency (EPA) 40 CFR 61 National Emission Standards for Hazardous Air Pollutants (1973) Update April 5, 1984

Asbestos Removal

ADEC 18 AAC 50; 18 AAC 60; ADEC Asbestos Policy (1985)

ADOL Emergency Regulations (October 1, 1985) Occupational Safety and Health Standards 04.0102 Asbestos Removal General Safety Code Volume II

OSHA 29 CFR 1910, Subpart Z: Toxic and Hazardous Substances

EPA 40 CFR 61, Subpart M: National Emission Standard for Asbestos 42 U.S.C. 7412: Clean Air Act, as amended by P.L. 91-604 (84 Stat. 1676)

POL and THM Removal

ADEC 18 AAC 75

American Society of Mechanical Engineers (ASME)
ASME Code, Section VIII, Div. 1 (1983)

U.S. Department of Transportation (DOT)
49 CFR 172: Hazardous Materials Tables and Hazardous Materials
Communications Regulations
49 CFR 178: Shipping Container Specifications

EPA 40 CFR 260: Hazardous Waste Management System
40 CFR 261: Identification and Listing of Hazardous Waste
40 CFR 262: Standards Applicable to Generators of Hazardous
Waste
40 CFR 263: Standards Applicable to Transporters of Hazardous
Waste

ADOL OSHS 04.0101

U.S. Department of Labor
29 CFR 1910

Toxic Substances Control Act (TSCA)

Resource Conservation and Recovery Act (RCRA)

Landscapeing

Federal Specifications Q-F-241d Fertilizers, Mixed, Commercial

U.S. Department of Agriculture
Federal Seed Act of Aug. 9, 1939 (53 Stat. 1275)
Rules and Regulations, Am's May 1976, Sept. 1977