DEPARTMENT OF THE ARMY
PACIFIC OCEAN DIVISION, U.S. ARMY CORPS OF ENGINEERS
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FORT SHAFTER, HAWAII 96858-5440

17 SEP 2021

CEPOD-PD (1200A)

MEMORANDUM FOR Commander, Alaska District (CEPOA-PM-ESP/K. Andraschko), P.O. Box 6896, JBER, Alaska, 99506-0898

SUBJECT: Defense Environmental Restoration Program - Decision Document for Fort Babcock Formerly Used Defense Site, Project No. F10AK0353-04, HTRW, Sitka, Alaska

1. References:

a. Memorandum, HQ POA, CEPOA-DE, 26 May 2021, subject: Defense Environmental Restoration Program – Decision Document for Fort Babcock Formerly Used Defense Site, Project No. F10AK0353-04, HTRW, Sitka, Alaska.

b. ER 200-3-1 (Formerly Used Defense Sites (FUDS) Program Policy), 10 May 2004.

c. DoD Manual 4715.20 (Defense Environmental Restoration Program (DERP) Management), 9 March 2012.

2. After review of reference 1.a, concur with the recommendation to select Remedial Alternative No. 3, excavation with off-site disposal as the remedy for FUDS project F10AK0353-04. The estimated present value cost for the remedial action is $2.2M.

3. The signed Decision Document (DD) for FUDS project F10AK0353-04 is in accordance with references 1.b and 1.c and is enclosed.

4. Please upload a copy of this memorandum, with enclosure, to the appropriate FUDS property folders in the FUDS-DOC records management database and the FUDS Management Information System.

5. The POC for this matter is Mr. Reid Maekawa, POD FUDS Program Manager, at (808) 835-4631 or reid.h.maekawa@usace.army.mil.

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Encl

DAMON P. LILLY, SES
Director of Programs

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United States Army
Corps of Engineers

Formerly Used Defense Sites Program

Decision Document

Hazardous, Toxic, and Radioactive Waste (HTRW)
Project # F10AK0353-04
Fort Babcock Formerly Used Defense Site (FUDS)
Sitka, Alaska

August 2021

Prepared By:
U.S. Army Corps of Engineers - Alaska District
Environmental Engineering Branch
P.O. Box 6898
JBER, Alaska 99506-0898

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EXECUTIVE SUMMARY

ES.1 This Decision Document (DD) presents the selected remedy for the Fort Babcock Formerly Used Defense Site (FUDS), Hazardous Toxic and Radioactive Waste (HTRW) Project Number F10AK0353-04, Contaminated Soil. Two projects were authorized for the Fort Babcock FUDS property. Containerized HTRW Project Number F10AK0535-03, One Tank in Concrete Vault, achieved response complete and was closed in September 2009. Project F10AK0353-04 addresses the remaining environmental concerns associated with soil contamination identified at the Fort Babcock property and is intended to conclude all remedial activities for this property.

The selected remedy decision is based upon the Administrative Record for this site, which documents multiple remedial investigations and removal activities from 1995-2017. The 2019 Proposed Plan included a public meeting and public comments. The DD summarizes these activities.

ES.2 The U.S. War Department acquired 4,070 acres on Kruzof Island for Fort Babcock by Executive Order 8877, dated 29 August 1941. The Fort Babcock FUDS is located approximately 11 miles west of Sitka, Alaska at Shoals Point on the southeast corner of Kruzof Island Access to Fort Babcock is limited to marine vessels, recreational sea kayakers, small fixed-wing aircraft, and helicopters. At Fort Babcock, planned construction of one fixed, 6-inch gun battery (Battery 290) and additional support facilities were initiated, but stopped before completion in 1944 when the Sitka Naval Operating Base was decommissioned. Constructed facilities included a 7,500-square-foot (ft^2) concrete bunker (magazine and fire control station); observation tower; water tank; diesel fuel storage tanks; Quonset huts; a power plant; maintenance shops; wood-frame buildings utilized for troop quarters, administration, and supply/equipment storage; and a 220-foot by 40-foot (ft) dock at Shoals Point (USACE, 2014). The land is owned by the United States and is under the jurisdiction, custody, and control of the US Forest Service (USFS), Tongass National Forest.

In accordance with Defense Environmental Restoration Program (DERP) (10 United States Code 2701 et seq), this DD presents the selected remedy for Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) contaminants. CERCLA contaminants of concern present in soil include polychlorinated biphenyls (PCBs). Petroleum, oil, and lubricants (POL) is excluded from CERCLA as a contaminant of concern. However, it is being addressed under the authority of the DERP. The DERP provides authority to cleanup petroleum contamination if it poses an imminent and substantial endangerment to public health, welfare or the environment. Fuel contaminants in soil above risk-based cleanup levels indicative of imminent and substantial endangerment (ISE) include diesel range organics (DRO) and residual range organics (RRO). Although groundwater exhibits DRO contamination above State of Alaska drinking water standards, groundwater at the site is not a current or reasonably expected drinking water source. As a result, the State of Alaska Department of Environmental Conservation (ADEC) concurred with a no groundwater use determination.

ES.3 The selected remedy is Excavation with offsite disposal. The other remedial alternatives considered include no action and excavation with ex-situ vapor energy generator treatment of stockpiled soil. The selected remedy will reduce the cancer risk from 6 in 10,000 (6×10^{-4}) to within the acceptable range of (1×10^{-4} to 1×10^{-6}). The estimated cost of the remedy is $2.2

Million. After the selected remedy is successfully implemented, unlimited use/unrestricted exposure (UU/UE) will be achieved for PCBs under CERCLA, and no land use controls (LUCs) or five-year reviews under CERCLA will be necessary. After the alternate POL cleanup levels are met at the site, it is anticipated an ISE will no longer exist at the site. For petroleum (DRO and RRO), the USFS Land Management Database will be updated to indicate the area(s) of residual contamination.

ES.4 The remedy is protective of human health and the environment. The selected remedy entails the following major components:

- Excavation of contaminated soil;
- transportation of contaminated soil to an offsite disposal facility;
- re-contouring or backfilling the excavations; and,
- revegetation of the site.

ES.5 The State of Alaska, through the Department of Environmental Conservation, concurred the selected alternative (Excavation with Offsite Disposal) is the most appropriate alternative. The ADEC will provide a formal determination on the selected remedy under a separate cover.

TABLE OF CONTENTS

Acronyms and Abbreviations

AST	Aboveground Storage Tank
AAC	Alaska Administrative Code
ADEC	Alaska Department of Environmental Conservation
AHRS	Alaska Heritage Resource Survey
AWQS	Alaska Water Quality Standard
ARARs	Applicable or Relevant and Appropriate Requirements
bgs	below ground surface
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
COC	Contaminant of Concern
CSM	Conceptual Site Model
CY	Cubic Yard
DD	Decision Document
DERP	Defense Environmental Restoration Program
DoD	Department of Defense
DRO	Diesel Range Organics
EF	Exposure Frequency
F	Fahrenheit
ft	Feet
ft^2	Square Feet
FS	Feasibility Study
FUDS	Formerly Used Defense Site
HTRW	Hazardous Toxic and Radioactive Waste
ISE	Imminent and Substantial Endangerment
INPR	Inventory Project Report
JBER	Joint Base Elmendorf-Richardson
LUCs	Land Use Controls
MAC	Maximum Allowable Concentration
mg/kg	Milligrams per Kilogram
NCP	National Contingency Plan
NOAA	National Oceanic and Atmospheric Administration
NRHP	National Register of Historic Places
NAUL	Notice of Activity and Use Limitation
ppm	parts per million
PAH	Polycyclic Aromatic Hydrocarbon
PCB	Polychlorinated Biphenyl
POL	Petroleum, Oil, Lubricant
PP	Proposed Plan
RAB	Restoration Advisory Board
RAO	Remedial Action Objective
RI	Remedial Investigation
RRO	Residual Range Organics
SHPO	State Historic Preservation Office
SARA	Superfund Amendments and Reauthorization Act
TSCA	Toxic Substances Control Act
TWP	Temporary Well Point
UECA	Uniform Environmental Covenants Act
USACE	United States Army Corps of Engineers
USACE-AK	U.S. Army Corps of Engineers – Alaska District
USC	United States Code
USFS	United States Forest Service
UU/UE	Unlimited Use/Unrestricted Exposure
VEG	Vapor Energy Generator
VOC	Volatile Organic Compound

PART 1: DECLARATION

1.1 SITE NAME AND LOCATION

The Fort Babcock Formerly Used Defense Site (FUDS), project number F10AK0353-04, is located approximately 11 miles west of Sitka, Alaska at Shoals Point on the southeast corner of Kruzof Island. Sitka Sound separates Kruzof Island from the community of Sitka and access to Fort Babcock is limited to marine vessels, recreational sea kayakers, small fixed-wing aircraft, and helicopters (if a landing area can be identified). The land is owned by the United States and is under the jurisdiction, custody, and control of the US Forest Service (USFS), Tongass National Forest.

1.2 STATEMENT OF BASIS AND PURPOSE

This Decision Document presents the U.S. Army Corps of Engineers (USACE) selected remedy for the Fort Babcock site, chosen in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended by the Superfund Amendments and Reauthorization Act (SARA), and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP).

Detailed information supporting the selected remedial action is contained in the administrative record file for this site, located at the USACE, Alaska District (USACE-AK) Office on Joint Base Elmendorf-Richardson (JBER), Alaska, and the Information Repository located at the Sitka Public Library in Sitka, Alaska.

The Alaska Department of Environmental Conservation (ADEC) concurs with the portion of the selected remedy that includes the excavation and offsite disposal of soil contaminated with PCBs and petroleum at Ft. Babcock. ADEC maintains that additional institutional controls are needed to ensure future land use remains recreational. See Section 2.14.8 for additional information regarding state acceptance.

1.3 ASSESSMENT OF SITE

The remedy selected in this DD is necessary to protect the public health and welfare or the environment from actual or threatened releases of hazardous substances into the environment from soil. CERCLA contaminants of concern (COCs) include polychlorinated biphenyls (PCBs). Petroleum (non-CERCLA) contaminants of concern include DRO and RRO.

1.4 DESCRIPTION OF SELECTED REMEDY

The response action selected in this DD is protective of public health, welfare, and the environment. The completion of the selected remedies for CERCLA and POL contamination at Fort Babcock will reduce risk to acceptable levels based on the current and foreseeable future recreational land use. This project addresses the remaining environmental concerns associated with soil contamination identified at the Fort Babcock property and is intended to conclude all remedial activities for this property. The selected remedy entails the following major components:

- Excavation of contaminated soil;

- transportation of contaminated soil to an offsite disposal facility;
- re-contouring or backfilling of the excavations; and,
- revegetation of the site.

1.5 STATUTORY DETERMINATIONS

The legislation establishing the Defense Environmental Restoration Program (DERP), 10 USC § 2701 et al, authorizes the Secretary of Defense to carry out response actions with respect to releases of hazardous substances at sites that were owned by, leased to, or otherwise possessed by the United States and under the jurisdiction of the Secretary at the time of the release and that were transferred from DoD control prior to 17 October 1986.

The selected remedy is protective of human health and the environment, complies with federal and state requirements that are applicable or relevant and appropriate to the remedial action, is cost effective, and utilizes permanent solutions to the extent practicable. Excavation and offsite disposal of contaminated soil is a principal element of the remedy. The selected remedy does not satisfy the statutory preference for treatment as a principal element of the remedy. Remedies involving treatment were not selected due to various factors including logistical challenges, implementability, and greater uncertainties related to technology success, cost and risk of performance success. The selected remedy represents the maximum extent to which treatment technologies can be used in a cost-effective manner with low risk at this site considering all factors.

After the selected remedy is successfully implemented, unlimited use/unrestricted exposure (UU/UE) will be achieved under CERCLA for PCBs. Because this remedy will not result in hazardous substances, pollutants, or contaminants remaining on-site above levels that allow for unlimited use and unrestricted exposure, five-year reviews will not be required following this remedial action.

The DoD can remediate releases of petroleum where the release poses an imminent and substantial endangerment (ISE) to the public health or welfare, or to the environment per 10 USC 2701(b)(2). At Fort Babcock, two areas exhibit soil with petroleum concentrations that exceed Alaska's Site Cleanup Rules (18 Alaska Administrative Code (AAC) 75 Article 3) and pose an ISE to the public health. An ISE will no longer exist for petroleum after the remedy is implemented.

1.6 DECISION DOCUMENT DATA CERTIFICATION CHECKLIST

The following information is included in **Part 2.0,** Decision Summary:

- COCs and their respective concentrations;
- Risk represented by the COCs;
- Cleanup levels established for COCs and the basis for these levels;
- How COCs will be addressed by the remedy
- Current and reasonably anticipated future land use;
- Current and potential future beneficial uses of groundwater;
- Estimated capital costs, annual operation and maintenance costs, and total present worth; and the number of years over which the remedy cost estimates are projected; and
- Key factors that led to remedy selection.

Authorizing Signature

This Decision Document presents the selected remedial action of excavation and offsite disposal at the Fort Babcock FUDS. The Department of Defense is the lead agency under the Defense Environmental Restoration Program (DERP) at the Fort Babcock Formerly Used Defense Site, and the U.S. Army Corps of Engineers has developed this Decision Document for DoD consistent with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended, and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). This Decision Document will be incorporated into the larger Administrative Record for the Fort Babcock Site which is available for public review at the Sitka Public Library, 320 Harbor Dr, Sitka, Alaska 99835. This document, presenting a selected remedy with a present worth cost estimate of $2.2 Million, is approved by the undersigned and pursuant to the delegated authority in the ASA (IE&E) memorandum dated 24 June 2019 subject: Assignment of Mission Execution Functions Associated with Department of Defense Lead Agency Responsibilities for the Formerly Used Defense Sites Program, and subsequent re-delegations.

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_____ Date _____

DAMON P. LILLY, SES
Director of Programs
US Army Corps of Engineers, Pacific Ocean Division

PART 2: DECISION SUMMARY

This Decision Summary provides an overview of the conditions at the Fort Babcock Formerly Used Defense Site (FUDS), project number F10AK0353-04. It summarizes the data from the remedial investigation phase, describes the remedial alternatives considered, and analyzes the alternatives compared to the criteria set forth in the National Contingency Plan (NCP). The Decision Summary explains the rationale for selecting the remedy, and how the remedy satisfies the statutory requirements of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

2.1 SITE NAME, LOCATION, AND BRIEF DESCRIPTION

The Fort Babcock FUDS is located approximately 11 miles west of Sitka, Alaska at Shoals Point on the southeast corner of Kruzof Island (Figure 1). Sitka Sound separates Kruzof Island from the community of Sitka and access to Fort Babcock is limited to marine vessels, recreational sea kayakers, small fixed-wing aircraft, and helicopters (if a landing area can be identified). The land is currently owned and managed by the US Forest Service (USFS), Tongass National Forest.

2.2 SITE HISTORY

In the 1930s, the U.S. War Department developed "Plan Orange," in response to the possibility of war in the Pacific. Alaska was recognized as part of a strategic defense triangle. Facilities established as part of the "Sitka Naval Air Station" in 1939 were the first wartime construction in Alaska. After the bombing of Hawaii's Pearl Harbor on 7 December 1941 and the bombing of Alaska's Dutch Harbor on 3 June 1942, military activity at Sitka increased.

On 9 June 1942, a Harbor Defense Plan to support the Sitka Naval Operating Base was initiated as part of the U.S. Army Coastal Defenses. The plan called for three modern, 200 series 6-inch gun batteries to be constructed on Kruzof Island (Battery 290), Biorka Island (Battery 291), and Makhnati Island (Battery 292).

The U.S. War Department acquired 4,070 acres on Kruzof Island for Fort Babcock by Executive Order 8877, dated 29 August 1941 (Figure 1). At Fort Babcock, planned construction of one fixed, 6-inch gun battery (Battery 290) and additional support facilities were initiated, but stopped before completion in 1944 when the Sitka Naval Operating Base was decommissioned, as the focus of the war in Alaska shifted to the Aleutian Islands. Facilities that were constructed included a 7,500-square-foot (ft^2) concrete bunker (magazine and fire control station); observation tower; water tank; diesel fuel storage tanks; Quonset huts; a power plant; maintenance shops; wood-frame buildings utilized for troop quarters, administration, and supply/equipment storage; and a 220-foot by 40-foot (ft) dock at Shoals Point (USACE, 2014).

2.3 INVESTIGATION AND REMEDIAL ACTION HISTORY

USACE conducted an initial site inventory of Fort Babcock in 1985 (USACE, 1986). Between 1995 and 2013, multiple environmental investigations were conducted to identify and investigate the potential contaminated sites associated with Fort Babcock. During this time, Battery 290, four collapsed timber structures, a collapsed timber bulkhead, 19 Quonset huts, a concrete crib, a

landfill area, a power plant foundation, and aboveground storage tanks (ASTs) used for fuel storage were investigated.

A RI was conducted in 2012 and 2013 to further investigate previously identified sources of contamination and additional features. The RI activities also included magnetic surveys to identify metallic debris; groundwater temporary well point (TWP) installation; soil boring advancement; soil field screening; and collection of soil, sediment, surface water, groundwater, and wipe samples of concrete and tile for laboratory analysis. Fuels, metals, and polychlorinated biphenyls (PCBs) were identified in soil. The areas and features (sub-sites) investigated during the RI are shown on Figure 2 and included the following.

- **Landfill Area:** Visual survey, magnetic survey, and soil sample collection and analysis.
- **Fuel Storage Area:** Visual survey; magnetic survey; and sample collection and analysis for soil, groundwater, sediment, and surface water.
- **Manhole #1:** Soil, sediment, surface water, and groundwater sample collection and analysis.
- **Septic Tank #1:** Surface water and sediment sample collection and analysis.
- **Tar Drum Area:** Soil and groundwater sample collection and analysis.
- **Power Plant:** Soil, concrete, surface water, groundwater, and tile wipe sample collection and analysis.
- **Septic Tank #2:** Soil, sediment, surface water, and groundwater sample collection and analysis.

Only the Power Plant exhibited CERCLA contaminants of concern (COCs) above applicable cleanup levels in soil. The Fuel Storage Area and Tar Drum Area had POL contamination above ADEC cleanup levels. The Landfill Area, Manhole #1, Septic Tank #1, and Septic Tank #2 did not exhibit COCs above applicable cleanup levels.

2.4 ENFORCEMENT HISTORY

RI and remedial work at the Fort Babcock site has been carried out under the DERP FUDS program. There have been no enforcement activities or notices of violation pertaining to the DoD activities at the Fort Babcock FUDS.

2.5 COMMUNITY RELATIONS ACTIVITIES

Public participation has been an important component of the CERCLA process at the Fort Babcock site. A Public Involvement Plan was developed for the project in October 2007 and updated in December 2015 and December 2019. The Public Involvement Plan describes the measures used to meet the community relations goal of keeping nearby residents and other interested parties informed about project activities. Ongoing community relations activities have allowed Sitka residents and other interested persons the opportunity to provide feedback and comments on project activities and encouraged everyone to become involved in the project.

USACE held a public meeting in Sitka, Alaska, at Harrigan Centennial Hall on 3 May 2013, to keep the community apprised of project activities. During the meeting, USACE solicited interest in the creation of a Restoration Advisory Board (RAB). RAB assessment efforts were also made during 2015, 2017, and 2019. No RAB was formed because sufficient or sustained public interest was not indicated.

USACE provided another update on FUDS program activities at Fort Babcock during a June 2015 public meeting. The public had the opportunity to review and comment on the Proposed Plan (PP) from 28 October to 12 December 2019 (45 days). A newspaper announcement containing the date of the public meeting and availability of the proposed plan document for review was published on 28 October 2019, 4 November 2019, and 6 November 2019 in the Daily Sitka Sentinel. A radio announcement with information on the availability of the proposed plan and the public meeting date was broadcast on Raven Radio, KCAW, in Sitka on 28 October 2019 and 1 November 2019. The public, USFS, State Historic Preservation Office (SHPO), Sitka Tribe of Alaska, Shee Atika Corporation, and Sealaska Corporation were notified of the PP availability. The PP was made available for review in hardcopy form during a public meeting held 7 November 2019, at the information repository located in the Sitka Public Library in Sitka, Alaska, and in electronic form via an internet website during the comment period. One public comment was received via e-mail during the public review period. Summaries of the public meeting, e-mail correspondence during the public comment period, and other public and stakeholder participation documents are included in Attachment B. Detailed responses to comments received on the PP are provided in Part 3 of this DD.

Project documentation, reports, and other materials are available in the administrative record file at the US Army Corps of Engineers – Alaska District (USACE-AK) at JBER, Alaska, and the Information Repository located at the Sitka Public Library in Sitka, Alaska.

2.6 SCOPE AND ROLE OF THE RESPONSE ACTION

This section describes the scope and role of the current proposed remedial action relative to the overall cleanup plan and objective for this property. Since being initiated in 1993, USACE has defined and addressed two (2) projects for this property.

- Project 03: One Tank in Concrete Vault
- Project 04: Contaminated Soil

Project 03 achieved response complete and was closed in September 2009. Project 04 addresses the remaining environmental concerns associated with soil contamination identified at the Fort Babcock property and is intended to conclude all remedial activities for this property.

2.7 SITE CHARACTERISTICS

This section provides an overview of the Fort Babcock Site, including geology, hydrology, climate, ecological resources, and archaeological and cultural resources.

2.7.1 Geology

Fort Babcock is located on Kruzof Island. Mt. Edgecumbe, a volcano that is considered seismically active, dominates the island. The U.S. Geological Survey rates Mt. Edgecumbe as a moderate threat volcano on a five-point scale from very low threat to very high threat based on hazard and exposure factors (Ewert et al. 2005). The major faults such as Peril Strait and Chatham Strait on the north and east, respectively, are known to be active since the Tertiary Period. As many as 18 earthquakes over the intensity of 5 or more on the modified Mercalli scale were reported between the years 1843 and 1956 in southeastern Alaska (Heck, 1958).

Kruzof Island consists of a formation known as the Edgecumbe Volcanics, which is a sequence of andesitic and basaltic flows, rhyodacitic plugs, and silica ash and lapilli erupted from several vents on Kruzof Island. Underlying the volcanic deposition is Sitka Graywacke from the Late Jurassic and Early Cretaceous age (Loney et al., 1975).

Riehle et al. 1989 outline the geology of the Fort Babcock area as Pleistocene pyroclastic-flow deposits. Near the margins, deposits have a maximum thickness of approximately 2 to 3 meters. Deposits are described as containing poorly sorted silt, rounded pumiceous lapilli, and angular blocks of dark gray vitrophyre (pieces of older, exploded Crater Ridge domes).

The overburden in the area was observed to be a layer of organic duff several inches thick, with silty organic soil to 0.5 ft below ground surface (bgs), silt to approximately 3 to 3.5 ft bgs, and a poorly graded sand horizon below the silt, approximately 3.5 ft to 8 ft bgs. As subsurface investigations proceeded closer to the beach, soils were defined principally by fine gravel and poorly graded sand. Bedrock was encountered at one location during the field investigation at approximately 8 ft bgs, just below the capillary fringe. Bedrock is presumed to be generally shallow.

2.7.2 Hydrology

Known surface water near the subject FUDS includes four minor streams. All the observed surface water was amber colored and transparent. The depth to groundwater measured during 2012 was approximately 3 ft bgs. Groundwater flow was dominated by surface topography, flowing toward the tideland/beach.

Bedrock was encountered at two locations during subsurface soil sampling: the upland area/tree line and beach area. The aquifer appeared to be constrained by shallow bedrock and was estimated to be relatively thin (4 to 8 ft). Groundwater conditions were only slightly tidally influenced near the beach. Specifically, groundwater was measured in two TWPs installed at the upland/beach interface during various stages of the regional tidal cycle. The groundwater elevation measurements collected from the TWPs indicated fluctuations of approximately +/-0.3 feet that occurred over the tidal cycle. Although the tidal pressure gradient likely affected these TWPs at the upland/beach interface, salinity and conductivity measurements confirmed saltwater intrusion did not impact groundwater samples. The average tide range is 7.70 ft with a diurnal range of 9.94 ft and extremes of 18.59 ft and 0.42 ft for high and low tides, respectively.

2.7.3 Climate

Kruzof Island is located in the Sitka Sound and characterized as a maritime climate zone with generally cool temperatures, overcast skies, and abundant precipitation. Mean annual temperature is 45.0-degree Fahrenheit (°F), ranging from 34.9 to 57.2°F with extremes of 0 and 88°F. Average annual precipitation is 86.1 inches, falling 233 days, with seasonal snowfall of 30.9 inches, falling 19 days. The amount of precipitation increases steadily starting in June and peaks in October with the heaviest snowfall from December to February (NOAA 2004).

Based upon field observations, recharge of ground and surface water was highly influenced by rainfall. During periods of unusually dry weather, water levels in TWPs and streams were observed to substantially decrease, such that many were dry. Groundwater sampling conducted following heavy rain indicated groundwater depths up to 0.5 ft bgs.

2.7.4 Ecological Setting

Tree species on the island include a mix of spruce, hemlock, and alders. Other vegetation includes elderberry and salmon berry bushes, cow parsnip, fireweed, and wild celery.

Of the animals present on Kruzof Island, several are considered valued species within the area. Brown bears and eagles possess cultural significance to local people and serve as a draw for many tourists. Deer are hunted throughout the island as a primary source of large subsistence game for residents of Sitka. Land otters, red squirrel, mink, and land mollusks such as large slugs and turbinate snails are also present. Birds include eagles, ravens, and a variety of seabirds commonly seen year-round on or near the island, and songbirds during summer. Seabirds are plentiful in the marine areas. Aquatic animals are of particular importance to the economy of Southeast Alaska. These include salmon, halibut, herring, sea otter, and crab.

2.7.5 Archaeological and Cultural Resources

Fort Babcock was first documented in 1994 by USFS archaeologists and assigned the Alaska Heritage Resources Survey (AHRS) number SIT-00457. On May 3, 2012, a USACE archaeologist conducted a pedestrian survey of Fort Babcock to evaluate the site for National Register of Historic Properties (NRHP) eligibility. In January 2013, Fort Babcock (SIT-00457) was determined eligible for inclusion on the NRHP under Criteria A and D. Several other known cultural resources in the surrounding vicinity of the site are listed in the AHRS database.

2.8 NATURE AND EXTENT OF CONTAMINATION

The nature and extent of contamination at the Fort Babcock site is summarized in this section. CERCLA and POL COCs are separately discussed. The descriptions in the following paragraphs are based on information presented in the 2010 Site Investigation Report, 2012 and 2014 RI reports and associated Addenda, and 2018 FS report.

2.8.1 Soil

CERCLA Site Characterization: Soil samples collected from depths ranging from 0.25-feet to 6 feet below ground surface at the Landfill Area during the RI were analyzed for volatile organic

compounds (VOCs), target metals, and PCBs. Only two isolated metals, lead and nickel, were detected above screening levels in soil. The lead and nickel did not exceed applicable site-specific cleanup levels and were eliminated as contaminants of potential concern. All other analytes had concentrations below the applicable screening levels, indicating the area does not pose a risk to human health or the environment. Groundwater was not encountered in two TWPs set at depths of 9 feet and 15 feet below ground surface, respectively. Due to a no groundwater use determination (i.e., "350 Determination"; see Section 2.7.2), the groundwater exposure pathway was considered incomplete (USACE, 2015).

A concrete vault with a manhole (Manhole #1) is located north of Septic Tank #1 and was observed along with a marine outfall pipe during a May 2013 site visit. According to a historical map, this feature was part of a sewer system that serviced barracks and possibly a mess hall that ultimately discharged to the marine environment. During the RI, samples collected from various media (soil, groundwater, and sediment) were analyzed for PCBs and hexavalent chromium (soil). Silty, detrital material in Manhole #1 was analyzed for PCBs, ignitability, and toxicity characteristic leaching procedure VOCs, semi-volatile organic compounds, and metals. All tested media had COC concentrations below the applicable screening levels, indicating Manhole #1 does not pose a risk to human health or the environment.

The Septic Tank #2 Area, located near the Power Plant, is composed of two open concrete boxes and the septic tank remnants. Currently, there is a stream flowing from the former septic pool into a wet area downslope, where it continues underground to the shoreline. Several sediment samples contained mercury above the screening level, but the mercury concentration was below applicable cleanup levels. Soil and groundwater sample results were all below the applicable cleanup levels.

The Power Plant Area (Figure 3) is a dilapidated concrete foundation with generator mounts and scattered building debris. The foundation was covered in enough natural organic debris to sustain small tree and shrub growth. Soil samples collected and analyzed from this area had levels of PCBs up to 9,300 milligrams per kilogram (mg/kg). The approximate 1,679 ft^2 contaminated area was divided by levels of PCB concentration. An approximate 675 ft^2 inner portion had concentrations above 50 mg/kg PCBs and the remaining portion had concentrations between 1 and 50 mg/kg PCBs. The volume of PCB-contaminated soil was estimated at 403 cubic yards (CY) between 1 and 50 mg/kg and 156 CY above 50 mg/kg (USACE, 2017). In total, the Fort Babcock FUDS contains over an estimated 550 CY of soil containing PCBs above the cleanup level of 1.0 mg/kg.

POL Site Characterization under DERP authority: The Fuel Storage Area is a former military docking and refueling area. The area contains remnant piping, fuel tank cribs, fuel drum remnants, timbers, and an 8,000-gallon AST (Figure 4). This sub-site is estimated to have 82 CY of diesel range organics (DRO)-contaminated soil above the Alaska Department of Environmental Conservation (ADEC) Method 3 alternative cleanup level, which in this case is the maximum allowable concentration (MAC) of 12,500 mg/Kg. Residual range organics (RRO) and DRO slightly above cleanup levels were detected in groundwater samples, but the groundwater exposure pathway is incomplete (USACE, 2015; See Section 2.7.2). Therefore, groundwater did not require further evaluation.

The Tar Drum Area is an area of approximately 50 ft^2 located 80 ft northeast and downhill of the Power Plant Area (Figure 5). The area had distressed vegetation and a silvery gray sheen on the ground surface. Drum remnants were found, and some contained black/gray tar-like material. Soil samples from this sub-site contained DRO and RRO levels exceeding the ADEC MAC of 12,500 mg/Kg DRO and 22,500 mg/Kg RRO. The total amount of contaminated soil and tar-like material is about 15 CY. Groundwater samples were collected and analyzed, but DRO and RRO did not exceed cleanup levels.

In total, the Fort Babcock FUDS contains approximately 100 CY of petroleum, oil, and Lubricant (POL) - contaminated soil that poses an imminent and substantial endangerment (ISE) to the public health, welfare or the environment at the Fuel Storage Area and Tar Drum Areas because it exceeds the ADEC MAC for DRO and RRO and a complete exposure pathway exists.

The Septic Tank #1 sub-site consists of a concrete basin situated adjacent to an ephemeral stream. One sediment sample from within the septic tank contained polycyclic aromatic hydrocarbon (PAH) and RRO concentrations above the ADEC Method 2 human health cleanup levels for soil applicable in 2013 when the Phase I RI report was written. The results of the Septic Tank #1 sediment sample did not exceed the most stringent current (2018) ADEC cleanup level for RRO in soil, and the only PAH that exceeds ADEC's current human health cleanup level for soil is benzo(a)pyrene. PAH and RRO levels in the downstream sediment sample were below 2013 cleanup levels, which indicated lack of migration. Due to the limited, stagnant, and ephemeral nature of the surface water, direct contact or ingestion from recreational activities are unlikely to occur. As a result, direct contact and ingestion were considered insignificant pathways, and Septic Tank #1 does not pose an ISE to public health, welfare or the environment.

During the RI, soil, sediment, surface water, and groundwater samples were collected at Manhole #1 and analyzed for DRO; RRO; gasoline range organics; benzene, toluene, ethylbenzene, and xylene; PAHs; and total aromatic hydrocarbons/total aqueous hydrocarbons (surface water). All tested media had concentrations below the ADEC Method 2 cleanup levels, Alaska Water Quality Standards (AWQSs), and ADEC Table C groundwater cleanup levels, as applicable to each media, indicating Manhole #1 does not pose an ISE to human health or the environment.

At the Septic Tank #2 Area several sediment samples contained PAHs, but none exceeded ADEC Method 2 human health cleanup levels for soil, which indicates Septic Tank #2 does not pose an ISE to human health or the environment.

2.9 CURRENT AND POTENTIAL FUTURE LAND AND WATER USE

Current land use is predominantly un-guided recreation (e.g., sightseeing, hiking, camping, hunting) allowed by the land manager, the USFS. The USFS Land Management Plan designates the area, including the FUDS, as a Special Interest Area due to unique geologic values of the Mount Edgecumbe Geological Area. According to the USFS, the Special Interest Area designation prohibits residential land use (USDA, 2016). In addition, there is a very low probability the designation would change in the future based on the remoteness and geologic attributes of the area (USACE, 2018). The reasonably anticipated future land use is recreational.

Groundwater is not currently used and surface waters are limited to ephemeral streams and wetland areas. Recreational use of surface waters is possible. The USFS designates the land encompassing the Fort Babcock FUDS as a Special Interest Area. There are no plans to change this designation or allow seasonal or full-time occupancy of the island such that a drinking water system would be necessary.

As part of the Phase II Remedial Investigation, Addendum I, the land use, physical and chemical characteristics of the local aquifer, and other factors included under 18 Alaska Administrative Code (AAC) 75.350 were evaluated to determine whether groundwater at the FUDS area is a current or reasonably anticipated drinking water source (USACE, 2015). A no groundwater use determination (i.e., 350 determination) was approved by the ADEC based on the characteristics of the FUDS that indicate groundwater is not considered a current or reasonably anticipated future source of drinking water.

2.10 SUMMARY OF SITE RISKS

The USACE conducted a Human Health Risk Assessment and Screening-level Ecological Risk Assessment for the Fort Babcock FUDS to evaluate the potential risks to human and ecological receptors based on potential exposures to contaminants originating from the site. The risk assessments are presented in detail in the RI/FS and are summarized in this section. The Phase II RI Addendum I Technical Memorandum included an updated Conceptual Site Model (CSM) with potential exposure pathways to contaminants at the site (USACE, 2015).

Human Health Risk

A human health CSM was developed in accordance with federal guidelines under CERCLA. Current land use is predominantly un-guided recreation (e.g., sightseeing, hiking, camping, hunting).

Although the reasonably anticipated future land use of the FUDS would remain the same as current land use, an unrestricted future land use scenario was assumed during the initial RI for conservative risk screening purposes. The CSM presented in the Phase II RI Addendum I (USACE, 2015) has been updated to reflect the anticipated future land use (e.g., recreational). The pathways and receptors that are potentially complete, or where likely exposure exists, are summarized below.

Recreational User/Site Visitor (current/future): The most likely current and future human receptors include recreationists (e.g., hikers, hunters). Adults and children are both included as recreationists and site visitor receptors. Soil pathways include incidental ingestion and dermal absorption. Recreationists and site visitors may ingest edible vegetation during their time at the site. Since bioaccumulative compounds were detected at the Power Plant (e.g., PCBs; above the applicable screening level) and Landfill Areas (e.g., lead; below the applicable screening level), ingestion of wild foods was considered a pathway for this receptor. Due to the remote nature and limited size of the site and the limited edible species occupying the site, ingestion of bioaccumulative compounds from the site in adequate volume to impose risk would be unlikely. While the ingestion of wild foods pathway is complete, the potential risk is considered insignificant based on expected minimal ecological exposure indicated through the Phase II RI ecological scoping process (USACE, 2014; USACE, 2015).

Ingestion of groundwater was retained as a potential future pathway during the RI as a conservative measure. The USFS designates the land encompassing the Fort Babcock FUDS as a Special Interest Area. There are no plans to change this designation or allow seasonal or full-time occupancy of the island such that a drinking water system would be necessary. It is unreasonable to include groundwater pathways for the limited recreational use of the area since receptor interactions with groundwater are not and will not be occurring. Further support for the FUDS area being neither a current nor reasonably anticipated future drinking water source is provided in the "350 Determination" detailed in the Phase II RI Addendum Technical Memorandum (USACE, 2015). Additionally, RI data show groundwater-to-surface water interactions do not yield any COC concentrations of contaminants in surface water above the AWQS.

Exposure to surface water is a potentially complete, but insignificant pathway. All tested surface water samples indicated COC concentrations below the AWQS.

Subsistence Harvester/Consumers (current/future): Subsistence harvesters are assumed to have the same exposure and pathways as recreationists and site visitors. Additionally, subsistence harvesters and their families are also commonly subsistence consumers, who could be exposed to bioaccumulative compounds through the ingestion of wild foods pathway. Subsistence terrestrial foods include mink, deer, brown bear, mushrooms, berries, and fern. Subsistence harvesters likely conduct hunting and gathering activities over a much greater area than the area of the impacted FUDS. Subsistence avian foods include duck, goose, and tern. Again, the home range of these animals would be much larger than the impacted FUDS locations, and the heavily forested conditions of the sub-sites typically do not provide habitat for many of these species.

Subsistence marine foods include salmon, halibut, lingcod, rockfish, herring, shellfish, crab, and seaweed. RI results indicate the marine environment has not been impacted by contaminants and exposure from marine foods is not expected. The absence of a habitat supportive of fish populations in the freshwater ephemeral streams associated with FUDS contamination precludes human consumption of aquatic organisms from these areas.

The Phase II RI ecological screening process indicated ecological exposure to contaminants is insignificant based on habitat and areal distribution of impacts. Therefore, human exposure through the ingestion of wild foods is also considered insignificant.

Inhalation: For all potential receptors, volatiles inhalation in ambient air is considered a complete pathway, although exposure is insignificant due to rapid dilution and atmospheric mixing. Inhalation of fugitive dust is considered an incomplete pathway for all receptors due to the wet climate and abundant vegetative ground cover in the form of mosses and underbrush.

Ecological Risk

An ecological CSM has been developed in accordance with federal standards. The CSM provides an overview of potential exposure pathways to ecological receptors to evaluate environmental risk. Fort Babcock FUDS is adjacent to a beach on Kruzof Island, but well above the high tide zone. It does not provide suitable habitat for marine receptors, with the possible exception of shorebirds that may forage along the unimpacted shoreline. Although deer, bears, and other wildlife may traverse the FUDS, the overall footprint of PCB impacts is estimated to be 1,679 ft^2 (0.039 acres),

which is small relative to the foraging ranges of these and smaller ecological receptors (e.g., Arctic shrew, 0.25 acre range). This makes any exposure pathways, while potentially complete, insignificant at a population level at the sub-sites (Power Plant Area and Landfill Area) and on a sitewide basis. Therefore, further ecological risk evaluation is not warranted (USACE, 2014, 2017).

Risk Summary

Due to the current and anticipated future recreational land use, the Exposure Factor (EF) used to calculate cumulative risk was reduced from the default of 330 days per year to 14 days per year (USACE, 2015). An EF of 14 days per year more reasonably reflects the time a recreational user would be in contact with contaminated soil at the FUDS. Cumulative risk for the FUDS is driven by PCBs (USACE, 2018) at the Power Plant sub-site. Cumulative risk was calculated for a pre-remediation scenario using 2016 PCB data with an EF of 14 days. The cancer risk exceeds the acceptable NCP range of (1×10^{-4} to 1×10^{-6}) with a cancer risk of 6 in 10,000 (6×10^{-4}). Overall, risk at the site remains above the NCP risk range due to PCBs at the Power Plant sub-site.

Imminent and Substantial Endangerment Finding for POL under DERP

The POL contamination at the site was investigated to determine whether it poses an ISE to human health or the environment under DERP. To make this determination, the concentrations of petroleum compounds were compared to Alaska's Site Cleanup Rules (18 AAC 75 Article 3). Petroleum compound concentrations that exceed cleanup levels according to the Alaska Site Cleanup Rules are considered an ISE to the public health or welfare, or to the environment if a complete exposure pathway to a receptor exists. The RI results indicate DRO and RRO concentrations exceed the ADEC cleanup levels and a complete exposure pathway exists to recreational users at the Fuel Storage Area and the Tar Drum Area. Therefore, an ISE to the public health exists from DRO and RRO in soil at the Fuel Storage Area and the Tar Drum Area.

2.10.1 Basis for Response Action

The investigations completed at Fort Babcock verified contaminated soil presents an unacceptable risk to human health and the environment. The response action selected in this DD is necessary to protect human health and environment from actual or threatened releases of hazardous substances.

2.11 REMEDIAL ACTION OBJECTIVES AND CLEANUP OBJECTIVES

Remedial action objectives (RAOs) are goals specific to media for protecting human health and the environment. The RAOs for site contaminants are based on evaluation of applicable or relevant and appropriate requirements (ARARs), present and future land use considerations, site conditions, and limitations of available remedial technologies. The following RAO was identified to address soil contamination at the Fort Babcock FUDS:

- Prevent human exposure to total PCBs from direct contact, outdoor inhalation, or ingestion contributing to exposure point concentrations of PCBs in surface and subsurface soils above the cleanup level of 1.0 mg/kg.

The extent of remaining contamination at the Power Plant site was determined by comparing all available data to the cleanup level. The RI determined remaining contamination was limited to soil. Where groundwater was present, PCBs were not detected at concentrations above the cleanup level. For these reasons, potential exposure to contaminants is limited to soil pathways, such as direct contact, ingestion, and inhalation. Table 1 shows the PCB cleanup level, concentration ranges of PCBs remaining above the cleanup level and estimated volume of PCB-contaminated soil that must be cleaned up to meet the RAO. The extent of PCB-contaminated soil is shown in Figure 3.

Table 1: Cleanup Level and Concentration of the CERCLA Contaminant (PCBs) Remaining Above Cleanup Level			
Location	Chemical	Cleanup Level (mg/kg)	Maximum Concentration Detected (mg/kg)
Power Plant Area	PCBs	1	9,300
	Concentration Range	Estimated Volume (CY)	
Power Plant Area	PCB (1-50 mg/kg)	403	
Power Plant Area	PCB (>50 mg/kg)	156	
Total		559	

CY = cubic yard; PCBs = polychlorinated biphenyls; mg/kg = milligram per kilogram

The evaluation of remedial alternatives detailed in the FS included an analysis of the extent to which the alternatives comply with ARARs.

Chemical-specific and action-specific ARARs are shown in Table 2. The CERCLA-specific COC cleanup level of 1 mg/kg PCBs is identified in Table 2.

Table 2: ARARs			
Topic	Chemical of Concern	Regulation/Requirements Citation	Description
Chemical-specific ARARs			
Soil Cleanup	PCBs	Alaska Oil and Hazardous Substances Pollution Control Regulations [18 AAC 75.341(c) Table B1 PCB cleanup level]	This state regulation provides soil cleanup levels for CERCLA contaminants and provides the basis for the site cleanup level of 1 mg/kg PCBs.[1]
Action-specific ARARs			
Soil Storage	N/A	Alaska Oil and Hazardous Substances Pollution Control Regulations [18 AAC 75.370 (a)(2)]	Under PCB Alternative 3, Excavation with Offsite Disposal, detailed below in Section 2.10, this state regulation requires that contaminated soil be stored 100 feet from surface water.

AAC = Alaska Administrative Code; PCBs = polychlorinated biphenyls; mg/kg = milligram per kilogram

[1]PCB cleanup level is derived from ADEC Table B1 Method Two cleanup level (18 AAC 75) for direct contact

POL Cleanup Objectives: Alaska regulations provide methods to establish soil cleanup levels for petroleum hydrocarbons under Alaska Administrative Code (18 AAC 75), which are indicative of contamination posing an ISE to public health, welfare, or the environment. Table 3 shows cleanup levels for POL contaminants and estimated volume of POL-contaminated soil.

Table 3: Cleanup Levels and Concentrations of POL Contaminants Remaining Above Cleanup Levels

Location	Chemical	Cleanup Level[1] (mg/kg)	Maximum Concentration Detected (mg/kg)
Fuel Storage Area	DRO	12,500	130,000
Tar Drum Area	DRO	12,500	46,000
	RRO	22,000	36,000
		Estimated Volume (CY)	
Fuel Storage Area	DRO	82	
Tar Drum Area	DRO, RRO	15	

POL = Petroleum, Oil, Lubricant; DRO = Diesel Range Organics; RRO = Residual Range Organics
mg/kg = milligrams per kilogram; CY = cubic yard
[1] ADEC Method Three alternative cleanup level, which is the Maximum Allowable Concentration in accordance with 18 AAC 75.340(j)(3)

2.12 DESCRIPTION OF CERCLA CONTAMINANT (PCB) CLEANUP ALTERNATIVES

The Power Plant sub-site contains PCB-contaminated soil at concentrations above the cleanup level of 1 mg/kg. The Power Plant remedial action will be addressed under the CERCLA process. The three remedial alternatives for the Power Plant sub-site are PCB Alternative 1: No action, PCB Alternative 2: Ex-situ Vapor Energy Generator (VEG), and PCB Alternative 3: Excavation with offsite disposal. The PP preferred alternative was identified as PCB Alternative 3: Excavation with offsite disposal (USACE, 2019).

The alternatives were evaluated using nine criteria, divided into three categories: Threshold Criteria, Primary Balancing Criteria, and Modifying criteria. Threshold criteria of "Overall protection of Human Health and the Environment" and "Compliance with ARARs" were evaluated on a pass/fail basis. The balancing criteria, Long-term Effectiveness and Permanence; Reduction in Toxicity, Mobility, or Volume Through Treatment; Short-term Effectiveness; Implementability; and Cost, were evaluated on a rating scale of very low to very high. The modifying criteria Regulatory Agency Acceptance and Community Acceptance were evaluated after public and agency input was received on the PP.

During the FS, land use controls (LUCs) were considered during general response action screening. LUCs may include institutional controls (e.g., dig and land use restrictions) and engineering controls (e.g., signs and fences) to restrict access to the contaminated area. The USFS Land Management Plan already restricts land use to recreational use (USDA, 2016). Additional institutional controls and engineering controls would not effectively protect recreational land users

because PCB concentrations would not be reduced below the applicable cleanup level; thus the RAO would not be met. As a result, LUCs were not considered a viable alternative.

All remedial alternatives were evaluated as independent remedial actions for comparison purposes. A significant overall cost savings may be seen by combining and sequencing mobilization, construction, and removal actions for the PCB and POL cleanup actions.

2.12.1 PCB Alternative 1 - No Action

Evaluation of the No Action alternative is required by CERCLA as a baseline to reflect current conditions where no remediation would take place, and for comparison and evaluation of the other alternatives. Under PCB Alternative 1, no remedial actions would be conducted at the Fort Babcock FUDS. All contaminants would remain in place and be subject to environmental influences. Furthermore, no action would be taken to prevent unauthorized access or development at the site.

2.12.2 PCB Alternative 2 – Ex-Situ Vapor Energy Generator

PCB Alternative 2 involves the excavation, stockpiling, and in-pile treatment of PCB-contaminated soil above the cleanup level using a vapor energy generator (VEG). The excavation would be backfilled with the treated soil. Since the PCB contamination would be reduced to below the residential cleanup level under this alternative, all exposure pathways would present an acceptable level of risk and the site would meet unlimited use (UU) and unrestricted exposure (UE).

Because of the remote and undeveloped nature of the site, heavy construction equipment, VEG treatment equipment, associated materials, and field personnel would be transported from Sitka to Kruzof Island using marine vessels. A shallow draft landing craft and personnel transport vessel would be needed, and the landing site for equipment and personnel would be along the beach located northeast of the Landfill Area. Once the equipment/materials are transported to Kruzof Island, vegetation clearing, and access road construction would be required to obtain access to the Power Plant sub-site. A new access road would be constructed from the beach landing area to a northern point along the existing road. From there, the existing road would be utilized wherever feasible, with vegetation removal and improvements made as needed. All tree and other vegetation cutting would be coordinated with the USFS. Since there are no facilities located on Kruzof Island, a remote field camp would be constructed for field personnel near the beach landing area.

PCB-contaminated soil would be excavated and stockpiled onsite. Temporary construction fencing and signs would be used to secure the open excavation and treatment stockpiles. A field test would be performed to determine the optimal VEG operation temperature to achieve thermal treatment based on moisture content and soil type. Once the parameters were determined, the VEG process would occur. This process requires a water source, so a nearby water source would need to be made available for use during construction. During excavation, samples would be collected to confirm that PCBs above the cleanup level (1 mg/kg) were removed. Excavation would continue until PCB concentrations in soil remaining at the Power Plant are below the cleanup level. The excavation would be backfilled with the treated soil following VEG remediation. The treated soils would be sampled prior to backfilling to ensure PCB concentrations are below the cleanup level.

Site restoration and repair would occur following construction completion, restoring all stream flows and disturbed areas to their pre-remediation conditions, or as close as feasibly possible. No additional reviews under CERCLA would be required at the Power Plant sub-site after remediation.

2.12.3 PCB Alternative 3 – Excavation with Offsite Disposal

PCB Alternative 3 is the complete removal of PCB-contaminated soil above the cleanup level (1 mg/kg) and offsite disposal. In accordance with Toxic Substance Control Act (TSCA), disposal requirements (40 Code of Federal Regulations [CFR] 761.61(a)(5), PCB remediation waste), waste soil would be segregated by PCB content (above or below 50 mg/kg) and transported for disposal in an appropriate landfill. The excavation would be backfilled with clean fill material assumed to be sourced from Sitka. Since the PCB contamination would be reduced to below the residential cleanup level under this alternative, all exposure pathways would present an acceptable level of risk and the site would meet UU/UE. No additional reviews under CERCLA would be required at the Power Plant sub-site after remediation.

Because of the remote and undeveloped nature of the site, heavy construction equipment, backfill material, and field personnel would be transported from Sitka to Kruzof Island using marine vessels. A shallow draft landing craft and personnel transport vessel would be needed, and the landing site for equipment and personnel would be along the beach located northeast of the Landfill Area. Once the equipment/materials are transported to Kruzof Island, vegetation clearing, and access road construction would be required to obtain access to the Power Plant sub-site. A new access road would be constructed from the beach landing area to a northern point along the existing road. From there, the existing road would be utilized wherever feasible, with vegetation removal and improvements made as needed. All tree and other vegetation cutting would be coordinated with the USFS. Since there are no facilities located on Kruzof Island, a remote field camp would be constructed for field personnel near the beach landing area.

During excavation, samples would be collected to confirm all soil above the cleanup level (1 mg/kg PCBs) was removed, and residual contamination does not remain above the cleanup level. Excavation would continue until PCB concentrations in remaining soil are below the cleanup level. The excavation would be backfilled with clean material assumed to be sourced in Sitka. The excavated soil would be segregated based on the TSCA designation, containerized in bulk bags, and transported to Sitka on the shallow draft landing craft. Once in Sitka, the waste soil would be loaded onto shipping containers for transport to the appropriate landfill; soil with PCB concentrations at or above 50 mg/kg would be transported to an approved Subtitle C landfill, while soil with PCB concentrations below 50 mg/kg would be transported to an approved Subtitle D landfill. Site restoration and repair would occur following construction completion, restoring all stream flows and disturbed areas to their pre-remediation conditions, or as close as feasibly possible.

2.13 POL CLEANUP ACTION UNDER DERP

The Fuel Storage Area and Tar Drum area contain POL-contaminated soils at concentrations above the cleanup levels. A streamlined screening and development process were used to develop five alternatives, including POL Alternative 1 – No Action, POL Alternative 2 – In-situ Mixing, POL

Alternative 3 – Ex-situ VEG, POL Alternative 4 – Excavation with Offsite Disposal, and POL Alternative 5 – Excavation with Low Temperature Thermal Desorption.

2.13.1 Petroleum Alternative 1 - No Action

Under POL Alternative 1, no actions to clean up POL would be conducted at the Fort Babcock FUDS. All contaminants would remain in place and be subject to environmental influences. Furthermore, no additional actions beyond those stated in the USFS Land Management Plan would be taken to prevent unauthorized access or development at the site.

2.13.2 Petroleum Alternative 2 – In-situ Mixing

Portland Cement or other acceptable binding agent would be spread and mixed into the contaminated soil, which would solidify and bind the waste and protect potential receptors from the contaminated soil. Vegetation would not regrow in these areas due to the soil solidification and the contaminated soil would be left in place.

2.13.3 Petroleum Alternative 3 – Ex-site VEG

POL-contaminated soil would be excavated and stockpiled onsite for VEG treatment. The excavation would be backfilled with the clean, treated soil.

2.13.4 Petroleum Alternative 4 – Excavation with Offsite Disposal

Contaminated soil above the cleanup level would be completely removed and disposed of at an approved Subtitle D landfill. The excavation would be backfilled with clean fill material assumed to be sourced in Sitka.

2.13.5 Petroleum Alternative 5 – Excavation with Offsite Low Temperature Thermal Desorption

Contaminated soil above the cleanup level would be completely removed and thermally desorbed at an approved facility. The excavation would be backfilled with clean fill sourced from Sitka.

2.14 COMPARATIVE ANALYSIS OF ALTERNATIVES

The Feasibility Study provided a detailed analysis of the remedial alternatives developed to address contaminated soil at the Fort Babcock site.

For PCBs, the remedial alternatives were evaluated based on the nine evaluation criteria established under CERCLA. Each alternative must meet the threshold criteria of overall protection of human health and the environment and compliance with ARARs for CERCLA-regulated compounds. Five balancing criteria are used to analyze the alternatives: long-term effectiveness and permanence, reduction in toxicity, mobility, or volume through treatment, short-term effectiveness, implementability, and cost. Two additional modifying criteria, state acceptance and community acceptance, were evaluated based on public comments on the PP.

2.14.1 Overall Protection of Human Health and the Environment

This criterion addresses whether each alternative provides protection of human health and the environment and describes how risks posed through each exposure pathway are eliminated, reduced, or controlled through treatment, engineering controls, and/or land use controls.

For PCB-contaminated soil, Alternative 1 (No Action) would not reduce the chemical risk posed to human health and the environment since no actions would be taken to address the contaminated soil. Alternative 2 (Ex-Situ VEG) would be protective of current and future users because contaminated soil would be treated on-site. Alternative 3 (Excavation with Offsite Disposal) would be protective of current and future receptors because contaminated soil would be removed from the site.

2.14.2 Compliance with Applicable or Relevant and Appropriate Requirements

CERCLA Section 121(d) requires onsite remedial actions attain or waive federal environmental ARARs, or more stringent state environmental ARARs, upon completion of the remedial action. The NCP also requires compliance with ARARs during remedial actions to the extent practicable. This criterion addresses whether each alternative meets the identified ARARs (for only CERCLA-regulated compounds) at the Fort Babcock site. Pertinent risk-based standards for petroleum hydrocarbons may be met incidental to the CERCLA cleanup action, however they are not evaluated in this section.

Chemical-specific ARARs for PCBs include ADEC soil cleanup levels (18 AAC 75.341(c); Method Two Table B1).

Alternative 1 (No Action) does not comply with ARARs because it does not address or control the contamination. Alternatives 2 (Ex-situ VEG) and 3 (Excavation with Offsite Disposal) comply with ARARs.

2.14.3 Long-Term Effectiveness and Permanence

The evaluation of alternatives under this criterion addresses the results of a remedial action in terms of the risk remaining at the site after response objectives have been met.

For PCB-contaminated soil, long-term effectiveness and permanence at the site would be greatest for Alternatives 2 (Ex-situ VEG) and 3 (Excavation with Offsite Disposal) because the source of contamination is either excavated, treated on site, and then placed onsite as backfill (Alternative 2), or excavated and disposed offsite in a facility specially designed, constructed, and monitored to receive wastes (Alternative 3). Alternative 1 (No Action) does not reduce risk to human health to acceptable levels and therefore is not effective.

2.14.4 Reduction in Toxicity, Mobility, and Volume through Treatment

This evaluation focuses on the ability of the remedial alternatives to reduce the toxicity, mobility, or volume of contaminants.

Reduction in toxicity, mobility and volume through treatment would be greatest for Alternative 2 (Ex-situ VEG) because the PCB-contaminated soil would be treated onsite using VEG, which would reduce the toxicity, mobility, and volume of PCBs. Alternatives 1 (No Action), and 3 (Excavation with Offsite Disposal) would not reduce toxicity, mobility and volume of the contaminants through treatment.

2.14.5 Short-Term Effectiveness

This criterion evaluates the length of time needed to implement an alternative and the risks the alternative poses to workers, residents, and the environment during construction and operation of the remedy until cleanup levels are achieved. Workers conducting remedial actions are required to wear protective clothing and equipment as appropriate to minimize potential exposure.

For PCB-contaminated soil, Alternatives 2 (Ex-situ VEG) and 3 (Excavation with Offsite Disposal) have low short-term effectiveness because they require excavation (and also treatment in Alternative 2) and will cause some short-term disturbance of contaminated soil during excavation. Protective measures and careful handling would be required. Although the Sitka area's high precipitation typically mitigates airborne particulate material, the excavation could potentially generate contaminated dust and particulates. All construction activities would be performed in accordance with a Site Safety and Health Plan. Potential worker and site user exposure to contaminated dust would be minimized through dust control measures during contaminated soil excavation and handling. The environmental condition of the site would continue to deteriorate under Alternative 1 (No Action) so this alternative would not be effective in the short-term.

2.14.6 Implementability

This criterion evaluates the technical and administrative feasibility of implementation of each alternative from design through construction and operation. Factors associated with implementability include the ease of construction, the availability and capacity of materials and/or facilities, and logistical and/or administrative practicability.

For PCB-contaminated soil, Alternatives 2 (Ex-situ VEG) and 3 (Excavation with Offsite Disposal) are technically feasible and can be implemented. Given the need for coordination with the landowner (USFS) to utilize nearby fresh water sources, larger cleared area required, and longer duration of on-site work during implementation of Alternative 2, the implementability of Alternative 2 is lower than Alternative 3. Because the site is remote and uninhabited, both Alternatives 2 and 3 require special logistical considerations, such as a shallow draft landing craft for equipment delivery and a temporary camp for personnel.

2.14.7 Costs

This criterion evaluates the relative costs associated with implementation of each alternative, including design, construction, operation, and long-term management, where applicable. Costs for the various CERCLA (PCB) alternatives (other than no action, which has no cost) ranged from a low of $1.9M for Alternative 3 (Excavation with Offsite Disposal) to a high of $2.4M for Alternative 2 (Ex-situ VEG), and for the various petroleum alternatives (other than no action,

which has no cost) ranged from a low of $1.1M for Alternative 2 (In-situ Mixing) to a high of $1.8M for Alternative 3 (Ex-situ VEG). These costs were estimated assuming the remedies for PCB- and POL-contaminated soil were not completed during the same mobilization (USACE, 2018). Costs were also estimated assuming the remedies for PCB- and POL-contaminated soil were completed during the same mobilization, which would allow for reduced mobilization costs. These comparison costs are summarized below in Table 4.

Table 4. Estimated Alternative Costs for Cleanup of Both CERCLA PCBs and Petroleum With and Without Combined Mobilization

Remedial Alternative	Estimated Cost With Combined Mobilization[1]	Estimated Cost Without Combined Mobilization[2]
1. No Action	$0	$0
2. Ex-Situ VEG	$2.9M	$4.3M
3. Excavation with Offsite Disposal	$2.2M	$3.1M

Cost source: USACE, 2018
VEG = Vapor Energy Generator; M = Million
[1] = Remedy is applied to both PCB- and POL-contaminated soil during the same mobilization
[2] = Remedy is applied to PCB- and POL-contaminated soil during separate mobilizations

2.14.8 State Acceptance

This criterion evaluates whether the State of Alaska agrees with the analysis and recommendations resulting from the field investigations and the PP.

During review of the Proposed Plan, the ADEC requested consideration of multiple sections of the CFR and State of Alaska regulations as ARARs including 40 CFR 230 and 40 CFR 761, and AAC 70 and 18 AAC 75, respectively. The USACE determined these state and federal regulations are not ARARs. The ADEC-proposed ARARs and USACE's rationale for not considering them ARARs, as presented in the PP, are presented below.

40 CFR 230.10(a): The subject regulation prohibits the discharge of dredge or fill material in a wetland as defined by the Clean Water Act. ADEC asserts this is an ARAR because USACE needs to access the site to execute the preferred alternative. In order to access the site, USACE must improve an existing road, which includes reconstructing collapsed culverts and placing fill within the existing roadbed. The preferred alternative does not involve placing dredge or fill material into a wetland, which makes this regulation not applicable to the remedy. Accordingly, this is not an ARAR.

(TSCA) 40 CFR 761.61(a)(5)(i)(B)(2): The subject regulation deals with disposal of PCB contaminated waste. ADEC asserts this is an ARAR because USACE must sample the soil on site. This regulation does not apply onsite or affect the remedial action because all contaminated waste is being disposed of offsite. Accordingly, this is not an ARAR. The cleanup action must comply with all applicable laws offsite, and will, therefore, comply with this provision.

18 AAC 75.325(g): This regulation requires that after site cleanup, the risk from hazardous substances does not exceed a cumulative carcinogenic risk standard of 1 in 100,000 across all

exposure pathways. ADEC asserts this is an ARAR because it sets out the acceptable cumulative carcinogenic risk standard across all exposure pathways. A risk calculation is not a cleanup standard or a standard of control. Accordingly, this is not an ARAR.

18 AAC 75.355(b): This regulation requires sampling and analysis associated with the preferred alternative is conducted or supervised by a qualified environmental professional. ADEC asserts this regulation is substantive in nature. This is not a cleanup standard, standard of control, or requirement that specifically addresses a CERCLA hazardous substance, pollutant, or contaminant; remedial action; or remedial location. This regulation does not impact how the remediation would happen, and therefore is not an ARAR. As a best management practice, sampling and analysis is conducted or supervised by a qualified environmental professional.

18 AAC 70.010: This regulation states a person may not conduct an operation that causes or contributes to a violation of the water quality standards set by this chapter. ADEC asserts this is a substantive standard. This regulation does not contain a specific standard that addresses a CERCLA hazardous substance, pollutant, or contaminant. Accordingly, this is not an ARAR.

During ADEC review of this DD, the ADEC requested USACE also consider the following additional ARARs. The ADEC-proposed ARARs and USACE's rationale for not considering them ARARs are presented below:

18 AAC 75.360: This regulation requires a responsible person ensure that site cleanup is conducted or supervised by a qualified person. ADEC asserts this regulation is substantive in nature. This is not a cleanup standard, standard of control, or requirement that specifically addresses a CERCLA hazardous substance, pollutant, or contaminant; remedial action; or remedial location. This regulation does not impact how the remediation would happen, and therefore is not an ARAR. As a best management practice, site cleanup is conducted or supervised by a qualified person.

18 AAC 75.370(a)(1), (a)(3) and (5-7): This regulation states a responsible person:

> may not blend contaminated soil with uncontaminated soil and shall segregate contaminated soil based on the intended cleanup alternatives and the specific hazardous substance present;
>
> shall place contaminated soil on a liner or on or within another impermeable surface that prevents soil and groundwater beneath the liner from becoming contaminated;
>
> shall place nonpetroleum contaminated soil on a liner compatible with the type of hazardous substance, and meet the general strength and thickness requirements of Table D;
>
> shall cover and protect the contaminated soil stockpile from weather with no less than a six-mil, reinforced polyethylene liner or its equivalent, with the edge of the cover lapped over the bottom liner to prevent water running through the soil; and,
>
> shall inspect and maintain the contaminated soil stockpile regularly to ensure that the cover remains intact and that the soil and any liquid leachate derived from the soil is contained. ADEC asserts this regulation is substantive in nature.

Although this regulation could potentially impact how the remediation would happen, it is standard industry practice to:

not blend contaminated soil with uncontaminated soil;
place contaminated soil on a liner;
place nonpetroleum contaminated soil on a liner compatible with the type of hazardous substance; and,
cover and protect the contaminated soil stockpile from weather.

This regulation does not contain a specific standard that addresses a CERCLA hazardous substance, pollutant, or contaminant. Accordingly, this is not an ARAR.

Uniform Environmental Covenants Act (UECA - Alaska statute AS 46.04.300-390): ADEC asserts this is an ARAR. The UECA is an administrative and legal control. The UECA is not a cleanup standard, standard of control, or requirement that specifically addresses a hazardous substance, pollutant, or contaminant; remedial action; or remedial location. Accordingly, UECA is not an ARAR. Furthermore, successful implementation of the remedy will achieve UU/UE for PCBs, making the UECA inapplicable.

The ADEC maintains that UECA requires a Notice of Activity and Use Limitation (NAUL) be placed on the Fort Babcock property following remedy implementation because contamination may remain above levels protective of residential land use (ADEC Method 2 most stringent cleanup levels). The cleanup level for PCBs is based on the ADEC's most stringent Method 2 cleanup level for direct contact. The remedy will be protective of unlimited use and unrestricted exposure under CERCLA for PCBs, making the UECA inapplicable.

ADEC has fully participated throughout the process at this site, and has concurred the preferred alternatives (Alternative 3 Excavation with Offsite Disposal for PCB-contaminated soil and Alternative 4 Excavation with Offsite Disposal for POL-contaminated soil) presented in the PP are the most appropriate alternatives.

2.14.9 Community Acceptance

Community acceptance was determined through solicitation of public comments, both through an open public comment period and during a public meeting. The responsiveness summary is included as Part 3 of this Decision Document and provides responses to comments.

The community generally concurred with the selected remedy. Several concerns regarding impacts from implementing the remedy were expressed by the community. The community raised the issue of the potential for introducing invasive weed species during backfill of the excavation. During the remedial design and construction phase, USACE will attempt to identify a local source of backfill, crushed rock, or certified weed-free soil, or grade the excavations without using additional fill materials to restore the site as close to natural conditions as possible.

Stakeholders also raised concerns over the potential for adverse effects on the historic property due to cleanup activities and recommended considerations to minimize impacts to identified cultural resources such as the location of the remote field camp, site access improvements, and vegetation clearing. Minimization efforts include returning the AST to its original location to the extent practicable following contaminated soil removal, minimizing vegetation clearing efforts to only what is necessary to complete the work, restoring the access road by regrading the road at the

end of the project, and placing the temporary camp and landing area outside the Fort Babcock AHRS boundary.

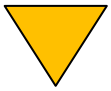
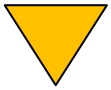
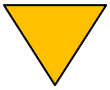
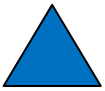
2.15 SELECTED REMEDY

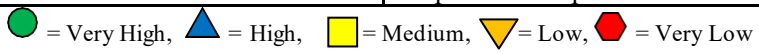
Excavation with Offsite Disposal is the selected remedy for the Fort Babcock site.

2.15.1 Summary of Rationale for the Selected Remedy

To help identify the selected remedy for the site, the relative performance of each alternative was tabulated. Table 5 includes comparisons of alternatives for remedies for PCB-contaminated soil present at the Power Plant, and Table 6 includes comparisons of alternatives for remedies for POL-contaminated soil present at the Fuel Storage Area and Tar Drum Area. The calculated cost of each remediation alternative is included below.

Table 5: Comparison of Alternatives for the Power Plant Sub-site Following the CERCLA Process

Criterion	PCB Alternative 1: No Action	PCB Alternative 2: Ex-situ Vapor Energy Generator	PCB Alternative 3: Excavation with Offsite Disposal
Threshold Criteria			
Overall Protection of Human Health and Environment	**Non-protective**	**Protective**	**Protective**
Compliance with ARARs	**Non-compliant**	**Compliant**	**Compliant**
Primary Balancing Criteria			
Long-term Effectiveness and Permanence			
Reduction in Toxicity, Mobility, or Volume Through Treatment			
Short-term Effectiveness			
Implementability			
Cost	None	$2,390,000	$1,855,000
Modifying Criteria			
Regulatory Agency Acceptance	Ms. Sammi Castle, ADEC Environmental Program Specialist, concurred with the preferred remedial alternative (Excavation with Offsite Disposal) in comments to the PP attached to a letter to the USACE dated 6 September 2019.		
Community Acceptance	Public comments received on the PP and associated USACE responses (See Part 3 of this DD) indicate the community accepts Excavation with Offsite Disposal as the preferred remedial alternative.		

 = Very High, = High, = Medium, = Low, = Very Low

ARARs Applicable or Relevant and Appropriate Requirements. Costs from the final Proposed Plan dated October 2019

Table 6: Comparison of Alternatives for Petroleum Hydrocarbons at the Fuel Storage Area and Tar Drum Area Sub-Sites					
Criteria	**POL Alternative 1**	**POL Alternative 2**	**POL Alternative 3**	**POL Alternative 4**	**POL Alternative 5**
	No Action	**In-situ Mixing**	**Ex-situ Vapor Energy Generator**	**Excavation with Offsite Disposal**	**Excavation with Offsite Low Temperature Thermal Desorption**
Achieves POL Cleanup Objectives	Fail	Pass	Pass	Pass	Pass
Effectiveness					
Implementability					
Cost	None	$1,085,000	$1,829,000	$1,175,000	$1,284,000

= Very High, = High, = Medium, = Low, = Very Low

Costs from the final Proposed Plan dated October 2019

Assuming the remedies for PCB- and POL-contaminated soil will be completed during the same mobilization, it should be noted estimated costs (USACE, 2018) ranged from $2.2M for Alternative 3 (Excavation of Offsite Disposal; Table 4) to a high of $2.9M for Alternative 2 (Ex-situ VEG; Table 4).

2.15.2 Description of the Selected Remedy

The selected remedy, Excavation with Offsite Disposal, entails the following major components:

- Excavation of contaminated soil;
- transportation of contaminated soil to an offsite disposal facility;
- re-contouring or backfilling the excavations; and,
- revegetation of the site.

2.15.3 Summary of Estimated Remedy Costs

The estimated cost for the selected remedy described above is $2.2 Million. The costs include design, mobilization/demobilization, field work, and reporting/site close-out. A single year of field work is anticipated. A breakdown of the estimated cost is provided in Table 7.

Table 7. Estimated Cost for Selected Remedy

Phase	**Cost**
Remedial Design	$100,000
Total Remedial Design	**$100,000**
Mobilization/Demobilization, Fieldwork, Reporting/Close-Out	$2,125,000
Total Remedial Action-Construction	**$2,125,000**
Total Cost	**$2,225,000**

The information in this cost estimate summary table is based on the best available information regarding the anticipated scope of the remedial alternative. Detailed costs are available in the FS (USACE, 2018). Changes in the cost elements are likely to occur as a result of new information and data collected during the engineering design of the remedial alternative. Major changes may be documented in the form of a memorandum in the Administrative Record, an Explanation of Significant Differences or a DD amendment. This is an order-of-magnitude engineering cost estimate that is expected to be within +50 to -30 percent of the actual project cost.

2.15.4 Expected Outcomes of the Selected Remedy

After successful completion of the selected remedy, the Fort Babcock site will be available for UU/UE for PCBs under CERCLA, and no LUCs or five-year reviews under CERCLA will be necessary. For petroleum (DRO and RRO), the USFS Land Management Database would be updated to indicate the area(s) of residual contamination at the Fort Babcock FUDS.

Protection of human health and the environment will be achieved by removing contaminated soil to below applicable cleanup levels. Toxicity, mobility, and volume of onsite contamination would be eliminated by this alternative.

2.15.5 Statutory Determinations

Under CERCLA Section 121 and the NCP, the lead agency must select remedies that are protective of human health and the environment, are compliant with legal requirements (unless a statutory waiver is justified), are cost effective, and utilize permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable. CERCLA includes a preference for remedies that employ treatment that permanently and significantly reduces the volume, toxicity, or mobility of hazardous wastes as a principal element as well as a bias against offsite disposal of untreated wastes. The following subsections discuss how the selected remedy meets these statutory requirements.

Protective of Human Health and the Environment
The selected remedy is protective of human health and the environment by removing soil contamination exceeding the cleanup level from the site. This effectively isolates potential receptors from the contamination.

Compliance with Applicable or Relevant and Appropriate Requirements
The selected CERCLA remedy complies with ARARs. Contaminated soil in excess of the cleanup levels will be excavated and transported offsite for disposal.

Cost Effectiveness
The selected remedy is considered cost-effective with respect to the level of protection of human health and the environment and the cost of the selected remedy. In making this determination, the following definition was used: "A remedy shall be cost-effective if its costs are proportional to its overall effectiveness" (NCP Section 300.430(f)(1)(ii)(D)). This was accomplished by evaluating the overall effectiveness of those alternatives that satisfied the threshold criteria (i.e., were both protective of human health and the environment and were ARAR-compliant). Overall effectiveness was evaluated by assessing three of the five balancing criteria in combination (long-

term effectiveness and permanence; reduction in toxicity, mobility, and volume through treatment; and short-term effectiveness).

Utilization of Permanent Solutions and Alternative Treatment Technologies to the Maximum Extent Practicable
The selected remedy represents the maximum extent to which permanent solutions and treatment technologies can be used in a practicable and cost-effective manner at the site. The impacted soil in excess of the cleanup levels will be excavated and transported off site to a disposal facility. Excavation with Offsite Disposal provides a permanent reduction in the toxicity, mobility, and volume of contamination on site. Excavation and disposal off site maximizes the onsite benefits while balancing the trade-offs with risks and costs.

Preference for Treatment as a Principal Element
Although the selected alternative for the contaminated soil relies upon offsite disposal instead of onsite treatment; USACE has determined this remedy represents the maximum extent to which permanent solutions and treatment technologies can be used in a cost-effective manner with low risk at the site. Remedies involving treatment were not selected due to various factors including logistical challenges, implementability, and greater uncertainties related to technology success, cost and risk of performance success.

State Acceptance
The State of Alaska, through the Department of Environmental Conservation, has fully participated throughout the process at this site, and upon review of the PP, concurred the selected alternative (Excavation with Offsite Disposal) is the most appropriate alternative and is in compliance with State cleanup regulations.

The ADEC maintains that UECA requires a Notice of Activity and Use Limitation (NAUL) be placed on the Fort Babcock property following remedy implementation because contamination may remain above levels protective of residential land use (ADEC Method 2 most stringent cleanup levels). The cleanup level for PCBs is based on the ADEC's most stringent Method 2 cleanup level for direct contact. The remedy will be protective of unlimited use and unrestricted exposure under CERCLA for PCBs, making the UECA inapplicable. The UECA, which includes a requirement for a NAUL, is not a cleanup standard, standard of control, or requirement that specifically addresses a hazardous substance, pollutant, or contaminant; remedial action; or remedial location. Therefore, neither the UECA, nor a NAUL, would be applicable. The POL alternate cleanup level was determined based on the current and reasonably anticipated future site use as recreational. After the alternate POL cleanup levels are met at the site, it is anticipated an ISE will no longer exist at the site. The USFS Land Management Database will be updated to indicate the area(s) of residual contamination at the Fort Babcock FUDS.

The State Historic Preservation Office (SHPO) was concerned about the potential negative affects to the historic nature of site features within the boundary of the planned cleanup activities. As part of the selected remedy, all efforts will be made to minimize the disturbance footprint during the remedial action at Fort Babcock. Minimization efforts will include returning the large AST to its original location to the extent practicable following contaminated soil removal, minimizing vegetation clearing efforts to only what is necessary to complete the work, restoring the access

road by regrading the road, and placing the temporary camp and landing area outside the Fort Babcock AHRS boundary.

The ADEC will provide a formal determination on the selected remedy under a separate cover.

Community Acceptance

Comments were received during the public review period and at the public meeting regarding the PP. The community's primary concern was associated with changing the present landscape of the excavation areas including introduction of invasive weeds as a result of potentially importing backfill soil during implementation of the remedy. If a backfill source within the Fort Babcock boundary is not available, then crushed rock or certified weed free soil may be imported to ensure invasive species are not inadvertently transported to Fort Babcock. If an acceptable backfill source cannot be located, then the excavated areas will be graded as close to natural conditions as possible.

Documentation of Significant Changes Since the Proposed Plan

The PP for the Fort Babcock site was completed during October 2019 and released for public comment on 28 October 2019. The PP identified Alternative 3 Excavation with Offsite Disposal as the CERCLA preferred alternative, and Alternative 4 Excavation with Offsite Disposal as the alternative that best addresses the petroleum contamination to remove the ISE. The public was given 45 days to provide comments pertaining to the recommended alternative. A public meeting was held on 7 November 2019. No significant changes to the selected remedy have been made since the PP.

PART 3: RESPONSIVENESS SUMMARY

3.1 PUBLIC INVOLVEMENT

This Responsiveness Summary provides responses to comments received by the USACE regarding the Proposed Plan (PP) for the Fort Babcock FUDS located approximately 11 miles west of Sitka, Alaska at Shoals Point on the southeast corner of Kruzof Island. The Proposed Plan was issued October 2019.

Public involvement efforts included:

- a public comment period between 28 October to 12 December 2019 (45 days);
- local newspaper advertisements, and local radio public service announcements inviting the public to attend the public meeting;
- notifications to USFS, SHPO, Sitka Tribe of Alaska, Shee Atika Corporation, and Sealaska Corporation of the PP availability;
- the public meeting held in Sitka on 7 November 2019, with representatives from USACE and the ADEC available to present and discuss the PP;
- providing hardcopies of the PP to public meeting attendees, and one hardcopy to the Sitka Kettleson Memorial Library for public record, and;
- establishing a website to provide the public with the electronic version of the Proposed Plan and information about how to submit public comments.

The USACE collected comments on the PP through the mail, email, and during the public meeting. The transcript of the public meeting is included in the administrative record. USACE has given full consideration to the submitted comments.

The SHPO submitted comments on the PP, indicating the project would have an adverse effect on Fort Babcock and recommended incorporating minimization measures into the design and implementation of the remedial action project and preparation of an informational pamphlet about the site. Efforts will be made to minimize the disturbance footprint during the remedial action at Fort Babcock.

During a meeting in October 2020, USFS archaeologists requested an archaeological monitor be present onsite during the remedial action fieldwork. USACE agreed archaeological monitoring would be part of the remedial action project.

In January 2021, the USACE sent letters to local stakeholders and interested parties including the Sitka Tribe of Alaska, Central Council of the Tlingit and Haida Indian Tribes of Alaska, Shee Atika Corporation, Sealaska Corporation, and the Sitka Historic Preservation Commission. The letters presented the basic aspects of the project, history of coordination, the Fort Babcock

information pamphlet dated December 2020, and encouraged stakeholders to notify the USACE with any concerns, questions, or comments about the proposed remedial action project.

The following section is a summary of the significant and relevant comments received during the public comment period and at the public meeting regarding the PP. In preparing this summary, actual comment language may have been abbreviated, paraphrased, and/or edited for clarity.

3.2 COMMENTS AND RESPONSES

Comment 1
One commenter voiced concern about local availability (i.e., in Sitka) of clean fill for filling in contaminated soil excavations (with the excavation and off-site disposal options). The commenter stated soil anywhere near Sitka's road system would have invasive species (mainly buttercup, dandelion, and knotweed). So instead of getting soil from Sitka, or even gravel, it would be better to get soil or even sand on Kruzof Island or to not backfill the excavations.

> USACE Response
> The USACE will attempt to locate an acceptable backfill source within the Fort Babcock boundary before any work is completed. If a backfill source within the Fort Babcock boundary is not available, then crushed rock or certified weed free soil may be selected to ensure invasive species are not inadvertently transported to Fort Babcock. If an acceptable backfill source cannot be located, then the excavated areas would be graded as close to natural conditions as possible.

Comment 2
One commenter asked if the carbon footprint of transporting the contaminated material had been examined.

> USACE Response
> The carbon footprint was not directly examined. Fuel costs were estimated in Appendix A of the Feasibility Study and could be used as a proxy for the carbon footprint.

Comment 3
Ms. Sammi Castle of the ADEC stated the proposed remedy includes excavating soil to alternative cleanup levels calculated assuming a recreational land use scenario. As of September 16, 2018, the UECA, Alaska Statute (AS 46.04.300-390), requires a NAUL be placed on federally owned properties when contamination remaining after an environmental response project makes the property safe for some, but not all, uses. The ADEC requested UECA be included as an applicable or relevant and appropriate requirement for this project, as proposed. The commenter's position was the remedy for the site must be revised to include institutional controls, including the NAUL under UECA, if the alternative cleanup levels protective of only recreational use will be applied. The ADEC stated the USACE must work with the landowner to complete and file the NAUL on the Fort Babcock FUDS property during remedy implementation to ensure the remedy, as proposed, is protective.

> USACE Response

The UECA is an administrative and legal control. The UECA is not a cleanup standard, standard of control, or requirement that specifically addresses a hazardous substance, pollutant, or contaminant; remedial action; or remedial location. Accordingly, UECA is not an ARAR. Furthermore, successful implementation of the remedy will achieve UU/UE for PCBs, making the UECA inapplicable

The cleanup level for PCBs is based on the ADEC's most stringent Method 2 cleanup level for direct contact. The remedy will be protective of unlimited use and unrestricted exposure under CERLCA for PCBs. The POL alternate cleanup level was determined based on the current and reasonably anticipated future site use as recreational. After the alternate POL cleanup levels are met at the site, it is anticipated an ISE will no longer exist at the site. The USFS Land Management Database will be updated to indicate the area(s) of residual contamination at the Fort Babcock FUDS.

Comment 4

One commenter at SHPO indicated Fort Babcock (SIT-00457) was determined to be eligible for listing in the NRHP in 2013 under Criteria A and D. It was the commenter's understanding the preferred alternatives (CERCLA and DERP) under the proposed plan call for removing contaminated soil and disposing of it offsite, clearing vegetation, improving the existing road, creating a new access road, use of a beach landing area, and creating a remote field camp to conduct the field work. The commenter believed these actions will have an adverse effect on the historic property, Fort Babcock. The commenter recommended that USACE incorporate minimization measures into the design and implementation of the project and prepare a public interpretation product such as a pamphlet. To minimize the effects of the proposed project, the commenter recommended that the remote field camp and the beach landing site be located outside Fort Babcock's historic property boundary and that vegetation clearing be kept to a minimum.

USACE Response

All efforts will be made to minimize the disturbance footprint during the remedial action at Fort Babcock. Cultural resources considered to be impacted by the preferred (CERCLA and DERP) alternative, Excavation with Offsite Disposal, include Fort Babcock (SIT-000457), the Fort Babcock Powerhouse (SIT-01025) site, and the large aboveground storage tank (AST) (SIT-01026) site. Fort Babcock (SIT-000457) is considered eligible for listing on the NRHP, and sites SIT-01025 (Powerhouse) and SIT-01026 (large aboveground storage tank) have no determination for eligibility. The USACE-AK assumes sites SIT-01025 and SIT-01026 are eligible for listing in the NRHP for implementation of the preferred alternative.

Impacts to Fort Babcock and the sites within its boundary as a result of the preferred alternative include vegetation clearing and grading of the historic access road, temporary movement of the large aboveground storage tank (SIT-01026) and removal of soil underneath, and partial or complete removal of the concrete foundation of the Powerhouse (SIT-01025). The proposed camp and landing locations are north of and outside the Fort Babcock AHRS boundary in the same area used for beach landing and a remote field camp during the Phase II Remedial Investigation. USACE has determined the activities at the beach landing and remote field camp will not impact protected resources. Minimization

efforts include returning the large aboveground storage tank (SIT-01026) to its original location to the extent practicable following contaminated soil removal, minimizing vegetation clearing efforts to only what is necessary to complete the work, restoring the access road by regrading the road, and placing the camp and landing area outside the Fort Babcock AHRS boundary.

Comment 5
One commenter asked if there will be an effort to fully remediate the area to near natural conditions and maintain the historic site characteristics (dock, Fuel Car, etc.) at the completion of the removal action.

USACE Response
Yes, the excavated area will be either backfilled or graded as close to natural conditions as possible. Any significant historic items moved during the cleanup process will be returned to their approximate original location to the extent practicable.

Comment 6
One commenter asked if other options, such as fencing the area or capping the contaminated site had been considered.

USACE Response
Yes, these alternatives were examined during the Feasibility Study. They either didn't meet the cleanup requirements or required extensive long-term monitoring, so they were not preferred.

Comment 7
One commenter asked if the USACE had looked at other remote sites, such as Adak, for ideas on how contamination was addressed.

USACE Response
The USACE did consider past cleanup actions at a variety of remote FUDS including Adak. The potential cleanup alternatives were evaluated in detail in the Feasibility Study.

Comment 8
One commenter asked how large of a hole will be left when the contaminated soil is removed.

USACE Response
It is anticipated the area with PCB-contaminated soil will require contaminated soil removal to an approximate maximum depth of 7 feet below the existing ground surface over an area of approximately 8,000 square feet, while the POL-contaminated soil areas, in total, will require contaminated soil removal to an approximate maximum depth of 4 feet over an area of approximately 3,000 square feet. The USACE will attempt to locate an acceptable backfill source within the Fort Babcock boundary before any work is completed. If a backfill source within the Fort Babcock boundary is not available, then crushed rock or certified weed free soil may be imported to ensure invasive species are not inadvertently

transported to Fort Babcock. If an acceptable backfill source cannot be located, then the excavated areas will be graded as close to natural conditions as possible.

Comment 9
One commenter asked how this project compared in size to the removal work completed at the Fort Rousseau FUDS.

USACE Response
The preferred alternative for the Fort Babcock FUDS includes removal of about one-tenth the amount of contaminated soil compared with the 2018 Fort Rousseau FUDS remedial action.

Comment 10
One commenter asked if there was any other way the PCB-contaminated soil could be dealt with on site, for example, the incineration method mentioned during the Proposed Plan public meeting.

USACE Response
The on-site incineration alternative could be used to remove PCBs from the PCB-contaminated soil present at the site. PCB-contaminated soil would require a much higher treatment temperature than is required to treat POL-contaminated soil. As a result, incineration of the PCB-contaminated soil would require more fuel and incur a higher cost. Additionally, the on-site incineration alternative would be ex situ, so it would require the contaminated soil to be excavated and stockpiled on site prior to treatment, which would require a greater footprint of disturbance at the site. The additional cost and increased site disturbance are the primary reasons the onsite incineration alternative was not the preferred alternative.

Comment 11
One commenter asked if the site disturbance was about the same with the two action alternatives in terms of road construction or excavation, and whether the disturbance area was different between the alternatives.

USACE Response
In terms of road construction or excavation, the disturbance area would be very similar between the excavation with offsite disposal, and onsite incineration alternatives. In terms of overall site disturbance, the onsite incineration alternative would cause more site disturbance than the excavation with offsite disposal alternative because the onsite incineration alternative would require the contaminated soil to be excavated and stockpiled on site prior to and during treatment.

Comment 12
One commenter asked if the impacts of transporting the material to another area (such as transport cost overruns, leaks, or spills from the receiving landfill) had been considered.

USACE Response

Only the risks and costs associated with transport to the offsite permitted disposal facility (i.e., landfill) were examined. It was assumed the permitting process for the disposal facility examined the risks associated with the activities performed at the disposal facility.

Comment 13
One commenter asked where the contaminated material would be sent for disposal in the offsite disposal alternatives.

USACE Response
In the offsite disposal alternative, the contaminated soil would be shipped, likely by barge, to a disposal facility in the Lower 48 States.

Comment 14
One commenter requested the following statement become part of the project record: “It's a concern, to spend that much money and the big carbon footprint to take toxics to another state”.

USACE Response
USACE understands this concern and has determined the selected remedy is appropriate after considering all factors.

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ATTACHMENT A FIGURES

Kruzof Island

Mt. Edgecumb

Fort Babcock FUDS Area

Shoals Point

Sitka

Miles
0 0.5 1 2

Legend

Estimated FUDS Boundary

(Source: Alaska Department of Fish and Game Anadromous Waters Atlas Quad No. 008, Sitka Index, Revised 6/1/2014).

U.S.Army Engineer District, Alaska

Decision Document
Fort Babcock
Kruzof Island, Alaska

Project Location Map

Date: 2/3/2018 | DRWN: lb | Revision: 0 | **FIGURE 1**

Path: C:\Users\lbeasley\Documents\ArcGISPackages\FIGURE 1-1_9BECC4B3-C191-4275-B54C-0A25CFD64043\v10\FIGURE 1-1.mxd

Lava Point Base
End Station

Kruzof Island

Pump House

Sitka Sound

Landfill Area

Fuel Storage Area

Manhole #1

Septic Tank #1

Tar Drum Area

Power Plant

Septic Tank #2

Legend

Remedial Investigation Phase

- No Further Investigation
- 2012 Phase I RI Areas
- 2013 Phase II RI Areas
- Stream
- Approximate Road Extent (Dashed Where Inferred)

(Source: Alaska Department of Fish and Game Anadromous Waters Atlas Quad No. 008, Sitka Index, Revised 6/1/2014).

U.S.Army Engineer District, Alaska

0 250 500 1,000 Feet

N

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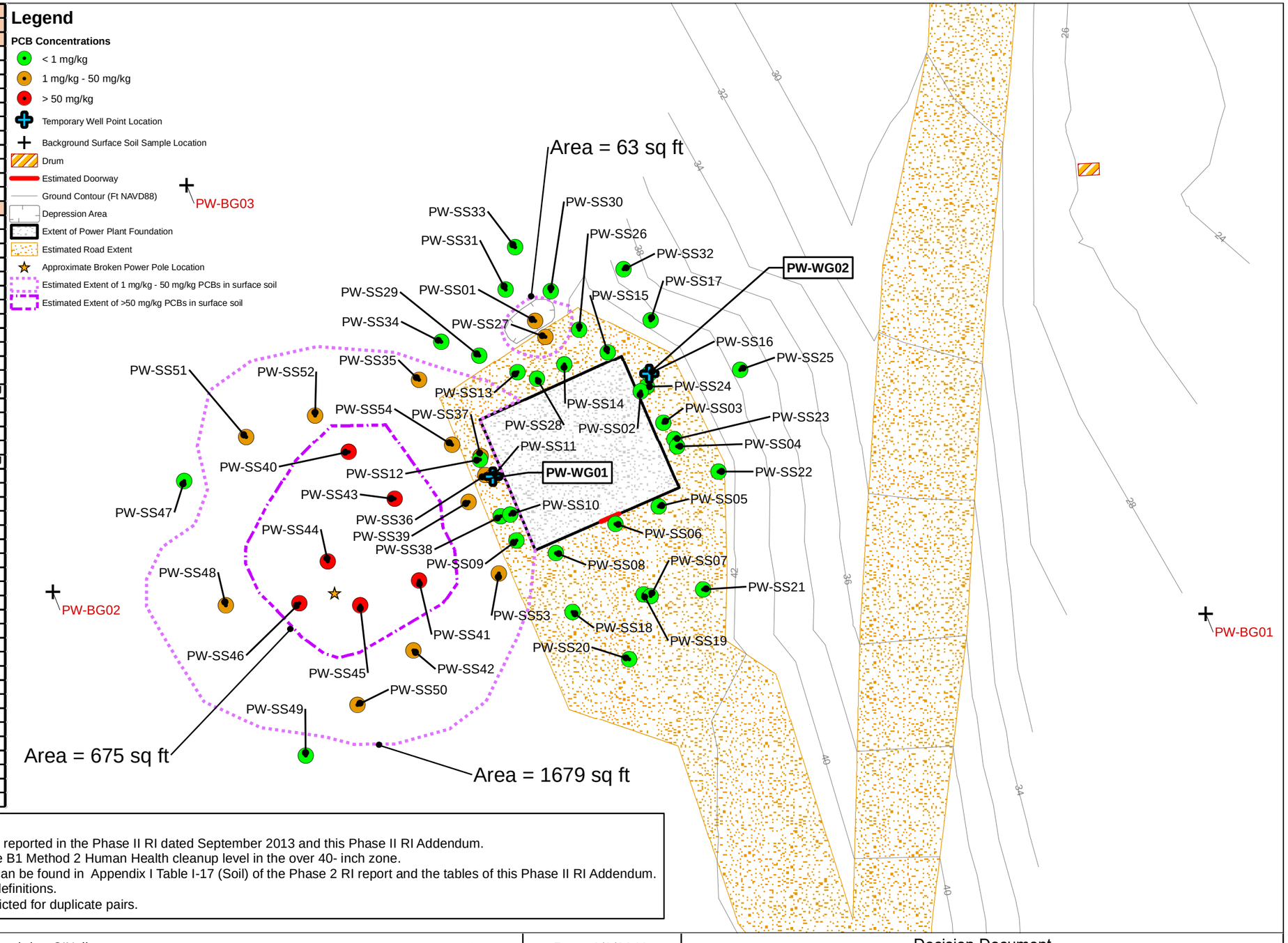
Fort Babcock
Kruzof Island, Alaska

Sub-sites Investigated During the Phase I/II Remedial Investigation

Date: 2/3/2018 | DRWN:lb | Revision: 0 | **FIGURE 2**

Sample ID - Year	Depth (ft)	DRO	RRO	PCBs
ADEC Method Three *Residential* CL		**12,500**	**22,000**	**1**
2013 - Soil Data		mg/kg	mg/kg	mg/kg
PW-SS01-0.5-15-13	0.5 - 15	120	96 J	1.8 J
PW-SS02-0.5-15-13	0.5 - 15	170 QL	65 J	0.015 J
PW-SS06-0.5-15-13	0.5 - 15	4.9 QL	26 J	0.12 J
PW-SS060-0.5-15-13	0.5 - 15	5.7 J	33 J	0.087 J
PW-SS07-0.5-15-13	0.5 - 15	19 J	76 J	0.48 J
PW-SS08-0.5-15-13	0.5 - 15	8.2 J	70 J	0.47 J
PW-SS11-0.5-15-13	0.5 - 15	3.7 J	9.9 J	1.8 J
PW-SS15-0.5-15-13	0.5 - 15	2.0 J	5.8 J	ND
PW-SS16-0.5-15-13	0.5 - 15	ND	5.3 J	ND
PW-SS16-3.0-3.5-13	3.0 - 3.5	440	1200	0.97 J
PW-SS17-0.5-10-13	0.5 - 10	98	270	ND
2016 - Soil Data				
PW-SS18-0.5-15-16	0.5 - 15	--	--	0.201
PW-SS19-0.5-15-16	0.5 - 15	--	--	0.0510 J
PW-SS20-0.5-15-16	0.5 - 15	--	--	0.114
PW-SS21-0.5-15-16	0.5 - 15	--	--	0.186
PW-SS22-0.5-15-16	0.5 - 15	--	--	ND
PW-SS23-0.5-15-16	0.5 - 15	--	--	ND
PW-SS24-0.5-15-16	0.5 - 15	--	--	ND
PW-SS25-0.5-15-16	0.5 - 15	--	--	ND
PW-SS26-0.5-15-16	0.5 - 15	--	--	ND
PW-SS260-0.5-15-16	0.5 - 15	--	--	ND
PW-SS27-0.5-15-16	0.5 - 15	--	--	3.25
PW-SS28-0.5-15-16	0.5 - 15	--	--	.0380 J
PW-SS29-0.5-15-16	0.5 - 15	--	--	0.0534 J
PW-SS30-0.5-15-16	0.5 - 15	--	--	0.111
PW-SS31-0.5-15-16	0.5 - 15	--	--	0.35
PW-SS32-0.5-15-16	0.5 - 15	--	--	0.275
PW-SS33-0.5-15-16	0.5 - 15	--	--	0.257
PW-SS34-0.5-15-16	0.5 - 15	--	--	0.0766 J
PW-SS35-0.5-15-16	0.5 - 15	--	--	4.52
PW-SS36-0.5-15-16	0.5 - 15	--	--	1.27
PW-SS360-0.5-15-16	0.5 - 15	--	--	1.7
PW-SS37-0.5-15-16	0.5 - 15	--	--	4.64
PW-SS38-0.5-15-16	0.5 - 15	--	--	0.42
PW-SS39-0.5-15-16	0.5 - 15	--	--	3.38
PW-SS40-0.5-15-16	0.5 - 15	--	--	36.6
PW-SS40-3.5-4.5-16	3.5 - 4.5	--	--	57.8
PW-SS41-0.5-15-16	0.5 - 15	--	--	5660
PW-SS42-0.5-15-16	0.5 - 15	--	--	2.87
PW-SS420-0.5-15-16	0.5 - 15	--	--	3.53
PW-SS43-0.5-15-16	0.5 - 15	--	--	76.6
PW-SS44-0.5-15-16	0.5 - 15	--	--	8770
PW-SS45-0.5-15-16	0.5 - 15	--	--	9300
PW-SS46-0.5-15-16	0.5 - 15	--	--	6960
PW-SS47-0.5-15-16	0.5 - 15	--	--	0.581
PW-SS48-0.5-15-16	0.5 - 15	--	--	17
PW-SS49-0.5-15-16	0.5 - 15	--	--	0.383
PW-SS50-0.5-15-16	0.5 - 15	--	--	2.05
PW-SS51-0.5-15-16	0.5 - 15	--	--	1.04
PW-SS52-0.5-15-16	0.5 - 15	--	--	1.47
PW-SS53-0.5-15-16	0.5 - 15	--	--	21.2
PW-SS530-0.5-15-16	0.5 - 15	--	--	27.3
PW-SS54-0.5-15-16	0.5 - 15	--	--	32.8



Notes:
1. Data shown was collected by AECOM and USACE and reported in the Phase II RI dated September 2013 and this Phase II RI Addendum.
2. Soil PCB results are compared to the ADEC 2016 Table B1 Method 2 Human Health cleanup level in the over 40- inch zone.
3. Complete analytical results are reported in mg/kg and can be found in Appendix I Table I-17 (Soil) of the Phase 2 RI report and the tables of this Phase II RI Addendum.
4. See Phase II RI Addendum report Table 2 for qualifier definitions.
5. The highest PCB concentration was selected to be depicted for duplicate pairs.

2013 site features and sample locations were surveyed by O'Neil Surveying and Engineering which is based in Sitka, Alaska.
Date: August to September 2012 and September to October 2013
Horizontal Datum: NAD 83 Alaska State Plane Zone 1 Feet
Vertical Datum: NAVD 88
2016 sample locations were measured using swing-ties relative to Power Plant Foundation surveyed during 2013.

0 10 20 Feet

N

Date: 2/3/2018

Source: Phase II Remedial Investigation Report Addendum 2

Decision Document
Fort Babcock
Kruzof Island, Alaska

U.S. ARMY CORPS OF ENGINEERS ALASKA DISTRICT

Power Plant PCB Impacted Soils

FIGURE 3

X:\Projects\Ft_Babcock\Fort_Babcock\1_MXD\MXD_TEMPLATE\Dales_Edites_September_2016\FIGURE_MAR_16th_Edits_RJ.mxd

Legend

- Temporary Well Point Location
- Surface Water Sample Location
- Sediment Sample Location

Soil Boring Location

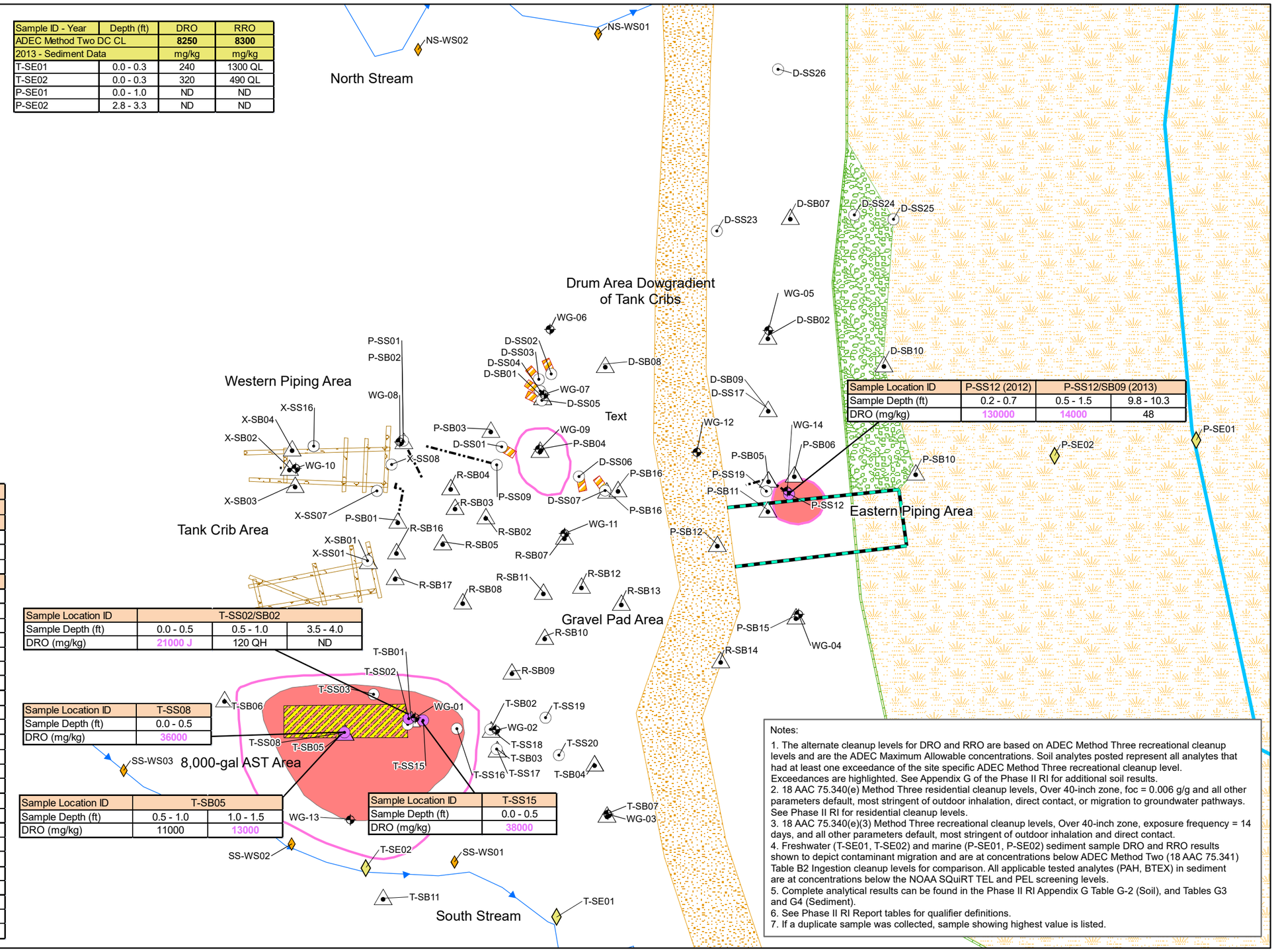
- Exceeds ADEC Method Three Recreational Cleanup Levels
- Does Not Exceed Criteria

Surface Soil Location

- Exceeds ADEC Method Three Recreational Cleanup Levels
- Does Not Exceed Criteria
- Piping
- Pier
- Approximate Median High Tide Level
- Stream
- Tree Line
- Soil POL Plume (ADEC Method Three Residential)
- Soil POL Plume (ADEC Method Three Recreational)
- Estimated Road Extent
- Drums
- Beach Area
- AST
- Crib Logs
- Salt Grass Area

Sample ID - Year	Depth (ft)	DRO	RRO
ADEC Method Two DC CL		**8250**	**8300**
2013 - Sediment Data		mg/kg	mg/kg
T-SE01	0.0 - 0.3	240	1300 QL
T-SE02	0.0 - 0.3	320	490 QL
P-SE01	0.0 - 1.0	ND	ND
P-SE02	2.8 - 3.3	ND	ND

Sample Location ID	Depth (ft)	DRO	RRO
ADEC Method Three Recreational CL		**12,500**	**22,000**
2013 - Soil Data		mg/kg	mg/kg
P-SB04	1.5 - 2.0	330	410
P-SS12	1.5 - 2.0	14000	1400
T-SB10	1.5 - 2.0	640	370
2012 - Soil Data			
D-SS01	0.0 - 0.5	360	460 QH
D-SS05	0.0 - 0.5	390	620 QH
D-SS06	0.0 - 0.5	270	410 QH
P-SB04	1.5 - 2.0	1500	ND
P-SB05	0.5 - 1.0	870	ND
P-SS01	0.25 - 0.75	360	540 QH
P-SS12	0.2 - 0.7	130000	ND
T-SB01	2.5 - 3.0	2000	ND
T-SB05	0.5 - 1.0	11000	ND
T-SB05	1.0 - 1.5	13000	ND
T-SB06	0.5 - 1.0	670	720 QH
T-SS02	0.0 - 0.5	21000 J	ND
T-SS03	0.0 - 0.5	410	540 QH
T-SS08	0.0 - 0.5	36000	ND
T-SS15	0.0 - 0.5	38000	ND
T-SS19	0.0 - 0.25	280	ND
R-SB02	1.5 - 2.0	1000	ND
R-SB03	2.5 - 3.0	260	ND
R-SB05	1.5 - 2.0	500	ND QL
R-SB08	3.5 - 4.0	320	ND QL
R-SB11		540	ND
X-SB02	0.5 - 1.0	270	620
X-SS01	0.0 - 0.5	390	460 QH
X-SS16	0.0 - 0.5	570	2200



Sample Location ID	T-SS02/SB02		
Sample Depth (ft)	0.0 - 0.5	0.5 - 1.0	3.5 - 4.0
DRO (mg/kg)	21000 J	120 QH	ND

Sample Location ID	T-SS08
Sample Depth (ft)	0.0 - 0.5
DRO (mg/kg)	36000

Sample Location ID	T-SB05	
Sample Depth (ft)	0.5 - 1.0	1.0 - 1.5
DRO (mg/kg)	11000	13000

Sample Location ID	T-SS15
Sample Depth (ft)	0.0 - 0.5
DRO (mg/kg)	38000

Sample Location ID	P-SS12 (2012)	P-SS12/SB09 (2013)	
Sample Depth (ft)	0.2 - 0.7	0.5 - 1.5	9.8 - 10.3
DRO (mg/kg)	130000	14000	48

Notes:

1. The alternate cleanup levels for DRO and RRO are based on ADEC Method Three recreational cleanup levels and are the ADEC Maximum Allowable concentrations. Soil analytes posted represent all analytes that had at least one exceedance of the site specific ADEC Method Three recreational cleanup level. Exceedances are highlighted. See Appendix G of the Phase II RI for additional soil results.
2. 18 AAC 75.340(e) Method Three residential cleanup levels, Over 40-inch zone, foc = 0.006 g/g and all other parameters default, most stringent of outdoor inhalation, direct contact, or migration to groundwater pathways. See Phase II RI for residential cleanup levels.
3. 18 AAC 75.340(e)(3) Method Three recreational cleanup levels, Over 40-inch zone, exposure frequency = 14 days, and all other parameters default, most stringent of outdoor inhalation and direct contact.
4. Freshwater (T-SE01, T-SE02) and marine (P-SE01, P-SE02) sediment sample DRO and RRO results shown to depict contaminant migration and are at concentrations below ADEC Method Two (18 AAC 75.341) Table B2 Ingestion cleanup levels for comparison. All applicable tested analytes (PAH, BTEX) in sediment are at concentrations below the NOAA SQuiRT TEL and PEL screening levels.
5. Complete analytical results can be found in the Phase II RI Appendix G Table G-2 (Soil), and Tables G3 and G4 (Sediment).
6. See Phase II RI Report tables for qualifier definitions.
7. If a duplicate sample was collected, sample showing highest value is listed.

U.S.Army Engineer District, Alaska

0 10 20 40 Feet

N

Surveyed by: O'Neil Surveying and Engineering
Date: August to September 2012 and September to October 2013
Horizontal Datum: NAD 83 Alaska State Plane Zone 1 Feet
Vertical Datum: NAVD 88

Decision Document
Fort Babcock
Kruzof Island, Alaska

Date: 2/3/2018 | DRWN:lb | Revision: 0

Fuel Storage Area POL Impacted Soils

FIGURE 4

Path: C:\Users\lbeasley\Documents\ArcGIS\Packages\FIGURE 2-3_C44BEBFF-D655-4521-AAFE-ACD9AA79DF17\v10\FIGURE 2-3.mxd

PW-BG04

Notes:

1. The alternate cleanup levels for DRO and RRO are based on ADEC Method Three recreational cleanup levels and are the ADEC Maximum Allowable concentrations. Soil analytes posted represent all analytes that had at least one exceedance of the site specific ADEC Method Three recreational cleanup level. Exceedances are highlighted. See Appendix G of the Phase II RI for additional soil results.
2. 18 AAC 75.340(e) Method Three residential cleanup levels, Over 40-inch zone, foc = 0.006 g/g and all other parameters default, most stringent of outdoor inhalation, direct contact, or migration to groundwater pathways. See Phase II RI for residential cleanup levels.
3. 18 AAC 75.340(e)(3) Method Three recreational cleanup levels, Over 40-inch zone, exposure frequency = 14 days, and all other parameters default, most stringent of outdoor inhalation and direct contact.
4. Complete analytical results can be found in the Phase II RI Appendix G Table G-15 (Soil).
5. See Phase II RI Report tables for qualifier definitions.
6. If a duplicate sample was collected, sample showing highest value is listed.

Legend

- Surface Water Sample Location
- Tar Drum Sample
- Flow Direction
- Soil Boring Location

Surface Soil Location

- Exceeds ADEC Method Three Recreational Cleanup Levels
- Does Not Exceed Criteria
- Soil POL Plume (ADEC Method Three Residential)
- Soil POL Plume (ADEC Method Three Recreational)
- Tree Line
- RI Access Trail
- Stream
- Ground Contour (Ft NAVD88)
- Estimated Extent of Distressed Vegetation
- Drums
- Estimated Road Extent

Surveyed by: O'Neil Surveying and Engineering
Date: August to September 2012 and September to October 2013
Horizontal Datum: NAD 83 Alaska State Plane Zone 1 Feet
Vertical Datum: NAVD 88

PW-WS01
PW-WS02
PW-SB08
PW-SB10
PW-SB09
PW-SB11D
PW-SB07
PW-SB11B
PW-SB12
PW-SB13
TD-SB04
D-SS10
TD-SB05
TD-SB02
TD-SS14
TD-SS15
D-SS13
D-SS08
TD-WG-01
D-ST01
TD-SB01
D-SS09
TD-WG-02
TD-WG-03
TD-SS21
TD-SB03
D-SS12
TD-SB06
D-SS11
PW-BG01

Sample Location ID	D-SS08
Sample Depth (ft)	0.0 - 0.5
DRO (mg/kg)	46000
RRO (mg/kg)	35000

Sample Location ID	DTW (ft)	DRO	RRO
ADEC Method Three Recreational CL		**12,500**	**22,000**
2013 - Soil Data		mg/kg	mg/kg
TD-SB01	0.2 - 0.5	2400	13000
TD-SB01	1.5 - 2.0	51	310
TD-SB02	1.5 - 2.5	290	1100
TD-SB03	1.5 - 2.5	32	130 K
TD-SB04	0.5 - 1.0	1900	680
TD-SB04	2.5 - 3.0	520	460
TD-SB05	0.0 - 0.5	250 J	1400 J
TD-SB05	1.0 - 2.0	40	200
TD-SB06	0.5 - 1.5	200	670 MH
TD-SB07	1.5 - 2.5	22 J	110 J
2012 - Soil Data			
D-SS08	0.0 - 0.5	46000 QH	36000
D-SS09	0.0 - 0.5	6000 QH	10000
D-SS10	0.0 - 0.5	79 ML	ND
D-SS11	0.0 - 0.5	ND	ND QL
D-SS12	0.0 - 0.5	820	3000
D-SS13	0.0 - 0.5	140	310

0 5 10 20 Feet

U.S.Army Engineer District, Alaska

Decision Document
Fort Babcock
Kruzof Island, Alaska

Tar Drum Area POL Impacted Soils

Date: 2/3/2018 | DRWN:lb | Revision: 0

FIGURE 5

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ATTACHMENT B PUBLIC PARTICIPATION

Fort Babcock Proposed Plan Meeting Transcript

Meeting:	Fort Babcock Proposed Plan Public Meeting
Project:	Feasibility Study (FS) and Proposed Plan (PP) for Fort Babcock Formerly Used Defense Site (F10AK0353-04), Sitka, Alaska (AK)
Date, Time:	07 November 2019, 1900 hours
Location:	Silver Room at Centennial Hall, Sitka, AK
Teleconference Number (No.):	(800) 768-2983, Code 8133428
Contract No.:	W911KB-17-D-0018
Task Order No.:	W911KB18F0019
Contracting Office (KO):	U.S. Army Corp of Engineers (USACE) – AK District
KO Representative:	Aaron Shewman, USACE-AK District
Project Manager (PM):	Beth Astley, USACE-AK District
Contractor:	Sundance-EA II, LLC (Sundance-EA)

Attachments:

Attachment 1.	Public Meeting Sign-In Sheet[1]
Attachment 2.	Fort Babcock Public Meeting Transcript[2]
Attachment 3.	Daily Sitka Sentinel Newspaper Affidavit
Attachment 4.	Raven Radio, KCAW 104.7 FM, Radio Affidavit

Notes:

1. Not all attendees present signed; redacted version provided.
2. Transcript from the contracted report recorder.

F10AK035304_05.08_0001_a
1200C PERM

Attendees:

Name of Attendee	Organization	Email	Phone Number
Beth Astley	USACE PM	beth.n.astley@usace.army.mil	(907) 753-5782
Aaron Shewman	USACE COR	aaron.f.shewman@usace.army.mil	(907) 753-5558
Mike Jones	Sundance-EA PM	mjones@eaest.com	(907) 646-0212
George Garner	Sundance-EA SI Technical Support	ggarner@sundance-inc.net	(907) 646-0213
Susan Royce	Royce Transcription Services, Report Recorder	Rts.sitka@gmail.com	(907) 752-1022
Rebecca Peterman	U.S. Forest Service (USFS)	rpeterman@fs.fed.us	(907) 747-4225
Sammi Castle*	Alaska Department of Environmental Conservation (ADEC)	sammi.castle@alaska.gov	(907) 269-0298
Helen Dangel	Sitka Tribe of Alaska, Fisheries Biologist	Helen.dangel@sitkatribe.org	(907) 752-1781
Mike Motti	General Public	--	--
Perry Edwards	General Public	--	--
Jere Christner	General Public	--	--
Karen Christner	General Public	--	--
Matt Hunter	General Public	--	--
Rebecca Poulson	General Public	--	--
Maury Hackett	General Public	--	--
Phyllis Hackett	General Public	--	--
Adam Chinalski	General Public	--	--

Notes:

* Participated by phone.

Transcript as follows:

COURT REPORTER: The meeting began at 7:00 pm.

MR. JONES: Okay, well, so this is the public meeting to present the proposed plan for the Fort Babcock formerly used defense site out there on Kruzof Island. Just want to thank everyone for showing up. There are copies of the proposed plan by the door and if you could please sign in where the sign-in sheet is there. There's also on the board over here, there's some visual posters kind of showing the sites and on the screen is the presentation that I'm going to present here in one moment. So, without further ado we'll get started. Okay, so we're on the second slide, Sammi, and this is the safety moment. We're in the Silver Room here in the Harrigan Hall and the, in the event of an emergency, fire, earthquake whatever you want to call it, the muster area is out this door over here. So, it's pretty self-explanatory. So, with that in mind, real quickly in the agenda here, we'll start with introductions and kind of who the folks are here as far as this project goes. We'll get into the purpose and a little bit of history on the site and a discussion of some of the risks associated with the site from the contamination that's been identified out there. Then we'll get into a conversation about the remedial options or alternatives that have been developed to deal with that contamination. And a discussion on how the evaluation of those alternatives were done. And then we'll get into the, what is the preferred alternative for the site for the contamination that was identified out there. And then a few items along how to participate as part of the community, and then we'll get into any questions that folks have. And also feel free to ask a question during the course of the presentation. We are a fairly small group here so I think we can work it.

So, Fort Babcock is being administered by the Army Corps of Engineers and we're on the third slide, Sammi. The property is managed by the Forest Service and the primary regulator involved is the Alaska Department of Environmental Conservation, and Sundance-EA II, LLC is who I work for. I'm a contractor for the Army Corps of Engineers.

We are taking minutes and recording this meeting and that will become available for the public within approximately 10 working days. Okay, really quickly...

MS. ASTLEY: Hey, Mike can we just back up one? MR. JONES: Yes.

MS. ASTLEY: Can you just go back one and explain the issues to us.

MR. JONES: Okay, back to slide 3. The key rules and meeting minutes.

MS. ASTLEY: I just want to say hi. I am Beth Astley, I'm the project manager for the Corps of Engineers. I work in the Alaska district in Anchorage and if you have any questions about this project, I believe my contact information - well it's not on this fact sheet but see me after and I'll give you my contact information. There are also copies of the proposed plan in the back and if you have questions there is also contact information there for Mike Jones (inaudible).

MR. SHEWMAN: I am Aaron Shewman, I am an environmental engineer with the Corps of Engineers, and I am the technical lead on this project, so I am here to answer your questions if they come up, if we have questions.

MS. ASTLEY: If you have any other questions talk to me after about the program. in general; or if you have any other concerns, I'll hang out after and be available.

MR. JONES: And I'm Mike Jones, I'm obviously the one doing the presenting and I will also be the one for posing questions to with respect to the public meeting process. And on the phone – Sammi, do you want to introduce yourself for the folks that are here?

MS. CASTLE: Yeah, hi there. My name is Sammi Castle and I work for the Alaska Department of Environmental Conservation.

And I am the project manager for this site, so I am overseeing the regulation of Fort Babcock and the proposed plan.

MR. JONES: Great, thank you. Okay, moving to the next slide again. This is just kind of a real quick slide on the process of doing a proposed plan under the CERCLA, which is the acronym for the Comprehensive Environmental Response Compensation and Liability Act as passed by the federal government. I won't get too much into this but suffice it to say this is what allows the Army Corps of Engineers to initiate this type of action. The other plans or Acts that are involved in this are the National Oil and Hazardous Substance Pollution Contingency plan. The Army Corps of Engineers has their own internal regulations that they work with and this site is considered a formerly used defense site on the Corps program. The US Environmental Protection Agency is involved in this as well with respect to the guidance that is used to evaluate the contamination that's on site. For this particular site, we've got contamination that's managed by Federal Acts and we have contamination managed by state.

Specifically, the federal is the CERCLA as well as the Toxic Substance Control Act. And the state is responsible for the regulation of petroleum, oils, and lubricants, (POL) which is effectively your diesel, your gasoline, lube oil and such. Okay, next slide. Real quickly this is – the CERCLA process as it works. We start with a preliminary assessment which is kind of reviewing the historical records. If something looks like there may be an issue out there in that historical record search, the site inspection is done where you're looking for (inaudible) absence of potential contamination. That moves into – if you find something it moves into a remedial investigation phase where now you're looking for how much is out there and to what extent is the problem, basically. And once that's done it goes into a feasibility study stage where we look at the amount that's out there and what we can do about it and come up with alternatives for addressing that problem. Once the FS has been done it moves into where we are at now, the proposed plan and public comment period. And from there once public comment has been taken and evaluated a record of decision is generated between – in this case the Army Corps of Engineers and the Alaska Department of Environmental Conservation will sign the record of decision which will more or less finalize what the remedy is being selected officially. From there it goes into the next phase beyond that which is come up with the design to do this remedy and once that's been approved then they'll move into the – go out there and implement the remedy. So that's real quickly the CERCLA process.

So, the purpose of this proposed plan is really to summarize the findings of the feasibility study that was prepared. Kind of present the environmental conditions out there and really identify some of the risks that were found out there, identify the cleanup criteria, present previous investigations that have been done out there, identify remedial alternatives that were developed for the site. What alternatives have been put forth as preferred and then request public input on the preferred alternative. And finally, it's – outlines how the public could become involved in the process. Any questions on that? Okay.

Okay, so is - Sammi we are at the site background and characterizations site location slide with a map. So, this is the pointer I usually used to harass my cat but I'm bringing it here today. This area here on Kruzof island is outlined in blue, is the FUD site. And here's Sitka over here, so it's across Sitka Sound. So not too far away although having crossed these multiple times now I have found Sitka Sound to get kind of hairy at times, a little rough.

Next slide. A little bit of site background. This – Fort Babcock kind of originates all the way back into the 1930s and really it was the concern about the possibility of war in the Pacific with Japan. As you can see through the slide, there was a process that started where they established the Sitka Naval Air Station. The War Department acquired the property out on Kruzof Island to establish Fort Babcock. And then of course December 7, 1941 initiated the war. Dutch Harbor was also bombed in 1942 and in 1942 they – the Sitka Naval Operating Base was put into action as far as the US Army Coastal Defenses. In 1944, Fort Babcock, the construction was started but they for whatever reason decided to stop so it was only partially finished and then more or less decommissioned. Some of the completed facilities included a concrete bunker, observation tower. There were some diesel fuel storage tanks, Quonset huts and a power plant. A whole slew of things that were done out there. There was also a dock out there that the remnants of are still there.

So next slide. Some of the investigations that have been done over the years. The initial visit - or sorry the initial investigation was done in the mid-80s, 1986. Since that time there have been a number of investigations out there between '95 and 2013. The remedial investigation, which I mentioned earlier, was really to try to figure out just how much of that material, the contaminated material, was out there, was done in two phases in 2013 and 2014, and some follow-up activities in 2015, 2017. Based upon the data that were collected during the investigations a feasibility study was developed in 2018 to determine what alternatives could be formulated to address the problem out there.

Next slide. So, you can see on this map here, this aerial photograph, these are kind of the sites that were looked at as potential areas of concern, the landfill area, the fuel storage area. Manhole #1, septic tank #1 - and these were identified as kind of ways to keep track of the individual sites like septic tank #1 versus septic tank #2. So, these were investigated. From this point going to the next slide, areas of concern. Fuel storage area, tar drum area and the power plant.

And here's a photograph of the fuel storage area. You can tell as anybody who has spent a lot of time out in the forest around this area, which is probably most everyone, it's pretty overgrown. Lots of moss. It's been obviously a long time since this was first developed. So, in some regards for folks that have been out there, it's really kind of hard to find these locations. They are heavily covered in vegetation. But you see bits and pieces of wood sticking out of the ground, the occasional piece of metal. So, in some regards it's kind of a bit of a puzzle to figure out what the sites were and ...

Okay, next slide. More areas of concern, the tar drum area and the power plant again heavily overgrown. A little bit of metal is still kind of poking out on the ground. A little wet, which is not a big surprise in a temperate rain forest. Lots of trees around the power plant, mostly small stuff. But there are some fairly large trees that were probably pretty small back in the World War II era. They are now a good 18 to 20 inches in diameter.

Next slide. So, the primary CERCLA problem out at Fort Babcock is associated with PCBs or poly chlorinated biphenyls. This is a conceptual site model and a risk slide. I won't get too much into it but the concept of the conceptual site model is just putting together an idea of what the site is, who

the users are, what the problem is and how the problem in this case, contamination, could potentially impact the users that might come to the site. And in addition, the US Forest Service has a land management plan that is applicable to this site. And it basically designates the area as a recreational use only area. So, there is not likely to be an industrial activity out there, probably not much in the way of logging because it's recreational. So, looking at the concept of the conceptual site model and understanding what the use of the land will be, we've identified what we call the human health risk receptors. In this case it's really the recreational user, the site visitor, the beachcomber that might go out there and go up into the trees and kind of explore a bit. In addition to that, the subsistence harvester or the consumers, and this would be like berries or fiddle heads ferns that folks might be collecting out there for consumption. With that in mind, we come up with what's a at risk pathway, which we referred to as a completed risk pathway. In this case it's ingestion, which makes sense from the perspective of folks that are ingesting berries and any kind of food that might be impacted by this contamination. And the other one is dermal contact. If they just happen to put their hand in a location that has a contaminant problem.

Okay, next slide. Similar to the PCB problem, the POL, again petroleum, oils, and lubricants we go through kind of the same process. Conceptual site model, the US, or I'm sorry, the US Forest Service land management plan and then we identify the human health and the environment issues out there. And again receptors, this is the recreational user, the subsistence users and similar to PCBs there, a risk pathway is the ingestion and dermal contact. Any questions?

Okay, next slide. So, this table is just - we wanted to include this as just kind of an idea to show the reality of what the objectives and our cleanup objectives are. In this particular case, for PCBs we have a cleanup objective of 1 milligram per kilogram. And I won't get too much into that but the maximum concentration that was detected out at Fort Babcock, at the power plant area mind you, were 9,300. So that's substantially higher than the cleanup level that's identified.

The table also identifies an estimate of the volume of the soil. In this case we've got PCBs in the 1 to 50 milligrams per kilogram, about 400 yards. And then PCBs above or greater than 50 milligrams per kilogram, 156 yards. And why we differentiate that is when it gets above 50 milligrams per kilogram it falls into the toxic world, the Toxic Substances Control Act. And it becomes a hazardous waste scenario by law and that has an impact on how it's handled, transported, and disposed of. It's kind of an extra level of protection to deal with PCB contaminated soil that is greater than 50 milligrams per kilogram. Any questions on that?

Okay, next slide. So, this table – I won't spend a whole of time on this. This is what we call the ARARs and the ARAR is the applicable, or relevant and appropriate requirements. And these are kind of identifying the laws and the concerns that are specific to the problem of the contamination that's out there. So, for instance the soil storage area has, is a problem with POLs and the 18AAC 75 is the Alaska law that covers the problems of petroleum. ARARs are kind of an interesting thing, but they are mostly an administrative identification of requirements that have to be met for the purpose of cleanup action. Questions?

Okay, next slide. Similar to the PCB slide earlier, the POLs for the cleanup levels are identified here, 12,500. Here the maximum concentrations that were detected out at Fort Babcock at the fuel storage area, the tar drum area, a fair amount above the 12,500 at 130,000 for the fuel storage area and 46,000 to 36,000 at the tar drum areas. Again, estimated volumes are about 82 cubic yards for the fuel storage area and 15 cubic yards at the tar drum area. Not a lot of soil but it's enough to, that needs to be dealt with of course.

Okay, next slide. Okay, real quickly again, a map showing the FUDs area and the discussion moves into the PCBs under the CERCLA, Toxic Substance Control Act.

Next slide. We wanted to provide these figures – these came out of the feasibility study. This slide in particular is the power plant and the square area here is the foundation, the concrete foundation that remains out there. And that's really all that's left. It's surrounded by lots of vegetation. The thinking is that in this case it's PCBs at this source is probably from one likely transformer that may have leaked over a number of years. And it doesn't take a whole lot of PCB oil to adversely impact soil. Any questions?

Okay, next slide. So, we wanted to present this table here. And this is kind of a summary of how we did a - an evaluation of the alternatives that were looked at for the PCBs. And Alternative #1 is a no action, and that is the requirement of the CERCLA process, is to look at effectively no action taken and see where it falls within the evaluation criteria. And on this side of the table is the federal evaluation criteria under CERCLA and as you can see no action scores pretty low with respect to some of this as identified by the legend down here. Very, very low is that red hexagon. Implementability, yeah, it's pretty high.

Doing nothing is a pretty easy way to go. But it is required to evaluate alternatives against the no action. For this site, we looked at what's referred to as a vapor energy generator, which is kind of an on-site treatment to address the PCBs. And then we also looked at excavation and off-site disposal. At the end of the day, the Alternative #3 is what - it was substantially lower in cost from an estimate standpoint and this table kind of illustrates where the direction of this evaluation was going. Any questions on the table. Sure. Can you tell me what your name is?

MR. HUNTER: My name is Matt Hunter.

MR. JONES: Okay.

MR. HUNTER: Why not consider just capping It? Wouldn't that make it safe and be a lot cheaper?

MR. JONES: Aaron, do you want to take that?

MR. SHEWMAN: I'll answer that. We did consider capping. It didn't end up in the proposed plan because it didn't end up passing through the feasibility study as a viable alternative mainly because if we were to cap it, that would require forever monitoring and maintenance. And what we want to do is achieve cleanup where we don't have to go back and maintain and check, so ...

MR. HUNTER: Okay, that makes sense.

MR. SHEWMAN: (inaudible) total removal in this case.

MR. HUNTER: One of the (inaudible) to continuing to have to send people out there.

MR. SHEWMAN: Right.

MR. JONES: Yeah, as folks that have been out to Fort Babcock, it's a challenging place to land at times and so there is a hazard. Yes, ma'am?

MS. HACKETT: So Alternative 3 is what you're looking at. And I see it says off-site disposal. Where would that be?

MR. SHEWMAN: That would be a facility in the lower 48. So, it would be packaged up and shipped probably by barge to the lower 48. Likely a facility in Oregon or Idaho or Utah.

MR. JONES: Yeah, there are facilities in the lower 48 that are permitted to handle this kind of waste and there are none in the state of Alaska that can handle PCB hazardous waste.

MR. SHEWMAN: They're landfills, (inaudible).

MR. JONES: Yeah, I've seen a few of these facilities and they are out in the middle of nowhere in Idaho and Oregon. Any other questions?

Okay next slide. As we kind of got into it in the last slide, we have TSCA exceedances, again the Toxic Substance Control Act. And exceeds the regulatory limits and the preeferred alternative again is off-site disposal, #3.

Okay, next slide. The next slide discussion is the POL concern out there. DERP stands for the Defense Environmental Restoration Program and that's what the Corps operates under to initiate these kinds of actions.

Next slide. So similar to the PCB slide we had up here – and this is a figure that was from the feasibility study it and it just kind of to demonstrate some of the areas that were, where we had petroleum contamination. Again, not a huge amount of material but still exceeding the cleanup criteria. Any questions about the slide?

MR. HUNTER: Is the old, the existing railroad car out there, the old tanker car??

MR. SHEWMAN: Yes.

MR. JONES: Yes, it is.

MR. SHEWMAN: And then if you remember where the dock piers are right at the beach line, that's the other pink circle on the right side. There's some contamination there, fuel contamination.

MS. HACKETT: It would be nice to see these overlaid over the chart out there to see where the sites actually are.

MR. JONES: Okay.

MS. HACKETT: For those of us that have done climbing around in there.

MR. JONES: I think we've got - we could put on the web page at least.

MR. GARNER: Yeah.

MR. JONES: Yeah.

MR. GARNER: It should be in the proposed plan.

MR. JONES: Yeah, there is an aerial photo in the proposed plan. And for folks that have come in. There are copies of the proposed plan there by the door. And I also wanted to mention that the feasibility study as part of the administrative record is located in the library for public use. Okay.

MR. CHRISTNER: I've got a question.

MR. JONES: Can you tell me your name.

MR. CHRISTNER: Jerry Christner.

MR. JONES: Okay.

MR. CHRISTNER: Is the site disturbance about the same with the two action alternatives in terms of road construction or excavation? Is it different between the alternatives?

MR. JONES: If I recall, I think it's somewhat comparable. There may have actually been a little more disturbance with the alternative that was not selected. There would, the road would need to be developed enough to where you could get heavy equipment in and out of there. But from an excavation standpoint most of the contractors that do this kind of work are very good at it.

MR. CHRISTNER: So, Alternatives 2 and 3 about the same amount of surface disturbance or excavation?

MR. JONES: For the most part. Alternative 2 requires an area be expanded such that they can perform the process so ...

MR. CHRISTNER: Incineration, you mean or ...

MR. JONES: Yes, exactly and with the excavation it could be done somewhat surgical for hauling it away.

MR. CHRISTNER: There were some dots on one of your slides (inaudible) had some test holes? Is that how - you estimate the amount of material that has to be...

MR. JONES: Yeah, we - sorry, we - or I won't say we, but test holes were done. Soil samples were collected to get an idea of how deep the material is and then we come up with an estimate based upon those borings.

MR. SHEWMAN: So just to further answer your question about Alternatives 2 and 3 and the ground disturbance associated with each, Alternative 2 with the vapor energy generator, like you say it's high temperature. That requires stockpiling soil once it's excavated so those stockpiles would have created a bigger footprint than simply excavating and placing that material - what will likely happen is it will be placed in a bag. Typically, contractors use about eight cubic yard bags, so it's instantly contained in those bags - are then in this case they would be taken north on the road to a stockpile area where the bags really are just set down.

MR. CHRISTNER: So, are you just stockpiling to incinerate it, or are you going to stockpile it before you loaded onto a barge or something?

MR. SHEWMAN: If we were to incinerate it would be an open stockpile but then be covered.

MR. CHRISTNER: Oh.

MR. SHEWMAN: So, the bags wouldn’t be used. And then that pile of soil once treated by the incinerator would have been placed back in the excavation.

MR. CHRISTNER: Oh.

MS. HACKETT: What goes back into the excavation at this point? I mean with Alternative 3.

MR. SHEWMAN: With Alternative 3 we would import clean soil and that soil would have to meet the criteria really set by the landowners. In this case, the Forest Service. So, it would come from the Sitka area somewhere.

UNIDENTIFIED WOMAN: How would you make sure that (indiscernible)?

MR. SHEWMAN: Again, the source would have to be approved by the landowner, the Forest Service in this case. I don't know if you can speak to that at all at this point as far as borrow areas within the Sitka area that are something the Forest Service would accept.

MR. CHRISTNER (?) Yeah, we have to figure that out and we'd have to do the - be invasive species free and unless we wanted to do that (inaudible).

MR. SHEWMAN: And it will be addressed (indiscernible - simultaneous speech).

MR. CHRISTNER: So, you've included that cost and excavation somewhere...

MR. SHEWMAN: Yes.

MR. CHRISTNER: (indiscernible) over here or somewhere else (indiscernible - simultaneous speech) and transportation?

MR. SHEWMAN: And then moving that backfill material across Sitka Sound to the site.

MR. CHRISTNER: That's why that alternative is a lot higher than...A lot of equipment moving, a lot of moving...

MR. SHEWMAN: Well, the dollars and cents even with getting that off-site borrow material, the dollars and cents indicate that that's less expensive than the vapor energy generator, the high temperature on-site destruction.

MR. CHRISTNER: Really?

UNIDENTIFIED WOMAN: My understanding is that the cost estimate is assuming the contractor will be able to (inaudible) the amount, the soil from the Sitka area?

MR. SHEWMAN: Correct.

UNIDENTIFIED WOMAN: And I don't know if that's the (inaudible) or not.

MR. SHEWMAN: We have used fill from the Sitka area on prior projects, so we believe it's here.

MR. JONES: Yeah. I will say that that was somewhat vetted during a feasibility study stage to make certain that yeah, there is borrow sources here that in theory would be acceptable to the landowner, the Forest Service. Otherwise it's a (inaudible) process so yeah - that would've been vetted during that- if you want to see more of that costing information as I mentioned earlier, the feasibility study is available in the library under the administrative record. Other questions? Yes, sir. And can you tell me your name?

MR. CHINALSKI: Name is Adam Chinalski. So I'm still not sold on the removing this material and we're only talking about the other two options but the option of hauling it out of here, barging it down and then filling in some valley in the middle of nowhere, you know, that doesn't just sit well with me either, you know. I mean that's going into watershed even though the facility is licensed, you know. Just because we don't know where it's going doesn't make it okay. So, would it be better off just to have it stay here where it's been for the last 80 years and maybe put a fence around it with some signs up, you know, because - was that even talked about as an alternative?

MR. SHEWMAN: Yes, it was, and that was considered the no action (indiscernible). In this case if you're just going to put a fence around it and leave it. And if you want to go back to the slide with the graph or the graphic - you know we're held to regulations, the federal government's held to regulations even created for ourselves. The state also has the fuel regulations for this particular project. But you can see the no action alternative is really not acceptable given the criteria that we must measure. So, we have to do a cleanup to modify it. And it's taken some years to get around to it because that's part of the process, too. Funding is always limited, et cetera, et cetera. But this is where we are.

MR. CHINALSKI: So, what kind of cleanup took place in Adak?

MR. SHEWMAN: That's a Navy place and I'm really not familiar with it.

MR. CHINALSKI: The last time I was there it was a big (inaudible) fence around the area with a bunch of signs.

MR. SHEWMAN: I can't speak to it, unfortunately. I know they had fuel releases there, but I don't know what's been done.

MR. CHINALSKI: It's a huge base with the spill (inaudible).

MR. JONES: Well I can tell you that Adak has quite a few different sites and probably had a variety of remedies that were taken and there may have been some places where they couldn't quite get all of it for whatever remedy they were trying to implement, so they as part of a final solution, they've fenced part of it off to keep folks out of there. It's like Aaron is saying - it's very site-specific and we did look at capping, we looked at the no action alternative, looked at a variety of things in the course of the feasibility study. And at the end of the day the one that vetted the criteria that we were under to evaluate the alternatives was the off-site disposal. And I will say that the facilities that accept this in the lower 48 – and they are permitted for this, they are lined, they are designed for this purpose. Is it a perfect solution in the world? I mean we are all taxpayers here and for the purposes of making the facility out there at Fort Babcock more or less whole and not a risk to the public going out there, that's where the alternative has led. Yes ma'am?

MS. HACKETT: I'm all for making it whole because people do go out there. I had no idea that this was out there. But I've got a feeling that your Alternative 3 – is it set on Alternative 3 at this point or is part of this process have to do with determining an alternative?

MR. SHEWMAN: Alternative 3 is the preferred alternative so is the alternative that we've selected as our preferred alternatives. But at this point the proposed plan is to bring the public in and say, present to the public, you folks, that this is what we prefer. What are your impressions, what would you prefer?

MS. HACKETT: Well, I - first off, I can't visualize how big a hole is going to be left when you take that material out.

MR. SHEWMAN: Uh huh.

MS. HACKETT: And I believe that transporting itself will probably run into cost overruns because it always does in anything, we had to ship... It always happens. And depending on the size of the hole the other thing that we have had a problem here with for the 47 years I've been here is fill material. So, to just feel that it's going to be available for somewhere which is a place that isn't going to create another big hole somewhere else that needs to be dealt with. - I think it's - it surprised me.

MR. SHEWMAN: Uh huh.

MS. HACKETT: That that would be as seamless and as maybe (inaudible).

MR. SHEWMAN: I will say the volumes here we are talking about are relatively small on a project level based on my experience.

MS. HACKETT: How big a hole would it be – how would you relate – is there anything you can put it to scale a little bit just to put it on a scale?

MR. SHEWMAN: Well this one on the wall for example you may have seen the - an old railroad car that was used for holding fuel. So, you can see that the hole that would be created is four times the size of that perhaps. So that's a decent illustration. I would doubt that anyone has even noticed this foundation. If I remember right, it's about 14 feet by 14 feet. So, you look at this area here, maybe three times that so 30 feet by 40 feet.

MS. HACKETT: (inaudible) the size of the room?

MR. SHEWMAN: No, not that big, yeah. This room is I don't know what this room is, 55 by 50. It's a pretty big room.

MR. JONES: This is a big room, yeah, so that's ...

MS. HACKETT: And how much and how deep do you have to go? How big a pit are we going to see out there?

MR. SHEWMAN: The power plant I would say we're going to go to seven feet perhaps. But the power plant, the geography around it is kind of a hill and it's a hill that comes naturally and all we're really going to do in my mind is to reduce that hill so it blends with the surrounding topography, which is more like that. So, it's a (inaudible).

MS. HACKETT: Oh. I see.

MR. SHEWMAN: And here's the power plant, so that hill is probably going to go away.

MS. HACKETT: You're not going to have a big hole in the ground?

MR. SHEWMAN: At the power plant, I would say no. At the fuel storage area where the railroad tank car is, I would say there was going to be a bit of a hole there but our contractor will be regrading it when it's done so it's not a pit with, you know, steep walls, four foot deep, you know, it's not going to be like that. It will have at least one to one side slopes so no one would get hurt if they didn't see it if they were walking in the dark.

MS. ASTLEY: And that one won't be as deep because the bedrock is shallow there.

MR. SHEWMAN: Correct. That's probably a four-foot-deep excavation, something like that.

MS. ASTLEY: And (inaudible) is like 3 to 4 feet so you can't (inaudible).

MS. HACKETT: And are we going to get a timeline in this, an estimated timeline? Is that part of this presentation? I don't see it in here so I'm just – do you have any idea what you're looking at timeline wise? And one of the reasons I ask is that Shoals Point is a very favored, treasured surf site. A lot of people here go down (inaudible), so I'm just curious what your...

MR. SHEWMAN: We can guess on the schedule going forward but let's assume the proposed plan is accepted as it is, we would, the next step is to write the record of decision, which in our program is called decision documents. It's the same thing.

That would be next year's work. And then probably two years after that we would actually construct – we would actually move the material. So, you're looking at 3 or 4 years from today.

MS. HACKETT: Before it starts?

MR. SHEWMAN: Before it starts. And it's going to take one summer and then it would be less than a summer, I'm guessing six weeks maybe.

MR. JONES: Yeah, having seen that fuel storage tank that out there, if I recall is from where my colleague George is, to about where Aaron is sitting. So, this area here is kind of the size of that particular location. So, like you're saying, we're not talking massive holes in the ground per se. Any other questions? Sammi, you still with us?

MS. CASTLE: Yes, I'm still here.

MR. JONES: Okay, great. So, moving on again - let's start back with this one, POL remedy for (indiscernible) for the fuel storage area and - this tank right there in this area here in the other locations even smaller. The next slide two POL remedial alternatives at the tar drum area, and again a relatively small area. Again, the evaluation criteria for the POL, alternatives evaluation. In this case we had five alternatives to address the fuels and the oils out there including the no action alternative. Any questions on that?

MR. SHEWMAN: You might point out that Alternative 2 for example was (indiscernible). So, to mix it in place with a Portland cement or something like that. So, you take Portland cement, added to the soil, mix in and harden it. And that was something that was looked at. Then the vapor energy generator, which was the thermal destruction one, that soil is excavated to thermally destruct it, put the soil back. And then excavation and off-site disposal, which is the preferred alternative, or excavation with off-site low temperature thermal reabsorption. And so, it would be excavated, shipped off-site possibly to OIT outside of Fairbanks, or moved to Anchorage. There's another burn facility there were the soil would be heated up and the fuels would come off and then the soil would be reused somewhere in Anchorage or Fairbanks area. So those are the alternatives. There's a couple of different ones in there versus the PCB alternative.

MR. JONES: Yeah, that's correct. More alternatives were evaluated for POLs. And we have found in general with petroleum contaminated soils in Southeast, it generally is cheaper and more effective to send it south as opposed to sending it to Fairbanks or Anchorage where the soil burners are located.

MR. CHINALSKI: So, the on-site mixing you mentioned concrete?

MR. JONES: Uh huh.

MR. CHINALSKI: Does that remedy the problem somehow? I mean it shows pretty high.

MR. SHEWMAN: The effectiveness, yeah. The effectiveness is considered high. You are correct. The problem with this is the POL, the fuels may be locked up in there, that's great. The issue is we also have PCB contamination nearby and ideally, we want to deal with both of these problems at one time under one contract. We don't want to have to come back. So, to guarantee that – the greatest guarantee, we want to remove it and (inaudible) and send it to a landfill. That's a permitted facility that's lined so, you know these wastes if they ever were to leach liquids, they would be trapped in the landfill, collected and then properly dealt with there and not go into the groundwater or environment. Does that answer your question?

MR. HUNTER: So, these costs are added to the other costs? These are two separate contracts?

MR. SHEWMAN: Right now, these look like two separate contracts, that's right. The way they are priced is two (inaudible).

MR. HUNTER: So, 3 million dollars?

MR. SHEWMAN: For the total, if they were to be done independently, it would be 3 million. But what we hope to do is do them at the same time and then they would probably be roughly two-thirds the cost, just ballpark.

MR. JONES: Yeah, for the purposes of evaluating they were evaluated separately. Any other questions on this one?

Okay, next slide. As we kind of started to talk about the preferred alternative that was identified for the POL problem, is alternative for excavation and off-site disposal.

MR. CHINALSKI: What does the POL stand for again?

MR. JONES: Sorry. Petroleum oil and lubricants. So, it covers the gamut of diesel, gasoline, lube oil.

MR. CHINALSKI: That's not the one the concrete works on?

MR. JONES: The was the one that was discussed, yeah or evaluated.

MR. CHINALSKI: That's the one the concrete works?

MR. JONES: Yes.

MR. CHINALSKI: What's the other one that concrete doesn't work?

UNIDENTIFIED MALE: PCBs. Polychlorinated biphenyl, PCB for short.

MR. CHINALSKI: What is that?

MR. SHEWMAN: That's the result of – typically the source was a transformer like you might see on a power pole.

MR. CHINALSKI: Okay.

MR. SHEWMAN: Because prior to 1970, transformer oil typically contained some level of PCB, polychlorinated biphenyl, because it has a very - it's very insulative. So, you can superheat it and it doesn't volatilize. You can supercool it and it won't freeze. So, it was used prior to 1970 in these transformers for electricity purposes and in this particular case, you know, our plant, there must've been a transformer because we found this level of PCB in the soil. But if you were to add Portland...

MR. CHINALSKI: (inaudible) asbestos in there and stuff?

MR. SHEWMAN: No, we haven't found asbestos, not at Fort Babcock. But I think your question was with regard to the soil and adding cement to it.

MR. CINALSKI: Yeah.

MR. SHEWMAN: And I think your question really was why didn't you look at that alternative with PCBs?

MR. CHINALSKI: Uh huh.

MR. SHEWMAN: In that case the PCBs wouldn't be locked up in the concrete. They'd still exist there. PCBs don't break down naturally in the environment. They just stay the way they are.

MR. CHINALSKI: Do they leach out of the concrete?

MR. SHEWMAN: I suppose if you made a complete concrete block of that soil they may not. But typically, that's not feasible to do. It becomes less than perfect concrete if you mix cement with

soil. So again, our objective is to do a one stop cleanup, not have any “oops we didn't get it right” and have to go back. Because it's so costly to do this, even get equipment there, one time is costly to do it. To do it multiple times - it just - it's expensive in a hurry. We’re trying to avoid that if we possibly can. Yes, sir?

UNIDENTIFIED MALE: At some time, somebody removed those transformers or that transformer, who did and where did it go?

MR. SHEWMAN: We have no records.

UNIDENTIFIED MALE: No records.

MR. SHEWMAN: It may – may have been a local. I don't know if it's just (indiscernible - simultaneous speech).

UNIDENTIFIED MALE: So, it’s somewhere out in that area yet?

MR. SHEWMAN: It would be nearby, you know, nearby where the oil apparently leaked from it. And we walked many many miles around there.

UNIDENTIFIED MALE: Well, if you’ve been through that vegetation it could – still be there?

MR. SHEWMAN: It could be, it's possible.

UNIDENTIFIED MALE: Uh huh.

MR. SHEWMAN: And I will mention as far as these FUDS are concerned, once we do a cleanup based on what we know, if someone goes out there in the future, deer hunting for example, and stumbles over a transformer, all they need to do is in this case is contact the State, Sammi for example, and say ‘hey we found this. What's going on, somebody needs to check it out.’ Well then, the State would say ‘okay, let's see what contaminated site is nearby’. They would look in their database. They would find Fort Babcock is right there. That was a formerly used defense site, and the State then would contact our program and say we have a report of, in this case, a transformer. We'd like you to look into it. And that starts the process.

UNIDENTIFIED MALE: (inaudible) equipment than build the road or something else and you can find it.

MR. SHEWMAN: And if that’s the case, we’ll deal with it, hopefully right then and there.

UNIDENTIFIED MALE: Yeah.

MR. JONES: Yeah, I mean that’s the advantage of going out with one mobilization and deal with the problem. And yeah if something comes up in the course of the mobilization and construction work out there, then they can more effectively deal with it. Any other questions on this one? Okay, well this is the last slide as far as questions in general on the proposed plan.

Any questions anybody has on – in general?

MR. CHINALSKI: There was some concrete footings, foundations out there?

MR. SHEWMAN: At the power plant, yeah. So, on this particular figure, this shows the power plant site. Right here is the foundation that's still there.

MR. CHINALSKI: How large was that?

MR. SHEWMAN: I think it’s about 14 feet by 14 feet. It's square.

MR. SHEWMAN: Yeah, it’s not very big. Yes ma'am?

MS. POULSON: What’s going to be the impact of the mobilization? You're getting equipment out there and driving stuff around and all that. (Inaudible)

MR. JONES: Sorry, could you mention your name again please?

MS. POULSON: Oh, my name is Rebecca ...

MR. JONES: Rebecca, what's your last name again?

MS. POULSON: Poulson.

MR. JONES: Okay. I’ll take a stab at answering that. Usually when a construction project is initiated, there is a bit of area that needs to be cleared to lay down the material. In this case hypothetically they'll bring out very large bags, super sacks as we call them. And they'll need a place to put those. They will need a place to park the equipment. If I had to guesstimate it would probably be like a 30 by 30, 40 by 40 area that they would need just to stage materials. And it would probably be close to where the beach is. And as far as I know there is really only one good place to make a landing out there, and that's toward the north side. They would have to come down the road. But it may vary a little bit depending upon the approach they want to take, but again with the excavation and off-site disposal alternative, it will still be a fairly small area relatively speaking. And once they're done, they will do a restoration effort. It won't be perfect. You'll know that they were there, but it will - they'll re-vegetate in accordance with what specifications the Corps of Engineers comes up with combined with working with the Forest Service.

MS. POULSON: And then related to that will there be, you know, documentation and archaeology that had to have opened all the impact area?

MR. SHEWMAN: Yeah, we call that Section 106 work. In this case it’s been done. So, we've had archaeologists out there to document things. And now one thing for example, you might realize is that a railroad tank car being used for fuel in World War II is pretty unique. So, we are going to protect that (inaudible) the project. We will pick it up, move it off to the side, do our excavation and then likely pick it up and set it right back where it was.

MS. POULSON: Empty?

MR. SHEWMAN: It's empty.

MS. POULSON: It’s empty already?

MR. SHEWMAN: Right.

MS. ASTLEY: Well, we had a contractor clean it out when we were doing the RI (inaudible).

MR. SHEWMAN: Well, they checked it. It was already empty.

MS. ASTLEY: It was already clean, okay, so we confirmed ...

MR. SHEWMAN: Correct. But obviously at some point it was over filled or something and we had fuel contamination.

MR. JONES: Okay, going to some of the last slide is the comments submission and point of contact information. So, if you would like to provide comment for this process this information is where you need to go. There is a 1-833 number that's been established. You can leave a phone message with the, you leave your name and your contact info because that will all go into a record of public

comments. You can also mail a written comment to me, the address where Astley is - Beth in the back there. There is an email contact, or you can also leave a message or an email with your comment. And you can call me because that's my contact information there. I can provide you copies of the proposed plan. I can answer some general questions and make certain that your comment is recorded so it will be included in – the, what's referred to as a responsiveness summary that will list all of the public comments and how they were addressed.

MR. SHEWMAN: So, if you pick up a hard copy of the proposed plan in the back on the table, all of the contact information is going to appear on page 15.

MR. JONES: Any other questions? Yes?

UNIDENTIFIED FEMALE: Do folks' personal contact information become part of the public record, like they do with a (inaudible) process? And when people submit a comment is that going to be listed verbatim or do you summarize them?

MR. SHEWMAN: Typically, we summarize. We have to boil it down. If three people make a similar comment, we try to make it one comment instead of three. And becomes part of the public record, yes because in the decision document there will be – all of those comments will be listed, published and responded to.

MR. JONES: You know, do they list phone numbers in the responsiveness summaries - I'm just asking but I didn't think so.

MR. SHEWMAN: No. You mean of the people making the comments?

UNIDENTIFIED FEMALE: With their name, right, and any other...

MR. SHEWMAN: No, I'm sorry, I didn't understand the question. So, they'll note personally identifiable information?

MR. JONES: I think the point of that is that we can – if we have a question about your comment, we can contact you and get clarification. But yeah it will not be recorded so it will not be out there on the Internet.

MR. SHEWMAN: Right.

MR. JONES: Okay, any final questions?

MR. CHINALSKI: I was just wondering if there was any other way that that - the transformer contaminants could be dealt with? You know like you are saying burning the other one (inaudible). Is there any other way of dealing with that on-site?

MR. SHEWMAN: With the PCB contaminated soil it can be heated up higher, much higher than fuels. And we are going to double the temperature and that will remove it from the soil. The cost information though that we have indicates that that's more expensive than if we simply dig it up, put it in a bag, put it on a barge and send it south to a landfill. So, we're not going to do the heating of the soil on site because it's more expensive.

MR. JONES: I think its kind of an economy of scale thing. If there was substantially more soil, then the numbers start to look better for doing it.

MR. SHEWMAN: That's absolutely correct.

MR. HUNTER: What was the total on the Fort Rousseau FUDS project, you guys did?

MR. SHEWMAN: We removed about 6000 tons.

MR. HUNTER: 6000 tons.

MR. SHEWMAN: So, volume I would say roughly 4000 - 4500 cubic yards. So about 10 times ...

MR. HUNTER: So, we're looking at about 650 total between the two (inaudible)?

MR. SHEWMAN: At Babcock, yes.

MR. HUNTER 65 dump truck loads, basically?

MR. SHEWMAN: Right. It's much much smaller than Fort Rousseau.

UNIDENTIFIED WOMAN: (inaudible)?

MR. SHEWMAN: No.

MR. JONES: Yes, ma'am.

MR. SHEWMAN: Good question.

MS. HACKETT: I'm just curious what alerted you or what brought you to the site to begin with?

MR. SHEWMAN: We actually did find as-builts for this one and on the as-built we may see that there was a fuel storage tank(inaudible). We need to figure out ...

MS. HACKETT: So, were you just surveying old military sites around Alaska? All of them or...

MR. SHEWMAN: Yes.

MS. HACKETT: That's what it was? I see.

MR. SHEWMAN: It was before my time when the initial survey was done.

MS. HACKETT: I see.

MR. SHEWMAN: But then they would know which site - what they thought was an environmental concern.

MS. HACKETT: I see.

MR. SHEWMAN: And then they put them on a list, and the list was prioritized by risk. You know, is it very close to a community, or used it for a (inaudible). And then going back to (inaudible).

MS. HACKETT: I see.

MR. JONES: Well, I believe that's it. I appreciate your coming out to this public meeting. And again, please feel free to leave comments - we definitely are looking for public participation in the process. Yes ma'am? Can you actually say your name for the...

MS. DANGLE: I'm Helen Dangel.

MR. JONES: Okay.

MS. DANGEL: So, my question is on the cost alternatives. I know there – it sounds like there's been a lot of concern about, you know, shipping it out to the landfill versus having the equipment come in and, you know, burn it off here. Can you tell us, maybe go back to that page that has the different costs and tell us the difference in the costs?

MR. JONES: I can try. And we're talking the PCB?

MS. DANGEL: Well, probably both but ...

MR. JONES: We'll start with the PCB.

MS. DANGEL: PCB.

MR. JONES: This table here. So, as I mentioned earlier, I am - it basically became an economy of scale from scenario because of the relatively small volume of material, the cost to mobilize and implement the Alternative 2, the numbers didn't pan out. There're fixed prices that are associated with that, that we - get a higher volume of material it has to be treated and the price goes down per volume or cubic yard of soil.

MS. DANGEL: But looking at this it's half a million?

MR. JONES: As part of the feasibility study there is a percentage of error that's built into it.

MS. DANGEL: Uh huh.

MR. JONES: And so, there's - these are not hard numbers.

Obviously, it's not going to cost exactly this much, but this is based upon getting vendor quotes, getting material costs and coming up with the estimate. In this case we talked to the folks that did the vapor energy generator treatment process and we got their numbers for how much material, what the rate is going to be per yard and how much it was going to cost for them to mobilize to the site. And then execute the work including areas that would have to be cleared out for them to do this. And at the end of the day the numbers added up to where they ended up. As I mentioned before if they had - if we had triple, quadruple the amount of soil that needed to be addressed, then their process became more viable. Because their fixed prices didn't go up even though there was more material. But when there is less material, their fixed prices are such that it drove the costs. Whereas there is less of that problem with the excavation and off-site disposal. Does that make sense?

MS. DANGEL: Yeah. I guess I was just looking at the bottom line of its half a million dollars and that's quite a bit of money.

MR. SHEWMAN: Yes.

MS. HACKETT: Agreed.

MR. SHEWMAN: On the scale of this project half a million dollars but it's, you know, looking at those numbers, that's 20 percent, you know, that's a lot.

MS. HACKETT: When was the feasibility study completed and this estimate? When was that done?

MR. JONES: In 2018.

MR. SHEWMAN: So last year.

MR. JONES: And again, as I mentioned the feasibility study is available for anyone to look at in the library. Other questions? Okay, well thank you all.

MR. SHEWMAN: I really appreciate the questions. Great questions.

MR. JONES: Yes, and again thank you for coming out

COURT REPORTER: The meeting concluded at 8:10 p.m.

MEETING SIGN-IN SHEET

Project:	Fort Babcock Proposed Plan Meeting	**Meeting Date:**	11/7/2019
Facilitator:	Sundance-EA	**Place/Room:**	Harrigan Centennial Hall

Name	Phone	E-Mail
AARON STEWMAN	907.753.5558	AARON.F.STEWMAN@USACE.ARMY.MIL
Mike Motti	[redacted]	
Perry Edwards	[redacted]	
Michael Jones	[redacted]	
Jere Christner	[redacted]	
Karen Christner	[redacted]	
Matt Hunter	[redacted]	
Helen Dangel	[redacted]	
Rebecca Poulin		
Maury Hackett	[redacted]	
Phyllis Hackett		
ADAM CHINALSKI		

Fort Babcock public meeting

November 7, 2019.

7:00 p.m.

Held in the Silver Room at Centennial Hall, Sitka, Alaska.

MR. JONES: Okay, well, so this is the public meeting to present the proposed plan for the Fort Babcock formerly used defense site out there on Kruzof Island. Just want to thank everyone for showing up. There's copies of the proposed plan by the door and if you could please sign in where the sign-in sheet is there. There's also on the board over here, there's some visual posters kind of showing the sites and on the screen is the presentation that I'm going to present here in one moment. So without further ado we'll get started. Okay, so we're on the second slide, Sammi, and this is the safety moment. We're in the Silver Room here in the Harrigan Hall and the, in the event of an emergency, fire, earthquake whatever you want to call it, the muster area is out this door over here. So it's pretty self explanatory. So with that in mind real quickly in the agenda here we'll start with introductions and kind of who the folks are here as far as this project goes. We'll get into the purpose and a little bit of history on the site and a discussion of some of the risks associated with the site from the contamination that's been identified out there. Then we'll get into a conversation about the remedial options or alternatives that have been developed to deal with that contamination. And a discussion on how the

evaluation of those alternatives were done. And then we'll get into the, what is the preferred alternative for the site for the contamination that was identified out there. And then a few items along how to participate as part of the community, and then we'll get into any questions that folks have. And also feel free to ask a question during the course of the presentation. We are a fairly small group here so I think we can work it.

So Fort Babcock is being administered by the Army Corps of Engineers and we're on the third slide, Sammi. The property is managed by the Forest Service and the primary regulator involved is the Alaska Department of Environmental Conservation, and Sundance EA2 LLC is who I work for. I'm a contractor for the Army Corps of Engineers.

We are taking minutes and recording this meeting and that will become available for the public within approximately 10 working days. Okay, real quickly ...

MS. ASTLEY: Hey, Mike can we just back up one?

MR. JONES: Yes.

MS. ASTLEY: Can you just go back one and explain the issues to us.

MR. JONES: Okay, back to slide 3. The key rules and meeting minutes.

MS. ASTLEY: I just want to say hi. I am Beth Astley, I'm the project manager for the Corps of Engineers. I work in the Alaska district in Anchorage and if you have any questions about

this project I believe my contact information - well it's not on this fact sheet but see me after and I'll give you my contact information. There is also copies of the proposed plan in the back and if you have questions there is also contact information there for Mike Jones (inaudible).

MR. SHEWMAN: I am Aaron Shewman, I am an environmental engineer with the Corps of Engineers and I am the technical lead on this project so I am here to answer your questions if they come up, if we have questions.

MS. ASTLEY: If you have any other questions talk to me after about the program in general or if you have any other concerns I'll hang out after and be available.

MR. JONES: And I'm Mike Jones, I'm obviously the one doing the presenting and I will also be the one for posing questions to with respect to the public meeting process. And on the phone – Sammi, do you want to introduce yourself for the folks that are here?

MS. CASTLE: Yeah, hi there. My name is Sammi Castle and I work for the Alaska Department of Environmental Conservation. And I am the project manager for this site so I am overseeing the regulation of Fort Babcock and the proposed plan.

MR. JONES: Great, thank you. Okay, moving to the next slide again. This is just kind of a real quick slide on the process of doing a proposed plan under the CERCLA, which is the acronym for the Comprehensive Environmental Response Compensation

and Liability Act as passed by the federal government. I won't get too much into this but suffice to say this is what allows the Army Corps of Engineers to initiate this type of action. The other plans or Acts that are involved in this are the National Oil and Hazardous Substance Pollution Contingency plan. The Army Corps of Engineers has their own internal regulations that they work with and this site is considered a formerly used defense site on the Corps program. The US Environmental Protection Agency is involved in this as well with respect to the guidance that is used to evaluate the contamination that's on site. For this particular site, we've got contamination that's managed by Federal Acts and we have contamination managed by state. Specifically, the federal is the CERCLA as well as the Toxic Substance Control Act. And the state is responsible for the regulation of petroleum, oil, and lubricants, POL, which is effectively your diesel, your gasoline, lube oil and such. Okay, next slide. Real quickly this is – the CERCLA process as it works. We start with a preliminary assessment which is kind of reviewing the historical records. If something looks like there may be an issue out there in that historical record search, the site inspection is done where you're looking for (inaudible) absence of potential contamination. That moves into – if you find something it moves into a remedial investigation phase where now you're looking for how much is out there and to what extent is the problem, basically. And once that's done it goes into a

feasibility study stage where we look at the amount that's out there and what we can do about it and come up with alternatives for addressing that problem. Once the FS has been done it moves into where we are at now, the proposed plan and public comment period. And from there once public comment has been taken and evaluated a record of decision is generated between – in this case the Army Corps of Engineers and the Alaska Department of Environmental Conservation will sign the record of decision which will more or less finalize what the remedy is being selected officially. From there it goes into the next phase beyond that which is come up with the design to do this remedy and once that's been approved then they'll move into the – go out there and implement the remedy. So that's real quickly the CERCLA process.

So the purpose of this proposed plan is really to summarize the findings of the feasibility study that was prepared. Kind of present the environmental conditions out there and really identify some of the risks that were found out there, identify the cleanup criteria, present previous investigations that have been done out there, identify remedial alternatives that were developed for the site. What alternatives have been put forth as preferred and then request public input on the preferred alternative. And finally it's – outlines how the public could become involved in the process. Any questions on that? Okay. Okay, so is - Sammi we are at the site background and

characterizations site location slide with a map. So this is the pointer I usually used to harass my cat but I'm bringing it here today. This area here on Kruzof island is outlined in blue, is the FUD site. And here's Sitka over here, so it's across Sitka Sound. So not too far away although having crossed this multiple times now I have found Sitka Sound to get kind of hairy at times, a little rough.

Next slide. A little bit of site background. This – Fort Babcock kind of originates all the way back into the 1930s and really it was the concern about the possibility of war in the Pacific with Japan. As you can see through the slide, there was a process that started where they established the Sitka Naval Air Station. The War Department acquired the property out on Kruzof island to establish Fort Babcock. And then of course December 7, 1941 initiated the war. Dutch Harbor was also bombed in 1942 and in 1942 they – the Sitka Naval operating base was put into action as far as the US Army coastal defenses. In 1944, Fort Babcock, the construction was started but they for whatever reason decided to stop so it was only partially finished and then more or less decommissioned. Some of the completed facilities included a concrete bunker, observation tower. There were some diesel fuel storage tanks, Quonset huts and a power plant. A whole slew of things that were done out there. There was also a dock out there that the remnants of are still there.

So next slide. Some of the investigations that have

been done over the years. The initial visit - or sorry the initial investigation was done in the mid 80s, 1986. Since that time there have been a number of investigations out there between ‘95 and 2013. The remedial investigation which I mentioned earlier was really to try to figure out just how much of that material, the contaminated material was out there, was done in two phases in 2013 and 2014, and some follow-up activities in 2015, 2017. Based upon the data that were collected during the investigations a feasibility study was developed in 2018 to determine what alternatives could be formulated to address the problem out there.

Next slide. So you can see on this map here, this aerial photograph, these are kind of the sites that were looked at as potential areas of concern, the landfill area, the fuel storage area. Manhole #1, septic tank #1 - and these were identified as kind of ways to keep track of the individual sites like septic tank #1 versus septic tank #2. So these were investigated. From this point going to the next slide, areas of concern. Fuel storage area, tar drum area and the power plant. And here's a photograph of the fuel storage area. You can tell as anybody who has spent a lot of time out in the forest around this area which is probably most everyone, it's pretty overgrown. Lots of moss. It's been obviously a long time since this was first developed. So in some regards for folks that have been out there, it's really kind of hard to find these locations. They are

heavily covered in vegetation. But you see bits and pieces of wood sticking out of the ground, the occasional piece of metal. So in some regards it’s kind of a bit of a puzzle to figure out what the sites were and ...

Okay, next slide. More areas of concern, the tar drum area and the power plant again heavily overgrown. A little bit of metal is still kind of poking out on the ground. A little wet, which is not a big surprise in a temperate rain forest. Lots of trees around the power plant, mostly small stuff. But there are some fairly large trees that were probably pretty small back in the World War II era. They are now a good 18 to 20 inches in diameter.

Next slide. So the primary CERCLA problem out at Fort Babcock is associated with PCBs or poly chlorinated biphenyls. This is a conceptual site model and a risk slide. I won't get too much into it but the concept of the conceptual site model is just putting together an idea of what the site is, who the users are, what the problem is and how the problem in this case, contamination, could potentially impact the users that might come to the site. And in addition, the US Forest Service has a land management plan that is applicable to this site. And it basically designates the area as a recreational use only area. So there is not likely to be a industrial activity out there, probably not much in the way of logging because it's recreational. So looking at the concept of the conceptual site model and understanding

what the use of the land will be, we've identified what we call the human health risk receptors. In this case it's really the recreational user, the site visitor, the beachcomber that might go out there and go up into the trees and kind of explore a bit. In addition to that, the subsistence harvest or the consumers, and this would be like berries or fiddle heads ferns that folks might be collecting out there for consumption. With that in mind, we come up with what's a at risk pathway, which we referred to as a completed risk pathway. In this case it’s ingestion, which makes sense from the perspective of folks that are ingesting berries and any kind of food that might be impacted by this contamination. And the other one is dermal contact. If they just happen to put their hand in a location that has a contaminant problem.

Okay, next slide. Similar to the PCB problem, the POL, again petroleum oil lubricants we go through kind of the same process. Conceptual site model, the US or I'm sorry the US Forest Service land management plan and then we identify the human health and the environment issues out there. And again receptors, this is the recreational user, the subsistence users and similar to PCBs there, a risk pathway is the ingestion and dermal contact. Any questions?

Okay, next slide. So this table is just - I – we wanted to include this as just kind of an idea to show, the reality of what the objectives and our cleanup objectives are. In this

particular case for PCBs we have a cleanup objective of 1 milligram per kilogram. And I won't get too much into that but the maximum concentration that was detected out at Fort Babcock, at the power plant area mind you, was 9300. So that's substantially higher than the cleanup level that's identified. The table also identifies an estimate of the volume of the soil. In this case we've got PCBs in the 1 to 50 milligrams per kilogram, about 400 yards. And then PCBs above or greater than 50 milligrams per kilogram, 156 yards. And why we differentiate that is when it gets above 50 milligrams per kilogram it falls into the toxic world, the Toxic Substances Control Act. And it becomes a hazardous waste scenario by law and that has an impact on how it's handled, transported, and disposed of. It's kind of an extra level of protection to deal with PCB contaminants oil that is greater than 50 milligrams per kilogram. Any questions on that?

Okay, next slide. So this table – I won't spend a whole of time on this. This is what we call the ARARs and the ARAR is the acceptable, or relevant and appropriate requirements. And these are kind of identifying the laws and the concerns that are specific to the problem of the contamination that's out there. So for instance the soil storage area has, is a problem with POLs and the 1880 C 75 is the Alaska law that covers the problems of petroleum. ARARs are kind of an interesting thing but they are mostly an administrative identification of requirements that have to be met for the purpose of cleanup action. Questions?

Okay, next slide. Similar to the PCB slide earlier, the POLs for the the cleanup levels are identified here 2500. Here the maximum concentrations that were detected out at Fort Babcock at the fuel storage area, the tar drum area, a fair amount above the 12,500 at a 130,000 for the fuel storage area and 46,000 - 36,000 at the tar drum areas. Again estimated volumes are about 82 cubic yards for the fuel storage area and 15 cubic yards at the tar drum area. Not a lot of soil but it's enough to, that needs to be dealt with of course.

Okay, next slide. Okay real quickly again a map showing the FUDs area and the discussion moves into the PCBs under the CERCLA, Toxic Substance Control Act.

Next slide. We wanted to provide these figures – these came out of the feasibility study. This slide in particular is the power plant and the square area here is the foundation, the concrete foundation that remains out there. And that's really all that's left. It's surrounded by lots of vegetation. The thinking is that in this case it's PCBs at this source is probably from one likely transformer that may have leaked over a number of years. And it doesn't take a whole lot of PCB oil to adversely impact soil. Any questions?

Okay, next slide. So we wanted to present this table here. And this is kind of a summary of how we did a - an evaluation of the alternatives that were looked at for the PCBs. And Alternative #1 is a no action, and that is the requirement of

the CERCLA process, is to look at effectively no action taken and see where it falls with the evaluation criteria. And on this side of the table is the federal evaluation criteria under CERCLA and as you can see no action scores pretty low with respect to some of this as identified by the legend down here. Very, very low is that red hexagonal. Implement ability, yeah, it's pretty high. Doing nothing is a pretty easy way to go. But it is required to evaluate alternatives against the no action. For this site we looked at what's referred to as a vapor energy generator which is kind of an on-site treatment to address the PCBs. And then we also looked at excavation and off-site disposal. At the end of the day the Alternative #3 is what - it was substantially lower in cost from an estimate standpoint and this table kind of illustrates where the direction of this evaluation was going. Any questions on the (inaudible). Sure. Can you tell me what your name is?

MR. HUNTER: My name is Matt Hunter.

MR. JONES: Okay.

MR. HUNTER: Why not consider just capping It? Wouldn't that make it safe and be a lot cheaper?

MR. JONES: Aaron, do you want to take that?

MR. SHEWMAN: I'll answer that. We did consider capping. It didn't end up in the proposed plan because it didn't end up passing through the feasibility study as a viable alternative mainly because if we were to cap it, that would require forever

monitoring and maintenance. And what we want to do is achieve cleanup where we don't have to go back and maintain and check, so ...

MR. HUNTER: Okay, that makes sense.

MR. SHEWMAN: (inaudible) total removal on this case.

MR. HUNTER: One of the (inaudible) to continuing to have to send people out there.

MR. SHEWMAN: Right.

MR. JONES: Yeah, as folks that have been out to Fort Babcock, it's a challenging place to land at times and so there is a hazard. Yes, ma'am?

MS. HACKETT: So Alternative 3 is what you're looking at. And I see it says off-site disposal. Where would that be?

MR. SHEWMAN: That would be a facility in the lower 48. So it would be packaged up and shipped probably by barge to the lower 48. Likely a facility in Oregon or Idaho or Utah.

MR. JONES: Yeah, there are facilities in the lower 48 that are permitted to handle this kind of waste and there are none in the state of Alaska that can handle PCB hazardous waste.

MR. SHEWMAN: They're landfills, (inaudible).

MR. JONES: Yeah, I've seen a few of these facilities and they are out in the middle of nowhere in Idaho and Oregon. Any other questions?

Okay next slide. As we kind of got into it in the last slide we have toxic that exceeds, again the Toxic Substance

Control Act. And exceeds the regulatory limits and the deferred alternative again is off-site disposal, #3.

Okay, next slide. The next slide discussion is the POL concern out there. DERP Stands for the Defense Environmental Restoration Program and that's what the Corps operates under to initiate these kind of actions.

Next slide. So similar to the PCB slide we had appeared – and this is a figure that was of the feasibility study it and it just kind of demonstrate some of the areas that were, where we had a petroleum contamination. Again not a huge amount of material but still exceeding the cleanup criteria. Any questions about the slide?

MR. HUNTER: Is the old, the existing railroad car out there, the old tanker car??

MR. SHEWMAN: Yes.

MR. JONES: Yes, it is.

MR. SHEWMAN: And then if you remember where the dock piers are right at the beach line, that's the other pink circle on the right side. There's some contamination there, fuel contamination.

MS. HACKETT: It would be nice to see these overlaid over the chart out there to see where the sites actually are.

MR. JONES: Okay.

MS. HACKETT: For those of us that have done climbing around in there.

MR. JONES: I think we've got - we could put (inaudible) at least.

MR. GARNER: Yeah.

MR. JONES: Yeah.

MR. GARNER: It should be in the proposed plan.

MR. JONES: Yeah, there is an aerial photo in the proposed plan. And for folks that have come in. there is copies of the proposed plan there by the door. And I also wanted to mention that the feasibility study as part of the administrative record is located in the library for public use. Okay.

MR. CHRISTNER: I've got a question.

MR. JONES: Can you tell me your name.

MR. CHRISTNER: Jerry Christner.

MR. JONES: Okay.

MR. CHRISTNER: Is the site disturbance about the same with the two action alternatives in terms of road construction or excavation? Is it different between the alternatives?

MR. JONES: If I recall, I think it's somewhat comparable. There may have actually been a little more disturbance with the alternative that was not selected. There would, the road would need to be developed enough to where you could get heavy equipment in and out of there. But from an excavation standpoint most of the contractors that do this kind of work are very good at it.

MR. CHRISTNER: So Alternatives 2 and 3 about the same

amount of surface disturbance or excavation?

MR. JONES: For the most part. Alternative 2 requires an area be expanded such that they can perform the process so ...

MR. CHRISTNER: Incineration, you mean or ...

MR. JONES: Yes, exactly and with the excavation it could be done somewhat surgical for hauling it away.

MR. CHRISTNER: There were some dots on one of your slides (inaudible) had some test holes? Is that how - you how did you estimate the amount of material that has to be ...

MR. JONES: Yeah, we - sorry, we - or I won't say we but test holes were done. Soil samples were collected to get an idea of how deep the material is and then we come up with an estimate based upon those borings.

MR. SHEWMAN: So just to further answer your question about Alternatives 2 and 3 and the ground disturbance associated with each, Alternative 2 with the vapor energy generator, like you say it's high temperature. That requires stockpiling soil once it's estimated so those stockpiles would have created a bigger footprint than simply excavating and placing that material - what will likely happen is it will be placed in a bag. Typically contractors use about eight cubic yard bags, so it's instantly contained in those bags - are then in this case they would be taken north on the road to a stockpile area where the bags really just sit down.

MR. CHRISTNER: So are you just stockpiling to

incinerate it, or are you going to stockpile it before you loaded onto a barge or something?

MR. SHEWMAN: If we were to incinerate it would be an open stockpile but then be covered.

MR. CHRISTNER: Oh.

MR. SHEWMAN: So the bags wouldn’t be used. And then that pile of soil once treated by the incinerator would have been placed back in the excavation.

MR. CHRISTNER: Oh.

MS. HACKETT: What goes back into the excavation at this point? I mean with Alternative 3?

MR. SHEWMAN: With Alternative 3 we would import clean soil and that soil would have to meet the criteria really set by the landowners. In this case, the Forest Service. So it would come from the Sitka area somewhere.

UNIDENTIFIED WOMAN: How would you make sure that (indiscernible)?

MR. SHEWMAN: Again the source would have to be approved by the plan owner, the Forest Service in this case. I don't know if you can speak to that at all at this point as far as borrow areas within the Sitka area that are something the Forest Service would accept.

MR. CHRISTNER (?) Yeah, we have to figure that out and we’d have to do the - be invasive species free and unless we wanted to do that (inaudible).

MR. SHEWMAN: And it will be addressed (indiscernible - simultaneous speech).

MR. CHRISTNER: So you've included that cost and excavation somewhere ...

MR. SHEWMAN: Yes.

MR. CHRISTNER: (indiscernible) over here or somewhere else (indiscernible - simultaneous speech) and transportation?

MR. SHEWMAN: And then moving that backfill material across Sitka Sound to the site.

MR. CHRISTNER: That’s why that alternative is a lot higher than .. A lot of equipment moving, a lot of moving...

MR. SHEWMAN: Well, the dollars and cents even with getting that off-site borrow material, the dollars and cents indicate that that's less expensive than the vapor energy generator, the high temperature off-site construction.

MR. CHRISTNER: Really?

UNIDENTIFIED WOMAN: My understanding is that the cost estimate is assuming the contractor will be able to (inaudible) the amount, the field from the Sitka area?

MR. SHEWMAN: Correct.

UNIDENTIFIED WOMAN: And I don’t know if that’s the (inaudible) or not.

MR. SHEWMAN: We have used fill from the Sitka area on prior projects so we believe it's here.

MR. JONES: Yeah. I will say that that was somewhat

vetted during a feasibility study stage to make certain that yeah, there is borow sources here that in theory would be acceptable to the landowner, the Forest Service. Otherwise it's a (inaudible) process so yeah - that would've been vetted during that - if you want to see more of that costing information as I mentioned earlier, the feasibility study is available in the library under the administrative record. Other questions? Yes, sir. And can you tell me your name?

MR. CHINALSKI: Name is Adam Chinalski. So I'm still not sold on the removing this material and we're only talking about the other two options but the option of hauling it out of here, barging it down and then filling in some valley in the middle of nowhere, you know, that doesn't just sit well with me either, you know. I mean that's going into watershed even though the facility is licensed, you know. Just because we don't know where it's going doesn't make it okay. So would it be better off just to have it stay here where it's been for the last 80 years and maybe put a fence around it with some signs up, you know, because - was that even talked about as an alternative?

MR. SHEWMAN: Yes it was, and that was considered the no action (indiscernible). In this case if you're just going to put a fence around it and leave it. And if you want to go back to the slide with the graph or the graphic - you know we're held to regulations, the federal government's held to regulations even created for ourselves. Within the state also has the fuel

regulations for this particular project. But you can see the no action alternative is really not acceptable given the criteria that we must measure. So we have to do a cleanup to modify it. And it's taken some years to get around to it because that's part of the process too. Funding is always limited, et cetera, et cetera. But this is where we are.

MR. CHINALSKI: So what kind of cleanup took place in Adak?

MR. SHEWMAN: That's a Navy place and I'm really not familiar with it.

MR. CHINALSKI: The last time I was there it was a big (inaudible) fence around the area with a bunch of signs.

MR. SHEWMAN: I can’t speak to it unfortunately. I know they had fuel releases there but I don't know what's been done.

MR. CHINALSKI: It’s a huge base with the spill (inaudible).

MR. JONES: Well I can tell you that Adak has quite a few different sites and probably had a variety of remedies that were taken and there may have been some places where they couldn't quite get all of it for whatever remedy they were trying to implement, so they as part of a final solution, they've fenced part of it off to keep folks out of there. It's like Aaron is saying - if it's very site-specific and we did look at capping, we looked at the no action alternative, looked at a variety of things in the course of the feasibility study. And at the end of

the day the one that vetted the criteria that we were under to evaluate the alternatives was the off-site disposal. And I will say that the facilities that accept this in the lower 48 – and they are permitted for this, they are lined, they are designed for this purpose. Is it a perfect solution in the world? I mean we are all taxpayers here and but for the purposes of making the facility out there at Fort Babcock more or less whole and not a risk to the public going out there, that's where the alternative has led. Yes ma'am?

MS. HACKETT: I'm all for making it whole because people do go out there. I had no idea that this was out there. But I've got a feeling that your Alternative 3 – is it set on Alternative 3 at this point or is part of this process have to do with determining an alternative?

MR. SHEWMAN: Alternative 3 is the preferred alternative so is the alternative that we've selected as our preferred alternatives. But at this point the proposed plan is to bring the public in and say, present to the public, you folks, that this is what we prefer. What are your impressions, what would you prefer?

MS. HACKETT: Well, I - first off I can't visualize how big a hole is going to be left when you take that material out.

MR. SHEWMAN: Uh huh.

MS. HACKETT: And I believe that transporting itself will probably run into cost overruns because it always does in anything we had to ship.. It always happens. And depending on the

size of the hole the other thing that we have had a problem here with for the 47 years I've been here is fill material. So to just feel that it's going to be available for somewhere which is a place that isn't going to create another big hole somewhere else that needs to be dealt with. - I think it's - it surprised me.

MR. SHEWMAN: Uh huh.

MS. HACKETT: That that would be as seamless and as maybe (inaudible).

MR. SHEWMAN: I will say the volumes here we are talking about are relatively small on a project level based on my experience.

MS. HACKETT: How big a hole would it be – how would you relate – is there anything you can put it to scale a little bit just to put it on a scale?

MR. SHEWMAN: Well this one on the wall for example you may have seen the - an old railroad car that was used for holding fuel. So you can see that the hole that would be created is four times the size of that perhaps. So that's a decent illustration. I would doubt that anyone has even noticed this foundation. If I remember right it's about 14 feet by 14 feet. So you look at this area here, maybe three times that so 30 feet by 40 feet.

MS. HACKETT: (inaudible) the size of the room?

MR. SHEWMAN: No, not that big, yeah. This room is I don't know what this room is, 55/50. It's a pretty big room.

MR. JONES: This is a big room, yeah, so that’s ...

MS. HACKETT: And how much and how deep do you have to go? How big a pit are we going to see out there?

MR. SHEWMAN: The power plant I would say we’re going to go to seven feet perhaps. But the power plant, the geography around it is the power plants it's on kind of a hill and it's a hill that comes naturally and all we’re really going to do in my mind is to reduce that fill so it blends with the surrounding topography, which is more like that. So it's a (inaudible).

MS. HACKETT: Oh. I see.

MR. SHEWMAN: And here's the power plant so that hill is probably going to go away.

MS. HACKETT: You're not going to have a big hole in the ground?

MR. SHEWMAN: At the power plant, I would say no. At the fuel storage area where the railroad tank car is, I would say there was going to be a bit of a hole there but our contractor will be regrading it when it's done so it’s not a pit with you know steep walls, four foot deep, you know dome, it's not going to be like that. It will have at least one to one side slopes so no one would get hurt if they didn't see it if they were walking in the dark.

MS. ASTLEY: And that one won’t be as deep because the bedrock is shallow there.

MR. SHEWMAN: Correct. That's probably a four foot deep excavation, something like that.

MS. ASTLEY: And (inaudible) is like 3 to 4 feet so you can't (inaudible).

MS. HACKETT: And are we going to get a time line in this, an estimated time line? Is that part of this presentation? I don't see it in here so I'm just – do you have any idea what you're looking at time line wise? And one of the reasons I ask is that Shoals Point is very favored, treasured surf site. A lot of people here go down (inaudible), so I'm just curious what your ...

MR. SHEWMAN: We can on the schedule going forward but let's (inaudible) the proposed plan is accepted as it is, we would, the next step is to write the record of decision, which in our program is called decision documents. It's the same thing. That would be next year's work. And then probably two years after that we would actually instruct – we would actually move the material. So you're looking at 3 or 4 years from today.

MS. HACKETT: Before it starts?

MR. SHEWMAN: Before it starts. And it's going to take one summer and then it would be less than a summer, I'm guessing six weeks maybe.

MR. JONES: Yeah, having seen that like the fuel storage tank that out there, if I recall is where my colleague George is to about where Aaron is sitting. So this area here is kind of the size of that particular location. So like you're saying, we're not talking massive holes in the ground per se. Any other

questions? Sammi, you still with us?

MS. CASTLE: Yes, I’m still here.

MR. JONES: Okay, great. So moving on again - let's start back with this one, POL remedy for (indiscernible) for the fuel storage area and - this is tank right there in this area here in the other locations even smaller. The next slide two POL remedial alternatives (indiscernible) area, and again a relatively small area. Again, the evaluation criteria for the POL, alternatives evaluation. In this case we had five alternatives to address the fuels and the oils out there including the no action alternative. Any questions on that?

MR. SHEWMAN: You might point out that Alternative 2 for example was (indiscernible). So to mix it in place with a Portland cement or something like that. So you take Portland cement, added to the soil, mix in and harden it. And that was something that was looked at. Then the vapor energy generator which was the thermal destruction once that soil is excavated thermally destruct it, put the soul back. And then excavation off-site disposal which is the preferred alternative for excavation with off-site low temperature thermal reabsorption. And so it would be excavated, shipped off-site 82 OIT outside of Fairbanks, moved to Anchorage. There's another burn facility there were the soil would be heated up and the fuels would come off and then the soil would be reused somewhere in Anchorage or Fairbanks area. So those are the alternatives. There's a couple

of different ones in there versus the PCB alternative.

MR. JONES: Yeah, that's correct. More alternatives were evaluated for POLs. And we have found in general with petroleum contaminated soils in Southeast, it generally is cheaper and more effective to send it south as opposed to sending it to - to try the - send it to Fairbanks or Anchorage where the soil burners are located.

MR. CHINALSKI: So the on-site mixing you mentioned concrete?

MR. JONES: Uh huh.

MR. CHINALSKI: Does that remedy the problem somehow? I mean it shows pretty high.

MR. SHEWMAN: The effectiveness, yeah. The effectiveness is considered high. You are correct. The problem with this is the POL, the fuels may be locked up in there, that's great. The issue is we also have PCB contamination nearby and ideally we want to deal with both of these problems at one time under one contractor. We don't want to have to come back. So to guarantee that – the greatest guarantee to that we want to remove it and (inaudible) and send it to a landfill. That's a permitted facility that's lined so, you know these wastes if they ever were to leach liquids, they would be trapped in the landfill, collected and then properly dealt with there and not go into the groundwater or environment. Does that answer your question?

MR. HUNTER: So these costs are added to the other

costs? These are two separate contracts?

MR. SHEWMAN: Right now these look like two separate contracts, that's right. The way they are priced is two (inaudible).

MR. HUNTER: So 3 million dollars?

MR. SHEWMAN: For the total, if they were to be done independently it would be 3 million. But what we hope to do is do them at the same time and then they would probably be roughly two-thirds the cost, just ballpark.

MR. JONES: Yeah, for the purposes of evaluating they were evaluated separately. Any other questions on this one?

Okay, next slide. As we kind of started to talk about the preferred alternative that was identified for the POL problem is alternative for excavation and off-site disposal.

MR. CHINALSKI: What does the POL stand for again?

MR. JONES: Sorry. Petroleum oil and lubricants. So it covers the gamut of diesel, gasoline, lube oil.

MR. CHINALSKI: That's not the one the concrete works on?

MR. JONES: The was the one that was discussed yeah, or evaluated.

MR. CHINALSKI: That's the one the concrete works?

MR. JONES: Yes.

MR. CHINALSKI: What's the other one that concrete doesn't work?

UNIDENTIFIED MALE: PCBs. Polychlorinated biphenyl, PCB for short.

MR. CHINALSKI: What is that?

MR. SHEWMAN: That's the result of – typically the source was a transformer like you might see on a power pole.

MR. CHINALSKI: Okay.

MR. SHEWMAN: Because prior to 1970, transformer oil typically contains some level of PCB, polychlorinated biphenyl, because it has a very - it's very insulative. So you can superheat it and it doesn't volatilize. You can supercool it and it won’t freeze. So it was used prior to 1970 in these transformers for electricity purposes and in this particular case, you know, our plant, there must've been a transformer because we found this level of PCB in the soil. But if you were to add Portland ...

MR. CHINALSKI: (inaudible) asbestos in there and stuff?

MR. SHEWMAN: No, we haven’t found asbestos, not at Fort Babcock. But I think your question was with regard to the soil and adding cement to it.

MR. CINALSKI: Yeah.

MR. SHEWMAN: And I think your question really was why didn't you look at that alternative with PCBs?

MR. CHINALSKI: Uh huh.

MR. SHEWMAN: In that case the PCBs wouldn't be locked up in the concrete. They'd still exist there. PCBs don't break

down naturally in the environment. They just stay the way they are.

MR. CHINALSKI: Do they leach out of the concrete?

MR. SHEWMAN: I suppose if you made a complete concrete block of that soil they may not. But typically that's not feasible to do. It becomes less than perfect concrete if you mix cement with soil. So again our objective is to do a one stop cleanup, not have any “oops we didn't get it right” and have to go back. Because it's so costly to do this even get equipment there, one time is costly to do it. To do it multiple times - it just - it's expensive in a hurry. We’re trying to avoid that if we possibly can. Yes, sir?

UNIDENTIFIED MALE: At some time somebody removed those transformers or that transformer, who did and where did it go?

MR. SHEWMAN: We have no records.

UNIDENTIFIED MALE: No records.

MR. SHEWMAN: It may – may have been a local. I don't know if it's just (indiscernible - simultaneous speech).

UNIDENTIFIED MALE: So it’s somewhere out in that area yet?

MR. SHEWMAN: It would be nearby, you know, nearby where the oil apparently leaked from it. And we walked many many (indiscernible) around here.

UNIDENTIFIED MALE: Well, if you’ve been though that vegetation it could – still be there?

MR. SHEWMAN: It could be, it's possible.

UNIDENTIFIED MALE: Uh huh.

MR. SHEWMAN: And I will mention as far as these FUDs are concerned, once we do a cleanup based on what we know, if someone goes out there in the future as deer hunting for example and stumbles over a transformer, all they need to do is in this case contact State, Sammi for example, and say ‘hey we found this. What's going on, somebody needs to check it out.’ Well then the State would say ‘okay, let's see what contaminated site is nearby’. They would look in their database. They would find all Fort Babcock is right there. That was a formerly used defense site and the State then would contact our program and say we have a report of in this case, a transformer. We'd like you to look into it. And that starts the process.

UNIDENTIFIED MALE: (inaudible) equipment than build the road or something else and you can find it.

MR. SHEWMAN: And if that’s the case, we’ll deal with it, hopefully right then and there.

UNIDENTIFIED MALE: Yeah.

MR. JONES: Yeah, I mean that’s the advantage Of going out with one mobilization and deal with the problem. And yeah if something comes up in the course of the mobilization and construction work out there, then they can more effectively deal with it. Any other questions on this one? Okay, well this is the last slide as far as questions in general on the proposed plan.

Any questions anybody has on – in general?

MR. CHINALSKI: There was some concrete footings, foundations out there?

MR. SHEWMAN: At the power plant, yeah. So on this particular figure, this shows the power plant site. Right here is the foundation that's still there.

MR. CHINALSKI: How large was that?

MR. SHEWMAN: I think it’s about 14 feet by 14 feet. It's square.

MR. SHEWMAN: Yeah, it’s not very big. Yes ma'am?

MS. POULSON: What’s going to be the impact of the mobilization? You're getting equipment out there and driving stuff around and all that. (Inaudible)

MR. JONES: Sorry, could you mention your name again please?

MS. POULSON: Oh, my name is Rebecca ...

MR. JONES: Rebecca, what's your last name again?

MS. POULSON: Poulson.

MR. JONES: Okay. I’ll take a stab at answering that. Usually when a construction project is initiated, there is a bit of area that needs to be cleared to lay down the material. In this case hypothetically they'll bring out very large bags, super sacks as we call them. And they'll need a place to put those. They will need a place to park the equipment. If I had to guesstimate it would probably be like a 30 by 30, 40 by 40 area

that they would need just to stage materials. And it would probably be close to where the beach is. And as far as I know there is really only one good place to make a landing out there, and that's toward the north side. They would have to come down the road. But it may vary a little bit depending upon the approach they want to take, but again with the excavation and off-site disposal alternative, it will still be a fairly small area relatively speaking. And once they're done, they will do a restoration effort. It won't be perfect. You'll know that they were there but it will - they'll re-vegetate in accordance with what specifications the Corps of Engineers comes up with and combined with working with the Forest Service.

MS. POULSON: And then related to that will there be, you know, documentation and archaeology that had to have opened all the impact area?

MR. SHEWMAN: Yeah, we call that Section 106 work. In this it’s been done. So we've had archaeologists out there to document the things. And now one thing for example, you might realize is that a railroad tank car being used for fuel in World War II is pretty unique. So we are going to protect that (inaudible) the project. We will pick it up, move it off to the side, do our excavation and then likely pick it up and set it right back where it was.

MS. POULSON: Empty?

MR. SHEWMAN: It's empty.

MS. POULSON: It’s empty already?

MR. SHEWMAN: Right.

MS. ASTLEY: Well, we had a contractor clean it out when we were doing the RI (inaudible).

MR. SHEWMAN: Well, they checked it. It was already empty.

MS. ASTLEY: It was already clean, okay, so we confirmed ...

MR. SHEWMAN: Correct. But obviously at some point it was over filled or something and we had fuel contamination.

MR. JONES: Okay, going to some of the last slide is the comments submission and point of contact information. So if you would like to provide comment for this process this information is where you need to go. There is a 1-833 number that's been established. You can leave a phone message with the, you leave your name and your contact info because that will all go into a record of public comments. You can also mail a written comment to me the address where Astley is - Beth in the back there. There is a an email contact or you can also leave a message or an email with your comment. And you can call me because that's my contact information there. I can provide you copies of the proposed plan. I can answer some general questions and make certain that your comment is recorded so it will be included in - the what’s referred to as a responsiveness summary that will list all of the public comments and how they were addressed.

MR. SHEWMAN: So if you pick up a hard copy Of the proposed plan in the back on the table, all of the contact information is going to appear is on page 15.

MR. JONES: Any other questions? Yes?

UNIDENTIFIED FEMALE: Do folks' personal contact information become part of the public record, like they do with a (inaudible) process? And when people submit a comment is that going to be listed verbatim or do you summarize them?

MR. SHEWMAN: Typically we summarize. We have to boil it down. If three people make a similar comment, we try to make it one comment instead of three. And becomes part of the public record, yes because in the decision document there will be – all of those comments will be listed, published and responded to.

MR. JONES: You know, do they list phone numbers in the responsiveness summaries - I'm just asking but I didn't think so.

MR. SHEWMAN: No. You mean of the people making the comments?

UNIDENTIFIED FEMALE: With their name, right, and any other...

MR. SHEWMAN: No, I'm sorry, I didn't understand the question. So they'll note personally identifiable information.

MR. JONES: I think the point of that is that we can – if we have a question about your comment we can contact you and get clarification. But yeah it will not be recorded so it will not be out there on the Internet.

MR. SHEWMAN: Right.

MR. JONES: Okay, any final questions?

MR. CHINALSKI: I was just wondering if there was any other way that that - the transformer contaminants could be dealt with? You know like you are saying burning the other one (inaudible). Is there any other way of dealing with that on-site?

MR. SHEWMAN: With the PCBs contaminated soil it can be heated up higher, much higher than fuels. And we are going to double the temperature and that will remove it from the soil. The cost information though that we have indicates that that's more expensive than simply dig it up, put it in a bag, put it on a barge and send it south to a landfill. So we're not going to do the heating the soil on site because it's more expensive.

MR. JONES: I think it’s kind of an economy of scale thing. If there was substantially more soil then the numbers start to look better for doing it.

MR. SHEWMAN: That’s absolutely correct.

MR. HUNTER: What was the total on the (inaudible) project, you guys did?

MR. SHEWMAN: We removed about 6000 tons.

MR. HUNTER: 6000 tons.

MR. SHEWMAN: So volume I would say roughly 4000 - 4500 cubic yards. So about 10 times ...

MR. HUNTER: So we’re looking at about 650 total between the two (inaudible)?

MR. SHEWMAN: At Babcock, yes.

MR. HUNTER 65 dump truck loads, basically?

MR. SHEWMAN: Right. It’s much much smaller than (inaudible).

UNIDENTIFIED WOMAN: (inaudible)?

MR. SHEWMAN: No.

MR. JONES: Yes, ma’am.

MR. SHEWMAN: Good question.

MS. HACKETT: I’m just curious what alerted you or what brought you to the site to begin with?

MR. SHEWMAN: We actually did find as builts for this one and on the as built we may see that there was (inaudible). We need to figure out ...

MS. HACKETT: So were you just surveying old military sites around Alaska? All of them or...

MR. SHEWMAN: Yes.

MS. HACKETT: That's what it was? I see.

MR. SHEWMAN: It was before my time the initial survey was done.

MS. HACKETT: I see.

MR. SHEWMAN: But then they would know which site - what they thought was an environmental concern.

MS. HACKETT: I see.

MR. SHEWMAN: And then put on a list, and the list was prioritized by risk. You know, is it very close to a community or

use it for a (inaudible). And then going back to staff (inaudible).

MS. HACKETT: I see.

MR. JONES: Well, I believe that's it. I appreciate your coming out to this public meeting. And again please feel free to leave comments - we definitely are looking for public participation in the process. Yes ma'am? Can you actually say your name for the ...

MS. DANGLE: I'm Helen Dangel.

MR. JONES: Okay.

MS. DANGEL: So my question is on the cost alternatives. I know there – it sounds like there's been a lot of concern about, you know, shipping it out to the landfill versus having the equipment come in and, you know, burn it off here. Can you tell us, maybe go back to that page that has the different costs and tell us the difference in the costs?

MR. JONES: I can try. And we're talking the PCB?

MS. DANGEL: Well probably both but ...

MR. JONES: We'll start with the PCB.

MS. DANGEL: PCB.

MR. JONES: This table here. So as I mentioned earlier I am - it basically became an economy of scale from scenario because of the relatively small volume of material, the cost to mobilize and implement the Alternative 2, the numbers didn't pan out. There's fixed prices that are associated with that, that we

- get a higher volume of material it has to be treated and the price goes down per volume or cubic yard of soil.

MS. DANGEL: But looking at this it’s half a million?

MR. JONES: As part of the feasibility study there is a percentage of error that's built in to it.

MS. DANGEL: Uh huh.

MR. JONES: And so there’s - these are not hard numbers. Obviously it's not going to cost exactly this much, but this is based upon getting vendor quotes, getting material costs and coming up with the estimate. In this case we talked to the folks that did the vapor energy generator treatment process and we got their numbers for how much material, what the rate is going to be per yard and how much it was going to cost for them to mobilize to the site. And then execute the work including areas that would have to be cleared out for them to do this. And at the end of the day the numbers added up to where they ended up. As I mentioned before if they had - if we had triple, quadruple the amount of soil that needed to be addressed, then their process became more viable. Because their fixed prices didn't go up even though there was more material. But when there is less material, there fixed prices are such that it drove the costs. Whereas there is less of that problem with the excavation and off-site disposal. Does that make sense?

MS. DANGEL: Yeah. I guess I was just looking at the bottom line of it's half a million dollars and that's quite a bit

of money.

MR. SHEWMAN: Yes.

MS. HACKETT: Agreed.

MR. SHEWMAN: On the scale of this project half a million dollars but it's, you know, looking at those numbers, that's 20 percent, you know, that's a lot.

MS. HACKETT: When was the feasibility study completed and this estimate? When was that done?

MR. JONES: In 2018.

MR. SHEWMAN: So last year.

MR. JONES: And again as I mentioned the feasibility study is available for anyone to look at in the library. Other questions? Okay, well thank you all.

MR. SHEWMAN: I really appreciate the questions. Great questions.

MR. JONES: Yes, and again thank you for coming out

COURT REPORTER: The meeting concluded at 8:10 p.m.

Affidavit of Publication

STATE OF ALASKA
FIRST JUDICIAL DISTRICT) ss.
AT SITKA, ALASKA

Kathy Hope Erickson, being first sworn, says she or he is the publisher, managing editor or business manager of the DAILY SITKA SENTINEL, a newspaper printed and published in Sitka, Alaska, and legally qualified as a medium of official and legal publications, and that the FUDS mtg - 11.7.19 a copy of which is hereto annexed, was published in the Daily Sitka Sentinel on:

10.28.19, 11.4.19, 11.6.19,
_____, _____, _____,
_____, _____, _____,
_____, _____, _____,
_____, _____, _____,

Signature _____

Sworn and subscribed to
before me this 6 day of Nov, 20 19

Notary Public for Alaska _____

My commission expires _____, 20 _____

STATE OF ALASKA
NOTARY PUBLIC
AMABEL F. POULSON
My Commission Expires 1-15-22

NOTICE OF PUBLIC MEETING

PROPOSED PLAN – FORMERLY USED DEFENSE SITE
FORT BABCOCK, KRUZOF ISLAND

7:00 pm on Thursday, November 7th, 2019

Harrigan Centennial Hall, Silver Room

Sitka, Alaska

The public is encouraged to provide comments on any of the alternatives presented in this Proposed Plan. Hard copy located at the Public Library, 320 Harbor Drive, in Sitka, AK. The public comment period ends **December 12th, 2019.** Comments can be submitted to U.S. Army Corps of Engineers by the following methods:

- Attend the **public meeting** discussing the Proposed Plan for Fort Babcock, Kruzof Island
- Call: **1 (833) 646-0206**
- Mail a written comment to: **ATTN: CEPOA-PM-ESP-FUDS (Astley), PO Box 6898, JBER, AK 99506**
- Email a comment to the following address: **POA-FUDS@usace.army.mil**

RAVEN RADIO
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Broadcast Affidavit for: Army Corps of Engineers

Contract: 20S028

Station: KCAW

Broadcast Dates: 10/28/2019- 11/1/2019

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
September 30	October 1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28 8:46am	29	30	31	November 1 4:49pm	2	3

Date: 11/4/2019

Makenzie Rose

Makenzie DeVries Rose, KCAW Development Director

RESPONSIVENESS SUMMARY FOR FINAL PROPOSED PLAN

FORT BABCOCK
FORMERLY USED DEFENSE SITE
F10AK035304
SITKA, ALASKA

Prepared for:

U.S. Army Corps of Engineers, Alaska District
CEPOA-ESP-FUDS
P.O. Box 6898
JBER, Alaska 99506-6898

February 2020

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RESPONSIVENESS SUMMARY FOR FINAL PROPOSED PLAN

FORT BABCOCK FORMERLY USED DEFENSE SITE F10AK035304 SITKA, ALASKA

Prepared for:

U.S. Army Corps of Engineers, Alaska District
CEPOA-ESP-FUDS
P.O. Box 6898
JBER, Alaska 99506-6898

Contract Number: W911KB-17-D-0018
Task Order: W911KB18F0019

Prepared by:

Sundance-EA II LLC
711 H St. Suite 330
Anchorage, Alaska 99501

February 2020

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INTRODUCTION

The United States (U.S.) Army Corps of Engineers, Alaska District (USACE-AK) has conducted a Feasibility Study (FS) and Proposed Plan for the Fort Babcock Formerly Used Defense Site (FUDS) in Sitka, Alaska (F10AK035304).

The FS presented an evaluation of remedial alternatives to address polychlorinated biphenyl (PCB) contaminated soils. The Defense Environmental Restoration Program (DERP) Manual states that response actions taken to address releases of hazardous substances or pollutants shall be carried out pursuant to Section 9620 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). The term "hazardous substance" is defined under CERCLA §101(14) to include toxic substances listed under several other environmental statutes. PCBs are listed as a hazardous substance and are subject to the requirements under CERCLA.

Since petroleum, oil, and lubricant (POL) contamination is anticipated to be addressed in conjunction with the PCB remedial action, remedial alternatives for POL-contaminated sub-sites were included in the FS. CERCLA §101(14) excludes petroleum from its covered substances. POL-contaminated sites fall under the CERCLA petroleum exclusion and are therefore being addressed under the authority of the DERP, U.S. Code (U.S.C.), Title 10, Section 2701, et seq. The DERP provides authority to cleanup petroleum contamination when it may pose an imminent and substantial endangerment to public health, welfare, or the environment.

A Proposed Plan presented the viable remedial options evaluated in the FS to the general public. The Proposed Plan identified the preferred alternative, excavation, and off-site disposal, based on the evaluation conducted in the FS. The Proposed Plan was released for public comment and a public meeting was held to receive any local public input on the remedial alternatives.

Responsiveness Summary

Stakeholder Comments and Lead Agency Responses

USACE-AK has prepared this Responsiveness Summary for the Fort Babcock FUDS in Sitka, Alaska (F10AK035304), as part of the process for making a final remedy selection. This Responsiveness Summary documents, for the Administrative Record, public comments and issues raised during the public comment period on USACE-AK's recommendations presented in the Proposed Plan and provides USACE-AK's responses to those comments. Pursuant to Section 117 of the CERCLA, 42 U.S.C. § 9617, USACE-AK has considered all comments received during the public comment period in making the final decision that will be contained in the Decision Document for the Fort Babcock FUDS (F10AK035304).

Overview of Public Comment Period

USACE-AK issued its Proposed Plan detailing remedial action recommendations for public review and comment on October 28, 2019. A public comment period was held from October 28, 2019, to December 12, 2019 (45 days).

The Proposed Plan detailing remedial action recommendations and other documents can be found in the Administrative Record file and were provided and updated throughout the public comment period at the following information repositories locations:

- Sitka Public Library, 320 Harbor Drive, Sitka, Alaska
- USACE - Alaska District, 2204 3rd Street, JBER, Alaska.

The USACE conducted a public meeting on November 7, 2019, to present the Proposed Plan and receive comments from the community. The public meeting was held at the Centennial Hall in Sitka, Alaska, on November 7, 2019. A transcript of the public meeting is included in the Administrative Record. A website was established that included an electronic version of the Proposed Plan and information on how to submit public comments. Public comments were received verbally during the public meeting held on November 7, 2019, by email, and by certified letter.

This Responsiveness Summary document summarizes comments submitted during the public comment period, presents USACE-AK's written response to each issue, and documents in the record how those public comments were integrated into the decision-making process, in accordance with community relations requirements of the National Oil and Hazardous Substances Pollution Contingency Plan (National Contingency Plan). The following table summarizes the significant comments received during the public comment period and at the public meeting regarding the Proposed Plan. In preparing this summary, actual comment language may have been abbreviated, paraphrased, and/or edited for clarity.

Acronyms and Abbreviations

#	Number
ADEC	Alaska Department of Environmental Conservation
AHRS	Alaska Heritage Resources Survey
AST	aboveground storage tank
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980
DERP	Defense Environmental Restoration Program
FS	feasibility study
FUDS	Formerly Used Defense Site
NAUL	Notice of Activity and Use Limitation
NRHP	National Register of Historic Places
PCB	polychlorinated biphenyl
POL	petroleum, oil, and lubricant
ppm	parts per million
SEARHC	Sitka Community Hospital
UE	unrestricted exposure
UECA	Uniform Environmental Covenants Act
U.S.	United States
USACE-AK	U.S. Army Corps of Engineers, Alaska District
U.S.C.	U.S. Code
UU	unlimited use

Item No.	PUBLIC COMMENT	USACE RESPONSE	COMMENT BY
1	There is concern about local availability (i.e., in Sitka) of clean fill for filling in depressions left from removing soil (with the excavation and off-site disposal options). Any soil anywhere near Sitka's road system will have invasive species (mainly buttercup, dandelion, and knotweed). So instead of getting dirt from Sitka, or even gravel, it would be better to get dirt or even sand on Kruzof or leave the depression.	The USACE will attempt to locate an acceptable backfill source within the Fort Babcock boundary before any work is completed. If a backfill source within the Fort Babcock boundary is not available, then crushed rock or certified weed free soil may be selected to ensure invasive species are not inadvertently transported to Fort Babcock. If an acceptable backfill source cannot be located, then the excavated areas would be graded as close to natural conditions as possible.	Rebecca Poulson
2	Has the carbon footprint of transporting the contaminated material been examined?	The carbon footprint has not been directly examined. Fuel costs were estimated in Appendix A of the Feasibility Study and could be used as a proxy for the carbon footprint.	Rebecca Poulson
3	The proposed remedy includes excavating soil to alternative cleanup levels calculated assuming recreational land use scenario. As of September 16, 2018, the Uniform Environmental Covenants Act (UECA), Alaska Statute (AS 46.04.300-390), requires a Notice of Activity and Use Limitation (NAUL) be placed on federally owned properties when contamination remaining after an environmental response project makes the property safe for some, but not all, uses. Alaska Department of Environmental Conservation (ADEC) requests that a UECA be included as an applicable or relevant and appropriate requirement for this project, as proposed. The remedy for the site must be revised to include institutional controls, including the NAUL under UECA, if the alternative cleanup levels protective of only recreational use will be applied. USACE must work with the landowner to complete and file the NAUL on the Fort Babcock FUDS property during the remedy implementation to ensure the remedy, as proposed, is protective.	The UECA is an administrative and legal control. The UECA is not a cleanup standard, standard of control, or requirement that specifically addresses a hazardous substance, pollutant, or contaminant; remedial action; or remedial location. Accordingly, UECA is not an ARAR. Furthermore, successful implementation of the remedy will achieve UU/UE for PCBs, making the UECA inapplicable The cleanup level for PCBs is based on the ADEC's most stringent Method 2 cleanup level for direct contact. The remedy will be protective of unlimited use and unrestricted exposure under CERLCA for PCBs. The POL alternate cleanup level was determined based on the current and reasonably anticipated future site use as recreational. After the alternate POL cleanup levels are met at the site, it is anticipated an ISE will no longer exist at the site. The USFS Land Management Database will be updated to indicate the area(s) of residual contamination at the Fort Babcock FUDS.	Sammi Castle, ADEC Environmental Program Specialist
4	Fort Babcock (SIT-00457) was determined to be eligible for listing in the National Register of Historic Places (NRHP) in 2013 under Criteria A and D. It is our understanding that the preferred alternatives (CERCLA and DERP) under the proposed plan call for removing contaminated soil and disposing of it off-site, clearing vegetation, improving the existing road, creating a new access road, use of a beach landing area, and creating a remote field camp to conduct the field work. Our office believes that these actions will have an adverse effect on the historic property, Fort Babcock. As a portion of the project is CERCLA, it is our understanding that the standard process to resolve an adverse effect, which includes the execution of a Memorandum of Agreement, is not feasible. In absence of a Memorandum of Agreement, our office recommends that USACE incorporate minimization measures into the design and implementation of the project and prepare a public interpretation product that might be of benefit to visitors to the site, such as a pamphlet. To minimize the effects of the proposed project, we recommend that the remote field camp and the beach landing site be located outside Fort Babcock's historic property boundary and that vegetation clearing be kept to a minimum.	All efforts will be made to minimize the disturbance footprint during the remedial actions. Cultural resources considered to be impacted by the preferred alternative of the proposed plan include Fort Babcock (SIT-000457), the Fort Babcock Powerhouse (SIT-01025), and the Large above-ground storage tank (AST) (SIT-01026). Fort Babcock is considered eligible for listing on the NRHP, and sites SIT-01025 and SIT-01026 have no determination for eligibility. The USACE-AK assumes sites SIT-01025 and SIT-01026 are eligible for listing in the NRHP for implementation of the preferred alternative. Impacts to Fort Babcock and the sites within its boundary as a result of the preferred alternative include vegetation clearing and grading of the historic access road, temporary movement of the Large AST (SIT-01026) and removal of soil underneath, and partial or complete removal of the concrete foundation of the Powerhouse (SIT-01025). The proposed camp and landing locations are north of and outside the Fort Babcock Alaska Heritage Resources Survey (AHRS) boundary in the same area used for beach landing and a remote field camp during the Phase II Remedial Investigation. USACE has determined that activities at the beach landing and remote field camp will not impact protected resources. Minimization efforts include returning the Large AST (SIT-01026) to its original location to the extent practicable following contaminated soil removal, minimizing vegetation clearing efforts to only what is necessary to complete the work, restoring the access road by grading the road, and placing the camp and landing area outside the Fort Babcock AHRS boundary. USACE developed and shared an electronic public information pamphlet addressing the history and use of fuel infrastructure, a description of the AST and Power Plant, photos, and images of historic construction plans from Fort Babcock.	Judith E. Bittner, State Historic Preservation Officer

5	Will there be an effort to fully remediate the area to near natural conditions and maintain the historic site characteristics (dock, Fuel Car, etc.) at the completion of the removal action?	Yes, the excavated area will be either backfilled with clean soil material or will be graded as close to natural conditions as possible. Any significant historic items moved during the cleanup process will be returned to their approximate original location to the extent practicable.	Rebecca Poulson, Matt Hunter
6	Have other options, such as fencing the area or capping the contaminated site been considered?	Yes, these alternatives were examined during the Feasibility Study. They either didn't meet the cleanup requirements or required extensive long-term monitoring, so they were not preferred.	Matt Hunter, Adam Chinalksi,
7	Have you looked at other remote sites, such as Adak, for ideas on how they dealt with contamination?	We did consider past cleanup actions at a variety of remote FUDS including Adak. The potential cleanup alternatives were evaluated in detail in the Feasibility Study.	Adam Chinalski
8	How large of a hole will be left when the contaminated soil is removed?	It is anticipated the area with PCB-contaminated soil will require contaminated soil removal to an approximate maximum depth of 7 feet below the existing ground surface over an area of approximately 8,000 square feet, while the POL-contaminated soil areas, in total, will require contaminated soil removal to an approximate maximum depth of 4 feet over an area of approximately 3,000 square feet. The USACE will attempt to locate an acceptable backfill source within the Fort Babcock boundary before any work is completed. If a backfill source within the Fort Babcock boundary is not available, then crushed rock or certified weed free soil may be selected to ensure invasive species are not inadvertently transported to Fort Babcock. If an acceptable backfill source cannot be located, then the excavated areas would be graded as close to natural conditions as possible.	Phyllis Hackett
9	How does this project compare in size to the removal work completed at Fort Rousseau?	The preferred alternative for the Fort Babcock FUDS includes removal of about one-tenth the amount of soil compared with the 2018 Fort Rousseau remedial action.	Matt Hunter
10	Is there any other way that the PCB contaminated soil could be dealt with on site, like for instance the incineration method mentioned?	The on-site incineration alternative could be used to remove PCBs from the PCB-contaminated soil present at the site. PCB-contaminated soil would require a much higher treatment temperature than is required to treat POL-contaminated soil. As a result, incineration of the PCB-contaminated soil would require more fuel and incur a higher cost. Additionally, the on-site incineration alternative would be ex situ, so it would require the contaminated soil to be excavated and stockpiled on site prior to treatment, which would require a greater footprint of disturbance at the site. The additional cost and increased site disturbance are the primary reasons the on-site incineration alternative is not the preferred alternative.	Adam Chinalski
11	Is the site disturbance about the same with the two action alternatives in terms of road construction or excavation? Is the disturbance area different between the alternatives?	In terms of road construction or excavation, the disturbance area would be very similar between the excavation and off-site disposal, and on-site incineration alternatives. In terms of overall site disturbance, the on-site incineration alternative would cause more site disturbance than the excavation and off-site disposal alternative because the on-site incineration alternative would require the contaminated soil to be excavated and stockpiled on site prior to treatment.	Jere Christner
12	Have the impacts of transporting the material to another area (such as transport cost overruns, leaks, or spills from the receiving landfill) been considered?	Only the risks and costs associated with transport to the off-site permitted disposal facility were examined. It was assumed the permitting process for the disposal facility (e.g., landfill) examined the risks associated with the activities performed at the disposal facility.	Adam Chinalski, Phyllis Hackett, Rebecca Poulson
13	Where would the contaminated material be sent for disposal in the off-site disposal alternatives?	In the off-site disposal alternative, the contaminated soil would be shipped, likely by barge, to a disposal facility in the Lower 48 States.	Phyllis Hackett
14	The other concern is the high cost of excavating and hauling the soil down south. It's unfortunate that incineration is even more costly, and that apparently you are constrained by law to remediate the toxics. Still, it's a concern, to spend that much money and the big carbon footprint to take toxics to another state, so wanted that concern on record.	USACE understands this concern and has determined the selected remedy is appropriate after considering all factors.	Rebecca Poulson
End of Responsive Summary Comments and Responses.			

Mogg, Leah E CTR (USA)

From: Rebecca Poulson <rebecca_poulson@hotmail.com>
Sent: Wednesday, November 13, 2019 4:54 PM
To: POA Fuds Program POA
Subject: [Non-DoD Source] Comments on Fort Babcock clean up

Hello, thank you for the public meeting and for the maps and other materials at the Sitka meeting November 7th.
I have two comments:

One is concern about whether you'd be able to get clean fill for filling in depressions left from removing soil (with the excavation and off-site disposal options).
Any soil anywhere near Sitka's road system will have invasives, mainly buttercup and dandelion but also knotweed is pretty widespread now.

So instead of getting dirt from Sitka, or even gravel, it would be better to get dirt or even sand on Kruzof or leave the depression.
It sounds like you will remediate the footprint of the equipment and staging, and I like the idea of putting the railroad car tank back in place.

The other one is the high cost of excavating and hauling the soil down south. It's unfortunate that incineration is even more costly, and that apparently you are constrained by law to remediate the toxics. Still, it's a concern, to spend that much money and the big carbon footprint to take toxics to another state, so wanted that concern on record,

Thanks so much!
Rebecca Poulson, Sitka

You probably have all this information, but here is some about the WWII installations from Sitka Maritime Heritage Society: Blockedhttp://www.sitkamaritime.org/world-war-ii-and-japonski-island.html <Blockedhttp://www.sitkamaritime.org/world-war-ii-and-japonski-island.html>

<Blockedhttp://www.sitkamaritime.org/world-war-ii-and-japonski-island.html>
World War II and Japonski Island - Sitka Maritime Heritage Society <Blockedhttp://www.sitkamaritime.org/world-war-ii-and-japonski-island.html>
The Japonski Island Boathouse is part of the Sitka Naval Air Station and its Harbor Defenses, now designated a National Historic Landmark as the only defense installation in the North Pacific at the outbreak of WWII.
Blockedwww.sitkamaritime.org

FACT SHEET

U.S. ARMY CORPS OF ENGINEERS **BUILDING STRONG®**

November 2019

Subject: Fort Babcock Formerly Used Defense Site (FUDS) Kruzof Island, Alaska.

Remedial Investigation Activities

Introduction

The US Army Corps of Engineers (USACE) – Alaska District conducted an environmental remedial investigation at the Fort Babcock Formerly Used Defense Site located on Kruzof Island, Alaska. The project assessed the risk to human health and the environment resulting from past military activities.

Site Background

Fort Babcock is located approximately 11 miles west of Sitka across Sitka Sound at Shoals Point on Kruzof Island. During World War II the United States Army was commissioned to build several coastal six-inch gun artillery batteries in the Sitka area to support the Sitka Naval Operating Base (SNOB) as part of the U.S. Army Coastal Defenses. The U.S. War Department acquired 4,070 acres on Kruzof Island for Fort Babcock in 1941. The Army planned for one six-inch gun battery and several support facilities to be constructed. Construction began but stopped in 1944 when the Sitka Naval Operating Base was decommissioned. Battery 290, composed of concrete, was partially completed at Fort Babcock, but the six-inch gun was never installed. Other structures were completed before the site was abandoned by the Army in 1944 including a construction camp, living quarters, a power plant, a pump house and associated water line, and the Lava Point Base End Station and observation tower. The site is currently part of Tongass National Forest, under jurisdiction of the United States Forest Service.

Previous Investigations

A USACE site inspection in 1995 identified soil contaminated with diesel fuel at an above ground storage tank (AST) near the former dock. A Department of Defense Phase I environmental assessment in 2003 inventoried debris and identified the AST as a potential source of contamination. The 2010 site inspection by USACE determined a remedial investigation and feasibility study were appropriate to determine potential actions to identify and address FUDS-eligible risks to human health and the environment. A Phase I remedial investigation was conducted in 2012 and confirmed petroleum contamination in the Fuel Storage Area located in the vicinity of the AST. A Phase II remedial investigation was performed in 2013 to address data gaps from the 2012 remedial investigation and to determine if contaminants were present at additional features identified on historic Fort Babcock engineering drawings. The results of the remedial investigation identified one area with polychlorinated biphenyl (PCB) contamination above federal cleanup levels, and two areas with petroleum contamination containing diesel range organics (DRO) and residual range organics or (RRO) exceeding site-specific state cleanup levels.

Other Activities

A feasibility study was completed in 2018 to develop and evaluate remediation alternatives. A proposed plan containing the preferred remedy was completed in October 2019 and made available for public review and comment starting on October 28, 2019. The content of the proposed plan will be presented during a public meeting to be held in Sitka, Alaska on Nov 7, 2019. After the proposed plan is finalized, a decision document will be prepared, which will document the selected remedy. The decision document is the final step before the remedial action.

Contact Information

Beth Astley, Project Manager US Army Corps of Engineers, Alaska District
Office: (907) 753-5782 or email beth.n.astley@usace.army.mil

THE STATE of ALASKA
GOVERNOR MICHAEL J. DUNLEAVY

Department of Environmental Conservation

DIVISION OF SPILL PREVENTION AND RESPONSE
Contaminated Site Program

555 Cordova Street
Anchorage, AK 99501
Main: 907.269.7557
Fax: 907.269.7648

File No.: 1525.38.046

December 10, 2019

Beth Astley
USACE, Alaska District
PO Box 6898
JBER, AK 99506-0898

Re: **Public Comment on "Proposed Plan, Fort Babcock Formerly Used Defense Site"**

Dear Ms. Astley:

The Alaska Department of Environmental Conservation (ADEC) Contaminated Sites Program reviewed the final "Proposed Plan, Fort Babcock Formerly Used Defense Site" dated October 2019.

The proposed remedy includes excavating soil to alternative cleanup levels calculated assuming a recreational land use scenario. As of September 16, 2018, the Uniform Environmental Covenants Act (UECA), Alaskan statute (AS 46.04.300-390), requires a Notice of Activity and Use Limitation (NAUL) be placed on federally owned properties when contamination remaining after an environmental response project makes the property safe for some, but not all, uses. ADEC requests that UECA be included as an applicable or relevant and appropriate requirement for this project, as proposed. The remedy for the site must be revised to include institutional controls, including the NAUL under UECA, if the alternative cleanup levels protective of only recreational use will be applied. USACE must work with the landowner to complete and file the NAUL on the Fort Babcock FUDS property during remedy implementation to ensure the remedy, as proposed, is protective.

Please call (907) 269-0298 or email sammi.castle@alaska.gov with any questions or comments regarding this letter.

Sincerely,

Sammi Castle

Sammi Castle
Environmental Program Specialist

cc: Rebecca Peterman, U.S. Forest Service, rpeterman@fs.fed.us

THE STATE of ALASKA
GOVERNOR MIKE DUNLEAVY

Department of Natural Resources
DIVISION OF PARKS AND OUTDOOR RECREATION
Office of History & Archaeology
550 West 7th Avenue, Suite 1310
Anchorage, AK 99501-3561
907.269-8700
http://dnr.alaska.gov/parks/oha

December 12, 2019

File No.: 3130-1R COE-E / 2019-01351

Michael Jones
U.S. Army Corps of Engineers
ATTN: CEPOA-PM-ESP-FUDS (Astley)
P.O. Box 6898
JBER, Alaska 99506-0898
POA-FUDS@usace.army.mil

Subject: Proposed Plan: Fort Babcock Formerly Used Defense Site, near Sitka, Alaska

Dear Mr. Jones:

The Alaska State Historic Preservation Office (AK SHPO) received the proposed plan (dated October 2019) on November 12, 2019. Our office has reviewed the proposed project for conflicts with historic properties pursuant Section 106 of the National Historic Preservation Act and offers the following comments for your consideration.

Fort Babcock (SIT-00457) was determined to be eligible for listing in the National Register of Historic Places in 2013 under Criteria A and D. It is our understanding that the preferred alternatives (CERCLA and DERP) under the proposed plan call for removing contaminated soil and disposing of it off-site, clearing vegetation, improving the existing road, creating a new access road, use of a beach landing area, and creating a remote field camp to conduct the work. Our office believes that these actions will have an adverse effect on the historic property, Fort Babcock.

As a portion of the project is CERCLA, it is our understanding that the standard process to resolve an adverse effect, which includes the execution of a Memorandum of Agreement, is not feasible. In absence of a Memorandum of Agreement, our office recommends that USACE incorporate minimization measures into the design and implementation of the project and prepare a public interpretation product that might be of benefit to visitors to the site, such as a pamphlet. To minimize the effects of the proposed project, we recommend that the remote field camp and the beach landing site be located outside Fort Babcock's historic property boundary and that vegetation clearing be kept to a minimum.

Thank you for the opportunity to review and comment. We look forward to continued consultation concerning the project. Please contact Sarah Meitl at 269-8720 or sarah.meitl@alaska.gov if you have any questions or if we can be of further assistance.

Sincerely,

Judith E. Bittner
State Historic Preservation Officer

JEB:sjm

Ecc: Kelly Eldridge (Kelly.A.Eldridge@usace.army.mil)

DEPARTMENT OF THE ARMY
ALASKA DISTRICT, U.S. ARMY CORPS OF ENGINEERS
P.O. BOX 6898
JBER, AK 99506-0898

CEPOA-PM-ESP

SEP 1 8 2020

Ms. Judith Bittner
State Historic Preservation Officer
Office of History and Archaeology
550 West 7th Avenue, Suite 1310
Anchorage, AK 99501-3565

Dear Ms. Bittner:

On November 12, 2019 the USACE submitted to your office a Proposed Plan regarding the cleanup of contamination at Fort Babcock on Kruzof Island near Sitka, Alaska. The cleanup action is occurring under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). On December 12, 2019 you submitted comments regarding the Proposed Plan and suggested the USACE prepare a public interpretation product that might be of benefit to visitors to the site, such as a pamphlet. The USACE has prepared an information paper which could be placed on or integrated in a website concerning the fuel and power infrastructure of Fort Babcock. Please find enclosed document for your consideration.

If you have questions or concerns about this project, or would like to share information with us, please email Forrest Kranda at forrest.j.kranda@usace.army.mil or call at 907-753-2736.

Sincerely,

Forrest J. Kranda
Archaeologist
Environmental and Special Projects

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DEPARTMENT OF THE ARMY
ALASKA DISTRICT, U.S. ARMY CORPS OF ENGINEERS
P.O. BOX 6898
JBER, AK 99506-0898

CEPOA-PM-ESP

DEC 07 2020

Ms. Judith Bittner
State Historic Preservation Officer
Office of History and Archaeology
550 West 7th Avenue, Suite 1310
Anchorage, AK 99501-3565

Dear Ms. Bittner:

On November 12, 2019 the USACE submitted to your office a Proposed Plan regarding the cleanup of contamination at Fort Babcock on Kruzof Island near Sitka, Alaska. The cleanup action is occurring under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). On December 12, 2019 you submitted comments regarding the Proposed Plan and suggested the USACE prepare a public interpretation product that might be of benefit to visitors to the site, such as a pamphlet. The USACE submitted the first draft of an information paper to your office on September 18, 2020 and received comment from your office on November 02, 2020. You recommended adding a short description and map to illustrate how Fort Babcock and Battery 290 fit into the coastal defense system of Sitka. The USACE has drafted a short description and map and included them in the attached updated version of the information paper for Fort Babcock. Please find attached the updated version of the Fort Babcock information paper for your review and comment. If your office does not have any further comments the USACE will considered the submitted product finalized.

If you have questions or concerns about this project, or would like to share information with us, please email Forrest Kranda at forrest.j.kranda@usace.army.mil or call at 907-753-2736.

Sincerely,

Forrest Kranda
Archaeologist
Environmental and Special Projects

THE STATE of ALASKA
GOVERNOR MIKE DUNLEAVY

Department of Natural Resources
DIVISION OF PARKS AND OUTDOOR RECREATION
Office of History & Archaeology
550 West 7th Avenue, Suite 1310
Anchorage, AK 99501-3561
907-269-8700
http://dnr.alaska.gov/parks/oha

January 8, 2021

File No.: 3130-1R COE-E / 2019-01351

Forrest Kranda
U.S. Army Corps of Engineers
Alaska District CEPOA-PM-C-ER
P.O. Box 6898
JBER, Alaska 99506-0898
Forrest.J.Kranda@usace.army.mil

Subject: Fort Babcock Formerly Used Defense Site, near Sitka, Alaska Draft Information Paper

Dear Mr. Kranda:

The Alaska State Historic Preservation Office (AK SHPO) received your correspondence (dated December 7, 2020) regarding the subject project and information paper titled *Fort Babcock: Fuel and Power System* on December 7, 2020.

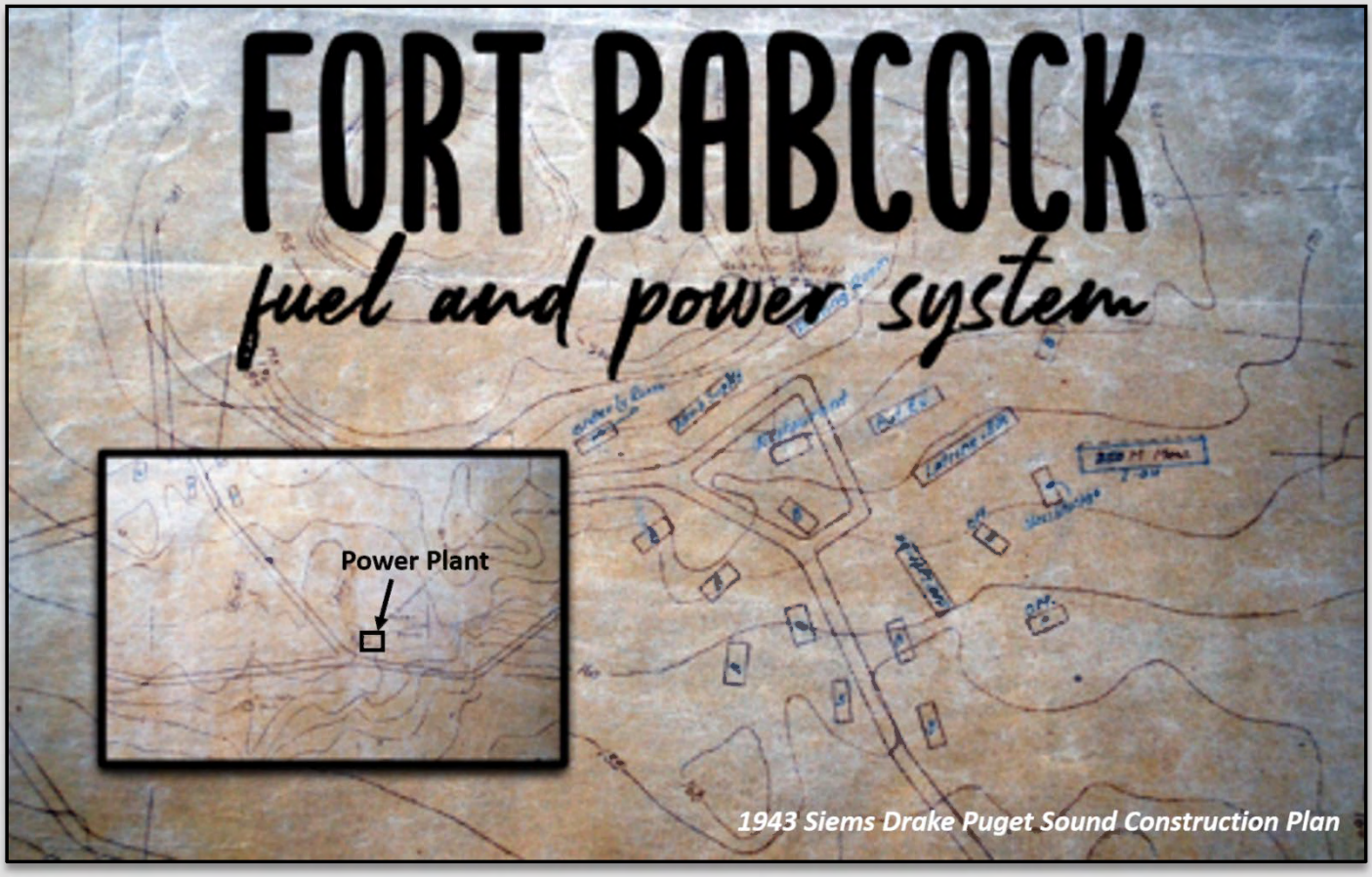
Our office appreciates USACE taking our comments into consideration and providing us with an opportunity to review the revised public interpretation product. Following our review, we have no further comments and believe the information paper is a valuable interpretive product that helps mitigate the adverse effect to Fort Babcock (SIT-00457) resulting from the proposed plan to cleanup contamination at the site pursuant the CERCLA process.

Thank you for the opportunity to comment. Please contact Sarah Meitl at sarah.meitl@alaska.gov if you have any questions or if we can be of further assistance.

Sincerely,

Judith E. Bittner
State Historic Preservation Officer

JEB:sjm



History of Fort Babcock

In the 1930s the U.S. War Department developed *Plan Orange* in response to the possibility of war in the Pacific. Alaska was recognized as part of a strategic defense triangle which included Hawaii and Panama. Wartime construction began in Southeast Alaska with the establishment of the Sitka Naval Air Station in 1939. After the bombings of Pearl Harbor on December 7, 1941 and Dutch Harbor on June 3 and 4, 1942, military activity and construction in the Sitka area increased substantially. On July 20, 1942, the Sitka Naval Air Station was upgraded to a Naval Operating Base.

The construction of Fort Babcock at Shoals Point, 11 miles west of Sitka, Alaska, began in 1942 (Figure 1). It originally consisted of a temporary battery of two 6-inch Naval guns. This battery was operated by the 266th Coastal Artillery, who referred to it as “Battery Allen” in their 1942 Christmas Dinner Menu. In addition to the 266th Coastal Artillery, Fort Babcock was home to the 22nd Naval Construction Battalion, who were responsible for building the permanent battery, Battery 290, and associated infrastructure. Construction of Battery 290 continued until August 15, 1944, when the Sitka Naval Operating Base was decommissioned due to shifting military occupation further west to the Aleutian Islands to meet the Japanese threat in the Kurile Islands and enemy actions in other theaters

of war. Battery 290 was never fully operational; it was only 88 % complete at the time of its decommissioning.

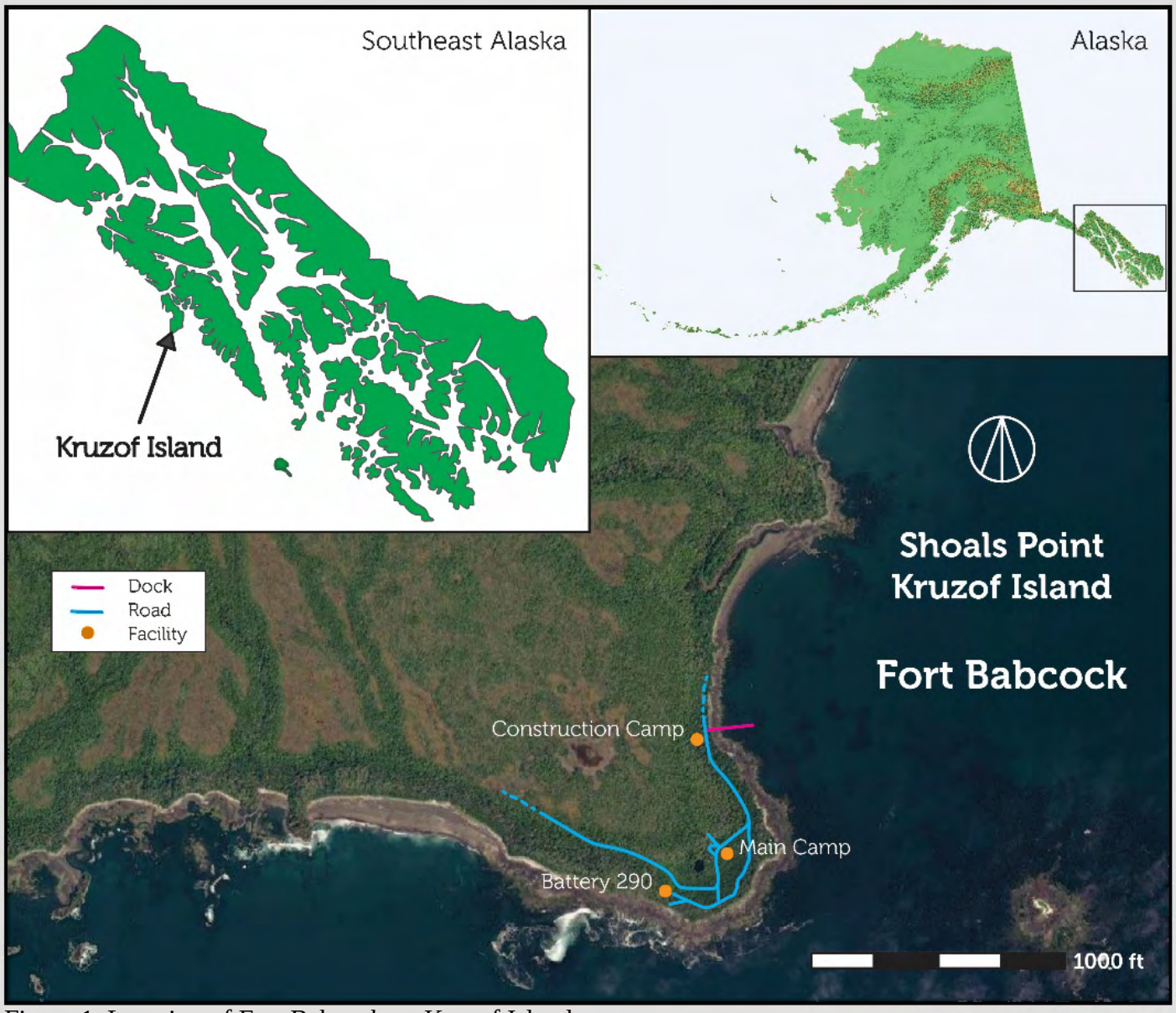


Figure 1. Location of Fort Babcock on Kruzof Island.

During its construction and limited operation, Fort Babcock was separated into three facility areas: a Construction Camp, Main Camp, and Battery 290.

Construction Camp

The Construction Camp was built and inhabited by the 22nd Naval Construction Battalion "Seabees" who were charged with building Battery 290 and its associated infrastructure. The camp was located approximately 1,800 feet northwest of the Main Camp, next to the only marine dock at Fort Babcock. The camp consisted of a combined quarters-

mess hall-latrine, a shed, an office, a motor repair hut, warehouse, ammunition storage, and a command post. A dam and associated pump house were constructed for water supply, and three fuel tanks were located near the dock (Figure 2). Structures consisted of either Quonset huts or Theater-of-Operation wood-frame buildings.

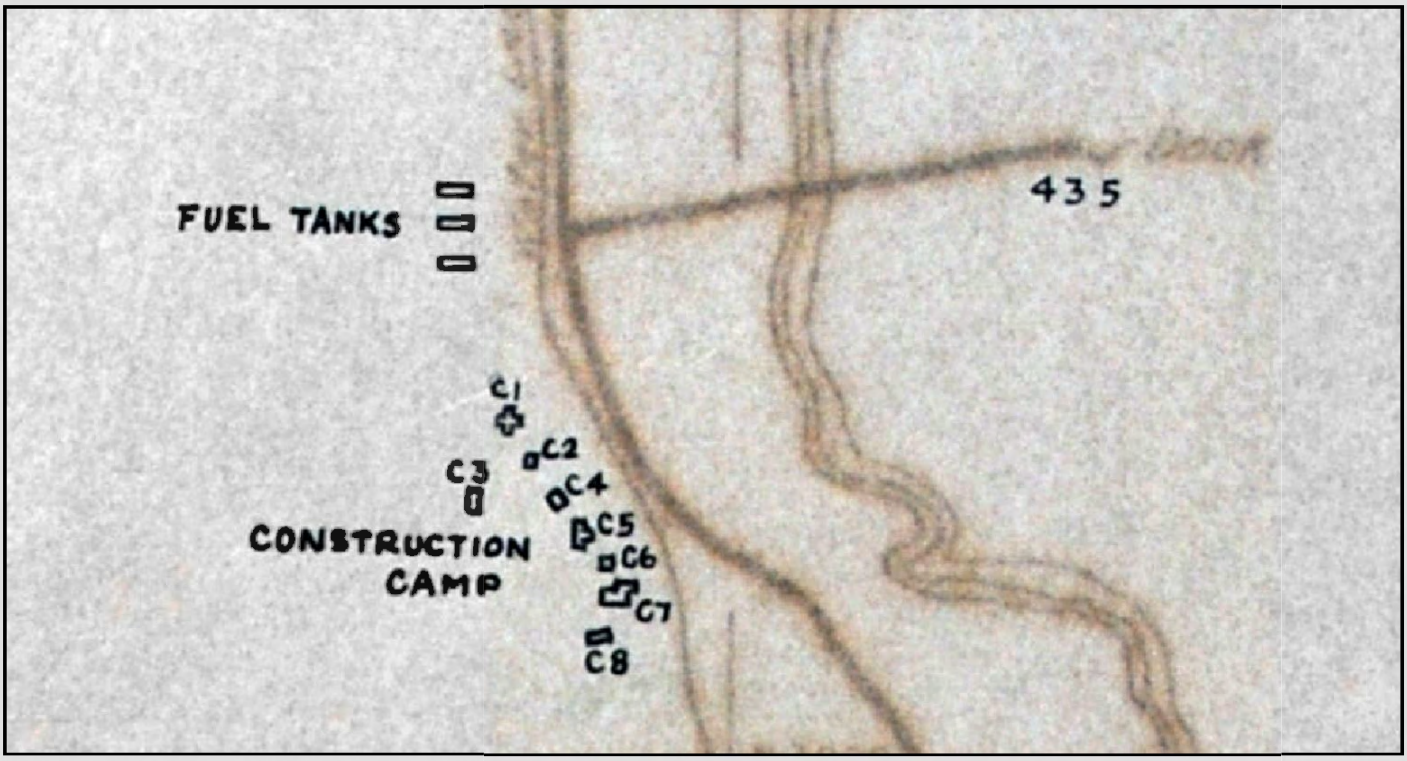


Figure 2. Construction Camp layout from 1944 Location Map.

Main Camp

The Main Camp consisted of 36 structures including barracks, storage, mess halls, a latrine, recreation halls, an infirmary, power plant, and ammunition storage (Figures 3 and 4). A 35 foot-diameter woodstave above-ground storage tank was used for water supply.

Battery 290

Battery 290 was an artillery battery that was intended to consist of two 6-inch Naval guns. The gun emplacements built for these 6-inch guns bracketed the Command Post Bunker, which was located 1,300 feet east of the Main Camp. In addition to the generators, the bunker contained two powder rooms, a plotting room, spotting room, shell storage rooms, and a latrine. Although Fort Babcock had temporary 6-inch guns however, the intended 6-inch permanent guns were never emplaced.

Power and Fuel

During World War II, there were two primary power systems at Fort Babcock. Power was supplied to Battery 290 by three diesel engines located within the Command Post Bunker, supplied by two 3,500-gallon fuel tanks. Power was supplied to the Main Camp and Construction Camp by one powerhouse running overhead primary and secondary lines (Figure 5). Utility poles and trees were used to support the powerlines, which were strung overhead. Almost every structure at the main camp was rigged with electricity with the exception of two sheds and one ammunition storage Quonset hut. The 1944 Power Plan indicates that powerlines were strung a distance of 1,800 feet running northeast from the powerhouse at the Main Camp to the Construction Camp.

BUILDING SCHEDULE

BLDG NO.	USE	TYPE	SIZE	CONSTR PLAN NO	REMARKS
401	BARRACKS-ENLISTED MEN	QH	16'X36'		
402	PLOTTING ROOM	QH	16'X36'		
403	ADMINISTRATION (BATTERY)	QH	16'X36'		
404	LOG CABIN		18'X22'		
405	OFFICERS QUARTERS	QH	16-8"X73-6"		
406	BARRACKS-ENLISTED MEN	QH	16'X36'		
407	POST EXCHANGE	QH	16'X36'		
408	BARRACKS-ENLISTED MEN	QH	17'X74'-3"		
409	BARRACKS " "	QH	16'X36'		
410	BARRACKS " "	QH	16'-8"X73'-5		
411	MESS HALL	M	16'-8"X108'-9"		
412	STORE HOUSE	QH	16'X36'		
413	BARRACKS-ENLISTED MEN	QH	16'X36'		
414	BARRACKS " "	QH	16'X36		
415	LATRINE	L	"X73'-6"		
416	BARRACKS-ENLISTED MEN	QH	16		
417	RECREATION	QH	16'X36'		
418	BARRACKS-ENLISTED MEN	QH	16'X36'		
419	SUPPLY ROOM	QH	17'-5"X		
420	BARRACKS-ENLISTED MEN	QH	16'X36'		
421	BARRACKS " "	QH	16'X36'		
422	BARRACKS " "	QH	16'X36'		
423	RECREATION		20'-3"X73'-6"		
424	INFIRMARY		20'-5"X80'-4"		
425	POWER PLANT		20X22"		
426	WATER TANK		DIA 35'		
427	RECREATION		15'X19'		
428	MESS HALL		15'X21'		
429	BARRACKS-ENLISTED MEN	QH	16'X36'		
430	BARRACKS " "	QH	16'X36'		
404A	SHED		8'X10'		
404B	"		12'X16'		
431	"		12'X16'		
432	SEARCHLIGHT SHED		12'X24'		
436	AMMO. STORAGE		24'X24'		
437	" "		12'X12'		
438	LOOKOUT		20'X20'		

Figure 3. List of Main Camp buildings from 1944 Power Plan.

Main Powerhouse

The Main Powerhouse for Fort Babcock was also known as the Power Plant and Building No. 425. It provided power for both the Construction Camp and the Main Camp. According the 1944 as-builts, it consisted of Quonset hut construction on a concrete foundation and held two generators. Today, the remains of the powerhouse are located at the southeast end of the Main Camp (Figure 6). The 20 x 22 foot concrete foundation with its built-in generator pedestals are all that remains (Figure 7). Concrete generator pedestals were a standard construction practice for World War II powerhouses. The entrance into the powerhouse was located on the south side of the structure. Electrical conduit was laid into the floor of the powerhouse, connecting to the powerlines outside of the building during its operation.

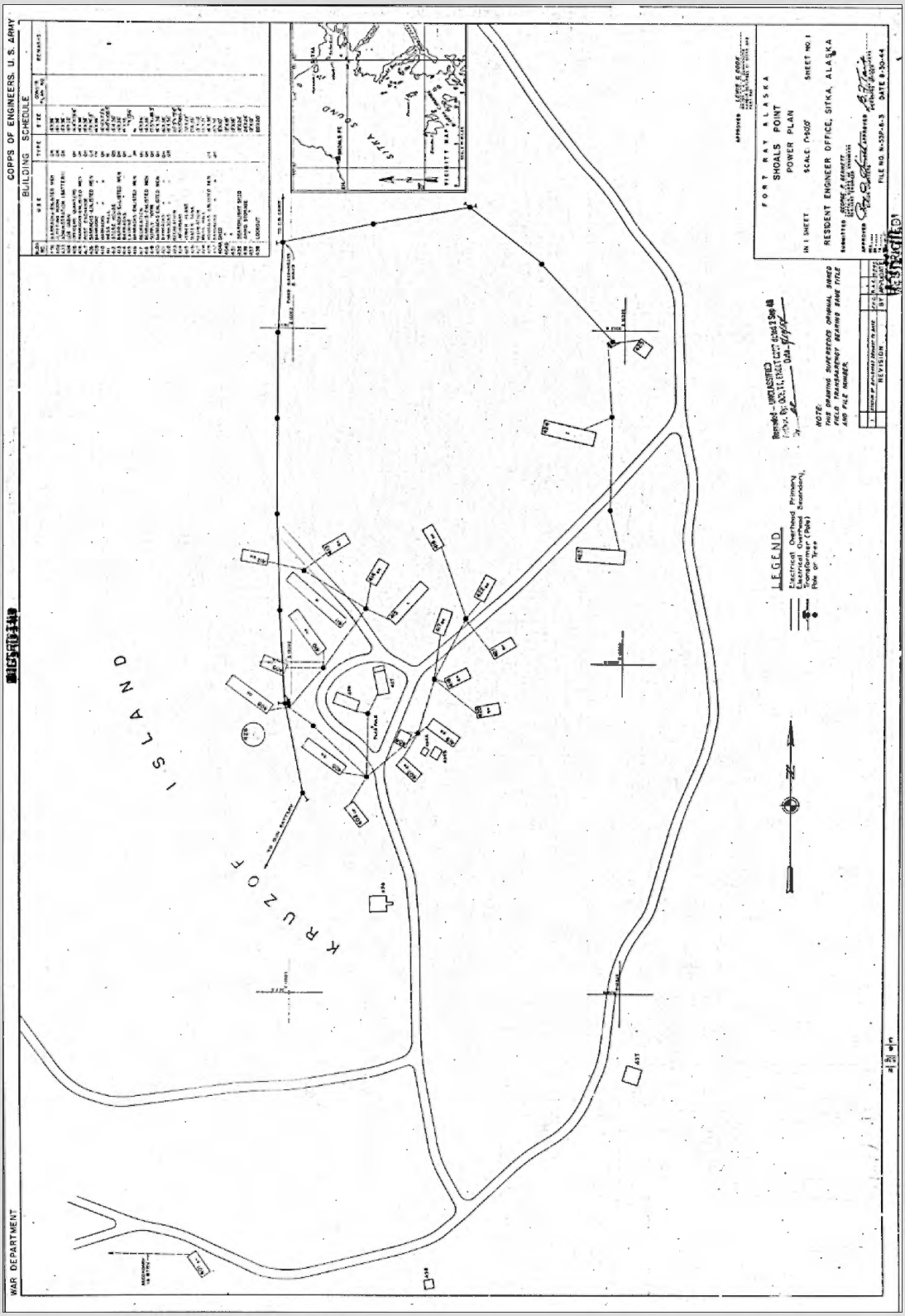


Figure 4. Main Camp Power Plan dated August 1944.

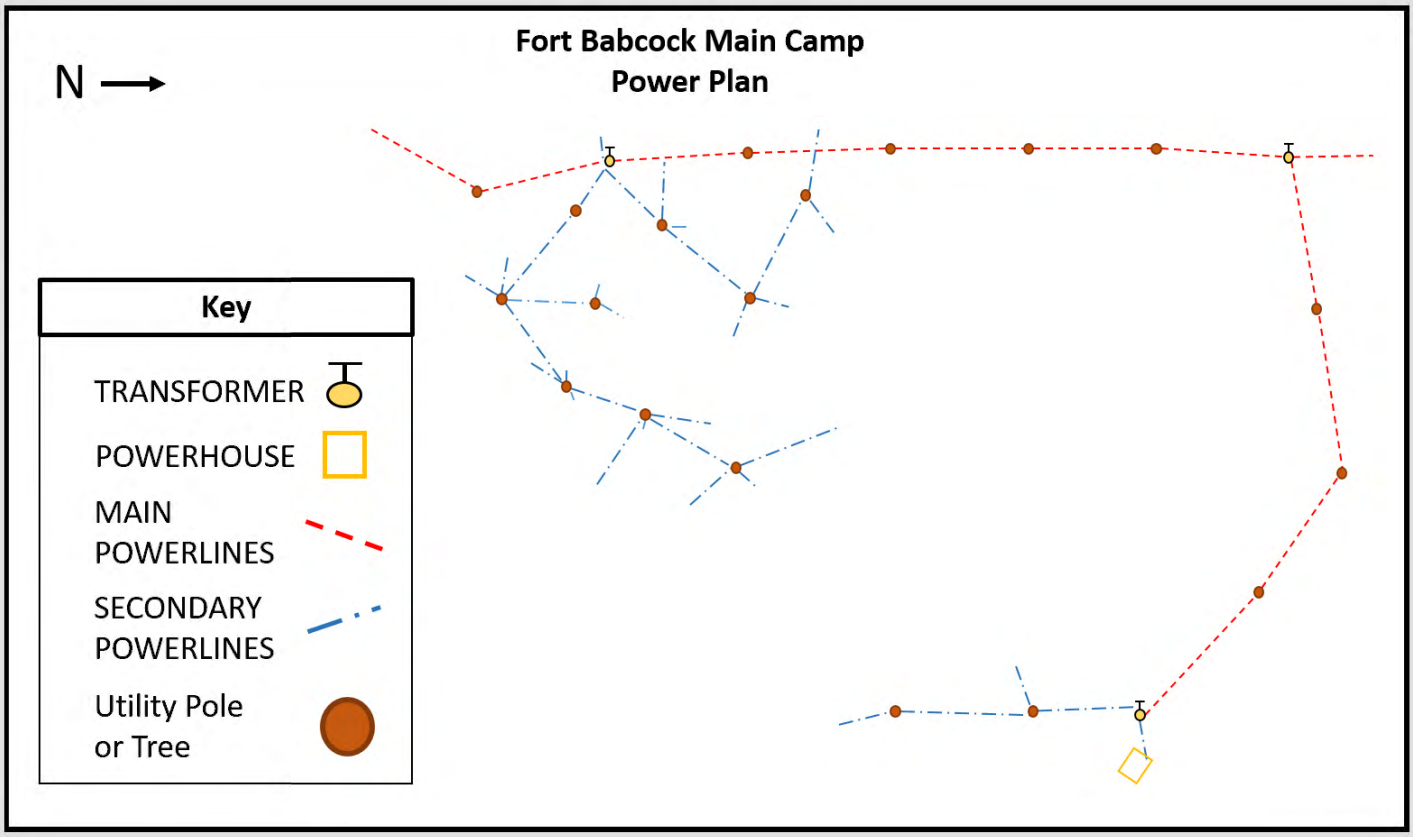


Figure 5. Fort Babcock Main Camp power plan (*after* 1944 Power Plan).

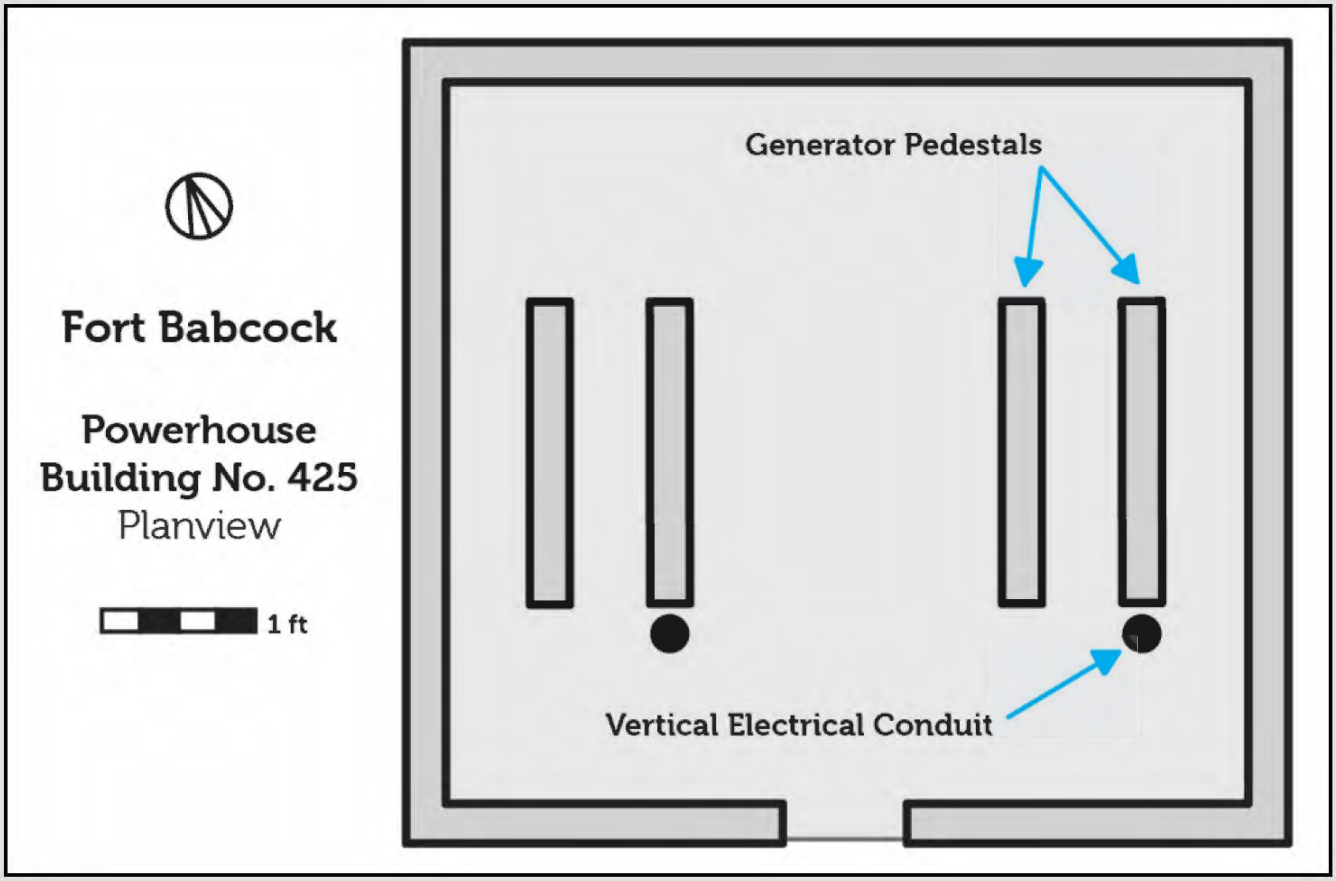


Figure 6. Main Powerhouse layout per 2013 field sketch.

Figure 7. Photograph of the Main Powerhouse foundation in 2013.

Fort Babcock Today

At the time military construction was stopped, Fort Babcock was 88% complete. Materials left at the site include construction material, an empty concrete Command Post Bunker, and support facilities including collapsed Quonset huts, collapsed wood-frame buildings, concrete building footprints, fuel tanks, and a degrading Corduroy road. The U.S. Army Corps of Engineers, Alaska District is engaged in environmental remediation activities at Fort Babcock. Remediation work includes removal of contamination related to the historic fuel and power infrastructure of the site.

Recommended Reading

Chandonnet, Fern

1995 *Alaska at War 1941-1945 The Forgotten War Remembered*. Papers from the Alaska at War Symposium Anchorage, Alaska, November 11-13, 1993. Alaska at War Committee, Anchorage, AK.

Woodman, Lyman

1996 *Duty Station Northwest: The U.S. Army in Alaska and Western Canada, 1867-1987. Volumes I, II, & III.* Alaska Historical Society, Anchorage, AK.

DEPARTMENT OF THE ARMY
ALASKA DISTRICT, U.S. ARMY CORPS OF ENGINEERS
P.O. BOX 6898
JBER, AK 99506-0898

CEPOA-PM-ESP

JAN 2 5 2021

Desiree Duncan
Native Lands and Resources Manager
Central Council of the Tlingit and Haida Indian Tribes of Alaska
9097 Glacier Hwy.
Juneau, AK 99801

Dear Ms. Duncan,

The U.S. Army Corps of Engineers, Alaska District, Formerly Used Defense Sites (FUDS) program is planning to remove contaminated soils at Fort Babcock (Sections 12 and 13, T56S, R61E, USGS Quad Sitka A-5, Copper River Meridian; Figure 1) located on Kruzof Island, near Sitka, Alaska. Fort Babcock (SIT-00457), is a component of the World War II harbor defenses for the Sitka Naval Operating Base National Historic Landmark (NHL; SIT-00079). The proposed undertaking is being conducted under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980 [42 USC § 9601 et seq].

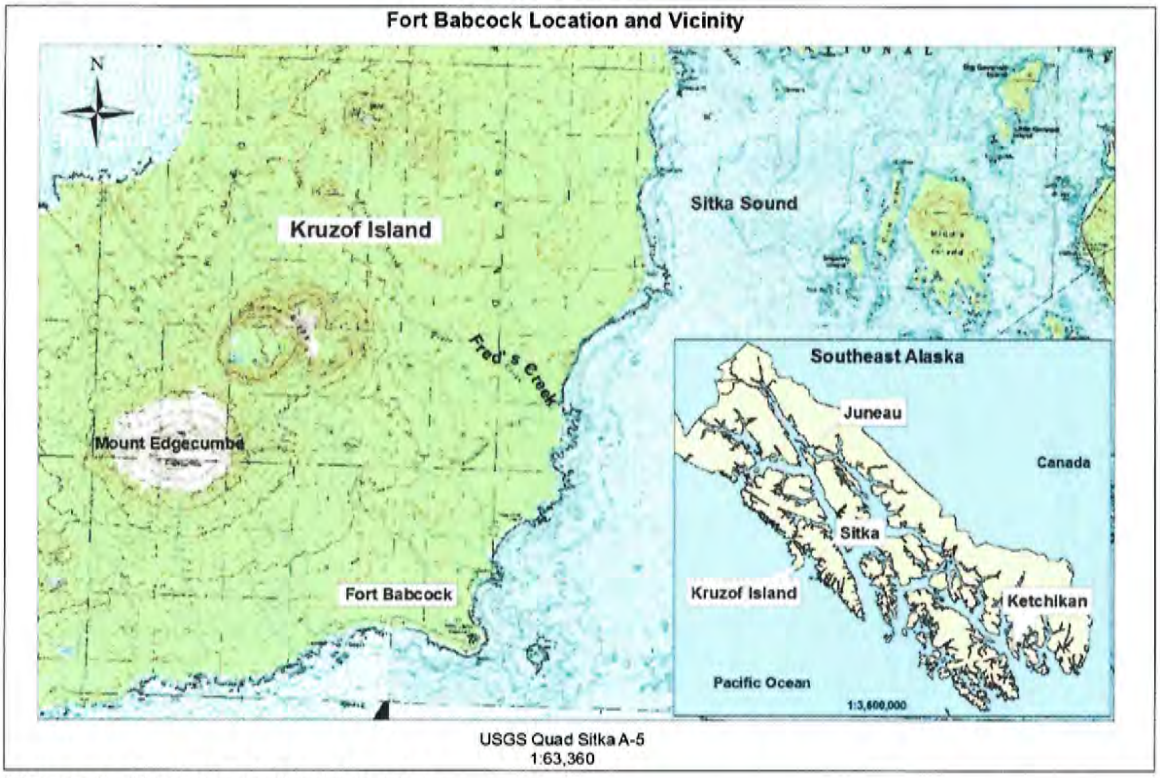


Figure 1. General project location.

Fort Babcock was first documented in 1994 by U.S. Forest Service archaeologists and assigned the AHRS number SIT-00457. In 1985, an inventory was completed by Sverdrup & Parcel and Associates, Inc. for the USACE. The USACE inspected Fort Babcock again in 1992. USACE determined Fort Babcock to be eligible as a FUDS Property in 1993 under property number F10AK0353. USACE conducted a site investigation in 1995 that included collection of soil samples associated with the 8,000-gallon above-ground storage tank (AST). A site visit in 1998 was completed to further inspect the 8,000-gallon AST. The first project under the Fort Babcock property was approved for inclusion in the FUDS Program in 2009. In 2010, USACE collected a water sample from the AST as well as surface soil samples from around the AST. In 2010, a USACE archaeologist conducted a pedestrian survey of the area; however, all records were lost upon his death. On May 3, 2012, USACE archaeologist Kelly Eldridge conducted a pedestrian survey of Fort Babcock to evaluate the eligibility of the site. In the summer of 2012, a remedial investigation (RI) of the AST and the area surrounding the AST were sampled. In January 2013, the USACE and the SHPO concurred that Fort Babcock (SIT-00457) was eligible for inclusion on the National Register of Historic Places under Criteria A and D (USACE 2013; SHPO 2013). In 2014-2017, a Phase II RI was conducted to further investigate the Fuel Storage Area in the vicinity of the AST, as well as to characterize additional features of concern that could represent potential sources of contamination. The Phase II RI determined that the former Power Plant and the Tar Drum Area contain contamination above applicable cleanup levels and require a response action in order to protect human health. A feasibility study (FS) was completed in 2018 to develop alternatives to address contamination exceeding applicable cleanup levels at Fort Babcock.

In October/November 2019 the USACE submitted its Proposed Plan (PP) for remedial action at Fort Babcock to the public, Sitka Tribe of Alaska, Sealaska Corporation, the State Historic Preservation Officer, the U.S. Department of Agriculture Forest Service, and Shee Atika Incorporated. A public meeting to present the PP was held in Sitka on November 7, 2019. The selected remedy presented in the PP has not changed and a decision document detailing the selected remedy for the site will be sent out for public review in the future. The proposed remedy includes excavation and removal with offsite disposal of soil contaminated with polychlorinated biphenyls (PCBs) at the former Power Plant as well as soil contaminated with petroleum constituents at the Fuel Storage Area (including the AST) and the Tar Drum Area.

In November 2019 the Alaska SHPO commented on the Proposed Plan that the USACE prepare a public interpretation product that might be of benefit to visitors to the site, such as a pamphlet. The USACE prepared an informational paper that could be printed or hosted on a website concerning the fuel and power infrastructure of Fort Babcock. In November 2020 the SHPO requested information be added to the paper regarding how Fort Babcock fit into the coastal defense plan around Sitka. The USACE drafted additional information and updated the paper which was submitted to the SHPO in December 2020 and accepted in January 2021. The land is currently under the jurisdiction of the U.S. Forest Service, Tongass National Forest. The Forest Service has also expressed interest in use of the informational paper to educate the public about the

site's history and a copy of the information paper was also submitted to the U.S. Forest Service.

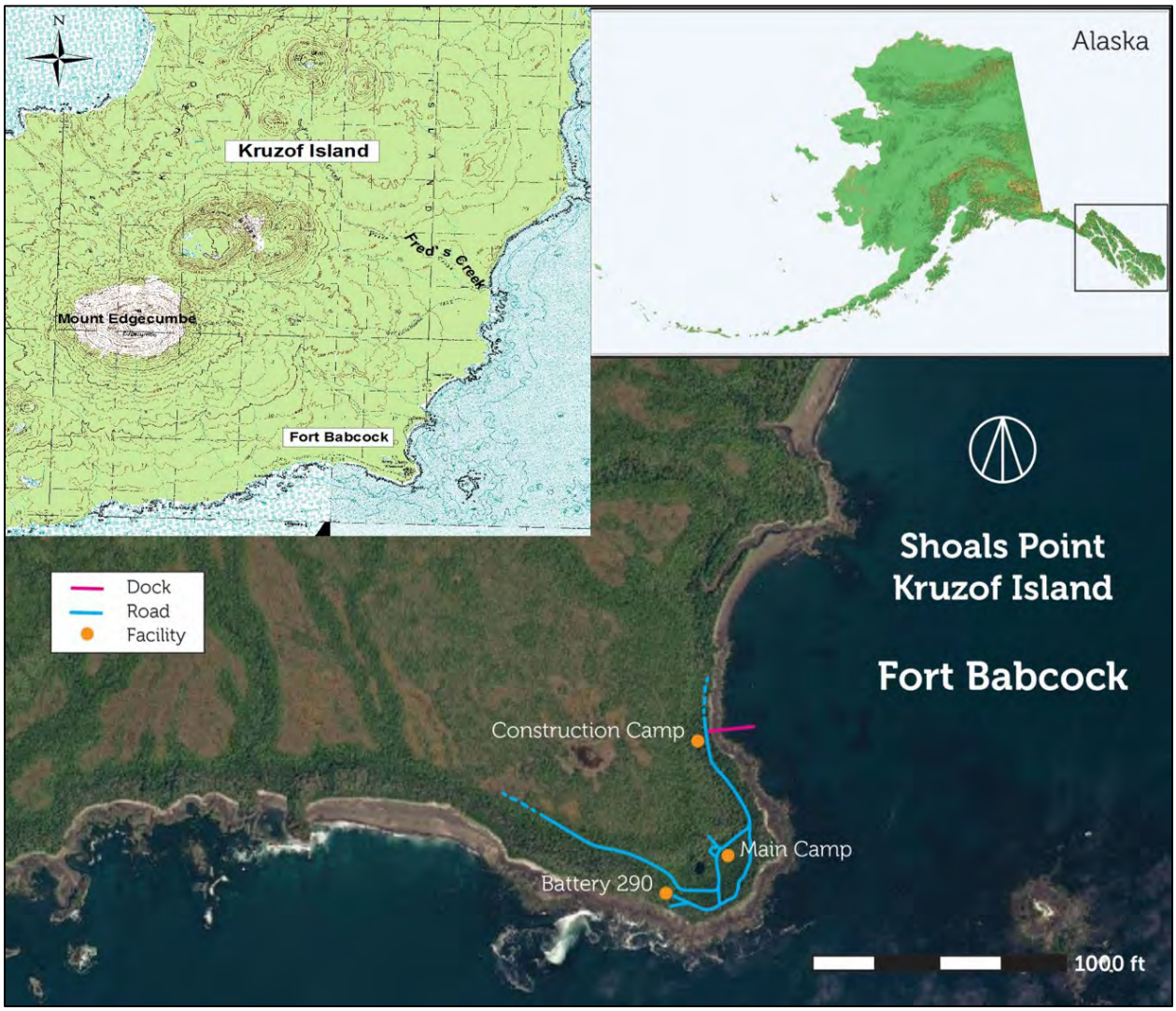


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Table 1. Cultural resources reported in AHRS within general vicinity of project area.

AHRS #	Site Name	NRHP Status	In project area?
SIT-00062	Neva Shipwreck	Unevaluated	No
SIT-00457	Fort Babcock	Eligible	**Yes**
SIT-00499	Fred's Creek Shelter	Eligible	No

SIT-00508	Petroglyph	Unevaluated	No
SIT-00669	Orthodox Cross	Unevaluated	No
SIT-00789	Shipwreck Chilkat	Unevaluated	No
SIT-00963	Neva Wreck Camp	Eligible	No
SIT-01025	Fort Babcock Powerhouse	Unevaluated	**Yes**
SIT-01026	Fort Babcock AST	Unevaluated	**Yes**

I have enclosed a copy of the informational paper on Fort Babcock's history for your review. More focused maps of Fort Babcock can be found in the information paper. Please feel free to contact me with any cultural resources concerns you may have for the project. If you have any questions regarding the cultural resources aspects of the project, please contact me by phone at (907) 753-2736 or by email at forrest.j.kranda@usace.army.mil. If you have project detail related questions, please contact the project manager Beth Astley by email at beth.n.astley@usace.army.mil or by phone at (907) 753-5782.

Sincerely,

Forrest J. Kranda
Archaeologist
Environmental and Special Projects

cc:
Michelle Metz, Lands Manager, Sealaska Corporation
Jeff Feldpausch, Director, Resource Protection Dept., Sitka Tribe of Alaska
Tammy Young, Cultural Coordinator, Resource Protection Dept., Sitka Tribe of Alaska
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Karl Potts, President/CEO, Shee Atika Corporation
James Poulson, Secretary, Sitka Historic Preservation Commission

References

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2013. Letter to SHPO (Judith Bittner) re: Ft. Babcock (SIT-457) DOE. January 2, 2013.

DEPARTMENT OF THE ARMY
ALASKA DISTRICT, U.S. ARMY CORPS OF ENGINEERS
P.O. BOX 6898
JBER, AK 99506-0898

CEPOA-PM-ESP

JAN 2 5 2021

Michele Metz
Lands Manager
Natural Resources, Haa Aani, LLC
Sealaska Corporation
One Sealaska Plaza, Suite 400
Juneau, AK 99801

Dear Ms. Metz,

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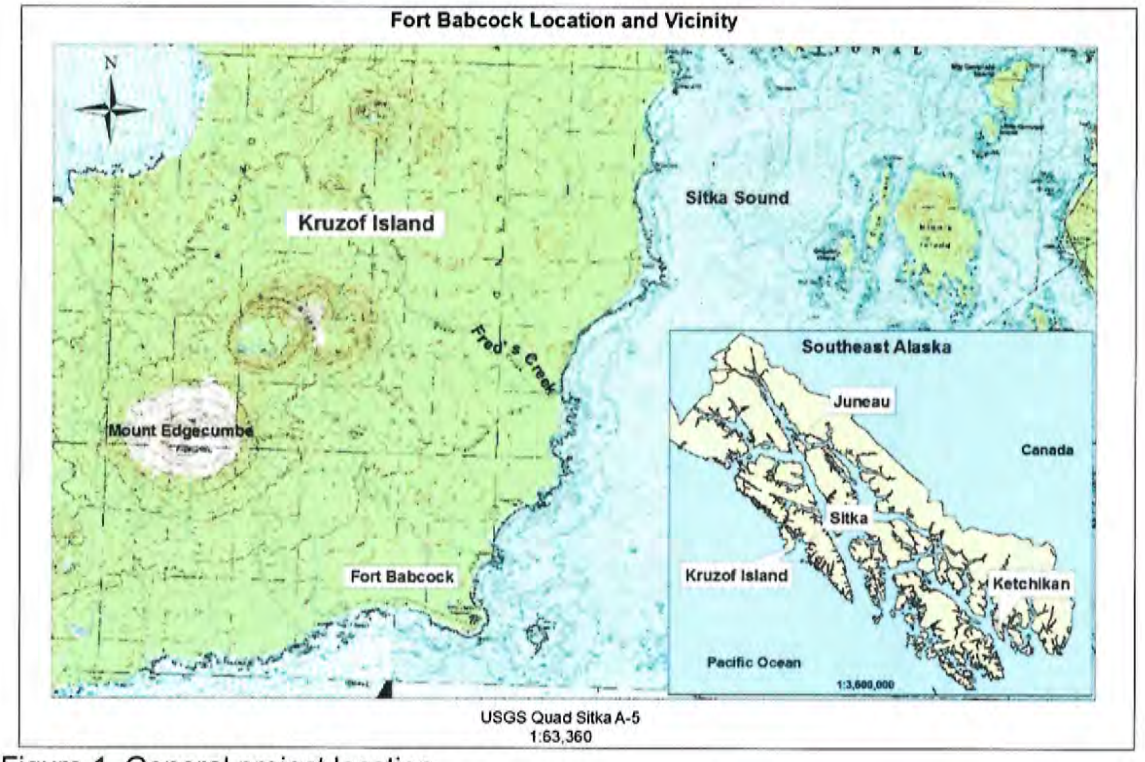

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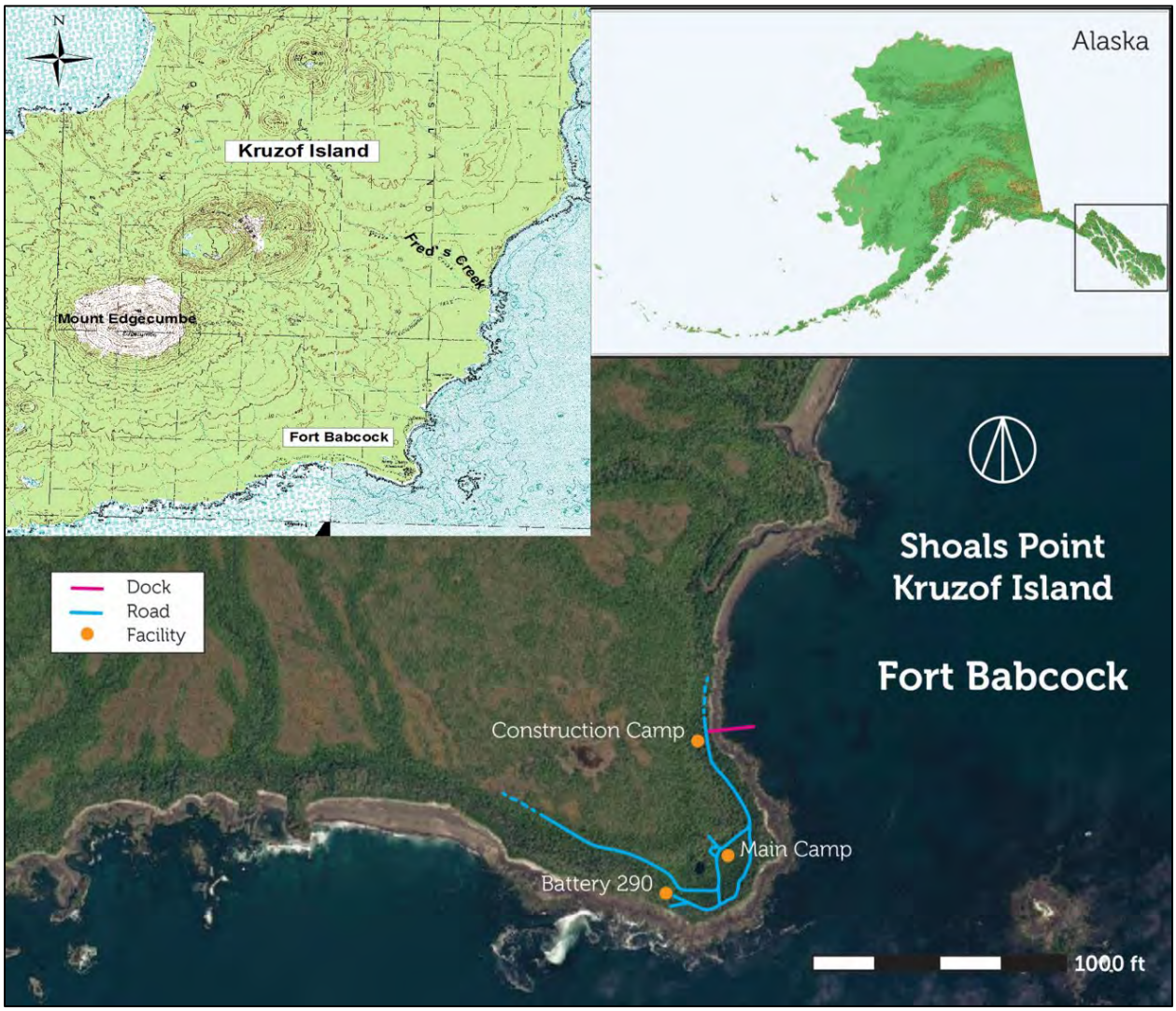

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Sincerely,

Forrest J. Kranda
Archaeologist
Environmental and Special Projects

cc:
Michelle Metz, Lands Manager, Sealaska Corporation
Jeff Feldpausch, Director, Resource Protection Dept., Sitka Tribe of Alaska
Tammy Young, Cultural Coordinator, Resource Protection Dept., Sitka Tribe of Alaska
Desiree Duncan, Native Lands and Resources Manager, Central Council of the Tlingit and Haida Indian Tribes of Alaska
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DEPARTMENT OF THE ARMY
ALASKA DISTRICT, U.S. ARMY CORPS OF ENGINEERS
P.O. BOX 6898
JBER, AK 99506-0898

CEPOA-PM-ESP

JAN 25 2021

Karl Potts
President and CEO
Shee Atika, Incorporated
315 Lincoln Street, Suite 300
Sitka, Alaska 99835

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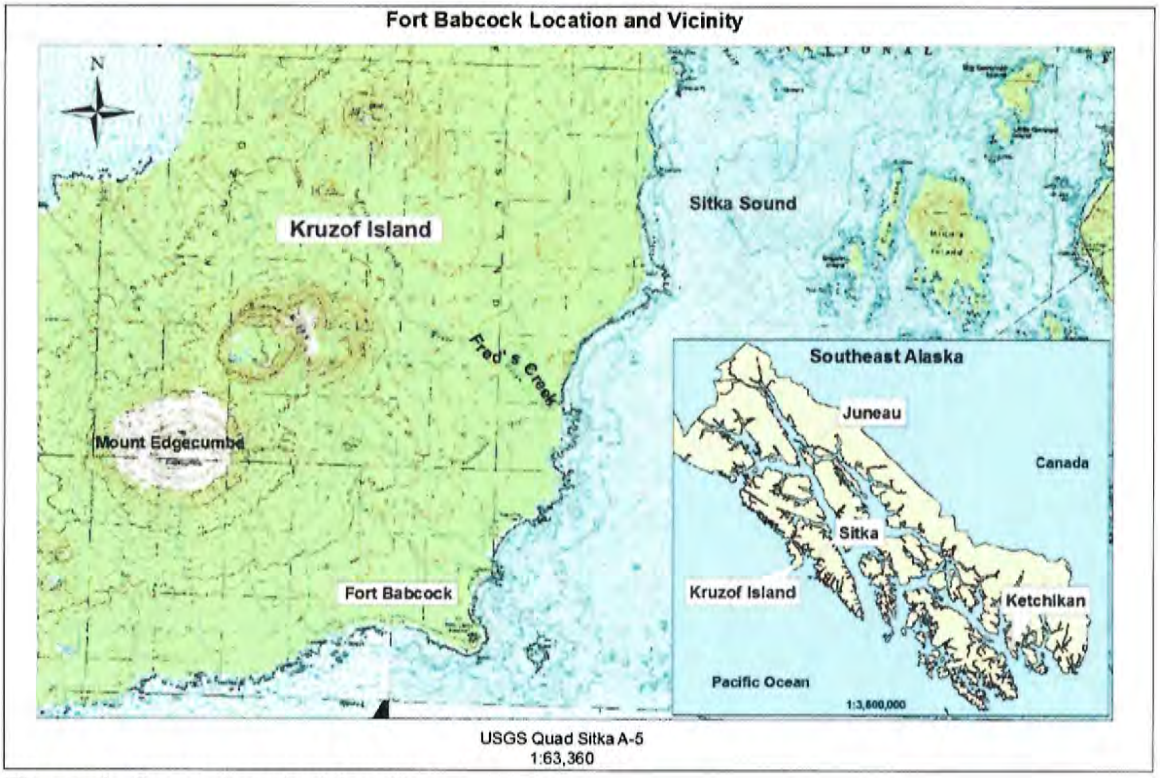

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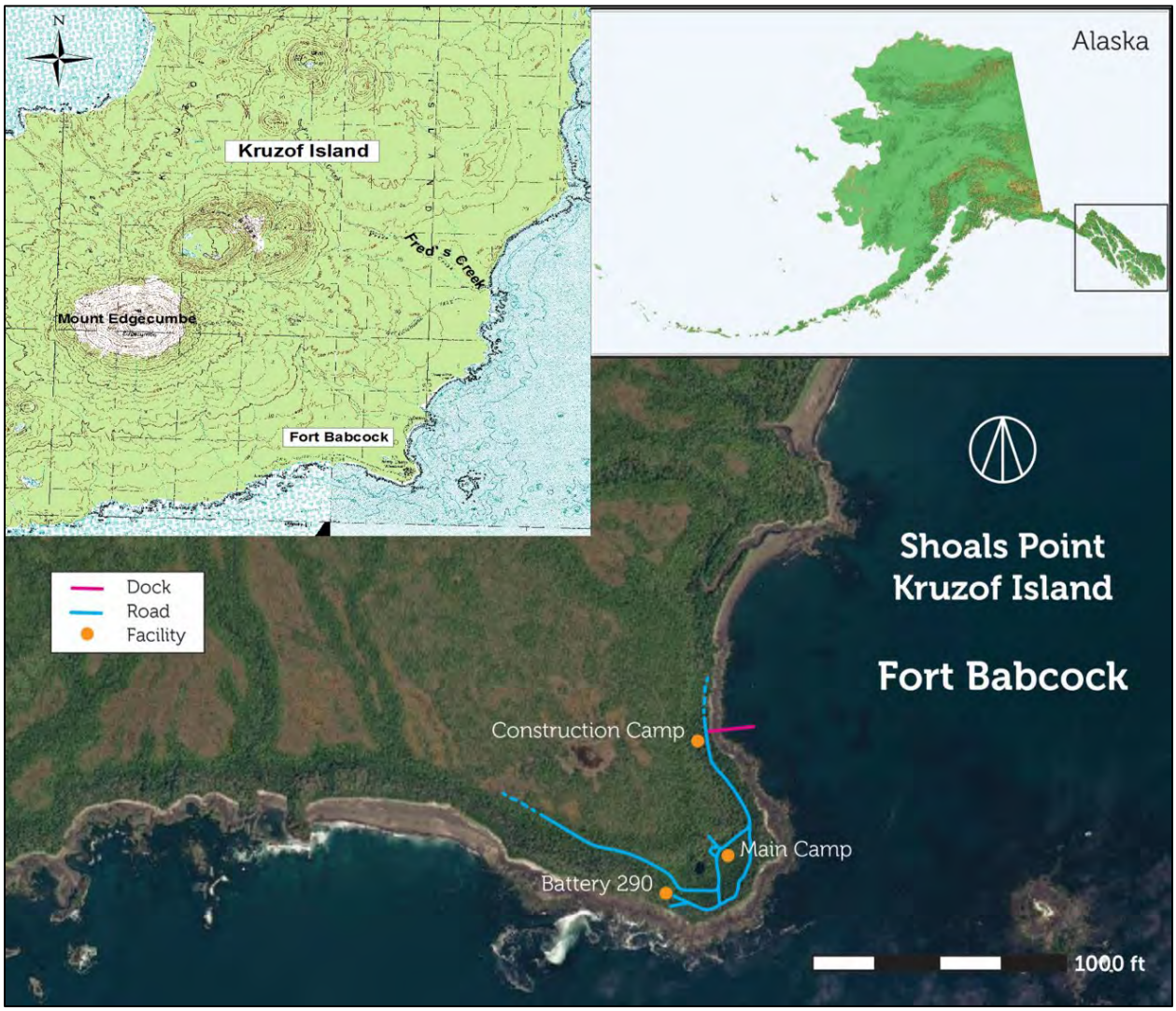

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Forrest J. Kranda
Archaeologist
Environmental and Special Projects

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DEPARTMENT OF THE ARMY
ALASKA DISTRICT, U.S. ARMY CORPS OF ENGINEERS
P.O. BOX 6898
JBER, AK 99506-0898

CEPOA-PM-ESP

JAN 2 5 2021

James Poulson
Secretary
Sitka Historic Preservation Commission
100 Lincoln Street
Sitka, AK 99835

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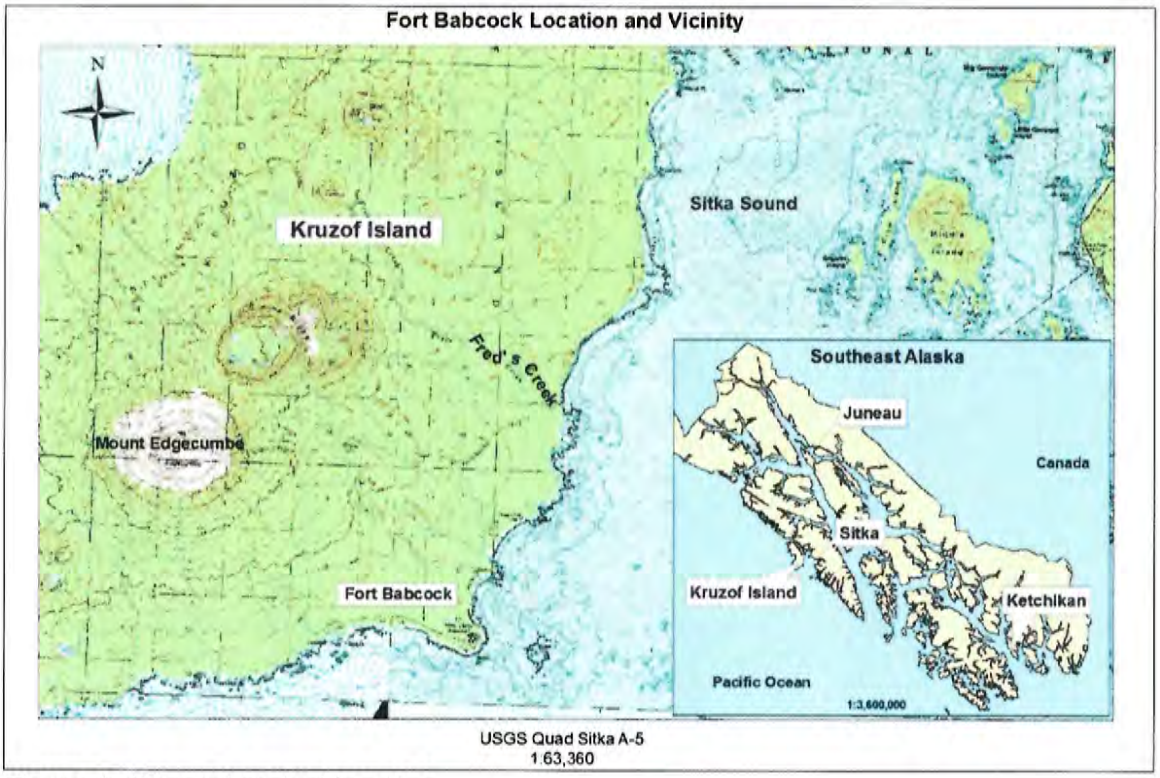

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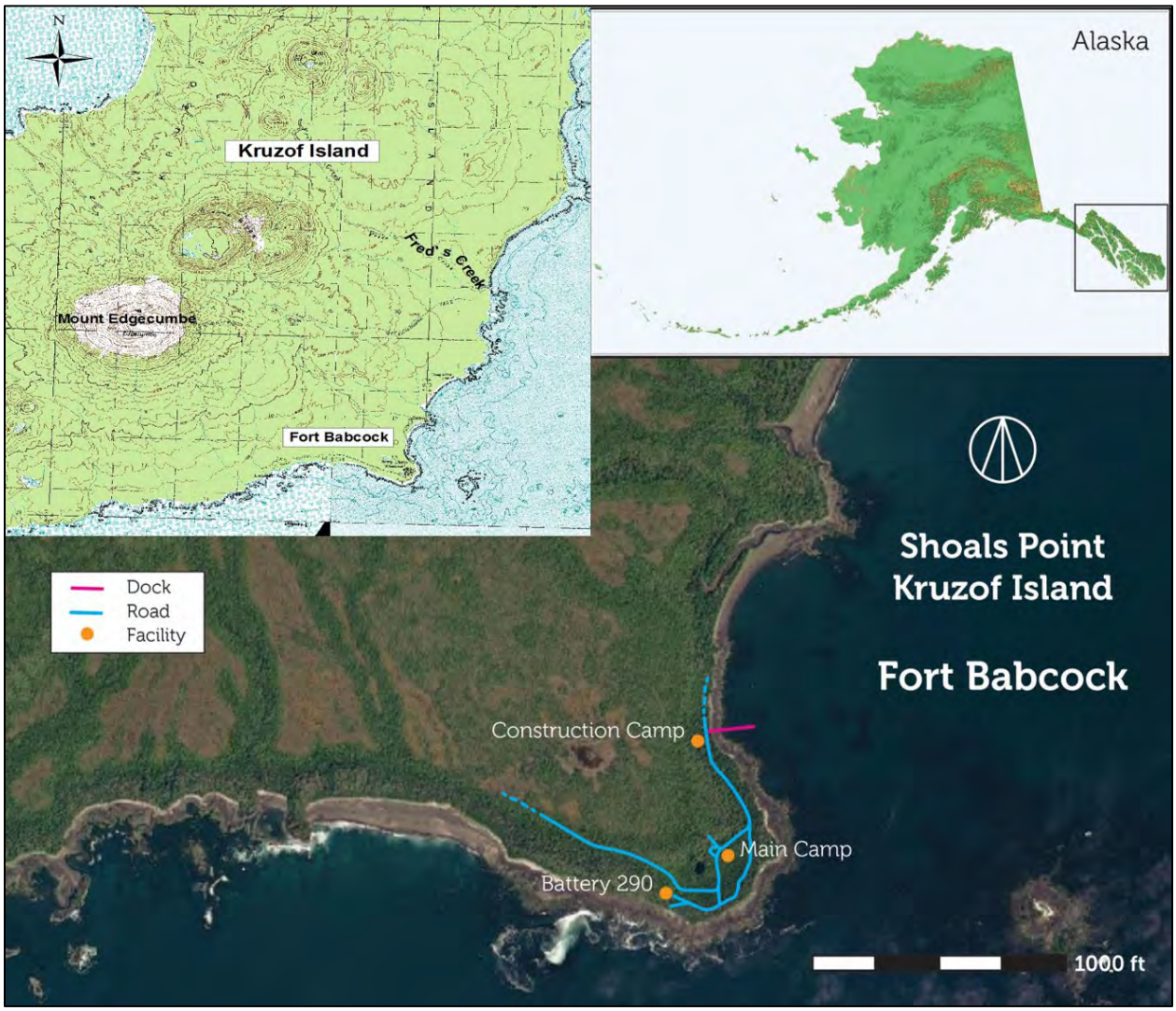

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Sincerely,

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P.O. BOX 6898
JBER, AK 99506-0898

CEPOA-PM-ESP

JAN 25 2021

Tammy Young
Cultural Coordinator
Resource Protection Department
Sitka Tribe of Alaska
456 Katlian Street
Sitka, AK 99835

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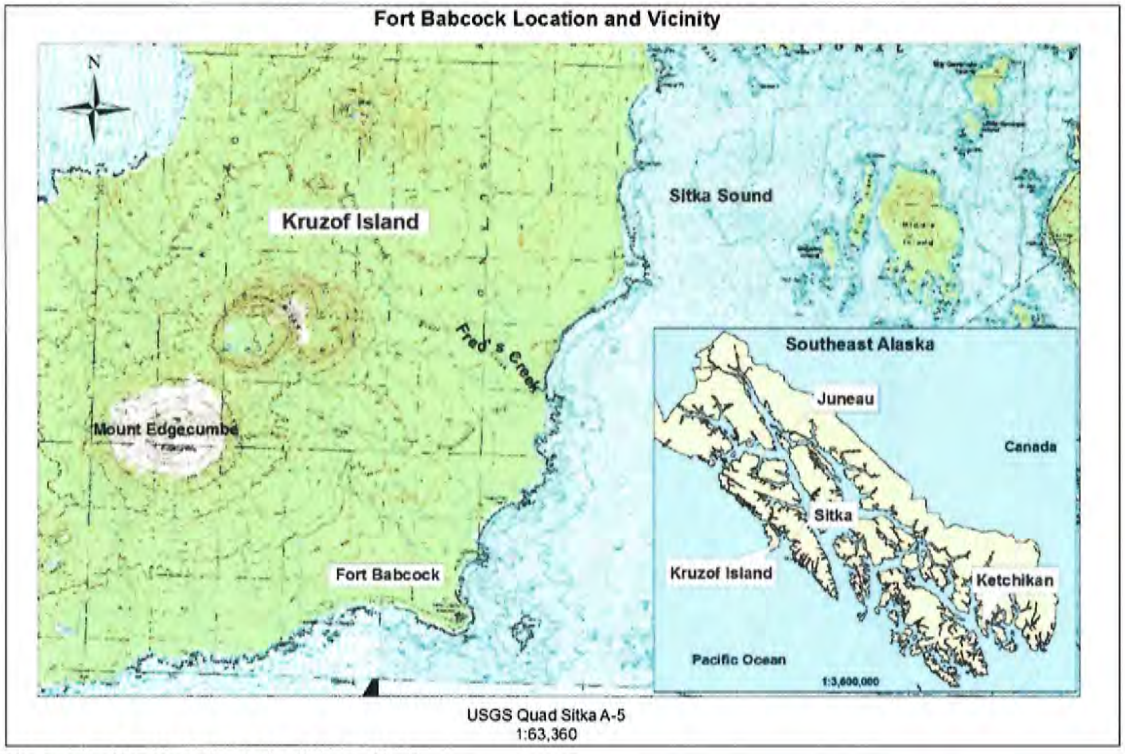

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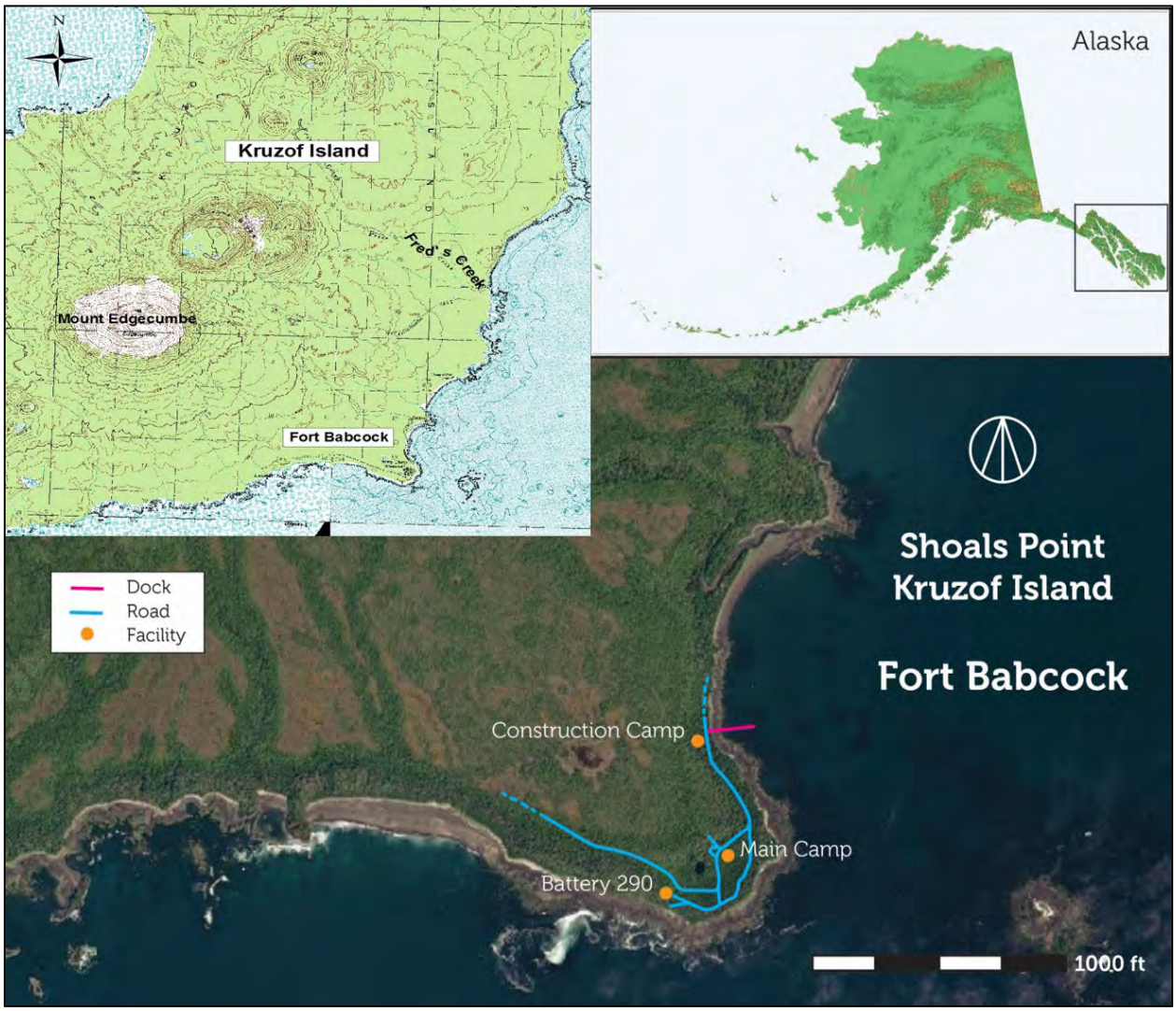

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CEPOA-PM-ESP

JAN 25 2021

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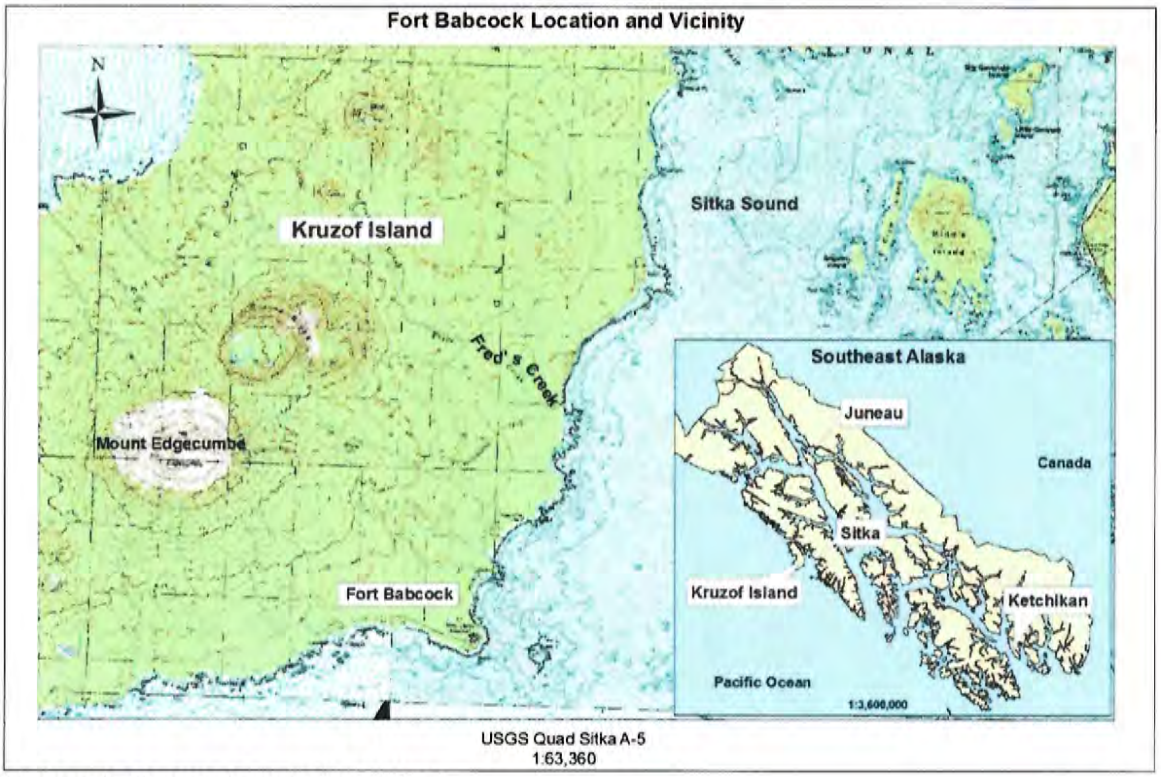

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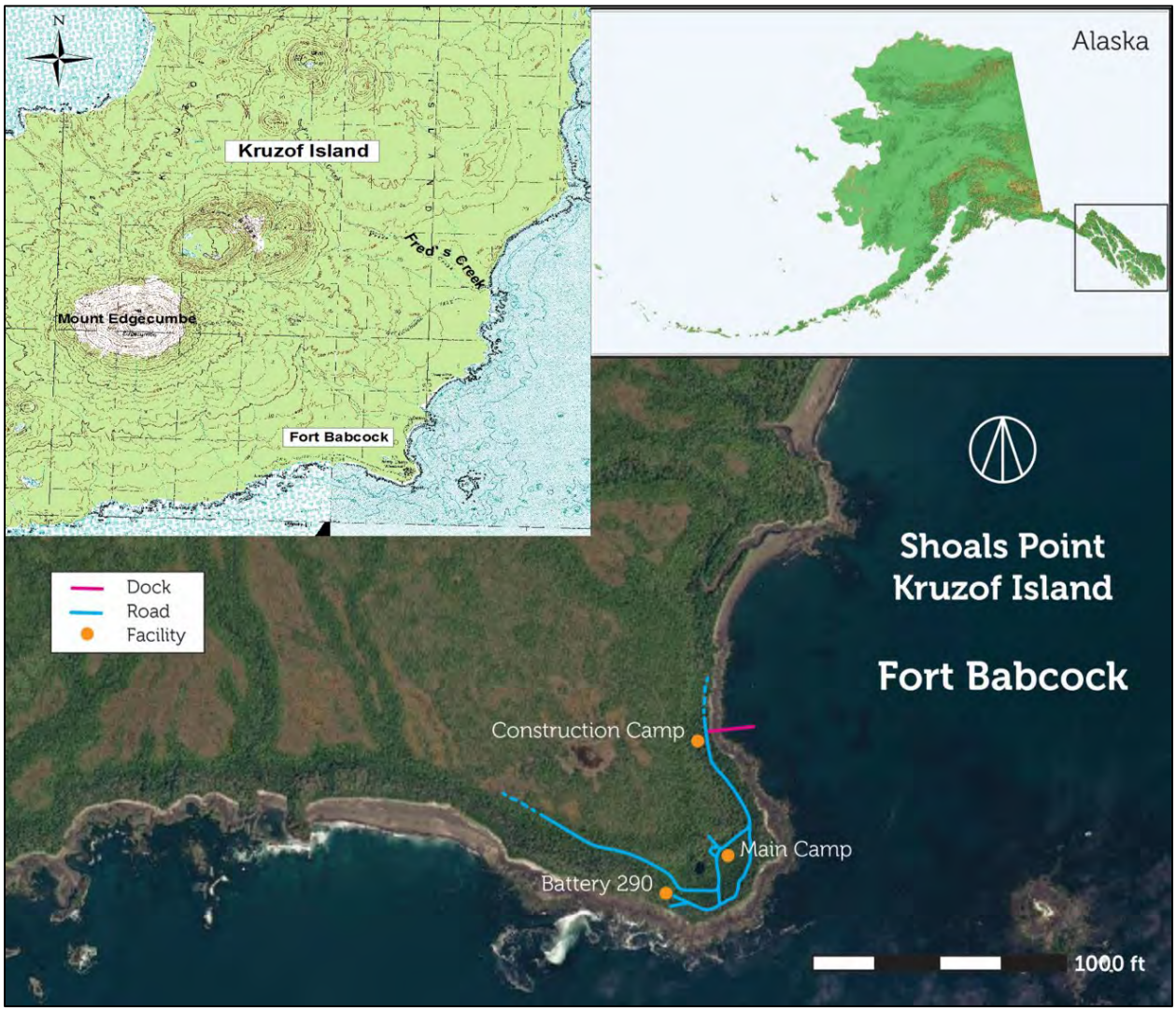

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