Proposed Plan

Sanak Island Army Aircraft Warning Service Station Disposal Site Sanak Island, Alaska

Formerly Used Defense Site
FUDS Project Number F10AK020402

Public Comment Period
22 February 2024 — 25 March 2024

Public Meeting
28 February 2024 at 6:30 pm
City Chambers
City of Sand Point Municipal Building
Sand Point, Alaska
Attend in person or virtually.
Accessibility information can be found at:
http://tinyurl.com/bdz7yk7x

You are encouraged to comment on this Proposed Plan. The USACE will accept written, email, and voicemail comments during the public comment period, as well as verbal comments provided at the public meeting. Comment letters must be postmarked by 25 March 2024.

Submit comments via:

- Phone: 1 (888) 446-5066
- Mail to the following address:

  USACE Alaska District
  ATTN: CEPOA-PM-ESP-FUDS (Astley)
  P.O. Box 6898
  JBER, AK 99506-0898
- Email to the following address: POA-FUDS@usace.army.mil

This Proposed Plan can be found at: https://www.poa.usace.army.mil/Library/Reports-and-Studies under "Environmental Cleanup"

The information summarized in this Proposed Plan can be found in greater detail in the Feasibility Study (USACE 2022b) and other documents contained in the Administrative Record file at the **Pauloff Harbor Tribal Office** in Sand Point, Alaska, and at the **USACE Alaska District Office** at 2204 Talley Avenue at Joint Base Elmendorf-Richardson in Anchorage, Alaska.

Your participation and comments are encouraged.

INTRODUCTION

The U.S. Army Corps of Engineers (USACE), as the lead execution agency, requests your comments on this Proposed Plan for removal and offsite disposal of contaminated soil from the "Disposal Site" (DS) at the Sanak Island Army Aircraft Warning Service (AWS) Station Formerly Used Defense Sites (FUDS) Property (FUDS Project Number F10AK020402), located on Sanak Island, Alaska (Figure 1). This Proposed Plan identifies the Preferred Alternative for addressing contamination at the site and provides the rationale for this preference. It also summarizes other alternatives evaluated. Twelve site features have been identified at the DS. This Proposed Plan focuses on the two DS features where the potential for unacceptable risk was identified, DS01 and DS04. No other DS sites require further action.

The Proposed Plan was prepared in accordance with the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). It follows requirements from Engineer Regulation (ER) 200-3-1, FUDS Program Policy (USACE 2020; USACE 2022a), and U.S. Environmental Protection Agency (EPA) guidance (EPA 1999). The Sanak Island AWS Station DS is a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) site; however, it is not listed on the National Priorities List. USACE is issuing this Proposed Plan as part of its public participation responsibilities under CERCLA. The purpose of the Proposed Plan is to describe the:

- Environmental conditions and site risks;
- Proposed cleanup criteria;
- Previous investigations and debris/soil removal;
- Remedial alternatives considered, and comparative evaluations;
- Preferred remediation alternative; and to
- Request public comment on the remedial alternatives and provide information on how the public can be involved in the final decision.

CONTENTS

FORMERLY USED DEFENSE SITES

FUDS are properties that were owned by, leased to, or otherwise possessed by the United States and under the jurisdiction of the Secretary of Defense that were transferred from the U.S. Department of Defense control prior to 17 October 1986. FUDS properties range from privately owned lands to state or Federal lands such as national parks as well as residential land, schools and industrial areas. The FUDS program includes former Army, Navy, Marine, Air Force, and other defense-used properties. Over 500 FUDS have been identified in Alaska.

The U.S. Department of Defense is authorized to carry out an environmental restoration program at former military sites under the Defense Environmental Restoration Program, which includes cleanup efforts at FUDS. USACE is the lead execution agency under CERCLA. The Alaska Department of Environmental Conservation (ADEC) is the support agency. This Proposed Plan addresses polychlorinated biphenyl (PCB) contamination in soil at two of the twelve features within the DS at the Sanak Island AWS Station FUDS (DS01 and DS04). There are 12 features identified within the DS (DS01 through DS12). This Proposed Plan will focus on the two features with potential for unacceptable risks, DS01 and DS04. More information is available in the Administrative Record file at the Pauloff Harbor Tribal Office in Sand Point, Alaska, and at the USACE Alaska District Office at 2204 Talley Avenue at Joint Base Elmendorf-Richardson in Anchorage, Alaska.

Although this Proposed Plan presents the USACE's preferred alternative for remediating features at the DS, USACE may modify or select another remedial alternative based on new information or public comment. Final remedy selection will be made only after the public has had an opportunity to comment. Therefore, the public is encouraged to review and comment on all the alternatives presented in the Proposed Plan and the rationale for the preferred alternative. After considering all public comments, USACE will prepare a Responsiveness Summary that will include responses to all significant public comments. Changes to the proposed approach may be made through this comment review process, which highlights the importance of community involvement. A Record of Decision will describe the selected remedy.

SITE BACKGROUND

The Sanak Island AWS Station DS is located on the north side of Sanak Island, the largest island in the Sanak Island group, approximately 54 miles south of Cold Bay, near the end of the Alaska Peninsula (Figure 1). Sanak Island is remote with limited resources and accessible only by boat or plane. The Department of the Army established the Sanak Island AWS Station DS near the village of Pauloff Harbor in 1943 to provide advance warning to the military bases at Cold Bay. While much of the Sanak Island population dispersed in the 1930s and 1940s with the decline of the cod fishing industry, the Pauloff Harbor community persisted through World War II. The Army abandoned the Sanak Island AWS Station DS in 1946 and the last permanent residents left the island in 1980. Very few roads and limited infrastructure are present on the island.

The Sanak Corporation holds the surface rights for the conveyed portions of Sanak Island and provides overall land management. The Aleut Corporation holds the subsurface rights. The island is currently uninhabited with use limited to periodic visits by members of the Sanak Corporation and the Pauloff Harbor Tribe (PHT) for cultural, recreational, and subsistence activities including gathering, fishing, hunting, recreation, and cattle grazing. The Sanak Corporation and PHT are interested in potential economic or residential development at Sanak Island. The PHT has developed an economic development plan that includes cattle ranching.

At Sanak Island, the materials overlying bedrock contain sandy silts or silty sands with various amounts of organics, trace fines, gravels, cobbles, and boulders. Surficial soils have been classified as loamy, very dark, acidic soils with high organic content. Additionally, the groundwater is mainly a smooth parallel flow along the bedrock-soil interface. The direction of groundwater flow is consistent with ground surface topographic contours. The surface water hydrology is characterized by lakes, streams, seeps, and wetland areas (USACE 2016).

FIGURE 1
DISPOSAL SITE LOCATION
PROPOSED PLAN, SANAK AWS DS FUDS
Sanak Island, Alaska

SITE CHARACTERISTICS

This Proposed Plan focuses on two of the twelve features at the DS, DS01 and DS04. The approximately 2.8 -acre DS is northwest of Pauloff Harbor and east of the Sanak Island AWS Station (Figure 1). DS01 is approximately 1,700 square feet and DS04 is approximately 100 square feet (Figure 2). Currently, the remains of former Department of Defense structures and features are dilapidated or non-existent; many former buildings are only identifiable by ground depressions and scattered building material. This Proposed Plan discusses contamination at DS features DS01 and DS04 (Figure 2).

- ◊ The primary site feature at **DS01** is an approximately 20-foot by 17-foot earthen pit surrounded by tundra vegetation in the southern portion of the DS that once contained electrical equipment, a partial drum, pieces of a potential transformer, and other miscellaneous debris.
- ◊ The primary site feature at **DS04** is an approximately 17-foot by 12-foot mounded pit with bare soil in the middle along the southern portion of six suspected waste burial sites that once contained rusted metal remnants and glass debris.

Sources of contamination are suspected to include spills, leaks, or direct discharge from transformers, drums, electrical equipment, or other debris observed within the two disposal areas. Impacted media include surface and subsurface soil.

Soil at both DS01 and DS04 has been analyzed for petroleum hydrocarbons (gasoline range organics [GRO], diesel range organics [DRO], and residual range organics [RRO]), volatile organic compounds (VOCs), polyaromatic hydrocarbons (PAHs), semi-volatile organic compounds (SVOCs), PCBs, pesticides, and target metals (silver, arsenic, barium, cadmium, chromium, mercury, lead, selenium, nickel, and vanadium). Total chromium, DRO, lead, and PCBs were detected above screening levels in soil at DS01. PCBs were detected above screening levels in soil at DS04. Concentrations of PCBs remain above the Toxic Substance Control Act (TSCA) 40 Code of Federal Regulations [CFR] 761.61 (a)(4)(i)(A) cleanup level of 1 part per million (ppm) for a high occupancy area in soil at both DS01 and DS04 following a limited Containerized Hazardous, Toxic, and Radioactive Waste (CON/HTRW) removal action performed in 2014.

Polychlorinated Biphenyl (PCB)

PCBs are chemical compounds formerly used in industrial and consumer products that can have both carcinogenic and non-carcinogenic effects at low concentrations.

Surface water samples collected from Charlie Connors Lake were analyzed for GRO, DRO, RRO, VOCs, SVOCs, PAHs, PCBs, and metals. There were no screening level exceedances (ODUSD 2011; USACE 2013). No sediment samples were collected due to rocky shore conditions. Groundwater samples collected from around and within the DS were analyzed for petroleum hydrocarbons, VOCs, SVOCs, PAHs, PCBs, pesticides, and target metals. No chemicals of concern (COCs) were identified in groundwater.

PREVIOUS INVESTIGATIONS

Various parties, including USACE, conducted site reconnaissance and inventory between 1985 and 2004. Between 2006 and 2010, work to identify and investigate potential contamination associated with the Sanak Island AWS Station FUDS was conducted by other (non-USACE) entities. The property was identified as FUDS-eligible in 2010 and USACE cleanup activities began afterward in 2012. Site activities conducted at DS01 and DS04 from 2006 through 2014, along with follow-on reporting, are summarized below:

2002 and 2004 Site Reconnaissance (PHT of Sanak and APIA 2005) – A site visit was conducted in 2002 by PHT and again in 2004 by representatives of PHT and the Aleutian Pribilof Islands Association (APIA). The 2004 site visit included Pauloff Harbor Village, Lighthouse Point, a dump site, and a suspected powerhouse site. Items of concern included batteries, suspected lead-wrapped cable, old drums, and discarded electrical equipment. Six distinct disturbed areas were identified at a dump site that appeared to be part of a larger dump complex. A suspected transformer, electrical equipment, rusted drums, and miscellaneous debris were observed. It was unknown at the time whether the dump site was associated with military activities. Future sampling was recommended.

2006 Battery Clean-up and Soil Sampling (ODUSD 2009; ODUSD 2011; PHT of Sanak and APIA 2007) – In May 2006, representatives from PHT and APIA conducted a battery clean-up of the former Pauloff Harbor Village and Lighthouse Point areas and collected soil samples from locations suspected to be contaminated. During the 2006 field effort, six separate disturbed areas with debris were observed at the Suspected Military Dump Site (subsequently referred to as the Disposal Site by USACE), and a suspected transformer and oil, other electrical equipment, a knife, Army boots and old rusted drums were reportedly found. One partially buried drum was found filled with used oil cans, and stained soil was observed directly below debris. There were areas of no vegetation within the ground depression. Three soil samples were collected from the dump site and analyzed for lead, PCBs, DRO, RRO, and PAHs. PCBs and DRO were detected above screening levels in two of the three samples (a primary and duplicate at DS01), and lead in one sample. RRO and PAHs were not detected above screening levels.

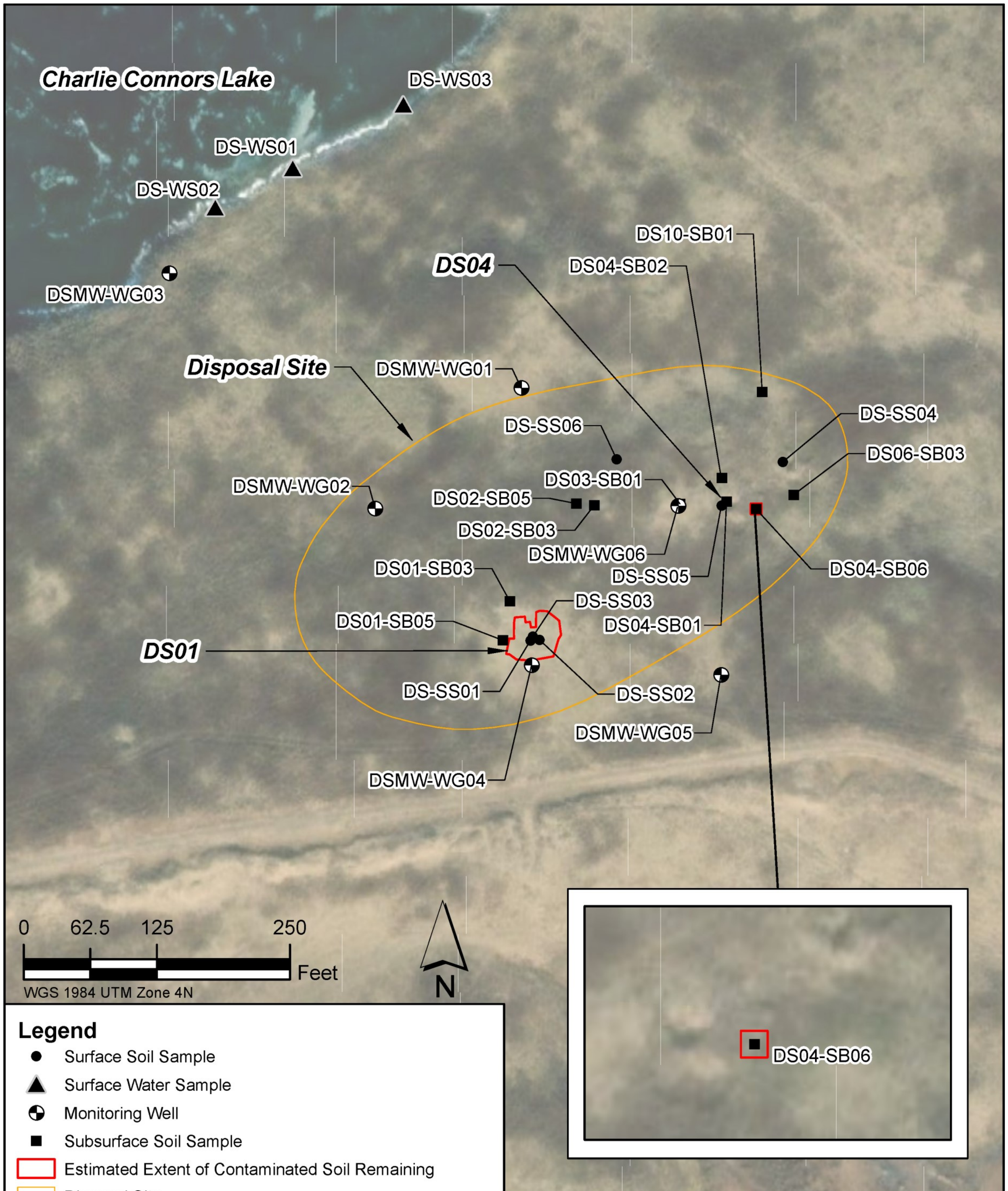
2007 Debris Removal (ODUSD 2011) – The PHT and APIA conducted a drum and debris cleanup on Sanak Island. Hundreds of rusted 55-gallon drums were reported moved to a community dump site near Pauloff Harbor for future removal by barge and disposal off island. Reports do not indicate that PHT removed any debris specifically from the DS.

2009 Site Assessment (ODUSD 2009) – In March 2009, a Step I site assessment report was completed for the Sanak Island AWS Station under the Native American Lands Environmental Mitigation Program. The report included previous work conducted at Sanak Island and interviews. Building demolition, debris removal, impacts from drums, dilapidated buildings, an Army Signal Corps radio, debris piles, potential ordnance impacts, and soil contamination were identified in the report. A site investigation with sampling was recommended. It concluded that additional analysis was needed to determine whether impacts were of military origin.

2009 Surface Water Sampling (ODUSD 2011; USACE 2013) – Representatives of Aleutian Pribilof Islands Association and the PHT collected surface water samples at Sanak Island in September of 2009. One sample was collected from Charlie Conners Lake and analyzed for DRO, VOCs, SVOCs, PCBs, and metals. There were no detections.

2010 Step II and Step III Site Investigation (SI) (ODUSD 2011; USACE 2013) – In May of 2010, three soil samples were collected and analyzed for GRO, DRO, RRO, metals, VOCs, SVOCs, PCBs, and pesticides. Arsenic concentrations exceeded screening levels in all three samples. One soil sample also showed PCBs and DRO above screening levels. Two surface water samples were collected at Charlie Conners Lake. Naphthalene was detected in one surface water sample at 0.0421 micrograms per liter (µg/L), below screening levels. The report documents that the DS "lies in the tundra and contains 1 communication box with capacitors (2 metal cylinders), 2 long capacitor insulations (resemble an accordion), miscellaneous wood shards, 1 rim from a 55-gallon drum, miscellaneous wire, a 1-foot by 6-inch concrete block, and 15 electrical insulators."

2012 SI (USACE 2013) – The Sanak Island FUDS site investigation included a surface and subsurface inventory of features. A total of 12 features (DS01 through DS12) were identified within the DS as ground depressions or disturbed conditions and evaluated using geophysical methods to determine the presence of subsurface debris. It was concluded that eight of the features warranted further investigation. Further evaluation was not warranted at the remaining four features (DS05, DS07, DS11 and DS12) because there was no evidence of contaminant sources.



Notes

1. For well details refer to the *Remedial Investigation and Limited CON/HTRW Removal Report* (USACE 2016).
2. Extent of contaminated soil based on the *Remedial Investigation and Limited CON/HTRW Removal Report Addendum* (USACE 2019a).
3. Aerial photography provided by Esri Online World Imagery, accessed February 2024.

FIGURE 2
PRIMARY SITE FEATURES AND SAMPLE LOCATIONS
PROPOSED PLAN,
SANAK AWS DS FUDS
Sanak Island, Alaska

2012 SI Continued (USACE 2013) – Features DS01 and DS06 showed the most obvious visual signs of potential contamination. Feature DS01 was an earthen pit with electrical equipment, a partial drum, pieces of a potential transformer and other miscellaneous debris. Feature DS06 consisted of hummocky terrain and partially buried drums. Debris found at other locations included a single drum carcass, minor amounts of rusted metal remnants, and scattered broken glass bottles. Six surface soil samples were collected from the DS, DS-SS01 through DS-SS06, and analyzed for GRO, DRO, RRO, VOCs, PAHs, PCBs, and target metals.

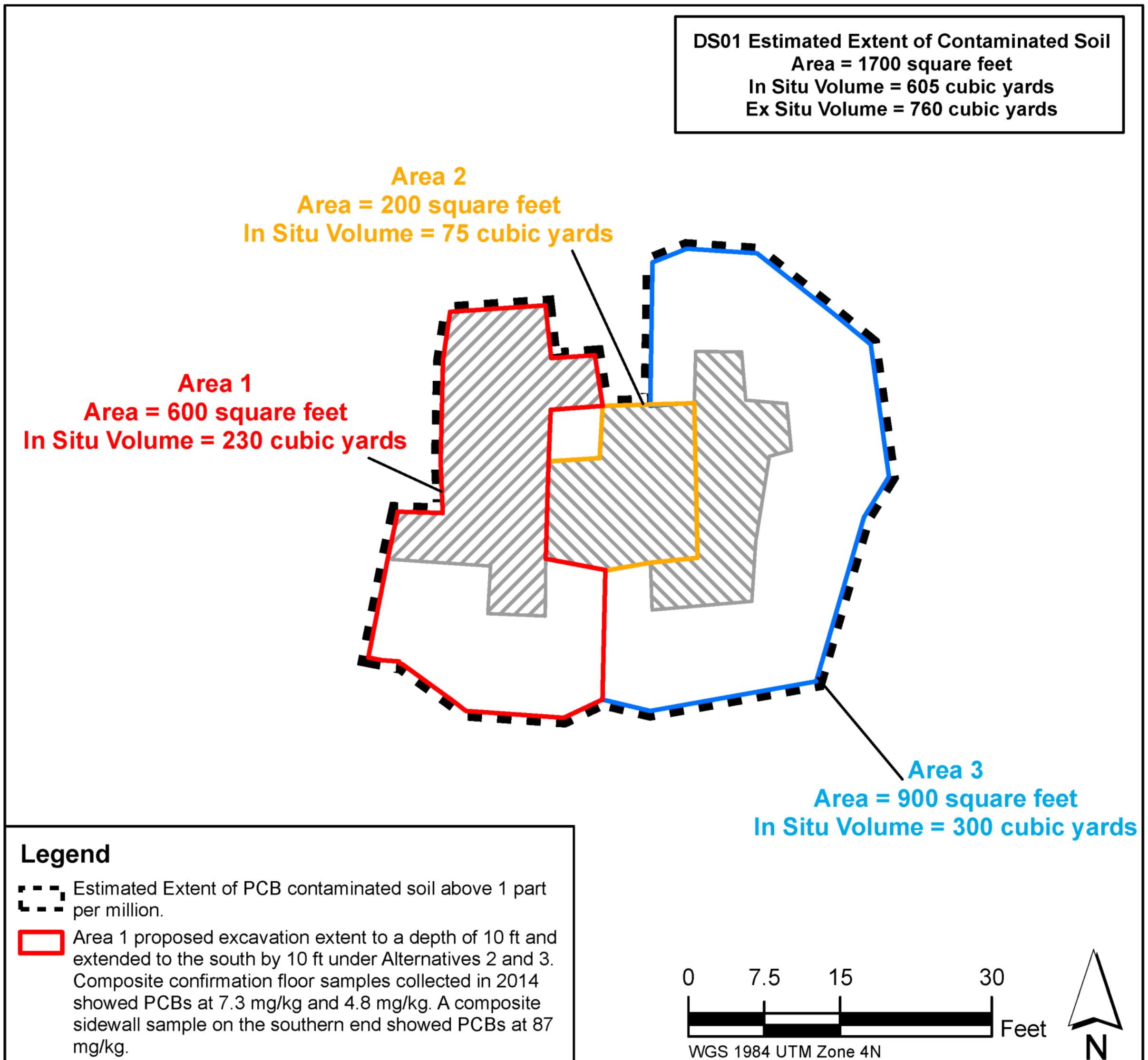
Photograph 1: *DS01 Ground Depression, 2012 SI*

Photograph 2: *DS04 Ground Depression, 2012 SI*

Three surface soil samples (DS-SS01, -02, and -03) collected from the earthen pit at DS01 contained screening level exceedances of total chromium (up to 110 milligrams per kilogram [mg/kg]), PCBs (up to 1,200 mg/kg), and DRO (up to 370 mg/kg). Total chromium was co-located with PCBs. Concentrations from one sample (DS-SS05) collected from the mounded pit at DS04 did not exceed screening levels. Three surface water samples (DS-WS01 through DS-WS03) collected from Charlie Connors Lake, approximately 250 feet northwest of the DS (Figure 2) and analyzed for GRO, DRO, RRO, VOCs, PAHs, PCBs, and target metals had no screening level exceedances. No sediment samples were collected due to rocky shore conditions. Sample locations are shown on Figure 2.

2014 Remedial Investigation (RI) and Limited CON/HTRW Removal Action (USACE 2016) – The eight DS features identified as warranting further investigation during the 2012 site investigation were included in the RI. Six monitoring wells (DSMW-WG01 to DSMW-WG06) in and around the DS areas were sampled for petroleum hydrocarbons (GRO, DRO, and RRO), VOCs, SVOCs, PAHs, PCBs, pesticides, and target metals. Sample locations are shown on Figure 2. There were no detections above screening levels except for pentachlorophenol detected in groundwater collected from DSMW-WG06; however, the result was not considered representative of site conditions due to quality control issues. A limited CON/HTRW removal action also took place in 2014. Each feature was assessed for the presence of CON/HTRW. CON/HTRW items (e.g., electrical equipment and drum remnants) were identified and removed from DS01, DS02, and DS06.

Following removal activities, field screening and confirmation sampling were performed to characterize and delineate contamination. Field screening probes were advanced at each of the eight DS features to evaluate petroleum hydrocarbon impacts; locations showing the highest potential for contamination were sampled for laboratory analysis. Analytical samples were analyzed for petroleum hydrocarbons (GRO, DRO, and RRO), VOCs, SVOCs, PAHs, PCBs, and metals. Select samples were also analyzed for pesticides. These sample locations are shown on Figure 2. Activities specific to DS01 and DS04 are described below:

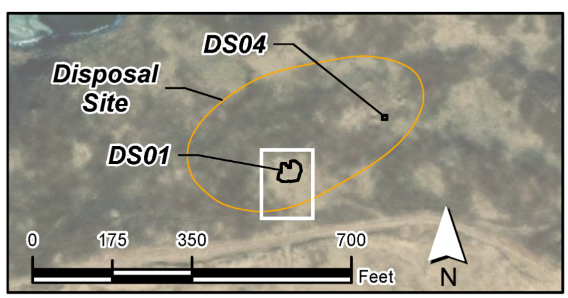


Legend

- Estimated Extent of PCB contaminated soil above 1 part per million.
- Area 1 proposed excavation extent to a depth of 10 ft and extended to the south by 10 ft under Alternatives 2 and 3. Composite confirmation floor samples collected in 2014 showed PCBs at 7.3 mg/kg and 4.8 mg/kg. A composite sidewall sample on the southern end showed PCBs at 87 mg/kg.
- Area 2 proposed excavation extent to a depth of 10 ft under Alternatives 2 and 3. A composite confirmation floor sample in 2014 showed PCBs at 1.3 mg/kg.
- Area 3 proposed excavation extent to a depth of 10 ft and out 10 ft on the northern, eastern and southern sides under Alternatives 2 and 3. Composite northern, eastern and southern confirmation sidewall samples in 2014 showed PCBs at 1.7 mg/kg and 87 mg/kg.

Previous Excavation Depths

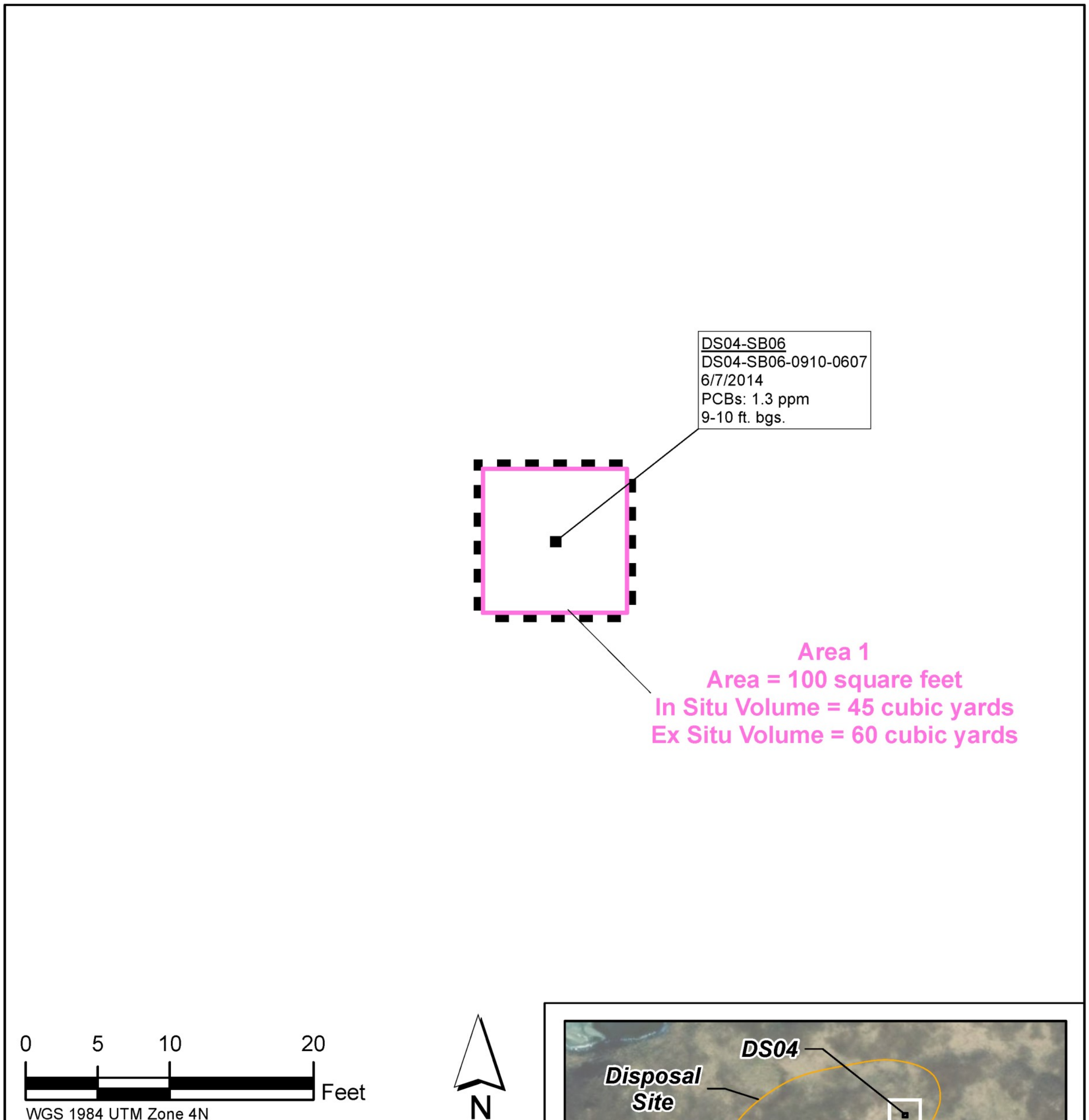
- 2 feet
- 6 feet

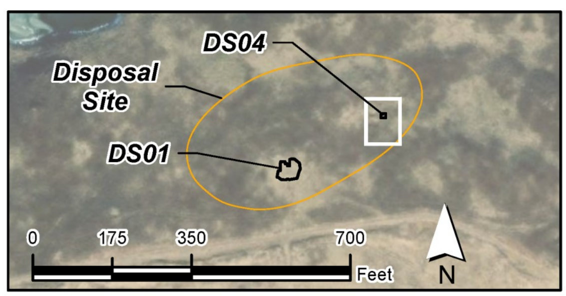


Notes

1. Extent of contaminated soil was estimated based on data from the *Remedial Investigation and Limited CON/HTRW Removal Report Addendum* (USACE 2019a).
2. Ex situ volume assumes bulk expansion factor of 25%.
3. Previous excavation was performed in 2014 by USACE during the Remedial Investigation and Limited CON/HTRW Removal Action (USACE 2016).
4. Aerial photography provided by Esri Online World Imagery, accessed July 2022.

FIGURE 3
DS01 ESTIMATED EXTENT OF PCB CONTAMINATED SOIL
PROPOSED PLAN,
SANAK AWS DS FUDS
Sanak Island, Alaska





Legend

- PCB sample location with PCBs above 1 ppm
- Estimated Extent of PCB contaminated soil above 1 part per million.
- Area 1 proposed excavation extent to a depth of 12 ft under Alternatives 2 and 3.

Notes

1. Extent of contaminated soil was estimated based on data from the *Remedial Investigation and Limited CON/HTRW Removal Report Addendum* (USACE 2019a).
2. Ex situ volume assumes bulk expansion factor of 25%.
3. Aerial photography provided by Esri Online World Imagery, accessed July 2022.

FIGURE 4
DS04 ESTIMATED EXTENT OF PCB CONTAMINATED SOIL
PROPOSED PLAN,
SANAK AWS DS FUDS
Sanak Island, Alaska

- ◊ **DS01**: Scattered remains of a large capacitor and a drum remnant were identified and removed. Approximately 73 tons of PCB-impacted soil were excavated; however, soil samples indicated that PCB concentrations remained above the screening level (1 ppm) along the southern and eastern sidewalls and floor of the excavation with a maximum detected concentration of 87 ppm. Field screening indicated lead contamination was present. As a result, a shallow excavation was conducted, and 1.5 tons of lead-contaminated soil was removed from DS01. Results from two post-excavation soil samples were below the lead screening level (400 ppm). Six field screening probes (DS01-SB01 to DS01-SB06) were advanced to evaluate petroleum hydrocarbon impacts. The two locations that showed the highest potential for contamination (DS01-SB03 and DS01-SB05 on Figure 2) were sampled for offsite laboratory analysis. Results were below screening levels.
- ◊ **DS04**: Soil screening at seven locations (DS04-SB01 through DS04-SB07) was performed via ultraviolet optical screening tool/laser induced florescence (UVOST/LIF). The three locations that showed the highest potential for contamination or the highest average LIF response (DS04-SB01, -SB02, and -SB06 on Figure 2) were submitted for offsite laboratory analysis; results were below screening levels for petroleum hydrocarbons. PCBs were identified in one location (DS04-SB06 on Figures 2 and 4) above the screening level (1 ppm) at 1.3 ppm (Figure 4).

Photograph 3: *Excavating PCB-contaminated soil at DS01, 2014 RI*

Photograph 4: *Drilling at the DS, 2014 RI*

2019 RI Addendum (USACE 2019a) – Existing analytical data were reevaluated using updated ADEC screening levels from September 2018. Heptachlor epoxide was added as a chemical of potential concern (COPC) in soil for DS01 based on a single exceedance. However, it was determined that interference from PCBs present in the sample elevated the result. Chromium was added as a COPC in groundwater based on a sample collected 200 feet north of DS01 and 200 feet northwest of DS04 in well DSMW-WG01. Chromium was not detected in the other five DS wells. The total chromium concentration (2.8 µg/L) exceeded the hexavalent chromium ADEC screening level of 0.35 µg/L and the EPA Regional Screening Level (RSL) for hexavalent chromium of 0.035 µg/L. Naturally occurring chromium is prevalent throughout Alaska, and concentration did not exceed the ADEC screening level (22,000 µg/L) or EPA RSL (2,200 µg/L) for the less toxic trivalent form of chromium, which is presumed to have been present. In addition, it did not exceed the Federal Maximum Contaminant Level (MCL) of 100 µg/L for total chromium. There are no known or suspected sources of hexavalent chromium associated with former military activities at the Sanak AWS Station.

2019 Risk Assessment (USACE 2019b) – A human health risk assessment and ecological risk assessment were also completed in 2019. The risk assessment (and RI Addendum) established that PCBs (Aroclor 1254) are the only contaminant associated with past military use at the Sanak Island AWS Station DS FUDS remaining as a COC that shows unacceptable risk at the DS.

2022 Feasibility Study (USACE 2022b) – Potential response technologies to address PCB contamination in soil at DS01 and DS04 were screened based on site-specific effectiveness, implementability, and cost. Technologies retained through screening were then developed into the remedial alternatives summarized in the Remedial Alternatives section of this Proposed Plan and assessed both individually and comparatively against CERCLA evaluation criteria.

EXTENT OF CONTAMINATION

The maximum remaining PCB concentration of 87 ppm at DS01 is regulated under TSCA, as it exceeds 50 ppm. The extent of remaining contamination at the DS features was determined by comparing available PCB data to the preliminary remediation goal (PRG) of 1 ppm. Table 1 shows the estimated volume in cubic yards (cy) of PCB-contaminated soil above 1 ppm. The physical extent is depicted on Figures 3 (DS01) and 4 (DS04).

Table 1 *– Estimated PCB-Contaminated Soil Above 1 ppm*

Site	In Situ[1] (cy)	Ex Situ[2] (cy)	Area (acres)	Area (square feet)
DS01	605	760	0.04	1,700
DS04	45	60	0.002	100
Total	**650**	**820**	**0.042**	**1,800**

Notes:
[1]In Situ refers to the in-place volume of soil prior to excavation.
[2]Ex Situ refers to the anticipated volume of soil after it is excavated, and assuming bulk expansion (fluff) factor of 25 percent. Approximately 25 percent of the soil volume is assumed to exceed 50 ppm and regulated as hazardous under the TSCA.

SCOPE AND ROLE

The overall strategy for the Sanak AWS Station DS FUDS is to eliminate unacceptable risk from past releases of toxic and hazardous substances that occurred while the site was under Department of Defense control, and to obtain site closure under the FUDS Program. The response actions proposed for DS01 and DS04 are intended to address PCB contamination in soil above the TSCA 40 CFR 761.61 (a)(4)(i)(A) cleanup level of 1 ppm for high occupancy areas. Approximately 605 cy of soil at DS01 and 45 cy of soil at DS04 contain PCBs at concentrations above 1 ppm.

CERCLA requires that a Proposed Plan discuss how response actions address source materials constituting principal threats. A principal threat waste refers to contamination that is highly toxic, highly mobile, and cannot be reliably contained. PCBs at DS01 and DS04 are not considered principal threat wastes because, although toxic and above TSCA standards in some locations, PCBs are relatively immobile, mostly subsurface, and attach strongly to soil particles. Based on the current and reasonably anticipated future land use, USACE has determined that a response action is necessary to protect the public health or welfare and the environment from actual or threatened releases of pollutants or contaminants from the site.

SUMMARY OF SITE RISKS

The Sanak Corporation and PHT are interested in potential economic or residential development at Sanak Island. The PHT has developed an economic development plan that includes cattle ranching. A risk assessment was conducted in 2019 to evaluate potential risks to human and ecological receptors based on potential exposures to contaminants originating from the DS (USACE 2019b). Future adult/child residents, current/ future site visitors, trespassers, recreational users, and future construction workers were evaluated as potential receptors. Exposure pathways assessed included incidental ingestion, dermal contact, and inhalation of particulates and/or volatiles in soil and outdoor ambient air, and the ingestion, dermal contact, and inhalation of groundwater. The vapor intrusion pathway for indoor air was also assessed.

Human Health Risk Assessment

Arsenic, total chromium, lead, PCBs, DRO, and heptachlor epoxide were initially retained as COPCs in soil, and chromium (hexavalent) was initially identified as a COPC in groundwater. Because the maximum detected concentrations of lead, DRO, and heptachlor epoxide in soil were below the human health screening levels following the 2014 removal action, they were ultimately excluded as COPCs. As no VOCs were retained as COPCs, inhalation of volatiles is not a complete pathway at the DS (USACE 2022b). Arsenic and chromium are known to occur naturally, have no known site-related source, and remaining concentrations were determined to be consistent with or below background values for soil established in the 2014 RI (40 ppm for both arsenic and chromium). Chromium in groundwater was removed as a COPC because total chromium was detected in only one of the six groundwater samples collected at DS area wells, and while the reported detection exceeds the EPA tap water RSL and the ADEC cleanup level for hexavalent chromium, chromium is frequently naturally occurring in Alaska and the concentration is assumed to reflect the less toxic trivalent form. There is no known or suspected anthropogenic source of hexavalent chromium at the DS. The ADEC cleanup level and EPA RSL for trivalent chromium are not exceeded. Additionally, the Federal MCL for total chromium is not exceeded.

Only surface and subsurface soil was identified by the human health risk assessment (HHRA) as having potential unacceptable risk, with the COC being PCBs (Aroclor 1254). It was determined that the PCB Aroclor 1254 poses a potential unacceptable risk to human health because it exceeds the cumulative noncancer hazard index of 1 for adult residents (3), child residents (23), and construction workers (5).

The EPA has classified PCBs as a probable human carcinogen and people directly exposed to elevated levels of PCBs may experience reproductive developmental effects, hormone disruption, impacts to the immune system, teratogenic effects, or carcinomas. Other health effects from exposure to PCBs include skin irritation and rashes. PCBs also bioaccumulate in the body and in the ecosystem (EPA 1990).

PCBs are persistent organic compounds that attach strongly to soil particles and don't readily dissolve in water, such that they are not expected to migrate to groundwater or surface water based on current site conditions. Additionally, PCBs are not expected to vaporize or present an outdoor air or vapor intrusion risk. While the presence of some organic solvents can increase PCB mobility, these contaminants are not present at DS01 or DS04.

Ecological Risk Assessment

Ecological COPCs in surface soil (barium, cadmium, lead, and PCBs) were considered for exposures to terrestrial ecological receptors. No COPCs were identified in surface water or sediment. While ecological risk calculations generated potentially unacceptable risk for Lapland longspurs (hazard quotient =7) which were used as an indicator species, consideration of Lapland longspur home ranges (average 4.5 acres) compared to the combined estimated impacted area at DS01 and DS04 (0.042 acres), suggested any potential exposure to PCBs would be minimal. Given the small footprint of impacted areas and general absence of food resources at the DS, significant ecological exposure is not expected. Therefore, risk calculations are likely to overestimate risks due to inherently conservative assumptions. Given the lack of ecological risk drivers, remediation efforts are designed to address human health standards.

Summary

USACE has determined that the Preferred Alternative identified in this Proposed Plan, or one of the other active measures considered in the Proposed Plan, is necessary to protect public health or welfare or the environment from actual or threatened releases of hazardous substances into the environment.

REMEDIAL ACTION OBJECTIVE

A response action is warranted based on PCB Aroclor 1254 contamination in soil, which presents unacceptable risk to future residents and construction workers. The following Remedial Action Objective (RAO) was

Remedial Action Objective

Prevent residents and construction workers from direct contact with and ingestion or inhalation of surface and subsurface soil containing PCBs (Aroclor 1254) above 1 ppm.

developed for DS01 and DS04 based on the TSCA 40 CFR 761.61 (a)(4)(i)(A) cleanup level of 1 ppm:

SUMMARY OF ALTERNATIVES

The remedial alternatives retained in the 2022 Feasibility Study include:

- ◊ **Alternative 1:** No Action
- ◊ **Alternative 2a:** Ex Situ Treatment via Semi-Continuous Thermal Desorption
- ◊ **Alternative 2b:** Ex Situ Treatment via In-Pile Thermal Desorption
- ◊ **Alternative 3:** Removal and Offsite Disposal

Each of the retained alternatives is discussed below. Land Use Controls (LUCs) were screened out during the Feasibility Study, as they would not be approved as a stand-alone remedy because limited removal to meet high occupancy standards under TSCA would be needed to comply with applicable or relevant and appropriate requirements (ARARs).

Alternative 1 — No Action

- ◊ **Period of Performance:** **Not Applicable**
- ◊ **Implementation Cost:** **$0**
- ◊ **Operation & Maintenance Cost:** **$0**
- ◊ **Long-term Monitoring Cost:** **$0**
- ◊ **Total Present Worth Costs:** **$0**

Alternative 1—No Action: Under Alternative 1, no activities would be undertaken to treat or remove the PCB contamination or to prevent the exposure of site users to PCBs. PCBs are persistent in the environment and do not readily degrade. If left to naturally attenuate, PCB concentrations are not expected to decrease at a rate that would allow the RAO to be achieved in a reasonable timeframe. No monitoring would be conducted. The potential for unacceptable human or environmental exposure to site contaminants would remain and no precautions would be taken to prevent contact with contaminated soil. No effort or costs are involved with implementing the No Action Alternative. Alternative 1 does not achieve the RAO since it does not ensure protection of human health and the environment, and it is unlikely to gain regulatory acceptance. A No Action Alternative is required to serve as a baseline against which other alternatives are compared.

Alternative 2—Ex-Situ Onsite Thermal Treatment: Under Alternative 2, PCB-contaminated soil with concentrations above 1 ppm (approximately 650 cy) would be excavated and thermally treated. The application of two commercially available ex situ thermal treatment technologies were considered, both are described in more detail below.

- ♦ Alternative 2a – Ex Situ Treatment via Semi-Continuous Thermal Desorption

Alternative 2 — Ex Situ Onsite Thermal Treatment

- ◊ **Period of Performance:** **Field Work:**
(2a) approximately 30 days
(2b) approximately 90 days
- ◊ **Implementation Cost:** **(2a) $2,070,000**
(2b) $3,230,000
- ◊ **Operation & Maintenance Cost:** **(2a) $0**
(2b) $0
- ◊ **Long-term Monitoring Cost:** **$0**
- ◊ **Total Present Worth Costs:** **(2a) $2,070,000**
(2b) $3,230,000

♦ Alternative 2b – Ex Situ Treatment via In-Pile Thermal Desorption

Following soil excavation, confirmation samples would be collected from the excavation area to ensure the RAO is met. During excavation and pending sample results, excavation areas would remain open. Active stormwater management during excavation will be required because open excavations could present safety hazards to site workers and be prone to accumulating precipitation. The two treatment operations may also result in residual waste streams which would need to be managed and disposed of in accordance with applicable regulations. Following treatment and confirmation that the RAO has been met, treated soil would be returned to the excavated areas. Special considerations may be needed to quickly reestablish surface vegetation on the treated soil as much of the organic matter needed to support surface growth will be destroyed by the treatment process.

This alternative would not require on- or off-site disposal. No land-use controls or five-year reviews would be necessary, as contamination above the PRG would be removed and the RAO would be attained at project completion. All necessary equipment and heavy machinery would need to be barged out to the island; however, transportation expenses would be a one-time occurrence.

◊ **Alternative 2a – Ex Situ Treatment via Semi-Continuous Thermal Desorption:** This technology uses thermal treatment to break down PCBs in soil. The treatment equipment is self-contained, mobile, and modular. Soil is fed by belt conveyor through a sealed, heated steam chamber. Under elevated temperature, contaminants are liberated, captured, and treated. Treated soil is then placed in a storage stockpile where it is allowed to cool prior to confirmation testing. It is ultimately used as backfill in the excavation areas.

◊ **Alternative 2b – Ex Situ Treatment via In-Pile Thermal Desorption:** This technology also uses thermal treatment. Instead of a closed system, soils are treated from within a specially designed soil stockpile created at the ground surface. In the process, heat is generated by horizontally embedded electrically powered elements within the soil stockpile. Vapor extractors within the pile allow for recovery of contaminants liberated and vaporized by heating; this off-gas is captured and treated using a granular activated carbon filter. Liquid condensate produced during heating would also be collected and treated using granular activated carbon. Pile-based thermal treatment strategies are commercially available through multiple providers.

Alternative 3 – Removal and Offsite Disposal: Under Alternative 3, PCB-contaminated soil with concentrations above 1 ppm (approximately 650 cy) will be excavated and disposed of at an offsite permitted landfill in accordance with state and federal regulations. All necessary equipment and heavy machinery would need to be barged out to the site. Following soil excavation, confirmation sampling would be performed to ensure the RAO is met. No land-use controls or five-year reviews would be necessary, as the RAO would be attained at project completion.

Alternative 3 — Removal and Offsite Disposal

◊ **Period of Performance:** **Field Work: approximately 10 days**

◊ **Implementation Cost:** **$1,730,000**

◊ **Operation & Maintenance Cost:** **$0**

◊ **Long-term Monitoring Cost:** **$0**

◊ **Total Present Worth Costs:** **$1,730,000**

EVALUATION OF ALTERNATIVES

The remedial alternatives were evaluated independently against the NCP criteria as part of the CERCLA process. NCP criteria fall into three categories:

◊ **Threshold** – overall protection of human health and the environment; and compliance with ARARs

◊ **Balancing** – long-term effectiveness and permanence; reduction of toxicity, mobility, or volume through treatment; short-term effectiveness; implementability; and cost

◊ **Modifying** – state and community acceptance.

Threshold criteria must be met to receive further consideration; balancing criteria are used to compare the alternatives; and modifying criteria are considered once public comment is complete. The following information discusses the performance of each remedial alternative against seven of the nine NCP criteria. Evaluation of the last two criteria (state and community acceptance) will be conducted after the public comment period. A comparison of alternatives to the nine criteria is presented below and on Page 17 in Table 3.

Threshold Criteria

1 Overall Protection of Human Health and the Environment

Alternative 1 does not achieve the RAO and is not protective of human health and the environment. Alternatives 2a and 2b achieve the RAO and protect human health and the environment by providing onsite treatment of PCB-contaminated soil. Alternative 3 protects human health and the environment by removing contaminated soil from DS01 and DS04.

Table 2 – *ARARS*

Toxic Substances Control Act	40 Code of Federal Regulations (CFR) 761.61(a)(4)(i)(A) The cleanup level of non-liquid PCB remediation in soil, sediments, dredged materials, muds, PCB sewage sludge, and industrial sludge in high occupancy areas is [</=] 1 ppm without further conditions.	Establishes a cleanup level for high occupancy areas of 1 ppm.
Oil and Hazardous Substances Pollution Control Regulations Alaska	18 AAC 75.340(j)(2) Soil cleanup levels based on human exposure from ingestion of or dermal contact with soil, or inhalation of particulates or a volatile hazardous substance, must be attained in the surface soil and the subsurface soil to a depth of 15 feet, unless an institutional control or site conditions prevent human exposure to the subsurface soil (ADEC, 2023).	Promulgated and substantive, specifies a control standard, and is applicable to the remedial action on site.

2 Compliance with ARARs

CERCLA section 121(d) requires that on-site CERCLA remedial actions attain (or justify the waiver of) cleanup standards, standards of control, or other substantive requirements from Federal or State environmental or facility siting laws determined to be legally applicable or relevant and appropriate to circumstances. Only those State standards that are more stringent than Federal standards may be applicable or relevant and appropriate. Table 2 provides a list of ARARs under consideration for DS01 and DS04.

The following were proposed to USACE as ARARs and were considered. However, they do not meet the definition of an ARAR.

- ADEC Method 2 Cleanup Level(s) in 18 Alaska Administrative Code (AAC) 74.341(c) Table B1;
- ADEC LUC requirements listed in 18 AAC 75.375; and
- The Uniform Environmental Covenants Act

The ADEC Method 2 Cleanup Level for PCBs of 1 mg/kg is not more stringent than the Federal requirement in Table 2 of 1 ppm; therefore, it does not apply as an ARAR. 18 AAC 75.375 (ADEC 2023) and the Uniform

Environmental Covenants Act (2019 Alaska Statutes Title 46 Chapter 04 [Section 46.04.300]) are administrative and legal controls that create duties upon the landowner, which USACE is not. They are not a cleanup standard, standard of control, or requirement that specifically addresses a CERCLA hazardous substance, pollutant, or contaminant, remedial action or remedial location. In addition, LUCs are not a component to any of the alternatives presented.

Alternative 1 does not comply with ARARs. PCB contamination is not expected to naturally attenuate such that concentrations would remain above the PRG indefinitely. Alternatives 2a, 2b, and 3 can be implemented in accordance with ARARs. Confirmation sampling is a component of all three remedies to ensure the PRG is met at remedy completion.

Balancing Criteria

3 Long-Term Effectiveness and Permanence

Alternative 1 would not be effective, as contamination would remain onsite with no measures taken to treat, remove, or prevent exposure. Alternatives 2a, 2b, and 3 are all effective methods of addressing PCB-contaminated soils. No PCB contamination above the PRG would remain onsite at remedy completion.

4 Reduction of Toxicity, Mobility, or Volume Through Treatment

Alternative 1 does not satisfy the preference for treatment, as no activities would be undertaken to treat or otherwise address the PCB contamination. Alternatives 2a and 2b include onsite treatment options to reduce the concentration to below the PRG resulting in a reduction of toxicity, volume, and mobility. The volume of soil remaining above the PRG would effectively be reduced to zero. Both options satisfy the CERCLA statutory preference for treatment. Alternative 3 does not satisfy this preference.

5 Short-Term Effectiveness

Alternative 1 includes no short-term effectiveness or risks to the community or workers associated with a remedial action as no remedial activities would be performed. Alternative 3 would take only 10 days to complete compared to 30 days for Alternative 2a treatment, and 90 days for Alternative 2b treatment. Treatment duration accounts for the overall difference between the two treatment alternatives. The duration for Alternative 3 is much shorter than the other alternatives; however, it requires soil to be transported and transferred several times to reach an appropriately permitted facility, and exposure risks along the transportation train would need to be managed in accordance with shipping requirements.

For Alternatives 2a, 2b, and 3, there is increased risk to exposure of PCB-contamination during excavation and handling of the soil. To reduce this risk, development of a health and safety plan and use of appropriate protective equipment is necessary for site workers and users. Additionally, open excavations can accumulate precipitation depending on climate conditions. However, if the excavated soil meets the cleanup goals, then the soil can be backfilled in a short timeframe.

There are no environmental impacts associated with Alternative 1. The RAO is not expected to be achieved under this alternative as the characteristics of the contamination and site conditions indicate that natural attenuation would not reduce the soil contamination. For Alternatives 2a and 2b, post-treatment soil will be elevated in temperature and present a thermal hazard to site personnel; treated soil will be dry, friable, and easily displaced by wind or precipitation, presenting additional hazards and active management, covers, or means to minimize transport of dust.

6 Implementability

Alternative 1 is very easy to implement from a technical standpoint; however, administrative approval is unlikely. Alternatives 2a and 2b provide low and moderate implementability in comparison, due to the complexities in successfully mobilizing, constructing, operating, and maintaining the technologies. Availability of equipment and vendors to mobilize to Sanak Island are limited and the likelihood that technical problems attributed to site conditions or treatment equipment downtime will lead to schedule delays are very plausible. Alternative 2a requires many types of equipment to convey, treat, and discharge soil which is subject to mechanical failures; maintaining up time during remedial action could be strongly affected by equipment operability thus impacting overall treatment schedule. Comparatively, the mechanical complexity for operation of Alternative 2b is significantly lower than Alternative 2a; the level of operations oversight and maintenance of equipment required for Alternative 2b is much smaller than for Alternative 2a.

Finally, commercial interest for continuous or semi-continuous soil treatment of site soil under Alternative 2a is expected to be low given the relatively small volume of soil to be treated and potential limitations in the availability of equipment scaled to match soil treatment requirements. Conversely, there are multiple commercial interests in the static pile treatment remediation services. In addition, Alternative 2b can be readily scaled to match the site-specific treatment requirements. Achieving similar treatment scale flexibility with continuous or semi-continuous treatment (Alternative 2a) is considerably more difficult as the volume capacity/throughput is defined by available equipment, not the total volume of soil that must be treated.

Alternative 3 has a low likelihood of technical problems, and necessary resources and specialists are available. The implementability is considered moderate due to a complex transportation chain for waste disposal.

7 Cost

For Alternative 1, there is no cost. Alternatives 2a ($2.07 million [M]) and 2b ($3.23M) are both more expensive than Alternative 3 ($1.73M). Alternative 2b is significantly more expensive than both Alternatives 2a and 3.

Table 3 *– Comparison of Alternatives*

Criterion	Alternative 1 No Action	Alternative 2a Ex Situ Thermal Desorption – Semi-Continuous Treatment	Alternative 2b Ex Situ Thermal Desorption – In-Pile Treatment	Alternative 3 Removal and Offsite Disposal
Threshold Criteria				
Overall Protection of Human Health and the Environment	Fail	Pass	Pass	Pass
Compliance with ARARs	Fail	Pass	Pass	Pass
Primary Balancing Criteria				
Long-Term Effectiveness and	None	Very High	Very High	Very High
Reduction in Toxicity, Mobility, or Volume through Treatment	None	High	High	None
Short-Term Effectiveness	None	Moderate	Low	Low
Implementability	Partial*	Low	Moderate	Moderate
Present Worth Cost	$0	$2.07M	$3.23M	$1.73M

Notes:
Shading indicates alternative does not meet criterion.
M = million
*Partial implementability for Alternative 1 (No Action) indicates that the remedy is technically but not administratively possible.
To achieve a rating, both elements must be met to some degree.
Ratings are based on level of desirability/conformance: "Very High" = most desirable/conforming and “None” or "Very Low" = least desirable/conforming.

PREFERRED ALTERNATIVE

The USACE has selected ***Alternative 3: Removal and Offsite Disposal*** as the preferred remedial alternative. This selection was made because removal and offsite disposal would quickly achieve the RAO through permanent removal of contaminated material greater than the PRG. It also has the lowest cost. The cost of Alternative 2a is similar to Alternative 3 and it also provides for a reduction in toxicity, mobility, or volume through treatment; however, the implementability is less reliable. Alternative 3 is expected to provide the following:

- Minimal uncertainty during construction and operation through use of a proven technology
- A lower likelihood that technical problems will result in schedule delays (and additional expense) due to the technical simplicity of the remedy
- Low risk of untreated and residual (incompletely treated) contaminated material remaining onsite that would require future remedial action
- No onsite monitoring requirements of potential migration or exposure pathways and/or risks (rapidly achieves unlimited use and unrestricted exposure [UU/UE])
- Reduced ongoing coordination with regulatory agencies and other stakeholders
- Readily available resources and personnel
- No need for further technology development before full-scale implementation (including pilot or bench-scale testing)

The USACE believes the preferred alternative meets the threshold criteria and provides the best balance of tradeoffs among alternatives with respect to the balancing and modifying criteria. The USACE expects the Preferred Alternative to satisfy the following statutory requirements of CERCLA §121 (b): 1) be protective of human health and the environment; 2) comply with ARARs; 3) be cost-effective; and 4) use permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable.

The ADEC agrees with the preferred alternative and when the remedy is fully implemented, the state will agree that it is fully protective. The preferred alternative could change in response to public comment or new information.

COMMUNITY PARTICIPATION

The information summarized in this Proposed Plan can be found in greater detail in the Feasibility Study (USACE 2022b) and other documents contained in the Administrative Record file at the **Pauloff Harbor Tribal Office** in Sand Point, Alaska, and at the **USACE Alaska District Office** at 2204 Talley Avenue at Joint Base Elmendorf-Richardson in Anchorage, Alaska.

USACE encourages the public to gain a more comprehensive understanding of the DS and response activities that have been conducted. A 30-day public comment period will follow submission of this Proposed Plan for public and regulatory review, and a public meeting will be held to discuss the Proposed Plan. The final response action alternative will be selected after community comments have been considered. In this final step of the remedy selection process, USACE as the lead execution agency will reassess its determination that the preferred alternative provides the best balance of trade-offs while factoring in input expressed by the state or the community during the public meeting and comment period.

A written comment form is provided at the conclusion of this document. Questions as well as public comments can be communicated at the public meeting or otherwise be directed to:

Phone:
1 (888) 446-5066

Mail to the following address:

USACE Alaska District
CEPOA-PME-FUDS (Astley)
P.O. Box 6898
JBER, AK 99506-0898

Email to the following address:
POA-FUDS@usace.army.mil

USACE will provide written responses to all comments. A summary of the responses will accompany the Record of Decision and will be made available in the Administrative Record file.

GLOSSARY

Alaska Department of Environmental Conservation (ADEC) – The regulatory body that monitors the enforcement of Alaska's environmental standards.

Applicable or Relevant and Appropriate Requirements (ARARs) – Applicable requirements are cleanup standards, standards of control, and other substantive environmental protection requirements promulgated under Federal or state environmental law that specifically address a hazardous substance, pollutant, contaminant, remedial action, location, or other circumstance found at a CERCLA site. Relevant and appropriate requirements are cleanup standards, standards of control, and other substantive requirements, criteria, or limitations promulgated under federal or state environmental laws that, while not "applicable," address problems or situations sufficiently similar to those encountered at the CERCLA site that their use is well suited to the particular site. Only those state standards that are identified by a state in a timely manner and that are more stringent than federal requirements may be applicable or relevant and appropriate.

Aroclor 1254 – One of several commercial mixtures of polychlorinated biphenyls (PCBs) marketed between the 1930s and 1970s that contains 54 percent chlorine by weight.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) – Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended by the Superfund Amendments and Reauthorization Act of 1986.

Chemical of Concern (COC) – Chemical identified during in-depth site studies (Remedial Investigation/ Feasibility Study) that needs to be addressed by a cleanup action because it poses a potential threat to human health or the environment.

Chemical of Potential Concern (COPC) – Chemical, compound, or material that may cause adverse effects on human health or the environment.

Exceedance – A result that is above a screening or cleanup level.

Exposure Point Concentration – A conservative estimate of the average chemical concentration in an environmental medium.

Feasibility Study – A study undertaken by the lead agency to develop and evaluate options for remedial action. The RI data are used to define the objectives of the response action, to develop remedial action alternatives, and to undertake an initial screening and detailed analysis of the alternatives. The term also refers to a report that describes the results of the study.

Formerly Used Defense Site (FUDS) – Property that was owned by, leased to, or otherwise possessed by the United States and under the jurisdiction of the Secretary of Defense that was transferred from the U.S. Department of Defense control prior to 17 October 1986.

Land-Use Controls (LUCs) – Physical, legal, or administrative mechanisms that restrict the use of, or limit access to real property, to prevent or reduce risks to human health and the environment. Physical mechanisms encompass a variety of engineered remedies to contain or reduce contamination and physical barriers to limit access to property, such as fences or signs. The legal mechanisms used for LUCs are generally the same as those used for institutional controls (ICs) as discussed in the NCP. ICs are a subset of LUCs and are primarily legal mechanisms imposed to ensure the continued effectiveness of land-use restrictions imposed as part of a remedial decision.

National Contingency Plan (NCP) – The plan revised pursuant to 42 USC 9605 and found at 40 CFR 300 for hazardous substance remediation under CERCLA.

National Priorities List (NPL) – The list, compiled by the EPA pursuant to CERCLA section 105, of uncontrolled hazardous substance releases in the United States that are priorities for long-term remedial evaluation and response.

Polychlorinated biphenyls (PCBs) – Group of man-made organic chemicals consisting of carbon, hydrogen, and chlorine atoms. They were incorporated into various industrial products and chemicals manufactured in the United States from 1929 until they were banned in 1979.

Record of Decision – A generic term used to describe the documentation for the selection of a removal action, remedial action, or other type of environmental restoration action.

Remedial Action – Those actions consistent with permanent remedy taken instead of, or in addition to removal actions, in the event of a release or threatened release of a hazardous substance into the environment to prevent or minimize the release of hazardous substances so that they do not migrate to cause substantial danger to present or future public health or welfare or the environment.

Remedial Action Objectives (RAO) – Cleanup objectives based on an evaluation of site characterization data, ARARs and risk factors that focus on remediating areas of contamination that exceed action levels and present unacceptable risks to potential receptors.

Remedial Investigation (RI) – A process undertaken by the lead agency to determine the nature and extent of the problem presented by a release. The RI emphasizes data collection and site characterization and includes gathering of sufficient information to determine the necessity for remedial action. The results of the RI are used to support the evaluation of remedial actions and remedial alternatives in a feasibility study.

Removal Action (RA) – The cleanup or removal of released hazardous substances from the environment. This includes such actions as may be necessary to monitor, assess, and evaluate a release or threat of release of hazardous substances, the disposal of removed material, or taking other actions necessary to prevent, minimize, or mitigate damage to the public health or welfare or to the environment that may otherwise result from a release or threat of release.

Site Inspection (SI) – An on-site investigation to determine whether there is a release or potential release and the nature of associated threats. The purpose is to augment the data collected in the preliminary assessment and to generate, if necessary, sampling, and other field data to determine if further action or investigation is appropriate.

Thermal Desorption – A remediation technology that uses heat to separate contaminants from soil by converting them to vapors.

Toxic Substance Control Act (TSCA) – Regulation that provides EPA with the authority to require reporting, record-keeping and testing requirements and restrictions relating to chemical substances and/or mixtures. TSCA addresses the production, importation, use, and disposal of specific chemicals including PCBs.

Unlimited Use/Unrestricted Exposure (UU/UE) – The property is suitable for any land use, up to and including residential with subsistence consumption of site resources.

REFERENCES

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Thank You for Your Comments on the Proposed Plan for Sanak Island AWS Station DS FUDS

Your input on the Proposed Plan is important to the USACE. Comments provided by the public are valuable in helping us select a remedy. Questions regarding the public comment period or this Proposed Plan can be directed to the USACE Project Manager, Beth Astley, at 1 (907) 753-5782. Comments on this Proposed Plan can be emailed to POA-FUDS@usace.army.mil. Written comments can be submitted by using the space below. When you are finished, please fold, seal, and mail. A return address has been provided on the back of this page for your convenience. Comments must be postmarked by 25 March 2024.

Name:

Address:

City, State, Zip:

Email and/or Phone:

Comments on Proposed Plan for
Sanak Island AWS Station FUDS, Alaska

Return Address

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USACE Alaska District
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