

Qawalangin (regional) Formerly Used Defense Sites (FUDS) Islands of Unalaska, Amaknak, and Sedanka

Amaknak, Chernofski Harbor Supply and Storage Site, Cape Wislow AWS Station, Fort Learnard, and Ugadaga Bay Station

Restoration Advisory Board Meeting

5:50-6:00 PM Pre-meet and greet, and technology check/troubleshoot

6:00-8:00 PM Wednesday, August 2, 2023

City Council Chambers 43 Raven Way, Unalaska, AK

Or Join by Browser/Phone:

https://usace1.webex.com/usace1/j.php?MTID=mdd230837e22724627196bba909d2ad59

(844) 800-2712 US Toll Free (669) 234-1177 US Toll

Access code: 2761 420 1058 Password: 8TJgjJr3C\*3

#### AGENDA

- 1. 6:00 6:15 Welcome and Introductions
  - a. Opening Remarks
  - b. Roll Call/Quorum

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	Denise Rankin, Community Co-Chair
	Alyssa K McDonald Community Co-Chair
	James T Paulin
	Elise Contreras
	Okalena Patricia Lekanoff Gregory
	Kale Bruner
	David M Gregory
	Michael Tutiakoff
	Ben Leon-Guerrero
	Rena B Flint, USACE Co-Chair



- c. Meeting Goals and Objectives
- 2. 6:15-6:20 Revise/Adopt May 17, 2023 Minutes
- 3. 6:20 6:40 Local Updates/Community Introductions/Public Comment
- 6:40 6:55 City of Unalaska Brownfields Advisory Board Update (Thomas Roufos)
- 5. 6:55 7:00 Camp Qungaayux Update
- ~~Break TBD~~
  - 6. 7:05 7:25 Cape Wislow AWS Station FUDS Update (Forrest Kranda)
  - 7. 7:25 7:30 Amaknak FUDS Range Complex No. 1 Emergency Response Update
  - 8. 7:30 7:35 Amaknak FUDS Pre-WWII Update
  - 9. 7:35 7:50 Amaknak FUDS Unalaska Valley Update
  - 10. 7:50 7:55 Review Next Meeting Dates/Identify Next Steps
    - a. Next RAB Meeting: Hybrid (In-person and Virtual), November or January (Wednesday)
      - 1. November 1, 8, 15 or January 10, 17, 31
      - 2. Keep in mind:
        - Nov 10 Veteran's Day
        - Nov 23 Thanksgiving
        - 4<sup>th</sup> week of every month City Council, OC Board, and Q Tribe Council meetings
        - Jan 1 New Year's Day
        - Jan 7 Orthodox Christmas Day
        - Jan 15 Birthday of Martin Luther King, Jr.
    - b. Next Steps/Action Item Review
  - 11. 7:55 8:00 Other Announcements/Unplanned Items/Open Discussion



- a. Recap of Old Business/New Business
- 12. 8:00 Contact Information and Closing Remarks, Adjourn

USACE - Alaska District Public Affairs Office (907) 753-2520 Public.affairs3@usace.army.mil

Amaknak FUDS Rena Flint, USACE Project Manager (907) 753-2680, <u>Rena.B.Flint@usace.army.mil</u>

**Fort Learnard FUDS** Jeremy Craner, USACE Project Manager (907) 753-2628, <u>Jeremy.D.Craner@usace.army.mil</u>

Chernofski FUDS Andy Sorum, USACE Project Manager (907) 753-2575, <u>Andrew.C.Sorum@usace.army.mil</u>

Cape Wislow FUDS Forrest Kranda, USACE Project Manager/Archeologist (907) 753-2736, Forrest.J.Kranda@usace.army.mil

Ugadaga Bay FUDS Richard Ragle, USACE Project Manager (907) 753-2683, <u>Richard.A.Ragle@usace.army.mil</u>



#### Qawalangin (regional) Restoration Advisory Board Meeting Islands of Unalaska, Amaknak, and Sedanka

Amaknak, Chernofski Harbor Supply and Storage Site, Cape Wislow AWS Station, Fort Learnard, and Ugadaga Bay Station Formerly Used Defense Sites (FUDS)

> 6:00-8:00 PM Wednesday, May 17, 2023

City Council Chambers 43 Raven Way, Unalaska, AK

#### **MEETING MINUTES**

- 1. 6:00 6:09 Welcome and Introductions
  - a. Opening Remarks

Rena gave welcome and opening remarks.

b. Roll Call/Quorum

$\boxtimes$	Denise Rankin, Community Co-Chair
$\boxtimes$	Alyssa K McDonald Community Co-Chair
$\boxtimes$	James (Jim) T Paulin
$\boxtimes$	Elise Contreras (virtual)
	Okalena Patricia Lekanoff Gregory
	Kale Bruner
	David M Gregory
$\boxtimes$	Michael Tutiakoff
$\boxtimes$	Ben Leon-Guerrero (via phone)
$\boxtimes$	Rena B Flint, USACE Co-Chair

Rena confirmed that there is a quorum as newly defined in the last meeting.

c. Meeting Goals and Objectives

Rena went over the meeting goals, objectives, and agenda. Rena also stated that she wants everyone who has a comment to participate or speak up on any topic.

2. 6:09-6:09 Revise/Adopt March 1, 2023 Minutes

Alyssa made a motion to adopt March 1, 2023 Minutes, Jim seconded the motion.

Decision: Adopt March 1, 2023 Minutes



- 3. 6:10-6:15 Local Updates/Community Introductions/Public Comment
  - a. In-person Community Attendees

Frank Kelty, local 50-year resident Steve Tompkins, Unalaska Utility director Jarred King, Environmental Scientist, Ounalashka Corporation Environmental (OCE) Mikal Pelka, Lead Environmental Scientist, OCE Chris Price Vince Tutiakoff Natalia Lekanoff Ellis Berry Wendy Hansen, USACE Cascade (Cas) Galasso-Irish, ADEC Denise Rankin, Community Co-Chair Alyssa McDonald, Community Co-Chair Jim Paulin Michael Tutiakoff Rena Flint, USACE Co-Chair

b. Virtual Attendees

Forrest Kranda, USACE Mike Macmillan, USACE Jessica Hall, USACE Jennifer Anderson, Aleut Remediation Caryn Orvis, Ahtna Engineering Matt Carlson Natalie Cale, OC/OCE Natasha Albee Quinn Meehan, Aleut Remediation Ivan Karen Pletnikoff, Aleutian Pribilof Islands Association Ben Leon-Guerrero, Aleut Real Estate Mel Scully, USACE Elise Contreras, Qawalangin Tribe

Frank Kelty said he is interested in the work. He used to play soccer on the field by the dock. He didn't know that fuel was contaminating the site. Very important that the work is on-going. Finding contamination can slow up



projects in the community. He said it's very important that the work is on-going to cleanup contamination.

Utility director Steve Tompkins said this is very interesting information by FUDS.

Denise said she wanted to introduce OC environmental team. She is excited they are here.

Mikal Pelka: Said he is excited to be working on the projects.

Jarred King said he is very excited about the upcoming projects and thank you for the introductions.

Jennifer Anderson said hello, and happy to listen into the RAB

Karen Pletnikoff said she is so happy and thinks it's great the RAB is providing greater oversight to the community.

Jessica Hall introduced herself and looked forward to speaking to everyone. Mel said hello and introduced herself.

4. 6:15 – 6:17 Distribution of Operating Procedures/Bylaws

Rena wanted to formally announce that bylaws were distributed to the RAB in the packet.

5. 6:17 – 6:20 Innovative Readiness Training Update

Chris Price announced confirmed with Captain Robinson that the IRT will be coming to the island this year. Confirmed that IRT will be coming June 28-29 to meet with the City, OC, and the Tribe. OC to invite to the July 1 50<sup>th</sup> Anniversary. A full team of 12 people will be coming in October to follow up on the original Civil Affairs project in 2020, evaluating the work that has been done since then, and make recommendations on future projects.

6. 6:20 – 6:35 Department of Environmental Conservation

Cas Galasso with ADEC introduced herself and gave a brief overview and presentation of the contaminated sites program including examples of contaminated sites and contaminants, charts of sites in Alaska by contaminant type, by status (active versus closed), and by type of Responsible Party. She presented the contaminated sites database, the exposure tracking module, and the Alaska regulatory cleanup process.

Rena wanted to highlight the bar chart because we are all talking about inventories. File numbers and Hazard IDs are how DEC tracks sites. Hazard IDs are not created equally. Some ADEC Hazard IDs are by source (see Amaknak FUDS), some are by wider area (see Chernofski FUDS). Amaknak FUDS projects generally correspond to



ADEC file numbers.

7. 6:35 – 6:40 Qawalangin Tribe NALEMP Update

Elise Contreras gave an update on NALEMP. She said that the purpose of the program is to address impacts from previous DOD activities. The Tribe just submitted the FY24 CA and is getting ready for this field season with Mt Ballyhoo transformer characterization with Aleut Remediation, removing 90 cubic yards of debris, including asbestos, in Pyramid Valley with Ounalashka Corporation Environmental, removing 3200 lbs. of screw pickets and barb wire in Beaver Inlet. Next summer removing debris from Unalaska Valley and performing a geophysical study of Unalaska Lake.

Rena said she was excited to hear about work with the OCE team and Aleut.

8. 6:40 – 7:00 Cape Wislow AWS Station FUDS Site Visit June

Forrest Kranda gave an overview of the Cape Wislow AWS Station FUDS Site. He said it was a World War II radar site to warn of early approaching aircraft. This was an early warning site with two search lights. It was supplied by barge and is a remote site. Fuel came in 55-gallon drums. Sites are disproportionality dirty due to 55-gallon drums. Since 2017, we have been continually working on AWS sites prompting us to look back at this one. Archeological work was done in the past. Facility is split between two camps; a tram way connected them. The camp was on the beach and the AWS was on the hill. The land is split 50/50 between OC and Fish and Game. The path forward is to have a site visit 19-24 June, then work on a report and evaluation. The next step will be to perform the preliminary assessment report and inventory project report (INPR) at the end of next year.

Jim asked if the tramway was still present.

Forrest answered that it might be present, but likely heavily degraded. Probably it is in same condition as Cape Prominence. He asked if anyone had been there recently.

Denise asked if Mayor Tutiakoff knows condition of tram. He shook his head no.

Chris Price thanks Forrest for the update and commented that they will have people working the fish weir this summer early June to late July and asked that he coordinate with the local people in Unalaska and working with OC for permits. He added that this is a sensitive area for subsistence harvesting during this time. Please keep them updated as the project is progressing. They would like the staff to know when they will be going back and forth.

Forrest assured he would deconflict the helicopter travel with the operation of the weir.

Denise asked Forrest to clarify the National Historic Properties designation and what that means for the landowner.



Forrest said they will be assessing World War II features within the property boundaries and explained that the National Register of Historic Places is a Federal list of important historic properties and its function.

Vince Tutiakoff Sr.- Mayor of Unalaska and chair of the Ounalashka Corporation commented that between 1974 and 1975 he lived at Reese Bay, during that time there was house there and the Cape Wislow AWS tramway was present but partially destroyed. The military had intentionally damaged the tram upon exiting the site, possibly by explosives. 7 or 8 fuel tanks of unknown size have been noted by visitors to McLees Lake/Reese Bay at the lake and river, they were reported to be leaking fuel into the lake in the 1970s/1980s. Salmon counts have reduced at McLees Lake, during the 1974-75 season around 90,000 reds were reported in that area. Today the salmon count is down to approximately 8,000. McLees Lake/Reese Bay is an important subsistence area to the people of Unalaska. Vern Robinson operated a saltery and gill net operation at McLees Lake in the 1960s. There may be ammunition. Logs have been noted floating in the lake, the surf is known to wash over the spit into the lake. If there is ammunition it is up in the grassy area up higher.

Forrest said, he may be right, you often find 30/06 and 50 cal. ammo at these sites.

Michael Tutiakoff commented the Rommel Stakes (Screw Pickets) have been noted in the Wislow area and there is the potential for UXO. McLees Lake/Reese Bay is a high traffic area for subsistence and fishing.

#### 9. 7:00 – 7:35 Ugadaga Bay FUDS Site Overview and Update

Jessica Hall gave an update on Ugadaga Bay FUDS and said her focus is on reducing risk from contaminants. Site background included 793 acres, used from 1942-1945 for harbor defense, site consisted of 17 buildings with 4 main areas. This (slide) is showing two locations of former site visits and documented leftover contamination. On the right side is the fire control station and on the left side is fire control auxiliary station. Landowners are Aleut, OC, Fish and Wildlife, and native allotments. There are 5 native allotees.

The first site visit was in 1986. Standing budlings were observed. There are 500 gallons of fuel left at the site. Soil samples have exceeded DEC cleanup levels.

She added that we are hoping to gain funding next year for the project, starting to talk to landowners for rights-of-entry (ROE), and future work will include a remedial investigation to see what needs to be done to remediate the site.

Karen P. asked if the recent photo review included searching the National Archives.

Jessica answered that she can look into that, she didn't know.

Karen said it helped a lot at Sanak. The National Archive search said these are your



sites. Corps contractor couldn't find sites and the photos can identify building uses.

Cas added that she is curious about site access.

Jessica answered that it's remote, but people access it through a 6-mile hiking trail.

Elis added that it's a popular hiking trail, and the beach on that allotment is a good fishing spot.

Vince added some background and the lake area is a native allotment owned by Bill Sahera, he passed away in the early 70's. His grandson now owns a property there. The property is used as a transient site. It's a storm shelter area if weather was bad. He used to stop at the cabins in 1985/1986. Clean up was going on but they didn't clean the fuel or powerhouses. There could still be PCBs at the site. A few cabins have been built and burned down.

Karen P. asked if any risk assessment plans for any subsistence lands. The default should be to run risk assessments knowing that local people will be eating fish and berries in the area. She asked that we consider being more conservative and reach out to APIA or the Tribe for specific details.

Jessica said she will keep it in the notes to reach out during the risk assessment.

Michael T. asked if there is a map or GIS data points for people/contractors to use to identify where the hazards are. May be efficient for future contractor bids.

Rena answered there is not a centralized GIS for contractors to view/ enter data, but we do make available GIS in the request for proposal in the form of government furnished information (GFI).

10. 7:20 – 7:30 Amaknak FUDS Update

Rena gave an Amaknak FUDS Update. She stated that this afternoon Ahtna contractors were collecting elevation surveys and doing well maintenance at the Pre-World War II Tank Farm. They collected a few samples and will continue tomorrow. She showed a schedule for field work May-June 2023.

The Unalaska Valley Kickoff meeting will be in the library led by OCE to introduce staff 22 May. Following monitoring well assessments, they will start excavation work on OC land, then City land. As site restoration continues, a drill rig will be installing soil borings and collecting soil sampling as well as monitoring well installation.

Denise asked if OC Environmental conducting this clean up.

Rena answered, yes.

11. Break 7:30-7:40



#### 12. 7:40 - 8:00 Chernofski FUDS Update

Alyssa McDonald gave a presentation from her perspective about the Chernofski FUDS site. She said USACE hired Brice to perform the cleanup. She took a skiff to shore and had the opportunity to see what they were doing and how they were doing it. She said there was great internet at the site. Artifacts were well catalogued. There were 3 archeologists on site to monitor, catalogue, and label artifacts that were found. It was all well documented. Tools and jewelry were found. Huge amounts of soil were moved. She was impressed with level of care in regard to the site, the remains, and removal and sampling of the site. There was photoionization testing. The fuel storage was built on the Orthodox Church cemetery. In the future, we should think about what we do?

How do we know it's clean? Sampling, ultraviolet optical screening tool (UVOST), soil removal, state approval, and clean backfill.

Wendy Hansen presented a follow-on Chernofski FUDS Field Report. She discussed how there was a big field effort in Chernofski last year. Chernofski is about 51 miles from Unalaska or 8-9 hours by boat. The primary focus was Mutton Cove. Mutton Cove was a large project. Some batteries, tanks, drums, and 3200 tons of contaminated soil were removed. Removed an additional 500 tons of soil when more contamination was found to total the 3200 tons. Also did a lot of investigation, in areas where contamination was suspected. 76 areas were inspected. 260 UVOST probes, drilled 200 soil borings, and installed 37 monitoring wells. More funding was requested for FY25. A contract would be awarded in FY24. Contamination remains at some tank and drum sites. No removal at AST East has been done yet. More investigation is planned.

Jim asked for clarification and more detail on the Church and impacts on the Church.

Wendy asked for clarification on if he was referring to the cemetery.

Jim answered yes.

Wendy said there was an AST on the cemetery site. There is contamination at the site and soil up to the boundary of the cemetery has been removed but we put a buffer around the cemetery about 10 feet outside of the cemetery due to the sensitivity.

Alyssa asked how long until receipt of the well data.

Wendy answered that there was not a lot of contamination in the wells. There were low levels of petroleum in some wells.

Denise asked what the holes were filled in with and one concern is what type of seed was used to reseed. We want to make sure no invasive species are introduced.

Denise noted a preference for rye seed citing a thistle and clover issue in Unalaska.



Wendy answered, some areas were pre-drilled and tested to identify local fill to be used for backfill. Holes were backfilled but not seeded.

Karen P. wanted to add a comment about terminology. "Midden" is a technical term in archaeology. A midden is a refuse pile associated with long term occupation of a site, they usually consist of discarded bone, shell, tools, and other items. The Chernofski Village Site is associated with a midden but the site itself is not a midden, it's a village site and the middens are one component of the site.

Ben Leon-Guerrero asked for confirmation that consultation with the landowner has occurred and the current disposition of the artifacts.

Wendy said that USACE has consulted with the Tanadgusix Corporation (TDX), Russian Dioecies of Alaska, and the Holmes Family, all are surface estate owners, archaeological resources are considered as surface resources and therefore owned by the surface estate owner. USACE has entered into a Memorandum of Agreement (MOA) with all surface estate owners, artifacts are being processed and catalogued and will be sent to the Museum of the Aleutians in Unalaska once complete.

- 13. 8:15 8:15 Review Next Meeting Dates/Identify Next Steps
  - a. Next RAB Meeting: Hybrid (In-person and Virtual)

Alyssa made motion to have next meeting Aug 16. Motion seconded for August 16. (Strike from record.)

Michael made the point that Camp Qungaayux is through 5 Aug and motioned for Aug 2 RAB. Alyssa seconded that motion to have meeting 2 Aug.

Decision: Next RAB meeting will be August 2, 2023

b. Action Item Review

From Mike/ Rena, Wendy had a few follow-up items, also Jessica.

- Forrest to coordinate Cape Wislow travel with Q Tribe and also deconflict the helicopter travel with the operation of the weir.
- Jessica to review if Ugadaga Bay Historical Photo Analysis included searching the National Archives.
- Karen requested that we transition from the word "midden" to informative terminology.
- Karen requested that Ugadaga Bay risk assessment include subsistence users.
- Ben commented on TDX staff turnover and requested Wendy/Andy to ensure coordination with TDX on Chernofski.



- 14. 8:15 8:20 Other Announcements/Unplanned Items/Open Discussion
  - a. Recap of Old Business/New Business

Denise thanked USACE for the thorough, productive agenda.

Michael T. would like everyone to look at Intrinsic Environmental (and phytoremediation).

Ellis on phytoremediation, brings up the point of invasive trees and the issue with invasive trees and small shrubs.

Denise noted Alders are invasive.

Jarred King added that they would be non-breeding trees. More of a pilot study. They would be noninvasive trees.

15. 8:20-8:22 Contact Information and Closing Remarks, Adjourn

Alyssa motioned to adjourn; Denise seconded the motion

Decision: Meeting Adjourned at 8:22



# US Army Corps of Engineers.

**U.S. ARMY** 

### 2 Aug 2023

Science, Technology, Engineering, and Mathematics curriculum spanning U.S. Army Corps of Engineers Missions in Unalaska



#### Mock Excavation

- Personal protective equipment
- Note-taking skills
- Analysis of artifacts and features at a simulated site
- Discussion of decontamination of artifacts
- **3Rs Safety**



#### Wetland & Floodplain Model/ Development

- Oil/ sludge Silt/ soil
- Solvents •
- Pesticides •

## CAPE WISLOW AWS STATION PRELIMINARY ASSESSMENT POST SITE VISIT PRESENTATION

Forrest Kranda Archaeologist/Project Manager USACE Alaska District Environmental and Special Programs 02 August 2023







# **PROJECT TEAM AND STAKEHOLDERS**

## **USACE** Site Visit Team

- Project Manager/ Archaeologist- Forrest Kranda
- Project Chemist- Jake Sweet
- Project Engineer- Will Mangano
- Field Support- Kaitlyn East
- Archaeologist- Kelly Eldridge

Maritime Helicopters - Pilot- Mike King

Regulators -ADEC -SHPO Land Managers -Ounalashka Corporation USFWS

Consulting Stakeholders -Qawalangin Tribe of Unalaska -Unalaska Historical Society







# **BACKGROUND CAPE WISLOW AWS STATION**

## World War II 1942-1945

- Occupation dates 1942-1945
- Constructed by U.S. Army Corps of Engineers and Signal Corps
- Supplied by barge from Fort Mears- 55-gallon drums used to transport fuel
- Consisted of a Radar Facility, Search Lights, and Harbor Defense Observation Post

## **1984-1986 FUDS Investigations**

- Finding of "no evidence of hazardous, toxic-waste, ordnance, or unsafe debris."
- 1986 inventory identified potential concerns at the tram, a section of old barge, steel drums, pumphouse, generator building, and 1,000-gallon aboveground storage tank (AST).

### **1974- Allan McCartney** – Aleutian Islands Coastline surveys

**1982-1988- Doug Veltre-** Archaeological Survey of Amaknak and Unalaska Islands and excavation at Reese Bay Site (UNL-00063)

2005- Mike Yarborough- Selendang Ayu Spill Survey



# CAPE WISLOW AWS STATION FACILITIES

Facilities were split into a lower camp and upper camp:

Access Support (lower camp)

- Tramway
- Hoist House
- Dock

## Living Quarters/Operations (upper camp)

- Aircraft Warning Service (AWS) SCR-271- Fixed Radar- Tower and Detector Building
- Harbor Defense Observation Post (HDOP) No. 4 (Part of Fort Mears) Concrete Bunker
- Two Searchlights in "Elephant Steel" aka. Armco Huts (Searchlights Nos. 13 and 14, also part of Fort Mears)
- Two Searchlight Power Plants
- Two Searchlight Control Structures- Distant Electronic Control (DEC)
- Main Powerhouse
- Three "Theater of Operations" T/O wood frame structures (2 barracks and 1 headquarters structure)
- Pumphouse
- Concrete or Wood Dam
- Three Quonset Hut storage units



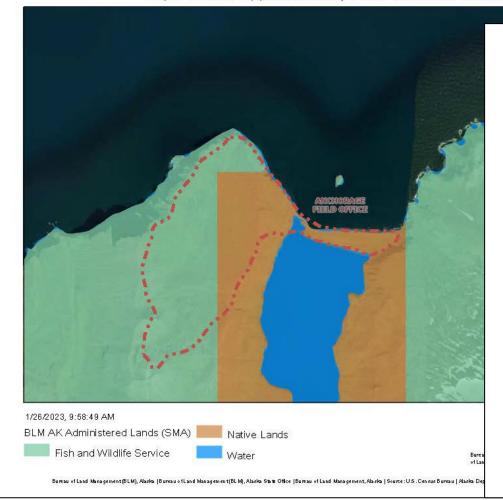
Wislow Detector Site (Bush 1944:223)

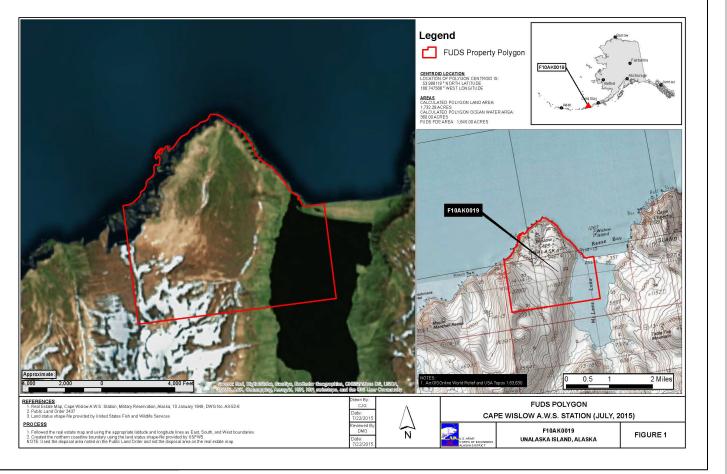


## LAND STATUS

### - Land Managers are U.S. Fish and Wildlife Service and Ounalashka Corporation

Cape Wislow Approx. Survey Area and Land Ownership







# SITE VISIT - JUNE 18-23, 2023

- Evaluate features of potential concern through visual observation, field screening, and analytical soil sampling.
- Collect photographs, GPS data, field notes, etc.
- Determine weather additional remedial actions may be warranted.
- Archaeological Survey and NRHP eligibility assessment



Barge sections on beach - Cape Wislow



Generator in power plant - Cape Wislow



1000 gallon tank - Cape Wislow

USACE 1986 Inventory



## **TRAMWAY-HOIST HOUSE**





## **TRAMWAY- HOIST HOUSE INTERIOR**





## POWERHOUSE



- Two-Underground
  Storage Tanks (USTs)
- Surrounded by chain-link fence
- No generators present



## **SAMPLING AT THE POWERHOUSE**





## **HEADQUARTERS BUILDING**









Wiring for Power





## **KVA GENERATOR UTILITY STRUCTURE**



- Power generator structure collapsed
- HDOP Bunker not present



## **SEARCHLIGHT SHELTERS**





## **SEARCHLIGHT SHELTERS**





## **PATH FORWARD 2023-2024**

June 2023 Site Visit

Trip Report and Archaeological Survey Report and Evaluation 2024

Preliminary Assessment Report 2024

> Inventory Project Report 2024



## **Questions?**

## AMAKNAK FUDS RANGE COMPLEX NO. 1 US Army Corps MERGENCY RESPONSE UPDATE



**U.S. ARMY** 

- <u>28 June 2023</u>: Disposal team to respond to potential unexploded ordnance near Unalaska shore
- <u>30 June 2023</u>: Munitions experts say possible explosive device near S-curves was an antique vehicle part
- If you think you may have found unexploded munitions, do not try to remove them. Exit the direction you came from and call 911 to report it.









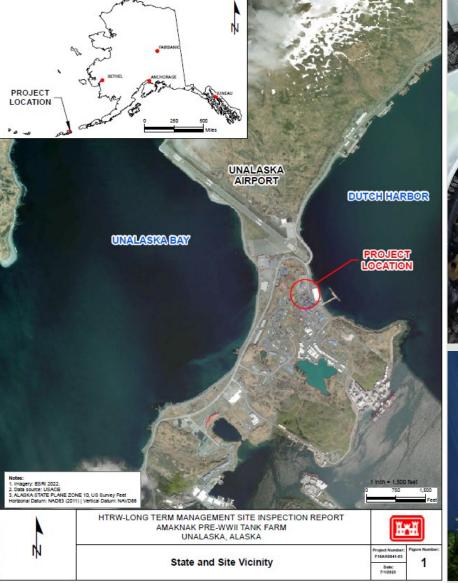
# AMAKNAK FUDS PRE-WWII UPDATE

<u>16-18 May 2023</u>

- Groundwater
  sampling
- Remedy inspection

#### ~August 2023

- Repairs needed at 2 monitoring wells
  - MW-3R
  - MW-16N













# AMAKNAK FUDS UNALASKA VALLEY UPDATE



#### Work plan changes to highlight

- Incorporation of silica gel cleanup methods to limit biogenic interference in the laboratory analytical results
- Use of an excavator to install monitoring wells within the source areas during excavation/backfill activities.
- No available access at UST 2674 (Broadway Ave in-town)

#### 23 May - 24 July 2023

#### **Excavations**

- UST 3065 (Broadway Ave out-of-town)
- UST 3260 (Ski Bowl)

### **Environmental Monitoring**

- UST 2664 (Broadway Ave in-town)
- UST 2267 A & B (Lear Rd)
- UST 2762 A & B (Choate Ln)





# AMAKNAK FUDS UNALASKA VALLEY UPDATE

#### UST 3065 (Broadway Ave out-of-town)









# AMAKNAK FUDS UNALASKA VALLEY UPDATE

#### UST 3260 (Ski Bowl)





