

Haines-Fairbanks Pipeline Milepost 17.7 Contaminated Soil Removal and Groundwater Treatment Project

Beth Astley (USACE Project Manager)

Will Mangano (USACE Environmental Engineer)

David Munro (Tetra Tech Senior Ecologist)

Maggie Poyant (Tetra Tech Environmental Scientist)

Haines, Alaska

13 February 2020



US Army Corps of Engineers
BUILDING STRONG[®]

Building and Preserving Alaska's Future

Meeting Purpose

- § Outline NEPA process
- § Describe proposed project
- § Address questions
- § Provide methods for submitting comments



®

US Army Corps of Engineers
BUILDING STRONG®

National Environmental Policy Act (NEPA)

Purpose of NEPA: To Ensure Opportunities for Public Involvement in the Evaluation of Environmental Impacts

Steps in NEPA Process

1. **Identify and Describe Proposed Project**
2. **Define Purpose and Need**
3. **Develop Alternatives**
4. **Describe Affected Environment**
5. **Evaluate potential impacts to environmental and social resources**
6. **Present findings for public review**
7. **Address public concerns**
8. **Amend project if needed**
9. **Issue final NEPA document**



Formerly Used Defense Site (FUDS) Program

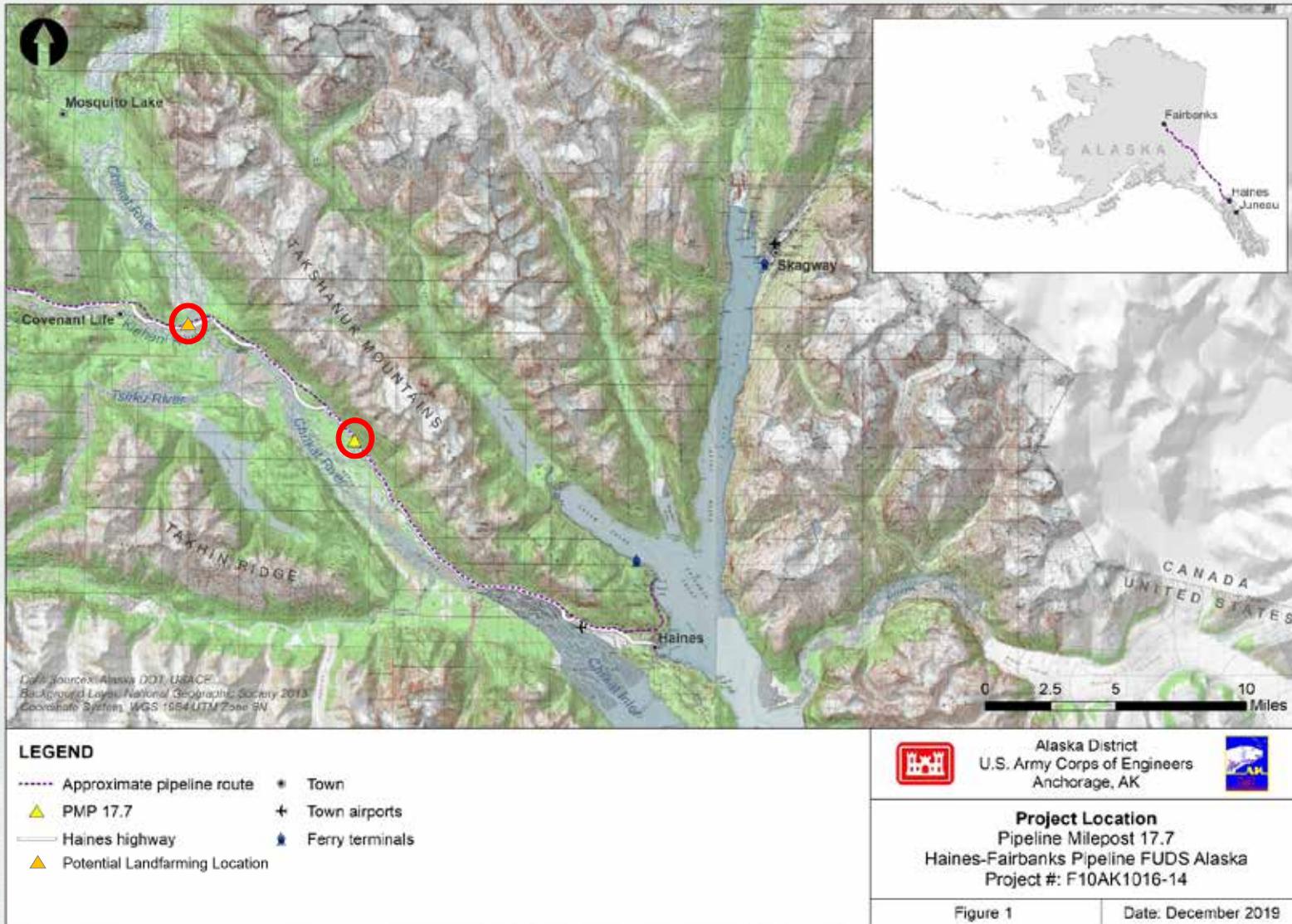
- § Established in mid-1980s
- § Cleanup of previous military sites to protect human health and the environment and improve public safety



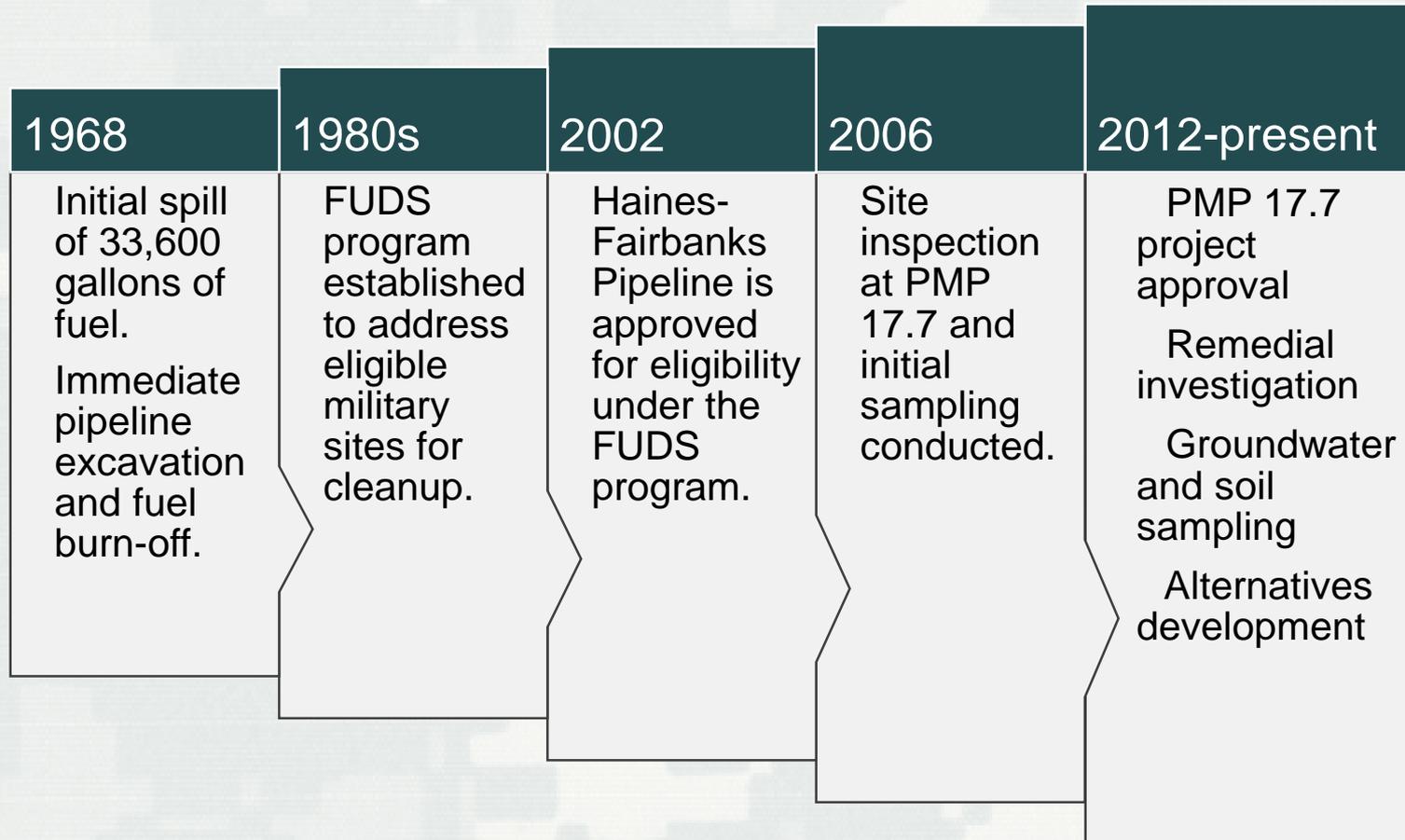
Haines-Fairbanks Pipeline



Project Location



Milepost 17.7 Historical Timeline



*Groundwater monitoring events have occurred annually since 2012, with the exception of the 2013 field season.



2012 Field Effort Soil and Groundwater Investigation



2014 Field Effort Delineation and Permanent Well Installation



2016 Field Effort

Biogenic Sheen Observed



2019 Field Effort

Chilkat River Slough Follow-Up Sampling



Alternative 1: No Action Alternative

Description

§ No action taken

Components

§ Cease groundwater monitoring and decommission wells



Alternative 2: Institutional Controls and Monitored Natural Attenuation

Description

§ Institutional controls to minimize human health exposure. Alternative would likely include monitoring of the groundwater to surface water pathway and maintenance of the existing well network and engineering controls.

Components

- § Engineering Controls
(e.g., signage)
- § Administrative Controls
(e.g., deed restrictions)
- § Monitoring
(e.g., groundwater and seep sampling)



Alternative 3: Source Excavation and Groundwater Monitoring

Components

- § Contaminated soil excavation, transport, and disposal/treatment
- § Limited pumping, transport, disposal/treatment of contaminated groundwater
- § Groundwater and seep monitoring



Alternative 4: Source Excavation, In-situ Treatment, and Groundwater Monitoring

Components

- § Contaminated soil excavation, transport, and disposal/treatment
- § Limited pumping, transport, treatment/disposal of contaminated groundwater
- § In-situ treatment techniques
- § Groundwater and seep monitoring

*This is the preferred alternative.



Sampling Summary at PMP 17.7



Data Sources: Alaska DOT, Alaska DNR, USACE
 Background Imagery: DigitalGlobe, 2014
 Coordinate System: WGS 1984 UTM Zone 8N

LEGEND

Groundwater Samples

- ◆ No Contamination
- ◆ Low-level Exceedance
- ◆ Concentrated Contamination

Soil Samples

- ◆ No Contamination
- ◆ Low-level Exceedance
- ◆ Concentrated Contamination

Proposed Excavation Areas

Observed Contaminated Groundwater Seep - April 2019

Approximate Pipeline Route

Approximate DOT ROW (150 feet)

Notes: Groundwater samples taken in 2018. Soil samples taken in 2012 and 2014. Contaminated seep area observed in April 2019.



Alaska District
 U.S. Army Corps of Engineers
 Anchorage, AK



Groundwater and Soil Sampling Results
 Pipeline Milepost 17.7
 Haines-Fairbanks Pipeline FUDS Alaska
 Project #: F10AK1016-14



Figure 6

Date: January 2020





In-Situ Treatment

Components

- § Granulated activated carbon injected into the groundwater
- § Contaminants sorb to the carbon, preventing mobilization of contamination
- § Promotes biodegradation when electron acceptors are available
- § Can be combined with in-situ methods that increase oxygen availability in the groundwater to reduce contamination through biodegradation and oxidation
- § Oxygen-releasing amendment mixed with backfill within groundwater zone





Milepost 17.7 Project Impact Area



Data Sources: Alaska DOT, Alaska DWR, USACE
 Background Imagery: DigitalGlobe 2014
 Coordinate System: WGS 1984 UTM Zone 2N

LEGEND

-  PMP17.7 Project Impact Area
-  Excavation Area
-  Staging Area
-  Temporary Construction Lane
-  Approximate DOT ROW (150 feet)



Alaska District
 U.S. Army Corps of Engineers
 Anchorage, AK



Project Area
 Pipeline Milepost 17.7
 Haines-Fairbanks Pipeline FUDS Alaska
 Project #: F10AK1016-14

Figure 2

Date: December 2019



Preferred Method for Soil Treatment: Landfarming

Tilling and Watering

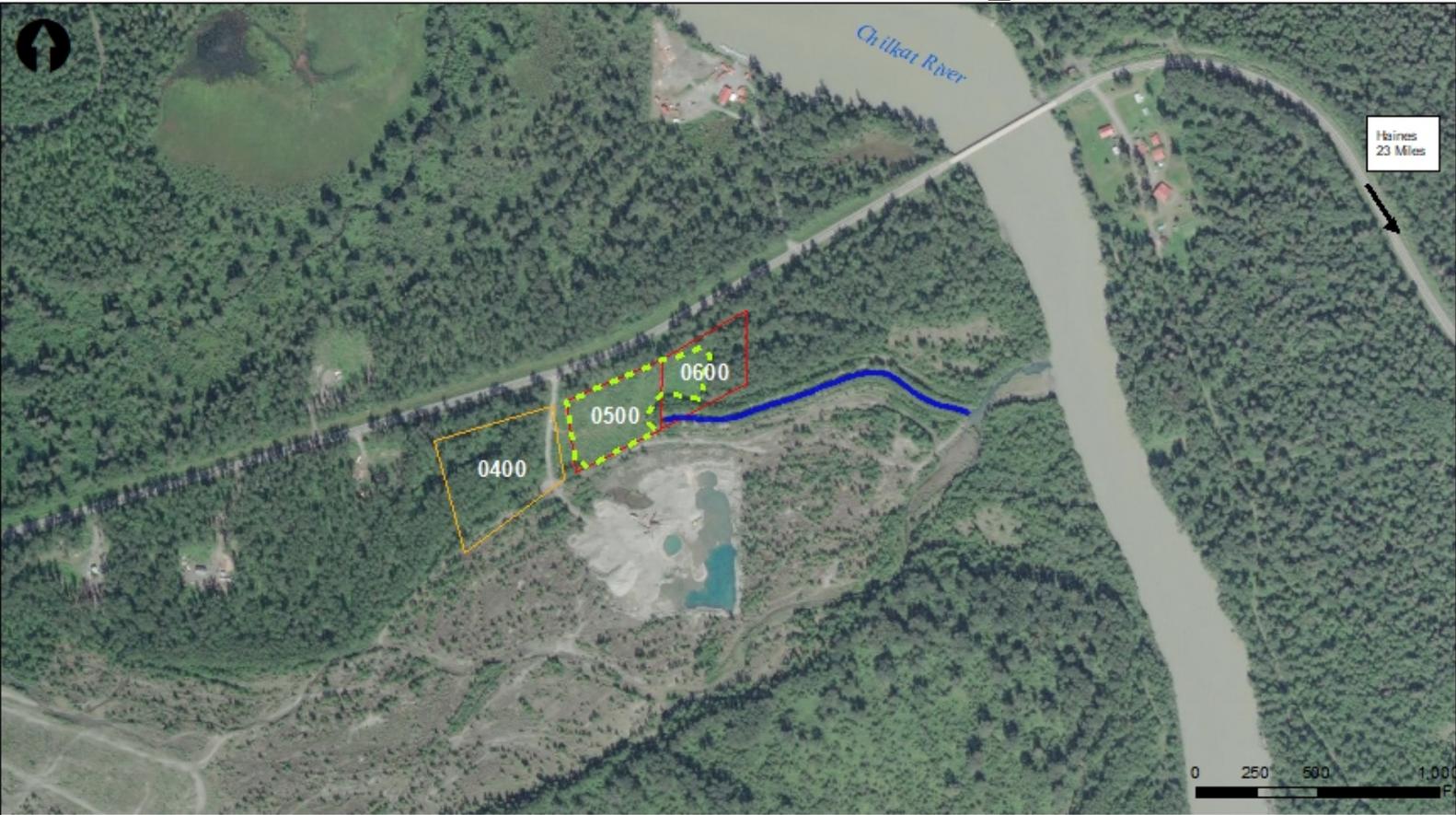


Landfarming

Nutrient Monitoring and Sampling



Potential Landfarming Location



<p>LEGEND</p> <p> Landfarming Area</p> <p> Constructed Chum Spawning Channel</p> <p>Landfarm Parcels</p> <p> Initial</p> <p> Additional (if needed)</p>	<p>Alaska District U.S. Army Corps of Engineers Anchorage, AK</p> 
	<p>Landfarm Location Pipeline Milepost 17.7 Haines-Fairbanks Pipeline FUDS Alaska Project #: F10AK1016-14</p> 
	<p>Figure 3 Date: January 2020</p>

Landfarming

Frequently Asked Questions

- **Will it work?**

USACE successfully landfarmed 30,000 tons of soil in Nome, Alaska, under shorter field season, with heavier fuel (diesel), and higher concentrations.

- **Will it contaminate the landfarming site?**

Pre- and post-landfarm sampling to ensure landfarm soil does not contaminate the landfarm site.

Soil liners utilized as a precaution for highly contaminated soil per ADEC Landfarming Guidance.

- **How will you know if/when the cleanup standards are met?**

Periodic sampling to confirm effectiveness. If necessary, soil that does not meet ADEC cleanup standards would be disposed at an approved offsite facility.

- **What are the benefits of this treatment method?**

Green alternative to soil remediation.

Economic benefits to the city of Haines and less trucking through town.

Cost savings of up to 50% or more as compared to offsite disposal or onsite thermal treatment.



National Environmental Policy Act (NEPA)

Purpose of NEPA: To Ensure Opportunities for Public Involvement in the Evaluation of Environmental Impacts

Steps in NEPA Process

1. Identify and Describe Proposed Project
2. Define Purpose and Need
3. Develop Alternatives
4. Describe Affected Environment
5. Evaluate potential impacts to environmental and social resources
6. Present findings for public review
7. Address public concerns
8. Amend project if needed
9. Issue final NEPA document



How to Comment

- § Retrieve an electronic copy of the Environmental Assessment at:
<https://www.poa.usace.army.mil/Library/Reports-and-Studies>
- § Request a printed copy from the USACE by emailing
POA-FUDS@usace.army.mil
- § Review a printed copy locally at the **Haines Public Library**.
- § Fill out a comment card tonight and submit in person.
- § Mail written comments to the following address:
ATTN: CEPOA-PM-ESP-FUDS (Astley), PO Box 6898, JBER, AK 99506
- § Written comments can also be e-mailed to the following address:
POA-FUDS@usace.army.mil

All comments received by March 6, 2020 will be considered before USACE makes a final decision on alternative actions. A summary of responses to all substantive comments will enter the local Information Repository as an addendum to the final EA.



Contact Information

USACE Project Manager

Beth Astley

(907) 753-5782

Beth.N.Astley@usace.army.mil

Information Repository

Haines Library

111 3rd Avenue

Haines, Alaska 99827

(907) 766-6420

