



## Spill Area South of Building 3485; Motor Pool Buildings 3492, 3494, 3496; and Northern Lights Housing Area Sites Fort Wainwright, Alaska

### INTRODUCTION

The U.S. Army invites the public to review and comment on the Proposed Plan for the Spill Area South of Building 3485 (B3485); Motor Pool Buildings 3492, 3494, and 3496 (MP B3492, MP B3494, and MP B3496); and the Northern Lights Housing Area (NLHA) sites at Fort Wainwright, Alaska (FWA). The U.S. Army is issuing this Proposed Plan to ensure that public participation opportunities are provided for these sites and to comply with its responsibilities under the Defense Environmental Restoration Program (DERP), Code of Federal Regulations (CFR), Title 10, Chapter 160. This document is issued in accordance with and satisfies the requirements under Section 117(a) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (Title 42 of the U.S. Code [USC] Chapter 103, Subchapter 1), and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) in 40 CFR 300.430(f)(2).

This Proposed Plan provides a summary of the history, data, and actions conducted at the B3485; MP B3492, MP B3494, and MP B3496; and NLHA sites. Additional details concerning these sites are available for review in the documents on file at the Noel Wien Public Library, the FWA Public Library, and the U.S. Army Directorate of Public Works Environmental Office (Building 3023). The remedial investigations (RI) showed that contamination at each site was associated with a petroleum release, and the sites are exempt from CERCLA Sections 101(14) and 104(a)(2) under the petroleum exclusion. As a result, management of these sites will be transferred to the state of Alaska for future management and cleanup in accordance with the Two-Party Agreement.

After considering all public comments on the Proposed Plan, The U.S. Army will prepare a Record of Decision (ROD). The ROD will include responses to all significant public comments in a section called the Responsiveness Summary.

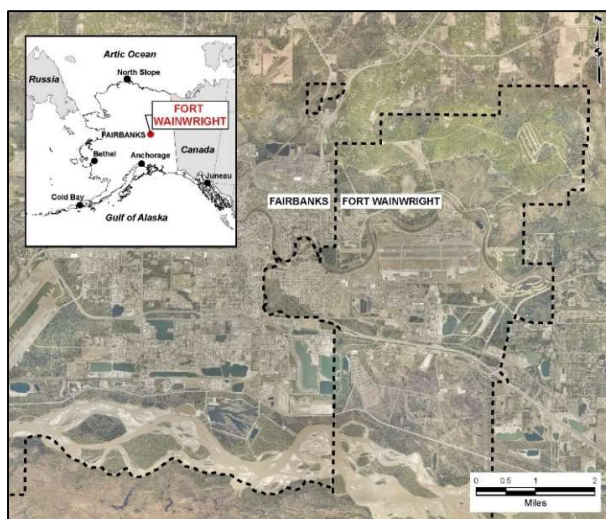
### CONTENTS

INTRODUCTION .....	1
SITE LOCATION AND HISTORY .....	1
REGULATORY BACKGROUND.....	2
PURPOSE AND SCOPE OF THE PROPOSED PLAN ....	2
REMDIAL INVESTIGATION SUMMARY .....	3
SUMMARY OF SITE RISKS.....	6
REGULATORY STATUS.....	7
SUMMARY OF THE PREFERRED ALTERNATIVE .....	7
COMMUNITY PARTICIPATION .....	7
SELECT ADMINISTRATIVE RECORD DOCUMENTS...	8
ACRONYMS/GLOSSARY.....	8

### SITE LOCATION AND HISTORY

FWA is an active Army installation that occupies approximately 1,578,304 acres and is located east of Fairbanks, Alaska (Figure 1). It was initially established in 1939 as Ladd Airfield, a cold-weather testing station for equipment and aircraft. The installation consists of a main Post area, a cantonment area, a small arms range complex, and a closed-in range complex. Primary missions at FWA include training infantry soldiers in the arctic environment, testing equipment in arctic conditions, preparing troops for defense of the Pacific Rim, and rapid deployment of troops worldwide.

Figure 1. Fort Wainwright Location



## REGULATORY BACKGROUND

FWA was added to the CERCLA National Priorities List (NPL) in 1990. Investigations at FWA were conducted by the Army as part of the Installation Restoration Program (IRP). The three parties (Army, U.S. Environmental Protection Agency (EPA) Region 10, and Alaska Department of Environmental Conservation (ADEC)) negotiated the FWA NPL Site Federal Facility Agreement (FFA), which was signed in 1992. Sites where contamination was associated with a petroleum release may be exempt from CERCLA Sections 101(14) and 104(a)(2) under the petroleum exclusion. As a result, the Army and ADEC also entered into a Two-Party Agreement to address petroleum, oil, and lubricants (POL) sites in 1992. The Two-Party agreement was revised in 1998 to provide a mechanism for inclusion of newly discovered POL sources and for closure of POL source areas under this agreement. Additionally, the EPA issued a RCRA Part B Permit to FWA in 2013 for closure of an open burning/open detonation unit, and for corrective action at all Solid Waste Management Units (SWMUs) not covered by the FFA. The permit defined SWMUs as “any area at the Facility at which hazardous waste and/or constituents have been routinely and systematically released.” Sites that are administered by ADEC under RCRA Subtitle I, in accordance with the EPA-ADEC Memorandum of Agreement (MOA), will be in compliance with ADEC regulations (Title 18 of the Alaska Administrative Code [AAC] Chapter 78).

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

**Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)** – a federal law established in 1980, modified in 1986, also known as “Superfund”. CERCLA established a nationwide process for cleaning up hazardous sites that potentially endanger public health and the environment.

**Remedial Investigation** – a site investigation performed to characterize and assess the potential for contamination.

## PURPOSE AND SCOPE OF THE PROPOSED PLAN

The FFA outlines the procedures and schedules required for a thorough investigation of suspected hazardous waste source areas on FWA in accordance with federal and state regulations. One of the steps in this process is to conduct a Remedial Investigation (RI) to determine the nature and extent of contamination and the potential human health and ecological risks associated with that contamination. When the RI is completed, different cleanup alternatives are presented in the report and reviewed by the agencies to select the preferred cleanup option. This review includes an evaluation of the contaminant source and determination of the appropriate regulatory framework for each source area.

If the site characterization shows that the contamination meets the definition of a CERCLA hazardous substance, and the baseline risk assessment determines that an unacceptable risk is present, a feasibility study (FS) is written to evaluate cleanup alternatives. A summary of the site history and rationale for selection of the preferred cleanup alternative are then presented in the Proposed Plan (PP) and finally documented in a Record of Decision (ROD). This process of site identification, site characterization, remedy selection, and site cleanup is ongoing at FWA and has thus far resulted in signed RODs for six Operable Units (OUs) and a number of ongoing investigations.

If the site characterization shows that the contamination was associated with a petroleum release, the site may be exempt from CERCLA Sections 101(14) and 104(a)(2) under the petroleum exclusion. This provision specifically excludes petroleum and petroleum constituents, including crude oil or any fraction thereof, which is not otherwise specifically listed or designated as a hazardous substance. Sites that meet this definition are transferred to the state of Alaska for future management and cleanup in accordance with the Two-Party Agreement. The site history, investigation results, and rationale for application of the petroleum exclusion are documented in the PP for the current sites.

## REMDIAL INVESTIGATION SUMMARY

A summary of the RI results at each site included in this PP is presented in the following sections. Relative locations of the sites described in this PP are shown on Figure 2.

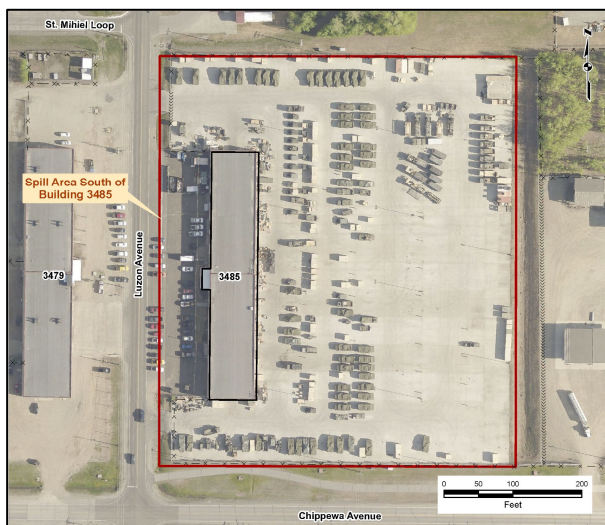
**Figure 2. Proposed Plan Site Locations**



## SPILL AREA SOUTH OF BUILDING 3485

B3485 is located in the southern area of FWA on the corner of Chippewa Avenue and Luzon Avenue (Figure 3). The site encompasses seven acres and occupies part of a large area that was used by the Army for equipment and machinery refueling during the 1940s and 1950s. Three underground storage tanks (USTs) were installed to accommodate fueling activities. Records indicate two of the USTs contained gasoline and the other diesel.

**Figure 3. Building 3485 Location**



## Previous Investigations

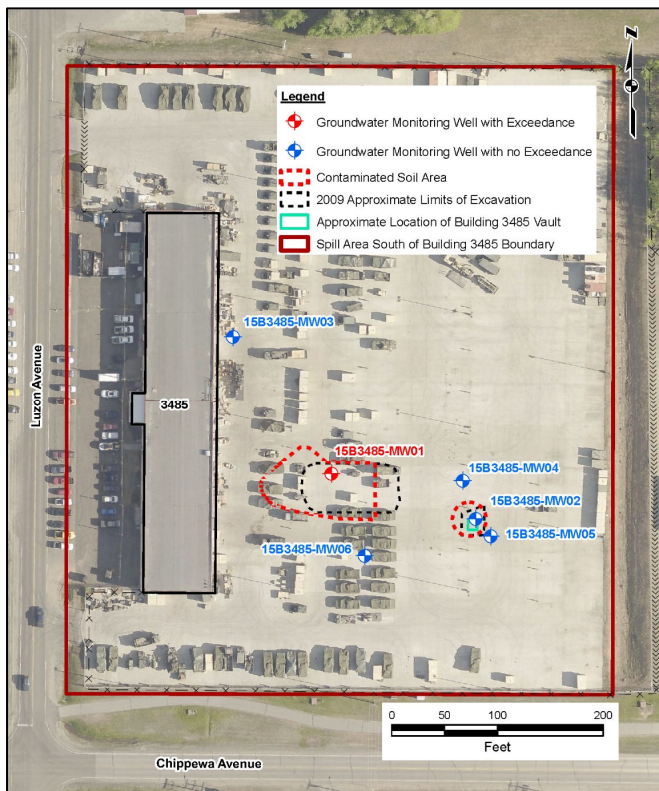
- In 2007, soil and groundwater samples were collected to characterize potential contamination prior to the proposed construction of a new parking lot. Benzene was detected in one soil sample at a concentration that exceeded the ADEC cleanup level in effect at that time.
- Construction of a new parking lot began in 2009. During construction, three USTs, multiple drums, and other debris were encountered. While excavating the drums, the contractor inadvertently punctured at least one drum, and POL was released to the ground surface. The spill was reported, and POL-contaminated soil was removed and containerized. Additional remediation activities were subsequently conducted to remove the three USTs and associated piping, excavate and remove POL-contaminated soil associated with the tanks, and characterize any remaining soil and groundwater contamination. As part of this effort, approximately 3,500 gallons of contaminated water and 150 gallons of sludge were removed from the USTs, and 804 cubic yards (cy) of POL-contaminated soil were removed from the area surrounding the former tanks. Following these activities, soil and groundwater samples were collected, and the results showed POL contamination above the ADEC CULs remained at the site.
- Also in 2009, an empty 8-foot-square wooden vault with no associated piping was discovered east of the former UST locations. The vault was removed and disposed of along with 120 cy of POL-contaminated soil. Soil and groundwater samples collected from the vault excavation area showed diesel range organics (DRO) exceeded ADEC cleanup levels. The excavation was backfilled and covered with concrete as part of the motor pool construction activities before the full extent of contamination could be determined.
- The investigations between 2007 and 2009 identified POL contamination at the B3485 site. However, since the complete nature and extent of contamination was not characterized, and there was uncertainty if POLs were the only contaminants present at the site, the decision was



made to move the site forward into the CERCLA program and conduct an RI.

- The RI was conducted in 2015, and 23 soil and 6 groundwater samples were collected near the former 2009 excavation areas. Analytical results confirmed POL contamination was present at the site, including gasoline range organics (GRO), DRO, benzene, ethylbenzene, naphthalene, total xylenes, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, 1-methylnaphthalene, and 2-methylnaphthalene above ADEC cleanup levels in soil; and GRO, benzene, and naphthalene above ADEC cleanup levels in groundwater. Contaminated soil remains in an estimated area of 25 feet by 25 feet at a depth of approximately 5 to 11 feet below ground surface (ft bgs). The extent of groundwater contamination was shown to be limited to the area in the vicinity of the former USTs. The approximate extent of contamination remaining at the site is shown in Figure 4.

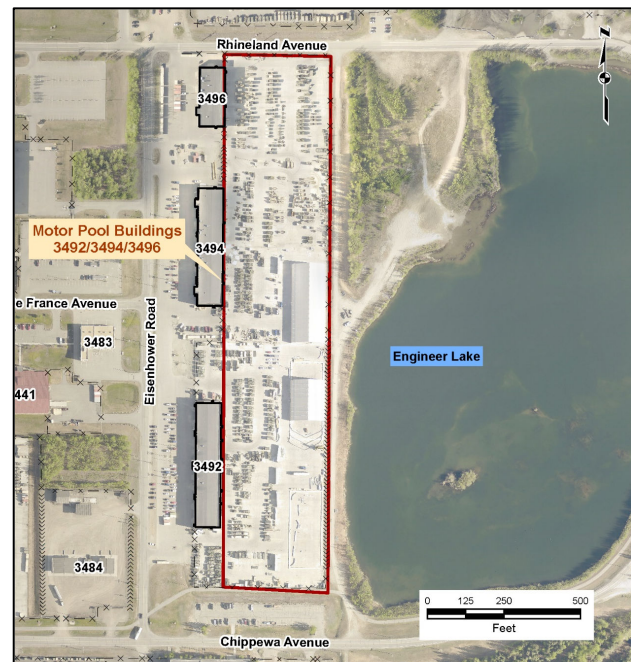
Figure 4. Remaining Contamination at B3485 Site



## MOTOR POOL BUILDINGS 3492, 3494, AND 3496

MP B3492, MP B3494, and MP B3496 are located within the southeastern portion of FWA, south of Rhineland Avenue and north of Chippewa Avenue. Engineer Lake, a former gravel pit, lies directly to the east (Figure 5). The site is approximately 15 acres with a large parking area that was built between 1986 and 1993. In 2009, the asphalt was removed, the area was graded, and a new parking lot was constructed.

Figure 5. MP Buildings 3492, 3494, and 3496  
Location



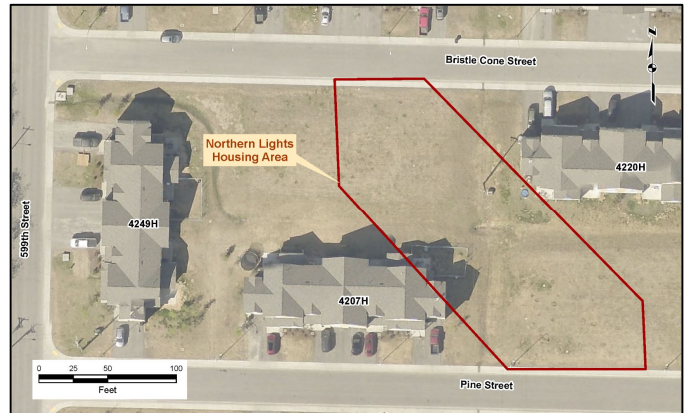
## Previous Investigations

- In 2007, a construction-based geotechnical investigation was performed to obtain a general understanding of underlying surface and subsurface conditions in vehicle parking areas. Twenty-two soil samples were analyzed and no evidence of soil contamination was observed.
- In 2009, field screening using a photoionization detector (PID) was conducted during excavation associated with parking lot replacement. Two soil samples for laboratory analysis were collected from field screening locations with elevated PID readings, with one sample exceeding the ADEC cleanup level for benzene.

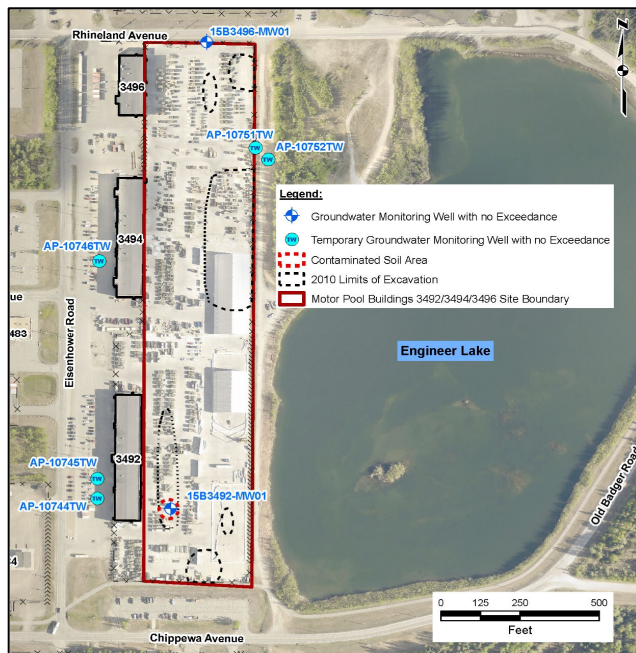
- The investigations between 2007 and 2009 identified POL-related contamination at the MP B3492, MP B3494, and MP B3496 site. However, since the complete nature and extent of contamination was not characterized, and there was uncertainty if POLs were the only contaminants present at the site, the decision was made to move the site forward into the CERCLA program and conduct an RI.
- The RI was performed in 2015 and focused on characterization of potential contamination in the former excavation areas. A total of 15 soil samples and 2 groundwater samples were collected for laboratory analysis. Results showed that no contaminants exceeded ADEC cleanup levels in soil or groundwater. These results indicated the residual soil contamination observed in 2009 was very limited in extent and was not migrating to groundwater or impacting water quality. The extent of residual soil contamination remaining at the site is shown in Figure 6.

used for temporary and permanent housing since the 1940s. In preparation for new construction in 2012, the old housing units were demolished in accordance with applicable state and federal guidance. Construction crews excavating the footprints for new building pads encountered abandoned utilidors, piping, and potential soil contamination. No evidence of asbestos was reported.

**Figure 7. NLHA Location**



**Figure 6. Remaining Soil Contamination at the MP Buildings 3492, 3494, and 3496**



## Previous Investigations

- In response to reports of potential soil contamination encountered during excavation in 2012, construction support activities were conducted to characterize subsurface soil near and beneath the planned building footprints of the NLHA. Approximately 1,500 cy of contaminated soil was removed, and confirmation soil samples indicated that the POL compounds DRO and 1-methylnaphthalene impacted soil at Building Pad 46 (B46) between a depth of 5 and 9 ft bgs, and DRO and 1,2-dichloropropane impacted soil at Building Pad 51 (B51) between a depth of 7 and 9 ft bgs. The suspected source of contamination was fuel that was piped between the old buildings. Construction of new residential housing was completed following this removal action, but homes were not built on top of the areas with soil contamination.

## NORTHERN LIGHTS HOUSING AREA

The NLHA is a 0.18-acre residential site located south of Gaffney Road, north of Neely Road, and east of 599<sup>th</sup> Street within FWA (Figure 7). The area has been



- The construction response activities in 2012 identified POL contamination. However, the complete nature and extent of contamination was not characterized and there was uncertainty if POLs were the only contaminants present at the site. As a result, the decision was made to move the site forward into the CERCLA program and conduct an RI.
- The RI was performed in 2015, and a total of 34 soil and 5 groundwater samples were collected to characterize and delineate soil contamination and groundwater impacts associated with contamination within the two former excavation areas (B46 and B51). A total of 3 of the 34 soil samples showed concentrations of DRO and 1-methylnaphthalene above ADEC cleanup levels. However, no exceedances of 1,2-dichloropropane were observed. Based on these results, it was estimated that approximately 300 cy of POL-contaminated soil remains associated with the former B46 excavation in an area covering 20 feet by 30 feet at a depth between 6 and 18.5 ft bgs. Approximately 100 cy of POL-contaminated soil is estimated to be present in discontinuous locations within the footprint of the former B51 excavation at a depth of 14 to 15 ft bgs. Groundwater sample results from B46 and B51 were below ADEC cleanup levels indicating that contaminants are not migrating to groundwater and therefore not impacting water quality. The extent of residual soil contamination remaining at the site is shown in Figure 8.

## SUMMARY OF SITE RISKS

As part of the 2015 RI, a baseline risk assessment (RA) was developed for each site to evaluate potential human health and environmental risks. Each site-specific RA determined potential risks for current users and potential future users if the land use or ownership changed and to determine what, if any, additional remedial actions are warranted.

More information regarding assumptions and procedures used in the RA can be found in the Risk Assessment Report (Appendix J of the *Draft Final Remedial Investigation Report, Various Environmental Sites, U.S. Army Garrison Alaska, Fort Wainwright, 2019*). The RA was conducted in accordance with Army, EPA, and ADEC guidance.

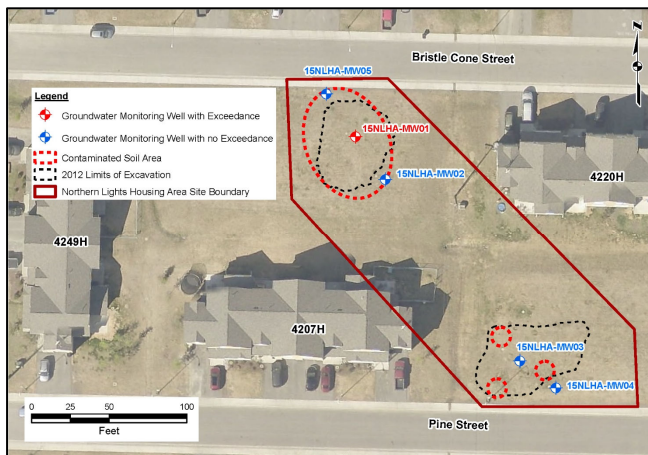
*Each site risk assessment determines potential risks for current users and potential future users if the land use or ownership changes and to determine what, if any, additional remedial actions are warranted.*

*For purposes of CERCLA and Two-Party remediation, groundwater use at, and potentially affected by, FWA source areas is considered residential.*

## B3485

The RI showed the release was associated with POLs, and there were no CERCLA contaminants of potential concern (COPCs) identified at the B3485 site. As a result, the site is exempt from action under CERCLA Sections 101(14) and 104(a)(2) under the petroleum exclusion. The RA identified both cancer and non-cancer risks to human health for future exposure scenarios, primarily associated with total petroleum hydrocarbons (TPH) in soil; and arsenic, benzene, naphthalene, and TPH in groundwater. However, it should be noted that the maximum arsenic concentration detected in groundwater was below the background arsenic concentrations at the site and was attributed to naturally occurring metals. No ecological risk was identified in the RA.

**Figure 8. Remaining Contamination at the NLHA Site**



## MP B3492, MP B3494, MP B3496

The RI identified POL contamination, but there were no CERCLA COPCs identified at the MP B3492, MP B3494, and MP B3496 site. As a result, the site is exempt from action under CERCLA Sections 101(14) and 104(a)(2) under the petroleum exclusion. The RA identified a non-cancer risk to human health for a future exposure scenario, and the risk was associated with DRO; however, it should be noted that the highest concentrations of DRO in soil and groundwater were below the ADEC cleanup levels. No ecological risk was identified in the RA.

## NLHA

The RI identified POL contamination, but there were no CERCLA COPCs identified at the NLHA site. As a result, the site is exempt from action under CERCLA Sections 101(14) and 104(a)(2) under the petroleum exclusion. The RA identified an unacceptable cancer and non-cancer risk to human health for future exposure scenarios, associated primarily with DRO, arsenic, and chromium in soil and groundwater. Arsenic and chromium concentrations are attributed to naturally occurring material and not related to former use. No ecological risk was identified in the RA.

## REGULATORY STATUS

Based on the results of the 2015 RI, the sites are characterized by POL contamination, exempt from CERCLA Section 101(14) and 104(a)(2) under the petroleum exclusion. This provision specifically excludes petroleum and petroleum constituents, including crude oil or any fraction thereof which is not otherwise specifically listed or designated as a hazardous substance. Since no CERCLA contaminants were identified at B3485, MP B3492, MP B3494, and MP B3496, or the NLHA, there is no basis for remedial action to be performed under CERCLA. However, the sites will be transferred to the state of Alaska in accordance with the Two-Party agreement and the Memorandum for Record (MFR) from the Department of the Army (dated 5 July 2022).

## SUMMARY OF THE PREFERRED ALTERNATIVE

### B3485

Based on the site history, RI, and conclusions of the MFR, the release at the Building 3485 site is comprised entirely of POL contamination which is excluded from coverage under CERCLA. As a result, there is no basis for remedial action to be performed under CERCLA. Instead, the POL contamination will be addressed by the Army in accordance with the Two-Party Agreement entered into by the Army and state of Alaska and the MFR dated July 5, 2022.

### MP B3492, MP B3494, MP B3496

Based on the site history, RI, and conclusions of the MFR, the release at the MP B3492, MP B3494, and MP B3496 site is comprised entirely of POL contamination which is excluded from coverage under CERCLA. As a result, there is no basis for remedial action to be performed under CERCLA. Instead, the POL contamination will be addressed by the Army in accordance with the Two-Party Agreement entered into by the Army and state of Alaska and the MFR dated July 5, 2022.

### NLHA

Based on the site history, RI, and conclusions of the MFR, the release at the NLHA site is comprised entirely of POL contamination which is excluded from coverage under CERCLA. As a result, there is no basis for remedial action to be performed under CERCLA. Instead, the POL contamination will be addressed by the Army in accordance with the Two-Party Agreement entered into by the Army and state of Alaska and the MFR dated July 5, 2022.

## COMMUNITY PARTICIPATION

The public is encouraged to provide comments on the Proposed Plan during the public comment period between **23 July 2024 and 23 August 2024**. Comments can be presented in writing or at the public meeting as described below. A pre-addressed comment form is attached to this Proposed Plan. A public meeting to

discuss this Proposed Plan, answer any questions, and receive public comments will be held on **23 August 2024** at the **Morris Thompson Cultural and Visitors Center**. The Army, ADEC, and EPA encourage the public to gain a more comprehensive understanding of the sites and the remedial activities that have been conducted at each site. The Administrative Record files can be viewed as specified below.

For more information, see the Administrative Record files at the following locations:

- FWA Public Library, Building 3700 Santiago Avenue, Fort Wainwright, Alaska, 99703
- Noel Wien Public Library, 1215 Cowles Street, Fairbanks, Alaska, 99701
- U.S. Army Directorate of Public Works, Environmental Office, Building 3023, Engineer Place, Fort Wainwright, Alaska

Additional information regarding the regulatory program and history of the three sites discussed in this Proposed Plan is available through the following EPA and ADEC websites:

- <https://cumulis.epa.gov/supercpad/cursites/csinfo.cfm?id=1001146>
- Building 3485:  
<https://dec.alaska.gov/Applications/SPAR/PublicMVC/CSP/SiteReport/27738>
- Motor Pool Buildings 3492, 3494, and 3496:  
<https://dec.alaska.gov/Applications/SPAR/PublicMVC/CSP/SiteReport/25420>
- Northern Lights Housing Area:  
<https://dec.alaska.gov/Applications/SPAR/PublicMVC/CSP/SiteReport/26291>

For any other information on the three sites discussed in this Proposed Plan, please contact:

- Peter Baker – FWA Environmental Restoration.  
(907) 361-6623, or [peter.a.baker8.civ@army.mil](mailto:peter.a.baker8.civ@army.mil)
- News media, please contact FWA Public Affairs at  
(907) 353-6700, or  
[usarmy.wainwright.id.pacific.list.pao@army.mil](mailto:usarmy.wainwright.id.pacific.list.pao@army.mil)

**Administrative Record:** *The legal file of documents upon which any decision regarding contaminated sites is based. It contains site documents, newsletters, the Community Relations Plan, and other supporting documentation that may be used by federal, state, and local government agencies and private parties to determine appropriate actions for each contaminated site.*

## SELECT ADMINISTRATIVE RECORD DOCUMENTS

Kaktovik Environmental, LLC and Weston Solutions, Inc. 2019. *Redline Draft Final Remedial Investigation Report*. U.S. Army Garrison Alaska, Fort Wainwright. September.

Jacobs Engineering Group. 2010. *2009 Remedial Investigation Report – Building 3485 Underground Storage Tank and Geoprobe Investigation*. February.

Jacobs Engineering Group. 2013. *2012 Northern Lights Housing Site After-Action Report*. Fort Wainwright, Alaska. September.

Jacobs Engineering Group. 2014. *2009 Removal Action Report – Building 3485 Underground Vault*. September.

Shannon and Wilson, Inc. 2009. *Geotechnical Recommendations Report – FTW 334 Organizational Parking*. Fort Wainwright, Alaska. April.

## ACRONYMS/GLOSSARY

AAC	Alaska Administrative Code
ADEC	Alaska Department of Environmental Conservation
B3485	Spill Area South of Building 3485
B46	Building Pad 46
B51	Building Pad 51
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
COPC	contaminant of potential concern



cy	cubic yards	MP B3492	Motor Pool Building 3492
DD	Decision Document	MP B3494	Motor Pool Building 3494
DERP	Defense Environmental Restoration Program	MP B3496	Motor Pool Building 3496
DRO	diesel range organics	NCP	National Contingency Plan
EPA	U.S. Environmental Protection Agency	NLHA	Northern Lights Housing Area
FFA	Federal Facility Agreement	NPL	National Priorities List
ft bgs	feet below ground surface	PID	photoionization detector
FWA	Fort Wainwright, Alaska	POL	petroleum, oil, and lubricants
GRO	gasoline range organics	RA	risk assessment
IRP	Installation Restoration Program	RI	remedial investigation
MFR	Memorandum for Record	SWMU	Solid Waste Management Unit
MOA	Memorandum of Agreement	TPH	total petroleum hydrocarbons
		USTs	underground storage tanks

## USE THIS SPACE TO WRITE YOUR COMMENTS

Your input on the remedial alternatives discussed in this Proposed Plan is important to the Army. Comments provided by the public are valuable in helping determine the final outcome for these sites.

If you would like to mail your comments, you may use the space below to prepare your comments. When you are finished, please fold, attach postage, and mail. A return address has been provided on the back of this page for your convenience. Comments must be postmarked by **23 August 2024**. If you have questions about the comment period, please contact Peter Baker at (907) 361-6623 or by email at [peter.a.baker8.civ@army.mil](mailto:peter.a.baker8.civ@army.mil).

## PUBLIC COMMENT SHEET

*Fold along dashed lines, staple, stamp, and mail.*

Name \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_  
State \_\_\_\_\_ Zip \_\_\_\_\_

PLACE  
STAMP  
HERE

**Peter Baker  
Remedial Project Manager  
U.S. Army Garrison, Fort Wainwright  
1046 Marks Road #4500  
Fort Wainwright, Alaska 99703**