



THE STATE
of **ALASKA**
GOVERNOR BILL WALKER

**Department of
Environmental Conservation**

DIVISION OF SPILL PREVENTION AND RESPONSE
Contaminated Sites Program

610 University Avenue
Fairbanks, AK 99709-3643
Phone: 907-451-2143
Fax: 907-451-2155
www.dec.alaska.gov

File: 108.38.100

December 11, 2017

Dept. of the Army
Directorate of Public Works
Attn: IMPC-FWA-PWE (Adams)
1046 Marks Road
Fort Wainwright, Alaska 99703-4500

Re: Decision Document: Fort Wainwright Bldg. 4065 Former Bassett Army Hospital French Drain
Cleanup Complete Determination

Dear Mr. Adams:

The Alaska Department of Environmental Conservation, Contaminated Sites Program (ADEC) has completed a review of the environmental records associated with the Fort Wainwright Bldg. 4065 Former Bassett Army Hospital French Drain. Based on the information provided to date, it has been determined that the contaminant concentrations remaining on site do not pose an unacceptable risk to human health or the environment and no further remedial action will be required unless new information becomes available that indicates residual contaminants may pose an unacceptable risk.

This Cleanup Complete determination is based on the administrative record for the Former Bassett Army Hospital French Drain, which is located in the ADEC office in Fairbanks, Alaska. This decision letter summarizes the site history, cleanup actions and levels, and standard site closure conditions that apply.

Site Name and Location:

Fort Wainwright Bldg. 4065 Former
Bassett Army Hospital French Drain
Former Bldg. 4065
Fort Wainwright, AK 99703-4500

Name and Mailing Address of Contact Party:

Dept. of the Army
Directorate of Public Works
Attn: IMPC-FWA-PWE (Adams)
1046 Marks Road
Fort Wainwright, AK 99703-4500

DEC Site Identifiers:

File No.: 108.38.100
Hazard ID.: 25402

Regulatory Authority for Determination:

18 AAC 75

Site Description and Background

Building 4065 was the former Bassett Army Hospital. Prior to the 2008 excavation work commencing, the hospital was demolished and the building excavation area backfilled. The French Drain was located, and based off a site drawing from a 2008 field report, the drain was located in the former Bassett Army Hospital parking lot. Low level residual contamination identified in the drain is attributed to parking lot runoff, no wastes were received by this drain.

During the July 30, 2008 excavation efforts, the French Drain manhole cover/grate was found at an angle approximately 1-1.5 feet below ground surface (bgs). The drain appeared to be constructed out of corrugated metal. Underneath the manhole cover/grate was decomposing material, garbage and a concrete pad. This concrete pad was removed and decomposing material and compacted silt was observed in the concrete. A 3-foot diameter corrugated metal pipe that extended from the concrete pad to at least 4 feet bgs, appeared to be lined with filter fabric and rounded rocks to facilitate drainage. Because the corrugated metal pipe extends beyond the excavation depth of 8 feet bgs, the exact depth of this corrugated metal pipe is not known. The remaining drain beyond 8 feet bgs was covered by a plastic liner to limit surface water infiltration. Headspace samples collected from the bottom and sidewalls of the excavation indicated no contamination. Sixteen cubic yards (cy) of potentially contaminated soil was stockpiled on a 30-mil liner; the stockpile laboratory results were found to be below cleanup levels and the soil was transported to OIT for thermal remediation. The 23 x 31 foot excavation with varying depths of 6.5-8 feet bgs was backfilled with clean stockpiled soil and regraded to match the surface elevation.

Contaminants of Concern

Eight samples were collected from inside the excavation and French Drain and analyzed for, gasoline range organics (GRO), diesel range organics (DRO), residual range organics (RRO), benzene, ethylbenzene, toluene, xylenes (BTEX) and polynuclear aromatic hydrocarbons (PAHs).

Based on the analyses completed, the following contaminants were detected in one sample and duplicate sample above the applicable cleanup levels;

- Diesel Range Organics (DRO)
- Residual Range Organics (RRO)

Cleanup Levels

The cleanup levels used for the petroleum contaminants of concern in soil were from 18 AAC 75.341 Table B2, Method Two, Under 40-inch Zone migration to groundwater. Other contaminants of concern analyzed, were compared to 18 AAC 341 Table B1, Under 40-inch Zone migration to groundwater cleanup levels.

Table 1 – Approved Cleanup Levels

Contaminant	Soil (mg/kg)	Groundwater (mg/L)	Surface Water (ug/L)
DRO	250	N/A	N/A
RRO	11,000	N/A	N/A

mg/kg = milligrams per kilogram

mg/L = milligrams per liter

ug/L = micrograms per liter

Characterization and Cleanup Activities

Site characterization and cleanup activities conducted under the regulatory authority of the Contaminated Sites Program began in 2008. These activities are described below.

Site characterization under 18 AAC 75.335 conducted in 2008 was excavating and removing a French Drain. Headspace samples collected on the sidewalls and excavation floor were 0 parts per million (ppm). Only the floor drain down to 8 feet bgs was removed, the remaining piping remains covered with a plastic liner to limit surface water infiltration.

Prior to backfilling, one sample and duplicate sample was collected from inside the drain. The sample and its duplicate had DRO result of 518 mg/kg (milligrams per kilogram) above the migration to groundwater Table B2. Method Two DRO soil cleanup level of 250 mg/kg. RRO was detected at a concentration of 4,110 mg/kg which is below the Table B2 cleanup levels for RRO. The excavation was backfilled with clean soil.

Currently, the French Drain is located beneath a residential subdivision. Because of the 8 feet of clean fill and absence of volatile constituents, vapor intrusion is not a concern for the residential buildings. There are no ecological risk receptors and surface water is greater than 100 feet from this site. This site is located downgradient from the water treatment plant on Fort Wainwright.

Cumulative Risk Evaluation

Pursuant to 18 AAC 75.325(g), when detectable contamination remains on-site following a cleanup, a cumulative risk determination must be made that the risk from hazardous substances does not exceed a cumulative carcinogenic risk standard of 1 in 100,000 across all exposure pathways and does not exceed a cumulative noncarcinogenic risk standard at a hazard index of one across all exposure pathways.

Based on a review of the environmental record, ADEC has determined that residual contaminant concentrations meet the human health cumulative risk criteria for residential land use. No Table B1 analytes were detected above 1/10th of human health levels.

Exposure Pathway Evaluation

Following investigation and cleanup at the site, exposure to the remaining contaminants was evaluated using ADEC's Exposure Tracking Model (ETM). Exposure pathways are the conduits by which contamination may reach human or ecological receptors. ETM results show all pathways to be one of the following: De-Minimis Exposure, Exposure Controlled, or Pathway Incomplete. A summary of this pathway evaluation is included in Table 2.

Table 2 – Exposure Pathway Evaluation

Pathway	Result	Explanation
Surface Soil Contact	Pathway Incomplete	The remaining French Drain is covered by approximately 8 feet of clean soil.
Sub-Surface Soil Contact	De-Minimis Exposure	The remaining French Drain is covered by approximately 8 feet of clean soil. The residual contamination is limited to a 3 foot diameter area.
Inhalation – Outdoor Air	Pathway Incomplete	There were no volatile organic compounds detected. Petroleum contaminants remain in the soil, but are not an inhalation risk.
Inhalation – Indoor Air (vapor intrusion)	Pathway Incomplete	There were no volatile organic compounds detected. Petroleum contaminants remain in the soil, but are not an inhalation risk.
Groundwater Ingestion	Pathway Incomplete	The groundwater at Fort Wainwright is not expected to be used for drinking water currently or in the future.
Surface Water Ingestion	Pathway Incomplete	Surface water is not used as a drinking water source at this site.
Wild and Farmed Foods Ingestion	Pathway Incomplete	Contaminants of concern at this site do not have the potential to bioaccumulate in plants or animals.
Exposure to Ecological Receptors	De-Minimis Exposure	The French Drain has approximately 8 feet of clean soil to grade.

Notes to Table 2: “De-Minimis Exposure” means that in ADEC’s judgment receptors are unlikely to be adversely affected by the minimal volume or concentration of remaining contamination. “Pathway Incomplete” means that in ADEC’s judgment contamination has no potential to contact receptors.

ADEC Decision

Soil contamination at the site has been cleaned up to concentrations below the approved cleanup levels to a depth of 8 feet bgs. DEC has determined the site is suitable for residential land use. This site will receive a “Cleanup Complete” designation on the Contaminated Sites Database, subject to the following standard conditions.

Standard Conditions

1. Any proposal to transport soil or groundwater off-site requires ADEC approval in accordance with 18 AAC 75.325(i). A “site” as defined by 18 AAC 75.990 (115) means an area that is contaminated, including areas contaminated by the migration of hazardous substances from a source area, regardless of property ownership. (See attached site figure.)
2. Movement or use of contaminated material in a manner that results in a violation of 18 AAC 70 water quality standards is prohibited.
3. Groundwater throughout Alaska is protected for use as a water supply for drinking, culinary and food processing, agriculture including irrigation and stock watering, aquaculture, and industrial

use. Contaminated site cleanup complete determinations are based on groundwater being considered a potential drinking water source. In the event that groundwater from this site is to be used for other purposes in the future, such as aquaculture, additional testing and treatment may be required to ensure the water is suitable for its intended use.

This determination is in accordance with 18 AAC 75.380 and does not preclude ADEC from requiring additional assessment and/or cleanup action if future information indicates that contaminants at this site may pose an unacceptable risk to human health, safety, or welfare or to the environment.

Appeal

Any person who disagrees with this decision may request an adjudicatory hearing in accordance with 18 AAC 15.195 – 18 AAC 15.340 or an informal review by the Division Director in accordance with 18 AAC 15.185. Informal review requests must be delivered to the Division Director, 555 Cordova Street, Anchorage, Alaska 99501-2617, within 15 days after receiving the department's decision reviewable under this section. Adjudicatory hearing requests must be delivered to the Commissioner of the Department of Environmental Conservation, 410 Willoughby Avenue, Suite 303, P.O. Box 111800, Juneau, Alaska 99811-1800, within 30 days after the date of issuance of this letter, or within 30 days after the department issues a final decision under 18 AAC 15.185. If a hearing is not requested within 30 days, the right to appeal is waived.

If you have questions about this closure decision, please feel free to contact me at (907) 451-2180, or by email at dennis.shepard@alaska.gov.

Sincerely,

Environmental Program Specialist

Cc via email: Sandra Halstead, EPA
Kristina Smith, FWA ENVR
Bob Hazlett, USACE
Bob Brock, USACE
Robert Glascott, USACE
Cheryl Churchman, AEC
Eric Breitenberger, DEC
Kim DeRuyter, DEC
Erica Blake, DEC