Environmental Restoration News

U.S. Army Alaska — Fort Wainwright

Former Communications Site Update

Summer 2010

Summary

The Fort Wainwright Former Communication Site (often referred to as Taku Gardens) is a new housing construction project intended to provide housing for military personnel and their families. PCB Contamination discovered in 2005 resulted in the United States Army Garrison, Alaska (USAG-AK), Environmental Protection Agency (EPA), and Alaska Department of Environmental Conservation (ADEC) completing an intensive area-wide investigation to determine the nature and extent of potential contamination and potentially hazardous debris. The housing will remain unoccupied until it is determined to be safe. This newsletter is intended to provide you with information about the status of the project and plans for the future.

Site History

The Fort Wainwright Former Communications Site (FCS) is a 54-acre site located between Alder and Neely Roads, east of White Street and west of the Fort Wainwright Power Plant. The U.S. military has occupied the general area of the FCS for over 60 years, and during this time, a wide variety of land uses has occurred in various areas of the project site.

Between the late 1940s and late 1950s, Several small areas were cleared for the construction of troop billets, motor pools, dining facilities, and other essential facilities. A significant portion of the eastern side of the area was used for equipment disposal and salvage activities as well as a staging area for railroad construction activities and an asphalt batch plan. Some of these activities were probably associated with the dumping of trash and debris into an old slough as a means of filling the historical river channel and various depressions located on the site. Such activities were common practice for filling swampy mosquito nesting areas. Unusable military equipment and hardware used by both the US Army and US Air Force was discarded and buried within the FCS during this period.

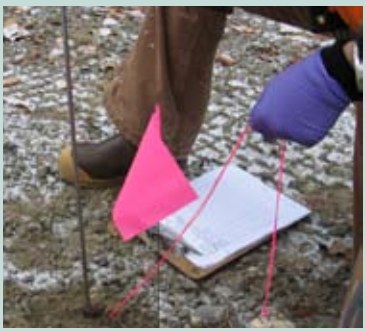
Temporary billets built for the arrival of the 3rd Battalion, 4th Infantry Regiment, as well as several Air Force units also occupied a portion of the site from 1951 to 1956.

In July 2005 during housing construction, environmental concern was raised when the detection of an odor, thought to be PCBs, was noticed during excavation for foundations in the southwest corner of the site. All construction activities were suspended until environmental sampling could determine the exact cause and level of PCB contamination. On 8 August 2005, EPA and ADEC were notified of the findings and continue to be actively involved in the FCS environmental project.

PROPOSED HOUSING SHOWN ON 1956 SITE IMAGERY

Previous Site Construction and Investigation Activities

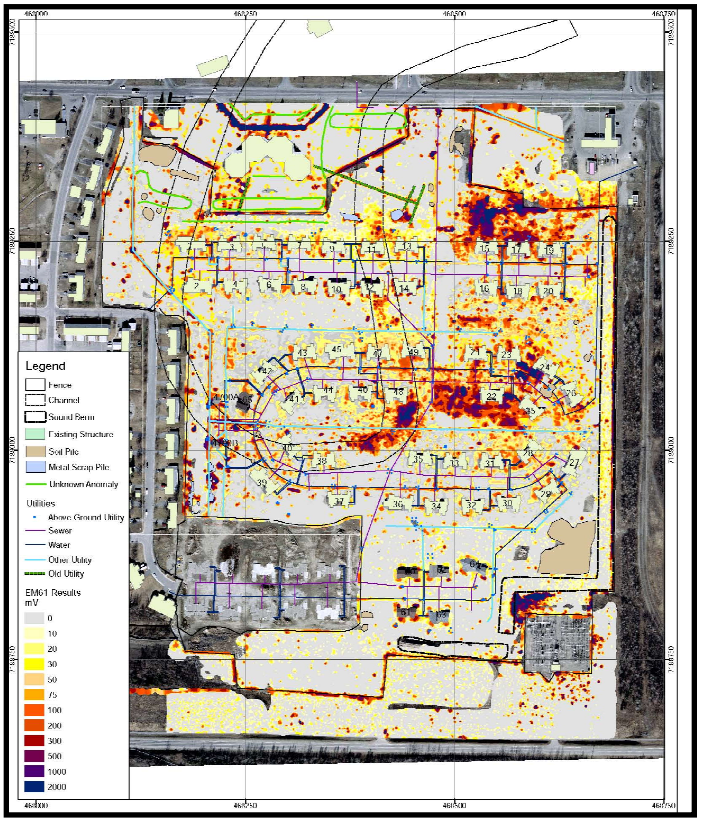
Year(s)	Events
2005	While excavating for foundations in the southwestern corner of the housing area, an odor was detected by workers. The excavation ceased and environmental sampling was conducted. When high levels of PCBs were identified, EPA and ADEC were notified. The area was restricted, and the PCB contaminated soil was disposed of in an approved offsite location. This area was enclosed by a 4 ft. chain-link fence until removal and subsequent investigation activities were completed. The entire construction site was restricted and enclosed in a chain link fence. Fifty-five houses were completed. Ten houses were halted; nine with unfinished foundations.
2005/2006	A thorough review was conducted of the historical uses of the area. Field notes and photographs taken during construction were evaluated. It was noted that many areas encountered during construction contained different types of metal debris that included stained soils and old drums. The Army, with concurrence of EPA and ADEC developed a Management Plan in accordance with CERCLA to investigate contamination and evaluate the risks associated with a future residential community.
2007/2008/ 2009	In accordance with approved workplans, a remedial investigation which included the installation of ground water monitoring wells, soil borings, and test pits was conducted. Based on information collected with Electro-magnetic surveys, subsurface soil sampling, groundwater sampling, passive soil-gas sampling, and test pits were used to delineate the contaminants of concern. During this investigation construction and equipment debris, drums, munitions debris, and contaminated soil were removed and properly disposed of to prevent future groundwater contamination and to evaluate health risks associated with a residential community.
2007/2008/ 2009	Groundwater, surface soil, sub-surface soil, and air were evaluated for contamination with the following: • Ninety monitoring wells were installed and sampled semiannually to characterize potential groundwater contamination. • Soil gas and indoor air monitoring of houses were conducted to reduce the possibility of impacts to future residents. • Sixty seven GORE soil gas sampling modules were installed in order to effectively locate and delineate the source and extent of Trichlororpropane (TCP) contamination. • >1200 surface and subsurface soil samples were collected and analyzed throughout the site. Investigation Derived Waste was removed and properly disposed including: > 380 tons of metallic debris > 3000 cubic yards of PCB contaminated soil > 2900 items classified as inert munitions related debris ~1,300 cubic yards of petroleum contaminated soil ~20 cubic yards of pesticide contaminated soil ~50 cubic yards of metal contaminated soil > 16 cubic yards of items containing asbestos >~1060 drums
2010	Confirmation samples taken from a side wall of a test pit identified an isolated area containing low levels of pesticides in the soil. The area was thoroughly investigated and fifty cubic yards of pesticide contaminated soil was removed. Other planned activities in 2010 include: groundwater soil gas and indoor air sampling, and disposal of the remaining investigation derived waste, and site control.

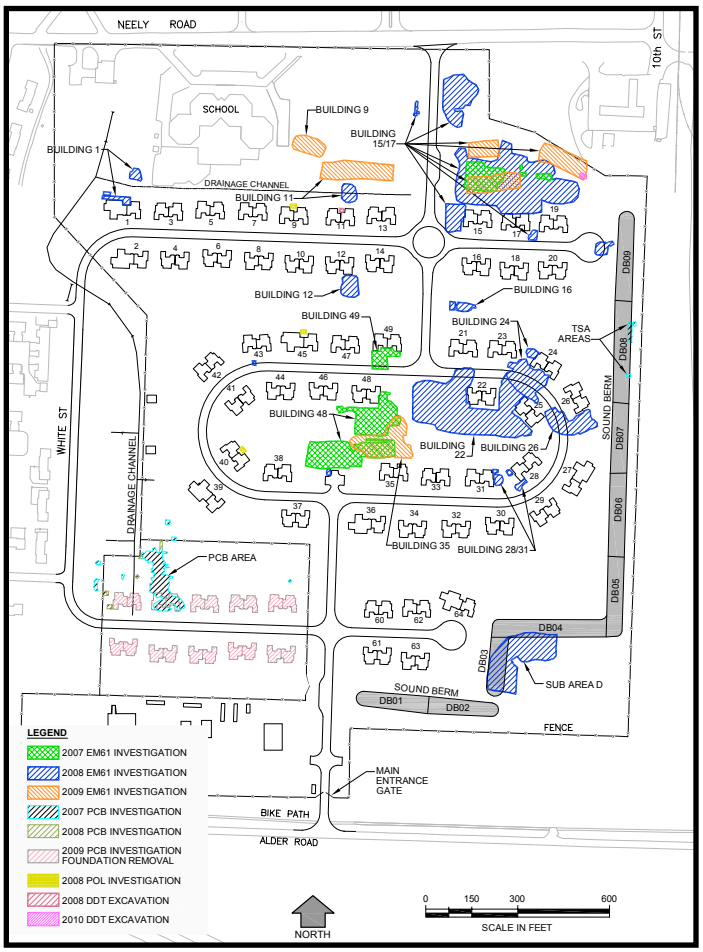


installing GORE™ modules

Passive soil-gas sampling

One of the investigation approaches used at the FCS during 2009 was passive soil-gas sampling. In order to effectively locate the source of volatile organic compound contamination 67 GORE™ modules were installed in the ground. These devices stayed in place for a seven day exposure period, then were removed and analyzed. GORE™ modules are passive soil-gas sampling devices that utilize a GORE-TEX membrane to trap gas molecules while rejecting soil and water.





The remedial investigation main areas of excavation are shown in the figures above. Top figure identifies the areas of potential concern, while the figure below indicates the extent of the investigation.

Current Site Status

The Remedial Investigation fieldwork is completed. The Remedial Investigation (RI)/Baseline Risk Assessment (BRA) Report has been written and submitted to agency project managers for review. In addition, currently:

- Army is finishing 2010 field work as needed to complete site activities. Work includes waste disposal and housekeeping duties such as dust control.
- Groundwater evaluation will continue with another year of sampling and analysis.
- Soil gas and indoor air sampling will continue with another sampling event in 2010.

Future Actions

The Army with EPA and ADEC will develop a list of Remedial Actions and Institutional Controls that address remaining risks from remaining soil and ground water contaminants identified in the risk assessment.

- A Proposed Plan including future planned actions will be written and presented to the public for comment.
- A Record of Decision (ROD) will be completed by the Army for review and approval by the EPA and ADEC. This ROD will document past actions, identify safety and health risks, and explain remedial actions and institutional controls to be taken at the site to protect future residents.
- Prior to occupation, the Army will finish construction at this site with completion of roads, sidewalks, and landscaping.

The CERCLA Process

"Superfund" is the commonly used name for the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), a federal law enacted in 1980 and amended in 1986. It enables the EPA to respond to hazardous waste sites that threaten public health and the environment.

Remedial Investigation/Baseline Risk Assessment

The RI and BRA are intended to:

- *Gather the data necessary to determine the type and extent of contamination at a "Superfund" site;*
- *Determine the risk of exposure for Current and Future Residents.*

Contact Information

Please feel free to call Joseph Malen (907) 361-4512 or Gene Clare (907) 361-9689 if you have questions about this project. All documents, when finalized, will become part of the Administrative Record for the FCS. These documents will be made available to the public on CDs at the Noel Wein and Fort Wainwright libraries; hard copies will be available for viewing at the Fort Wainwright Environmental Offices, Building 3023, Fort Wainwright, Alaska.

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Glossary of Terms

ADEC	Alaska Department of Environmental Conservation
BRA	Baseline Risk Assessment
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
EM	Electro-Magnetic
EPA	U.S. Environmental Protection Agency
FCS	Former Communications Site
MEC	Munitions and Explosives of Concern
PCB	Polychlorinated Biphenyl
RI	Remedial Investigation
ROD	Record of Decision

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