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FORT WAINWRIGHT, TAKU GARDENS (102 COMMUNICATIONS SITE)



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Status: Active Database Name: Fort Wainwright Taku Gardens (102 Comm. Site)

Location: Fairbanks Latitude/Longitude: See database entry

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Contacts updated: Jan. 14, 2014

[PDF Version](#)

Summary updated: Jan. 14, 2014

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DESCRIPTION

Fort Wainwright is located in Interior Alaska, east of the Fairbanks city limits. It was created in 1939 as Ladd Field, and served as an Army cold weather station to test aircraft under arctic conditions. The facility was a strategic part of military efforts during World War II from 1942 until 1945. The U.S. Air Force operated Ladd Field from 1947 until 1961, when the U.S. Army resumed control and renamed it Fort Wainwright.

Fort Wainwright was placed on the Environmental Protection Agency (EPA) National Priorities List of "Superfund" sites in 1990. Most of the contamination identified at that time is being managed in five operable units under a cooperative Federal Facilities Agreement between the Army, Alaska Department of Environmental Conservation (DEC) and EPA, and the remainder is managed under the "Two-Party Agreement" between DEC and Army.



The Taku Gardens Family Housing development – 110 units in 55 buildings – has been empty since the homes were finished in 2005. The roads and utilities were completed in 2011, and the landscaping and exterior work was finished in the summer of 2013, when this photo was taken. No one will be allowed to live in the homes until the Army, DEC and EPA agree that it's safe. (DEC photo)

Contamination in all those areas has either been treated or removed, is undergoing active treatment, or is being monitored.

The Taku Gardens site – also known as the Former Communication Site – was added as Operable Unit 6 in 2007 and is being managed under the Federal Facilities Agreement as well. Information on those cleanup efforts is summarized on the EPA's [Superfund website](#) and [DEC's Contaminated Sites Database](#).

FORMER COMMUNICATIONS SITE BACKGROUND

The Former Communication Site is located between Alder and Neely roads, east of White Street and west

of the Fort Wainwright Power Plant. The Taku Gardens Family Housing development covers 54 acres of the Former Communication Site and includes 110 new housing units (in 55 buildings). The buildings are intended for use as family housing for Fort Wainwright military personnel and their families but are currently empty.

The area historically defined as the Former Communication Site has a history of mixed uses, including the following:

- ▶ Equipment salvage and reclamation.
- ▶ Debris and salvage material disposal in the Chena River oxbow that extends through the site, in trenches in the salvage yard area, and possibly in other depressions.
- ▶ Barracks and company headquarters, extending into the northwest corner of the site.
- ▶ Garden plots.
- ▶ Communications and radar systems.
- ▶ Possible ammunition storage.

A limited number of written records exist that describe the specific activities that occurred at the Former Communication Site over the years.

Much of what is known about the site has been inferred from examining and comparing historical photographs dating from 1947 to the present, the 1958 Fort Wainwright "Master Plans," past geographical surveys, and military operations that occurred with similar missions conducted at other locations.

The area was selected for military family housing in 2002 and 2003. Preconstruction geotechnical samples were collected in late 2003 and again in 2004. Geophysical testing completed during that time indicated areas of buried debris near the former salvage yard.



The empty housing development, which covers 54 acres, is shown during the summer of 2013. The whole development is fenced and site access is restricted to limit potential human exposure. (DEC photo)

Work began on the Taku Gardens Family Housing development in mid-2005, when workers installed the foundations and underground utilities for the construction of the residential buildings and two mechanical buildings.

The 110 housing units in the 55 completed buildings have been completely finished. The contractor has winterized the units by activating the electrical systems, steam mains and glycol heat exchangers. The roads and utilities were completed in 2011. The landscaping and all exterior work was completed in 2013.

PUBLIC HEALTH AND ENVIRONMENTAL CONCERNS

The most significant public health concern to date has been the presence of munitions and chemical contaminants. Contaminants of concern include PCBs, petroleum compounds, chlorinated compounds, volatile and semi-volatile organics, pesticides and discarded military munitions. The Remedial Investigation – when the necessary data is gathered to determine the type and extent of contamination at the site – was completed December 2010.

The area is fenced and site access is restricted to limit potential human exposure.

Groundwater at the site is not used as a drinking water source, and no excavation is allowed at the site unless it's authorized by project managers for the cleanup with the Army, DEC and EPA. The post obtains drinking water from groundwater wells that are not on



the Former Communications Site, and regular testing confirms that the water meets all drinking water standards.

Some of the discarded military munitions unearthed at the Taku Gardens site are shown in this June 2008 photo. (DEC photo)

CURRENT STATUS

This site is being investigated and managed in accordance with all applicable state regulations and the federal Comprehensive Environmental Response, Compensation, and Liability Act ([CERCLA](#)). The results from a Preliminary Source Evaluation performed in 2006 indicated that additional investigation of contaminated soil and groundwater was necessary in multiple areas of the site. A Remedial Investigation and Baseline Risk Assessment (RI/RA), as required under CERCLA, was carried out during 2007 to 2010, and the report of the investigation and assessment was completed in December 2010.

A Feasibility Study, completed in July 2011, evaluates five alternatives for the site:

- ▶ Alternative 1 – No action.
- ▶ Alternative Soil 2 – [Institutional controls](#) to control the disposition of excavated soil. (Institutional controls are measures to prevent or limit human exposure to hazardous substances.)
- ▶ Alternative Groundwater 2 – Monitored [natural attenuation](#) and institutional controls to prohibit groundwater use.
- ▶ Alternative Groundwater 3 – In situ chemical oxidation and institutional controls to prohibit groundwater use.
- ▶ Alternative Groundwater 4 – Permeable reactive barrier, monitored natural attenuation and institutional controls to prohibit groundwater use.

The Army evaluated the above alternatives in its Proposed Plan and Action Memorandum, and worked with the EPA and DEC to review and approve the plan and memorandum in February 2013. The process included a 30-day public comment period and a public meeting in Fairbanks, and identified the alternative or alternatives that best protect human health and the environment. A summary of the Army's responses to the public comments accompanies the Record of Decision on the site, which is expected to be signed by the end of January 2014.

The Army chose two of the alternatives to implement, based on nine CERCLA criteria:

- ▶ Alternative Soil 2 – Institutional controls to control the excavation of soil. (This alternative was amended to include only soil excavation.)
- ▶ Alternative Groundwater 2 – Monitored natural attenuation and institutional controls to prohibit groundwater use.

The Army has prepared the Record of Decision, which explains the selected remedy or remedies, and is working with the DEC and EPA to finalize it. As mentioned above, it's expected to be finalized and signed by the end of January 2014.

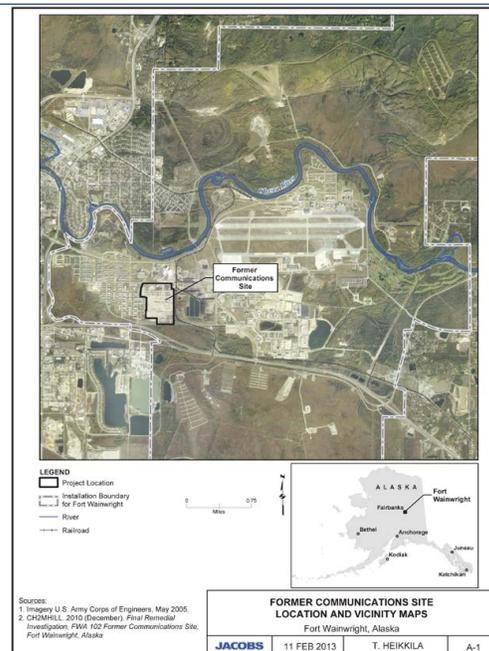
INSTITUTIONAL CONTROLS

Institutional controls are an important part of managing contamination at Taku Gardens. The following site-specific institutional controls for Taku Gardens have been incorporated into the Fort Wainwright Base Master Plan with the agreement of

DEC and EPA:

- ▶ The entire housing area is fenced, gated, and locked;
- ▶ Site access is restricted to trained personnel and site workers;
- ▶ Groundwater use is not permitted;
- ▶ Excavation is only permitted for the purpose of site investigation and with the approval of DEC, EPA and the Department of Defense Explosives Safety Board;
- ▶ No housing at this site will be released for residential occupancy until the Army, DEC and EPA agree that it is safe.

The current institutional controls – the five bullets directly above – will be in place until the Remedial Design is complete. The Remedial Design is the phase of the project where engineering plans are developed for the selected cleanup plan. Once the Remedial Design phase is done, the new institutional controls will be Alternative Soil 2 and Alternative Groundwater 2 listed above.



Click on map for a larger version.

MORE INFORMATION

- ▶ DEC's Contaminated Sites Database – There are a number of individual contaminated sites on Fort Wainwright, and updates on the status of each is available on DEC's database. (Project managers update the database entries as time allows; they're not always up-to-date.)
 - ▶ "[Communications Site](#)" or "[Taku Gardens](#)" in DEC's Database of Contaminated Sites.
 - ▶ For all other sites, [follow this link](#) and choose "Fort Wainwright" in the city drop-down box.
- ▶ The Army's Administrative Record – It includes all documents relating to the site. Go to <http://www.wainwright.army.mil/env/default.html>. At the top of the red tool bar, click on "Restoration," then go to the right-hand tool bar, click on "Restoration News, Announcements & Notices." Then click on the link, "Fort Wainwright Former Communications Site Administrative Record." The list of hyperlinked documents begins on Page 3.
- ▶ DEC's [Glossary/Acronyms](#) link is on the bottom of the Contaminated Sites Program's home page.

DEC General Fact Sheets

- ▶ Cleanup Process for Contaminated Sites ([pdf 304K](#))
- ▶ How DEC Makes Cleanup Decisions ([pdf 20K](#))
- ▶ Introduction to Groundwater ([pdf 412K](#))
- ▶ Understanding Contaminant Concentrations ([pdf 164K](#))
- ▶ Department of Defense Cleanups ([pdf 59K](#))
- ▶ Environmental Laws ([pdf 39K](#))
- ▶ Cleanup Methods ([pdf 171K](#))

