Environmental Restoration News

U.S. Army Alaska — Fort Richardson

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RAB Update: Meeting Frequency

The Fort Richardson Restoration Advisory Board (RAB) met at the Russian Jack Chalet on January 29, 2004. During that meeting, the frequency of RAB meetings was discussed. A decision could not be made due to low RAB member attendance. Dr. Mark Prieksat, the Army Co-Chair, sent out a questionnaire giving RAB members several options for meeting frequency: no change (3 formal meetings and 1 field trip); 2 formal meetings and 1 field trip; or 2 formal meetings and no field trip.

Of the RAB members that responded, the majority preferred a reduction in meeting frequency to 2 formal meetings per year with 1 field trip.

ACRONYMS

RAB
Restoration Advisory Board

OU
Operable Unit

IAP
Installation Actin Plan

UAEC
U.S. Army Environmental Center

IMA
Installation Management Agency

IRP
Installation Restoration Program

EPA
U.S. Environmental Protection Agency

ADEC
Alaska Department of Environmental Conservation

RAB Environmental Site Tour

A Fort Richardson Environmental Site Tour has been scheduled for July 15, 2004, beginning at 6:00 p.m. The site tour will begin with a brief presentation on Post introducing the two tour areas: the Armored Vehicle Maintenance Area, one of the two sites within Operable Unit E (OUE), and Eagle River Flats, also known as OUC.

The public is invited to attend. Please call or email Dr. Mark Prieksat or Ms. Karen Dearborn by July 9, 2004, if you are interested in attending the field trip. Advance arrangements need to be made for your entrance on Post and for transportation during the field trip.

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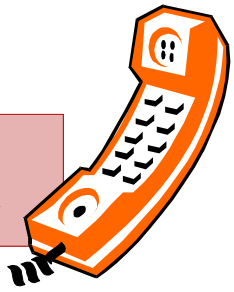

IAP Workshops

The Installation Action Plan (IAP) for Fort Richardson will be updated at a U.S. Army Environmental Center (USAEC) facilitated workshop in mid-July 2004. The IAP is updated annually and outlines the total multi-year integrated, coordinated approach to achieving an installation's restoration goals. The plan is used by the USAEC, the Installation Management Agency (IMA), and installations to monitor requirements, schedules, and budgets for each of the sites in the Installation Restoration Program (IRP). For each site, the IAP documents IRP requirements, the rationale for the technical approach, and the corresponding financial requirements. Participants will include the Army, U.S. Environmental Protection Agency (EPA), Alaska Department of Environmental Conservation (ADEC), and USAEC.

Performance-Based Contracting

The Army is changing the way they contract environmental cleanup work within the IRP. The new type of contract preferred by the government is called a "Performance-Based Contract" (PBC). Under the PBC, the Army states the desired end result for each site, and it is then up to the contractor to propose strategies to get to the end result. The contractor is required to obtain approval from the Army and regulators before implementing cleanup remedies, and remedies must be in accordance with previously agreed-upon requirements such as records of decision (RODs) or other decision documents. The goal is to allow for innovative approaches to site cleanup, to allow for more rapid progression of cleanup, and to allow realization of cost savings. The Army Environmental Center at Aberdeen Proving Ground is working to produce the performance work statement that will be the basis for the PBC. There will be full and open competition for the contract, which is expected to be open for bidding in summer 2004. Further details about this type of contract are available on the Army Environmental Center's website:

http://aec.army.mil/usaec/cleanup/pbc00.html

ACRONYMS

PBC
Performance-Based Contract

ROD
Record of Decision

CERCLA
Comprehensive Environmental Response, Compensation, and Liability Act

PCE
Tetrachloroethene

TCE
Tricholorethene

CRREL
Cold Regions Research and Engineering Laboratory

Site Updates

Three-Party Agreement or CERCLA Operable Unit Sites

Operable Unit B
Poleline Road Disposal Area

The Army is continuing investigative work at the Poleline Road Disposal Area (OUB). Last June, free-phase solvent (tetrachloroethene [PCE] and tricholorethene [TCE]) was detected in monitoring well number 14 (MW-14). MW-14 is located outside of the area that had previously been treated using the six-phase soil heating system. The Army drilled four soil borings near MW-14 in April/May 2004. Preliminary results from sampling conducted during drilling operations indicate that significant levels of PCE and TCE contamination remain in soil near the MW-14 location. Site data will be evaluated further to determine the long-term effects of this residual soil contamination.

The Cold Regions Research and Engineering Laboratory (CRREL) is updating the three-dimensional geologic and groundwater contaminant model (Earth Vision Model). CRREL will be adding contaminant/chemical data collected during 2003 and will do some updates of the geological and hydrologic factors in the model based on information gathered from "sentinel wells" - wells installed around the perimeter of the contaminated area.

CRREL will also be conducting a field tracer study to aid in determining contaminant migration pathways at the OUB site. The tracer study will be conducted using fluorescent dyes that will be injected into MW-14 (AP-3746 in Figure 1) and surface applied within a small hand-excavated basin near AP-4353. The injection locations were carefully chosen based on the geologic Earth Vision Model and chemical data. A baseline will be developed through a sampling event that will be conducted on the day of the dye injection. Due to unknown site conditions, such as groundwater velocities, samples will be collected more frequently at the beginning of the study. Sampling frequency and protocols will be adjusted once the dye is detected and specific flow paths are identified. The goal is to continue sampling until the dyes are detected at the most downgradient wells at the site.

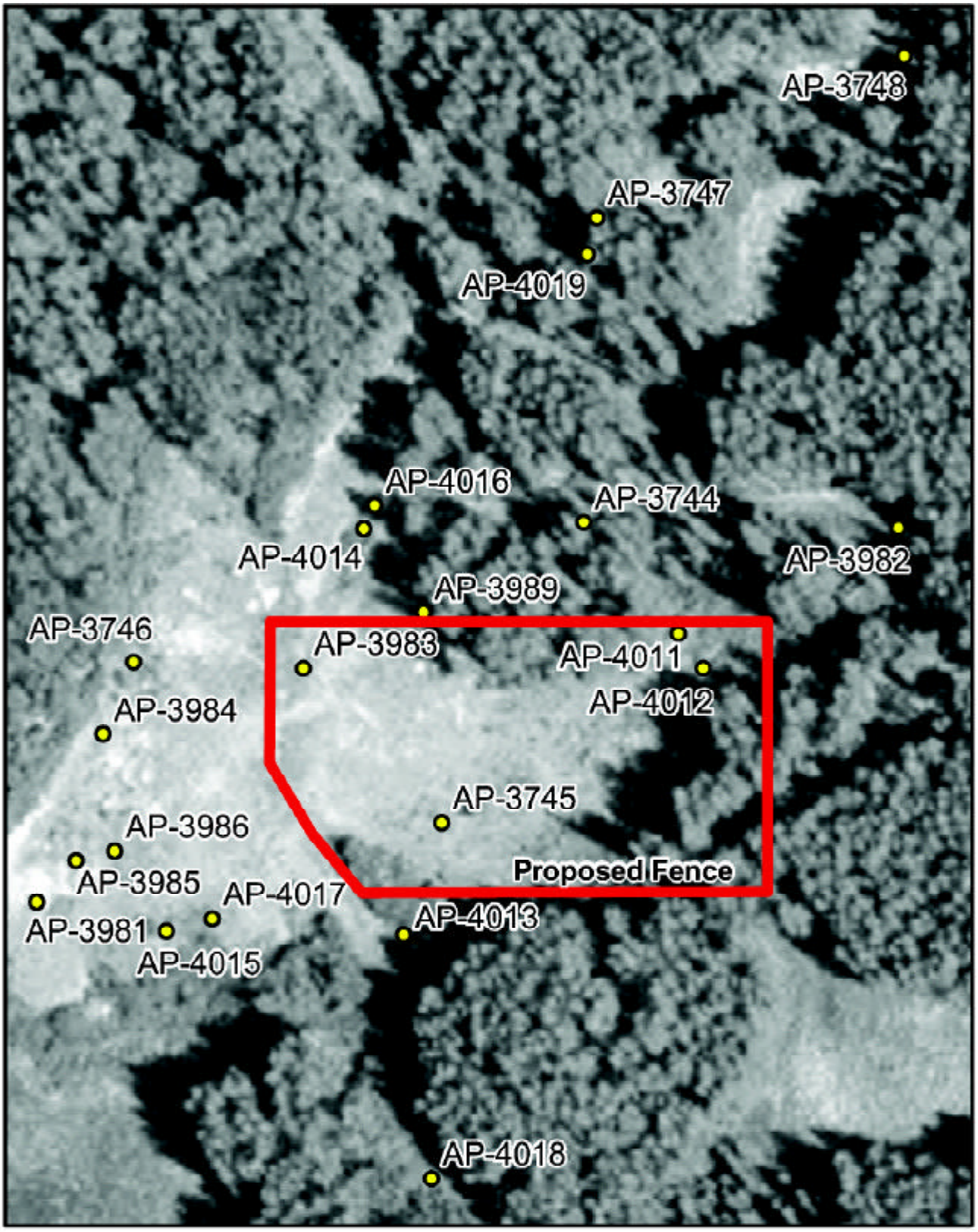

Figure 1. Operable Unit B Poleline Road proposed location of fence.

ACRONYMS

CLOSES
Cleanup Operations and Site Exit Strategy

ERF
Eagle River Flats

WP
White phosphorus

AVMA
Army Vehicle Maintenance Area

RI
Remedial Investigation

RA
Risk Assessment

FS
Feasibility Study

CERCLA
Comprehensive Environmental Response, Compensation, and Liability Act

PP
Proposed Plan

PCB
Polychlorinated biphenyl

TSCA
Toxic Substances Control Act

Operable Unit B - Poleline Road Disposal Area
(Continued from Page 2)

The Army is currently reviewing a draft Cleanup Operations and Site Exit Strategy (CLOSES) evaluation to determine if sufficient data exist to suggest long-term trends in contaminant reduction. Additionally, groundwater monitoring at the site is scheduled to occur in June 2004. The Army plans to conduct an OUB "summit" meeting on June 29, 2004. This meeting has been organized to facilitate an exchange of information and ideas between agencies and contractors who have been involved with past and current investigations at the site. Attendees will include the Army, the U.S. Army Corps of Engineers, CRREL, and associated contractors. Site data will be examined and discussed to determine the next steps for addressing the Poleline Road Disposal Area and to determine an effective groundwater sampling strategy for the site.

Operable Unit C
Eagle River Flats

Limited fieldwork will be conducted at Eagle River Flats (ERF) during summer 2004. A significant number of high tides are forecasted during much of the summer field season, limiting sampling and monitoring activities. One pump was installed in Area C to pump water out and leave relatively dry areas for sediment sampling. The sediment sampling is being conducted to identify hot spot areas of contamination and to narrow the focus of future work. Sediment sampling will also be conducted in Area A to ensure that the area has remained "clean" of white phosphorus (WP).

Ground-based mortality studies will be conducted during the fall migration, with transects concentrated in Areas A and C. Small scale mortality monitoring was conducted in Area C and in a wooded area north of Area C during the spring migration. Investigators did not discover any waterfowl mortalities that were attributed to WP contamination. Because the fall migration is more significant in number and duration, the fall mortality study will include ground surveys that cover a larger area of ERF. Surveys will also be conducted more frequently and involve more personnel than utilized during the spring monitoring period. The Army and CRREL will coordinate with the U.S. Fish and Wildlife Service to collect waterfowl population data in ERF, specifically Areas A and C where mortality monitoring will be conducted. The aerial telemetry program will not be used during this field season due to its high cost and the sporadic availability of helicopters during forest fire season.

As part of the long-term monitoring program, CRREL will monitor the Racine Island area to ensure that the wetland habitat does not reform. The Racine Island area has been trenched to permanently drain the small ponds in the area, eliminating the area as waterfowl habitat.

The Army is preparing a CLOSES evaluation for OUC. The CLOSES evaluation will help the Army make decisions concerning remedial activities at the site. The evaluation is intended to collate all data that has been collected for the site and to provide recommendations to enhance the remedial process with the intent of site closure. This approach has been used successfully at other Fort Richardson sites, as well as other Army sites in Alaska. The draft CLOSES evaluation for OUC is expected to be completed by the end of June 2004.

Operable Unit E
Building 35-752 and the AVMA

There are two sites that comprise OUE: Building 35-752 and the Army Vehicle Maintenance Area (AVMA). The Remedial Investigation (RI) and Risk Assessment (RA) have been completed for the OUE sites, and a Feasibility Study (FS) is being prepared to evaluate alternatives for addressing groundwater contamination associated with the AVMA site. The specific source of the groundwater contamination, which contains PCE and TCE (common cleaning solvents), has not been identified. However, there is a very high probability that the contamination originated from maintenance and laundry facilities located in the AVMA area.

The next step in the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) process is to prepare a Proposed Plan (PP) that outlines the Army's preferred options for site cleanup. The PP will be made available to the public for review during a 30-day comment period. The release of this document will be announced in the newspaper and notification will be sent to the mailing list. (Use the coupon below if you would like to be added to the mailing list). The publication of the PP is scheduled for late summer 2004.

During the RI, polychlorinated biphenyl (PCB) contamination associated with the past use of generators was detected at the Building 35-752 site. The risk assessment data did not indicate that the PCB contamination would result in unacceptable risk if left at the site, but the Army plans to be proactive and remove PCB-contaminated soil that exceeds current state and federal cleanup levels. This work will not be performed under CERCLA, but instead the Army will remove the soil to meet requirements under the Toxic Substances Control Act (TSCA).

Spring groundwater sampling at Building 35-752 and the AVMA is scheduled for June 2004. The decision to continue groundwater sampling beyond the spring event will be made during development of the PP and ROD.

Mailing List Coupon

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You can also e-mail your request to: mark.prieksat@richardson.army.mil

Two-Party Agreement Sites

Building 726

This site is comprised of two distinct but related sites: 1) Building 762 site, located near the corner of 5th and D Streets, is a former gas station site that has most recently been used for drivers' training; and 2) Building 786 site, located near the corner of 6th and D Streets, was also most recently used as a drivers' training area. The Army has been conducting monitoring at the Building 762 site for some time, due to persistent benzene contamination in groundwater. Five additional groundwater wells were installed at the site in 2000 to further delineate the groundwater plume. During installation of one of the additional five wells, substantial diesel fuel contamination was discovered in soil and groundwater. Subsequently, the Building 786 site was incorporated with the Building 762 site and has undergone substantial investigation. Most recently, in 2003, additional soil borings and wells were installed to fully characterize the 786 site. Additionally, excavation in an upgradient area uncovered buried debris and soil containing diesel fuel contamination. This area appears to be a disposal area and is suspected to be the source of the fuel contamination. The activities contributing to the fuel release are unknown, but the site may simply be a disposal area for Quonset huts and other materials once located on the site.

A site characterization report that includes data for the Building 762 and 786 sites will be finalized in July 2004. Groundwater sampling results indicate that benzene contamination is still present at the Building 762 site at levels exceeding cleanup standards. Soil and groundwater sampling conducted at Building 786 indicate that substantial soil contamination exists at the site and that a fuel-contaminated groundwater plume, extending over an area of about 700 linear feet, exists at the site.

Groundwater sampling will continue at these sites. The next scheduled sampling event is in June 2004 with associated reports expected in August 2004.

Building 986

This site is the location of the petroleum, oil, and lubricants (POL) laboratory. In the past, fuel and other related materials were disposed of into a drain system that was connected to a dry well on the south side of the building. The dry well has been removed, and waste fuel is now disposed into an aboveground waste fuel tank located outside the building. A soil vapor extraction (SVE) system was installed at the site in 1998 and has been operated since installation. The SVE system was effective at treating near-surface contamination at the site. However, recent analysis of the treatment system operation indicated that the system was no longer effectively removing contaminants from the site. Additionally, confirmation soil sampling conducted in 2001 indicated that contaminant levels at the site were very close to cleanup levels and that the site could possibly be closed with institutional controls.

The Army performed a CLOSES evaluation for Building 986 and has received concurrence from ADEC to close the site. As a condition of site closure, institutional controls prohibiting excavation of soil from the site will be implemented. The site is already tracked in the Army's environmental database, and additional information concerning the IC will be added to the database to ensure that site use is controlled. Since receiving closure approval, the Army has decommissioned the Building 986 treatment system.

Building 987

This building was the pump house at a former POL storage facility. Two new downgradient wells have been installed to evaluate groundwater conditions at the site. Both wells were sampled in October 2003. Preliminary results from the groundwater samples indicate no contamination exists in groundwater.

ACRONYMS

POL
Petroleum, oil, and lubricants

SVE
Soil vapor extraction

UST
Underground storage tank

Building 28-008

This site is the water treatment facility on Fort Richardson, located off Arctic Valley Road east of the Moose Run Golf Course. Biannual groundwater sampling has been conducted at the site. The spring 2004 groundwater sampling event occurred in March 2004.

In addition to the groundwater sampling, the Army collects monthly water level measurements in the wells located near Building 28-008. The draft report presenting information from the monthly water level measurement collection and the October 2003 and March 2004 monitoring events will be completed by the end of June 2004.

Building 59000

This site is located at the Small Arms Range and was formerly a self-contained operations bunker. Upgradient and downgradient sentinel wells have been installed at the site, and the final site characterization report will be available in July 2004. Diesel contamination at the site originated from two 10,000-gallon fuel tanks formerly located at the site. Previous investigations have not detected high levels of soil contamination, but groundwater contamination is present at the site and one monitoring well has consistently contained free product. A free-phase product collection system has been installed in well AP-3875 to remove diesel fuel that routinely flows into the well. Long-term monitoring is expected to continue until the Army can show that the plume is stable and contaminant concentrations are decreasing.

Groundwater sampling will continue at Building 59000. The next scheduled sampling event is in June 2004 with associated reports expected in August 2004.

Buildings 35-610/35-620, 45070, and 47220

The Army is developing a closure report for Buildings 35-610/35-620, 45070, and 47220. The report it scheduled to be completed in July 2004. A brief description of the history of each of these sites is provided below.

Building 35610/35620 - These buildings are pump houses used to operate backup water supply wells on Fort Richardson. Groundwater sampling conducted over a 2-year period indicated that the contaminants were present in shallow groundwater at the site but at levels less than cleanup standards. The Army is developing a report for site closure.

Building 45070 - Former Building 45070 was located on Circle Drive, west of Loop Road. Soil and groundwater were impacted by petroleum-related compounds, possibly released from a 1,000-gallon heating oil underground storage tank (UST) that was installed on the west side of the building. Groundwater sampling conducted over a 2-year period indicated that there were no detectable levels of contaminants at the site. The Army is seeking site closure from ADEC and is developing a closure report.

Building 47220 - This is the site of a former UST at the Old Boat Yard near Bryant Army Air Field. The Army has conducted a limited source removal at the site to remove contaminants located in the area around the former UST. Minimal petroleum contamination was detected during excavation, and a leachability assessment demonstrated that there would be no breakthrough of contaminants to groundwater. Additionally, results from water sampling did not indicate the presence of contaminants in groundwater at the site. The Army is developing a report for site closure, which will include institutional controls for soil.

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