



RAB Roundtable Update

During the January Fort Richardson Restoration Advisory Board (RAB) meeting, the Alaska RAB Roundtable was discussed. The RAB Roundtable was held in Anchorage on February 8, 2001. The Army, Air Force, Corps of Engineers, State of Alaska, and other Federal and State agencies were present. Mr. John Hopkins, the Fort Richardson RAB civilian co-chair, and Mark Prieksat, the Fort Richardson RAB Army co-chair, participated in the day-long event. Many participants traveled from remote Alaska, primarily members of Formerly Used Defense Site (FUDS) RABs. More than 100 people attended the session.

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Garrison Commander COL Fredrick J. Lehman addressing the crowd at the RAB Roundtable 



The goal for the day was to assist the Department of Defense (DoD) in improving its Cleanup Program in Alaska by listening to and utilizing stakeholder input presented by Roundtable 2001 participants.

Guidelines were also established to ensure everyone had a fair and equal opportunity to present their RAB experiences and suggestions. Participants were introduced and commented on their RAB experiences, both positive and negative. A packet of information was recently distributed to RAB Roundtable attendees.

A portion of the day-long session included a panel discussion on Contamination in Traditional Subsistence Food Sources and an open discussion on issues common to all Alaskan RABs. Although many specific issues were raised, they can be grouped together in the following general categories:

- Improve communications with RABs;
- Make better use of available Cultural Resources; and
- Involve the public earlier in the cleanup processes.

Suggestions on how to accomplish these issues were also discussed. The RAB Roundtable packet of information includes these lists, as well as comments by participants.

A handout of RAB/Technical Assistance for Public Participation (TAPP) resources, primarily noting internet site addresses, was distributed. It is expected that the RAB Roundtable will be held again in 2002.

Acronyms

RAB	Restoration Advisory Board
FUDS	Formerly Used Defense Site
DoD	Department of Defense
TAPP	Technical Assistance for Public Participation

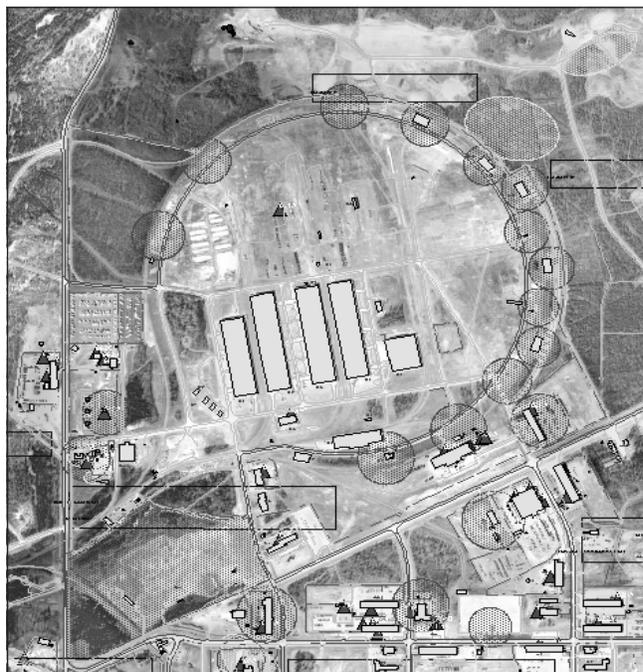
New Policy and Guidance on DoD Land Use Controls Available

In January 2001, the Office of the Under Secretary of Defense published a memorandum describing the Policy on Land Use Controls (LUC) Associated with Environmental Restoration Activities. The policy and guidance documents pertain to LUCs associated with environmental activities for property planned for transfer out of Federal control and for LUCs associated with environmental restoration activities for active installations. The policy puts emphasis on performing cost analyses to compare the implementation and maintenance of the LUC versus the cost of an “unrestricted” land use determination. All Feasibility Studies started after October 31, 2000, shall conform to this requirement. The policy also outlines effective means of implementing LUCs, such as layering strategies that provide multiple means of land use restriction. The DoD policy memorandum, as well as other associated documents, can be viewed on the DoD Environmental Cleanup website at, <http://www.dtic.mil/envirodod/envdocs.html>.

An LUC includes any type of physical, legal, or administrative mechanism that restricts the use of, or limits access to, real property to prevent or reduce risks to human health and the environment. Physical mechanisms include a variety of engineered remedies to contain or reduce contamination (e.g., landfill covers/liners), and/or physical barriers to limit access to property, such as fences or signs. In addition to physical mechanisms, there are legal mechanisms that may be imposed to ensure the effectiveness of land use restrictions. One such legal mechanism, a restrictive covenant, is a private restriction limiting the use of real property. Restrictive covenants are created by deed and may “run with the land,” binding all subsequent purchasers of the land, or may be “personal” and binding only between the original seller and buyer. Some particular actions covered under restrictive covenants may be to limit building density, limit construction of buildings, or maintain a land use as industrial or residential.

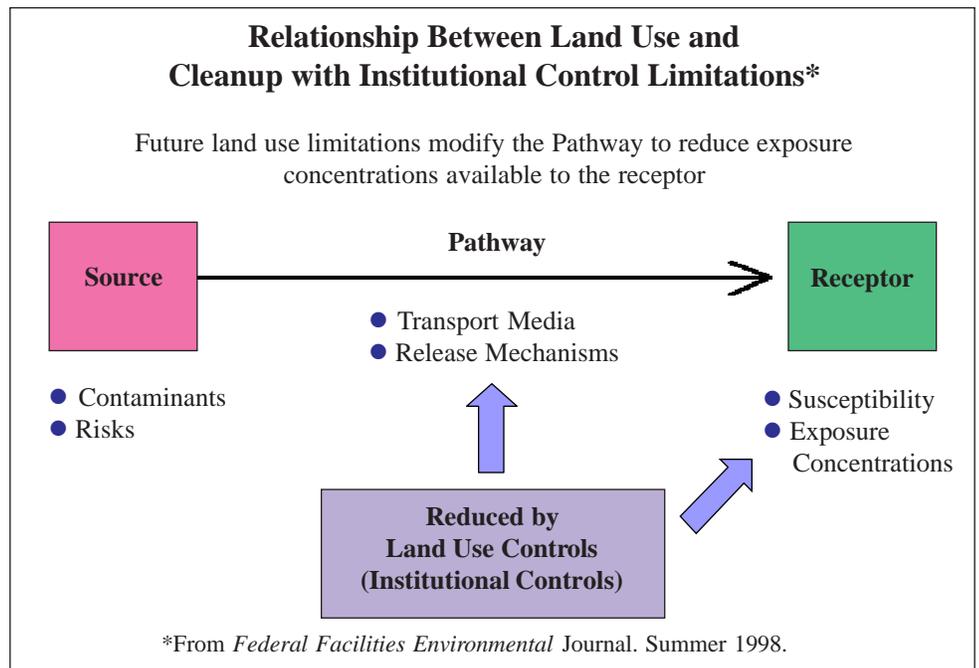
Institutional Controls (ICs) are a subset of LUCs and are used at many DoD facilities to control land use activities. ICs are used to integrate environmental restoration activities with Master Planning functions to ensure that new construction does not interfere with imposed land uses established during the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) cleanup process. U.S. Army, Alaska (USARAK) uses an integrated Geographic Information System (GIS) to track ICs for CERCLA and other contaminated sites. The

USARAK GIS
Database for
Tracking ICs
and LUCs



USARAK GIS

- Provides access to a consistent environmental database for Remedial Project Managers.
- Integrates geographical, geophysical, chemical, and administrative information (such as specific IC details)
- Compatible with training area and facilities management systems
- Over 80 different data layers for Fort Wainwright, Fort Richardson, and Haines Fuel Terminal



database contains information on ICs, shows where current Operable Units (OUs) are located, shows well and boring locations, contains chemical data from soil and water sampling, shows location of aboveground and underground storage tanks, and contains information for each site listed in the Installation Action Plan (IAP).

LUCs are typically required to ensure that future activity at a remedial site remains consistent with the anticipated future land use assumptions made during the remedial process. Reasonably anticipated future land use assumptions are made during the CERCLA process and are used to determine cleanup goals and the extent of cleanup necessary at a particular site. More restrictive land uses may lead to “no action” decisions or greatly reduce the amount of cleanup required. Thus, land use determinations can have dramatic economic impacts. Additionally, LUCs may be necessary if the selected remedy is not effective at decontaminating the site or a determination is made that cleanup is impracticable. The figure at the top of the page shows how LUCs are used to reduce exposure and, therefore, reduce the risk to human health and the environment.

LUCs may be temporary and only needed during the cleanup process. Some sites may require that LUCs be established during the cleanup process for safety/security reasons and then removed when the site has been remediated or cleaned. These types of controls are often referred to as cleanup or interim LUCs.

The challenge of using LUCs is ensuring that they remain in effect and that future land uses are indeed compatible with the restrictions imposed during environmental restoration of the property. While the facility is active, ICs or LUCs are easily enforceable; however, when the property is to be transferred out of government control, land use control may be lost unless the contaminated portions of the facility are retained. Federal and State agencies are struggling with the issue of property transfer, and there does not appear to be a consensus on how to impose LUCs that “run with the land” during transfer of Federal properties. The new policy puts focus on the decision-making processes that lead to the requirement for LUCs, and to eliminate unnecessary use of LUCs where possible.

Acronyms	
LUC	Land Use Controls
IC	Institutional Controls
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
USARAK	U.S. Army, Alaska
GIS	Geographical Information System
OU	Operable Unit
IAP	Installation Action Plan

Acronyms

GSA
General Services Administration

GRO
Gasoline range organics

DRO
Diesel range organics

TCE
Trichloroethylene

POL
Petroleum, oil, and lubricants

ADEC
Alaska Department of
Environmental Conservation

Two-Party Agreement Sites

Building 762, Former GSA Fueling Station

Groundwater monitoring wells have been sampled at the former General Services Administration (GSA) Fueling Station. Benzene and gasoline range organics (GRO) contamination was detected in groundwater sampled from the site. GRO, diesel range organics (DRO), trichloroethylene (TCE), and acetone were unexpectedly found in a cross-gradient well. This contamination is not believed to be associated with activities that occurred at Building 762. The Army is planning to continue investigation at the site to determine the source of contamination in the cross-gradient well.

Building 986, POL Laboratory Dry Well (a former OUA Site)

Following review of data collected last year, the Army has determined that the bioventing treatment system at the Petroleum, Oil, and Lubricants (POL) Laboratory Dry Well will need to operate another year. In addition, soil excavated from the dry well was stockpiled on a liner near Circle Loop. The soil was remediated; however, when soil sampled beneath the liner was tested, it was contaminated. The Army will now need to go back to this stockpile area and investigate the extent of contamination beneath the liner. The soil that was stored in the stockpile was not just from Building 986 but also from Building 987. The investigation at the stockpile will occur later this year.

Building 987, Former Pump House and Aboveground Storage Tanks

This site was the former location of a pump house and three 225,000-gallon aboveground storage tanks. In 1999 the pump station and tanks were demolished. The soil was sampled during demolition and found to be contaminated. It was unknown if the contamination was due to spills during operation of the facility or to activities associated with the demolition. Shortly after demolition, the site was paved and is currently used as an RV parking area. Additional work, which included drilling through pavement and soil sampling, was conducted in May 2001.

Building 28008, Water Treatment Plant

Groundwater monitoring was conducted in January 2001. Free phase petroleum (DRO) was detected in two of the wells. Consultants to the Army are currently looking at developing a feasibility study to determine different cleanup alternatives. The Army is also developing a 3-dimensional contaminant map to help model contamination.

Building 47220, Former Boat House, Underground Storage Tank Site

Contamination at this site originated from a heating oil tank that was not removed when the former Boat House was demolished in the late 1980s. The tank was discovered and removed in 1998. Investigation at the time indicated that DRO contamination was present at levels greatly exceeding the Alaska Department of Environmental Conservation (ADEC) cleanup levels. A release investigation was conducted that involved drilling five soil borings at this site; one of these borings was converted into a groundwater monitoring well. No groundwater contamination was detected at the site, and the soil contamination appears to be confined to an area beneath the former tank location. It is likely that excavation will be used to remove the contaminated soil; however, that decision will depend on the area of contamination.

Two-Party Agreement Sites (Cont'd from Page 3)

Building 59000, Small Arms Range Complex

A quarterly groundwater sampling event occurred in February 2001. Free-phase petroleum was detected in one of the monitoring wells located directly north of the bunker. DRO exceeds cleanup levels at this site. The U.S. Army Cold Regions Research and Engineering Laboratory (CRREL) has been conducting shallow seismic tests to develop a bedrock map of the site. Because of the complex geologic conditions at the site, the Army has been unable to determine the exact groundwater flow path at the site. The current data indicates a very large gradient, and the Army is skeptical that the data is accurate. CRREL's testing will help the Army map bedrock conditions at the site and determine the groundwater flow path.

Acronyms

CRREL
Cold Regions Research
and Engineering
Laboratory

CAIS
Chemical agent
identification set

Operable Unit Updates

OUB

Poleline Road Disposal Area

The Design Verification Study, which evaluated the six-phase soil heating treatment system, has been completed. The study concluded that the six-phase soil heating was successful in removing a significant amount of contamination from the site. The Army is now evaluating remedial alternatives for the site. The remedial alternative could include installation of the six-phase system, but that comes with a fairly high price tag. Other remedial alternatives may include monitored natural attenuation or some other option yet to be determined. CRREL is conducting shallow seismic tests at the site and developing a 3-D model of the contaminant plume to develop a better understanding of the site.

The chemical agent identification set (CAIS) disposal process has not occurred as planned. The Non-Stockpile Chemical Materials personnel were ready to come to Fort Richardson to open and dispose of the sets in March/April 2001; however, the effort has been placed on hold pending a permit issue. Based on x-ray analysis of the seven CAIS that were retrieved from Poleline Road, all appear to be empty, or contain trash and debris. Several CAIS appear to still have the glass vials in them; however, the vials appear to be empty. The CAIS retrieved from Tin City, also being stored at Fort Richardson, seems to be the only intact CAIS currently stored in the bunker. The Army had planned to ship the intact CAIS to Aberdeen Proving Grounds in Maryland for research and development purposes; however, the State of Maryland would not allow the CAIS to be brought into the state. The Army will continue to store the CAIS, but is hoping that the Rapid Response System, a portable treatment system, will be a successful means of disposing of the CAIS.

OUC

Eagle River Flats

Summer 2001 will be the third season of a planned 5-year effort to remediate white phosphorus-contaminated sediments in shallow ponds in Eagle River Flats. White phosphorus has been determined to be the cause of waterfowl mortality in the Eagle River Flats area. A total of six floating pump systems will be used to de-water six of the contaminated ponds. Each of the systems consists of a large, 2000 gallon-per-minute pump mounted on a floating platform. Water is pumped out of the contaminated pond basins to expose the pond bottom sediments to drying conditions, which cause the white phosphorus particles to sublime and oxidize into harmless phosphate compounds.

Acronyms

UXO

Unexploded ordnance

ROD

Record of Decision

RI

Remedial Investigation

PCB

Polychlorinated biphenyl

DRMO

Defense Reutilization and Marketing Office

AVMA

Army Vehicle Maintenance Area

Operable Unit Updates (Cont'd from Page 5)

Prior to activities in Eagle River Flats, Unexploded Ordnance (UXO) technicians swept and marked cleared paths to all the sites requiring access. Army Engineers used cratering charges to blast sump holes for placement of pumps for the summer remediation effort. The photograph below shows the Army Engineers preparing the cratering charges prior to mobilizing to the demolition site.

Two of the sump holes were blasted in new ponds that had not been treated before, and the third was blasted to deepen an existing sump hole used last year. The six pump systems were deployed in early May, one in Area A, three in Area C, and two in Area C/D. The pumps and generators were lifted into place using an Alaska Army National Guard UH-60 Blackhawk helicopter. The Blackhawks were also used to airlift the Army Engineers out to the blast sites as shown in the photograph on Page 7.

Site conditions will be monitored throughout the summer season using electronic dataloggers, and the web-based camera system will be deployed again. Additionally, the white phosphorus test plugs will be placed in the field to monitor and estimate the rate of depletion.

The Army is planning to capture, radio collar, and release about 100 to 125 ducks during this coming fall. Movement and mortality of the tagged ducks will be followed throughout the fall until freeze-up. Ducks that die will be recovered, when practical, and analyzed. Due to problems encountered last fall with procuring a helicopter to perform the duck capture, the Army is making contingency plans in the event that a helicopter service cannot be contracted for the coming fall. The contingency would be to perform a ground survey to locate and determine the mortality rate of ducks.

Army Engineers preparing explosives to blast open sump holes in the ponds. 





Army Engineers
boarding a UH-60
Blackhawk
helicopter.

ODU

Additional site investigation at the two post-ROD (Record of Decision) sites requiring further evaluation—Building 796 (battery shop) and Building 955 (former sludge bin)—has been completed. The sample results indicate that contaminant levels do not exceed maximum contaminant levels at either of these sites. Therefore, Buildings 796 and 955 will be formally closed and documented in the OUE ROD.

OUE

OUE is a new operable unit to be investigated on Fort Richardson. All of the other OUs have been investigated and have gone through the ROD process. One of the first steps in evaluating an OU is writing the scope of work for a Management Plan. The Army has just completed writing this scope of work for the Management Plan and is expecting to send it out for contract by the end of May.

Currently, the Army is working on the pre-RI (Remedial Investigation) removal of the polychlorinated biphenyls (PCB)-contaminated soil pile located at Building 35752. The Army is planning to dispose of the soil through service provided by the Defense Reutilization and Marketing Office (DRMO). The soil will be either packed into roll-off bins or covered boxcars and shipped to a disposal site in Idaho.

The other OUE site is called the Army Vehicle Maintenance Area (AVMA) and is located north of Building 724 and 730. This area is currently used for training but has historically had many different uses. Prior to the 1950s, the area was a gravel pit and was used as a disposal area. The Army has completed a pre-RI soil investigation in this area to determine type and extent of contamination. The results of the pre-RI soil investigation are not yet available. Two upgradient groundwater monitoring wells were installed as part of the pre-RI. One of the wells was installed in the shallow aquifer, the second in the deeper aquifer. The Army expects to receive the results from groundwater sampled from these wells by early summer.

CRREL will be conducting shallow seismic tests at the AVMA. The Army is evaluating the potential to conduct pre-RI excavation to characterize the buried wastes at the site. If excavation occurs, the Army will use a backhoe to dig up areas and sample the soils.

Fort Richardson Restoration Advisory Board



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