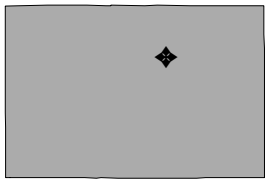
Size: 577 acres
Mission: Provided medical services, training, and research
HRS Score: NA
IAG Status: None
Contaminants: Petroleum hydrocarbons, asbestos, lead-based paint, and radioactive waste
Media Affected: Groundwater and soil
Funding to Date: $5.7 million
Estimated Cost to Completion (Completion Year): $20.0 million (FY2000)
Final Remedy in Place or Response Complete Date for BRAC Sites: FY2000



Aurora, Colorado

Restoration Background

In July 1995, the BRAC Commission recommended closure of all facilities at Fitzsimons Army Medical Center except the Edgar J. McWhethy Army Reserve Center. All tenants will be relocated to other installations. The Army will transfer ownership of excess property to public and private entities no later than FY01.

Environmental studies at the installation identified several sites, including aboveground storage tanks, underground storage tanks (UST), landfills, clinical areas, pesticide and herbicide facilities, a wastewater treatment plant, a sanitary sewer system, and maintenance areas.

EPA and the state regulatory agency reviewed the scope of work for the Environmental Baseline Survey (EBS) and the BRAC Cleanup Plan in FY95.

The commander formed a restoration advisory board (RAB) in FY96. The RAB elected a community co-chair and held monthly meetings to promote the exchange of information among community members and federal and state regulatory agencies. The installation also completed a community relations plan. A BRAC cleanup team (BCT) was formed to investigate and ensure cleanup of all areas of concern and to allow property transfer to the Fitzsimons Redevelopment Authority. In addition, the EBS and the Site-Specific EBS for the former main hospital (Building 500) were completed.

The installation removed tanks and associated contaminated soil from the UST area for the former heating plant and is awaiting formal approval of closure documents from the Office of the State of Colorado Oil Inspector.

The old low-level radioactive waste landfill (Landfill 5) was excavated, and no indication of radioactivity was detected. Before beginning the excavation, the installation held a media day to address community concerns.

The installation began an asbestos and lead-based-paint survey program. Abatement has been completed at some buildings. Buildings 500, 533, and 534 and the 300/600 areas were surveyed for asbestos and lead-based paint before the Department of the Army halted funding for the program. Clauses concerning asbestos and lead-based paint are now added to lease and transfer documents.

FY97 Restoration Progress

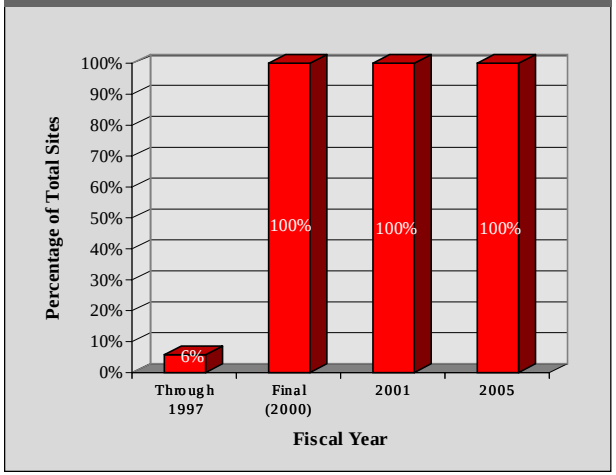
The installation initiated groundwater studies and Site Inspections for all sites. Accelerated fieldwork techniques (hydropunch, geoprobe, and cone penetrometer) were employed at the installation. The installation removed 15 fuel oil tanks and contaminated soil from Facility 216, a former heating plant. In addition, a Total Environmental Restoration Contract was employed at the installation.

Throughout FY97, the installation held BCT meetings every other week, including the Fitzsimons Redevelopment Authority in every other meeting. Also in FY97, the RAB held a public meeting concerning the installation's Environmental Impact Statement

Plan of Action

- In FY98, initiate Site Inspections for sites not funded in FY97
- Initiate Remedial Investigations for sites funded in FY98
- Initiate necessary tank removals and Remedial Actions on the basis of results from the ongoing site investigations
- Complete the NRC Decommissioning process by the end of FY98

Sites Achieving RIP or RC Per Fiscal Year



Size: 2,501 acres
Mission: Housed U.S. Army Soldier Support Center; provided personnel, financial, and soldier physical fitness administration and training
HRS Score: NA
IAG Status: None
Contaminants: VOCs, fuel hydrocarbons, petroleum products, pesticides, and heavy metals
Media Affected: Groundwater and soil
Funding to Date: $18.0 million
Estimated Cost to Completion (Completion Year): $4.5 million (FY1999)
Final Remedy in Place or Response Complete Date for BRAC Sites: FY1999

Lawrence, Indiana

Restoration Background

In July 1991, the BRAC Commission recommended closure of Fort Benjamin Harrison; realignment of the Soldier Support Center to Fort Jackson, South Carolina; and retention of the DoD Finance and Accounting Service, Indianapolis Center.

The primary site types at the installation include spill areas, underground storage tanks (UST), fire training areas, aboveground storage tanks, hazardous waste storage areas, firing ranges, and maintenance shops. Petroleum products, pesticides, and heavy metals are the primary contaminants of concern.

Phase I of a RCRA Facility Investigation (RFI) and an Environmental Investigation (EI) began in FY92. In FY94, the Army completed a CERFA investigation that identified clean parcels. The state regulatory agency has not yet concurred with those designations.

The installation also began Interim Actions in FY94 to prevent contaminant migration to groundwater and to clean a storage building contaminated with pesticides. The installation landfill was closed, and capping and monitoring activities began. The installation also has removed 26 USTs.

A restoration advisory board and a BRAC cleanup team (BCT) were formed in FY94. The BCT completed the initial version of the BRAC Cleanup Plan (BCP). A land reuse plan was prepared as part of the NEPA Environmental Impact Statement.

In FY95, the installation completed Phase I of the RFI and the EI and initiated Phase II. Also in FY95, the installation prepared a revised version of the BCP and site-specific Environmental Baseline Surveys for all property disposals.

The installation officially closed at the end of FY95. The Army transferred about 600 acres and leased almost 2,000 acres of property to various recipients.

FY97 Restoration Progress

The Army initiated Remedial Action (RA) at the firing ranges. It also conducted an unexploded ordnance survey and completed a RCRA closure of the hazardous materials storage facility. Cleanup of the former AAFES gas station site by soil aeration with enzymatic by-product was completed early. Use of geoprobes and ground-penetrating radar in the Phase II EI and RFI accelerated fieldwork.

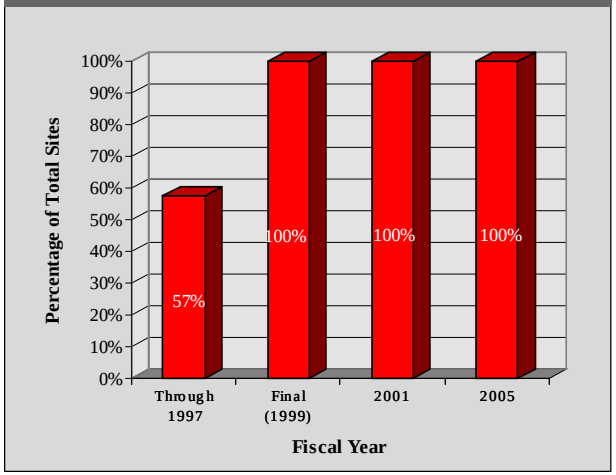
The Army is conducting an internal review of documents concurrently with regulatory review in order to expedite the review process. The BCT conducted a review of the Phase II RFI Report, planned closeout of small sites not involved in major investigations, reviewed findings of suitability to lease for Lawton Loop and Encroachment Parcels, reviewed and completed an Engineering Evaluation and Cost Analysis for a Removal Action at the former firing ranges, and planned and reviewed the stream relocation early action at the former state police firing range. In addition, 1,475 acres of proposed CERFA-clean acreage are awaiting regulatory approval.

The first activity in the current plan of action originally was scheduled for completion in FY97, but it was postponed because of regulatory delays.

Plan of Action

- Complete the Phase II RFI and EI in FY98
- Plan and complete Removal Actions and RAs in FY98
- Complete the latest version of the BCP in June 1998
- Complete all BRAC activities by the end of FY99

Sites Achieving RIP or RC Per Fiscal Year



Size: 71,359 acres
Mission: Light infantry and mobilization
HRS Score: NA
IAG Status: None
Contaminants: Petroleum/oil/lubricants, DDT, PCBs, and heavy metals
Media Affected: Groundwater and soil
Funding to Date: $8.0 million
Estimated Cost to Completion (Completion Year): $62.2 million (FY2005)
Final Remedy in Place or Response Complete Date for BRAC Sites: FY2003

Fort Chaffee, Arkansas

Restoration Background

In July 1995, the BRAC Commission recommended closure of Fort Chaffee, except for a few essential ranges, facilities, and training areas that will be used as a Reserve Component training enclave. The BRAC parcel available for transfer is approximately 7,233 acres. The installation is scheduled to close in October 1997.

The primary site types identified in previous studies include underground storage tanks (UST), two fire training areas, landfills, an open-burning and open-detonation unit, and hazardous waste and hazardous material storage areas. Primary contaminants of concern include petroleum/oil/lubricants in groundwater and soil and heavy metals and pesticides in soil.

Interim Actions at the installation have included removal of USTs and soil remediation at all abandoned UST locations. The community formed a Local Redevelopment Authority in FY95. No property has been leased or transferred.

In FY96, the installation formed a BRAC cleanup team (BCT) and a restoration advisory board. The installation also began developing the BRAC Cleanup Plan. Also in FY96, the installation completed a RCRA Facility Investigation (RFI) that had been initiated in FY95. The draft final Environmental Baseline Survey Report was completed and submitted to the regulatory agencies. The Army began investigations at the North POW Landfill and awarded a contract for site characterization of the Hazardous Waste Storage Facility. The contract to remove USTs from the BRAC parcel also was awarded.

FY97 Restoration Progress

The installation removed USTs from the BRAC parcel. The Army used Site Characterization and Analysis Penetrometer System (SCAPS) trucks for accelerated fieldwork. In addition, installation project managers received hazardous-waste operations training to improve site management and project oversight. The installation took lead-agency authority under CERCLA but also met with the director of the state agency and obtained a commitment to work through the BCT. This prevented work stoppage while disagreements were resolved.

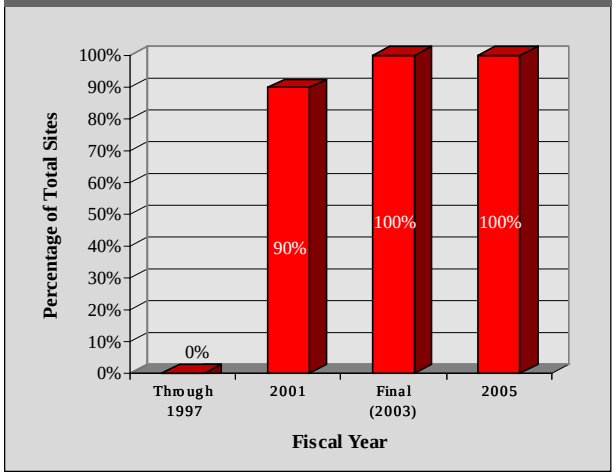
The BCT completed and implemented the open-burning and open-detonation unit-closure work plan. It also completed work plans for closing the Hazardous Waste Storage Facility and the Army National Guard Burn Pit. Phase I of the Site Investigation was initiated, and work began on removal of postwide USTs, oil-water separators, wash racks, and fuel-fill stands.

The installation closed at the end of FY97 and established a caretaker staff. The first three activities in the current Plan of Action were originally scheduled for completion in FY97. They were delayed because of Army and BCT discussions about environmental proponency and because enclave lines needed to be redrawn.

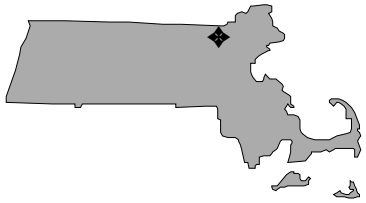
Plan of Action

- Complete RCRA closure evaluation for the Hazardous Waste Storage Facility in FY98
- Complete the report on the North POW Landfill investigation in FY98
- Begin design and remediation of the North POW Landfill in FY98
- Complete Relative Risk Site Evaluations for the remaining sites in FY98
- Implement presumptive remedies at all landfills in FY98 and FY99

Sites Achieving RIP or RC Per Fiscal Year



Size: 9,219 acres
Mission: Support Reserve Component training
HRS Score: 42.24; placed on NPL in November 1989
IAG Status: IAG signed in November 1991
Contaminants: VOCs, heavy metals, petroleum products, PCBs, pesticides, herbicides, and explosive compounds
Media Affected: Groundwater and soil
Funding to Date: $76.2 million
Estimated Cost to Completion (Completion Year): $25.1 million (FY2010)
Final Remedy in Place or Response Complete Date for BRAC Sites: FY2000



Fort Devens, Massachusetts

Restoration Background

In July 1991, the BRAC Commission recommended that Fort Devens close and establish a reserve enclave. The installation has made significant progress in its environmental restoration and base closure programs. The scheduled closure date is March 1997.

Environmental investigations conducted at this installation since FY89 have identified 84 sites, including landfills, vehicle and equipment maintenance and storage yards, the Defense Reutilization and Marketing Office scrapyard, motor pools, and underground storage tanks (UST). Investigations revealed soil contaminated with heavy metals, petroleum products, and polychlorinated biphenyls (PCB); and groundwater contaminated with heavy metals and solvents. Interim Actions were conducted for removal of contaminated soil and USTs and capping of a landfill.

In FY94, the commander formed a restoration advisory board (RAB). The technical review committee, now a subcommittee of the RAB, reviews and comments on all technical documents. A BRAC cleanup team meets regularly to address restoration issues related to regulatory requirements, technical and resource constraints, and reuse.

In FY95, the installation began several Interim Actions, including removal of USTs and the installation of a soil vapor extraction system. In FY95, the installation completed two Records of Decision (ROD) for the Shepley's Hill Landfill Operable Unit (OU) and the Barnum Road Maintenance Yards OU. In addition, an Environmental Impact Study was completed, and an enhanced Preliminary Assessment identified 10 areas requiring evaluation.

The Army provides cooperating-agency status to two federal agencies, the Federal Bureau of Prisons and the U.S. Fish and Wildlife Service, and two state entities, the Massachusetts Government Land Bank (MGLB) and the Joint Board of Selectmen (representing four surrounding communities). The Army and those organizations signed a Memorandum of Agreement outlining the roles and responsibilities of each member. The installation formed a primary coordination team, which included these cooperating agencies, to coordinate realignment of the installation and to implement the NEPA Environmental Impact Statement. In FY95, the Local Redevelopment Authority and the MGLB developed a land reuse plan. The plan proposed leasing or transferring property to other federal agencies or to the MGLB.

In FY96, the Army closed Fort Devens, replacing it with the Devens Reserve Forces Training Area (RFTA), which assumed the remaining Army mission. The Army transferred 2913 acres and leased 669 acres of the former Fort Devens to the local reuse authority, the Massachusetts Development and Finance Agency (formerly known as the MGLB). The Army and regulators signed a ROD for the South Post Impact Area to monitor the level of explosives and solvents in the groundwater. The installation completed radiological surveys for 98 percent of affected buildings on the former property and completed all fieldwork for the Explosive Ordnance Survey. Feasibility Study (FS) for landfill consolidation is under way.

FY97 Restoration Progress

An additional 21 acres of previously leased land were transferred to the Massachusetts Development Agency. Approximately 222 acres were transferred to the Federal Bureau of Prisons. The installation completed the Environmental Condition of Property (ECP) for a 22-acre parcel to be transferred to the U.S. Department of Labor. An ECP for the U.S. Fish and Wildlife Service was still under review at the end of FY97.

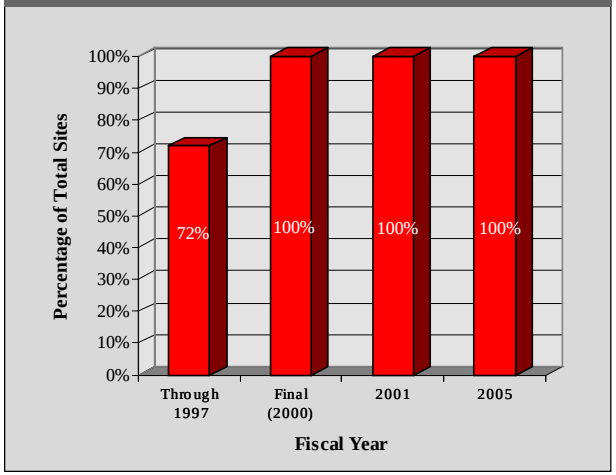
Of 324 BRAC areas requiring environmental evaluation (AREE) or CERCLA sites, 204 have approval for no further action. The Army and EPA approved a no-further-action ROD for area of concern (AOC) 63AX. The installation completed the Remedial Investigation (RI)/FS and the Proposed Plan for AOCs 32 and 43A were completed; the ROD is expected early in FY98. The installation also completed the Explosive Ordnance Survey.

The first three activities in the current Plan of Action originally were scheduled for completion in FY97 but were delayed because of delays in regulatory review.

Plan of Action

- Complete RIs at three sites in FY98
- Complete FSs at three sites in FY98
- Sign four RODs for 10 sites in FY98
- Initiate Remedial Actions at 10 sites in FY98
- Transfer 858 acres in FY98. The acres transferred are as follows: 836 acres to Fish and Wildlife Service and 22 acres to the Department of Labor.

Sites Achieving RIP or RC Per Fiscal Year



Size: 30,997 acres
Mission: Provide training and reserve support
HRS Score: 37.40; placed on NPL in July 1987
IAG Status: Federal Facility Agreement signed in September 1991
Contaminants: Heavy metals, petroleum/oil/lubricants, and chlorinated solvents
Media Affected: Groundwater and soil
Funding to Date: $33.0 million
Estimated Cost to Completion (Completion Year): $102.1 million (FY2031)
Final Remedy in Place or Response Complete Date for BRAC Sites: FY1998

Pemberton Township, New Jersey

Restoration Background

In July 1995, the BRAC Commission recommended additional realignment of Fort Dix, allowing it to retain the ranges, facilities, and training areas required for Reserve Components training.

In FY79 and FY82, the installation evaluated the Fort Dix Sanitary Landfill and 16 other sites, including storage areas, underground storage tanks (UST), landfills, lagoons, impact areas, and an incinerator. Heavy metals, petroleum/oil/lubricants, and chlorinated solvents were released into soil and groundwater. The installation responded by placing a series of groundwater monitoring wells around the perimeter of the landfill.

In FY93, the installation performed site characterizations and field screening at several sites. USTs and the associated contaminated soil were removed from seven sites. In FY94 and FY95, the installation built a multilayer cap over the Fort Dix Sanitary Landfill. Fort Dix established successful partnerships with state and local regulatory agencies and formed a technical review committee. In FY95, the Army formed a BRAC cleanup team (BCT) that includes representatives of the installation, EPA, and the state regulatory agencies.

In FY96, the commander formed a restoration advisory board (RAB) with elected community board members. The installation continued Remedial Investigation (RI) activities at the MAG-1 Area and continued an Environmental Investigation report on 19 sites. The installation also began RI activities at eight sites. Interim Remedial Actions (IRA) were completed at two landfills.

The installation began developing a BRAC Cleanup Plan (BCP) and an Environmental Baseline Survey (EBS). It initiated an archive search to investigate the possible presence of radioactive materials and unexploded ordnance (UXO). In addition, the installation undertook a survey to determine the presence of polychlorinated biphenyl (PCB) contamination at transformer sites. A NEPA Environmental Assessment also was initiated.

FY97 Restoration Progress

The BCP, the EBS, and the groundwater model were completed. Additional monitoring wells were installed where needed, and a monitoring program began. The RI and Feasibility Study (FS) was completed for golf course sites. Two early actions (removal of 65 UST sites and initiation of an IRA at the Taxi Stand site) also were completed. Use of innovative technologies expedited site characterization and fieldwork. Relative Risk Site Evaluations have been completed at all but six sites.

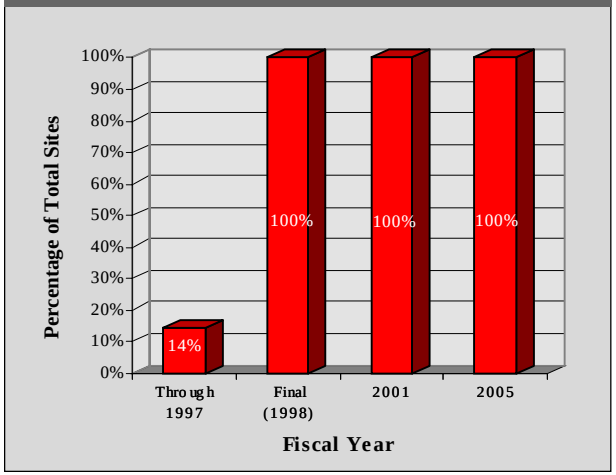
The RAB conducted numerous technical presentations. The BCT prepared the BCP abstract, completed the EBS Report, and held meetings. Awaiting regulatory approval are 228 acres of proposed CERFA-uncontaminated acreage.

Some activities scheduled for completion in FY97 were delayed because of a need to reprogram funding.

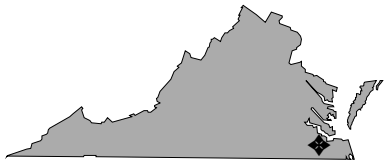
Plan of Action

- Propose further CERFA-uncontaminated acreage in FY98
- Continue removal of abandoned USTs and investigate USTs with contamination in FY98
- Incorporate the groundwater model into the Fort Dix geographic information system and local area network in FY98
- Continue long-term monitoring and long-term operations of the National Priorities List Landfill
- In FY98, complete Proposed Plans and sign Records of Decision (ROD) for the MAG-1 Area, the 19 sites, and ANC-9 and begin Remedial Design (RD)
- Complete RI/FS for Fire Training Tanks, Boiler Blowdown, and ARDC sites and prepare Proposed Plans in FY98
- In FY98, complete Proposed Plan, sign ROD for the golf course sites, and begin RD
- In FY98, continue IRA for Taxi Stand site using ECGO
- Complete final BRAC UST Report in FY98
- In FY98, complete BRAC PCB sampling, radiological survey and archive search, and UXO survey
- Complete BRAC limited site investigation in FY98 for three areas of concern identified in the EBS Report
- In FY98, complete BRAC Asbestos Survey and Abatement of Properties for Transfer to the State
- In FY98, complete BRAC finding of suitability to transfer documents for the Coast Guard, Navy, Mid-State Prison, Federal Correctional Institute, and the State of New Jersey BRAC properties
- Continue support of the RAB in FY98

Sites Achieving RIP or RC Per Fiscal Year



Size: 8,228 acres
Mission: House the Army Transportation Training Center; provide training in rail, marine, and all other modes of transportation involved in amphibious operations
HRS Score: 50.00; placed on NPL in December 1994
IAG Status: None
Contaminants: Petroleum products, PCBs, VOCs, pesticides, and heavy metals
Media Affected: Groundwater, surface water, sediment and soil
Funding to Date: $39.9 million
Estimated Cost to Completion (Completion Year): $11.2 million (FY2006)
Final Remedy in Place or Response Complete Date: FY2006



Newport News, Virginia

Restoration Background

Fort Eustis is home to the Army Transportation Center, where officers and enlisted soldiers receive education and training in all modes of transportation, aviation maintenance, logistics and deployment doctrine, and research. Previous investigations identified 27 sites, including landfills, underground storage tanks (UST), pesticide storage areas, range and impact areas, and surface impoundments. The migration of contaminants from some sites to creeks and estuaries and the potential migration through surface water and the upper water table to the James River are of greatest concern at the installation. Results of analysis of samples in FY87 and FY90 indicated the presence of polychorinated biphenyls (PCB), pesticides, polyaromatic hydrocarbons (PAH)s, and lead in surface water and sediment.

In FY90, a Remedial Investigation (RI) began for four sites located near estuaries at the installation. In FY92, a Preliminary Assessment and a Site Inspection were completed at eight additional sites at which suspected soil contaminants include fuel and oils, pesticides, and volatile organic compounds (VOC).

In FY94, the installation completed Interim Remedial Actions for removal of contaminated soil at the Felker Airfield Tank Farm and a waste-oil storage tank site. It also completed cleanup activities at the two landfills. In the following year, the state approved a corrective action plan (CAP) for the installation of pneumatic pumps and passive skimmers to recover petroleum products from groundwater at the Helicopter Maintenance Area UST site.

The installation formed a technical review committee (TRC), which meets semiannually. The TRC includes representatives of the installation, state regulatory agencies, the City of Newport News, and the local community. Agenda items discussed during meetings include the status of restoration activities and community relations activities, identification of new sites, and tours of the installation. The installation is working closely with EPA and the state regulatory agencies to develop the scope of services for future work. The installation also completed a community relations plan and began developing an administrative record.

In FY96, a team building and partnering session with EPA and the state regulatory agencies was conducted to develop a remedial cleanup alternative for PCB-contaminated sediment in an estuary contaminated with PCBs. In addition, the installation established information repositories at three local libraries.

The state regulatory agency approved another CAP for the installation of a free-product recovery system at the Gas Station UST site. The installation awarded a project for the design of methane-gas collection systems at two closed landfills and developed RI work plans for Eustis Lake.

The Agency for Toxic Substances and Disease Registry released the draft public health assessment for Fort Eustis. After a 30-day public comment period, a final health assessment was published that indicated that the Fort Eustis National Priorities List (NPL) site poses no apparent risk to public health and that health education and follow-up health study actions are not warranted.

FY97 Restoration Progress

In FY97, the installation continued operation of free-product recovery systems at two UST sites. The installation also continued long-term monitoring (LTM) of the groundwater and surface water at three closed landfills. The draft Feasibility Study and Engineering Evaluation and Cost Analysis for two areas of contaminated sediment was distributed. A contract was awarded to begin construction of the methane-gas collection systems at two landfills.

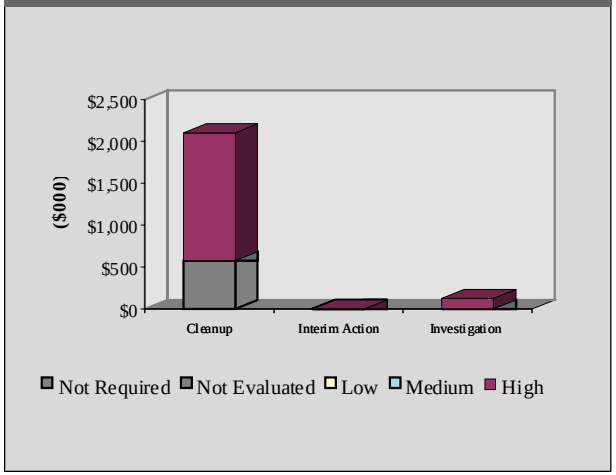
The installation had EPA and state regulators review the scope of work in FY97 to help reduce additional sampling efforts later. The installation employed on-site laboratories to expedite site characterization. Fort Eustis solicited public interest in forming a Restoration Advisory Board (RAB), but there was insufficient interest.

The first activities on the current plan of action were scheduled for completion in FY97. They were delayed because EPA had comments on the final RI report that needed addressing and because the validation of Eustis lake report sample took longer than expected.

Plan of Action

- Continue operation of free-product recovery system at two UST sites (ongoing)
- Continue LMT of the groundwater and surface water at three closed landfills (ongoing)
- Complete the review of and complete an RI report on three estuary sites, a fire training area, and buried sludge site in FY98
- Complete the investigation and field efforts at Eustis Lake and the pesticide storage area and distribute the draft reports to regulatory agencies for review and comment in FY98
- Put the administrative record on CD-ROM to improve the community's access

FY98 Funding by Phase and Relative Risk



Size: 13,860 acres
Mission: Serve as administrative post to various DoD tenants
HRS Score: 52.0; proposed for NPL in June 1997
IAG Status: None
Contaminants: Heavy metals, petroleum hydrocarbons, VOCs, and UXO
Media Affected: Groundwater and soil
Funding to Date: $46.7 million
Estimated Cost to Completion (Completion Year): $27.2 million (FY2004)
Final Remedy in Place or Response Complete Date for BRAC Sites: FY1999

Fort Meade, Maryland

Restoration Background

In December 1988, the BRAC Commission recommended closing Fort Meade range and training areas, including the airfield, to realign Fort Meade from an active Army post to an administrative center. The National Security Agency is now the primary tenant of the new administrative center. In July 1995, the commission recommended additional realignment of the installation, reducing Kimbrough Army Community Hospital to a clinic and eliminating in-patient services. To date, the Army has transferred 8,100 acres to the Department of the Interior. The remaining 366 acres hold Tipton Army Airfield. The Army plan to lease that parcel to Anne Arundel County awaited completion of the remediation of unexploded ordnance (UXO).

Investigations beginning in FY88 identified several areas of concern at the installation, including landfills, petroleum and hazardous waste storage areas, underground and aboveground storage tanks, asbestos-containing material in structures, and UXO.

In FY94, the installation completed a UXO survey of 1,400 acres. A survey of the remaining 7,600 acres was completed in FY95. A risk assessment for UXO also was completed.

To expedite cleanup, the installation completed several Interim Actions, including removal of compressed-gas cylinders, underground storage tanks, and contaminated soil. Remedial Design and Remedial Action activities were conducted concurrently with investigations at six sites. The designs used generic remedies whenever feasible.

The installation formed a BRAC cleanup team (BCT) in FY94 and a restoration advisory board (RAB) in FY95. Both have facilitated the installation cleanup and generated the community support necessary to accomplish reuse of closing property.

In FY96, the Army began UXO removal at Tipton Airfield. Fort Meade began an installationwide Ecological Risk Assessment and continued Remedial Investigation and Feasibility Study (RI/FS) activities at eight sites. The installation also began to prepare one of the documents required by NEPA to address BRAC 95 realignment actions. Remediation projects began at the four landfills, the medical waste site, and the fire training area.

FY97 Restoration Progress

The installation removed and disposed of soil in the pit from the fire training area. It also completed the installation Environmental Baseline Survey, the finding of suitability to lease, and the report of availability for BRAC properties. The Army leased Tipton Army Airfield to Anne Arundel County and completed the cleanup at the medical waste site.

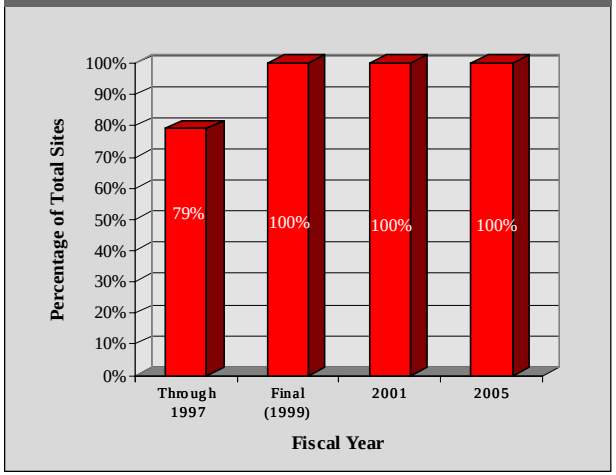
EPA proposed placing Fort Meade on the National Priorities List (NPL) in April 1997. The Army provided comments disputing the proposed listing in June. Despite concerns about the technical accuracy of EPA's scoring, the Army anticipates that the site will be placed on the NPL in either January or May of 1998.

The first two activities in the current Plan of Action were scheduled to be completed in FY97, but were delayed because additional work was required by the EPA under the RI/FS. In addition, a Record of Decision has not been completed.

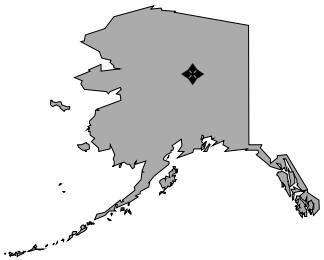
Plan of Action

- Complete UXO removal at the fire training area in FY98
- Remove and renovate the medical waste site in FY98
- Complete BRAC activities in FY99

Sites Achieving RIP or RC Per Fiscal Year



Size: 640,000 acres
Mission: Support Army training, cold weather testing, and cold weather training
HRS Score: NA
IAG Status: None
Contaminants: Petroleum/oil/lubricants, pesticides, solvents, and radionucleides
Media Affected: Soil
Funding to Date: $8.7 million
Estimated Cost to Completion (Completion Year): $16.6 million (FY2012)
Final Remedy in Place or Response Complete Date for BRAC Sites: FY2003



Fort Greely, Alaska

Restoration Background

In July 1995, the BRAC Commission recommended realignment of Fort Greely. Realignment of the installation is scheduled to be completed by FY02. The site types identified at the installation include underground storage tanks (UST), fire training areas, and a cooling-water waste line from a nuclear power plant. Soil contaminants from leaking USTs and associated piping include petroleum/oil/lubricants (POL). Pesticides, such as DDE and DDT, also have contaminated soil at the installation.

To reduce environmental risk, the installation conducted Interim Actions, including the removal of USTs and POL-contaminated soil. The installation also has used land treatment, bioventing, and low-temperature thermal desorption to remediate contaminated soil.

During FY95, a Local Redevelopment Authority (LRA) was formed to develop a land reuse plan for the installation.

In FY96, the commander formed a restoration advisory board (RAB) and members were elected to represent the community. The RAB held regular meetings for information exchange between the community and federal and state regulatory agencies. The Army also formed a BRAC cleanup team (BCT) to investigate and ensure cleanup of all areas of concern, and conducted an Environmental Baseline Survey (EBS).

FY97 Restoration Progress

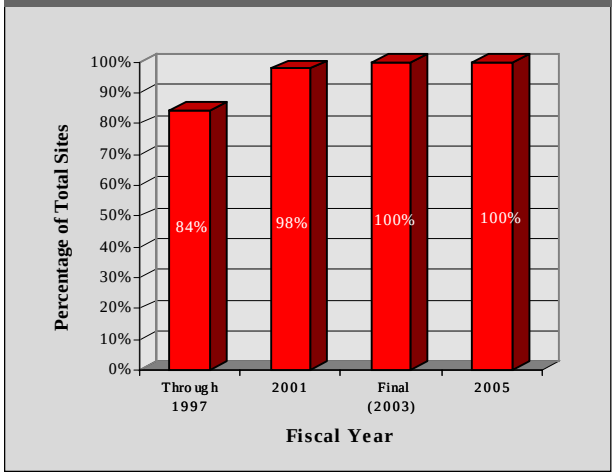
Fort Greely took advantage of an available Total Environmental Restoration Contract (TERC) contract to complete investigation of the majority of EBS sites. In addition, ground penetrating radar was used to locate the nuclear power plant cooling-water waste line for removal.

To expedite document review, the Army held a kick-off partnering session with the regulators to provide early buy-in to field investigation plans. In addition, biweekly teleconferences held with the Alaska District Corps of Engineers, LRA, contractors, the State of Alaska, and other subject matter experts led to increased communication. The BCT attended RAB meetings, produced the latest BRAC Cleanup Plan (BCP), concurred with the designation of CERFA-clean acreage, and set cleanup levels for the nuclear powerplant cooling-water waste line removal.

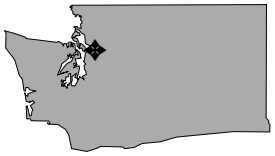
Plan of Action

- Complete site evaluations for remaining 37 locations in FY98
- Obtain concurrence from the regulatory agencies on CERFA-uncontaminated acreage in FY98
- Complete remediation of fire training areas in FY98
- Dispose of radioactive waste associated with the cooling-water waste line removal and continue removal of contaminated pipe and associated soil from nuclear power plant cooling- water waste line in FY98
- In FY99, complete investigations of sites requiring further sampling, as indicated by the EBS and BCP studies
- Complete removal of contaminated pipe and associated soil from nuclear power plant cooling-water waste line in FY99

Sites Achieving RIP or RC Per Fiscal Year



Size: 86,176 acres
Mission: House I Corps Headquarters; plan and execute Pacific, NATO, or other contingency missions; provide troop training, airfield, medical center, and logistics
HRS Score: 42.78 (Landfill No. 5); placed on NPL in July 1987; deleted from NPL in May 1995
35.48 (Logistics Center); placed on NPL in November 1989
IAG Status: IAG signed in January 1990
Contaminants: VOCs, heavy metals, waste oils and fuels, coal liquification wastes, PAHs, solvents, and battery electrolytes
Media Affected: Groundwater and soil
Funding to Date: $38.2 million
Estimated Cost to Completion (Completion Year): $35.9 million (FY2029)
Final Remedy in Place or Response Complete Date: FY2003



Fort Lewis, Washington

Restoration Background

Two Fort Lewis sites, Landfill No. 5 and the Logistics Center, were placed on the National Priorities List (NPL) after investigations revealed soil and groundwater contamination. Additional sites identified during environmental studies include landfills, disposal pits, contaminated buildings, and spill sites. As a result of previous waste management practices, primary contaminants of concern include organic solvents, heavy metals, and fuels.

Cleanup actions at Fort Lewis have involved both generic remedies, such as soil vapor extraction (SVE), and innovative technologies, such as low-temperature thermal desorption. The installation closed a drinking water well at the Logistics Center as an interim action in FY91.

The Army and regulators signed the Record of Decision (ROD) for the Logistics Center in FY90. The final remedy, a groundwater extraction and treatment system, became operational in FY95.

In FY92, the Army and regulators signed a ROD specifying no further action and long-term monitoring (LTM) for the Landfill No. 5 site. In FY94, a ROD was signed for Landfill No. 4 and the Solvent Refined Coal Plant. Fort Lewis completed the Remedial Design (RD) for contaminated soil at the Solvent Refined Coal Plant in FY95 and awarded the construction contract for the Remedial Action (RA). The installation also completed a pilot-scale study at Landfill No. 4.

In FY95, EPA removed Landfill No. 5 from the NPL. This was the first federal site, and the first DoD site, to be removed from the NPL.

To expedite the document review process, the installation worked closely with EPA and state regulatory agencies. It provided parts of documents to the agencies for review before submitting complete documents. This approach has helped foster a strong relationship between the installation and the regulatory agencies and improved the decision-making process.

In FY95, the installation distributed a periodic newsletter to local governments, community groups, and citizens to provide specific information about restoration activities.

The installation made significant progress in the treatment and removal of contaminated soil at the Solvent Refined Coal Plant. The installation also completed the RD for groundwater sparging and the SVE system at Landfill No. 4 and awarded the RA contract.

LTM continued according to schedule at Landfill No. 5, the former NPL site. Groundwater extraction and treatment continued at Landfill No. 2 at the Logistics Center.

FY97 Restoration Progress

The installation completed the RA at the Solvent Refined Coal Plant in FY97 and is awaiting site closeout, pending EPA review. In addition, it initiated RA work at Landfill No. 4 and the study of the Explosive Ordnance Disposal Range. Groundwater sparging and SVE continued at Landfill No. 4, and air strippers were used for RA operations at the Logistics Center.

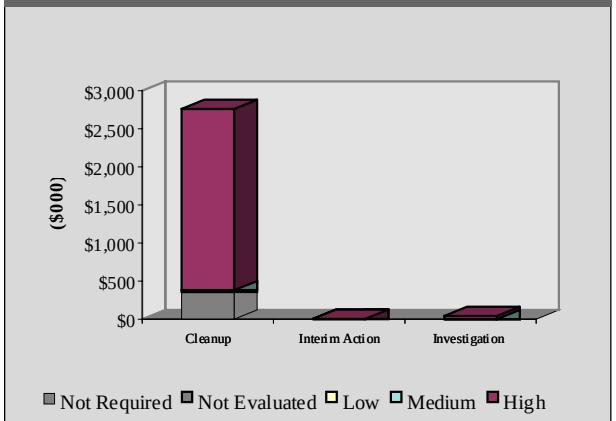
The Army formed a working group, including EPA and the U.S. Geological Survey (USGS), that will accelerate Installation Restoration Program (IRP) cleanups and reduce IRP life-cycle costs. There has been no community interest in forming a restoration advisory board (RAB), but the installation will poll the local community to determine public interest.

A funding shortfall precluded installation of a fence and some investigations scheduled for completion in FY97 are still in progress.

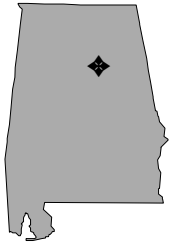
Plan of Action

- Repair the fence at the polychlorinated biphenyl-contaminated site in FY98
- Complete investigations at Landfill No. 1 in FY98
- Complete further study of the Explosive Ordnance Disposal Range in FY98
- Poll the local community again to determine possible interest in forming a RAB in FY98.
- Continue RD for the groundwater sparging and SVE innovative technologies in FY98
- Develop master plan for accelerating cleanups through the Fort Lewis-EPA-USGS Working Group

FY98 Funding by Phase and Relative Risk



Size: 41,191 acres
Mission: House the U.S. Army Chemical School, the U.S. Army Military Police School, and the DoD Polygraph Institute
HRS Score: NA
IAG Status: None
Contaminants: VOCs, SVOCs, pesticides, explosives, metals, UXO, radioactive sources, and chemical warfare agents
Media Affected: Groundwater and soil
Funding to Date: $12.3 million
Estimated Cost to Completion (Completion Year): $112.5 milllion (FY2002)
Final Remedy in Place or Response Complete Date for BRAC Sites: FY2002



Anniston, Alabama

Restoration Background

In July 1995, the BRAC Commission recommended closure of most of Fort McClellan's facilities. The minimum essential land and facilities for a Reserve Component enclave, essential facilities for auxiliary support of the chemical demilitarization operation at Anniston Army Depot, and the Chemical Defense Training Facility were retained. The installation is scheduled to close in FY99.

Environmental studies since FY90 identified the following site types: maintenance facility areas; training and range areas; underground storage tanks (UST); landfills; incinerators; handling storage areas for toxic and hazardous materials; and chemical agent and radioactive substance training, storage, and disposal areas. TCE and 1,1,2,2-tetrachloroethane are the primary contaminants affecting groundwater.

In FY90, the installation conducted an enhanced Preliminary Assessment, which identified 67 sites. In FY91 and FY92, Site Inspections (SI) were conducted at 17 of these sites. The 17 sites include 12 former chemical agent training areas, 3 former landfills, and 2 possible munitions-disposal areas. On completion of the SIs in FY93, 12 of the sites were moved into the Remedial Investigation (RI) phase.

In FY95, the installation conducted RI activities at the 12 sites. The SI Report and other supporting data were provided to EPA to enable the agency to determine the installation's National Priorities List (NPL) status. On the basis of these data, EPA concluded that environmental conditions at Fort McClellan did not warrant NPL listing of the installation.

Also in FY95,the installation conducted a radiological characterization of the Hot Cell (Building 3192) and the surrounding grounds. The Nuclear Regulatory Commission (NRC) approved the work plans to clean up the Hot Cell later that year. The installation conducted several UST removals during FY95. The Army selected the BRAC environmental coordinator and established information repositories at three locations. In addition, the community formed a Local Redevelopment Authority.

In FY96, the installation commander formed a BRAC cleanup team to investigate and ensure cleanup of all areas of concern. The commander also formed a restoration advisory board (RAB). The Army completed remediation of the Hot Cell in August, as required for closeout of the NRC license. The Army also awarded a contract for SI at 17 sites.

FY97 Restoration Progress

The installation accelerated fieldwork in FY97 by using the GORE-SORBER passive soil gas screening technique to screen 11 sites for volatile organic compounds (VOC) and semivolatile organic compounds (SVOC). The installation also used a geoprobe technique at UST sites for site characterization. The installation removed 11 USTs and replaced 13 USTs. It also conducted a comprehensive postwide background metals survey to supplement the earlier RI Report and to lay the foundation for a risk-based approach to all future investigation decisions. The Army conducted a Risk Assessment Training Course for BCT and RAB members to clarify how risk assessments will be handled. The BCT also attended partnering training.

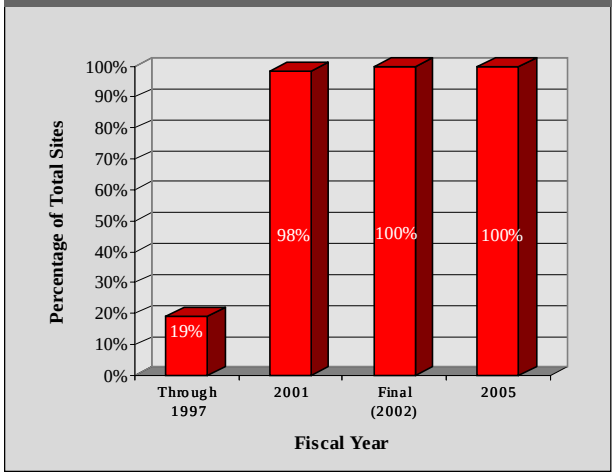
Fort McClellan hosted the Defense Environmental Response Task Force (DERTF) meeting in 1997. This meeting gave RAB members an opportunity to address DERTF on the cleanup and subsequent reuse of property contaminated with unexploded ordnance (UXO). The BCT also implemented the Total Environmental Restoration Contract as the contracting mechanism for the BRAC sites.

Some activities scheduled for completion in FY97 were delayed because regulators asked for additional changes in the Environmental Baseline Survey (EBS). This delay in the EBS caused a delay in the completion of the BRAC Cleanup Plan (BCP).

Plan of Action

- Complete the BCP in FY98
- Complete the EBS in early FY98
- Complete the Environmental Impact Statement in FY98
- Develop risk-based screening levels for both ecological and human health components in FY98
- Use ultrawide-band synthetic aperture radar imagery to develop detailed survey of suspected UXO areas in FY98
- Perform Engineering Evaluations and Cost Analyses on UXO-contaminated parcels in FY98-FY00

Sites Achieving RIP or RC Per Fiscal Year



Size: 761 acres
Mission: House the Headquarters of the Army Communications and Electronics Command
HRS Score: NA
IAG Status: None
Contaminants: Petroleum hydrocarbons, VOCs, SVOCs, PCBs, heavy metals, radionuclides, asbestos, and lead paint
Media Affected: Groundwater and soil
Funding to Date: $11.0 million
Estimated Cost to Completion (Completion Year): $18.1 million (FY2001)
Final Remedy in Place and Response Complete Date for BRAC Sites: FY1998

Monmouth County, New Jersey

Restoration Background

In July 1993, the BRAC Commission recommended the realignment and partial closure of Fort Monmouth, which houses the headquarters of the Army Communications and Electronics Command. The realignment involves closing the entire Evans Area (215 acres), transferring a portion of the Charles Wood Area (36 acres) to the Navy, and relocating personnel from the Evans Area and Vint Hill Farms Station to the Main Post and Charles Wood Area. The Fort Monmouth BRAC property has been divided into three parcels of land, the Charles Wood Housing Area and two parcels at the Evans Area, to accelerate transfer.

Environmental studies identified 37 sites in three areas. In FY94, an enhanced Preliminary Assessment (PA) of the BRAC parcels identified 32 sites at the Evans Area and 8 sites at the Olmstead Housing Area. Prominent site types include landfills, underground storage tanks (UST), hazardous waste storage areas, polychlorinated biphenyl (PCB) spill areas, asbestos areas, and radiological storage and spill areas. Primary contaminants released into groundwater and soil include chlorinated solvents, petroleum hydrocarbons, and heavy metals.

In FY94, the installation formed a BRAC cleanup team and completed version I of the BRAC Cleanup Plan. The CERFA Report identified 209 acres as CERFA-clean and this designation received regulatory concurrence. An FY94 enhanced-PA identified 15 sites requiring additional investigation.

In FY95, one site at the Evans Area was determined to require no further action. Site Inspections (SI) for all sites were completed by the end of FY96. The two sites at the Olmstead Housing Area required no further action. Interim Actions completed at the installation include the removal of USTs and PCB-containing transformers.

During FY95, the installation completed a Cultural and Historical Resources Survey and a threatened and endangered species survey. It also completed was a draft Environmental Impact Statement for disposal and reuse of the Evans Area and a final Public Involvement and Response Plan. The Army transferred a portion of the Charles Wood Housing Area (36 acres) to the Navy.

In FY96, the installation commander formed a restoration advisory board. The installation completed supplemental SI fieldwork and the final SI Report for all sites as well as a radiological site characterization work plan. The installation also began radiological decommissioning fieldwork at the Evans Area. The installation's land reuse plan and the survey for asbestos-containing material were completed.

FY97 Restoration Progress

The Army developed remediation plans for nine sites recommended for environmental remediation. In addition, work was initiated for the removal of fuel oil USTs and the replacement of a few USTs at buildings that will be reused by the Local Redevelopment Authority following conveyance.

Radiological decommissioning fieldwork continued in the vacant parcels and was started in buildings that recently had been vacated.

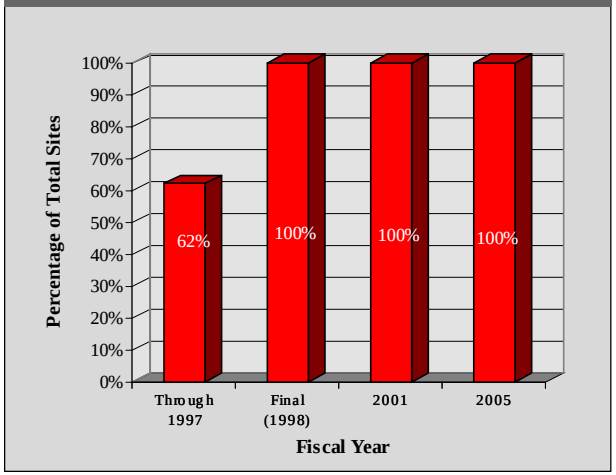
The Army received final regulatory comments on the draft Supplemental Site Inspection Report (SSIR) and prepared a draft final SSIR. In addition, a draft finding of suitability to transfer (FOST) and a draft updated Environmental Baseline Survey Report were prepared for the early conveyance of the parcel of land north of Laurel Gully Brook (93 acres).

The installation is awaiting regulatory concurrence on the determination of 71 acres as CERFA-clean.

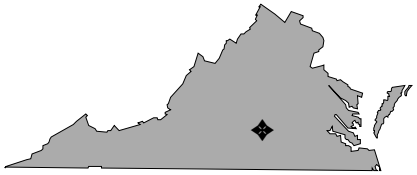
Plan of Action

- Complete the final SSIR in FY98
- Continue closing all USTs in FY98
- Continue radiological decommissioning effort in FY98
- Initiate Remedial Action (RA) at nine sites in FY98
- Complete FOST/EBS for the early conveyance of the parcel of land north of Laurel Gully Brook in FY98
- Complete Relative Risk Site Evaluations at the remaining 30 UST sites by FY99
- Complete BRAC activities, including radiological decommissioning and UST closures by FY99

Sites Achieving RIP or RC Per Fiscal Year



Size: 45,160 acres
Mission: Provide training support for Active and Reserve Component Units of all Services
HRS Score: NA
IAG Status: None
Contaminants: Petroleum hydrocarbons, metals, propellants and explosives
Media Affected: Groundwater, surface water, sediment, and soil
Funding to Date: $2.9 million
Estimated Cost to Completion (Completion Year): $19.4 million (FY2001)
Final Remedy in Place or Response Complete Date for BRAC Sites: FY2001



Blackstone, Virginia

Restoration Background

In July 1995, the BRAC Commission recommended closure of Fort Pickett except for essential training areas and facilities used for Reserve Components. The installation closed on September 30, 1997. Training and maneuver areas and part of the cantonment were transferred to the National Guard. Once it was slated for closure, the installation began to build a framework for restoration activities.

Site types identified at the installation include underground storage tanks (UST), petroleum spills, landfills, and fuel-burning equipment. Petroleum hydrocarbons are the primary contaminants affecting groundwater, surface water, sediment, and soil at the installation. Interim Actions taken at the installation include upgrading of USTs, asbestos surveys, and Removal Actions.

During FY95, the installation held meetings with regulators to foster partnerships. The resulting partnerships facilitated identification of sites that required restoration and development of the execution plan for FY96. The community formed the local reuse authority in FY95.

In FY96, the Army formed a BRAC cleanup team (BCT) to investigate and ensure cleanup of all areas of concern and allow transfer of all BRAC parcels. A restoration advisory board (RAB) was also formed. The local reuse authority contracted with a consultant to develop a local reuse plan. The installation performed an Environmental Baseline Survey (EBS). The BCT and the RAB reviewed the draft EBS Report. Programs to upgrade UST sites and monitor groundwater quality continued.

The Army initiated projects to replace polychlorinated biphenyl (PCB)–containing transformers and to performing an asbestos survey of the buildings in the Excess Area. The Army also undertook an Environmental Assessment (EA) and a Remedial Investigation (RI) of the 5-mile gasoline pipeline. The installation began a survey of all radioactive materials stored on the installation to support closeout of its license and conducted an archive search for unexploded ordnance (UXO) on its property.

FY97 Restoration Progress

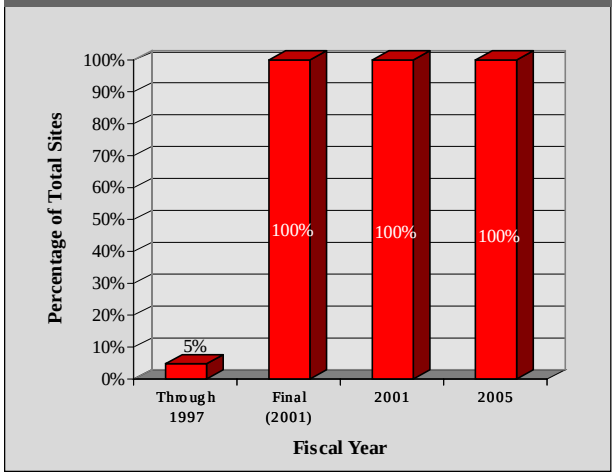
The installation completed an asbestos survey and the removal, replacement, and disposal of PCB-containing transformers. In addition, it completed the UXO survey and continued support of the Army's UST Upgrade Program. Fort Pickett initiated a multisite Preliminary Assessment and Site Inspection (PA/SI) for the BRAC excess property and completed historical aerial photo analysis. The aerial photo analysis was used to identify sites in need of investigation.

The installation implemented standard operating procedures for expediting document review and site characterization in FY97. The RAB was instrumental in working with the local reuse authority and the BCT to obtain funding for asbestos abatement.

Plan of Action

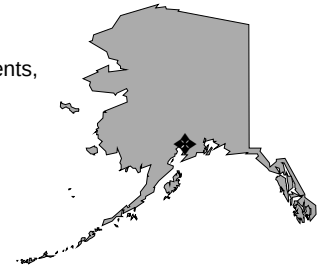
- Investigate former building demolition and burial sites in FY98
- Complete expanded multisite PA/SI in FY98
- In FY98, begin RI and Feasibility Study for sites that contain CERCLA-regulated wastes
- Complete asbestos abatement in FY98
- In FY98, perform Removal Actions at sites that have non-CERCLA wastes
- Complete an EA and an analysis of alternatives in FY97 and FY98
- Complete the RI of the gasoline pipeline system in FY97 and FY98
- Prepare site-specific documentation for the finding of suitability to lease and the finding of suitability to transfer under the EBS in FY98 and FY99
- Conduct investigation and remediation at motor pools, landfills, and fire training areas in FY98 and FY00
- Complete all BRAC cleanup work by the end of FY00

Sites Achieving RIP or RC Per Fiscal Year



Fort Richardson NPL

Size: 64,470 acres
Mission: Support and sustain forces assigned to U.S. Army Alaska
HRS Score: 50.00; placed on NPL in May 1994
IAG Status: Federal Facility Agreement signed in December 1994
Contaminants: White phosphorus, PCBs, heavy metals, petroleum/oil/lubricants, solvents, dioxins, chemical agents, UXO, explosives, and pesticides
Media Affected: Groundwater, surface water, sediment, and soil
Funding to Date: $58.4 million
Estimated Cost to Completion (Completion Year): $31.2 million (FY2014)
Final Remedy in Place or Response Complete Date: FY2014



Anchorage, Alaska

Restoration Background

Since World War II, Fort Richardson has supported combat unit training and operations, primarily for light infantry. These activities contaminated soil, surface water, sediment, and groundwater with petroleum/oil/lubricants (POL), solvents, and polychlorinated biphenyls (PCB). In addition, parts of a 2,500-acre wetland serving as an ordnance impact area are contaminated with white phosphorus.

Preliminary Assessments and Site Inspections completed in FY83 identified 38 contaminated sites. Since then, Removal Actions have addressed PCB contamination in soil, underground storage tank (UST) sites, two drum burial sites, and more than 4,000 cubic yards of soil contaminated with trichloroethene, 1,1,2,2-tetrachloroethane, and buried chemical agent identification sets. In addition, the Army treated more than 20,000 cubic yards of POL-contaminated soil by a thermal desorption treatment system.

In FY88, the installation and state and federal regulatory agencies established one of the earliest Cooperative Agreements by forming the Eagle River Flats Task Force. The task force was converted into the Eagle River Flats Biological Technical Assistance Group in FY94. Through a Memorandum of Agreement with the Cold Region Research and Engineering Laboratory (CRREL), several agencies have been conducting scientific research to satisfy CERCLA requirements and develop techniques for cleaning up the Eagle River Flats ordnance impact area.

In FY95, the installation conducted a Remedial Investigation (RI) for Operable Unit (OU) A to address three potential sources of PCBs, chlorinated solvents, heavy metals, and POLs. Completed RI phases included field investigative work and installation of groundwater monitoring wells. The Army also conducted an RI at OU B, which once was a disposal site for chemical agent identification sets and other small munitions. The CRREL conducted a geophysical survey of the disposal area and identified potential subsurface anomalies in an unexcavated area of the site. The Army installed groundwater monitoring wells in that area.

In FY95, the installation also conducted a Focused Treatability Study for dredging white phosphorus contamination at OU C, the Eagle River Flats area. The installation also completed a preliminary source evaluation in OU D at nine potential source areas, only three of which should require remediation.

In FY96, the installation continued to solicit public interest in forming a restoration advisory board (RAB) by advertising in the local newspaper. The installation held quarterly public meetings and distributed quarterly fact sheets to update the public on restoration activities and results of analyses.

Also in FY96, the Army completed groundwater sampling at the three sites in OU A and submitted a draft RI and Feasibility Study (FS) to EPA. It completed additional sampling at the former Fire Training Pit area at Ruff Road. The major contaminants of concern are POLs. The installation completed groundwater sampling at OU B and submitted the draft RI/FS to EPA. The installation initiated RIs for OU C and OU D and a pond draining/pumping Treatability Study for OU C.

Evaluations of petroleum sites were completed under the restoration agreement between the state of Alaska and the Army. More than 20 sites required no further action with negotiated alternate cleanup levels.

FY97 Restoration Progress

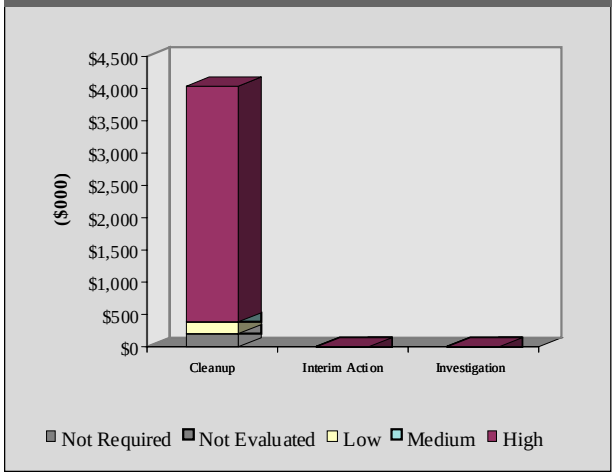
The installation completed a Treatability Study involving heat-enhanced soil vapor extraction (SVE) at OU B. It also completed the RI/FS for OU C and the RI for OU D. Records of Decision (ROD) for OUs A and B were completed and signed. The Army initiated an ongoing postwide risk assessment.

An excellent relationship between the Army, the state of Alaska, and EPA has developed at Fort Richardson. Biweekly teleconferences are held to expedite handling of regulatory issues.

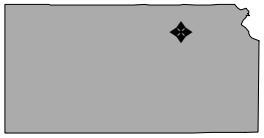
Plan of Action

- Establish a RAB in FY98
- Complete the postwide risk assessment in FY98
- Proceed with pond draining/pumping at OU C in FY98
- Install a heat-enhanced SVE system at OU B in FY98
- Complete and sign OU C ROD in FY98
- Conduct SVE at POL-contaminated sites in FY98

FY98 Funding by Phase and Relative Risk



Size: 100,671 acres
Mission: Provide training, readiness, and deployability for three component combat brigades; mobilize and deploy active and reserve component units
HRS Score: 33.79; placed on NPL in August 1990
IAG Status: IAG effective June 1991
Contaminants: VOCs, pesticides, and lead
Media Affected: Groundwater, surface water, sediment, and soil
Funding to Date: $43.2 million
Estimated Cost to Completion (Completion Year): $39.4 million (FY2037)
Final Remedy in Place or Response Complete Date: FY2007



Junction City, Kansas

Restoration Background

Environmental studies at the installation began in FY74. Sites identified in the installationwide site assessment include a former firing range, a former pesticide storage facility, a dry-cleaning facility, a closed landfill, and a former fire training area. Studies in FY74 and FY86 identified pesticide-contaminated soil and sediment at the pesticide storage facility. Groundwater monitoring detected volatile organic compound (VOC) contamination at the Southwest Funston Landfill.

The installation identified five operable units (OU): the Southwest Funston Landfill (OU1), the Pesticide Storage Facility (OU2), the Dry Cleaning Facility (OU3), the former Fire Training Area (OU4), and the 354 Area Solvent Detection Site (OU5).

Remedial Investigation and Feasibility Studies (RI/FS) were initiated at OU1 and OU2 in FY91, and at OU3 in FY92. By FY95, the Army had completed RI/FSs in draft or final form for OU1.

In FY93, the Army completed the Engineering Evaluation and Cost Analyses (EE/CA) for OU1 and OU2. In FY94, the installation conducted pilot-scale tests for soil vapor extraction (SVE) at OU3. Bioventing and SVE were performed at OU4 in FY95.

In FY95, the installation stabilized the riverbank at OU1 as a partial Removal Action and conducted additional Removal Actions at a former firing range and at OU2. The installation completed a Proposed Plan and prepared a draft final Record of Decision (ROD) for OU1. The installation also formed a partnership with USGS to develop and perform long-term monitoring (LTM) of groundwater at OU1. The Army also evaluated all sites under the Relative Risk Site Evaluation process.

In FY96, the installation renegotiated all project schedules with the regulatory agencies on the basis of funding levels and project priorities. The Army completed cover improvements at OU1 and prepared the final ROD for signature. LTM and operation and maintenance (O&M) plans were also drafted. The installation resolved technical issues and drafted the Proposed Plan, which proposed no further action (NFA) at OU2. At OU4, the installation conducted additional investigations to document the concentrations of contaminants in soil and initiated an EE/CA to evaluate optional measures for controlling exposure of nearby users of the groundwater.

Also in FY96, the installation drafted a decision document for numerous sites needing no further action. The Army awarded a contract, and construction began, for remediation of utility trenches contaminated with fuel oil in the 6200 Family Housing Area. A contract was awarded for performance of initial field investigations at OU5.

FY97 Restoration Progress

The Army completed the LTM and O&M plans for OU1 and obtained signatures on the ROD. The installation completed the Proposed Plan and obtained the signatures needed to approve the OU2 ROD. A draft RI Addendum and the revised draft FS evaluating use of natural attenuation at OU3 were submitted to the regulators. The Army completed the RI/FS work plan and evaluated potential early actions addressing groundwater contamination at OU4. An EE/CA was initiated for the groundwater contamination. In July, the Army awarded a contract for early groundwater action. The installation performed initial field investigations at OU5. The fuel oil cleanup in the 6200 Family Housing Area was completed.

All goals were met through cooperative efforts of the Army, the state of Kansas, EPA, and contractors. Remote satellite data collection on groundwater levels was used, allowing military training activities to continue without interruption.

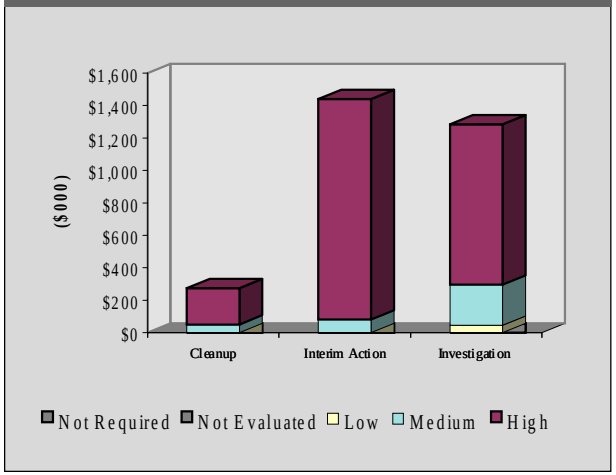
EPA and the Kansas Department of Health and Environment participated in development of the Installation Action Plan (IAP). This produced regulator understanding of, and “buy-in” to, project approaches; better coordination and scheduling; and more-efficient resource allocation. A restoration advisory board orientation meeting was held, and a community co-chair was selected.

The NFA ROD scheduled for completion in FY97 was delayed because EPA extended the review period.

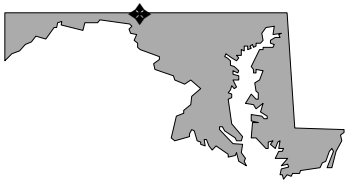
Plan of Action

- In FY98, complete the Proposed Plan and hold a public comment period for NFA site (OU3)
- Implement exposure-control early action for OU4 in FY98
- Complete evaluation and selection of early groundwater treatment and control for OU4 in FY98
- Initiate RI/FS work plan for OU5 in FY98

FY98 Funding by Phase and Relative Risk



Size: 638 acres
Mission: Supported Site R underground facility
HRS Score: NA
IAG Status: None
Contaminants: UXO, heavy metals, and asbestos
Media Affected: Groundwater and soil
Funding to Date: $0.4 million
Estimated Cost to Completion (Completion Year): $9.7 million (FY2000)
Final Remedy in Place or Response Complete Date for BRAC Sites: FY2000



Fort Ritchie, Maryland

Restoration Background

In July 1995, the BRAC Commission recommended that Fort Ritchie be closed. The installation is scheduled to close on October 1, 1998.

Environmental contamination at Fort Ritchie resulted from underground storage tanks (UST), a mortar firing range, and a skeet range. The closed mortar range may contain unexploded ordnance (UXO). Housing units and administrative buildings contain asbestos and lead-based paint.

Interim Actions have included removal or replacement of all USTs, relining of sewer lines with plastic, removal of falling lead paint and high-hazard friable asbestos, and closure of an incinerator in the 1970s. A gasoline spill reported in FY84 was cleaned up in FY92.

The installation developed a positive working relationship with state and local officials. Measures taken to improve the decision-making process and communication at the installation include forming a planning group, conducting meetings at the town hall, conducting quarterly in-process reviews, establishing hot lines to answer employee questions, and relaying installation updates to the local news media.

In FY96, the Army formed a BRAC cleanup team (BCT) to investigate, and ensure cleanup, of all areas of concern and to allow transfer of all BRAC parcels. The commander formed a Restoration Advisory Board (RAB). Also in FY96, the Environmental Baseline Survey (EBS) and the BRAC Cleanup Plan (BCP), Version I, were completed.

The installation's supporting U.S. Army Corps of Engineers (USACE) District negotiated a Total Environmental Restoration Contract for all restoration work. The contractor began work on the Environmental Impact Statement (EIS) required under NEPA and the draft report for the archive search for UXOs. In addition, the installation developed partnerships with the Local Redevelopment Authority.

FY97 Restoration Progress

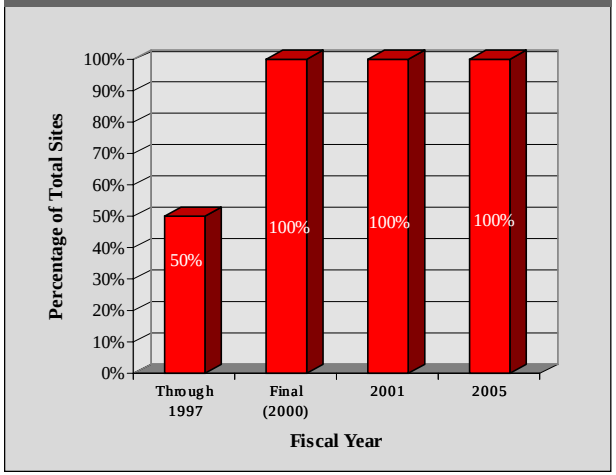
The installation completed the UXO archive search with assistance from the USACE St. Louis District. The installation initiated hazardous, toxic, and radioactive waste and UXO sampling and conducted the RAB meetings. It also completed the draft Version II of the BCP and published a draft EIS.

Some activities scheduled for completion in FY97 were delayed because of a change in management and directives.

Plan of Action

- Initiate the skeet range cleanup in FY98
- Complete BCP Version II in FY98
- Complete a "programmatic agreement" with cultural and historical agencies (the State Historic Preservation Office and the Advisory Council for Historic Preservation) in FY98
- Complete the NEPA EIS in FY98
- Lease facilities once the Army vacates in FY98
- Convey clean parcels in FY99
- Complete all BRAC activities in FY00, depending on the results of UXO sampling

Sites Achieving RIP or RC Per Fiscal Year



Size: 712 acres
Mission: Provided administrative and logistical support; non-excess property currently used as Army Reserve installation and Navy Housing Area
HRS Score: NA
IAG Status: None
Contaminants: VOCs, fuel hydrocarbons, PAHs, metals, and UXO
Media Affected: Groundwater and soil
Funding to Date: $33.2 million
Estimated Cost to Completion (Completion Year): $8.1 million (FY2008)
Final Remedy in Place or Response Complete Date for BRAC Sites: FY2003

Fort Sheridan, Illinois

Restoration Background

Fort Sheridan began operations in 1887. In December 1988, the BRAC Commission recommended its closure. Over its 100-year history, Fort Sheridan's missions have included cavalry and infantry training, NIKE systems maintenance, and administrative and logistical support. Currently, 104 acres are used as an Army Reserve installation.

Sites identified in previous environmental studies include landfills, pesticide storage areas, hazardous-material storage areas, underground storage tanks (UST), asbestos-containing material (ACM) sites, polychlorinated biphenyl (PCB)-containing transformers, and unexploded ordnance (UXO) areas. Petroleum hydrocarbons, volatile organic compounds (VOC), and polyaromatic hydrocarbons (PAH) affect groundwater and soil. Early actions included removal of USTs, contaminated soil, and ACM.

Remedial Investigation and Feasibility Study (RI/FS) activities began in FY90. Investigations identified the following areas for potential cleanup: groundwater and soil contamination at two gas stations, seven landfills, and soil contamination at coal-storage areas. In FY94, the installation conducted a survey that identified UXO at the former artillery range at the north end of the fort.

In FY94, the installation completed an Environmental Baseline Survey (EBS) that identified 304 acres as clean under CERFA requirements. Regulatory agencies concurred that 122 acres are CERFA-clean. The commander formed a BRAC cleanup team that completed the Version I BRAC Cleanup Plan (BCP).

FY95 actions included starting removal of contaminated soil from Building 208 and a Time-Critical Removal Action involving removal of contaminated sediment from Buildings 43 and 368. The installation also began an Interim Action to close Landfills 6 and 7. During FY95, the installation prepared a draft data validation report for Phase I RI data, conducted a Site Inspection of the installation's golf course, prepared a background sampling plan, conducted the background sampling, and classified groundwater conditions at the installation. The commander also formed a restoration advisory board, and the Army approved a land reuse plan prepared by the Local Redevelopment Authority.

In FY96, removal of contaminated sediment at Buildings 43 and 368 marked completion of Removal Actions at those sites. The installation completed Phase II and Phase III RI fieldwork at the excess property and initiated the draft RI for the same property. The installation also initiated Phase II RI fieldwork at the nonsurplus property. A completed Archive Search Report recommended additional ordnance surveys, which were conducted later. The installation performed a UXO Removal Action and completed Version II of the BCP.

The Army removed several USTs on excess property and conducted asbestos and lead-based-paint hazard abatement for excess-area buildings. The Army also completed a radiological closeout survey. A Focused Feasibility Study and a Proposed Plan were prepared for the Landfill 6 and 7 Interim Action.

FY97 Restoration Progress

The Army began construction activities for the Landfill 6 and 7 Interim Remedial Action (IRA) and completed the decision document for the sites. A Non-Time-Critical Removal Action for cleaning up coal-storage areas and a blacksmith's shop on excess property also was initiated. In addition, the installation prepared an RI, a Proposed Plan, and a no-action decision document for Landfills 3 and 4.

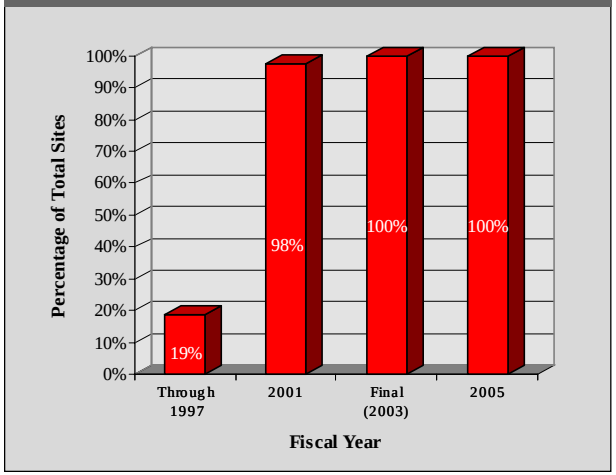
The Army completed the lead-based-paint hazard abatement for excess property in May 1997. In addition, RI reports were prepared for the remaining parts of the excess property. A specific EBS for property transfers and leases was completed, as was Phase II RI fieldwork on nonsurplus property.

The RI/FS planned for FY97 was not completed because the Surplus operable unit (OU) split into two OUs, causing a change in the installation's priorities. An RI was completed for one of these OUs, and a draft RI was completed for the other.

Plan of Action

- Complete RI/FS for remainder of excess property in FY98
- Initiate RI/FS for nonsurplus property in FY98
- Prepare EBS and findings of suitability to transfer for property transfers in FY98
- Conduct Non-Time-Critical Removal Action on excess property in FY98
- Continue IRA at Landfills 6 and 7
- Conduct UXO clearance on former rifle range in FY98
- Propose CERFA-clean acreage and obtain concurrence from appropriate regulatory agencies in FY98
- Complete all BRAC work by end of FY02, with long-term monitoring continuing until FY24

Sites Achieving RIP or RC Per Fiscal Year



Size: 135 acres
Mission: Provided administrative and logistical support; non-excess property currently used as an Army Reserve Installation and Navy Housing Area
HRS Score: NA
IAG Status: None
Contaminants: VOCs, fuel hydrocarbons, metals
Media Affected: Groundwater and soil
Funding to Date: $1.7 million
Estimated Cost to Completion (Completion Year): $3.9 million (FY2001)
Final Remedy in Place or Response Complete Date for BRAC Sites: FY1999

Bayside, New York

Restoration Background

In 1995, the BRAC Commission recommended closing Fort Totten except for use as a U.S. Army Reserve enclave. In 1989, the installation initiated a broad Installation Restoration Program. The Army conducted several preliminary studies, including groundwater sampling at the former landfill area and soil sampling throughout the installation, at locations with the potential for contamination. The installation completed several Interim Remedial Actions and removals. The actions include removal and replacement of polychlorinated biphenyl (PCB)-containing transformers, tank removals and replacements, petroleum-contaminated soil removal, and removal of asbestos from family housing. In FY95, the installation initiated an Environmental Baseline Survey (EBS). The EBS identified seven areas on BRAC property that required further evaluation.

In FY96, the installation submitted a draft EBS Report to the regulatory agencies for review. An unexploded ordnance archive search was performed, along with a limited field survey. Those studies concluded that further surveying might be necessary.

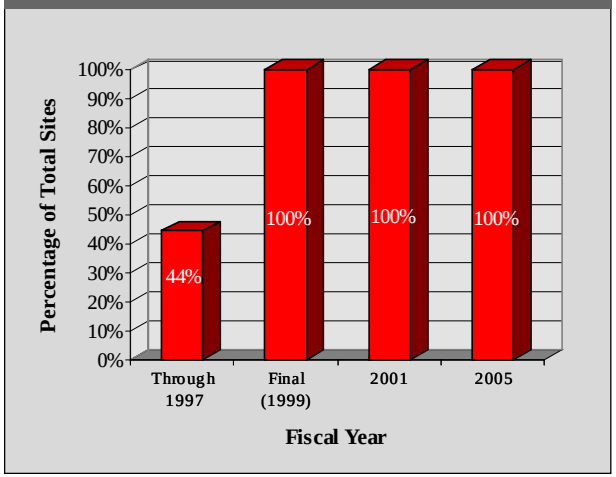
FY97 Restoration Progress

The Army completed the EBS and initiated an Environmental Investigation. The BRAC cleanup team (BCT) was able to expedite document review by implementing a 15-day review process. The restoration advisory board (RAB) for Fort Totten reviewed technical documents and responded to public comments on environmental issues. The BCT was able to coordinate with RAB members in making decisions. The Army identified 100 acres of CERFA-uncontaminated acreage at the installation for transfer. This designation was approved by the appropriate regulatory agencies.

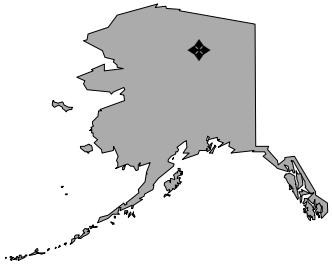
Plan of Action

- Investigate Little Bay sediment in FY98
- Conduct further investigations at Old Fort Area in FY98
- In FY98, perform tightness tests of four USTs and remove USTs if necessary
- In FY98, continue monitoring certain groundwater wells to determine whether cleanup is required
- Submit remainder of CERFA-uncontaminated acreage for regulatory concurrence in FY98

Sites Achieving RIP or RC Per Fiscal Year



Size: 917,993 acres
Mission: House the Headquarters of the 6th Light Infantry Division
HRS Score: 50.00; placed on NPL in August 1990
IAG Status: Federal Facility Agreement signed in November 1991
Contaminants: Petroleum/oil/lubricants, heavy metals, solvents, pesticides, paints, UXO, ordnance compounds, and chemical agents
Media Affected: Groundwater and soil
Funding to Date: $84.2 million
Estimated Cost to Completion (Completion Year): $63.4 million (FY2026)
Final Remedy in Place or Response Complete Date: FY2007



Fairbanks, Alaska

Restoration Background

Since World War II, Fort Wainwright has housed light infantry brigades, most recently the 1st Brigade, 6th Infantry Division (Light). Numerous installation operations that supported the military mission contributed to soil and groundwater contamination.

Environmental studies identified the following site types: a chemical agent dump, drum burial sites, underground storage tanks, a railroad car off-loading facility, an open burning and open detonation area, a former ordnance disposal site, solvent groundwater plumes, petroleum/oil/lubricant (POL) plumes, and pesticide-contaminated soil. The installation divided the sites into five operable units (OU). In FY90, the installation established a technical review committee.

The Army conducted two Interim Actions in FY93 and FY94. The first removed more than 500 drums and reduced a source of subsurface soil and groundwater contamination. The second treated more than 50,000 cubic yards of POL-contaminated soil by bioremediation and thermal desorption.

In FY93, the installation completed Site Inspections at 30 sites, 15 of which required no further action. In FY94, the installation continued Remedial Investigation/Feasibility Study (RI/FS) activities, which included characterization of POL and solvent groundwater plumes. The Army used an innovative ground-penetrating radar technology to determine environmental conditions at the installation.

In FY95, the installation continued RI/FS activities, including fieldwork for a drum area, a paint area, a former pesticide storage area, and a former landfill. The fifth site in OU1, the Chemical Agent Dump Site, was addressed separately under an Interim Record of Decision (ROD).

After the RI/FS, the installation completed Proposed Plans for the landfill area and power plant coal storage yard sites in OU4. The installation continued RI/FS fieldwork in OU5, which consists of several groundwater plumes north of the airfield.

In FY96, the Army and regulators signed RODs to address groundwater contamination in OU3 and soil and groundwater contamination in OU4. The OU4 remedy specifies natural attenuation of groundwater contamination, capping of the landfill, and in situ treatment of coal storage lot soil and air sparging of associated groundwater. Remedial Designs (RD) began for all sites addressed under those RODs, and some OU3 Remedial Action (RA) construction was completed.

The Army completed the Fire Training Pits (OU4) Removal Action during FY96 and closed the site.

Sampling at hot spots at the Railroad Off-Loading Facility (OU3) showed decreasing levels of contamination. At breaks in the pipeline from Fairbanks to Eielson Air Force Base (also OU3), treatment included injection of oxygen-releasing compounds to enhance in situ biodegradation of benzene, toluene, ethyl benzene, and xylene compounds in the groundwater.

The installation is continuing the postwide RA that was scheduled to be completed in FY97.

FY97 Restoration Progress

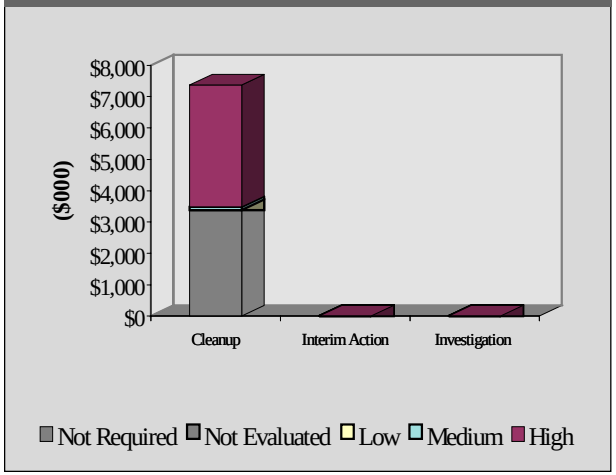
The installation completed the FS, the Proposed Plan, and the ROD for OU1. The Army and regulators signed the ROD for OU2, and the installation initiated RD. The OU4 RD was completed. The installation completed the draft FS and initiated Treatability Studies, including installation of a horizontal well, for OU5. A postwide risk assessment was incorporated into the FS for OU5.

The Army achieved early completion of a pipeline study for OU3 and OU5. It also initiated a Treatability Study at OU5 and installed horizontal air sparging/soil vapor extraction technology. The commander formed a restoration advisory board. The Army, EPA, and the Alaska Department of Environmental Conservation continue to meet jointly to review and write documents to expedite review. This ongoing partnership continues to be highly successful.

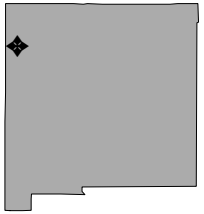
Plan of Action

- Conduct RA construction and RA operation in FY98
- Initiate Treatability Studies for OU5 that will enhance cleanup in FY98
- Remove the retaining structure at OU5 that borders the Chena River in FY98
- Continue to provide bottled water to neighboring churches under OU3 in FY98
- Complete ROD and begin RD for OU5 in FY98
- Enhance community involvement by RAB expansion and continuing publication of fact sheets and newspaper articles

FY98 Funding by Phase and Relative Risk



Size: 22,120 acres
Mission Stored, shipped, and received ammunition components and disposed of obsolete or deteriorated explosives and ammunition
HRS Score: NA
IAG Status: None
Contaminants: Explosive compounds, UXO, PCBs, pesticides, heavy metals, asbestos, and lead-based paint
Media Affected: Groundwater and soil
Funding to Date: $17.6 million
Estimated Cost to Completion (Completion Year): $47.3 million (FY2032)
Final Remedy in Place or Response Complete Date for BRAC Sites: FY2003



Gallup, New Mexico

Restoration Background

From 1949 to 1993, Fort Wingate stored, conducted functional testing of, and demilitarized munitions. Open burning, detonation, incineration, and bomb washout were the principal demilitarization methods used. Past practices deposited ordnance-related waste on and off the facility. Restoration efforts are focused on the following conditions: clearance of lands affected by unexploded ordnance (UXO); regulated closure of the Open Burning and Open Detonation (OB/OD) Area; remediation of soil at a pistol range, pesticide-contaminated soil at Building 5, and explosives-contaminated soil associated with the former Bomb Washout Plant Lagoons; remediation of polychlorinated biphenyl (PCB) contamination inside Buildings 501 and 11 and demolition of the former Bomb Washout Plant (Building 503); and closure of three unpermitted solid waste landfills.

Interim Remedial Actions conducted by the installation included removal of seven underground storage tanks. In addition, at the direction of regulatory agencies, the installation implemented groundwater monitoring at the Building 6 tanks.

The installation identified 16,417 acres as CERFA-clean in FY94. The regulatory agencies have not yet concurred with that designation. A BRAC cleanup team was formed in FY94 and now meets every 3 months. The installation commander formed a restoration advisory board in FY94. During FY95, the installation completed revision of the BRAC Cleanup Plan and placed the administrative record in local libraries.

In FY95, the Army conducted a Removal Action to clear UXO from Indian tribal lands adjacent to the OB/OD Area. In addition, Remedial Designs (RD) were completed for the pistol range and for Building 5 soil.

In FY96, the Army reached an agreement in principle with regulatory agencies to develop a binding installation wide cleanup agreement. The installation conducted additional fieldwork for a Remedial Investigation and Feasibility Study (RI/FS) in response to regulatory comments on a draft final report. It also completed field investigations of the three unpermitted solid waste landfills. The regulatory agencies approved OB/OD Area field investigations that began during the fiscal year. The RD for cleanup of explosives and demolition of Building 503 was completed. The installation also finished sampling target buildings for contamination with lead-based paint. Groundwater contamination was detected at the former TNT Washout Plant.

FY97 Restoration Progress

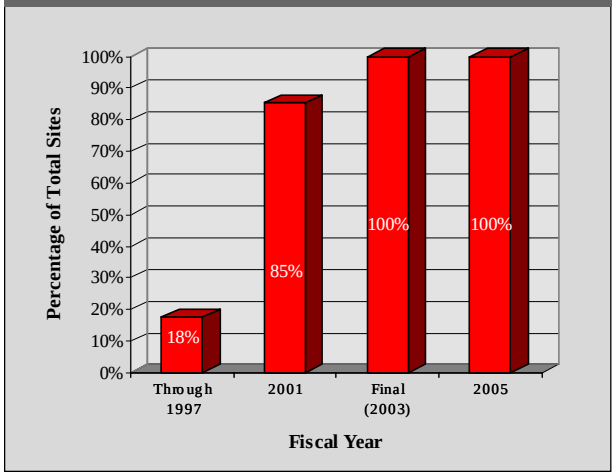
The installation initiated the cleanup and demolition plan for the former Bomb Washout Plant and awarded a contract for the work. Other planned activities were delayed by lack of funding, regulator concerns, and changes in the cleanup plan for the pistol range.

The installation initiated negotiations with regulators on a cleanup agreement. The agreement will facilitate resolution of overlapping jurisdiction applicable to closure of the OB/OD Area under RCRA and will facilitate closure of solid waste landfills.

Plan of Action

- Complete investigation for sites outside the OB/OD Area in FY98
- Initiate the cleanup of Building 5 in FY98
- Further evaluate groundwater contamination at the former TNT Washout Plant in FY98
- Develop and sign an installation-wide cleanup agreement with regulators in FY98
- Conduct remediation of Buildings 501and 503, including demolition, in FY98
- Install monitoring wells to address groundwater contamination at the Bomb Washout Plant and the OB/OD Area in FY98
- Complete investigations for sites inside the OB/OD Area in FY99
- In FY98, submit post-closure care plan for OB/OD Area
- Close and remediate the OB/OD Area, implement cleanup of soil contamination installation wide, continue evaluation of groundwater contamination, close and remediate the western and central landfills, and implement all other necessary remedies by FY03

Sites Achieving RIP or RC Per Fiscal Year



Fort Worth JRB Naval Air Station — Formerly Carswell Air Force Base — BRAC 1991

Size: 3,253 acres
Mission: Housed the 7th Bombardment Wing, 436th Training Squadron and Detachment 1, and the 1365th Audiovisual Squadron
HRS Score: NA
IAG Status: None
Contaminants: Waste oils, petroleum/oil/lubricants, JP-4 jet fuel, solvents, TCE cleaners, and low-level radioactive material
Media Affected: Groundwater, surface water, sediment, and soil
Funding to Date: $23.2 million
Estimated Cost to Completion (Completion Year): $21.7 million (FY2015)
Final Remedy in Place or Response Complete Date for BRAC Sites: FY1999

Fort Worth, Texas

Restoration Background

In July 1991, the BRAC Commission recommended the closure of Carswell Air Force Base. The installation closed in FY93 but was reopened in FY94 after the BRAC Commission recommended realignment of the installation as a joint reserve base. The installation name is now Fort Worth JRB Naval Air Station, and all restoration activity is the responsibility of the Air Force Base Conversion Agency.

Environmental studies at the installation since FY84 have identified the following site types: underground storage tanks (UST), landfills, fire training areas, waste burial areas, contaminated groundwater plumes, contaminated ditches, and oil-water separators. The primary contaminants are petroleum hydrocarbons in groundwater, surface water, sediment, and soil and trichloroethene (TCE) in groundwater and soil.

In FY89, a RCRA Facility Assessment was conducted at the installation. In FY92, RCRA Facility Investigation (RFI) activities were completed for 13 solid waste management units (SWMU).

Contaminated soil has been removed, Remedial Investigations (RI) have been completed for several sites, and cleanups have been completed for a petroleum/oil/lubricant tank farm, a fire training area, and a stormwater ditch. Several USTs also were removed.

The installation initiated a basewide RI for TCE-contaminated groundwater. To accelerate cleanup, the study and cleanup phases were conducted simultaneously and interagency document reviews were done concurrently.

In FY94, the installation formed a BRAC cleanup team and a restoration advisory board (RAB). An Environmental Baseline Survey was completed, and 147 acres were identified as CERFA-clean. The installation also entered into an agreement with the Aeronautical Systems Center at Wright-Patterson Air Force Base to investigate options for preventing a contaminated groundwater plume from entering sites at the installation.

RFIs were completed at five sites in FY95. The installation characterized a JP-4 jet fuel spill site and completed a pilot test of a bioventing system at the site. The installation removed or upgraded 23 USTs and abandoned in place a hydrant refueling system. The installation also is using an air stripper system to remove TCE hot spots at a landfill.

In FY95, the installation and the neighboring Air Force Plant No. 4 began a joint effort to enter all data collected during environmental investigations at both installations into a geographical information system. Air Force Plant No. 4 installed an air stripper system to prevent a TCE groundwater plume from migrating onto the installation.

During FY96, the installation and Air Force Plant No. 4 held joint monthly RAB meetings. Also in FY96, cleanup activities were completed at the Maintenance Barn site at the Golf Course. The installation continued delineating the groundwater plume at the air field. In addition, risk assessment activities were completed at Fire Training Area No. 2, which was later closed. The installation completed cleanup activities at 20 hazardous waste storage units, 23 oil-water separators, and a polychlorinated biphenyl (PCB) storage area. When the background study has been completed, the installation will close the sites as required by RCRA and will transfer ownership of the units to the Navy.

FY97 Restoration Progress

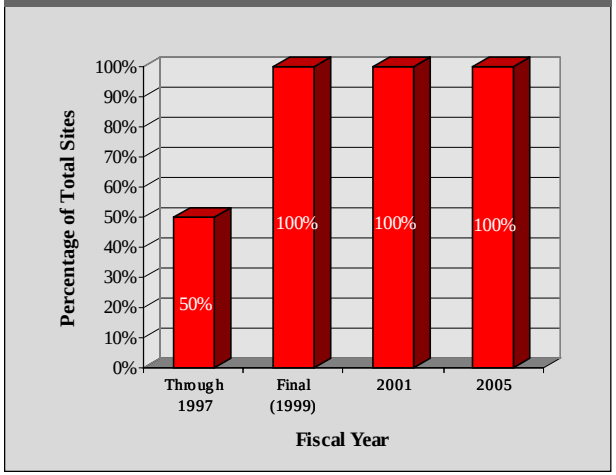
The Remedial Action for the stream project was completed. Before the site can be closed, a background study must be completed. Risk assessments at Landfills 4 and 5 were initiated during FY97, and will continue in FY98.

The Remedial Design at the base service station was completed, and a risk assessment was conducted. The results of the risk assessment were conclusive, and closure of the base service station was approved. No further action is required at the service station at this time.

Plan of Action

- Close the stream project site in FY98
- Continue risk assessments at Landfills 4 and 5, the Sanitary Sewer, and the Off-Base Weapons Storage Area in FY98
- Begin long-term monitoring at some sites in FY99 and at all sites by FY01

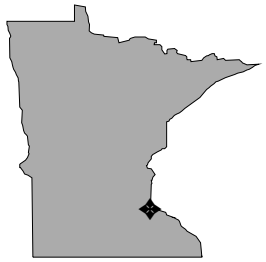
Sites Achieving RIP or RC Per Fiscal Year



Fridley Naval Industrial Reserve Ordnance Plant

NPL

Size: 82.6 acres
Mission: Design and manufacture advanced weapons systems
HRS Score: 30.83; placed on NPL in November 1989
IAG Status: Federal Facility Agreement signed in March 1991
Contaminants: Petroleum/oil/lubricants and VOCs
Media Affected: Groundwater and soil
Funding to Date: $21.7 million
Estimated Cost to Completion (Completion Year): $30.6 million (FY2014)
Final Remedy in Place or Response Complete Date: FY2004



Fridley, Minnesota

Restoration Background

Investigations conducted at this government-owned, contractor-operated plant between FY83 and FY88 identified trichloroethene (TCE) in groundwater. The plant was placed on the National Priorities List (NPL) in FY90 because of the TCE contamination in the groundwater, which discharges into the Mississippi River upstream from the Minneapolis drinking water plant.

Site types at the installation include waste disposal pits and trenches, old sanitary sewer lines, a foundry core butt disposal area, and the groundwater drainage system. Wastes and contaminants associated with these site types include petroleum/oil/lubricants, solvents, plating sludge, construction debris, and foundry sands.

In FY83, the installation completed Preliminary Assessments and established four sites. A fifth site was established in FY91 for all groundwater, basewide. The five sites have been divided into three operable units (OU). OU1, Site 5 is the groundwater, basewide. OU2, comprising Sites 1, 2, and 4, includes all source areas outside of the plant buildings. OU3, Site 3 is the source areas under the factory building. Sites 1 and 2 have Response Complete (RC) status.

OU1 Feasibility Study (FS) activities were completed in FY88, and a Record of Decision (ROD) was signed in FY90. The ROD included a Remedial Action (RA) to provide hydraulic containment and recovery of all future off-site migration of contaminated groundwater. In FY95, the installation initiated a Remedial Design (RD) for the water treatment plant.

The installation formed a technical review committee in FY93 and converted it to a restoration advisory board (RAB) in FY95. The installation prepared its community relations plan (CRP) in FY91 and updated the plan in 1997. An administrative record was compiled and an information repository established in FY95.

In FY96, the installation combined OU2 (soil in the vadose zone outside the main plant) with OU3 (source contamination beneath the main plant) to more effectively manage sitewide cleanup. In addition, the installation began an Interim Remedial Action (IRA) for removal of drums from Site 4. EPA, the Minnesota Pollution Control Agency, and the Navy also started formal partnering. The partnering team meets monthly at the installation.

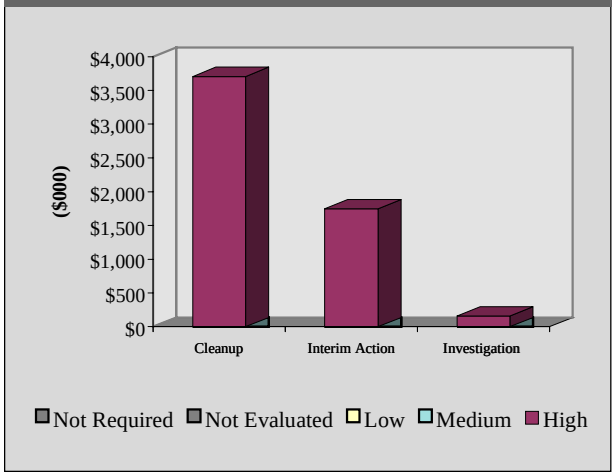
FY97 Restoration Progress

The installation updated the CRP. The IRA for removal of the drums from Site 4 was completed. In July 1997, the work plan for Site 3 was completed. A Human Health Risk Assessment (HHRA) is being conducted for Site 3 and will be incorporated into the draft Remedial Investigation (RI) report. The installation initiated construction of the water treatment plant in September 1997.

A site management plan was issued and used to track progress. The formal partnering agreement enhanced the team's ability to reach decisions quickly. The RA contractor began construction of the water treatment plant before completion of the design, saving time and allowing the installation to make necessary adjustments to design implementation. The partnering team has developed a plan for screening an off-site area of groundwater migration to better understand any potential impact on the Mississippi River.

The HHRA, which was scheduled for completion in FY97, will be incorporated into the draft RI Report. This report was delayed because a number of agency comments remained to be resolved. Delays in design and in assessing the effects of scaling postponed construction of the water treatment plant.

Plan of Action

- Complete HHRA and construction of a water treatment plant in FY98
- Complete evaluation of contamination remaining in Anoka County Park in FY98
- Implement exit strategies in FY98
- Begin long-term monitoring at Sites 3 and 5 in FY99, after water treatment plant is on-line
- In FY00, complete a source identification at Site 1 to shorten the life cycle of the Site 5 remedy and/or to develop a more efficient extraction system

FY98 Funding by Phase and Relative Risk