US Army Corps of Engineers

ENVIRONMENTAL RESTORATION

at Formerly Used Defense Sites

FUDS

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Rising to the Challenge: Cleaning up Formerly Used Defense Sites

The Department of Defense (DoD) is committed to correcting environmental damage caused by its activities. The Defense Environmental Restoration Program (DERP) is the vehicle to accomplish this. The cleanup of Formerly Used Defense Sites (FUDS) is a part of this program. FUDS are those properties that the Department of Defense once owned or used, but no longer controls. These properties can range from privately owned farms to National Parks. They also include residential areas, schools, colleges, and industrial areas. The FUDS program includes former Army, Navy, Air Force, or other defense agencies' properties.

Two important laws established the Defense Environmental Restoration Program. The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, and the Superfund Amendments and Reauthorization Act (SARA) of 1986, gave DoD the authority for certain cleanup activites at former DoD sites in the United States and its territories.

ENVIRONMENTAL RESTORATION

The U.S. Army Corps of Engineers is DoD's manager for the FUDS program. Our experience in various environmental projects makes our organization uniquely qualified to restore the environment at these sites.

The Corps' efforts in environmental cleanup have grown steadily. In 1988, we invested $500 million in the environmental restoration program. By 1994, that investment had grown to $1.3 billion. The share of 1994 investment for the FUDS program is $332 million.

The goals of FUDS cleanup are:

- Identification, investigation and cleanup of contamination from DoD hazardous substances;
- Detection and disposal of unexploded ordnance; and
- Demolition and removal of unsafe buildings and structures, located on a formerly owned Defense property, currently owned by a state, a municipality, or a Native Corporation in Alaska.

SITE ELIGIBILITY

The FUDS program requires that a site must have been owned by, leased to, possessed by, or otherwise under the jurisdiction of DoD. The hazardous environmental conditions must be from past DoD activities.

A FUDS may include manufacturing facilities which were owned or leased by DoD, but operated by contractors. FUDS also include National Guard and Reserve facilities where property accountability at one time rested with DoD. Further, it includes sites where DoD had a documented presence and sites that were used for the disposal of DoD materials or waste where the installation responsible for the waste is permanently closed.

The following sites are not eligible for cleanup or reimbursement:

- Sites outside U.S. jurisdiction.

- Sites where current owners have used facilities such as underground storage tanks or buildings, or have expended funds to clean up contamination or remove unsafe debris.

- Sites for which the DoD component that owned or used the site has accepted full restoration responsibility.

- United Services Organization sites.

- Civil Works sites.

- Cemeteries.

- Sites for which no records are available.

TYPES OF PROJECTS

Projects at a FUDS fall within one or more of the following categories:

Hazardous, Toxic, and Radioactive Waste: Cleanup and removal of hazardous substances. Projects in this category include removal of underground and aboveground storage tanks, drums, and electrical transformers. These projects are called containerized hazardous, toxic and radioactive waste projects. Other projects in this category include removal of soil or groundwater contaminated with hazardous substances. Also included are projects for removal of other hazardous substances or wastes. In addition, this category includes projects for cleanup of environmental problems associated with contaminated landfills.

Building Demolition and/or Debris Removal: Demolition and removal of structurally unsafe buildings or towers and removal of unsafe debris.

Ordnance and Explosive Waste: Identification and removal of abandoned ordnance and explosive waste such as bombs, bullets, and rockets. Also included are projects for removal or remediation of explosive-contaminated soil and chemical warfare material.

PROGRAM PHASES

The FUDS program has three major phases: inventory, study, and removal/remediation.

Inventory: The inventory phase includes searches of real estate records to verify previous DoD ownership or usage. As part of the inventory process, a preliminary assessment is made to determine the site eligibility and the need for cleanup. The Corps' districts work to identify sites within their regional boundaries. We determine whether the site is eligible for cleanup. We also evaluate the severity of environmental problems. If no contamination is found, no further action (NOFA) will be taken. However, if the property owners or regulators later find that contamination exists and was caused by DoD, they can contact us for reevaluation of that site.

Study: The study phase consists of a site inspection to confirm contamination. We undertake studies to determine the extent of environmental damage and how best to clean up the contamination. The selection of an environmentally safe cleanup method is also part of this phase. At sites where numerous parties may have contributed to the contamination, the share of DoD liability is also determined.

Removal/Remediation: This phase consists of the engineering design and the necessary action to clean up the site. Sometimes it also includes additional operations and maintenance phases to eliminate contamination completely.

After work on a site is completed, including regulatory agency review, it is inspected to confirm that it no longer poses a problem.

PROGRAM MANAGEMENT

Headquarters, U.S. Army Corps of Engineers is the overall program manager for the FUDS program. We develop policies based on DoD guidance and provide funds to local Corps' divisions and districts to perform FUDS cleanup.

Work is accomplished on a priority basis - the worst sites are cleaned first. Priority of funds goes to sites with the greatest potential danger to the human population. Normally these are areas where people live, work, or go to school.

A typical project can take anywhere from two years to many years (5 to 10). Project duration depends on how large the site is, what work is involved, and what level of funding is available. In addition, if operation and maintenance activities are required, the project can extend beyond ten years.

No two projects are ever quite the same. One thing that does remain constant is the partnership between the Corps of Engineers, the environmental regulators, and the property owners.

PUBLIC INVOLVEMENT

Public values and concerns are an important element of the cleanup process. We work closely with the current site owner and adjacent residents prior to and while working on a site. Through personal contacts, small group meetings, workshops, and public meetings, we gather important information from the public that is critical in decision making. Through information meetings, brochures and media tours we keep the public constantly apprised of the progress of the work. These contacts also allow us to immediately address concerns about the work.

A Restoration Advisory Board (RAB) can be established at a site where there is sufficient community interest. The purpose of the RAB is to review progress of projects and initiate dialogue between the Corps and the local community. The RAB is comprised of representatives from the Corps, U.S. Environmental Protection Agency and/or state regulatory agency, and members of the local community. The RAB is jointly chaired by the Corps staff and a community representative.

PROGRAM STATUS

Approximately 8,100 FUDS have been identified since the program began in 1984. The Corps has completed preliminary assessments for 5,723 sites. We expect to complete the rest by September 30, 1995. As of April 1994, we had determined that 4,020 sites require no further action; that is, no DoD contamination exists at those sites. The other 1,703 properties require cleanup projects. As of April 1994, we had completed 185 cleanup projects.

BUDGET

In Fiscal Years (FY) 92 and 93, $126.6 million and $145.5 million, respectively, were spent on cleanup activities at FUDS. The FY 94 budget is $332.7 million, and the FY 95 budget will be similar. The overall cleanup estimate for FUDS is approximately $7 billion.

FURTHER INFORMATION ON SPECIFIC FUDS:

Contact the U.S. Army Corps of Engineers FUDS Coordinator in the state/territory where the FUDS is located:

ME, NH, VT MA, RI, CT	U.S. Army Engineer Division, New England ATTN: CENED-PD, 424 Trapelo Road, Waltham, MA 02254-9149
NY, NJ	U.S. Army Engineer District, New York ATTN: CENAN-DP, Jacob K. Javits Federal Building New York, NY 10278-0090
PA, DE, MD DC	U.S. Army Engineer District, Baltimore ATTN: CENAB-EN, P.O. Box 1715, Baltimore, MD 21203-1715
VA	U.S. Army Engineer District, Norfolk ATTN: CENAO-PM-M, 803 Front Street, Norfolk, VA 23510-1096
NC	U.S. Army Engineer District, Wilmington ATTN: CESAW-LC, P.O. Box 1890, Wilmington, NC 28402-1890
SC	U.S. Army Engineer District, Charleston ATTN: CESAC-DP, P.O. Box 919, Charleston, SC 29402-0919
GA	U.S. Army Engineer District, Savannah ATTN: CESAS-PM, P.O. Box 889, Savannah, GA 31402-0889
FL,PR VI	U.S. Army Engineer District, Jacksonville ATTN: CESAJ-DP, P.O. Box 4970, Jacksonville, FL 32232-0019
AL	U.S. Army Engineer District, Mobile ATTN: CESAM-PM, P.O. Box 2288, Mobile, AL 36628-0001
MI	U.S. Army Engineer District, Detroit ATTN: CENCE-ED, P.O. Box 1027, Detroit, MI 48231-1027
IL	U.S. Army Engineer District, Chicago ATTN: CENCC-ED, 111 North Canal Street, Suite 600 Chicago, IL 60606-7206
MN,WI	U.S. Army Engineer District, St. Paul ATTN: CENCS-ED, 180 East Kellogg Blvd, St. Paul, MN 55101-1479
IN,KY	U.S. Army Engineer District, Louisville ATTN: CEORL-DL, P.O. Box 59, Louisville, KY 40201-0059
WV,OH	U.S. Army Engineer District, Huntington ATTN: CEORH-DL, 502 8th Street, Huntington, WV 25701-2070
TN	U.S. Army Engineer District, Nashville ATTN: CEORN-ER, P.O. Box 1070, Nashville, TN 37202-1070

MS	U.S. Army Engineer District, Vicksburg ATTN: CELMK-ED, 2101 N. Frontage Road, Vicksburg, MS 39180-5191
LA	U.S. Army Engineer District, New Orleans ATTN: CELMN-PP, P.O. Box 60267, New Orleans, LA 70160-0267
NE, IA, MT, ND SD, WY, CO	U.S. Army Engineer District, Omaha ATTN: CEMRO-MD, 215 North 17th Street, Omaha, NE 68102-4978
MO, KS	U.S. Army Engineer District, Kansas City ATTN: CEMRK-ED, 700 Federal Bldg, Kansas City, MO 64106-2896
AR	U.S. Army Engineer District, Little Rock ATTN: CESWL-PM, P.O. Box 867, Little Rock, AR 72203-0867
OK	U.S. Army Engineer District, Tulsa ATTN: CESWT-PP, P.O. Box 61, Tulsa, OK 74121-0061
TX	U.S. Army Engineer District, Fort Worth ATTN: CESWF-PM, P.O. Box 17300, Ft. Worth, TX 76102-0300
TX	U.S. Army Engineer District, Galveston ATTN: CESWG-ED, P.O. Box 1229, Galveston, TX 77553-1229
NM	U.S. Army Engineer District, Albuquerque ATTN: CESWA-PP, P.O. Box 1580, Albuquerque, NM 87103-1580
AK	U.S. Army Engineer District, Alaska ATTN: CENPA-PM, P.O. Box 898, Anchorage, AK 99506-0898
WA	U.S. Army Engineer District, Seattle ATTN: CENPS-PM, P.O. Box 3755, Seattle, WA 98124-2255
OR	U.S. Army Engineer District, Portland ATTN: CENPP-PE, P.O. Box 2946, Portland, OR 97208-2946
ID	U.S. Army Engineer District, Walla Walla ATTN: CENPW-PJ, Bldg 602, City-County Airport, Walla Walla, WA, 99362-9265
CA(N), UT NV(N)	U.S. Army Engineer District, Sacramento ATTN: CESPK-ED, 1325 J Street, Sacramento, CA 95814-2922
AZ, CA(S) NV(S)	U.S. Army Engineer District, Los Angeles ATTN: CESPL-PM, P.O. Box 2711, Los Angeles, CA 90053-2325
HI,GU,AS CN,TT	U.S. Army Engineer Division, Pacific Ocean ATTN: CEPOD-ED, Bldg 230, Ft. Shafter, HI 96858-5440

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Mitigation of Department of Defense Environmental Impacts to Native American Lands

Assessment, Documentation and Reporting Environmental and Cultural Impacts (Phase 2)

In the FY96 Defense Authorization Act, Congress directed the Department of Defense to provide for:

"the mitigation of environmental impacts, including training and technical Assistance to tribes, related administrative support, the gathering of information, documenting environmental damage, developing a system for prioritization of mitigation on Indian land resulting form Department of Defense activities."

The Indian Head Division of the Naval Surface Warfare Center, NSWC/IHDIV, has been directed by the Office of the Deputy Under Secretary of Defense for Environmental Security, ODUSD(ES), to perform the "Document and Reporting" phase of DoD's Mitigation of Environmental Impacts on Native American Lands Program. NSWC/IHDIV has been tasked with:

- ***"training and technical assistance,"***
- ***"gathering information,"***
- ***"documenting environmental damage"***

ODUSD(ES) has developed a database, NATRMIS, to inventory, prioritize, and track the mitigation of DoD environmental impacts on Native American Lands. ODUSD(ES) will use NATRMIS to report to Congress the number and status of sites, sequence sites for funding, and track the status of sites.

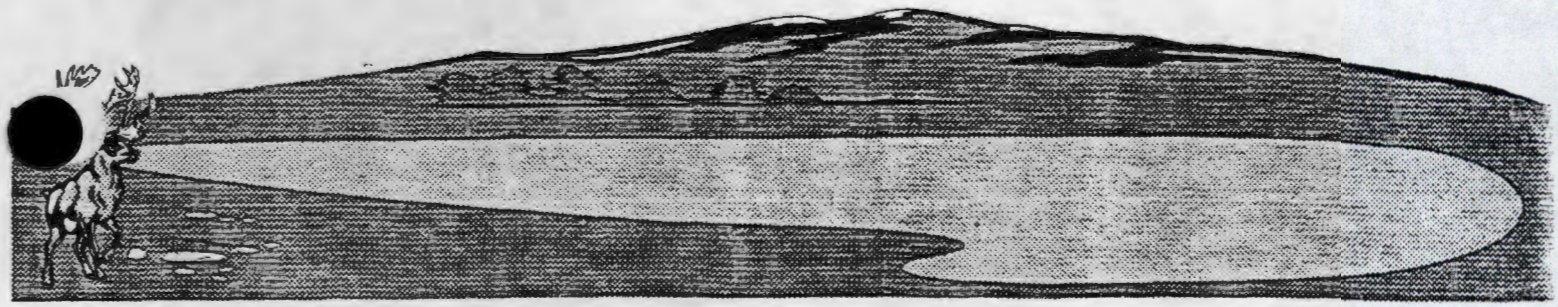
The NSWC team is gathering the data for the NATRMIS database, by conducting various assessments at each site.

To the best extent possible the NSWC team will use existing data collected by the Tribal Governments and the local DoD activities with on site verification of the nature and extent of the impact.

The NSWC team has started the assessment process on the 54 sites in the baseline inventory listed in the *"Department of Defense Report to Congress on Environmental Impacts to Native American Lands (1996)."*

<u>NSWC Team Goals</u>:

- **Respect Tribal Sovereignty and strengthen the Government-to-Government relationship with the Native American Governments.**
- **Communicate issues and concerns of the Native American Governments to the policy makers at the Office of the Secretary of Defense.**
- **Identify, document, and report all DoD environmental and cultural impacts to Native American Lands.**
- **Promote a closer working relationship between the Native American Governments and local DoD activities responsible for conducting the cleanup process.**
- **Discuss the DoD environmental cleanup process with the Native American Government, to provide a clear understanding of the DoD offices involved, realistic program time frames, and funding realities.**
- **Mentoring in the environmental field when desired by the Native American Government.**



Mitigation of Department of Defense Environmental Impacts to Native American Lands

Assessment, Documentation and Reporting Environmental and Cultural Impacts (Phase 2)

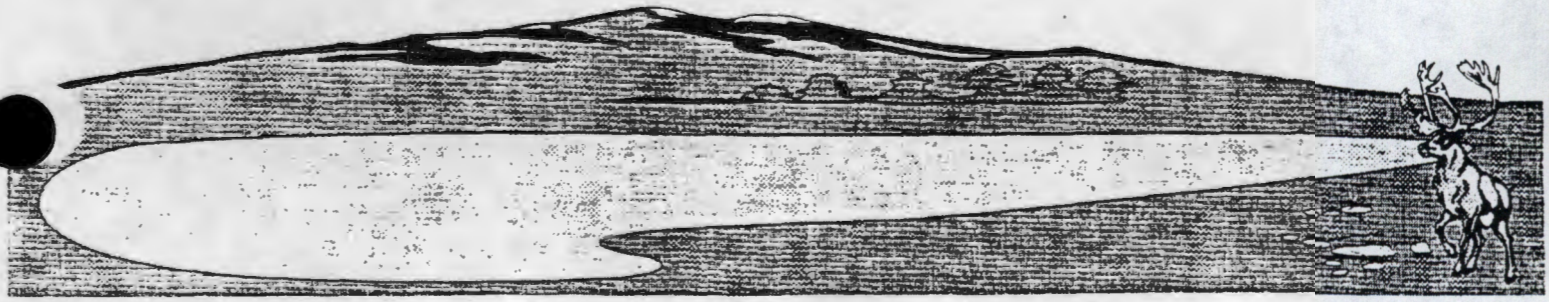
For further information, contact:

John Stacy
Naval Surface Warfare Center, Indian Head Division
Phone: (301) 743-4365
Fax: (301) 743-4717
Internet: johnstacy@chem.ih.navy.mil

The NSWC Team

- NSWC/ IHDIV will conduct the Government-to-Government relationship with the Native American Governments
- NWSC/ IHDIV is responsible for the overall management of the program.

- Portage Environmental Inc., is a Native American owned environmental firm.
- Portage will be responsible for conducting the site assessments in Alaska.

- Tecumseh Professional Associates is a Native American owned environmental firm.
- Tecumseh will be responsible for conducting the site assessments in the lower 48 states.

- EG&G will assist NSWC/ IHDIV in the management of the program.
- EG&G will manage field operation of the subcontractors, data assembly, and reporting.