

Building Partnerships

DoD continues to cultivate its relationships with regulatory agencies and other stakeholders. These strong partnerships based on mutual trust and cooperation, are vital to the success of the cleanup program. In many cases, close working relationships with regulatory agencies have expedited reviews of technical documents and enhanced DoD's ability to apply common sense approaches to site remediation. DoD also has found creative ways to share resources with its partners and is working on systematic methods to accelerate the regulatory oversight process. The multitude of partnering agreements is evidence of their importance in meeting environmental restoration requirements, given the increasingly limited resources and reduced manpower.

Partnerships DoD has formed with state governments and territories and with a Federal public health agency are discussed below. These formalized partnerships are providing vital support to DoD in mitigating potential conflicts and communicating health risks to the public.

Defense and State Memorandum of Agreement and Cooperative Agreement Program

The Defense and State Memorandum of Agreement (DSMOA) and Cooperative Agreement (CA) Program was developed to enhance state and territory involvement in the cleanup of DoD installations, specifically through the environmental restoration and BRAC programs. As a basic premise of the DSMOA Program, states and territories are reimbursed for services they provide in support of DoD restoration activities. In addition to fostering improved relations between the states or territories and DoD, this program supports the DoD-wide goals of achieving more efficient cleanup and developing new partnerships to address environmental restoration problems specific to or typical at DoD sites.

Under the DSMOA Program, DoD and the states and territories work together to assess cleanup plans for specific sites.

Through the U.S. Army Corps of Engineers, DoD negotiates DSMOAs with states and territories, as well as manages and awards CAs. Two actions are required for a state or territory to enter the program. First, the state or territory must sign a DSMOA that establishes the terms and conditions for reimbursable technical support. Second, the state must submit a CA application for approval before reimbursement can be made available. Program costs are tracked according to guidelines and regulations used to manage Federal grants. Since DSMOA's authorization in 1986, nearly \$140 million has been provided to states and territories assisting DoD. This investment has resulted in cost avoidance, expedited cleanups throughout the country, and improved community relations.

"The DSMOA Program ensures cooperative arrangements between the states and the Armed Services, and fosters true partnership among the regulators and the regulated....experience with the DSMOA Program has demonstrated that state involvement on a cooperative, partnership basis can actually save Federal cleanup dollars and result in more efficient and timely cleanups."

--Dan Morales, Attorney General for the State of Texas

Through FY95, DoD had signed 48 DSMOAs with 43 states and five territories for reimbursable services related to environmental restoration. To understand the value of the DSMOA Program, it is helpful to examine how DoD conducted business with states and territories before the program took effect.

Before the DSMOA Program--Prior to the DSMOA Program, relations between the states and DoD were not based on a partnership approach. DoD followed Federal regulations that prescribed how to implement a cleanup and conclude operations. However, Federal regulations do not always meet state or territorial laws and requirements. Even though DoD and the states and territories share the same goal of protecting human health and the environment, their methodologies do not always agree.

Before the DSMOA Program, many states did not have adequate personnel to perform their regulatory role in a timely manner, particularly for the numerous Federal facilities within their jurisdiction. Those states that completed regulatory reviews did not always have enough time to become well-informed about DoD cleanup activities, which led to numerous misunderstandings. States and territories that disagreed with DoD often turned to the courts to resolve their disputes and force DoD to comply with their laws.

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Such protracted litigation is often costly and divisive, and it does not always produce results either party wants. Environmental cleanup, already a complicated process, is even more burdensome when subjected to litigation.

DSMOA Today--Under the DSMOA Program, DoD and the states and territories work together to assess cleanup plans for specific sites. State and territorial laws and regulations are identified early in the cleanup process, and regulatory personnel are intimately involved in the early phases of restoration. The result of this process is a plan that both parties agree to, with most cleanup standards based on individual state or territorial laws and regulations. As the cleanup progresses, better working relationships develop between DoD and the states.

Reducing Conflict Between DoD and the States--DSMOAs have provided a means for DoD to work out conflicts and resolve potential problems with regulatory agencies from states and territories. This type of forum did not exist before the DSMOA Program was established. Since 1990, no administrative or judicial litigation has been initiated by the

states or territories against DoD. The direct results of this lack of litigation include cost avoidance and accelerated cleanups.

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Avoiding litigation is an obvious benefit of the DSMOA Program. However, as the program has matured, DoD has reaped other benefits. Most notably, substantial cost savings or cost avoidance have resulted from state participation in the program. In numerous cases, states have helped DoD save millions of dollars in cleanup costs by suggesting the use of innovative cleanup methods, reducing the amount of sampling and analysis required, and by openly exchanging information and transferring technologies. By using common sense and learning to work together, DoD and the states and territories have achieved benefits that have exceeded all expectations.

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Agency for Toxic Substances and Disease Registry

The Agency for Toxic Substances and Disease Registry (ATSDR) is a Federal public health agency that reports directly to the Surgeon General. Under CERCLA, ATSDR was given the authority to provide a variety of health services to protect human health at the most toxic hazardous waste sites in the country.

In 1986, Superfund was reauthorized and expanded to include Federal facilities. Subsequently, DoD installations were placed on the National Priorities List (NPL). ATSDR's programs are required for sites listed on or proposed for listing on the NPL, as well as sites that are the subject of a petition from the public. ATSDR also develops toxicological profiles on unregulated hazardous substances commonly found at DoD NPL sites. Currently, 25 profiles are being developed for DoD NPL sites. Each profile examines the level of significant human exposure to a contaminant and the associated health effects, and specifies levels of exposure that present a significant risk to human health.

ATSDR's public health activities at DoD NPL sites are a valuable tool to both DoD and the local community. ATSDR often assists DoD in resolving community health concerns about the release of hazardous substances from DoD activities. When needed, ATSDR provides its services on an emergency response basis. To allay community concerns, ATSDR must provide a credible, independent assessment of the situation at hand. It performs this assessment through a variety of methods, including consultations and health studies that involve public comment periods and community assistance panels; health education to the community; and education for DoD and private health care providers.

ATSDR also plays a role at BRAC installations, where the public's concerns are more often economic than health related. ATSDR assists DoD with expediting cleanup

decisions and transferring property by providing health consultations on request. DoD provides funding to ATSDR through a Memorandum of Understanding that was signed in 1990 and is effective through September 2000.

ATSDR activities at DoD installations include site visits to the installation and surrounding communities. ATSDR ranks sites based on potential public health hazards, before beginning public health assessments at the sites presenting the greatest risks.

During FY95, ATSDR conducted the following public health activities at DoD installations on the NPL:

- Produced site summary reports for public health assessments at 12 DoD installations
- Completed health consultations at 28 installations to expedite cleanup activities and address community health concerns
- Completed the final Public Health Assessment for Weldon Springs Ordnance Works in Missouri and submitted health assessments for public comment at four installations: Camp Lejeune, North Carolina; Rocky Mountain Arsenal, Colorado; Tinker Air Force Base, Oklahoma; and Defense Distribution Depot Memphis, Tennessee
- Submitted draft final health studies to an independent peer review panel for Cornhusker Army Ammunition Plant, Nebraska; McClellan Air Force Base, California; and Otis Air National Guard Base/Camp Edwards, Massachusetts
- Continued its community and physical health education in communities around Ellsworth Air Force Base, South Dakota; McClellan Air Force Base; and Cornhusker Army Ammunition Plant
- Completed eight and solicited public comment on 11 DoD toxicological profiles

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[ATSDR](#) also provides 24 hour emergency response assistance, which can be contacted at (404) 639-0675.

ATSDR also reviewed two remedial action alternatives for groundwater discharge at the Fridley Naval Industrial Reserve Ordnance Plant in Minnesota. ATSDR concluded that both alternatives, discharging treated water to the City of Fridley's drinking water system or to the Mississippi River, are safe.

The mutual goal of protecting human health is the basis for a strong partnership between DoD and ATSDR. The information gained and the lessons learned as a result of this partnership have greatly enhanced the environmental restoration program and will continue to do so.

Variable Oversight at Langley Air Force Base

Increasing project expenses and delays in cleanups associated with regulatory agency oversight prompted the Air Force, EPA, state regulatory agencies, and various community groups to develop Variable Oversight (VO). VO is a concept of applying various levels of regulatory oversight and allowing different forms of project documentation based on site-specific factors. Partnership, facility-wide agreements, and up-front consensus agreements are integral to the VO initiative.

Regulatory oversight of restoration efforts involves detailed reviews of technical documents at all stages of investigation and remediation. This significant responsibility on the part of regulatory agencies is often hampered by increasing workloads and manpower and resource constraints, which can slow the restoration process. VO seeks to improve the efficiency of regulatory oversight and streamline communication by developing more focused reports, avoiding the submission of superfluous data to reviewers, and prioritizing oversight requirements. Facilities and sites are categorized according to their level of complexity and corresponding degree of oversight.

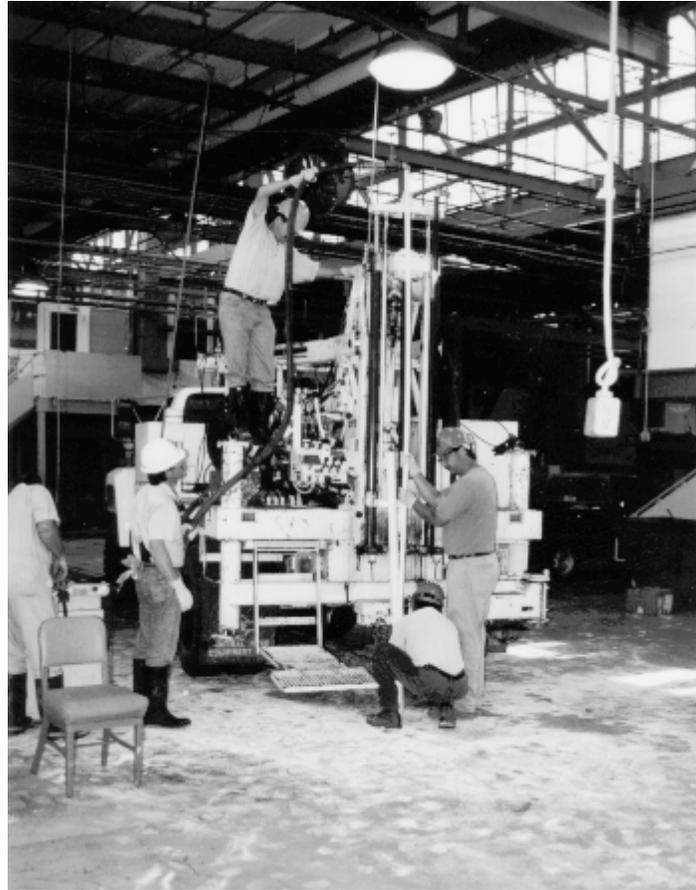
VO is designed to eliminate common barriers in communication and build consensus among stakeholders. The initiative is being demonstrated at Langley Air Force Base in Virginia where stakeholders, through regular meetings and consensus building, have ranked sites for their applicability to the VO process, reached consensus on basewide agreements, established alternative forms of communication, and developed alternative, focused documents.

Based on the demonstration, the Air Force anticipates that VO will accelerate environmental investigations by 30 percent, reduce Air Force costs by 10 percent, and reduce regulatory agency costs by 40 percent. The VO process, if proven effective, could greatly enhance the management of environmental restoration programs throughout the Federal government, saving time, manpower, and money.

"As the Federal government looks to streamline the cleanup process, the Variable Oversight method will be one of our tools."

--James Woolford, Director, Federal Facilities, Restoration and Reuse Office, EPA

Sharing Resources with EPA, Pensacola Naval Air Station



EPA Region 4 Engineering Services Division staff collect groundwater samples at Pensacola Naval Air Station.

At Pensacola Naval Air Station (NAS), a partnership was developed among the Navy, EPA Region 4, and the State of Florida. Faced with funding cuts, the Navy made use of personnel and technical resources within EPA. By working together, the investigations were completed in one quarter of the scheduled time with 10 percent of the allotted budget.

While conducting environmental studies at Pensacola NAS, the Navy realized the need for further data to adequately characterize the source and extent of groundwater contamination. Initially, the Navy evaluated its internal resources to determine the most cost-effective options available to achieve project objectives. The results of this evaluation indicated that funding constraints could inhibit the Navy's ability to complete the study. Therefore, the most promising asset became the EPA Region 4 Engineering Services Division, who were conducting regulatory oversight at the installation. The Division agreed to collect data fulfilling EPA's regulatory oversight requirements and to provide that data to the Navy to determine the extent of groundwater contamination.

After 35 temporary wells were installed, a mobile laboratory was used to analyze the samples overnight. Once the extent of groundwater contamination was determined, a strategic plan was developed, and permanent wells were installed to collect definitive

data. Groundwater samples from the new and existing wells and 100 soil samples were analyzed by the EPA Region 4 analytical laboratory in Athens, Georgia. Division site reports will be submitted to the Navy for inclusion in the supplemental remedial investigation.

Because the Pensacola NAS team combined resources and worked together to determine the scope of field work, a study estimated to cost \$200,000 was accomplished for less than \$20,000. In addition, the project was completed 1-1/2 years ahead of schedule.

The Navy worked closely with EPA and the State of Florida to combine resources and accelerate the cleanup schedule.

Successful Partnering Efforts at Hanscom Air Force Base

Hanscom Air Force Base (AFB) has demonstrated that solid partnerships with regulatory agencies and the community can help to achieve environmental restoration with greater efficiency, while maintaining protection of human health and the environment. Hanscom AFB and the Massachusetts Department of Environmental Protection worked cooperatively throughout the 1980s and early 1990s to achieve significant environmental restoration progress. However, when Hanscom AFB was placed on the National Priorities List (NPL) in May 1994, both the Air Force and the state became concerned that the momentum their restoration efforts had achieved might be lost. The NPL listing meant that EPA would become the lead regulatory agency, a position formerly held by the state. To avoid a potential confrontational situation, representatives from Hanscom AFB, the state, and EPA met to discuss their concerns and work together on a common-sense approach to environmental restoration at the installation.

A Project Team was established consisting of representatives from Hanscom AFB, the state, and EPA. The Project Team, which has developed an outstanding working relationship, uses consensus statements to document cleanup and oversight agreements. To date, six consensus statements have been issued by the Project Team. Its first consensus statement enabled restoration work to progress in advance of the Federal Facilities Agreement.

Hanscom AFB completed a removal action in half the average time using the Project Team's approach. The Air Force and EPA were able to jointly prepare an engineering evaluation/cost analysis for the removal action in-house; avoiding contracting costs and significantly reducing the time needed to review and comment on the document. In another instance, the Air Force and EPA leveraged available resources to jointly collect and analyze surface soil samples for metals without incurring the costs of outside contractors.

Partnering at Hanscom AFB also involves the community. The Restoration Advisory Board actively participates in and validates both the relative risk site evaluation and project priority-setting process at Hanscom AFB.

When Hanscom AFB was placed on the NPL; the Air Force, the State of Massachusetts, and EPA issued six consensus statements that allowed restoration work to proceed.

A Working Partnership at Sierra Army Depot

The Sierra Army Depot received the first approval in the U.S. for the application of natural attenuation and degradation to remediate groundwater contaminated with explosives and the carcinogen trichloroethene. Through a partnership developed with the State of California, the Army successfully negotiated a cost-effective, risk-based cleanup alternative that was approved in a Record of Decision signed in FY95.

Natural attenuation is a safe, inexpensive, scientifically valid cleanup strategy that can save millions of dollars in cleanup costs compared to conventional groundwater treatment systems. Natural attenuation uses biological organic processes to degrade contaminants in groundwater, while contaminants remain isolated from critical environmental receptors until cleanup levels are reached.

The approved ROD was the direct result of a proactive partnership between the Army and the State of California. Through the DSMOA Program, the Army was able to work with regulatory agencies to obtain approval for the first application of this technology. The local community was confident in the selection of natural attenuation, and it demonstrated this confidence at numerous public meetings.

By teaming with regulatory agencies and gaining community support, the Army was able to gain approval for a process that once considered an insufficient cleanup technology, allowing the Army to demonstrate a successful and cost effective treatment application.

Partnership Leads to Real Results in Alaska

Since 1990, the State of Alaska has participated in the DSMOA program. According to the Alaska Department of Environmental Conservation, participation in the program has resulted in the following benefits:

- The partnership has enabled both parties to avoid litigation, reduce complicated and time-consuming paper trails, and save money.
- The Alaska Department of Environmental Conservation and DoD work directly with communities to find cost-effective and timely solutions to

accelerate cleanups. In addition, a number of cleanup and closure methods suited to Alaska's unique conditions have been developed.

- At the Nome Area Sites, the state is working closely with DoD to develop an alternative cleanup plan that would allow a 1 million-gallon underground storage tank to be reused as a garage, saving more than \$250,000. Earlier phases of this project employed 110 local workers at the site.
- At Adak Naval Air Station, the state worked with the Navy to negotiate major design changes on two disposal areas, achieving a cost avoidance of \$11 million.

Cost Avoidance and Time Savings at DoD Installations in Texas

According to the Texas Natural Resource Conservation Commission, the state's participation in the DSMOA Program since 1991 has resulted in the following cost avoidance and time savings measures as well as other benefits to DoD and the taxpayers:

- DoD avoided the need for an additional \$88.5 million in environmental restoration costs because state DSMOA staff recommended less costly remedies pursuant to state and local public health and environmental requirements. Installations where significant cost savings were realized include: Fort Bliss (\$6 million); Chase Field Naval Air Station (NAS) (\$50 million); Longhorn Army Ammunition Plant (AAP) (\$8 million); Dallas NAS (\$2.5 million); Bergstrom AFB (\$4 million); and Kelly AFB (\$18 million).
- State review of DoD documents was shortened by 120 to 180 or more days, accelerating schedules and expediting cleanups or transfer of Federal land for private development. Expedited state review and response were particularly beneficial at the following installations: Fort Bliss, Bergstrom AFB, Chase Field NAS, Dallas NAS, Kelly AFB, and Brooks AFB.
- State participation in Restoration Advisory Boards resulted in better and more representative community involvement. Installations where the state has had an active role in Restoration Advisory Boards include: Kelly AFB, Reese AFB, Bergstrom AFB, Brooks AFB, and Dallas NAS.
- State guidance provided through the DSMOA Program has precluded fines at many DoD installations.

"The DSMOA Program provides resources to states to help speed cleanups and expedite community reuse plans."

--George W. Bush, Jr., Governor of Texas (R)

Consensus Building Leads to Success in California

Since 1990, California has utilized DSMOA funding to assist DoD in avoiding an estimated \$430 million in cleanup related costs. These savings have been accomplished through consensus decision making, Fast-Track Cleanup strategies, and the use of innovative technologies. In addition, the DSMOA Program has enabled Federal and state resources to be focused on cleanup rather than lengthy negotiations and cost recovery settlements. The following examples illustrate the benefits of the DSMOA Program:

- At Fort Ord in Monterey County the regulatory agencies assisted the Army in negotiating a lease agreement with the county to allow for the expansion of an existing racetrack. Without the expedited land transfer, an estimated \$20 million would have been lost annually to local businesses and county agencies.
- At George Air Force Base (AFB), in San Bernardino County, regulatory agencies agreed to allow DoD to conduct a five-year study on an innovative technology (natural attenuation) to treat contaminated groundwater. This study avoided an estimated \$30 million in conventional pump-and-treat system costs.
- At the Hamilton General Services Agency sale parcel, Hamilton Army Airfield, Marin County, the Army entered into a sales agreement for the purchase of a portion of the sale parcel. The state and the Army worked together to develop an expedited schedule, which generated 2,000 jobs and enabled DoD to avoid paying \$10 million of reimbursed redevelopment costs.
- At McClellan AFB in Sacramento County, the state has been an integral member of the cleanup team, which serves as a national model for DoD partnership. The team, which includes the Air Force, EPA, and the state, has worked diligently to develop cost and timesaving initiatives for remedial actions. These efforts have resulted in cost savings of about \$320 million.
- At Sacramento Army Depot in Sacramento County, the state adopted emergency regulations to designate a specified area for soil consolidation and stabilization, an effort that will reduce DoD's cleanup costs by \$7 million and allow unrestricted use of a 10-acre site. In addition, 318 acres have been transferred to the City of Sacramento, which in turn, leased the property to Packard Bell. The lease has generated 5,000 new jobs in the area.

California identified impacts of DSMOA funding cuts that include the dissolution of the established partnership, initiation of enforcement measures, reduction of parcels transferred, and limitation of community involvement.

The Value of the Partnership Between DoD and ATSDR

The citizens near **Norton Air Force Base, California**, expressed concern about radiation in groundwater and requested an evaluation from ATSDR. ATSDR provided the citizens with case studies and toxicological profiles on radiation, attended the Restoration Advisory Board meeting, and reviewed radiation studies conducted by Norton Air Force Base. ATSDR concluded that the radiation in the groundwater was due to natural background levels and assured the citizens that the levels in the drinking water are safe.

The Massachusetts Department of Environmental Protection (MADEP) sought ATSDR expertise to review remedial investigation reports for explosives in groundwater. ATSDR concluded that groundwater at **Fort Devens, South Post, Massachusetts**, poses no threat to human health because no one uses it as drinking water. Furthermore, the data does not suggest that significant site contamination has migrated from the source. MADEP also asked ATSDR to determine if metal levels in Mirror Lake were a health concern. ATSDR concluded that the levels of metals detected in the fish tissue are safe for people who eat fish caught in Mirror Lake.

In the public health assessment prepared for **New London Naval Submarine Base, Connecticut**, ATSDR recommended that the Navy sample air inside the Nautilus Museum to determine if it is being affected by landfill gases. After the Navy completed sampling, ATSDR reviewed the data and determined that there is no health risk to museum visitors and employees.