Fort Bliss Hydroseeds to Reduce Erosion and Training Hindrances on Small Arms Ranges

By LTC Rick Gatewood

NMMNG, Fort Bliss TX, ITAM Member

Fort Bliss weapons qualification ranges are susceptible to wind and water erosion. Erosion deteriorates the weapon safety berms, reducing their useful life and increasing safety hazards on the ranges. Wind borne sediment deposited along the base of the berms is blown across the weapons ranges, reducing the shooter’s visibility. Fort Bliss ITAM implemented erosion control for weapons safety berms using a combination of erosion control blankets (ECBs) and hydroseeding. The project’s erosion control objective is to accelerate the establishment of a vegetative cover on the berms, to reduce the erosion potential.

In an average year Fort Bliss’s 1.1 million acres receive between 8 to 13 inches of rainfall, depending upon location. Fort Bliss small arms qualification ranges receive around 8 inches of precipitation, and are in desert basin terrain. The climate would be classified as semi-arid. Natural re-vegetation of the berms does occur, but is extremely slow. By introducing seed and temporary cover, Fort Bliss ITAM will accelerate the re-vegetation process and provide cover to reduce the wind borne sediment.

In both the ECB and hydroseeding techniques, native grass seed are used as part of the treatment. At present the species used is Sporobolus cryptandrus, Sand dropseed. ECBs and seed need good contact with the soil. Grubbing vegetation to achieve ECB to soil contact is both labor intensive and counter-productive to the erosion control project goal of establishing a vegetative cover. To reduce the work and save vegetation, ECBs were used in the areas with sparse vegetation cover. The hydroseeding technique was used in the areas of heavier canopy cover. The planning objective determined for the hydroseeding technique was to achieve a cover factor equitable to the cover factor provided by the ECBs. This was accomplished by using a hydroseed mix of bonded fiber matrix, fertilizer, and seed. The result was a hydraulically applied ECB, which included the seed and fertilizer in the mix. The hydroseeding technique is a great time saver, and can put down cover quicker and easier than installing ECBs. Only time and observation will tell which technique will work best for this project. Other structural erosion control techniques were initially considered, but not selected due to cost, ease of installation, and time.

Fort Bliss ITAM plans to complete this erosion control work for all of the Ranges’ many sparsely vegetated weapons safety berms. ITAM also plans to use the ECBs and hydroseeding techniques in the rehabilitation of training areas requiring assisted re-vegetation. Continuation of these efforts will begin once ITAM funds are available.

For further information, contact the author at GatewoodR@emh10.bliss.army.mil.
Chief Commentary

On December 15, 2000, the Army published its notice of intent (NOI) to prepare a programmatic environmental impact statement (PEIS) for implementing the Army Transformation Campaign Plan (ATCP) (see related article on page 10).

The new enemy will be different from that of WWII, Vietnam and the Cold war. In the future the U.S. expects to have more Kosovo and Mogadishu type conflicts. With this in mind, the next Army will need to be lean and mean. The new force will have to get to the action fast with enough punch to do its job and with the right equipment to keep our soldiers out of harm's way. The new Army may have direct energy guns, robotic tanks, unmanned reconnaissance planes, electric combat vehicles and bullets that don't need gunpowder. This new Army will train, move, eat, refuel, perform maintenance, make noise, and in general use its installations in different ways than it does now with the Abrams Tank doctrine.

The NOI reads “[T]he ATCP, as envisioned, will be a major undertaking entailin a series of changes to equipment, force structure and training practices. When all the changes are proposed for specific sites and for equipment acquisition and testing, there will undoubtedly be a range of effects on the environment.” It goes on to say, “Significant issues: The issues to be analyzed in this PEIS include noise, impacts to wetlands and riparian areas, soil erosion, air and water quality, endangered species, cultural resources and other issues.” Wow! Are we ready for this? At this point in time it is hard to predict how installations will support the PEIS and ultimately the new Army. As a matter of fact, we (the Army's environmental community) are just getting the “Sustainable Installations” idea off the ground to protect our installation missions based on the tactics and equipment from the old Cold War era.

We all need to start thinking about how we are going to make the ACTP happen and what our role might be. We all have the power to make positive changes and the ACTP is the right thing for our Country and it’s the right thing for us to do. Just how…will be up to you.
Fort Hood Fuel Filtration — A Pollution Prevention Success

By Karl J. Weighmann
HQ III Corps & Fort Hood

Fort Hood generates an average of 60,000 gallons of off-specification (off-spec) JP-8 fuel per year. The JP-8 is off-spec primarily due to particulate and water contamination. In addition, depending on the storage interval, microbial contamination could also be present.

Directorate of Public Works (DPW)-Recycle Branch personnel collect the off-spec JP-8 from 500-gallon aboveground storage tanks (ASTs) located in motor pools. The off-spec JP-8 is then transferred from vacuum trucks into 5,000-gallon tankers located at the Recycle Storage Facility.

Currently, the off-spec JP-8 is sold through a DRMO contract in 5,000-gallon increments for an average of $0.20 per gallon. Instead of selling the off-spec JP-8, the Fort Hood DPW-Environmental Management Branch (EMB), in partnership with the DPW-Recycle Branch, is beginning the new millennium with a Pollution Prevention (P2) initiative to filter the off-spec JP-8 using an automatic, closed-looped filtration system.

The closed-looped filtration system, developed by the DPW P2 Team, consists of three components: 1) a skid-mounted filtration system with a biocide injector; 2) a 6,000-gallon AST; and 3) a 10,000-gallon AST. Both ASTs are equipped for bulk unloading and loading the JP-8 via quick connect hoses. The entire system is mounted on a 30-foot by 40-foot concrete pad 12 inches thick. The ASTs were purchased from Earthsafe ConVault. After thorough market research of existing fuel filtration technologies, the Fort Hood DPW-EMB purchased a commercially available contamination removal system. As part of DPW-EMB’s standard business practice, prior approval is always obtained from the appropriate Army proponent before a product or a process is used in the operation and maintenance of Army equipment. The proponent for fuel filtration is the Tank-Automotive and Armaments Command’s Petroleum Water Business Area (TACOM PWBA). The system operates in three stages. The chosen coalescer first removes particulate matter, then coalesces and separates the water from a hydrocarbon stream. The coalescer will effectively filter fuel with water concentrations as high as three percent water by weight or 30,000 parts per million by volume. According to the manufacturer, the filtration system will also successfully remove contaminants from the newly developed JP-8+100. A U. S. Air Force sponsored test program validated the coalescer’s ability to successfully remove “free” water from JP-8+100. If necessary, the filtration system will also successfully remove microbial contamination using a biocide injector.

The concept of operation for the closed-looped filtration system will be to off-load off-spec JP-8 into the 6,000-gallon AST, circulate it through the filtration system, and pump it into the 10,000-gallon AST. The filtration system’s pump is capable of pumping 150 gallons per minute. Therefore, it should take approximately forty minutes to complete one pass through the filtration system. After the off-spec JP-8 has been filtered, samples will be taken and analyzed at the Fort Hood Army Oil and Analysis Program (AOAP) Lab. If the off-spec JP-8 fails to meet Army specifications, it will be recirculated through the system for further filtration.

A major concern with filtering the off-spec JP-8 is the likelihood that the water concentration will be greater than three percent. As was previously stated, the coalescer will effectively filter fuel with water concentrations as high as three percent water by weight. Several possible solutions are being discussed to bring the water concentration below three percent, such as using a centrifuge prior to filtration. In the interim, however, “free” water will be pumped into a 5,000-gallon tanker. The ultimate goal of this P2 initiative is to provide cost savings by using the filtered JP-8 in DPW and DOL maintenance vehicles and equipment.

For questions regarding Fort Hood’s Pollution Prevention Program, contact Mr. Karl J. Weighmann, (254) 286-6262, or Mr. Randy Doyle, (254) 287-1099. For questions regarding Fort Hood’s Recycling Program, contact Mr. Jaycee Turnquist, (254) 287-2336, or Ms. Laura Duncan, (254) 287-1606.
New Army Remediation Contracting Strategy to be Tested in Region VII

By Steve Scanlon
CREO Region VII Army REC

The U.S. Army Corps of Engineers (USACE) is conducting a three-year study of a new contracting strategy for executing long term operation, maintenance and monitoring activities at Army restoration sites in EPA Region VII, as part of a broader array of initiatives under consideration for streamlining and outsourcing more of the Army’s Restoration Program. The Region VII pilot will test the concept of awarding regional contracts for Long Term Operation and Long Term Monitoring (LTO/LTM) activities that can be bundled for more efficient and cost-effective execution and management.

The Kansas City District of the Corps (KCDCOE) has the lead for conducting the study, and will be assisted by the Omaha District for sites in their area of responsibility. Ms. Nanci Higginbotham, Program Manager for the Kansas City District, believes “the Army Environmental Restoration Program has matured to the point that managing the LTO/LTM phase of remediation work regionally makes good business sense.”

Pilot Concept. Active Army installations and formerly used Defense Sites (FUDS) in Iowa, Kansas, Missouri and Nebraska are eligible to participate in the pilot. The KCDCOE will use Multiple Award Remediation Contracts (MARC) to execute the LTO/LTM work in the region over a 5-year period. Three small business contracts will be awarded under the MARC concept for three years, with a two-year option. The Pilot will run for the first three years of the base contract. Contracts will be indefinite delivery, indefinite quantity (IDIQ) using either fixed price or cost reimbursable task orders. They will be performance-based and will allow competition among contractors for individual task orders.

A MARC contract can be applied to several sites by bundling projects by state, locality, scope of work and other common factors. The Study Team, with input from the appropriate project teams, customers and contractors, will bundle sites and propose the type of task order (i.e., cost plus or firm fixed price). Where a task order covers more than one site, several project teams and customers may be involved in task order bundling decisions. Task orders can be issued with one or two options for one year each with a performance review prior to award of the option.

Customer Satisfaction. According to Judith Meier, Team Leader for the study, the goal of the pilot is “to evaluate whether regional remediation contract order is contractor performance on previous task orders.”

Cost. Installations will provide the funding for the LTO/LTM work and USACE oversight. Incentives will be included in the contracts for the contractors to propose more cost-effective and timely methods of task order execution. The incentives would be similar to the Corps’ current Value Engineering (VE) incentives (i.e., contractor receives 55% of savings and the government 45%).

Evaluating Results. Criteria used to evaluate the pilot will include quality improvement (VE) or optimization, cost savings, manpower savings, and time or schedule savings. Data collected during this pilot will include both contractor costs and USACE management costs. A cost baseline will be established during the contract acquisition period and revised as necessary during the Pilot Study. Prior year costs (where available and applicable) or the independent government estimate for each site and action will be considered in establishing the cost baseline. Actual results will be evaluated annually against this baseline. A final report will be prepared at the end of the study.

Current Status. The three small business contractors that will participate in the pilot are Environmental Chemical Corporation, EA Engineering, and Hydrogeologic. The KCDCOE will begin issuing LTO/LTM task orders in late January/early February 2001 for work starting in March at Ft. Riley, Sunflower Army Ammunition Plant and Kansas Army Ammunition Plant.

The POC for additional information about the Pilot Study is Ms. Nanci Higginbotham, (816) 983-3359, e-mail: nanci.e.higginbotham@usace.army.mil.
N EPA and the Real Property Master Plan

By Bart Ives
CREO Region VI Army REC

Army Regulation (AR) 210-20, Master Planning for Army Installations (http://www.usapa.army.mil/pdffiles/r210_20.pdf), was revised in the early 1990’s, in part, to better clarify the relationship between environmental planning and real property master planning. It ensures that the environmental consequences of planning decisions are addressed by establishing the requirement for complying with environmental documentation procedures.

The Real Property Master Plan (RPMP) and its components (Long Range Component [LRC], Capital Investment Strategy [CIS], Short Range Component [SRC], and Mobilization Component [MC]) are decision documents and must be assessed for their environmental effects in accordance with the requirements of AR 200-2 (http://www.usapa.army.mil/pdffiles/r200_2.pdf).

This assessment may be accomplished either in a programmatic assessment of the effects of the entire RPMP, or individual assessments of the separate components. Chapter 5 of AR 200-2 indicates that development of master planning documents normally requires an environmental assessment.

The LRC of the RPMP is intended to establish a description of an installation’s mission and environmental baseline through two elements: the long-range analysis, and the environmental quality, natural and cultural resources baseline analysis (narrative). A critical part of the LRC is the supporting graphics, which include the installation (master plan) overlay requirement (IO). The IO’s are topics displayed in a Spatial Data System format (CADD/GIS) which give visibility in electronic media to constraints (and opportunities) to development/operations, and will allow an understanding of installation carrying capacities. IO’s are defined, owned, and maintained by functional users such as environmental, natural/cultural resources, DPT for ranges, aviation, safety, etc. These IO’s are linked with existing conditions maps to give a graphic baseline for the installation.

The narrative description of the IO’s (the environmental quality, natural and cultural resources baseline analysis element of the LRC) provides the “affected environment” portion of the NEPA analysis conducted on the RPMP, and any other subsequent NEPA analysis. This baseline analysis element should also serve as the source of information for the environmental "Non-Structural Attributes" (NSA) resident in RPLANS/HQ RPLANS. The LRC, including supporting graphics and contributing plans, articulates the installation mission and real property assets available (land, infrastructure and environmental baseline) to accomplish the mission. The LRC, therefore, establishes the basic framework for development of a programmatic “ongoing” mission environmental analysis. If the RPMP environmental analysis conducted is intended to address “ongoing operations,” it should be assessed as the “no-action” alternative in the NEPA document.

The CIS is the primary decision mechanism (mid-range) in the RPMP. That is, given an installation’s mission, land use patterns, and available real property assets, a requirement’s analysis is conducted to discover short falls in assets. The process then requires the development of alternative strategies to satisfy requirement shortfalls. This is the primary issue to be addressed by a “programmatic” RPMP environmental analysis. Any additional land use or mission changes would need to be addressed as necessary within this context. A new mission (such as a BRAC realignment), changes in requirements, changes in land use or new construction are potential alternative solutions to requirement deficits. The CIS environmental impact analysis is focused on satisfying new or existing mission requirements and on the various alternative investment strategies developed to satisfy the particular requirement deficits identified (be they related to installation mission, tenant support, or mobilization mission).

The SRC takes the investment strategy selected in the CIS process and translates it into specific projects (EPR, 1391, etc.) that are to be inserted into the POM cycle. Programmatic “decisions” have already been made at this point. Normally, at this point the installation should be able to use a categorical exclusion or Record of Environmental Consideration tiered off the basic RPMP NEPA document to satisfy the environmental impact assessment requirement for specific projects.

The MC should be addressed as a new mission requirement played across the baseline of conditions (assets) identified in the LRC.

Consideration may also be given to integrating the RPMP (or individual components) and NEPA documents into a single document that would serve the needs of both installation planning and accompanying environmental analysis (see paragraph 2-6e, AR 200-2). Additional guidance can be obtained by referring to Chapter Four of the Master Planning Instruction (http://www.usacpw.belvoir.army.mil/librarie rp/MPI.pdf).
Land Use Control Agreement Reached in Illinois

By G.T. Zolyak

Regional Counsel

The subject of Land Use Controls (LUCs) is generating high level interest within DoD and the regulator community. LUCs refer to restrictions placed on the use of property because contamination may not have been completely cleaned up or eliminated. These restrictions can be physical (e.g., fences, signs), legal (e.g., covenants, deed restrictions), or administrative (e.g., notices, permitting). There are two main situations that interest regulators - property that will transfer out of Federal/military hands to a private entity, and property that will remain within the Federal/military domain. On 17 January 2001, the Deputy Under Secretary of Defense for Environmental Security, Sherri Goodman, issued her final “Policy Guidance for Land Use Controls Associated With Environmental Restoration Activities.” That policy states that in specific regard to LUC memorandums of agreement (MOA) between federal agencies and individual states that the policy preference is to use LUC MOAs only “in exceptional cases to facilitate use of LUCs.

The following describes both an exceptional case and an exceptional partnering experience between various federal agencies and the Illinois Environmental Protection Agency (IEPA) that benefited both.

Federal and state agencies first in Florida and most recently in Illinois have developed LUC MOAs. Additional states are expected to create the regulatory framework to allow the use of such MOAs/MOUs. The impact of the MOA/MOU is a requirement for installations to document precisely long-established methods of managing LUCs. The benefit is accountability in the eyes of regulators that allows for periodic verification that LUCs are being properly managed.

On January 7, 2001, the Illinois Pollution Control Board (IPCB) approved a model LUC MOA for use by federal facilities located in Illinois. The model agreement previously was approved by the Illinois Environmental Protection Agency (IEPA) on November 15, 2000.

Approval of the model marks the culmination of efforts begun in March 2000 by a workgroup of representatives from the Army, Navy, Air Force, General Services Administration (GSA), U.S. Environmental Protection Agency Region V, and the IEPA to address issues arising from two proposed Illinois regulations. As drafted, the two amendments to 35 Illinois Administrative Code 742 would have affected negatively the federal government’s ability to employ LUCs at remediation sites in the state. Development of the model agreement included federal members of the workgroup testifying on two occasions before the IPCB.

The Illinois LUC MOA model provides additional legal protections as compared to the Florida model.

1) The federal workgroup involvement convinced Illinois to change its regulations in order to exempt federal facilities from the recordation requirement previously set forth in part 742 so that federal facilities can proceed with seeking IEPA concurrence with risk-based cleanup actions subject to revision of the program specific regulations.

2) The Illinois MOA makes it clear that the right to determine that a particular LUC is no longer necessary lies solely with the installation and the particular regulatory agency (U.S. EPA or the IEPA) that has program authority over the site in question. The Florida MOA speaks to “the Parties,” meaning that concurrence has to be obtained from both U.S. EPA and the state unless the parties agreed to do otherwise as standard practice.

3) The Illinois MOA similarly makes it clear that an installation’s obligation to seek regulatory agency concurrence that any planned changes in land use will or will not necessitate the need for re-evaluation of the previously implemented remedy or the implementation of specific measures to ensure protectiveness is tied to the respective program authorities of the U.S. EPA or IEPA such that only one agency’s concurrence need be obtained. The Florida MOA speaks to the U.S. EPA “and/or” the state, implying that concurrence of both might be required (except in the case of petroleum-contaminated sites where it was specifically stated that the installation need only obtain state agency concurrence with any proposed major land use change).

Prior to development of the Illinois model agreement, federal agencies had not collectively participated in the Illinois legislative/regulatory process. However, because of the LUC MOA experience and the lessons learned in that process, federal agencies will be participating in future activities of this nature in the state. Upcoming are pending Illinois amendments to its leaking underground storage tank regulations, in which the federal agency workgroup plans to work with the IEPA to ensure that unique federal agency interests and issues are addressed.

For further information, contact Mr. Zolyak, (410) 436-1275, DSN 584, e-mail gary.zolyak@aec.apgea.army.mil.
Ammonium perchlorate (AP) is one of a number of perchlorate compounds and is a component of solid rocket propellant that acts as an oxidizer. It is typically transported in solid form and stored on-site until ground into a powder, cast, and cured in the rocket motor. Other uses of perchlorate are medicine, explosives, flares, and fertilizer. AP is specified by the DoD in most solid rocket motor contracts, and has a shelf life of approximately 12 years. Most known DoD contamination resulted from “hogging-out” old propellant with high-pressure water followed by release of the washout solution into the environment, which is no longer practiced. Other potential DoD sources of contamination include demilitarization actions, storage (slight), and uncontainerized disposal. The concerns surrounding perchlorate contamination involves its ability to affect the thyroid gland, which can affect metabolism, growth, and development.

Due to limited toxicological data, considerable uncertainty remains as to the scope of potential health effects from exposure to perchlorate at low levels in drinking water. Because of this the U.S. Environmental Protection Agency (U.S. EPA) has placed perchlorate on a Contaminant Candidate List as a substance requiring more scientific research to determine if it requires regulation. U.S. EPA and several states have established provisional standards that range from 18 to 32 ppb. Before a final determination to regulate can be made, data gaps must be filled regarding occurrence, health effects, treatment technologies, and analytical methods. The U.S. EPA currently does not formally regulate perchlorate, but is working with industry and other federal agencies to develop the toxicological information required for developing a cleanup standard. The U.S. EPA has encouraged the state environmental regulatory agencies to also refrain from regulating perchlorates until the toxicological study is complete. Texas has nonetheless promulgated a perchlorate standard for drinking water of 22 ppb.

Public and private sector research is underway to develop technologies capable of reducing perchlorate levels in the environment. So far, this effort has focused primarily on water because of the more immediate concerns regarding impacted drinking water supplies. A few promising technologies are being developed for removal of perchlorate. The bulk of this research involves effluent (e.g., washout facility) treatment systems. An anaerobic biochemical process has received the most attention, but reverse osmosis and ion exchange are also capable of removing perchlorate. Studies are underway to evaluate the cost, effectiveness, and implementability of these technologies. A Navy site in McGregor, Texas, has completed pilot-scale studies of a fluidized bed reactor based on the anaerobic biochemical process. The Longhorn Army Ammunition Plant has completed bench-scale studies of the same process with good results. Recent efforts have been made to treat contaminated groundwater in situ by injecting microbes and/or nutrients into the subsurface. This technology is applicable to sites where traditional pump-and-treat is not a viable alternative. Examples would be remote or biologically sensitive areas, or where concentrations are relatively low and the plume is not impacting drinking water. Capital costs for constructing such a system would typically range from $4-6M. Because of the difficulty in getting healthy microbes in contact with very dilute perchlorate, the time required to reach safe levels in these circumstances could be lengthy.

The DoD has been working in partnership with states, federal agencies, tribes, water suppliers, and the private sector to address occurrence of perchlorate contamination. The Interagency Perchlorate Steering Committee (IPSC) formed out of this partnership, is co-chaired by the U.S. EPA and the Air Force (representing DoD). To ascertain the possible extent of perchlorate issues, a perchlorate inventory was requested in July of 1998 by the Under Secretary of Defense (Acquisition and Technology) to the Under Secretary of the Army.
Long-Term Management of Contaminated Federal Facilities Workshop Offered Innovative Ideas

By G.T. Zolyak

Over 350 individuals attended a recent workshop on “Land Transfer and Long-Term Management of Contaminated Federal Facilities — An Interactive Workshop on Technologies, Approaches and Solutions.” Held in San Francisco from December 13-15, 2000, the workshop was presented by the Pacific Rim Enterprise Center and sponsored by the Department of Energy and the U.S. Environmental Protection Agency Region X.

Attendees included representatives from the U.S. Department of Defense, the U.S. Department of Energy, the U.S. Environmental Protection Agency, the U.S. Department of Commerce, the National Aeronautics and Space Administration, and the U.S. Army, Navy, and Air Force. Other notable attendees included representatives from the National School of Engineering in Le Bourget du Lac, France, and the General Institute for Inorganic Chemistry in Moscow, Russia.

This first-of-its-kind workshop covered a wide range of topics, including land transfer case studies (long-term management issues, lessons learned, and partnership opportunities), managing contamination over the long-term, liability issues/risk financing, community participation, risk-based corrective action, and land use and institutional controls. Technology sessions held on the second day of the workshop included such timely matters as MTBE, post-closure sampling and monitoring, challenging pump and treat, and mining reclamation issues.

One of the more innovative ideas discussed for long-term stewardship of contaminated sites was the establishment of trusts. The concepts and mechanics of the idea (e.g., private trusts, charitable trusts, federal trust funds, and state trust funds) were outlined in a paper presented by the organization Resources for the Future (RFF). The report was funded by the Department of Energy’s Office of Long-Term Stewardship under a cooperative agreement with the RFF.

In a nutshell, the RFF’s report advances the notion that one possible institutional mechanism for assuring long-term funding for long-term stewardship is the creation of trust funds to pay for and oversee stewardship activities. According to the authors of the report, “creating a (federal) trust fund is one way for the supporters of a program to reduce their competition for annual funding: it separates a program’s income and expenditures from the rest of the budget and attempts to lock in a long-term policy commitment for the future.”

While the report admittedly raises as many questions as answers, one of the report’s most important conclusions is that: “both state and private-charitable funds are a very promising mechanism for assuring financing and oversight of long-term stewardship - at either private or federal contaminated sites. A key issue . . . is where is the money going to come from? Clearly, for federal sites the next step is to ascertain whether federal agencies have the authority to contribute funds to a stewardship trust fund. For other sites, EPA must take up the challenge of whether to require responsible parties to fund stewardship trust funds.”

Copies of the report (known as “Discussion Paper 00-54”) can be obtained by visiting RFF’s website at [http://www.rff.org/](http://www.rff.org/).

A more comprehensive summary of specific agenda discussions, including viewgraphs and charts, can be found at the Pacific Rim Enterprise Center’s website for the workshop at [http://www.pacific-rim.org/calconf/](http://www.pacific-rim.org/calconf/). Based on both the level of participation and interest demonstrated at the workshop, the Pacific Rim Enterprise Center is planning on presenting a second workshop on this same subject sometime in 2001.
Implementing and maintaining environmental projects and programs within current budgets is getting more challenging. Staff must keep a keen eye out for and take advantage of useful resources to help carry out their mission. This feature aims to identify some of those fertile resources from our compost pile to help support your environmental mission. This compost includes not only cold cash, but also things like technical expertise, grants, programs or training.

If you have or know where to find these types of resources, please let us know and we will add it to our pile (see contact information on back cover).

**DRMS Offers Expanded Services in Disposal Contracts**

The Defense Reutilization and Marketing Service (DRMS) has begun offering additional services to its customers in conjunction with traditional hazardous waste disposal services. DRMS awarded the first contract that incorporates operation and management of hazardous waste facilities with normal removal and disposal. Because of DoD recycling initiatives, unique wastes, waste minimization, and loss of manpower, DRMS decided that it could provide better service by providing an all-inclusive contract to military customers. This contract includes daily labor, packaging, labeling, and marking of containers, storage, documentation preparation, database inputs, hazardous waste tracking, operation of machinery, internal and external reports, and operation of 90-day or conforming storage sites.

Vandenberg AFB is now using this total service contract while Bluegrass Army Depot, Wright-Patterson AFB, Kelly AFB, Naval Sub Base New London, Eglin AFB, Picatinny Army Arsenal, and Elmendorf AFB have added some of these services into their contract. The Vandenberg AFB contract award, with a single contractor providing operation, management, removal and disposal, saved the AF over $300,000 a year in lieu of the past contract that used one contractor for operation and management services and another for removal and disposal.

Contact DRMS customer service at custservice@dlis.dla.mil, or call 1-800-352-9333.

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**Establishment of DRMS Affirmative Procurement Program**

DRMS established an Affirmative Procurement Program with the publishing of DRMS-I 4105.4, “Instructions for the DRMS Affirmative Procurement Program for EPA-Comprehensive Procurement Guideline Items Containing Recovered Materials.” The DRMS Affirmative Procurement Program is designed to comply with federal requirements (Executive Order 13101) associated with the procurement of products containing recycled materials and other environmentally preferable products.

This instruction establishes a program throughout DRMS (excluding overseas) for the consideration and purchase of designated items made from recycled products. It covers purchases made by traditional procurement methods and also includes purchases made through the IMPAC program.

The establishment of the Affirmative Procurement Program allows DRMS to track purchases of EPA-designated items at the DRMO level and assess DRMS-wide compliance with E.O. 13101. It also allows DRMS for the first time to include DRMO purchases of designated items in our Environmental Quality Program Review. Prior to the establishment of our Affirmative Procurement Program, purchase information was only available and reported on purchases made at DRMS HQ.

**USACHPPM Risk Communication Capability**

Effective communication is a necessary skill that all environmental and health professionals must possess when conveying technical information to a non-technical, anxious, or frightened audience. Although working in this type of controversial environment may sometimes be overwhelming, understanding the principles of risk communication and being well prepared can make the task much easier. Good communication skills are easy to learn and can be used in a variety of situations. The Health Risk Communication Office, within the U.S. Army Center for Health Promotion and Preventive Medicine (USACHPPM), specializes in communicating information in low-trust, high-concern situations, as well as training others to become more effective communicators.

By combining years of experience with current academic research on risk communication, the Health Risk Communication Office assists Army installations and agencies in communicating highly technical scientific and medical information. Effective communication with stakeholders in low-trust, high-concern situations may cultivate trust, calm fears, and build better relationships. Remember, any event involving an actual or perceived risk may be viewed as a low-trust, high-concern situation.

A variety of services are available from the Health Risk Communication Office, including training, consultation, and document review. The training workshops are offered throughout the year in different parts of the country, as well as overseas upon request. Basic and Advanced Risk Communication Workshops are offered regularly and specialized classes may be scheduled to meet individual needs.

The 3-day basic workshop defines risk communication and identifies key principles. Topics covered in the basic workshop include building trust and credibility, developing key messages, understanding the audience, and answering tough questions. The advanced risk communication workshop expands on the basic risk communication...
Army Environmental Campaign Plan Released

From Staff Notes

At the invitation of the Assistant Secretary of the Army for Installations and Environment, key members of the senior Army leadership (General Officer and Senior Executive Service) participated in the Army’s Senior Environmental Leadership Conference (SELC) 2000. The SELC reviewed environmental issues and recommended actions needed to respond to the U.S. Army’s Environmental Strategy into the 21st Century.

The current Army Environmental Strategy was originally published in 1992. The Strategy has been reviewed and found adequate, and aligns Army Environmental Program goals with the CSA Vision and the Army Transformation Campaign Plan.

From the SELC reviews, the Army Environmental Campaign Plan was developed, which provides the basis for implementing the Army’s Environmental Strategy. The Plan defines roles and responsibilities within each of the four focused areas: Requirements; Acquisition and Logistics; Training and Doctrine; Installation Management; and Operations. Also delineated is a proposed Environmental Transformation Management Structure to oversee implementation of the Campaign Plan.

The Army Environmental Campaign Plan integrates environmental stewardship with the Army’s Transformation Strategy. This plan also builds on the U.S. Army Environmental Strategy into the 21st Century by responding to new challenges inherent in the Army’s transformation to a more responsive, deployable, agile, versatile, lethal, survivable, and sustainable instrument of national power.

The focus areas define the programs and initiatives considered critical to sustaining military readiness, while at the same time preserving the environment, energy resources, and the health and safety of all Army members and their families.

Required implementing actions are identified in the plan’s Operational Directive, which delineates the issues, provides supporting discussion, recommends actions required, and identifies responsible organizations to support initial operations. As this plan matures along with the Army’s transformation, opportunities for further improvement may arise, and, where appropriate, be incorporated as changes to the basic plan or operational directive.

Oversight is a function of the Transformation Environmental Management Group (TEMG), consisting of a Council of Colonels, an Environmental Operations and Management Working Group, Executive Steering Committee, and Board of Directors. The Group’s mission is to ensure the consistency of implementing efforts with the Army Transformation Strategy, adequacy of resources to support actions identified in the Operational Directive, and a capability for continuous improvement and innovation.

The combined effect of these activities is to build and sustain an Army better able to integrate environmental stewardship into all aspects of its mission. They provide a true interdisciplinary approach to environmental stewardship and management, and develop partnerships that leverage scarce resources. Most critically, these requirements support directly the ultimate beneficiaries of a healthy environment - Army members and their families, and the lands upon which they live and train.

The plan can be viewed at https://www.denix.osd.mil/denix/DOD/News/Army/Campaign/armyenv1.html (user I.D. and password required).

USACHPPM (continued from page 9)

principles and includes such topics as managing conflict and hostile individuals, dealing with cultural differences, and understanding the media. Specialized classes also scheduled for this year include Communicating Risks During Deployment, Communication Skills for Working with Restoration Advisory Boards, and Developing Health Care Messages.

In addition to training, the Risk Communication team is available for consultation. This may include support in the following areas: preparation for public meetings and stakeholder open houses, development of a Community Relations plan, review of stakeholder interaction materials (i.e., brochures, presentations, fact sheets, poster boards, media releases), establishment and support to Restoration Advisory Boards, and communication assistance in crisis situations.

Because communication is such a necessity in building good working relationships with all stakeholders, including the public and other agencies, the Health Risk Communication Office is also available for document review. Written, graphic or electronic material may be submitted so that the Risk Communication team may review and make suggestions to improve effectiveness.

If you have any questions or would like more information about any of the services provided by USACHPPM’s Health Risk Communication Office, please visit our website at http://chppm-www.apgea.army.mil/dts/hrc/, or contact us by phone at (410) 436-3515, by fax at (410) 436-7716, or by e-mail at Suquita.Perry @apgea.amedd.army.mil.

Introductory Health Risk Communication Workshops
20-22 March 2001 - White Marsh, MD
22-24 May 2001 - San Antonio, TX
17-19 July 2001 - Seattle, WA

Advanced Health Risk Communication Workshops
22-24 Feb 2001 - White Marsh, MD
25-28 June 2001 - San Antonio, TX
10-13 September 2001 - Seattle, WA

Communication Skills for Working with Restoration Advisory Boards Workshop
3-4 April 2001 - Chicago, IL

Developing Health Care Messages Workshop
8-9 May 2001 - White Marsh, MD
Fort Bliss Uses Geoweb to Sustain Military Traffic Through Silt Soils

By LTC Rick Gatewood

Under wet conditions, Fort Bliss, TX has trafficability challenges on dirt range roads located in silt substrates. Fort Bliss Integrated Training Area Management (ITAM) Program implemented a solution to the problem using geoweb.

Fort Bliss ITAM discussed the range road trafficability problems with the U.S. Army Civil Engineering Research Laboratory (USACERL). USACERL recommended Fort Bliss try using geoweb. Fort Bliss agreed, so USACERL coordinated with the Indiana National Guard for Fort Bliss to receive several truckloads of geoweb. For the project Fort Bliss ITAM would need a partner to carryout the heavy equipment portion. A local Army Reserve unit (the 285th EN (Det 1), of the 353rd Group, 420th EN BDE) near Fort Bliss, in El Paso TX, agreed to partner on this project and complete the geoweb installation by performing the haul work, and infill operation.

Several of Fort Bliss range roads are located in silt dominated soils. Silt soils do not compact well. Silt soils remold easily under pressure and will not sustain heavy traffic loads. Construction of roads through these soils requires extensive amounts of roadbed materials and surface amendments. Road maintenance requirements are greater and more costly than road maintenance in other substrates. Road crowns and drainage ditches in silt soils quickly remold; therefore, grading is required frequently to maintain these roads.

One low maintenance technique used to achieve trafficability over poor load bearing soils is geoweb. If water does not drain along or through the road section geoweb will provide adequate load support for the heaviest of traffic. One inch minus gravel is recommended infill for geoweb, since it will compact within the geoweb cells. Concentrated water flows can erode and wash out the infill material; therefore, geoweb should only be used in minimal flow areas. Geoweb and infill can be used effectively for load support under submerged conditions, as long as the flow conditions will not cause erosion of the infill. Geoweb may also be used for low water crossings, when the infill used is poured concrete.

Geoweb is a cost-effective road construction technique that will achieve compaction without the need for large quantities of roadbed materials. Geoweb is maintenance free, with the exception of occasional infill addition due to settling or erosion. After geoweb installation, there is no grading requirement.

Fort Bliss ITAM, a Fort Bliss labor detail, and the 285th EN (Det 1), completed three road section repairs using geotextile fabric, geoweb, and gravel infill. Each site was approximately 500 feet long. The repaired road sections appear to be working well, to be sustaining traffic loads, and preventing erosion.

This ITAM project was performed as mitigation in response to the FORSCOM Roving Sands 1999 exercise, and to reduce further training hindrances. Soldiers participating in the 1999 exercise reported military vehicles having difficulties on range roads located in silt substrates. Many off-road ruts and trails resulted from vehicles driving cross-country in unauthorized areas to avoid the poor road conditions. Fort Bliss ITAM has plans to install more segments of geoweb on silt soil road segments once funding for construction materials and equipment are available.

For further information, contact the author at GatewoodR@emh10.bliss.army.mil.
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