



Guardian

America's First Choice for Environmental Restoration

A Publication of the Environmental Restoration Program

Travis Air Force Base, California

April 2006

INSIDE

Viewpoint:

You thought your boss was tough? Mr. Kerry Settle, the Restoration Program Manager from Air Mobility Command recently visited Travis to inspect our cleanup program. Take a look at what he had to say about what he found..... **2**

From the Field:

It has been a slow year when it comes to field work, since we are gearing up for a slew of soil cleanup actions next year. However, we still had the chance to get our boots muddy..... **3**

Next RAB Meeting:

The next Restoration Advisory Board meeting will be held on April 27, 2006 at 7 p.m. at the Office of the Northern Solano County Assn. of Realtors. This will be the last meeting for two of our Restoration staff members, Dale Malsberger and Steve Stopher, who will be retiring in the next couple of months..... **4**



Dale



Steve



(Photo by Glenn Anderson)

Taking a Dip: A wildlife biologist uses a red flag to mark a soil sample location in a vernal pool. A vernal pool is a sensitive area that temporarily holds rainwater long enough for a unique group of plants and animals to survive. The sample will support a nationwide ecological risk study.

Lead by Ex-sample

Base supports two scientific studies that focus on metals

By Glenn Anderson

Travis Project Manager

A common issue among small arms ranges, skeet ranges and other military weapons training facilities is the presence of lead in the soil. Even after most of the spent shells are picked up and the used bullets are collected for recycling, lead particles from years of bullet impacts can leave the range in a highly contaminated state. The Department of Defense faces a potentially daunting task of cleaning up thousands of metal-contaminated sites within the U.S. and its territories which contain unacceptable levels of the metals arse-

nic, chromium, cadmium, and lead.

It is up to the base restoration program manager and the regulatory agencies to identify both the contamination problems and the best cleanup strategies. One tool used in the decision making process is the risk assessment. A risk assessment is a scientific study that takes the information on the contaminants; identifies the people, plants and animals that may be present at a site; looks for ways that they can be exposed to the contaminants; and estimates the risk that the contaminants could potentially pose.

Unfortunately, risk assessment is not an exact science, and there are a lot of uncertainties involved with the process. To assist in

See **LEAD** page 3

Our Environmental Restoration Program web site is temporarily unavailable due to security upgrades. Please contact us using the phone numbers on page 4 for information concerning the program.



Travis Air Force Base, California

Staff

Commander, Environmental Flight

Wayne Williams

Chief, Environmental Restoration

Mark H. Smith

60th AMW Public Affairs

Linda Weese

RAB Members

Col. Timothy Zadalis, *Air Force Co-Chair*
 David Marianno, *Community Co-Chair*
 John Foster, *City of Fairfield representative*
 Alan Friedman, *Regional Water Quality Control Board*
 John Lucey, *U.S. EPA*
 Cyrus Morad, *Fairfield resident*
 Eamon Moriarty, *Goodrich Corporation*
 Michael Reagan, *County Supervisor 5th District*
 Jose Salcedo, *Cal. Department of Toxic Substances Control*
 William Taylor, *Travis Unified School District*
 Ron Tolentino, *Solano Garbage Company*

The *Guardian* is a publication of the 60th Civil Engineer Squadron's Environmental Restoration Program (ERP). The newsletter is designed to inform and educate the public about the base's ongoing environmental cleanup program. Contents expressed herein are not necessarily the official views of, or endorsed by, the U.S. government, the Department of Defense, or the Department of the Air Force. Additional information about the program can be obtained from the public website at <https://public.travis.af.mil/pages/enviro>. Questions and comments about the program may be sent to this address:

Linda Weese
 60th AMW Public Affairs
 400 Brennan Circle
 Travis AFB, CA 94535
 (707) 424-0132
linda.weese@travis.af.mil

Questions and comments about the environmental web site may be sent to:

enviropa@travis.af.mil

The Travis Restoration Report Card

Who am I to grade the Travis Air Force Base (AFB) Restoration Program? I'm Kerry Settle, Program Manager for Travis and McGuire AFB. I'm a representative of Air Mobility Command (AMC), the parent command for Travis Air Force Base (AFB), with the authority to make everyone's lives miserable if I'm not happy!

It is AMC's job to oversee budget and program issues that affect twelve active-duty bases, and I am responsible for the cleanup efforts at Travis and McGuire AFB. I administered the mid-term, leading up to the dreaded "Final Exam".

The now annual "Final Exam" is actually a Program Management Review (PMR) which will be held this June at Scott AFB, home of AMC. A PMR is an overall look at the long-term plan for AMC to achieve major cleanup milestones, verifying that all twelve bases are on the right track to finish their cleanup programs. The "mid-term" that I recently gave Travis is called an Installation Program Assessment Review (IPAR). An IPAR takes a detailed look at each base's cleanup program and digs deep into cleanup schedules and funding requirements. Then, I look for possible improvements to cost and schedule.

How do I do it? I have a lot of help, that's how. I pull together technical experts from other AMC bases and a representative from the Air Force Center for Environmental Excellence (AFCEE) who manages contract support for the base. These are the people who make the cleanup program happen, so if I find problems, I have the attention of those that need to hear what I have to say.

We visited Travis last month and in a close-quartered conference room worked through a detailed checklist, covering a variety of cleanup program issues. We completed each checklist line item through interviews and records inspections. The IPAR team looked into cost data, opportunities for performance-based contracts, records management, schedules, and funding for the current and future years.

Each base uses a Microsoft Access software program to help it and AMC manage its cleanup program. This software is called the Air Force Restoration Informa-



VIEWPOINT

Kerry Settle
 Air Mobility Com-
 mand Program Mgr

tion Management System (AFRIMS). It produces the monthly reports that tell me what work is planned and its associated costs. We often tell bases that if it is not in AFRIMS, it is not in your program. So, the IPAR team verifies that the site descriptions and budget projections in the database are accurate and up-to-date.

Unlike most inspections, this IPAR checklist contains questions on program improvement. The IPAR team has a unique blend of technical, financial and local expertise that can be used to spot better ways to spend funds, tighten schedules, allocate manpower, use the latest improvements in cleanup technology, record completed actions, and close sites.

Think of an IPAR as a high school exam. The answers to the checklist questions help to identify the best parts of the program and where a particular area needs improvement. The IPAR team contributes their experience and knowledge of the overall process, so only viable improvements are pursued. Discussions around the room get a little heated at times, and someone (usually me) asks the most challenging questions and plays the "devil's advocate" role. However, everyone understands that this 'trial by fire' is necessary to thoroughly inspect each cleanup program to ensure that it is set up for success.

So, how did Travis do on this exam? Mark Smith and his Travis team of environmental professionals have put together an excellent cleanup program, and most of the identified improvements were fairly minor. At the same time, this program is dynamic in nature and has to respond quickly to changes in regulatory and legal requirements, technological advances, and fiscal challenges faced by the federal government. So, I would give the Travis team an A-, just to keep them on their toes.

Thank you, Travis, for hosting a successful IPAR.



Lead

■ From page 1

removing some of these uncertainties, two teams of environmental scientists visited Travis AFB recently to collect samples of clean and lead-contaminated soil. The soil will be used to support two separate risk assessment studies.

The first study is titled "The Effect of Soil Properties on Decreasing Toxic Metal Bioavailability: Field Scale Validation to Support Regulatory Acceptance". It is spearheaded by the Oak Ridge National Laboratory and the Naval Facilities Engineering Service Center and is receiving the support of researchers from Auburn University, Ohio State University, University of Missouri at Columbia, and Stanford University.

This first study will try to measure how much of the metals in soil can actually pose potential risk to people, plants and animals. For example, if lead binds to a naturally-occurring chemical in the soil, then it is not able to pose a risk. Other soil characteristics (pH, particle size, organic content, etc.) may also affect a chemical's ability to pose a potential risk. The goal of this study is to identify the relationships between various soil properties and potential risk posed by metals in that soil.

The second study is titled "Development of a Standardized Approach for Assessing Potential Risks to Amphibians Exposed to Sediment and Soils". It

is managed through the Naval Facilities Engineering Service Center at Port Hueneme CA and is supported by the Air Force Center for Environmental Excellence, the Army Center for Health Promotion and Preventive Medicine at Aberdeen Proving Ground MD, and ENSR International's Fort Collins Toxicology Lab in Colorado (an environmental consulting firm).

This second study focuses on amphibians that are commonly found in vernal pools and other wetland habitats. A vernal pool is a shallow depression that fills with water during the winter rainy season, and then dries out during the spring. Vernal pools provide a habitat for a variety of unique plants and animals. Amphibians such as frogs and salamanders found in these vernal pools act as sentinel species; their health is a good indicator of the overall health of the vernal pool. The purpose of this study is to develop a standardized set of procedures to evaluate the potential toxicity of contaminated sediments and soils found in vernal pools to amphibians. The results of this study will assist cleanup project managers with cleanup decisions that protect the environment.

"Over the last ten years, we have been a test platform for a number of scientific and technology evaluation studies," stated Mr. Mark Smith, Travis AFB Remedial Program Manager. "They add to the existing body of scientific knowledge and benefit the base, either directly or indirectly."

Both studies are funded through the

Environmental Security Technology Certification Program (ESTCP). ESTCP is a joint Department of Defense, Department of Energy, Environmental Protection Agency program that moves innovative technologies from the laboratory to practical application. Both studies used the Former Small Arms Range as the source of lead-contaminated soil. This restoration site is scheduled for cleanup in the summer of 2007.

To ensure that the soil samples actually had high levels of lead in them, both teams used portable X-ray Fluorescence Spectrometry field instruments. This tool sends a beam of x-rays into a sample. The lead in the sample absorbs the x-ray, causing it to become unstable. Eventually, it sends back a second beam of energy that has a characteristic wavelength and frequency. The tool uses the amount of return radiation to measure the concentration of lead in the soil.

"We really appreciate the participation of Travis AFB in these demonstration projects," stated Ms. Amy Hawkins, project manager from the Naval Facilities Engineering Service Center. "Their logistical support and knowledge of the sites was invaluable to completing the necessary field work. It was a pleasure to work with the team of environmental professionals on Travis."

Results from both studies will be ready for scientific review in early 2007.

From the Field

By Glenn Anderson

Travis Project Manager

Winter is traditionally a slow time for the Restoration Branch of the Travis AFB Environmental Flight. After all, it is not easy to drive a 20-ton drill rig through soft wet clay-rich soil without getting stuck, so most field work is scheduled in the dry summer months.

The following photographs show a few of the restoration field events that took place on those few days when we were not dodging raindrops and cleaning up the mess left behind by January's flood waters.



A field technician from Shaw Environmental finishes his work on a surface water drain to the Corrective Action Management Unit.



Ms. Jana Tarver from Oak Ridge National Laboratory measures the lead content in the soil at a former small arms range.



Mr. Rob Pexton from CH2M HILL collects a vapor sample between two carbon canisters, using a Summa air sample container.

Meeting Agenda

6:30 - 7:00 p.m. Open Forum:

The open forum allows RAB and community members to discuss ongoing Travis AFB restoration program activities with the Travis AFB environmental staff on a one-to-one basis.

7:00 - 9:00 p.m. RAB General Meeting

- I. **Welcome and Introduction to New RAB Members**
- II. **Approval of Minutes**
- III. **Additional Agenda Items and Questions**
- IV. **Discussion Topics**
 - NEWIOU Soil ROD Status
 - Ecological Risk Studies
 - Training on Travis
- Break*
- V. **Cleanup Program Status**
 - IPAR results
- VI. **Regulatory Agency Reports**
- VII. **Focus Group Reports**
- VIII. **RAB/Public Questions**
- IX. **Set Time and Place for Next RAB Meeting**
- X. **Set Focus Group Meeting Times**

Adjourn

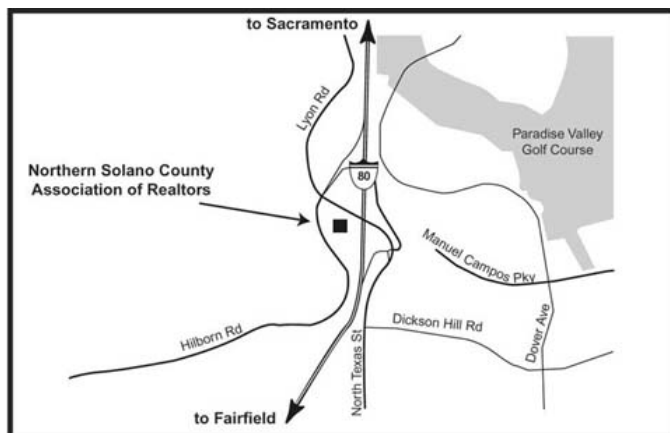
Printed on recycled paper



Travis AFB Restoration Advisory Board Meeting

April 27, 2006
7 p.m.

Northern Solano County
Association of Realtors
3690 Hilborn Rd
Fairfield, CA



LOCATION OF INFORMATION REPOSITORIES

Vacaville Public Library	Fairfield-Suisun Com. Library	Mitchell Memorial Library
1020 Ulatis Drive Vacaville, CA 95688	1150 Kentucky Street Fairfield, CA 94533	510 Travis Boulevard Travis AFB, CA 94535
(707) 449-6290	(707) 421-6500	(707) 424-3279
Monday-Thursday: 10 a.m. - 9 p.m.	Monday-Thursday: 10 a.m. - 9 p.m.	Monday-Thursday: 10 a.m. - 9 p.m.
Friday-Saturday: 10 a.m. - 5 p.m.	Friday-Saturday: 10 a.m. - 5 p.m.	Friday: 10 a.m. - 6 p.m.
Sunday: 1 p.m. - 5 p.m.	Sunday: 1 p.m. - 5 p.m.	Saturday: Closed
		Sunday: 12 p.m. - 6 p.m.



If you would like more information concerning the Environmental Restoration Program or need special accommodations for the RAB meeting, please contact Mark Smith, (707) 424-3062.

**For more information about
Travis AFB's restoration
program, please contact:**

Mark Smith
Chief, Environmental Restoration
Travis AFB
(707) 424-3062
mark.smith2@travis.af.mil

Kristine Escarda
Public Participation Specialist
Cal EPA/DTSC
(916) 255-6683
kescarda@dtsc.ca.gov

Viola Cooper
Community Involvement,
Program Coordinator, U.S. EPA
(415) 972-3243
(800) 231-3075
cooper.viola@epa.gov

Community Relations
60 CES/CEVR (Environmental Restoration)
411 Alrmen Drive, Building 570
Travis AFB, CA 94535-2001
(707) 424-4359

