



Guardian

America's First Choice for Environmental Restoration

A Publication of the Environmental Restoration Program

Travis Air Force Base, California

October 2011

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NOTICE

The publishing of the Travis AFB Groundwater Proposed Plan and the solicitation of public comments on the proposed remedies has been rescheduled from October 2011 to April 2012. The Plan will describe each proposed remedy and offer several ways to get your comments to the base. Your participation will help the base to pick the best solutions to its environmental challenges.



(Photo by Glenn Anderson)

The Hole Picture: A heavy equipment operator piles up contaminated soil alongside one of several large excavation voids. A previous soil investigation identified the locations and depths of each void. The soil is placed in a staging area, sampled and trucked to an off-base landfill for disposal.

The Last Soil Action

Excavation of Former Fire Training Area Nearly Complete

By Lonnie Duke

Travis Environmental Project Manager

Often we measure our progress by looking at the completion of milestones. For example, when we complete high school, when we land our first job, when we make our first million, when we finish our first marathon, and when we retire. Some milestones are easy to reach, and others are a real challenge. Most of us are still working on that first million goal.

The Travis AFB Environmental Restoration Program also bases its performance on milestones, such as when the program started (1983), when EPA placed Travis AFB on the National Priority List (1991), when all interim groundwater remedies were selected (1999),

when all soil remedies were selected (2006), and when all sediment cleanup actions were complete (2009).

This year will mark another big milestone, when the last soil cleanup will be complete. Considering the effort that it takes to excavate contaminated soil, take it to an appropriate off-base landfill, and restore the excavated areas; this is a major accomplishment.

The soil cleanup is taking place at a former fire training area, located at the southern part of the base. Before the base transitioned to an environmentally friendly fire fighting facility that relies on natural gas, the common practice was to throw some flammable liquid on the ground, light it on fire, and send a team of fire fighters in to put the fire out. The end result of this practice was the contamination-

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Visit our Environmental Restoration Program web site at <http://www.travis.af.mil/enviro>



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The *Guardian* is published by the 60th Civil Engineer Squadron's Environmental Restoration Program. 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 web site at

<http://www.travis.af.mil/enviro>. Questions and comments about the program may be sent to this address:

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Community Feedback Matters

Greetings Travis Air Force Base Community and Stakeholders! It has been exactly one year since I was assigned as the USEPA Remedial Project Manager for the Travis AFB Superfund Cleanup. My role is to ensure that EPA regulations and policies are being followed while also partnering with the Air Force team to promote forward progress on cleanup projects. As I reflect on the past year, I am amazed as to how much work the base has accomplished. Coordinating continued treatment system operation and optimization, including significant reductions in energy use, as well as starting their final soil remedial action has been no easy task for the Travis team.

Most significantly, the AF has also collected thousands of data points and pulled together dozens of reports to support a Feasibility Study and the selection of final remedial actions for 20 groundwater contamination sites. I have been working closely with the AF all year to ensure their Feasibility Study meets the regulatory requirements and thoroughly evaluates the pros and cons to the various cleanup technologies available. The AF also works with the other members of the Restoration Advisory Board (RAB), including two California regulatory agencies, to ensure the voices of the community and other stakeholders are heard throughout the decision-making process. While the Feasibility Study evaluation is required by the EPA to support the selection of the final remedies, approval cannot be completed until the community has voiced its opinions. It is important to hear from the public that we serve to ensure that our actions protect human health and the environment and our stewardship of taxpayer funds allows us to accomplish this task as wisely as possible.

More than at any other time in the process, it's important that the public understands what's happening and have an avenue to express any concerns about these final cleanup decisions. What concerns, you may ask? Well, for starters, groundwater resources are a valuable asset, and the local groundwater is used right next to the base for agriculture and



VIEWPOINT

Nadia Hollan Burke
U.S. EPA Remedial
Project Manager

everyday household uses--how long it might take to clean up, how much it will cost, and what levels it should be cleaned up to are critical questions that the AF is required to consider. There also might be other issues important to the community, such as impact to base operations or the local economy that aren't necessarily criteria required by EPA's process, but something the public wants to bring to our attention. Therefore, the Air Force will be publishing a Proposed Plan for the groundwater contamination cleanup. This Plan is required by EPA to go through a public comment period, and the AF will host a public comment meeting to gather community input. While we expect this to be early 2012, a few months later than originally anticipated, we felt that a delay in producing the Proposed Plan was necessary to ensure the foundation for the Plan, the Feasibility Study, was as complete as possible and that the Proposed Plan will be as well thought out as possible. This will save money and time in the long run.

Over the next year, I am looking forward to working with the Travis team in developing the Proposed Plan, preparing for the public meeting, and developing a final Groundwater Record of Decision afterwards that will incorporate the public's comments. I hope that you will consider attending the next RAB meeting at the Northern Solano County Association of Realtors Office in Fairfield this month to begin learning about the issues, and become involved with the Proposed Plan comment process. Please spread the word to your friends, neighbors, and colleagues. Do not hesitate to contact me at 415-972-3187 if you have any questions about EPA's involvement in the cleanup, and of course, your Travis AFB Team members, Mark, Glenn, and Lonnie are happy to answer any of your questions.



Soil

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tion of the surface soil and occasionally groundwater with fuels and solvents.

Even worse, the mixture of fuels and solvents in the training fires usually did not completely burn up. Instead, they formed dioxins, which are a family of cancer-causing compounds. Because dioxins do not naturally break down, they remain in the environment for long periods of time. So, exposure to dioxins poses a potential risk to human health.

"We had hoped to carry out this soil cleanup back in 2007, but we ran out of both time and money," said Mr. Mark Smith, Travis AFB Restoration Program Manager. "Fortunately, our 2008 Performance-Based Contract provided the funds and the field team to complete this work."

Along with contaminated soil, the field team found a lot of buried concrete and other construction debris. So, they used a mini-investigation to identify the problem areas and to focus the cleanup work. Heavy equipment mobilization started as soon as the dry summer weather arrived.

All of the excavated soil has to go to an

off-base landfill. Fortunately, the contamination concentrations are not high enough for the excavated soil to be classified as a hazardous waste. So, it can be taken to a local landfill that will use the soil as daily garbage cover at the landfill. Landfills are required by law to cover fresh trash at the end of the day to prevent it from blowing around, to prevent fires, and to avoid contact by insects, rodents and birds, etc. which could potentially spread disease. So while the contaminated soil is taking up space in the landfill, it is doing so with a purpose. This also keeps the landfill fees in Solano County.

When Travis AFB and three regulatory agencies selected the best way to deal with contaminated soil, they established two cleanup standards. An industrial standard allows the site to be safe for base workers and other industrial activities, and it has to be met. A more challenging residential standard clears the site for all uses, including playgrounds, housing development, day care, etc. The base prefers the residential level so that all environmental restrictions on the site are removed.

"So far, the soil cleanup is making great

progress toward meeting the residential cleanup standard across the entire site," stated Mr. Smith. "We have had to return to several excavation areas where the contamination was deeper than first thought, but the effort is definitely worthwhile."

To reduce the amount of material to be sent to a landfill, all metal debris is collected for shipment to a metals recycler, and all concrete is taken to another base contractor for use in the construction of a new C-17 landing strip. To stretch out the cleanup funds as much as possible, the field team collected clean soil (over 6,000 cubic yards, so far) from other base construction projects. This free soil will be used to fill in the excavation voids and restore the site's flat topography. There is always room in the budget for free!

Editor's note: At the time of writing this article, the cleanup of the former fire training area is on track to meet the minimum soil cleanup standards and to go above and beyond by clearing the property for any base activity with no environmental restrictions. Once finished, Travis AFB will have met all of its soil cleanup requirements.

How Clean is "Clean" in California?

By Glenn Anderson

Travis Environmental Project Manager

In the July 2006 Guardian, cleanup levels were discussed as they pertain to soil actions. This is an important topic, because a cleanup action stops only after the cleanup levels are reached.

For a soil action, this means the digging can stop and clean soil can be brought in to fill in the large holes in the ground. For a groundwater action, that means the pumps can be shut down or the monitoring of groundwater conditions can stop. Since the base and the environmental regulatory agencies are in the middle of the remedy selection process for groundwater, it seems appropriate to revisit this topic.

For groundwater to be considered clean, it needs to be safe to drink, since most people receive their drinking water from groundwater resources. The U.S. Environmental Protection Agency (EPA) has studied this topic extensively and has established national drinking water standards, known as Maximum Contaminant

Levels (MCLs), which represent the highest contaminant levels that are allowed in drinking water. MCLs are enforceable standards that take into account the best available treatment technology and cost. California EPA has its own set of MCLs, and both agencies review and will occasionally update a contaminant's MCL, based on the most recent human health research. Groundwater cleanup level selection uses the most recent MCL values.

So, it seems easy to establish groundwater cleanup levels. Just find the MCL tables on the EPA/Cal EPA websites, find your groundwater contaminants, and pick the lower of the two concentrations.

But there's more. Along with both sets of MCLs, several California resolutions also address groundwater quality. For example, State Resolution 92-49 requires groundwater cleanups to attain background water quality or the best reasonable water quality if background cannot be attained. Since most organic contaminants are not naturally found in the environment,

background is usually the concentration that can be accurately measured.

Generally, a lower groundwater cleanup level requires more effort and/or time to achieve. Increases in time or effort also increases the cleanup cost, and all stakeholders acknowledge that cleanup funds are limited and it may be more beneficial to achieve safe drinking water standards at all sites instead of background levels at a few sites. To determine the best reasonable water quality that can be achieved economically under site-specific conditions, a Technical and Economic Feasibility Analysis (TEFA) is conducted.

Basically, a TEFA estimates the overall costs to reach the health-based MCL and background, and compares the two values. If the difference in the two values is large, then it may be cost prohibitive to attempt to reach background and reasonable to use the MCL as the cleanup level so that the groundwater is safe to drink at the end of the cleanup. The TEFA is summarized and the cleanup levels are established in a legal Record of Decision that is signed by representatives of all parties.

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

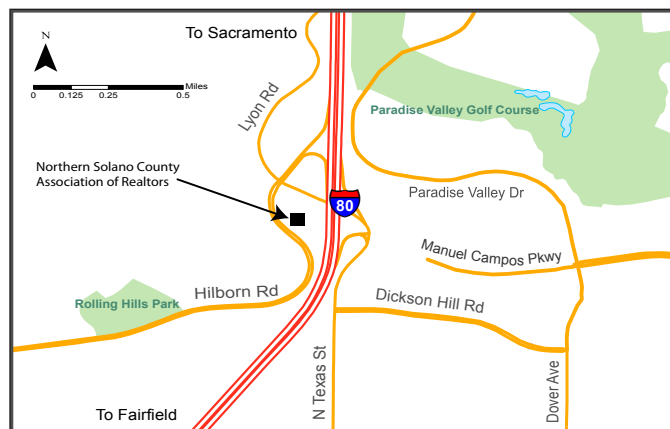
- I. Welcome and Introductions
- II. Approval of Minutes
- III. Additional Agenda Items and Questions
- IV. Discussion Topics
 - The Last Soil Cleanup Action
 - Potholes in the Road to the ROD
- Break
- V. Cleanup Program Status
 - Cleanup Levels and California Law
- VI. Regulatory Agency Reports
- VII. Focus Group Reports
- VIII. RAB/Public Questions
- IX. Set Time and Place for Next RAB Meeting
- X. Set Focus Group Meeting Times

Adjourn

Travis AFB Restoration Advisory Board Meeting

October 20, 2011
7 p.m.

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



LOCATION OF INFORMATION REPOSITORIES

Vacaville Public Library

1020 Ulatis Drive
Vacaville, CA 95688

(707) 449-6290

Monday-Thursday: 10 a.m. - 9 p.m.

Friday-Saturday: 10 a.m. - 5 p.m.

Sunday: 1 p.m. - 5 p.m.

Fairfield-Suisun Com. Library

1150 Kentucky Street
Fairfield, CA 94533

(707) 421-6500

Monday-Thursday: 10 a.m. - 9 p.m.

Friday-Saturday: 10 a.m. - 5 p.m.

Sunday: 1 p.m. - 5 p.m.

Mitchell Memorial Library

510 Travis Boulevard
Travis AFB, CA 94535

(707) 424-3279

Monday-Thursday: 10 a.m. - 9 p.m.

Friday: Closed

Saturday: 12 p.m. - 6 p.m.

Sunday: 12 p.m. - 6 p.m.

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If you would like more information or need special accommodations for the RAB meeting, please contact Mark Smith, (707) 424-3062. You can also view our web site at <http://www.travis.af.mil/enviro>

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