



Guardian

America's First Choice for Environmental Restoration

A Publication of the Installation Restoration Program

Travis Air Force Base, California

January 2003

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(Photo by Glenn Anderson)

WABOU Soil ROD signed — With the signed ROD, cleanup strategies for sites such as the former small arms range can begin this summer.

WABOU Soil ROD is Final at Last

Signing of the decision document meets a major milestone

By Glenn Anderson
Travis AFB Restoration Staff

After almost five years of negotiations, four sets of draft and draft final documents, three technical memoranda, two demonstration studies, and one Air Force – Environmental Protection Agency (EPA) dispute, Travis Air Force Base attained a seemingly elusive goal just before Christmas:

A final Soil Record of Decision (ROD) for the West/Annexes/Basewide Operable Unit (WABOU).

A ROD is a technical and legal decision document that describes the cleanup actions at contaminated sites and provides the rationale to support these decisions. The Declaration portion of this Travis AFB ROD is signed by the Air Force as the lead agency and the U.S. EPA, California Department of Toxic Substances Control, and San Francisco

Bay Regional Water Quality Control Board as regulatory agencies to confirm their agreement with the selected cleanup actions.

"It took a lot more time to reach consensus than we had originally anticipated," stated Al Brickeen, Chief of Environmental Restoration. "There were attorneys, human health and ecological risk assessors, project managers, geologists, chemists and finance personnel involved with the production of this ROD, and everyone had to agree with both the selection of each cleanup action and the way that action was described and supported."

By finalizing the WABOU Soil ROD, Travis AFB receives the legal authority to conduct cleanup actions at nine contaminated sites in the western portion of the base. These sites range from waste disposal trenches to areas with contaminated surface soil, and the

See **WABOU**, page 4

For more information about the Installation Restoration Program, visit www.travis.af.mil/pages/enviro



Travis Air Force Base, California

Staff

Chief, Environmental Flight

Troy Martinson, P.E.

Chief, Environmental Restoration

Allen Briceken, P.E.

60th AMW Public Affairs

Linda Weese

RAB Members

Col. Michael Sevier, Air Force Co-Chair

Jim Whalen, Community Co-Chair

Dick Curtis, N. Solano County Realtors

John Foster, City of Fairfield representative

David Kanouff, NARFE

John Lucey, U.S. EPA

David Marianno, Suisun City resident

Cyrus Morad, Fairfield resident

Sarah Raker, SFBWRQCB

David Root, Crosswind Community Church

Jose Salcedo, Cal EPA/DTSC

William Taylor, Travis Unified School District

Ron Tolentino, Solano Garbage Company

The Guardian is a publication of the 60th Civil Engineer Squadron's Installation Restoration Program (IRP). 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 <http://www.travis.af.mil/pages/enviro>.

Questions and comments about the environmental cleanup program should be addressed to:

Linda Weese

60th AMW Public Affairs

400 Brennan Circle

Travis AFB, CA 94535-2176

It's Not Over Yet!



VIEWPOINT

Jim Whalen
RAB Community
Co-Chair

When I learned that the first soil Record of Decision (ROD) on Travis Air Force Base had been signed by the Air Force and federal and state regulatory agencies, my first response was "Well, it is about time!" I was beginning to think that the Restoration Advisory Board (RAB) was doomed to spend the rest of its existence in ROD purgatory, hearing about the latest technical issue to be resolved and knowing that this document would be mentioned again at the next quarterly meeting.


At the same time, I can definitely appreciate the difficulty in getting multiple bureaucracies to agree to a proper course of action. As a former supervisor on Travis, I saw the level of effort needed to get various groups within a single organization, one with a common goal, to move in the same direction. I can only imagine the difficulty, and at times the frustration, in getting different organizations with different agendas to make decisions and reach agreements.

Along with my fellow RAB members, I offer my congratulations to the local representatives of the Air Force and regulatory agencies for working through the numerous scientific and legal issues and creating a decision document that survived the scrutiny of Pentagon officials and the highest levels of regulatory management. It was not an easy task, and at times their concern over the slow rate of progress showed during RAB meetings.

One Travis AFB ROD is now history, but there are still two more decision documents to go. Local Air Force and regulatory agency representatives have started to work on a second ROD to address contaminants in the soil, sediment and surface water in the north, east and central portions of the base, and the base still needs a groundwater ROD to wrap up the decisions for a number of pockets

of contaminated groundwater that lies in the subsurface. These facts lead me to my viewpoint:

The last ROD took too long to complete, and there has got to be a way to streamline the decision-making and document review process. Even though no one can plan for delays resulting from disputes between parties, we should be able to take the framework of the WABOU Soil ROD and apply it to the other two RODs. Technical challenges should be identified and addressed early, and multiple document revisions should be avoided, if at all possible. Finally, it might be worthwhile to decide early on whether the next two RODs have to contain the same amount of detail and explanation as the first one. Given a choice of a perfect document in five years or a no-frills document in three years, I vote for the no-frills alternative.

Time and time again, the cadre of dedicated and talented professionals on the Travis restoration staff has worked as a cohesive unit to promote environmental stewardship while supporting the base mission. As long as they remember their responsibilities to the local communities and strive to avoid preventable delays in their cleanup schedule, perhaps with a little help from the RAB, the production of the two remaining RODs should be a less painful and more efficient process. 

FROM THE

FIELD



FT005 Off base Project - A total of 25 wells, which included 8 extraction and 17 monitoring wells, were drilled and developed on FT005 Off Base site located south of the Base boundary. All the well sampling data have been received from the laboratories and are incorporated in the basewide groundwater model development. The cost to complete package for connecting the wells to the South Base Boundary plant has been complete and bids are being solicited for evaluation.

See **FROM THE FIELD**, page 5

Castle Terrace Nature Trail is Complete

By Dale Malsberger
Travis AFB Restoration Staff
& Linda Weese
60th AMW Public Affairs

The Castle Terrace Nature Trail, which was completed at the end of October, is a culmination of an agreement signed between Travis and the United States Fish and Wildlife Service. The idea for a nature trail came about when it was decided to purchase land and build Castle Terrace Housing on the northern portion of the base. One hundred acres were designated for the entire project; 60 acres for housing and 40 acres for the wetland preserve. A portion of the preserve was to become a nature trail as part of a continuing educational program on preserving the environment. We were able to construct the nature trail this year as part of the landfill maintenance project at IRP site LF007. The maintenance project resulted in the elimination of approximately 2 acres of wetlands. According to an executive order, federal lands are to be managed so there is no net loss of wetlands. Therefore, as part of the maintenance project, we constructed an equal area of wetlands in the Castle Terrace preserve. The wetlands consist of 5 individual pools and the new trail allows visitors to walk near each of the new wetlands as well as the two ponds



Castle Terrace Nature Trail Opens — A new one-half mile nature trail will allow visitors to walk near new wetlands areas at Travis AFB.

that already existed on the preserve.

The trail, which begins at the playground by Valley View Way, winds through the wetland preserve for one half mile.

"In early spring, three kiosk type signs will be installed", said Bob Holmes, Agronomist for the 60th CES, "one at each end of the nature trail and the third in the middle of the trail." The signs will have a large map of the area, describing the vernal pools, ponds, grasslands and plants, birds and animals that live in the habitat.

Although, the signs are not up, the

nature trail is open. According to Holmes, during fall and winter a variety of birds migrate to the preserve; Mallards, Wood Ducks, Egrets, Anna's Hummingbird, Red Tail Hawks and Burrowing Owls to name a few. During the spring and summer seasons, Blue Birds, Blue Jays, Robins, Meadowlarks, Crows and Red-winged Black Birds call the preserve home.

Visitors are encouraged to enjoy the nature trail and enjoy the natural areas but to stay on the path as the vernal pools and ponds are sensitive to any kind of traffic.



5-Year Review of Groundwater Actions

By Dale Malsberger
Travis AFB Restoration Staff

In the next few months, Travis will prepare a "5-year review of Groundwater Actions at Travis AFB". This document will review all sites where groundwater contamination has not yet been removed to levels that allow for unlimited use. The review will be in accordance with the requirements of Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the National Contingency Plan. The focus of the review is the effectiveness of the technology

applied and an evaluation of protectiveness of the ongoing action.

This will be a basewide review and will address interim remedies selected at sites in both the West/Annexes/Basewide Operable Unit (WABOU) and the North, East and West Industrial Operable Unit (NEWIOU). The primary remedy selected at these sites was pump and treat with a few sites being evaluated for monitored natural attenuation. The goals of the selected remedies was to control migration of groundwater contamination, reduce sources (areas with free product or high levels of contamination), and cleanup

groundwater contamination that extends off-base.

The review will be based on extensive groundwater sampling that is documented each year as part of our Groundwater Sampling and Analysis (GSAP) program. In addition to the GSAP data, results of ongoing treatability studies at two sites will be evaluated. Operational data from our treatment plants will be evaluated to ensure our systems are protective and cost effective. Our hydraulic modeling of groundwater flow and capture zones will be updated with the most current data and calibrated to most accurately reflect field

A Program Snapshot in Time

Managers Check on Progress in 2002 and Plans for 2003

By Glenn Anderson

Travis AFB Restoration Staff

Dale Malsberger

Travis AFB Restoration Staff

& Tom Sreenivasan

Travis AFB Restoration Staff

Now that another construction season has passed, three Restoration Branch project managers were asked to review the progress that the Travis AFB Environmental Restoration Program made last year. This is what they found:

2002

1. Treatment Plant Operation – A chemical additive for improving the performance of the North and South Treatment Plants received regulatory approval. Use of the additive promotes the operation of air stripping technology for cleaning groundwater, reducing the need for expensive activated carbon treatment.

2. Technology Evaluations – One treatability study ended with mixed results, and two studies continued to show promise. The passive reactive wall study demonstrated that iron filings injected into the subsurface will chemically degrade solvents in groundwater, although the reduced water flow through the wall makes it a less than ideal as a treatment technology. Data collection continues at the Vegetable Oil Injection and the Phytostabilization study areas with the objective of proving whether natural processes (microbes and tree roots, respectively) can stop the movement of solvent-contaminated groundwater.

3. Off-Base Groundwater Treatment – Field work began that will capture contaminated groundwater that flowed past the southern base boundary. After receiving permission from the base neighbor, a team of environmental specialists placed 8 extraction wells and 17 monitoring wells along the path of the contaminated water. This cleanup action will be finished in 2003.

4. Soil Cleanup Actions – Field work for the first two soil cleanup actions is complete. See the From the Field articles on the Radioactive Burial Site 2 cleanup and the land use controls at Landfill X for more details.

5. Corrective Action Management Unit (CAMU) – The first phase of the CAMU construction is complete. See the From the Field article on the landfill maintenance and CAMU construction for more details.

“This was a good year for us,” stated Dale Malsberger, project engineer for the North/East/West Industrial Operable Unit (NEWIOU). “We were able to complete the WABOU and CAMU designs which really set the stage for next year’s field activities.”

The three project managers were then asked to describe the projects that are scheduled for completion this year.

2003

1. Treatment Plant Operation – Enhancements of the existing groundwater treatment plants, including the addition of a Thermal Oxidizer system for the treat-


ment of high solvent concentrations in groundwater, will continue.

2. Technology Evaluations – Due to the need to build mission-essential facilities along the flight line, the Vegetable Oil Injection study will conclude by mid-2003.

3. Off-Base Groundwater Treatment – The remaining piping and equipment to support the cleanup of the off-base contaminated groundwater will be installed and put into operation after an initial period of system performance testing.

4. Soil Cleanup Actions – Four soil cleanup actions in the western portion of the base that involve the CAMU will start at the beginning of the 2003 construction season. The CAMU will receive its first shipments of mildly contaminated soil for permanent placement. The highly contaminated soil will be packaged and shipped to appropriate off-base landfills.

5. Removal Action – An additional soil cleanup action will take place at SS015, a former paint stripping facility near the aircraft parking ramp. Contaminated soil will be excavated from the site prior to the construction of new fuel tanks and truck repair facilities which will upgrade the base’s aircraft refueling capabilities. The action will be conducted as a removal action, because the selection of this cleanup action has not been formally documented in a final Record of Decision (ROD). The excavated soil will be placed into the CAMU.

“Overall, 2003 appears to be more field work intensive and less driven by documents than 2002,” stated Al Brickeen, base Remedial Program Manager. “It will be challenging but fun.” 


WABOU

■ From page 1

contaminants include elevated concentrations of metals, pesticides, and semi volatile organic compounds. The ROD locks in the federal and state legal requirements that each cleanup action must meet and unlocks the cleanup funds that have been set aside to pay for these actions.

This ROD is important to our restoration program for two reasons. First, it answers the question ‘How clean is clean?’ for each WABOU soil site by selecting cleanup levels that protect base workers and local ecological habitat. Second, the base is now authorized to build a Corrective Action Management Unit, a cleanup

strategy for handling mildly contaminated soil in a cost effective manner.”

A copy of the final WABOU Soil ROD is available for review in the Travis AFB Information Repository, located in the Vacaville Public Library. 



NEWIOU ROD Work begins — The NEWIOU ROD will address remediating contamination at 18 sites, including SD001 (Union Creek), and SD033 (West Branch of Union Creek).



Work Begins on the NEWIOU ROD

By Dale Malsberger
Travis AFB Restoration Staff

Now that the WABOU Soil ROD is wrapped up, the base has begun working on the North, East and West Industrial Operable Unit (NEWIOU) Soil ROD which will cover all of the remaining soil sites on the base. The NEWIOU Soil ROD will use the WABOU Soil ROD as a precedent which should help expedite development, review and approval of the


"The NEWIOU Soil ROD will use the WABOU Soil ROD as a precedent which should help expedite development, review and approval of the document."

Tom Sreenivasan

document. The NEWIOU ROD, however, will have its own unique challenges. The NEWIOU ROD will address a total of 18 sites (the WABOU addressed a total of 10 sites) and two of these sites include two new media. Sites SD001 (Union Creek) and SD033 (West branch of Union Creek) will address contamination in the sediment and surface water in addition to surface and subsurface soil.


Based on lessons learned from the


WABOU ROD, the approach for the NEWIOU ROD will be to reach a preliminary agreement with the regulatory agencies as much as possible prior to sending the Draft NEWIOU ROD for formal agency review. This approach should reduce the delays and additional cost of multiple revisions of the document.


During the past year the base has provided the agencies with preliminary portions of the draft ROD that address regulations and that summarize the cleanup program history, the Remedial Investigation (RI) and the Feasibility Study (FS). We also have made presentations to the agencies for each NEWIOU soil site. Each presentation includes the magnitude and location of contamination data at the site, the proposed cleanup action, cleanup levels, and the rationale for the proposal. We have had very productive ongoing discussions with the agencies and have reached agreement on a number of issues. Next year the base will develop a Groundwater Protection Tech Memo to address the relationship between soil contamination and groundwater contamination and an Ecological Tech Memo to address cleanup levels necessary to protect ecological receptors at NEWIOU sites. The Draft NEWIOU ROD is scheduled for December 3, 2003. 

FROM THE

FIELD

 **Radioactive Burial Site 2/Dry Waste Landfill (RW013)** - A total of 38 cubic yards of waste materials and soil with Uranium-234 and Uranium 235 residue was excavated from the former waste disposal trench and transported to a low-level radioactive waste repository in Utah for disposal. Field surveys and laboratory analytical results demonstrated that the radiological contamination had been properly cleaned up, and the site is available for unrestricted land use. The excavation void was filled with clean soil, and native grass seed was used to place a natural cover over the excavated area. All field activities are complete, and a remedial action report will soon be submitted for agency and RAB review to complete the administrative requirements.

 **Landfill X (LF044)** - A fence was placed around several trenches that contain construction debris and an adjacent heavy equipment training area. Gates on the north and south sides of the fence provide controlled access to the site, and signs along the fence notify base personnel of the access restrictions. A soil berm was also constructed along the northeast portion of the site to prevent the movement of contaminated sediment into nearby vernal pools during heavy rains. All field activities are complete, and a remedial action report will soon be submitted for agency and RAB review to document the completion of the field work.

 **LF007 - Phase 1 Cap** - This summer we completed maintenance of the base historical municipal landfill LF007. This required extensive grading to fill in existing subsidence trenches, achieve good drainage, and to create the foundation for the future Corrective Action Management Unit (CAMU). A total of 120,000 cubic yards of soil was moved, graded, compacted, and seeded for the project. All of the additional soil for the project had been stockpiled at the site over the past seven years in anticipation of this project. The project included an interceptor trench to keep groundwater at least five feet below the CAMU and added six gas monitoring wells and two additional groundwater monitoring wells. All debris from this operation plus any miscellaneous debris that had accumulated throughout the landfill was removed and recycled or disposed of at an off base landfill. A total of 750 tons of concrete and 5 tons of scrap metal were recycled as part of the project.

Restoration Chief Retiring

By Allen Brickeen

Travis AFB Restoration Program Manager

For the last six and a half years I have been the head of the environmental restoration section at Travis Air Force Base. Frankly it's been a pretty easy assignment. Not because it wasn't a complex job. Competing with eleven other Air Force bases for limited funding, coordinating work between fifteen federal, state and local agencies, and minimizing the impact of our work on the operation of the base has kept us busy. What has made it easy is the team that is involved with this work, from the Air Force restoration staff, to the regulatory agency members, to the restoration contractors, to Air Force management and just as importantly to the members of the Restoration Advisory Board.

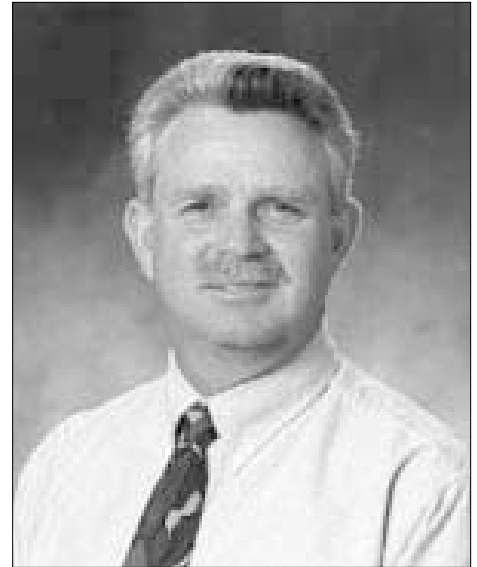
When I assumed the position in June 1996, I laid out a plan to have all of the Records of Decision complete and all remedial actions in place by the time I retired. It seemed like a good plan at the time but, unfortunately, I underestimated the number of problems we would encounter. Budget cuts and maturing programs at other bases significantly reduced our

portion of the Air Mobility Command restoration funds. In the mid-1990s we were getting over 10 million dollars per year. For the last few years our budget has been around 3 million dollars per year.

Because I didn't achieve the goals I set, doesn't mean that we did not make significant progress. In the last six years we have completed two interim Records of Decision for contaminated groundwater on the base. We installed remediation systems at 21 groundwater sites. We also completed our first final soil Record of Decision and completed remedial action at 5 soil sites. While we haven't gotten everything done, we're more than half way there. With the team I'm leaving behind I have every confidence that we will continue to make significant progress in our cleanup effort.

After I leave, Mr. Glenn Anderson will assume my duties until a replacement is selected. Glenn has been in the Travis cleanup program for over ten years and the transition should be seamless.

When I leave in February I plan to move to Nevada where I will spend my time playing golf, fishing and playing with grandchildren. If I have any extra time on my hands I may do some part-time envi-



Restoration Program Manager Retires — After 6 ½ years, Al Brickeen, Travis AFB's Restoration Program Manager, will be retiring.

ronmental work there.

I would like to thank everyone that has been part of making the Travis restoration program one of the best of its kind in the Air Force. The people and organizations that have contributed to the success of the program have truly been first rate. I wish you all continued good luck. ✈

Seeking New RAB Members

By Sarah Madams

Community Relations Consultant

The Air Force is currently inviting interested community members to apply for membership to the Restoration Advisory Board (RAB). The RAB is a group composed of community members, local

"Community support is an essential component of cleanup and restoration, and we encourage interested community members to consider applying."

Sarah Madams

officials, Air Force staff, and representatives of regulatory agencies who serve as a link between the community and the

Travis AFB Environmental Restoration Program decision-makers. By serving on a RAB, members can gain an understanding of restoration activities at the base, and communicate this information to their neighbors and colleagues. Additionally, RAB members communicate public wishes and concerns back to the decision-makers.

The RAB meets locally, once a quarter, and discusses current cleanup and restoration topics at Travis AFB. In addition to quarterly meetings, RAB members also review technical documents and support decision makers in allocating funds to sites that may have the largest impact on the community. There is no requirement for knowledge of environmental restoration in order to be on the RAB, just a desire to

learn the process, and communicate back to the community about the ongoing restoration activities at Travis AFB.

RAB membership is an excellent opportunity to learn more about restoration activities at Travis AFB. Community support is an essential component of cleanup and restoration, and we encourage interested community members to consider applying for the RAB.

For additional information about the Travis AFB RAB, please visit our website at <http://www.travis.af.mil/pages/enviro>, send an email to enviropa@travis.af.mil, or attend our next quarterly RAB meeting on January 23rd for additional information. ✈



Travis AFB
Restoration Advisory Board
Meeting Agenda
January 23, 2003

McBride Senior Center
411 Kendall Street
Vacaville, California

6:30 - 7:00 p.m. Poster Session:

The poster session allows RAB and community members to view posterboards about ongoing Travis AFB restoration program activities. It also allows the public the opportunity to discuss the program with the Travis AFB environmental restoration 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**
 - FY02 Program Summary
 - FY03 Program Goals
 - RWQCB Orientation

Break

- V. Cleanup Program Status**
 - WABOU ROD Status
 - Performance Based Contracting Update
 - 5 Year Review
 - NEWIOU Soil ROD Plan and Progress

- 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**

REVIEW

■ From page 3

conditions. This model will also be used to update our estimated time to cleanup at each site. The document will recommend any changes to the extraction or treatment systems necessary to optimize the interim remedial actions.

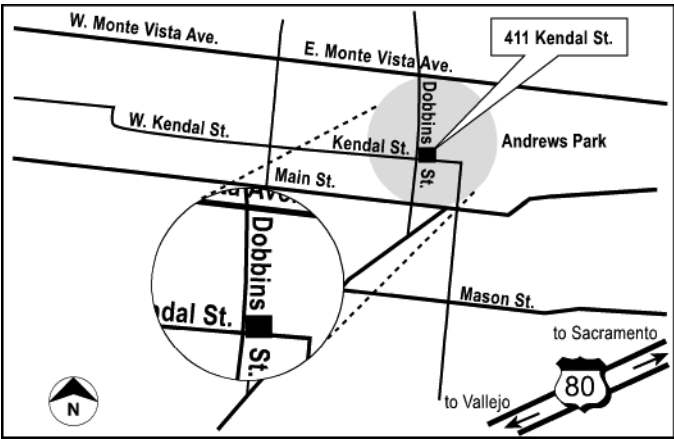
At Travis, we began our groundwater activities based on Interim RODs. This allowed us to begin our actions sooner and to obtain field performance data that will be used to develop final cleanup levels that are achievable. One of the important questions we will address in the 5-year review is whether we have enough data to proceed to a final basewide groundwater ROD or if we need to obtain additional data while we continue to contain and cleanup the groundwater.



Travis AFB
Restoration
Advisory
Board
Meeting

January 23, 2003
7 p.m.

McBride Senior Center
411 Kendall Street
Vacaville, 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: 10 a.m. - 6 p.m. Saturday: Closed Sunday: 12 p.m. - 6 p.m.
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Al Briceken
Chief, Environmental Restoration
Travis AFB
(707) 424-3062

Patricia Ryan
Public Participation Specialist
Cal EPA/DTSC
(916) 255-2615
pryan2@dtsc.ca.gov

Viola Cooper
Community Involvement,
Program Coordinator, U.S. EPA
(415) 972-3243

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

Community Relations
60 CES/CEVR (Environmental Restoration)
191 W Street
Travis AFB, CA 94535-2736
(707) 424-3375



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