

Final

**Meeting Minutes
Travis Air Force Base
Installation Restoration Program
Restoration Advisory Board (RAB) Meeting
Fairfield Senior Citizen Center
Fairfield, California
20 July 2000**

RAB members present:

| NAME | AFFILIATION | PRESENT |
|------------------------|---|----------------|
| Brickeen, Allen | Travis Air Force Base/RAB co-chair | ✓ |
| Whalen, Jim N. | Mayor Fleming's Office in Vacaville/RAB Community co-chair | ✓ |
| Child, David | Fairfield Resident | ✓ |
| Corona, Joel | Fairfield-Suisun Chamber of Commerce | |
| D'Lima, Anne | Travis AFB Resident | ✓ |
| Flores, Lalo | BDC Marine | ✓ |
| Foster, John | Northern Solano County Association of Realtors | ✓ |
| Guido, Timothy | David Grant Medical Center | ✓ |
| Kanouff, David F. | National Association of Retired Federal Employees | ✓ |
| Lucey, John | U.S. Environmental Protection Agency | ✓ |
| Marianno, David | Suisun City Resident | |
| Morad, Cyrus | Fairfield Resident | ✓ |
| Moseley, Michael | Daily Republic | ✓ |
| Negron, MSgt. Daniel | U.S. Air Force/Vacaville Resident | |
| Peconom, John | University of California, Davis, Student | |
| Raker, Sarah | SF Bay Regional Water Quality Control Board | ✓ |
| Root, David | Crosswinds Church | ✓ |
| Rued, Emily | Vacaville Unified School District | ✓ |
| Rundlett, John | Suisun City Council | ✓ |
| Salcedo, Jose | Department of Toxic Substance Control | ✓ |
| Sawyer-Shishido, Kathy | Fairfield-Suisun Unified School District | |
| Taylor, William W. | Travis Unified School District | |
| Tolentino, Ron | Solano Garbage Company | ✓ |

| NAME | AFFILIATION | PRESENT |
|---------------------|---|---------|
| Urquhart, Kurt | OEA Aerospace | ✓ |
| Villacorta, Claudia | SF Bay Regional Water Quality Control Board | ✓ |

Public Members present:

- Marianne Briggs McClellan AFB
- Robert Firman McClellan AFB
- Nayanne Yonn Sacramento Resident

Agencies and Contractors present:

- Glenn Anderson Travis AFB
- Wilford Day Travis AFB
- Dale Malsberger Travis AFB
- Kevin Jackson Travis AFB
- Mark Sandy Travis AFB
- Lonnie Duke Travis AFB
- Bruce James Travis AFB
- Capt. Scott Nickerson Air Force Center for Environmental Excellence
- Jennifer Rock HQ AMC/CEVR
- Parker Atkins Informatics
- Tricia Carter CH2M HILL
- Peggy Taylor CH2M HILL
- Traci Bjers URS
- Deena Stanley URS
- Michael Wray IT Corp
- Elizabeth Allen TechLaw, Inc.
- David Cooper U.S. Environmental Protection Agency
- Patricia Ryan Department of Toxic Substances Control

INTRODUCTION, WELCOME, AND INTRODUCTION OF ALTERNATES

Welcome and Introductions

Mr. Allen Brickeen called the meeting to order. Introductions were made of all new RAB members.

Approval of Minutes

The April 2000 RAB minutes were approved and finalized.

Additional Agenda Items and Questions

Mr. Brickeen explained that this part of the agenda is to give the RAB an opportunity to discuss any item that is not on the current agenda. There were no additional agenda items.

DISCUSSION TOPICS

Groundwater Action

Mr. Malsberger stated that 95% of groundwater actions at Travis AFB are now in place. Travis AFB will now focus on the soil remediation. Mr. Malsberger reviewed the cleanup options that were considered.

- Option 1: No action. This was not chosen at any sites.
- Option 2: Institutional controls — restricting the access to the contamination as a means of preventing exposure. This can be physical or administrative control.
- Option 3: Monitored natural attenuation — allowing the microbes to clean the soil. This works well at sites where petroleum is the main contaminant.
- Option 4: Excavation (scoop and haul) — This action will take place at most sites.
- Option 5: Capping — To place a protective cap over the contaminated soil. This is planned at the old landfill, LF007.

Mr. Malsberger focused on Option 4. Mr. Malsberger explained that a cleanup level must be established in order to determine where to dig and how much to excavate. A cleanup level is a numeric concentration value for each contaminant at the site. These values are negotiated with the regulatory agencies and they are documented in the Record of Decision (ROD).

Once a cleanup level is derived, it is combined with the knowledge of the site to come up with a target volume (how much to excavate). If the knowledge is inadequate, additional sampling will take place.

Once the excavation has taken place, confirmation sampling is conducted. This confirms that the remaining soil contaminant concentration is below the cleanup levels. These are high quality laboratory samples. If the cleanup levels have not been obtained, additional excavation takes place along with additional confirmation sampling.

Field samples will be taken during the excavation to determine if cleanup levels are being reached. This is inexpensive and quick, thus keeping the cost down. (These samples will not be used for final confirmation.)

Once cleanup levels have been confirmed, the excavated contaminated soil will be hauled to the old landfill and consolidated into the foundation layer of the corrective action management unit (CAMU).

An assessment is required to determine what level of contaminated soil can be safely placed in the CAMU. Since the contaminated soil will be placed as a foundation layer of the cap, there will not be any direct exposure to people or animals. There is a potential that rainfall can cause the contaminants to leach out of the soil and migrate to the groundwater. Travis AFB has developed acceptance levels that are protective of the groundwater underneath the landfill. Currently, the acceptance levels are being reviewed by the regulatory agencies. Once approved, these acceptance levels will be included in the WABOU Soil ROD.

Soils that do not meet the acceptance levels may be treated so that they do meet the acceptance levels or hauled to an off-site state-approved landfill.

Mr. Child asked how contractors could get work on the above projects. Mr. Brickeen stated that the prime restoration contractors were contracted through the Air Force Center for Environmental Excellence (AFCEE). These contractors subcontract certain aspects of projects to local contractors. Anyone wishing such work can contact CH2M Hill, URS, IT or ECC, who currently have contracts with Travis for environmental cleanup. Additional information can also be obtained from AFCEE.

A question was asked if the CAMU is an underground-type storage or aboveground. Mr. Malsberger answered that it will be above ground.

A question was asked about what percentage of this total remediation effort is going to be place in the CAMU. Mr. Malsberger answered that Travis AFB has not received complete concurrence from the regulatory agencies. If the proposed levels are accepted, 95% or more will be consolidated into the CAMU.

A question was asked what level are the contaminants cleaned to. Mr. Malsberger stated that there are 30 to 40 different contaminants and each one has a different level.

A question was asked if Travis AFB is planning to install an impermeable net over the CAMU before placing the final cover. Mr. Malsberger stated that Travis AFB is currently designing the CAMU. Many options are being looked at including geomembrane and monolithic cap.

A question was asked if soil vapor extraction would be a feasible alternative. Mr. Malsberger stated that it wouldn't. Soil vapor extraction works well on volatile organic compounds (VOCs) but the contaminants at the soil sites are primarily non-VOCs. Also, it is anticipated that most of the soil sites will be within the acceptance levels and will be placed into the CAMU. The CAMU is being designed so that a leachate collection system is not necessary. There will be a minimum 5-foot separation from the water table. The acceptance levels are low enough that leaching would not migrate past the 5-foot separation.

A question was asked how many CAMUs would be on Travis AFB. Mr. Malsberger stated only one.

A question was asked how many landfills exist on Travis AFB. The answer was two.

Soil Cleanup Levels

Mr. Anderson explained how soil cleanup levels are calculated and how it is known that the cleanup levels are protective of human health and the environment. A fact sheet explaining soil cleanup levels will be prepared and distributed to the public once all parties have agreed on them.

A question was asked who has input in the cleanup level decision. Mr. Anderson answered that the Air Force, U.S. EPA, DTSC, and RWQCB are the major players in this decision.

Mr. Anderson explained that cleanup levels must be protective of human health, meaning it must reduce carcinogenic risk and non-carcinogenic risk to the environment and groundwater to acceptable levels.

Other considerations are land use. All WABOU sites will be protective of site workers. If there are a number of institutional controls existing at the site, cleanup levels may not be as stringent. Institutional controls are enforced in order to ensure that the land use remains the same.

Mr. Anderson explained the site-specific cleanup tables.

A question was asked if the contamination to the groundwater would be greater because of the soil cleanup levels being lowered. Mr. Anderson explained that if a soil cleanup level is lowered, it means that it is more stringent and more difficult to achieve.

A question was asked if this would still increase the contamination level in the groundwater. Mr. Brickeen explained that the soil cleanup levels that will be agreed on will be low enough that they will not cause any increase in groundwater contamination.

A question was about what is done when the water levels are very high. Mr. Anderson answered that field work is done in the dry season.

Pesticide Sites

Mr. Anderson explained that there are two pesticide sites in the WABOU. The sites have both soil and groundwater contamination, and the pesticides are long-lasting and not easily biodegradable.

The first site is Building 905, the Base Entomology Shop. Travis AFB currently has a groundwater extraction system in place at the site to clean up the contaminated groundwater. The contaminated soil will be addressed through excavation and placement in the CAMU.

The other pesticide site is Landfill #3, which is a series of trenches that were used to dispose of pesticide containers. The construction of the groundwater extraction system will take place late summer 2000. Soil that does not meet the soil acceptance level for the CAMU will be transported to an approved off-site landfill.

Petroleum Sites

Mr. Brickeen explained that sites ST009, ST021, and ST022 were only contaminated with petroleum. These sites are exempt from CERCLA. These Travis AFB petroleum sites receive oversight from the Regional Water Quality Control Board (RWQCB).

Mr. Wilford Day stated that these sites were for removal of and the clean up of soil around underground storage tanks (USTs). In the early 1980s, 23 USTs were identified that could immediately be removed. A contract to remove these tanks was awarded in 1986. These USTs were dug up, and typically cut up, and sold as scrap metal. Soils surrounding the USTs were excavated to a minimum depth of two feet and if the remaining soil was still contaminated, to a depth of four feet. One tank had to have the soil removed down to a depth of six feet. Ten of the USTs in ST009 that were not readily cleaned up and were adjacent to site ST028 have subsequently been transferred to site ST028. At the remaining USTs, the soil was found to be compliant with acceptance levels and the excavations were backfilled in with clean fill materials.

All of the contaminated soil was removed from Travis AFB to an approved landfill. The clean up action at all of the 13 USTs in site ST009 were clean and deemed to require no further action by the oversight agency

Mr. Day stated that two USTs were also removed from the Potrero Hills Annex in 1991. Because of the distance between these two USTs, these tanks became known as sites ST021 and ST022. A Travis program review revealed that there were no closure documents for the sites. Travis AFB submitted supporting data for tank closure to the RWQCB. The RWQCB reviewed the existing data and based on this data, agreed that no further action was required.

Contaminated Groundwater Plumes

Mr. Sandy stated that water treated at the South Base Groundwater Treatment Plant is pumped from sites SS030, a former solvent-cleaning operation; FT005, a former fire training area; and ST029, a former industrial operation. There are a number of extraction wells at these locations. Currently at FT005 there are three extraction wells located along the base boundary. The design effort has concluded that at least four additional extraction wells are required for full plume capture.

A question was asked if the installation of an extraction well increases the flow of the groundwater. Mr. Sandy stated yes.

A question was asked how many gallons per minute (gpm) do the extraction wells pump. Mr. Sandy answered typically between 5 and 20 gpm.

A question was asked if Travis AFB is reusing all the water on base. Mr. Sandy stated some water is discharged to the storm drains or to Union Creek.

A question was asked if the 1999 plume studies were confirmation studies using wells or was it mostly computer modeling. Mr. Sandy stated that 1997, 1998, and 1999 were all either from the installation of monitoring wells or CPT.

A question was asked if the plumes changed because of better methodology, or did the plumes move over time? Mr. Sandy stated that the data on the plumes were expanded and also the plumes may have migrated.

Mr. Brickeen explained that Travis AFB does not have a real estate agreement with the property owner to install the extraction and monitoring wells at the off-base portion of FT005.

A question was asked when the extraction system is installed will this cause the plume to not "grow" anymore. Mr. Sandy answered yes.

How far is the base boundary line to Highway 12? Mr. Sandy stated that it is half a mile from the base boundary at FT005 to Creed Road.

How fast does the groundwater flow in the area? Mr. Sandy stated 20 to 50 feet a year. It is variable, in that the subsurface conditions are not homogenous.

A question was asked, how deep are the aquifers and are there others. Mr. Sandy stated that it is about 25 to 27 feet at the fence line at SS030. The depth to water is typically 10 feet. However, moving south past the base boundary, it has been found that the bedrock drops off to approximately 80 feet or more.

The drinking water supply well at SS030 is tested annually, and has not shown any contamination.

How often are the monitoring wells tested and how deep are they? Mr. Sandy stated that the screened interval is approximately 10 to 15 feet on a normal monitoring well. On extraction wells it is 10 to 25 feet. A typical well is approximately 30 to 40 feet deep. Mr. Sandy stated that water levels are tested twice a year on 350 wells, and approximately 150 wells have an analytical done twice a year or more often if necessary.

WABOU Soil Record of Decision Progress

Mr. Anderson made available the WABOU Groundwater Interim Record of Decision (IROD) for those who may be interested. He explained that the document provides the legal authority to use funds for cleanup actions.

Mr. Anderson stated that Travis AFB is in the second revision of the draft WABOU Soil ROD.

Major Issues to be Resolved

Mr. Anderson stated that the following are the major issues still to be resolved:

- **Cleanup Levels** — This issue is still being worked. U.S. EPA has requested changes to the cleanup tables.
- **Ecological Issues** — A revised ecological section was submitted to U.S. EPA, who deemed it unacceptable. Travis AFB has requested the services of a Ph.D. risk assessor to respond to U.S. EPA's comments.
- **CAMU Acceptance Level** — It was agreed that the acceptance levels would be placed in the ROD.

Mr. Anderson stated that the Air Force will submit a second revision to the draft WABOU Soil ROD on 27 July 2000. It will address the revised cleanup levels, the CAMU acceptance levels, and the revised ecological discussion.

A question was asked, what are the concerns on the ecological approach. Mr. Anderson stated that the concerns involve verification that the cleanup levels are protective of the environment.

Ms. D'Lima asked if the duck pond has ever been cleaned. Mr. Anderson answered that the algae growth in the pond is removed periodically; however, it is not part of the CERCLA program.

Mr. Moseley commented on the delicate nature of the vernal pools and its exclusivity in Solano County.

A question was asked if the Ph.D who will respond to U.S. EPA's comment is a member of University of California, Davis, faculty. Mr. Anderson said he is an employee of the consulting firm that is supporting the actions at WABOU. Mr. Anderson commented that it is a legal requirement to protect all vernal pools in the area.

Minor Issues to be Resolved

- **Building 755 Sanitary Sewer System Technical Memorandum** — It focuses on the potential of the sanitary sewer system as a source of groundwater contamination. The issue has been resolved.
- **Groundwater Protection** — The draft technical memorandum will be submitted to the agencies on 4 August 2000. It will present the rationale that the cleanup levels are protective of groundwater.
- **Former Small Arms Range Remedial Action Plan** — The document will be used to determine the cleanup levels at this site.

Budget

Mr. Brickeen stated that there are 12 bases within Air Mobility Command (AMC) that share the command's environmental restoration budget.

Mr. Brickeen stated that Air Staff has decreased restoration funding for fiscal year (FY) 2001 and 2002 because of congressional budget reductions. Travis AFB will also face additional budget reductions in the future due to the recent addition of two AMC bases to the National Priorities List (NPL). As a result, Travis AFB's budget will be short approximately \$15 million during the next seven years.

Travis AFB requires \$3 million per year to operate its systems. There will be enough funds to operate the groundwater treatment systems already installed after 2004.

FY01 will address the groundwater actions and the WABOU soil work. FY02, FY03, and FY04 are uncertain.

AMC will request additional funds to cover the shortfall that exists. Travis AFB will look for ways to reduce its operation costs.

A question was asked what will happen if Travis AFB does not get the \$3 million to operate its systems. Mr. Brickeen said the base will have to become creative in how to operate within its funding parameters.

Regulatory Agencies Report

Ms. Claudia Villacorta commented that she and Ms. Sarah Raker have replaced Mr. Brad Job as the water board project managers. Ms. Villacorta will work on NEWIOU projects and Ms. Raker will handle the WABOU.

Mr. Jose Salcedo introduced Patricia Ryan. Ms. Ryan is the public participation specialist for the Department of Toxic Substances Control. Ms. Ryan said that she would be participating in the community interviews being conducted to the revise Community Relations Plan.

A question was asked how the interviews were going to be conducted. Ms. Ryan said the interviews will be conducted in accordance with regulatory agency guidance. Members of the community are interviewed to assess their knowledge of the restoration program and to identify additional steps that can be taken to improve community outreach.

Focus Group Reports

Mr. Jackson asked the new RAB members to remain after the meeting so photos could be taken for the Travis AFB Environmental Cleanup Web site.

Mr. Brickeen stated that he would schedule a meeting with the budget focus group prior to the next RAB meeting.

RAB/Public Questions

There were no public or RAB questions.

Set date and place for next RAB meeting

The next RAB meeting will be 19 October 2000 at the Fairfield Senior Center.