

**Meeting Minutes
Travis Air Force Base
Environmental Restoration Program
Restoration Advisory Board (RAB) Meeting
28 October 2004**

RAB members present:

NAME	AFFILIATION	PRESENT
Col Scott Hanson	Travis Air Force Base (AFB), RAB co-chair	
Whalen, Jim N.	Mayor Augustine's Office in Vacaville/RAB Community co-chair	
Curtis, Richard	Northern Solano Board of Realtors	
Foster, John	Northern Solano County Association of Realtors	✓
Friedman, Alan	SF Bay Regional Water Quality Control Board (Water Board)	✓
Kanouff, David F.	National Association of Retired Federal Employees	
Lucey, John	U.S. Environmental Protection Agency (U.S. EPA)	
Marianno, David	Suisun City Resident	✓
Moriarty, Eamon	Goodrich Corporation	✓
Morad, Cyrus	Fairfield Resident	
Reagan, Mike	Travis Regional Armed Forces Committee	
Root, Rev. David	Crosswinds Church	
Rundlett, John	Suisun City Council	
Salcedo, Jose	Department of Toxic Substances Control (DTSC)	✓
Taylor, William W.	Travis Unified School District	✓
Tolentino, Ron	Solano Garbage Company	
Velez, Phil	Travis Regional Armed Forces Committee	

Public Members present: Glenn Tapio, Angel Santiago

Agencies and Contractors present:

- Lt Col Richard Houghton Travis AFB
- Mark Smith Travis AFB
- Troy Martinson Travis AFB
- Glenn Anderson Travis AFB
- Wilford Day Travis AFB
- Dale Malsberger Travis AFB
- Linda Weese Travis AFB
- Tom Sreenivasan Travis AFB

- Steve Stopher Travis AFB
- Gregory Parrott Travis AFB
- James McGuire Travis AFB
- Kristine Escarda DTSC
- Elizabeth Allen TechLaw
- Eric Rixen Shaw
- Dennis Robinson Shaw
- Mike Wray CH2M Hill
- Monique Meyer EarthTech
- Allen Brickeen Ellis Environmental
- Nick Sjaarda Jacobs

WELCOME, INTRODUCTIONS, AND ANNOUNCEMENTS

Mr. Mark Smith welcomed the attendees.

Mr. Smith introduced Mr. Glenn Tapio and Mr. Allen Brickeen who are past managers of the Travis AFB Environmental Restoration Program.

APPROVAL OF MINUTES

The July 2004 Restoration Advisory Board (RAB) meeting minutes were approved and finalized.

Additional Agenda Items, Comments, and Questions

None.

DISCUSSION TOPICS

NEWIOU Soil ROD Status

Mr. Malsberger gave an update on the North, East, West Industrial Operable Unit (NEWIOU) Soil Record of Decision (ROD).

The key steps remaining are the Human Health Tech Memorandum and the Ecological Tech Memorandum. Once these documents are complete, Travis AFB will be able to issue the Draft Record of Decision.

Human Health Technical Memorandum – the Human Health Technical Memorandum addresses human health concerns with regard to contamination in soil, sediment, and surface water in the NEWIOU. This document was developed from previous presentations during the Remedial Project Managers (RPMs) meeting. This document includes agency input and agreement on preliminary cleanup actions and levels. The final was issued on October 5, 2004.

Ecological Protection Technical Memorandum – the Air Force issued the draft Ecological Protection Technical Memorandum on 15 September 2003. The sample results from Union Creek were received and the Air Force is revising the ecological risk assessment based on this data.

The revised draft Ecological Protection Technical Memorandum will also include the selected remedy and supporting rationale for each of the 18 sites. This document is scheduled to be submitted to the agencies on 12 November 2004.

Draft Record of Decision – the Air Force has developed a working copy of the ROD for review by the Air Force (Air Mobility Command and Air Staff).

The draft ROD is scheduled to be submitted to the regulatory agencies and the RAB on 3 December 2004 or after the review by the Air Force.

Mr. Taylor asked how far up the chain-of-command does the NEWIOU Soil ROD review go. Mr. Malsberger stated it goes up to Air Force Headquarters.

Indoor Air Quality

Mr. Smith gave a presentation on indoor air quality (IAQ).

Mr. Smith stated that IAQ has become a topic of discussion and concern all over the country. IAQ is affected by materials stored or used in the building, carbon dioxide or carbon monoxide buildup, or chemicals that enter the building from outside.

IAQ starts with a comparison between the air inside of a building and the air outside the building. If the outside air is safe to breathe, when it comes inside a building, and nothing is done to contaminate the air, then a good level of indoor air quality will be maintained.

IAQ can be affected by stored chemicals, cleaners, faulty heaters, and/or inadequate ventilation.

IAQ is also affected by chemicals that blow in through the ventilation system or that come up through the ground. Radon gas can also be an IAQ issue, but Travis AFB has been tested for radon gas and has been found to be a low risk base for radon exposure. Volatile organic compounds (VOCs), such as those found in Travis AFB's contaminated groundwater, do volatilize or "evaporate", and work their way up through the soil and out of the ground. They come out of the ground and into the air, or work their way into a building through cracks in the floor and walls. This is known as **vapor intrusion**. A conceptual diagram of vapor intrusion into an overlying building was shown. Maps of Travis AFB groundwater sites were shown as well as the buildings that are located above these contaminated groundwater sites. Travis AFB has 72 facilities that are either over or partially over existing groundwater sites.

In 1998, an outside organization, the Agency for Toxic Substances and Disease Registry (ATSDR) completed a study looking for indoor air quality that exceeded Occupational Safety and Health Association (OSHA) standards, specifically related to the types of contaminants found in Travis AFB groundwater plumes. The purpose of this study was to find out if people were being exposed to hazardous substances and, if so, whether the exposure was harmful and should be stopped or reduced.

According to the ATSDR report, sampling and analyses of indoor air conducted in May 1998 indicated that there are no chemicals of concern related to Travis AFB groundwater plumes

in Buildings 810, 844, and 845 that exceeded OSHA standards. The conclusion is that indoor air in these buildings presented no apparent public health hazard.

Travis AFB Restoration Branch protects IAQ by recommending vapor intrusion protection on new construction over groundwater sites.

Travis AFB will continue to operate pump-and-treat systems, reducing source contamination and the potential for groundwater sites to be a contributing factor in vapor intrusion.

Mr. John Foster asked if air quality testing will take place in the future. Mr. Smith stated that he is unsure; a logical assumption is that if Travis AFB met OSHA requirements before and the quantity of contamination in the groundwater is being reduced by pump-and-treat, Travis AFB groundwater plumes would not be a source of indoor air problems and no further testing would be necessary. Mr. Smith did mention that the Bio-Environmental Flight at Travis has recently purchased new equipment that would allow for simple yet precise testing of indoor air quality. Mr. Smith agreed to discuss the possibility of future testing with them.

Mr. William Taylor commented that the schools indoor issues are more related to water leakage and mold. They are constantly dealing with mold and leaking roof issues, which is different from indoor air concerns related to contaminated groundwater and chemicals in the soil. Mr. Smith stated that he has heard about mold issues in the schools but did not know of any mold issues at Travis. He only wished to discuss the potential indoor air issues relating to restoration sites.

Mosquito Abatement

Mr. Bob Holmes gave a presentation on mosquito abatement efforts at Travis as a result of questions raised at the previous RAB meeting regarding concerns over West Nile virus and if there is any standing water on Travis.

Mr. Holmes stated that Travis AFB does not have an extremely robust program for mosquito abatement; however, Travis AFB does monitor for mosquitoes and does work very closely with Solano County.

There is approximately 3 miles of stagnant water in Union Creek and 3 permanent bodies that are unrelated to Union Creek. In total, Travis AFB has 7 acres of standing water.

Civil Engineering manages the landscape of Travis and removes sources of standing water where possible from creeks and ponds. Union Creek, on Travis, is monitored for mosquito predators (mosquito fish), which are stocked in all of Travis AFB's ponds.

Travis AFB works with Solano County Mosquito Abatement District (SCMAD) (who actually monitors mosquito populations), when requested and on a cyclical schedule. Periodically SCMAD publishes flyers that give information on mosquito abatement. Approximately two months ago the SCMAD published a flyer that provided information on the West Nile Virus.

SCMAD provides services to the public to assist in controlling mosquitoes upon request.

CLEANUP PROGRAM STATUS REPORT

LF007C Groundwater Action

Mr. Malsberger gave a presentation on LF007C groundwater action.

LF007C is a groundwater plume with trichloroethene (TCE) contamination that stretches across the north base boundary. In 2002, Travis AFB installed 2 extraction wells and 3 monitoring wells on-base. In 2003, 2 monitoring wells were installed off-base. In 2004, the project was completed by the installation of solar powered extraction pumps in the 2 existing extraction wells, running a pipeline to the North Groundwater Treatment Plant, and turning the system over to the treatment plant operator.

Mr. Malsberger explained the following reasons for using solar powered extraction wells:

- suitable for low yield wells;
- avoids problems of power to a remote location; and
- cost effectiveness – free power.

Travis AFB will continue to pump during the dry season, periodically sample the 6 monitoring wells, evaluate performance of the extraction system, and determine when cleanup is complete.

Travis AFB has now completed the construction of the groundwater cleanup systems for all 3 off base plumes.

Mr. Moriarty asked why it took two years to start pumping out of the extraction wells. Mr. Malsberger stated that although the wells were installed in 2002, the pumps were not installed until 2004 due to a delay in getting the funding and design. Mr. Smith stated that funding was received late 2003; however, it was a judgment call to postpone the project until after the rainy season.

Mr. Moriarty asked if the Air Force noticed any change in the size of the plume. Mr. Malsberger stated that results from the samples have not been received. Mr. Sreenivasan stated that the GSAP results will be provided at the next RAB meeting (January 2005).

Mr. Moriarty asked if the water level is being monitored quarterly. Mr. Sreenivasan stated that the water level is monitored bi-annually and annually. Mr. Smith commented that 3 to 4 gallons per minute will not impact the groundwater level.

Mr. Foster complimented the presentation, stating that it was “excellent”. Mr. Foster asked if there is any maintenance required for the solar panels. Mr. Malsberger stated that the phytoremediation study area has a solar panel associated with its data collection system. This system has not required maintenance or cleaning; however, both systems will be monitored.

Mr. William Taylor asked if there is a potential for problems with the two pumps running or commingling with each other – is there a check valve. Mr. Malsberger stated that there is a check valve at each of the pumps.

Mr. Taylor asked for the depth of the wells and the depth of the groundwater plume. Mr. Malsberger stated that the wells are approximately 50 feet, and the groundwater plume is approximately 22-24 feet deep. The plume is isolated and does not mix in with other Travis AFB's plumes. The main focus was to address the off-base plume, by pulling the plume back onto the base.

Mr. Taylor praised the Air Force on a "very economical and innovative solution". Mr. Smith stated that Mr. Eric Rixen of Shaw Environmental and Infrastructure, was instrumental in making the idea a reality.

Sound Wall Construction

Mr. Sreenivasan gave a presentation on sound wall construction.

Mr. Sreenivasan explained that the sound walls are necessary for Travis AFB for the following reasons:

- to reduce the noise levels from the groundwater treatment plant's equipment;
- to minimize the exposure of groundwater treatment plant equipments to adverse weather conditions; and
- to protect our environmental cleanup investment.

The sound walls are located at the Central Groundwater Treatment Plant and the West Transfer and Treatment Plant. The walls features ribbed concrete masonry blocks and the color, texture, and architectural style as prescribed in the Travis AFB Architectural Guide. Photographs of the sound wall were shown.

Mr. Marianno asked why a sound wall was not built around South Base Groundwater Treatment Plant (SBBGWTP). He commented that the sound wall will not protect equipment. Mr. Sreenivasan stated that the primary reason for the sound wall is to protect the personnel in the heavily populated areas and SBBGWTP is located in a remote area of the base with minimum personnel movement.

Mr. Foster commented that the sound wall appears to be a cosmetic improvement. Was any thought given to the security issue; since the plants are hidden behind a block wall. Mr. Smith stated that security was not a consideration.

Mr. Tapio commented that the groundwater treatment plants are considered relatively low threat area, because it is not considered essential. If a threat assessment was conducted on the groundwater treatment plants, it would be considered extremely low.

Mr. Moriarty asked what the noise level is. Mr. Sreenivasan stated that it is approximately 100 decibels, and with the sound wall there will be approximately a 30% reduction in noise level.

REGULATORY AGENCY REPORT

Mr. Friedman commented that he is glad for the opportunity to learn of what is happening on Travis AFB. He has toured the various remediation sites along with being supplied many documents.

FOCUS GROUP REPORTS.

None.

Mr. Smith stated that Mr. Whalen brought up a question at the last RAB meeting in regards to the fuel line that runs along the tracks through the Marsh between Martinez and Travis AFB. There is a rail car containing phosphorous that is buried near Travis AFB's fuel line. Mr. Smith stated that a telephone conference was held between Mr. Whalen, the restoration staff and the Solano County Environmental Office. Mr. Whalen's concerns were alleviated when he learned that the new fuel line is going in along the power line easement, replacing the existing fuel line, and will not be located anywhere near the buried rail car.

RAB/PUBLIC QUESTIONS

Mr. Moriarty asked if Travis AFB's personnel have observed any salmon or steelhead in Union Creek. Mr. Stopher stated that he has not observed any salmon; however he spotted a large-mouth bass last year.

Mr. John Foster complimented Mrs. Carolyn Johnson on her high level of professionalism in taking the minutes.

NEXT MEETING

The next RAB meeting will be held at the Northern Solano County Association of Realtors Office, Fairfield, California on 27 January 2005. The restoration staff will be available for discussions beginning at 6:30 p.m. and the meeting will begin at 7:00 p.m.