

**MEETING SUMMARY
 FORMER WALKER AIR FORCE BASE (WAFB)
 ROSWELL INDUSTRIAL AIR CENTER (RIAC)
 RESTORATION ADVISORY BOARD (RAB)
 17 OCTOBER 2001**

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| <p>RAB Members Present: Richard Cervantes Ron Courts Kay Havenor Kerry Hunter David Henry Ethel Logan Mary Kay Samples Julie Jacobs Eva Gomez</p> <p>Facilitator: Sandra Chaloux</p> <p>RAB Members Absent: Kathleen Aisling Leroy Lang Raymond Prescott Dick Smith</p> <p>Guests Present: Mike Abate John Forslund Debra Olivas Carrol McKinney Monique Mirabel-Ostermann Esther Rullan Effie Levario Joann Gooding Darlene Carnell Lawla Dawson Joan Bledget Sabrina Sanders Morgan Nelson Cande Savallano Georganna Murphy Jessica Montoya Melanie Estrada Mike R. Abate Cippy Villa Freda Villa</p> | <p>Affiliation: ENMU – Roswell City of Roswell Local Geologist, Community Co-Chair Citizen USACE, Project Manager Citizen, Y-O Acres Citizen, Latimer Subdivision NM Environmental Department Citizen</p> <p>CEC, Inc. – RAB support Contractor</p> <p>EPA NM Farm Bureau Citizen Citizen</p> <p>Affiliation: USACE, Tulsa District USACE, Tulsa District Citizen USACE, Albuquerque District USACE, Albuquerque District ENMU-R USACE-Tulsa Citizen Citizen</p> |
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Meeting Summary Review

- Kay Havenor announced his ENMR-Roswell geology class was attending the RAB meeting. Sandra Chaloux reviewed the minutes from the July 17th RAB meeting and there were no changes noted.

Project Updates

- Kay Havenor introduced the general concepts of groundwater and hydrogeology including terminology. He gave an introduction and history of the Roswell groundwater basin. Kay said that he feels people need to be more knowledgeable about how the groundwater basin works before trying to correct environmental problems, etc. He presented a graphic showing the various aspects of hydrogeology. He also discussed the characteristics of groundwater and how it behaves. Water runs down hill under the influence of gravity – above ground and below ground. Groundwater can move a few inches per day up to a few feet per day. He then showed the different types of aquifers such as unconfined and confined aquifers. Where groundwater meets the surface you have springs. The major escape point for water in the Roswell Groundwater basin is thought to be Major Johnson's Spring near Carlsbad. Kay has done some research that shows some faults in the Roswell Groundwater basin. Faults often control the movement of the groundwater. What we have at the Roswell Industrial Air Center is contamination that has moved east and to the southeast. He showed the location of the 6-mile hill fault and Y-O fault on a map. He gave a run down on the history of geology in the area. Through Kay's research he has identified 7 aquifers in the area from data collected from about 300 wells. He showed the location of the aquifers in the area. He told the meeting participants that different aquifers respond differently to treatments and pumping. He showed the distribution of the three artesian aquifer zones. Wells in the deep aquifer (artesian) can be between 100 to 1,000 feet deep. He stressed the importance of being knowledgeable about the local geology.
- David Henry gave a brief history of the project. The Corps is working under the FUDS (Formerly Used Defense Sites) program at Walker AFB. In 1967, the Base was closed and the Base property was deeded to the City of Roswell. In 1991, NMED found TCE in the groundwater at the former base. In 1994, the Corps hired a consulting firm to do a Remedial Investigation to determine the vertical and lateral extent of contamination. In 1996, the Corps conducted another investigation involving 11-12 underground and above ground storage tank sites. This report concluded that no other contaminants were detected that required further action except TCE. In 1997, the Corps' consultant came out again and conducted a Phase 2 investigation and a risk assessment. The Phase 2 remedial investigation report concluded that there was a minimal risk to human health. However, since TCE had been found in the groundwater above the Maximum Contamination Level (MCL) set by EPA at 5 ppb, the groundwater should not be used for human consumption until TCE concentrations are below the MCL.
- A meeting participant asked about the health effects of TCE. David said he did not know. Sandra told meeting participants about the Agency for Toxic Substance Disease Registry. On their Web site you can enter the name of a chemical and it will list the health effects. Kay Havenor mentioned that 5 micrograms per liter is the

same as 5 parts per billion. David said that based on the geological features of the area, he believes that TCE is retained in clay layers. In addition, fluctuation in groundwater gradient caused by irrigation, make it difficult to determine TCE migration in groundwater . When irrigation starts, the groundwater shifts in direction up to 90 degrees, from the east to the north. As of yet, we have not been able to determine the source of the contamination.

- David gave an update about increasing the pumping rate of the wells. The city of Roswell determined that the wells could be pumped harder and more water could be put into the wastewater treatment center, but the Corps determined that the wells do not have the capacity for increased pumping. After research and further discussion with the Tulsa District, the Corps has decided to reevaluate the pumping system. David said he'd have some information for the RAB by the next RAB meeting. Ethel Logan requested that a representative from Adkins Engineering attend the next RAB meeting to discuss the quarterly sampling results. David said he would see if he could get a representative from the company to attend the next meeting.
- David said that the project is in the Remedial Investigation phase. The Feasibility Study would look at which cleanup method will work best for the site. A guest pointed out that the Corps has been investigating for 10 years and it looks like there has been a lot of talk and no action. David said that the Feasibility Study should take two years to complete and then the cleanup solution may be put into place, depending on the outcome of the study. There are several options including pump and treat, air sparging, enhanced bioremediation or natural attenuation. David explained the Comprehensive Environmental Response Compensation & Liability Act (CERCLA) process that requires all of the steps the Corps is taking. Sandra also explained that the CERCLA process (that was established by EPA) is very thorough but does take time to complete. Not knowing the source of the TCE makes the project complicated along with the fact that the cleanup efforts are contingent on available funding. The FUDS program has not been well funded in the past and therefore many of these sites compete for funding.
- Julie Jacobs (NMED) mentioned that the pump and treat system that has been in place has not been working very well and needs to be reevaluated.
- The Corps has also been working at an underground storage tank site (Pump House 7) where they found a well with pure petroleum (free-product). The Corps has installed an extraction well, but have not installed the pump yet. Once we begin extracting the free-product, we will report the results to NMED-USTB.
- The Corps will look at a site on Earl Cummings Loop where there is a depression in the road. The City Engineer asked if the Corps could investigate it. The Corps is considering drilling borings and collecting soil samples in the area.
- The Corps needs to do a follow-up review of a housing area mercury site that was a rapid response incident several years ago. The Corps needs to find out what happened there with help from the State of New Mexico.

- Following up on a lead given at a prior RAB meeting. The Corps investigated some drain lines for TCE. The Corps conducted a soil gas survey down to about 15 feet and found about 1,400 ppb of TCE. This is significantly higher than what has found in the past.
- David told the group that quite a bit of work is going on at the site in addition to the TCE work. People in Y-O Acres are on City Water and are not drinking the contaminated groundwater. A meeting attendee asked if the TCE is affecting the plants. David said he is uncertain; he said that the affected groundwater was 100 feet deep so he doubted it.
- Julie Jacobs told a meeting participant that NMED would come out and sample a residential well for a nearby resident. Julie told the audience that 4-5 of the monitoring wells have been clean (below a regulatory standard) for at least 2 years. The Corps proposed to the State in a letter to stop monitoring these wells. Julie said she wanted to review the last two quarters of data and will try to give consent to the Corps before the next round of sampling in December. A meeting participant asked how long it takes for the State's sampling results. She said 1-2 months.
- Ethel Logan gave the RAB an update on the conference she attended in Seattle sponsored by the Center for Environmental Public Oversight. She said it was different from the one Kay attended. Twenty-six people attended of which 9 were RAB members. There was a toxicologist from Maryland as well as representatives from DoD, Bureau of Land Management, etc. She said, "People meeting like this gets the job done". A RAB member asked why she was invited to the meeting. She said the sponsors regard the Walker RAB as an example of a good RAB. She said several other RABs are also trying to get on the Web.

New Business

- Sandra presented the draft project Web site to the RAB. The RAB members said they thought the Web site looked good. A RAB member asked about getting links set up with other area organizations. Sandra said that she would look into it once the site was completed and published on-line.
- A local farmer said he recommended that the affected groundwater be pumped out and used by local farmers through sprinkler systems instead of sent to the wastewater treatment system.

Next Meeting

- The next meeting will be on January 17, 2002, at ENMU in the Campus Union Building, Room 110 (the multipurpose room). Agenda items include:
 - Corps Progress Report
 - Project Web Site

Action Items

- Prepare Site Map handout for RAB (David Henry).