McClellan Environmental

August 2004

Environmental Action Update

A Quarterly Newsletter About Environmental Activites at McClellan

Newsletter

Air Force Expands Groundwater Treatment System

The Air Force is on track to reach a major milestone late this fall in its efforts to contain and clean up the groundwater at the former McClellan Air Force Base. Workers are currently completing the installation of six new groundwater extraction wells. This is part of the Phase III Groundwater Expansion program.

"Phase III is the final stage in our efforts to completely capture and contain the groundwater that is contaminated with volatile organic compounds," said Diane Kiyota, McClellan's groundwater program manager. "We strategically place extraction wells around the base to act as a barrier, keeping the contamination from moving off base, as well as pulling contamination back that has moved outside the base property boundaries."

The Air Force currently has about 58 extraction wells in continuous operation. The water is pumped and transported through above and below ground pipelines to a groundwater treatment plant. This system treats about 1,100 gallons of water per minute. Water is cleaned to levels better than drinking water standards. Clean water is then released into Magpie Creek and Beaver Pond, on the west part of the former base.

Contractors dig trenches for conveyence pipelines for new extraction wells.

The groundwater treatment network also includes more than 500 monitoring wells. Monitoring wells are used for sampling the groundwater to determine the locations and levels of contamination, as well as to monitor cleanup progress.

Phase III is being implemented in two efforts: off-base and on-base. Six "off-base" wells are focused on contamination that has already moved outside the base boundaries. These wells are currently being installed. The "on-base" wells are designed to completely contain contamination within the base boundaries. The Air Force expects to install about 46 "on-

Continued on page 2

Inside this issue...

Continued from page 1

base" groundwater extraction wells by the end of 2005.

"So far things are going great," Kiyota said. "We set a relatively aggressive schedule and are right on track to complete construction on time."

The first two phases of the groundwater expansion were completed in 1995 and 1999. Phase III expansion carries out agreements made between the Air Force and regulatory agencies, which are explained in the *Basewide Groundwater Interim Record of Decision* (IROD).

Phase III began in 2002 with workplans, sampling and analysis plans, designs, regulatory agency review and data gap investigation. Data gaps are areas where the Air Force needs more sampling data to determine the extent of contamination. This is accomplished by installing more groundwater monitoring wells.

"We just finished installing the off-base wells, and are digging the trenches for the pipeline. We are working closely with state and federal regulatory agencies to have these six new wells up and running in December," Kiyota said. "We've also just finished up the preliminary design for the on-base portion and plan to be out in the field this winter to drill the wells."

Workers drill an extraction well on McClellan as part of the Phase III Groundwater Expansion program.

When the Phase III expansion is complete, the groundwater treatment system at McClellan will consist of more than 100 extraction wells and be able to treat 2,000 gallons of water per minute.

CS10 Soil Removal

The Air Force will soon remove part of the excavated soil that remains staged in the Confirmed Site (CS) 10 weatherization tent at the former McClellan Air Force Base.

Excavation of the soil at CS 10 began in January 2002 and was completed in September 2003. A total of about 52,000 cubic yards of soil at CS 10 were excavated. About 28,000 cubic yards of soil have been removed from the site and disposed of at licensed facilities in Idaho and Utah.

CS10 REPAIRS: Air Force contractors are in the process of replacing the portion of the southern end of the weatherization tent that was damaged during an intense February 2004 storm. Portions of the aluminum frame and fabric are being replaced. Clean soil is being brought in to level the area to help prevent future wind damage. The damage had no impact on the contaminated soil staged in the tent. Monitoring showed the public was not exposed to the contaminants.

The CS 10 disposal pit exceeded the original estimate of 33,000 cubic yards. The Air Force stopped disposing of the soil in November 2002 and began to stage the remainder of the soil inside the tent, awaiting additional funds to remove the soil.

The Air Force has recently received funding to pay for disposal of the 192 cubic yards of soil that remain staged in the tent. The Air Force anticipates that they will begin to remove the soil in September 2004.

"We will be removing the last of the soil that is contaminated with fission products, which in this case is cesium," said Dave Green, the radiological program manager at McClellan. "The rest of the soil that remains in staging piles inside the tent is contaminated with radium and metals, such as lead, cadmium and chromium."

The soil will be transported by truck, using the standard procedures that have been used for removing soil from CS 10. Soil will be loaded into a bin at CS 10 and transported to the soil staging area. Soil samples will be analyzed in a certified lab, which takes 30 to 60 days. The results of the samples characterize the waste and verify the level of contamination prior to shipment. Then the bins will be trucked, using an approved transportation plan, to a licensed hazardous waste disposal facility in Utah.

Low-flow pumps improve groundwater sampling

Cleaning up contamination takes time and costs money. One of the biggest priorities for Air Force project managers is finding ways to achieve cleanup cheaper, faster and better. This includes keeping up with the newest technology.

The Air Force is currently taking steps to improve its groundwater sampling program, saving valuable time and money.

McClellan has a vast groundwater monitoring and treatment system that includes more than 500 monitoring wells located on and off the former McClellan base boundaries. Collecting periodic water samples from these wells helps the Air Force determine the location and extent of the contamination in the groundwater, as well as the effectiveness of the treatment system.

In January, workers began installing low-flow pumps into the monitoring wells. These pumps will be used to collect samples. Pumps will replace the currently used and less efficient "purge-and-bail" method. The low-flow pumps consist of a Teflon balloon inside a tube about 2 inches in diameter. The balloon fills with groundwater. To take a sample from that well, compressed gas is forced down a plastic tube, which in turn brings water up to a valve at the ground surface. Samples are sent to laboratories for analysis.

Jeff Nelson, an environmental technician, lowers a low-flow pump into a monitoring well at McClellan.

Diane Kiyota, the Air Force groundwater program manager at McClellan, said that these low-flow pumps are already saving the Air Force money. She expects the cost-savings to continue.

"We conduct sampling of various wells on a quarterly basis. During the most recent round of sampling alone, we saved about $12,000. I expect that in 2005, we will save more than $88,000," Kiyota said.

Kiyota said the major reason for the cost-savings is from labor. Sampling low-flow pumps is quicker.

Dale Anderson of URS Corp. oversees the sampling process. He said that the low-flow pumps replaced the more time-consuming sampling method called "purge and bail." Purge-and-bail is a traditional sampling method that involves removing large volumes of water from the wells before a sample can be collected. A submersible pump is lowered into a well and pumps out the volume of water that has filled the well. Then a sample is collected from the well.

"Sometimes we have removed between 100 and 600 gallons of well water. Then we have to haul that water across the base to the treatment plant. That takes a lot of time," Anderson explained. "Plus, sometimes we pump a well dry, which adds to the problem because if the well doesn't refill quickly, we need to come back later to collect the sample."

Anderson said that using the purge-and-bail method four people could sample about seven wells a day. Using the low-flow pumps, two people can sample at least ten wells a day.

The low-flow pumps also need much less maintenance. Anderson said the low-flow pumps are very durable and the only other equipment needed is the compressed gas, which is relatively cheap.

In addition to saving time and money, the low-flow pumps are practical for McClellan. The Air Force has recently begun testing for other potential contaminants such as 1,4-dioxane, hexavalent chromium, other metals, radionuclides and perchlorates.

Unlike some equipment, low-flow pumps allow samples to be collected for any type of chemical analysis.

By the end of the year, the Air Force will have installed about 450 low-flow pumps in monitoring wells.

"We think these low-flow pumps are a dream to work with. I have the highest confidence in the quality of the samples and they save us a lot of time," Anderson said.

Water Well Prohibition Areas

Do you live or work in the prohibition area (check the map below)? Permits are required before digging, repairing, or modifying wells. In most cases, new wells are not allowed. Abandoned wells must be destroyed.

City of Sacramento

Code 13.04.680 is on the City's website at

www.cityofsacramento.org/clerk/General/codes.htm

- Digging or drilling new water wells is **PROHIBITED**.
- Existing wells need to be either:
  1. Abandoned (following County regulations), or
  2. Disconnected from buildings so they are not used for domestic purposes (install backflow prevention devices).

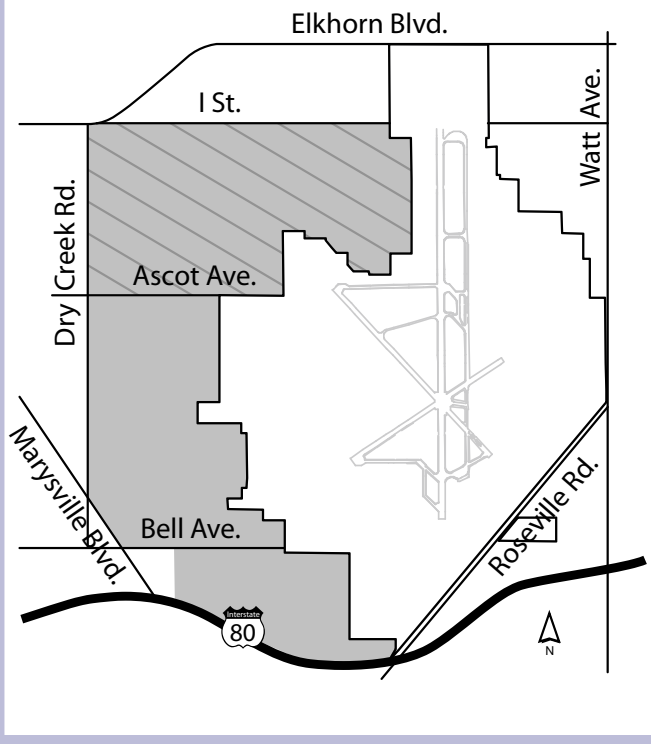
Sacramento County

Codes 6.28.025. 6.28.020, and 6.28.030 are on the County's website at

http://municipalcodes.lexisnexis.com/codes/sacramento_co/

- Digging or drilling new water wells is **PROHIBITED**.
- A County permit is required before constructing, modifying, repairing, inactivating or destroying any well or well pump.

It is unlawful for the property owner to allow a nuisance or abandoned well to exist on the property.



Paul Brunner, McClellan environmental coordinator, talks to members of the community at the public meeting.

The Air Force held a public meeting on July 21 to solicit community feedback on the Groundwater VOC (Volatile Organic Compound) Proposed Plan. During the meeting, held at the Sacramento Regional Public Safety Training Center on McClellan, the Air Force explained the Proposed Plan and presented the alternative the Air Force prefers for cleanup of VOCs in the groundwater at McClellan. Members of the public had an opportunity to ask questions about the alternatives presented during the meeting. At the end of the meeting, community members were provided an opportunity to provide official comments on the Proposed Plan and the cleanup options presented. Members of the community could also provide written or email comments on the Proposed Plan throughout the comment period, which ended on Aug. 4. In all, the Air Force received 13 comments from the community. The Air Force and regulatory agencies will consider these comments during the final decision-making process. The Air Force will also formally respond to each of the comments in the Responsiveness Summary portion of the Groundwater VOC Record of Decision, which is scheduled to be completed in Spring of 2005.

Air Force to transfer nearly 97 acres to local community

Air Force officials recently signed a Finding of Suitability to Transfer (FOST) that clears the way for the local community to acquire 96.62 acres of land at the former McClellan Air Force Base.

A FOST describes the environmental conditions and any restrictions that go into the deed transfer. The document is required before the Department of Defense can transfer any McClellan property. The actual transfer is expected to be completed by early August.

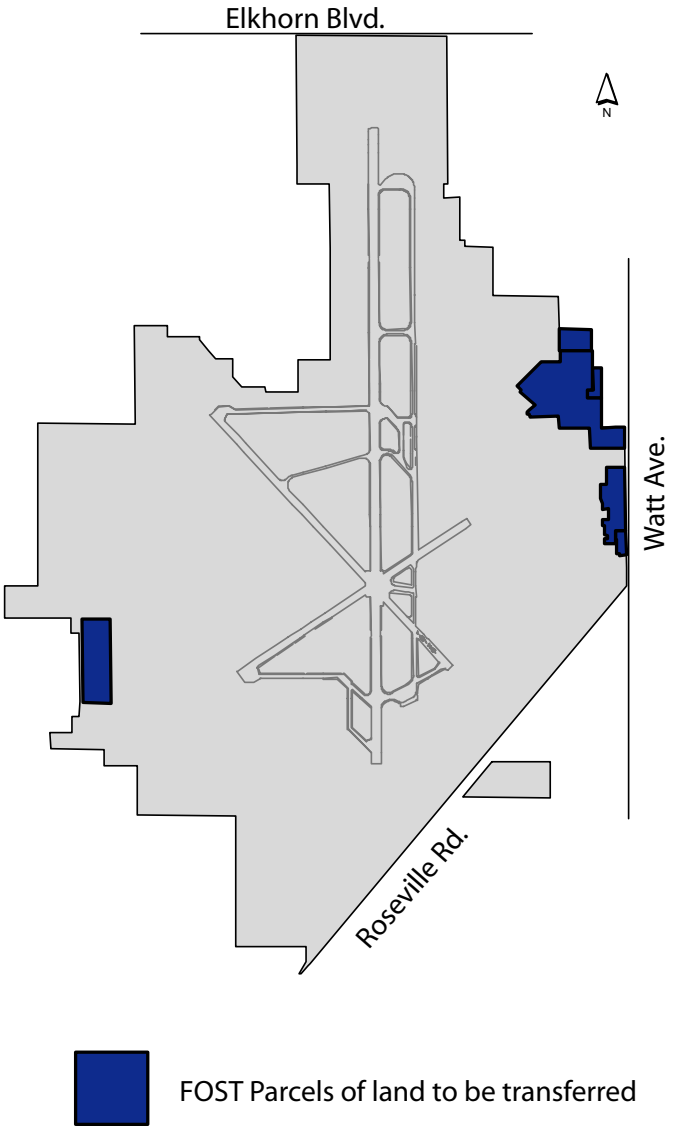
The FOST involves six parcels of land on the east and west sides of the former base. In addition to land, the parcels include basketball and tennis courts, the former family lodging facility, residential and chapel facilities, a hotel, a restaurant and warehouse facilities.

According to Paul Brunner, McClellan's Base Realignment and Closure (BRAC) Environmental Coordinator, "The FOST's signing is great news. This property is clean; so it's prime real estate for reuse by Sacramento County and its developer, McClellan Park. We're making progress in getting reusable property to the County quickly."

Paul Hahn, Director of Economic Development for Sacramento County said, "This transfer marks the beginning of a new era at McClellan. As the Air Force and County work together to expedite and privatize environmental cleanup, the transfer of property will attract more businesses and employers."

Approximately 78% of McClellan's 2,856 acres are being reused, including 275 acres that were previously deeded to Sacramento County. Once transfer paperwork is complete, 93.77 acres will be transferred to Sacramento County and 2.85 acres will go to the Rio Linda Union School District.

The Air Force conducted an extensive review of the environmental condition of the property. Federal and state environmental regulatory agencies were involved in the entire process.



McClellan Environmental Cleanup Scoreboard

As of July 1, 2004:

1,259,692

Pounds of volatile organic compound contamination removed from soil and groundwater.

AFRPA/DD
3411 Olson Street
McClellan, CA 95652

For more information about McClellan's Installation Restoration Program, please call:

Brian Sytsma
AFRPA,
Community Relations
(916) 643-1250 Ext. 257
brian.sytsma@afrpa.pentagon.af.mil

Kris Escarda
Cal-EPA/DTSC,
Public Participation Specialist
(916) 255-6683
kescarda@dtsc.ca.gov

Viola Cooper
U.S. EPA,
Community Involvement Coordinator
(415) 972-3243
(800) 231-3075
cooper.viola@epa.gov

www.afrpa.hq.af.mil/mcclellan

Have an Influence on Decisions regarding Environmental Cleanup at and around the former McClellan Air Force Base

The Air Force is seeking members of the community surrounding McClellan to join the McClellan Restoration Advisory Board (RAB). The RAB is an advisory group comprised of community members, regulatory agencies and Air Force personnel coming together to discuss and participate in the environmental cleanup program at McClellan.

The McClellan RAB currently has two volunteer positions available:

- a representative from the **Rio Linda community** and
- a representative from the **religious community**.

RAB Members:

- Ensure greater community involvement in the environmental cleanup of the former Air Force Base
- Attend meetings, interact with other RAB members and the general public, and provide input about the ongoing cleanup
- Provide comments and advice to the Air Force, as well as act as a liaison with his/her community to encourage more participation from the community

For more information about the RAB and to receive an application, please contact McClellan Community Relations at (916) 643-1250, ext. 257, or send an email to brian.sytsma@afrpa.pentagon.af.mil. Information and applications are also available at http://www.afrpa.hq.af.mil/mcclellan. **Please return the completed application to**: **AFRPA Community Relations - 3411 Olson Street - McClellan, CA 95652**

Next Restoration Advisory Board (RAB) Meeting: November 2004