Community invited to visit site

Community members have several opportunities to tour the SSFL site and observe current co-located sampling activities in Area IV:

SSFL Bus Tours: DOE, NASA, and Boeing are jointly offering SSFL site tours approximately once a month on a Saturday. Upcoming tours are: June 11, July 16 (currently full), October 29, and November 12. (This schedule has been updated since the *CleanUpdate* was issued in early June.)

If you are interested in taking a bus tour of the SSFL, please send a message to: santasusanacommunitytours@boeing.com or call 818 466 8183.

Public Visitation Days to Observe Co-Located Sampling Activities in Area IV: On the second and fourth Wednesdays of every month (10:30 to noon), visitors can observe work to characterize chemical and radiological contamination in Area IV and the Northern Buffer Zone. DTSC hosts the tour on the second Wednesday of each month and USEPA hosts on the fourth Wednesday.

Reservations must be made at least 48 hours in advance (if a U.S. Citizen or U.S. Resident Alien) or 96 hours in advance (if not a U.S. Citizen or U.S. Resident Alien). Reservations will be confirmed on a "first come/first served" basis, with a limit of ten general public visitors for each session. To make a reservation, send an email to Debbie Kramer of DOE at debbie.kramer@emcbc.doe.gov.

Interested parties may request assistance or ask questions as follows:

- For the DTSC-hosted tour, call Laura Rainy at 714 484 5434.
- For the USEPA-hosted tour, call Mary Aycock at 415 972 3289.

For more information

http://www.etec.energy.gov/
Ms. Stephanie Jennings, Deputy Federal Project Director
P.O. Box 10300, Canoga Park, CA 91309
Fax: 818 466 8730
email: Stephanie.Jennings@emcbc.doe.gov

Have email? Get connected!

To receive the **CleanUpdate** and other SSFL news by email, send your email address to: ETEC-Energy@emcbc.doe.gov.

Energy Technology Engineering Center
Area IV, Santa Susana Field Laboratory
CleanUpdate
P.O. Box 10300, Canoga Park, CA 91309

Energy Technology Engineering Center
Area IV, Santa Susana Field Laboratory
CleanUpdate
June 2011

Meet the new Federal Project Director, p. 2

"Groundwater U" Winds Up

Community members learn about groundwater at education sessions

From March through May, more than 100 community members attended the Santa Susana Field Laboratory (SSFL) "Groundwater U" series of six educational seminars to learn more about groundwater in general and groundwater specific to the SSFL site. The U.S. Department of Energy (DOE), the National Aeronautics and Space Administration (NASA) and The Boeing Company (Boeing) co-sponsored the sessions, in cooperation with the California Department of Toxic Substances Control (DTSC).

The seminar series precedes DTSC's call for public comment on the highly technical, multi-volume Groundwater Investigation Report*, scheduled for this summer. "All of the SSFL parties – DOE, NASA and Boeing – wanted to give the public an opportunity to learn as much as possible about groundwater, generally, and the SSFL Groundwater Investigation Report before the public comment period on this very large and complicated report begins," said Stephie Jennings, Deputy Federal Project Director. "The Groundwater Investigation Report, including the Site Conceptual Model*, is the result of 12 years of detailed investigations at SSFL to characterize and model the hydrogeology, or groundwater system, beneath the site," said Jennings.

The parties worked together with DTSC to identify independent experts to present the first three foundational sessions. These sessions provided a general overview of groundwater and how it can be impacted by contaminants. Dr. Richard Laton, Associate Professor of Hydrogeology, California State University, Fullerton, opened the series with "Hydrogeology 101" on how groundwater flows, types of aquifers, and impacts to groundwater quality.

CONTINUED ON PAGE 3

*Note: The full name of the "Groundwater Investigation Report" is the *Draft Site-wide Groundwater Remedial Investigation (RI) Report, Santa Susana Field Laboratory.* The full name of the "Site Conceptual Model" is the *Site Conceptual Model for the Migration and Contaminants in Groundwater at the Santa Susana Field Laboratory, Simi, California.*

Message from the Managers

Greetings to the SSFL community:

The US District Court for the Central District of California recently ruled in the case between Boeing and the State of California with respect to California State law SB990. The Department of Energy will continue in our efforts to implement the Administrative Order on Consent signed December 6, 2010 covering the investigation and remediation of soils, as well as the 2007 Consent Order covering groundwater investigations and remediation.

Meanwhile, we would like to thank community members who attended the Groundwater U sessions and Field Day we held March through May. We encourage everyone interested in SSFL groundwater to read the article beginning on page 1 and to review the materials from Groundwater U at the Energy Technology Engineering Center (ETEC) website at http://www.etec.energy.gov/. We look forward to continuing our work with our regulator and the community on other aspects of the project, such as the Building Survey described below.

Sincerely,

John Jones, Federal Project Director

Stephie Jennings, Deputy Federal Project Director

Spotlight on… John Jones

Editor's note: "Spotlight on…" is an occasional feature in the CleanUpdate highlighting individuals, activities, and milestones relevant to the Area IV cleanup.

John Jones, new SSFL Federal Project Director

John Jones has been named the new Federal Project Director at SSFL, and began work April 18. Mr. Jones comes to SSFL ready to put his multi-disciplinary experience to work on what he says is a unique and challenging project.

"First," he notes, "SSFL is located on privately-owned land. Most DOE projects are on federal land, but here at SSFL, DOE leases the land and is responsible for cleaning portions of the site for which DOE is responsible.

"Second, in my experience, USEPA has been our regulator. At SSFL USEPA is also performing the radiological characterization work. This is very different from the usual relationship with USEPA.

"Also important is that we have a very concerned – and knowledgeable – public. Goal setting will be a collaborative process with stakeholders. I am aware of and understand people's frustration with the length of time it takes to complete a cleanup. I focus on being a good manager, and I will do everything I can to keep us on track toward cleanup in 2017."

Mr. Jones comes here by way of Oak Ridge, Tennessee, where he was the Recovery Act Site Representative to DOE/Headquarters the past two years. He was born and raised in Las Vegas, NV. A registered Project Management Professional, he spent his entire career (previous to Oak Ridge) with the DOE Environmental Management program. Most of that time was at the former Nevada Test Site, now known as the Nevada National Security Site. He has served in technical and management roles in programs dealing with technology development, waste management, soils remediation, environmental restoration, and national security, and had regular interactions with the Citizen Advisory Board in Nevada. He has a bachelor's degree in engineering from the University of Nevada, Las Vegas.

His strengths? "My strength is working with people to build a team environment and actually complete the work as a team," he notes. "When we close this site out, it will be the result of the community and DOE working together."

Best things about this area? "People here are respectful, tolerant, and open minded. That is one thing I really like about raising my family here."

DOE plans surveys for remaining Area IV buildings

As DOE continues to move toward cleanup and closure of SSFL Area IV, it remains committed to survey, decontaminate, and dispose of remaining buildings, to clean up any soil contamination that may be beneath the buildings, and to remove the buildings. The first steps in this process are to survey the existing structures and develop a specific decontamination and disposal plan for each.

To begin, DOE is developing a *Draft Radiological Survey Plan for Buildings and Consolidated Materials within Area IV of the Santa Susana Field Laboratory,* which it plans to release to the public before finalizing. This plan describes the process for performing radiological surveys for all 24 remaining buildings, parking lots and concrete surfaces at SSFL Area IV. DOE owns 15 of the 24 structures that remain in Area IV; 10 of these structures have a radiological history. Boeing owns the rest, including 7 in which radiological materials were handled.

The survey will begin in the fall of 2011, and survey results will be documented in a report. Stakeholders will have an opportunity to comment on the plan prior to its implementation. In addition, DOE is hoping to invite interested stakeholders to observe the sampling process if safety precautions can be established that would be adequately protective. Watch for updates in the next *CleanUpdate* and on the ETEC website, http://www.etec.energy.gov/.

Method Detection Limit Study Now Underway

DTSC and DOE have agreed on a "cleanup to background" strategy for chemical contamination in Area IV. This means DOE will return the soil to its natural or pre-industrial state.

One challenge is that naturally-occurring minerals and organic materials in the SSFL soils can interfere with the detection of potential chemical contaminants from past SSFL activities, particularly at very low concentrations. This "matrix interference" can yield results that may not be accurate for SSFL-related contaminants.

Questions to be Addressed

- Are existing laboratory methods capable of detecting low levels of contaminants with accuracy (given matrix interference)?
- Do the methods need to be modified to provide more accuracy? If so, how?
- Do the laboratories have the more accurate methodologies needed to detect low levels of contaminants?

To gain more understanding of the natural minerals and organic materials in the SSFL soils and how they might impact a laboratory's ability to detect SSFL-related contaminants accurately, DOE is conducting a "Method Detection Limit" (MDL) Study.

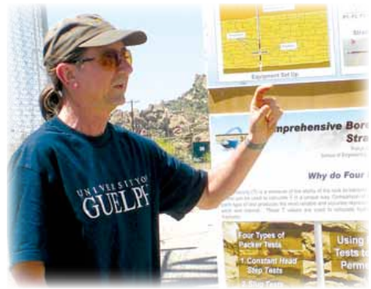
To carry out the MDL study, DOE obtained soil samples from a representative location in Area IV. To help develop criteria for and select the optimal location for the samples to be taken, DOE turned to the community – those who have worked at SSFL or on SSFL issues.

The team spent a "field day" at the site, scouting candidate locations and selecting the optimal sampling location. Team members also pitched in to prepare the location and collect the first set of samples.

DOE will present the initial MDL laboratory results to DTSC and the community this summer. The second part of the study will be to repeat the sampling and analyses of SSFL soils, but in this case using the recommended improvements in methodology to get more accurate results. Sampling will be from the same location as the first sampling.

Eventually, the results of the MDL Study, along with sampling results from earlier RCRA Facility Investigations (RFIs) at SSFL, the ongoing Co-Located Sampling Program, and DTSC's Chemical Background Study will help DOE and DTSC determine target levels for cleanup of chemicals in SSFL soils.

"Groundwater U" (CONTINUED FROM PAGE 1)



Guelph University's Pat Quinn explains straddle packer testing and how four different types of packer tests were used to measure the ability of the rock to transmit water.

Dr. Matthew Becker, Professor and Conrey Chair in Hydrogeology at California State University, Long Beach, presented the next two seminars on how contaminants move through subsurface soil and into the groundwater, and their impacts on groundwater quality. He provided an overview of various remediation approaches for groundwater, including *ex situ* (removal and treat) and *in situ* (treat-in-place) alternatives, as well as perpetual containment as a final option if feasibility and treatability studies demonstrate that other alternatives would not effectively reduce risks.

Groundwater U participants took a field trip to SSFL, where they met members of the Groundwater Advisory Panel – a team of scientists hired by the parties to provide groundwater expertise to the site-wide groundwater study. Panel members offered first-hand explanations of the geologic features of the site and demonstrated some of the technology used to characterize the site and sample the groundwater. Panel members are:

- Dr. John Cherry, Distinguished Professor Emeritus, University of Waterloo and Adjunct Professor, University of Guelph;
- Dr. David McWhorter, Distinguished Professor Emeritus, Department of Chemical and Agricultural Engineering, Colorado State University; and
- Dr. Beth Parker, Professor, University of Guelph and Director of Institute for Groundwater Research Innovation Partnerships.

The last three sessions were geared to the SSFL site specifically and were led by the SSFL Groundwater Advisory Panel. The sessions covered groundwater flow at the SSFL, contaminants that have been found in the groundwater below SSFL, and the fate and transport of contaminants at the SSFL.

Those interested in learning more about groundwater, both in general and at the SSFL, but were not able to attend the Groundwater U sessions can go to the DOE ETEC website at http://www.etec.energy.gov/ and click on "Groundwater U Resources" to watch the videotaped sessions and review the presentation materials.

Dr. John Cherry points out seeps in the Bell Canyon Drainage Area during the Groundwater U Field Day, and explains a new sampling technique that the team developed to sample groundwater from the seeps, something that previously had been very difficult.

Many thanks to Merrilee Fellows, NASA, and Jazmin Bell, DOE, for photos used in this edition of the *CleanUpdate*.