



Cultural survey
will examine
undeveloped land.
Below



Energy Technology Engineering Center
Area IV, Santa Susana Field Laboratory

CleanUpdate

March 2010



What's up with
bio survey?
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Community meetings focus on cultural, biological resources

The U.S. Department of Energy (DOE) held focused meetings December 2 and 3, 2009, on cultural resources in Area IV and the Northern Undeveloped Lands. Cultural resources are archeological sites, architectural buildings or structures of historic importance, and properties of traditional cultural or religious importance.

Both meetings included a brief tour of Area IV and presentations by:

- Craig Cooper of the U.S. Environmental Protection Agency (USEPA) on plans for the radiological survey and the measures planned by USEPA to protect cultural and biological resources, and
- Lorraine Gross of SAIC on plans for the cultural resources survey.

Mr. Cooper presented plans for the Area IV radiological survey, which will entail a historical site assessment of relevant past operations and activities; a gamma scan survey; soil and water sampling and analysis; and data evaluation and reporting. Mr. Cooper presented a poster illustrating the methods that will be used to conduct the gamma scan (available available through the link to the [Cultural Resources Survey of Area IV](#) in the "Updates" column at <http://etec.energy.gov>).

Ms. Gross explained the process that will be used to conduct a cultural resources survey in the Northern Undeveloped Lands. She explained that Area IV was surveyed in 2001, and four archaeological sites were found.

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Northern Mixed Chaparral sandstone outcrops. Sandstone outcrops are common in the Northern Mixed Chaparral, especially in the Northern Undeveloped Lands. Archeologists will closely examine these outcrops in the Northern Undeveloped Lands for signs of early human activity. The Santa Susana tarplant is commonly found in this habitat. See article on page 3 for more information about the tarplant. Photo taken October 6, 2009.

Have email? Get connected!

DOE encourages those who would like to receive the **CleanUpdate** and other SSFL news by email to send your address to: ETEC-Energy@emcbc.doe.gov

Greetings to the SSFL community:

As we enter a new year, we want to thank our stakeholders for continued interest and participation in DOE's activities at the site. Although some may see progress as slow, we believe we are moving toward the goal of cleanup of Area IV and the affected adjacent land.

With this issue, we are looking both backward and forward. In a look back, we are publishing our first *Annual Report of Community Involvement* activities (provided as a separate document accompanying this electronic *CleanUpdate* to simplify viewing). This *Annual Report* may also be accessed in the "Updates" column on the ETEC Home page. This report is one of the commitments we made in the *SSFL Area IV Community Involvement Plan*, published last year. We encourage you to consider how we are doing with our information and involvement efforts, to advise us how we can improve, and let us know what is working for you.

Looking ahead to 2010, we plan to focus on three main priorities, including historical interviews of former workers (see story below) and completion of biological and cultural surveys to support the USEPA's gamma survey and DOE's Environmental Impact Statement (EIS), which we describe in articles beginning on pages 1 and 3.

We will also continue to work with the California Department of Toxic Substances Control (DTSC) to reach agreement on a new Consent Order. Revision of the Consent Order has been challenging, but we remain committed to working with DTSC to finalize an order to guide our work into this decade. In that vein, we proposed, together with the National Aeronautics and Space Administration (NASA), that all parties enter into an agreement to jointly prepare a Remedial Investigation and Feasibility Report (RI/FS). We proposed to evaluate contamination within SSFL as well as a range of alternatives for remediating that contamination. A copy of our letter-proposal to DTSC can be found in the "Updates" column of the ETEC home page at <http://etec.energy.gov>.

Looking further into the future, our plan is to complete the EIS as soon as feasible, based on the results of USEPA's radiological survey in Area IV and the Northern Undeveloped Lands. After we complete the EIS, we will plan and implement a cleanup on DOE's portion of the SSFL site that will accomplish long-term protection of human health and the environment. Final cleanup decisions will address removal of DOE facilities and closing out our presence on the mountain.

Throughout all these activities, we remain committed to an open and transparent process for sharing our plans in advance, keeping stakeholders informed as we proceed, and seeking stakeholder input prior to key decisions. We encourage your continued participation.

Sincerely,



William H. Backous, P.E., ETEC Federal Project Director



Stephie Jennings, DOE NEPA Document Manager

DOE initiates "Historical Perspectives" project

DOE will soon begin interviews of former workers for their historical knowledge of SSFL.

DOE and the USEPA will work together on this project as they collect information that can be used in their studies of Area IV and the Northern Undeveloped Lands – USEPA's survey of radioactive materials in Area IV, and DOE's EIS to evaluate Area IV cleanup options.

The primary focus for the Historical Perspectives project will be to tap personal recollections from former workers on topics related to construction, operations, events and incidents, daily activities, work processes, and waste management at the ETEC and Area IV generally. In addition, interviewers will be looking for documents, photographs, diagrams, blueprints, etc. from former workers that might help DOE's and USEPA's scientists learn more about processes and structures that may have had any role in site contamination or might be helpful in designing cleanup actions.

The interviews will be conducted by experienced professionals at locations convenient to the interviewees. The photo below of former employee Jim Owens, taken prior to the Sodium Reactor Experiment (SRE) Workshop in August 2009, illustrates the informal interaction interviewees might expect during the Historical Perspectives project. Interviewees may choose whether to be interviewed by DOE, or USEPA, or DOE and USEPA together.



Biological Survey Report documents rare species

Fall biological surveys conducted in October 2009 have provided initial documentation of locations of special status species, vegetation patterns, and potential habitat for wildlife in SSFL Area IV and the Northern Undeveloped Lands. Additional surveys are anticipated for later this year to identify species not evident or identifiable in the fall that would be active or detectable at other times.

Special status species include those listed as threatened or endangered under the federal Endangered Species Act, or under the California Endangered Species Act; they also include other regionally declining, rare, or sensitive species tracked by the California Native Diversity Database.

DOE has provided the *Fall Biological Survey Report for Santa Susana Field Laboratory Area IV and the Northern Undeveloped Lands (Report)* to the USEPA. Based on this report, which is available in the “Updates” column on the ETEC homepage (<http://etec.energy.gov>), USEPA has prepared and submitted to the U.S. Fish and Wildlife Service (USFWS) a Biological Assessment describing what it plans to do to protect special status species. The next step is for USFWS to render a Biological Opinion as to whether the measures to be taken are adequate to protect special status species during the radiological characterization.

Findings target three species

The three special status species targeted during the fall survey were:

- Braunton’s milk-vetch (an herbaceous short-lived perennial that is federally-listed as endangered) is concentrated in the southwestern part of the site. Thousands of individuals of this short-lived plant had established after the area was burned in 2005. But most individuals observed in 2009 were nearing the end of their brief lifespan. They are expected to exist onsite as dormant seed until future conditions are again ripe for germination and establishment (as discussed in the November 2009 *CleanUpdate*, available on the ETEC website at <http://etec.energy.gov/Cleanup/CleanUpdate/CleanUpDate9nov09.pdf>).
- Santa Susana tarplants (a long-lived shrub that is listed as “rare” by the state of California) are closely associated with sandstone outcrops where they are typically found growing in cracks in the rock. Some occurrences are in cracks in pavement or on remediated sites near sandstone outcrops populated by tarplants. Roughly 850 of these small shrubs were estimated to be in the surveyed area.
- California black walnuts (a tree on the California Native Plant Society Database watch list) were primarily associated with lower portions of north-facing slopes. Fewer than 100 individuals of this tree were documented in the surveyed area.



Steep dipslope grassland. This unusual community comprises a small acreage (7.7) on the Northern Undeveloped Lands and also occurs in nearby areas where steeply dipping sandstones are found just under the soil surface with their bedding planes parallel to the surface.

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Recent Meetings (CONTINUED FROM PAGE 1)

The upcoming work will be conducted in compliance with California state standards, and DOE will provide results to USEPA to help its scientists avoid damage to cultural resources.

Copies of Ms. Gross' two handouts and the survey study plan are available on the Energy Technology Engineering Center (ETEC) home page in the "Updates" column. She invited suggestions for the cultural resources survey from participants at both meetings. Participants' comments made during the meetings are summarized under the individual meetings below.

The December 2 meeting included stakeholders who had previously expressed an interest in cultural or biological resources at the site. The participants recommended, among other things, consideration of subsurface deposits that could contain archaeological remains; ongoing monitoring of operations and immediate shut down if cultural remains are found; fencing of known cultural resources; exercising care to avoid wildfires; and coordination across the Administrative Areas (Areas I through IV) and areas of responsibility (DOE, EPA, NASA, and Boeing).

Because this meeting included stakeholders who were interested in biological resources as well, SAIC's Tom Mulroy made a presentation on the status of the biological surveys. For more about the biological surveys, see article beginning on page 3.

The December 3 meeting included tribal representatives and local Native Americans from throughout the area for an exchange about issues of particular concern to them. Among other things, the participants suggested that:

- The survey director be trained by a local tribal representative.
- All recognize the entire SSFL has cultural and spiritual significance to Native American people.
- Opportunities be provided for Native American monitoring and consultation throughout the cultural resources survey, EPA's radiological survey, the investigation, and cleanup, particularly during any activities in close proximity to known cultural sites and any activities that would reveal the soil surface and/or disturb the soil surface or subsurface.
- Results from the upcoming as well as prior cultural surveys be shared to allow use for other purposes – for example, wildfire suppression.
- Results from the 2001 survey that identified four sites within Area IV be shared with them, and additional work be performed to determine the significance of the four sites that were previously identified.
- Tribal representatives be involved in the selection of any archaeologists working on this project as well as the identification of the "Most Likely Descendent" for the area.

Bio Survey (CONTINUED FROM PAGE 3)

Native vegetation, wildlife habitat documented

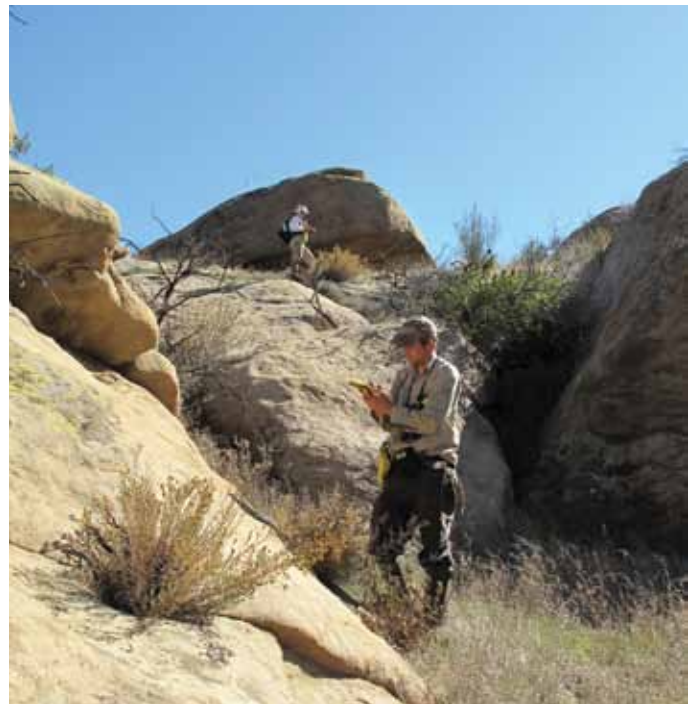
The fall surveys also documented relatively extensive areas of native vegetation and wildlife habitat, especially in the Northern Undeveloped Lands and the western and southwestern portions of Area IV. Most of the woody vegetation is recovering from a wildfire that burned through the SSFL site in September 2005, though it skipped over some localized areas.

Much of the relatively flat, previously developed portion of Area IV is in some stage of natural vegetation recovery, following removal of structures and remediation of the individual building sites over the years. A preliminary list of identifiable plant species is included in Attachment B of the *Report*.

Additional surveys to identify seasonal species

Additional seasonal surveys will be required for resident birds and seasonally active species, including most amphibians and reptiles and sensitive invertebrates. A revised study plan will be placed in the "Updates" column on the ETEC website after the revision has been completed.

In addition to the fall *Report*, the maps from the report that delineate survey results can be accessed in the "Updates" column on the home page.



Santa Susana tarplant at home in sandstone. The tarplant grows out of rocks and pavement cracks. SAIC biologists are documenting the location of the green tarplant by using a precise equipment called differential global positioning system.

Spotlight on...

Bill Backous

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

Bill Backous (pronounced "back-us") has joined the DOE SSFL team as the Federal Project Director, replacing Thomas Johnson, who now works on DOE-HQ's American Recovery and Reinvestment Act program. *CleanUpdate* staff interviewed Bill to provide this introduction.

CleanUpdate: What is your role on the project?

Backous: I oversee the day-to-day operations related to the ETEC. These operations include oversight of management and safe operations, management of investigations under the Resource Conservation and Recovery Act (RCRA), and preparations for cleanup and remediation.

CleanUpdate: What is your educational and work background?

Backous: I have a Master's of Engineering in engineering management from St. Martin's University in Olympia, Washington. Most recently, I worked for CH2MHill as a client services manager in their Bellevue, Washington office. I spent the majority of my career – 22 years – working with the Washington State Department of Ecology, where I served as the Program Manager of the Environmental Assessment Program (including the environmental laboratory and lab accreditation program). I was also the Water Quality section manager for the Department's Southwest Regional Office, where I oversaw permits, enforcement and compliance in a 12-county area. Prior to that, I was an environmental engineer working on the Commencement Bay Superfund site, Tacoma. I became familiar with nuclear energy issues in my early career as a Navy mechanical operator on nuclear-powered submarine propulsion systems. I also worked for EBASCO on nuclear public utility power programs in Washington, Louisiana, and Texas. I have a Professional Engineer license in Washington and have applied for one in California.

CleanUpdate: What have you found to be most surprising about this project?

Backous: I don't know that I would call this particularly surprising, but the timeline on this project has gone on for what seems unusually long and the dynamics around the cleanup standards are still unsettled.



CleanUpdate: What do you see as your biggest challenges?

Backous: I would say the dynamics related to the stimulus funding present a challenge. Stimulus funds are designed to move things along quickly, but the planning steps behind EPA's radiological study and the community vetting require time. Nevertheless, we anticipate that actual work on the radiological study will start soon.

CleanUpdate: What do you hope to look back on as accomplishments on this project a few years down the road?

Backous: I hope we effect a credible site cleanup so that the site will not be a future liability for the community. Clearly, community participation is an important part of getting the job done, and we must ask ourselves, have we met the credibility test? From what I understand, this project has gone on a long time, with a lot of individuals involved. With the team we have here, we are confident we are going to get a good cleanup that meets the community expectations. I know that defining "cleanup" and "community expectations" will require some work, but we are committed to working through these questions with stakeholders.

CleanUpdate: What else would you like stakeholders to know about you?

Backous: I have been no stranger to controversy in my work as a regulator in Washington, in seeking to get a result that a majority can agree was the right thing. Working with divergent views has been a challenge in public service for as long as I have been involved. I recognize it has been difficult, but we can get it done with everyone involved. I came here because I believe we can do that. I am very motivated to do that.

CleanUpdate: How do you see yourself getting involved in the community?

Backous: As a member of Lions International in Washington, I was involved in community service projects. I hope to continue this service by transferring my membership to Simi Valley. I am also interested in youth sports, especially soccer, and have already thrown my hat in the ring as a volunteer soccer referee. Being from the west side of Washington, I am interested in the mountains and the ocean (I am a scuba diver), so I look forward to pursuing those interests as well.

Revised Community Involvement Plan available

DOE sincerely appreciates the contributions stakeholders made in comments on the *Community Involvement Plan*. DOE has incorporated those comments into the final Plan. Both the response to comments and the final Plan are available in the "Updates" column on the ETEC home page at <http://etec.energy.gov>.

SRE video available

The August 2009 workshop on the Sodium Reactor Experiment accident was captured on video, and that video is now available. It includes the presentations by the panel of independent experts on nuclear reactors, the question and answer session, and community perspectives on the accident. The video is on the "Updates" column on the ETEC home page at <http://etec.energy.gov>.

No access to Internet? We have you covered

Stakeholders who don't have access to the Internet or would like a paper copy of the *Community Involvement Plan* or other documents mentioned in this newsletter are invited to call Debbie Kramer at 818 466 8898 to request SSFL Area IV informational materials.

Interested in visiting Area IV?

DOE offers occasional tours of SSFL Area IV. Stakeholders who would like to be included in such a tour are invited to contact Debbie Kramer at 818 466 8898.

For more information

<http://www.etec.energy.gov/>

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