



DOE initiates biological survey  
Below



Energy Technology Engineering Center  
Area IV, Santa Susana Field Laboratory

# CleanUpdate

November 2009



Former workers enjoy SSFL tour prior to workshop  
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## DOE consults with federal, state, and local biological experts

The U.S. Department of Energy (DOE) took a first step toward complying with the Endangered Species Act (ESA) by initiating in October the biological survey of Area IV of the Santa Susana Field Laboratory (SSFL) and the Northern Undeveloped Land. (See description of the biological survey in the August issue of the *CleanUpdate*.)

This survey will document plants and animals in the study area that are protected under state or federal law.

To help address ESA requirements, DOE, along with the U.S. Environmental Protection Agency (USEPA), met in September with the California Native Plant Society, the California Department of Fish and Game (CDFG), and the U.S. Fish and Wildlife Service (USFWS), to present plans for the survey and to solicit input on the study design.

The ESA directs federal agencies to use their legal authorities to carry out conservation programs for species listed as threatened or endangered. It also requires these agencies to ensure that any actions they fund, authorize, or carry out are not likely to jeopardize the survival of these listed species, or to adversely modify any designated critical habitat. When an agency finds that any of its activities may affect a listed species, it is required to consult with the USFWS. Both DOE and the USEPA must comply with the ESA.

So how will DOE work within this environment at the Energy Technology Engineering Center (ETEC)? Let's look at challenges presented by one individual example of a listed plant in Area IV.

### Braunton's milk-vetch:

#### Understanding challenges to an endangered plant

Braunton's milk-vetch (*Astragalus brauntonii*), which was listed as an endangered species in 1997, is a silvery green plant with large purple flowers. A short-lived perennial, the milk-vetch's survival depends on extended periods of dormancy as a seed. The milk-vetch thrives best on specific soils, most often calcareous (lime-containing) soil, in open areas free of woody vegetation. These open areas are created by fires or other environmental conditions, such as shallow soils that discourage competing plant species. These shallow soils may also discourage gophers, which eat the roots, killing the plants.

As adjacent vegetation recovers from a fire, it may crowd out the milk-vetch, thus the need for the plant to survive as dormant seed. Fire appears to be a primary stimulus for seed germination; however, the seeds can germinate in the absence of fire.

Because of its relatively short life span and the need for fire to germinate, a population may be visible only once in 20 to 50 or more years at a given location.



Braunton's milk-vetch  
(*Astragalus brauntonii*)

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## 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](mailto:ETEC-Energy@emcbc.doe.gov)

Greetings to the SSFL community:

As I complete my second year at SSFL, I am grateful to stakeholders who devote time and energy to SSFL issues, most recently through participating in the workshop on the Sodium Reactor Experiment (SRE) and by commenting on our ongoing work. I especially want to thank the many stakeholders – including a number of former SSFL workers – who devoted any part of their last Saturday of summer to the workshop. We were delighted with the tremendous turnout and thoughtful participation. Please see the story on page 3.

August and September marked major milestones for the SSFL, including the California Department of Toxic Substances Control's (DTSC's) release for public comment of revised versions of its Consent Order (CO) with DOE and the National Aeronautics and Space Administration. DOE is considering carefully all public comments submitted to DTSC.

Finally, it is our loss that Thomas Johnson has left the SSFL to accept an assignment as deputy manager of the Recovery Act funds. I encourage you to read his letter to the SSFL community at <http://www.etc.energy.gov/library/ETEC%20Departure.pdf>. I assure you that we will maintain our commitment to stakeholder involvement, and I heartily agree with his sentiments that SSFL stakeholders “demonstrate the true potential of citizen engagement in public policy.” He and I remain convinced that the most important decisions that DOE makes must always provide the opportunity for community engagement. We are confident that his replacement will share this belief. The search for his replacement is moving forward; I expect the new person to be in place soon. Meanwhile, we look forward to working with Thomas on Recovery Act programs.

Thank you again for your continued interest in the ETEC cleanup,



Stephie Jennings, DOE NEPA Document Manager

## Biological experts (CONTINUED FROM PAGE 1)

Prior to human development within the general SSFL area, parts of which are characterized by dense vegetation consisting of trees or bushes, the estimates of the natural frequency of fire ranged from 20 to more than 100 years. Biologists are concerned that shorter intervals between fires occurring today may adversely affect the species survivability.

In 2006, the USFWS identified 70 acres in Area IV and adjacent lands as part of a larger critical habitat designation for this species. The majority (over 80 percent) of this critical habitat sub-unit falls within Area IV. Following the 2005 fire, the plant was observed abundantly in the critical habitat.

Critical habitat, as defined in the ESA, is a specific geographic area considered essential for the conservation of a threatened or endangered species. Critical habitat may include an area that is not currently occupied by the species but that is considered necessary for its recovery. Critical habitat receives separate protection under the ESA. Where critical habitat is designated, federal agencies are also required to ensure their activities will not destroy or adversely modify critical habitat.

Another example of a plant of concern is the state listed Santa Susana tarplant (*Deinandra minthornii*). This plant occurs throughout the rocky outcrop areas of the project site and is protected under the California Endangered Species Act.

Animal species of concern that have been observed or could be within the study area include the San Diego coast horned lizard (*Phrynosoma coronatum blainvillei*), the silvery legless lizard (*Anniella pulchra pulchra*), the two-striped garter snake (*Thamnophis hammondi*), and the California gnatcatcher (*Poliptila californica californica*).

## Survey plans

In the first stage of the survey, the *Draft Study Plan* calls for identifying listed species in the study area that are evident in the fall of 2009. Others species not visible in the fall will be the subject of field investigations at the appropriate season.

DOE will provide the results of the survey to the USEPA to use in planning how to avoid and/or protect plants and animals to mitigate impacts during its radiological site characterization activities. In addition, DOE will use the results to evaluate potential environmental impacts that might result from SSFL cleanup and to plan those cleanup actions.

For more details about the survey, a copy of the *Draft Study Plan* is on the Energy Technology Engineering Center (ETEC) website at [www.etc.energy.gov/](http://www.etc.energy.gov/).

## What's **endangered**? What's **threatened**?

Under the federal Endangered Species Act, an **endangered** species is a species of plant or animal that is in danger of becoming extinct throughout all or in a significant portion of its range.

**Threatened** species are plants or animals that are not currently endangered, but may become so if their populations continue to decrease.

The USFWS and the National Marine Fisheries Service are responsible for classifying and protecting endangered species.

California has its own Endangered Species Act. DOE will also comply with the California ESA.

# 150-plus stakeholders spend Saturday learning about SRE

More than 150 stakeholders gathered recently for a DOE workshop on the SRE accident that occurred 50 years ago at the SSFL. The workshop was on August 29, 2009, in Simi Valley.

The goals of the all-day workshop were:

- To have three independent experts on nuclear reactors share perspectives on the SRE and the July 1959 accident;
- To give participants an opportunity to ask questions; and
- To invite community members to develop their own statements about the accident.

The three reactor experts were Dr. Paul Pickard, Sandia National Laboratories; Dr. Tom Cochran, Natural Resources Defense Council; and Dr. Richard Denning, Ohio State University. Approximately 80 of the participants had expertise gained through work at SSFL, including some with involvement with the SRE at the time of the accident. They were able to offer several perspectives on the accident and aftermath.

The panelists generally agreed the capacity for release of radionuclides at the SRE was substantially smaller than releases during the 1979 accident at the Three Mile Island nuclear power plant.

The panelists also generally agreed that although monitoring records are incomplete, some radionuclides in the partially



Drs. Richard Denning, Tom Cochran, and Paul Pickard provided their perspectives on the SRE.

melted fuel – estimates ranged from 1% to 10% – were available for release. They said that releases of noble (inert) gas radionuclides did not pose a significant community risk. Two panelists concluded that other radionuclides that could have been released most likely were trapped in the sodium and that the potential risk was insignificant. Dr. Cochran cited inconsistencies with the accident monitoring data that prevented him from making a determination of what was released and what the cancer risk from any radionuclides released may have been.

At the end of the workshop, a number of participants expressed the desire that DOE and USEPA move forward with efforts to characterize and clean up the site.

The workshop presentations and posters, plus archival records, are available on the Energy Technology Engineering (ETEC) website at <http://www.etc.energy.gov/History/Major-Operations/SRE-Workshop-2009.html>.

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## Former workers embrace site tour, oral history project

In response to stakeholder comments received during community interviews last year, DOE invited former SSFL workers to be interviewed – and received a response from a surprisingly large number of workers wanting to be part of the interview process. Thus far, more than 280 former workers have expressed an interest in participating. The purpose of the upcoming interviews is to:

- Develop a fully-informed history of site operations and facilities;
- Identify additional records that may exist and where those records might be located; and
- Identify additional people who might have relevant knowledge.

Interviews are scheduled to start this fall.

In connection with this effort, DOE invited former workers to tour the site, prior to and following the August workshop on the Sodium Reactor Experiment accident. (See SRE workshop article above.) The SRE panelists also toured the site with the first tour group.

The initial round of five tours, conducted just prior to and after the workshop, drew 93 enthusiastic former workers, spouses, and other family members. A number of these individuals worked at the SRE, and they brought photos and other documents from their time at the site. Many of them also attended and participated actively in the SRE workshop.

DOE had such an overwhelmingly positive response to the tour invitation that it was not able to accommodate all the former workers who were interested in the August and September site tours. Additional tours will be offered to this interested group of stakeholders next spring.

Former workers Nancy Peterson, Walter, Ph.D., John Walter and Fred Seward share memories prompted by an early briefing book Mr. Walter brought with him.



## DOE receives comments on Community Involvement Plan

Stakeholders provided DOE with approximately 75 comments on the recently released *SSFL Area IV Community Involvement Plan*. Staff is in the process of reviewing, responding to, and revising the *Plan* in accordance with many of the suggestions that were provided. DOE continues to believe that its plans are always improved as a result of stakeholder input.

## Comment Response Document available

Stephie Jennings, the NEPA document manager, has announced that the *Comment Response Document* is now available on the ETEC website. This document provides DOE's responses to comments made during the Environmental Impact Statement (EIS) scoping period and comment period on the Draft Gap Analysis Report and meetings, both held in 2008. DOE received nearly 800 comments from more than 71 commenters during the scoping and gap analysis periods combined.

"This document has evolved over the past year in response to key changes that have affected or will affect our approach on the EIS, including the Interagency Agreement for USEPA to do the radiological characterization and, more recently, the changes to the Consent Order, which are still being negotiated," she noted.

"After the USEPA completes the radiological characterization survey," she added, "DOE plans to conduct another scoping period to update our understanding of stakeholder concerns."

The *Comment Response Document* can be found at: <http://www.etec.energy.gov/EIS/Documents/SSFL%20Area%20IV%20Final%20Scoping%20CRD.pdf>.

### For more information

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

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