



U.S. DEPARTMENT
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Office of Environmental
Management

Energy Technology Engineering Center

Area IV, Santa Susana Field Laboratory

CleanUpdate

OCTOBER 2026

Recognizing fire response, advancing cleanup at SSFL

I want to thank those who joined us for a special CONNECT Series meeting on August 12, where we got to recognize the Ventura County Fire Department for protecting the community and the Santa Susana Field Laboratory (SSFL) during the recent Sandy Fire.

Division Chief Matt Falat gave a special presentation on county fire response in general and in relation to SSFL, how incident command works and what happens when a call comes into the 911 system (see story on page 3).

Thank you, Chief Falat, for taking the time to share some great information with us.

I also talked about ETEC's response during the Sandy Fire and shared some preliminary air monitoring results from before, during and after the incident. Read more about the CONNECT meeting (see story on page 2).

As part of the CONNECT meeting, I had the opportunity to discuss recent updates on a groundwater treatment pilot study (see story on page 5), the automated pump system installed in 2024 (see story on page 7) and the demolition workplan for Building 4024's basement.

We continue to collaborate with the California Department of Toxic Substances Control (DTSC) to move our cleanup forward – seeking approval for our basement demolition workplan, finalizing our Groundwater Corrective Measures Study, and addressing the longstanding implementation challenges with the 2010 Administrative Order on Consent.

We remain committed to achieving a protective cleanup at the site and will share updates with the community as we continue to make progress.

We look forward to continuing to engage with our community and will be attending the Simi Valley Street Fair on October 24. Stop by our booth to say hi, ask us questions and learn more about what's going on at SSFL.

Sincerely,

Dr. Josh Mengers



DOE's Consolidated Business Center's Acting Director Melody Bell (left) and Ventura County Fire Division Chief Matt Falat (right) at ETEC's CONNECT community meeting on August 12. Photo courtesy of Josh Mengers.

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ETEC talks air monitoring, wildfire response with community

Air monitoring results were top of mind for many attendees at the [Community Outreach, Neighbor Notifications, Engagement, Collaboration and Training \(CONNECT\) Series](#)¹ meeting recently hosted by the Department of Energy (DOE).

About 35 people attended the August 12 meeting to hear about DOE's recent activities at the Santa Susana Field Laboratory (SSFL) and learn about wildfires, air monitoring and response during the Sandy Fire in May.

DOE previously conducted liquid metals and nuclear energy research in the Energy Technology Engineering Center (ETEC) in Area IV at SSFL, where the department is now tasked with remediation.

Josh Mengers, DOE's federal project director for ETEC, discussed the site's response during the Sandy Fire, including coordination with site partners and emergency responders.

As part of the response, the California Department of Toxic Substances Control (DTSC), the state regulator overseeing final cleanup plans at SSFL, deployed the National Nuclear Security Administration's Radiological Assistance Program (RAP) team to gather air monitor data.

"The RAP team personnel deployed and determined that there was no radiological danger to the public from the Sandy Fire," Mengers said, adding that the blaze did not cross onto SSFL.

Mengers shared preliminary data from DOE's [air monitoring network](#)² established in 2018, which includes four perimeter monitors that collect data on radionuclides, volatile organic compounds and particulate matter (PM).

While early data is still being analyzed, results for PM10 collected before, during and after the Sandy Fire are typical of a normal increase due to wildfire smoke, Mengers said. Final results will be available in the second quarter 2026 air monitoring report.

"I've seen requests for getting the data out and we're looking to see how we can facilitate sharing all of the data with the community," he said.

Mengers then provided a look at the 2018 Woolsey Fire that burned across 80% of SSFL, including portions of Area IV where ETEC is located. Because of this, there were community concerns that contamination from previous operations was released.

DTSC led a multi-agency response to evaluate this possibility and concluded in its 2020 final summary report there was no release of contaminants from SSFL.

"The risk of exposure to wildfire smoke during the Woolsey Fire was no higher than what's normally associated with any standard forest or brush fire," Mengers said. "Looking back at both fires . . . the data supports the conclusion that neither fire released site-related contamination."

In the months since the Sandy Fire, Mengers said DOE has been working to improve processes and procedures, including increasing existing vegetation clearance practices, looking into hardening air monitor stations and enhancing communication and partnerships.

(continued p. 7)



Josh Mengers, DOE's federal project director for ETEC, presents on recent site activities, wildfires and air monitoring during the CONNECT community meeting on August 12. Photo courtesy of Pamela Hartman.



Fire chief honored at ETEC's CONNECT meeting, shares about emergency response

Attendees at the recent [Community Outreach, Neighbor Notifications, Engagement, Collaboration and Training \(CONNECT\) Series](#)¹ meeting hosted by the Department of Energy (DOE) had the opportunity to hear about wildfire preparedness and emergency response from a local fire chief.

Ventura County Fire Division Chief Matt Falat, a 24-year veteran of the department, gave an overview of wildfire response in general and in relation to the Santa Susana Field Laboratory (SSFL), where DOE previously conducted liquid metals and nuclear energy research at the Energy Technology Engineering Center (ETEC) in Area IV and is now tasked with cleanup.

He also talked about being part of the initial wave of resources to arrive on scene to fight the Sandy Fire that burned near the site in May.

"We responded in full force (and) because of how fast the fire was moving, we went to life safety (meaning get evacuations going and get people out)," Falat told the nearly 35 attendees at the August 12 meeting.

While the fire department successfully prevented the Sandy Fire from crossing onto SSFL, Falat estimated that the blaze came to about 500 feet from the property line and approximately 3,000-plus feet to any structures onsite.

Other topics covered included coordination with SSFL site partners, how incident command works and what happens when a call comes into the 911 system for everything from "chest pain or a medical problem all the way to . . . a major fire," Falat said.



Ventura County Fire Division Chief Matt Falat talks about the Sandy Fire response during ETEC's August 12 CONNECT community meeting. *Photo courtesy of Melissa Simon.*



DOE's Consolidated Business Center's Acting Director Melody Bell (left) presents a recognition award to Ventura County Fire Division Chief Matt Falat (right) for their efforts to protect the community and SSFL during the Sandy Fire in May at ETEC's CONNECT community meeting on August 12. *Photo courtesy of Melissa Simon.*

"It's no secret that these fires are continuing to occur and they're going to continue to occur because of the winds (and) the changed environment that we're in right now," he said.

"It's our job to stay current with all of that and (work) collaboratively with the community. We build the relationships we're building right now with the Department of Energy . . . prior to the emergency so the next one goes that much better and that's ultimately the end goal."

Melody Bell, acting director for DOE's Environmental Management Consolidated Business Center, presented Falat with an award recognizing the fire department's efforts.

"We really appreciate . . . what you and your team did (during the Sandy Fire and) want to present you with a special recognition... in gratitude for the rapid response, skill and dedicated efforts to protect the community and SSFL during the Sandy Fire 2026," Bell said.

The August 12 presentation recording and slides are available on the [CONNECT Series page](#)¹.

Join the ETEC team for the next CONNECT tentatively scheduled for November 12.

Check the [CONNECT Series page](#)¹ for upcoming sessions or topics. To suggest future topics or provide feedback, fill out the [CONNECT feedback form](#)³.





Wildfires can be caused by humans because of things like campfires or burning trash or debris, but they can also be caused naturally, like by a lightning strike. Once it starts, a wildfire can be unpredictable and how hot it burns or how quickly it spreads can be influenced by:

- **Weather** – Wind, temperature or humidity
- **Fuels** – What is available to burn (i.e. brush, grass, trees or other debris)
- **Topography** – Slope of the land where the fire is burning

Scan the QR code to learn more about the risks and benefits of wildfire or get instructions to create a carbon filter at home.



Western spadefoot toad becomes candidate for threatened, endangered species listing

Two years after western spadefoot toad tadpoles were discovered at the Former Sodium Disposal Facility in Area IV at the Santa Susana Field Laboratory (SSFL) for the first time in over a decade, the tiny amphibian is once again in the spotlight.

On August 13, the California Fish and Game Commission unanimously approved a 2025 petition from the Center for Biological Diversity (CBD) to list northern and southern populations of the western spadefoot toad (*Spea hammondi*) as candidates for threatened and endangered species status, respectively, under the California Endangered Species Act. The commission's decision has started a one-year review for the listing.



Western spadefoot toad.
Photo courtesy of Tara Schoenwetter.

Dr. Tara Schoenwetter, a biologist who has worked at SSFL since 2011, [discovered about 150 tadpoles](#)⁴ while conducting biological monitoring at the site in 2024. It was the first time the spadefoot toad had been seen since 2012.

In addition to the recently approved petition, CBD also attempted to get the amphibian listed on the federal Endangered Species Act in 2012.

The U.S. Fish and Wildlife Service issued a proposal in December 2023 to list spadefoot toads as threatened on the Endangered Species List but a ruling has not yet been made.

Spadefoot toads are currently listed as a species of special concern by the California Fish and Wildlife Service. Being designated as a threatened species would be a federal listing.

While the spadefoot toads were not addressed in the biological assessment the Department of Energy (DOE) conducted for SSFL, if they are added to the federal Endangered Species List, then DOE will continue to coordinate with wildlife services on next steps.



ETEC Pilot Study Shows Promising Early Results for Groundwater Cleanup

By Melissa Simon

The U.S. Department of Energy (DOE) is making progress on an [innovative pilot study](#)⁵ that is successfully reducing groundwater contamination at the Santa Susana Field Laboratory (SSFL). The study is designed to evaluate a potential treatment approach for volatile organic compounds (VOC) in Area IV.

DOE previously conducted liquid metals and nuclear energy research at the Energy Technology Engineering Center (ETEC) in Area IV at the 2,850-acre SSFL and is tasked with remediation for that portion of the site.

“We are committed to finding the most effective and sustainable methods to address legacy contamination,” said Dr. Josh Mengers, DOE ETEC Project Director. “This pilot study is a perfect example of that commitment in action, allowing us to test and validate an innovative approach in the field.”

The small-scale study in the Hazardous Material Storage Area (HMSA) uses an in-situ, or in-place, treatment method that combines biological and chemical processes to help break down contaminants underground.

This location was selected for the pilot because the treatment is ideal for its specific hydrogeology and contaminant conditions, Mengers said.

In September 2025, DOE completed seven injection wells used to deliver food-grade emulsified vegetable oil and zero-valent iron into the subsurface to create conditions that support contaminant degradation. Naturally occurring bacteria known as *Dehalococcoides* were also introduced to help degrade the VOCs through biological activity, while the zero-valent iron supports a separate chemical treatment pathway.

Two rounds of these injections were completed in November 2025 and April 2026. In total, more than 12,000 gallons of amendment were injected, including more than 8,000 pounds of emulsified vegetable oil and nearly 40,000 pounds of zero-valent iron.

As of July 2026, DOE has collected seven months of groundwater samples from monitoring wells.

“The early results are highly encouraging, showing that treatment is performing as expected and beginning to reduce VOC concentrations,” Mengers said. “These early findings provide the sound, scientific basis we need to inform the design of a final remedy that is protective of the community and the environment.”

DOE will continue quarterly monitoring to evaluate how effectively the pilot study is at reducing contamination in the HMSA. The data collected is critical as it will inform the design of future groundwater remediation to complete the cleanup mission in Area IV.



A DOE contractor prepares a batch of amendment for an injection as part of the pilot study at the Hazardous Materials Storage. Photo courtesy of CDM Smith.





Spotted at SSFL!

Dudleya

The sandstone outcrops at the Santa Susana Field Laboratory (SSFL) in the hills near Simi Valley provide the perfect habitat for two of the 50 species of dudleya native to California: the chalk dudleya (*Dudleya pulverulenta*) and the lanceleaf dudleya (*Dudleya lanceolata*). While only two species of dudleya are currently found at SSFL, the site's environment has potential to become home to the rare stemmed dudleya (*Dudleya multicaulis*) and a subspecies known as canyon liveforever (*Dudleya cymose* ssp).

Learn more about these succulents that typically bloom between April and July.



Photos courtesy of Melissa Simon.

Did You Know?

Why it's special: Dudleyas have unique fleshy leaves that store water and allow them to thrive in extreme conditions in settings that are too harsh and dry for most plants.

Typical habitat: Rock outcrops, cliff faces, ledges, crevices and rocky slopes within chaparral and coastal sage scrub.

Fun facts:

- While dudleyas can be found across southwestern North America and northwestern Mexico, over 70% of these succulents can only be found in California.
- At least 32 of the 50 species found in California are listed as rare by the California Rare Plant Rank, and 10 are classified as threatened or endangered under federal or state endangered species law.
- Morphologically Diverse – These succulents from the stonecrop family, Crassulaceae, can be large evergreen plants or tiny deciduous geophytic plants, meaning that they have underground storage organs such as corm or bulbous stems.
- Chalk dudleyas have wide, flat pale green leaves that form a rosette and can grow to be 4 to 12 inches tall and up to a foot wide. In winter and spring, chalky, waxy stems emerge and bloom into clusters of red, orange or pink flowers.
- Lanceleaf dudleyas have fleshy, pointed leaves that vary in shape and size, and an erect stem that can bear clusters of up to 20 flowers on each of its branches in bright yellow, orange, pink or red. These succulents grow to be 4 to 8 inches tall and up to a foot wide.
- Reflective Plants – The epicuticular wax on chalk dudleyas, called farina, reflects sunlight and helps protect the leaves from intense solar radiation. The giant chalk dudleya (*Dudleya brittonii*) wax has been reported as having some of the highest ultraviolet reflectivity ever discovered in plants, reflecting as much 83% of UV-B radiation.
- Pollinators Delight – Dudleyas with yellow flowers tend to attract bees or long-tongued flies, while those with red tubular flowers appeal to hummingbirds.
- Weather Adaptive – Some species reduce their leaves greatly or disappear from above ground during the dry season. A plant that looks shriveled or gone in the summer may be dormant rather than dead.
- Native American tribes have used these succulents not only as a source of food or hydration but also to treat asthma, corns and callouses, wounds and burns.



Information provided by Tara Schoenwetter, biologist at SSFL since 2011.

(ETEC talks air monitoring... continued from p.2)

“We’re aiming to strike a balance between protecting the site’s ecosystem and securing our critical monitoring infrastructure (because) safety is always our top priority,” Mengers said.

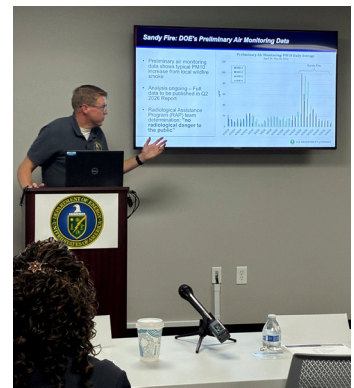
The community also heard about updates on a groundwater treatment pilot and other studies supporting final cleanup plans, ongoing sampling and monitoring efforts, and demolition work plans for the basement of Building 4024.

“DOE is really eager to make progress on (cleanup) . . . and I understand that there’s challenges and a long history, but I’m hopeful we can come together and make that progress we’re all looking to make,” Mengers said.

The August 12 presentation recording and slides are available on the [CONNECT Series page](#)⁶.

Join the ETEC team for the next CONNECT tentatively scheduled for November 12.

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Josh Mengers, DOE's federal project director for ETEC, talks about preliminary air monitoring results at the CONNECT Series meeting on August 12, 2026. Photo courtesy of Melissa Simon.

— Increased Groundwater Extraction Efforts Contribute — to Ongoing Cleanup Progress at ETEC

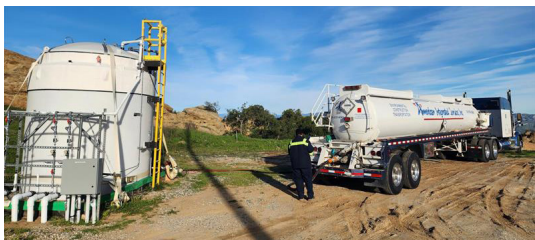
By Melissa Simon

In the two years since the U.S. Department of Energy (DOE) installed an automated pump system at the Former Sodium Disposal Facility (FSDF) at the Santa Susana Field Laboratory (SSFL), more than 65,000 gallons of contaminated groundwater has been removed for treatment.

As of August, those 65,000 gallons represent nearly 70% of the total 94,000 gallons removed since DOE began pumping water manually at the FSDF in 2017 as part of interim cleanup measures to protect groundwater by capturing and removing contaminated material.

The FSDF is in Area IV at SSFL, where DOE previously conducted liquid metals and nuclear energy research at the Energy Technology Engineering Center (ETEC) and is now charged with remediation.

DOE completed the installation of the [new solar-powered automated pump system](#)⁸ in May 2024 to allow for more frequent and greater pumping volumes, and it became fully operational by June 2024.



A tanker truck collecting impacted groundwater extracted by the automated system and stored in the 5,000-gallon tank at the Former Sodium Disposal Facility. Photo courtesy of CDM Smith.

Previously, groundwater could only be removed by manually lowering a pump into a well through a borehole. Now, pumping can occur seven days a week and without the use of electricity or a generator to operate equipment.

The impacted groundwater is transported to a certified off-site facility for safe treatment and disposal.



DOE contractors collect groundwater samples from a well connected to the solar-powered automated pump at the Former Sodium Disposal Facility. Photo courtesy of CDM Smith.

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7



8



Looking ahead



Photo courtesy of Melissa Simon.

We want to hear from you! What questions do you have about the Santa Susana Field Lab? Tell us what you'd like to learn about wildlife, plants or other cleanup-related questions.

Email questions and comments to etec@emcbc.doe.gov.

Scan the QR code to read the *CleanUpdate* online.



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