



2020 YEAR in REVIEW

NASA SANTA SUSANA FIELD LABORATORY

NASA administers 451.2 acres in two areas of the Santa Susana Field Laboratory (SSFL) used historically for the research, development, and testing of rocket engines associated with programs such as Apollo and the Space Shuttle. This Year in Review presents highlights from the work accomplished at SSFL over the past year as NASA continues to work toward achieving a cleanup that is fully protective of public health and the environment.

SOILS

In 2020, NASA completed its requirements under the National Environmental Policy Act (NEPA), marking an important milestone in the agency's progress toward soil cleanup at SSFL. In July, after carefully considering the scientific data and comments received from the public, NASA released the [Final Supplemental Environmental Impact Statement \(SEIS\)](#) evaluating the potential impacts of soil cleanup options at SSFL. NASA prepared a [fact sheet](#) summarizing the purpose of the SEIS, the alternatives evaluated, and the Preferred Alternative: a Suburban Residential Cleanup. In October, NASA released a [Record of Decision \(ROD\) for soil cleanup](#) documenting NASA's decision to proceed with a soil cleanup to Suburban Residential standards.

A Suburban Residential Cleanup would be protective of public health and the environment is consistent with nationwide Environmental Protection Agency (EPA) cleanup standards, as well as the standards imposed by the Department of Toxic Substances Control (DTSC)—the agency overseeing the cleanup—across the State of California. NASA is currently developing soil cleanup plans which can be implemented only after DTSC completes their Programmatic Environmental Impact Report (PEIR), issues a decision document, and approves NASA's plans.



In October 2020, NASA drilled an injection well (ND-162) for the EISB pilot study.

NASA continued to make significant progress in groundwater cleanup efforts at SSFL in 2020. Over the course of the year, the DTSC finalized NASA's Resource Conservation and Recovery Act (RCRA) Field Investigation (RFI) report that summarizes the nature and extent of contamination in the groundwater in NASA areas at SSFL. NASA continues to work closely with the DTSC on the Corrective Measures Study (CMS) that evaluates specific groundwater cleanup alternatives and proposes final cleanup actions. To support the development of the CMS, NASA initiated a pilot study to test the effectiveness of enhanced in situ bioremediation (EISB) to remove trichloroethylene (TCE) and other volatile organic compounds from groundwater at SSFL. The EISB pilot study commenced in October with the drilling of an injection well for the pilot treatment system in the Alfa Test Area. In parallel with the EISB field activities, NASA funded Washington State University (WSU) to evaluate different biological treatment reagents that have the potential to safely degrade TCE and other VOCs in groundwater. The WSU researchers tested these reagents using groundwater collected from the test stand areas at SSFL. The treatability study resulted in the identification of two treatment reagents that can be used to enhance natural degradation of TCE and VOCs under the groundwater conditions at SSFL.

In addition, during 2020 NASA rehabilitated and optimized the infrastructure of its wells that pump groundwater to the onsite groundwater extraction treatment system (GETS) to prepare the system to run at full capacity treating groundwater 24 hours a day.

NASA also conducted groundwater sampling and reporting throughout the year, with a slightly modified schedule due to COVID-19 restrictions and submitted to DTSC an updated sitewide groundwater quality sampling and analysis plan that supports the latest groundwater cleanup efforts onsite.

GROUNDWATER



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CULTURAL RESOURCES

NASA remains committed to protecting and preserving the Native American and cultural resources at SSFL and the agency made important progress in this area during 2020. In July, the Burro Flats Site was officially re-listed on the National Register of Historic Places (NRHP). The updated listing includes an updated boundary and information gathered from field investigations, as stipulated in NASA's [2014 Programmatic Agreement \(PA\)](#).

In September, NASA submitted a nomination for the Burro Flats Cultural District Traditional Cultural Property (TCP) to the NRHP, another action required by the PA. A TCP is eligible for inclusion in the NRHP based on its ties to the stories, traditions, values, and practices of a community, and its importance in maintaining the continuing cultural identity of the community. At least three Native American Tribes are affiliated with the area within and around the SSFL site: the Chumash, the Fernandeño, and the Gabrieleño. In October, NASA received and began addressing technical comments on the nomination from the Keeper of the NRHP at the National Park Service (NPS). After the California State Historic Preservation Officer reviews the updated nomination, NASA will resubmit it to the NPS and the Keeper of the NRHP will make a final determination on the listing of the Burro Flats Cultural District TCP in the NRHP. Throughout the nomination process, NASA has emphasized that listing the Burro Flats Cultural District TCP in the NRHP will in no way affect NASA's cleanup responsibilities at SSFL, nor our commitment to cleanup.



Listing the TCP in the NRHP would ensure the documentation and recognition of the SSFL site as a landscape of central importance to the history and religious and cultural practices of Native American Tribes tied to the region.

FOR MORE INFORMATION

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