



2019 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 is intended to present 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 natural environment.

In April 2019, NASA issued a Notice of Intent to conduct a Supplemental Environmental Impact Statement (SEIS) for soil cleanup at SSFL. The SEIS is an important step in the National Environmental Policy Act (NEPA) environmental review process, which is required to be completed before NASA can implement final soil cleanup activities. The [Draft SEIS](#), released on October 25, 2019, informs NASA management, regulating agencies, and the public about the environmental impacts that NASA's soil cleanup would have on the community as well as the natural, cultural, and biological resources found at SSFL. NEPA regulations require NASA to supplement the soil cleanup evaluation because NASA's soil investigation indicated substantially greater soil removal than originally estimated in NASA's original [2014 Environmental Impact Statement](#) and the new information has the potential to significantly alter the environmental impacts evaluated in 2014.

NASA held public meetings on November 20 and 21 to provide the public the opportunity to engage with NASA team members and provide comments on the Draft SEIS. The release of the Draft SEIS initiated a 45-day public comment period that was extended to January 8, 2020. NASA will review and respond to comments and issue a Final SEIS in 2020.

NASA continues to make progress toward the development of groundwater cleanup plans. Over the course of 2019 NASA worked closely with the Department of Toxic Substances Control (DTSC) on revisions to its Draft Resource Conservation and Recovery Act (RCRA) Field Investigation (RFI) report, which summarizes the nature and extent of chemicals of concern (COCs) in the groundwater beneath NASA-administered areas at SSFL. NASA continues to work on the RFI with DTSC in conjunction with the Corrective Measures Study (CMS) that evaluates specific groundwater treatment options. As part of this effort, NASA submitted a work plan to DTSC for an enhanced in-situ bioremediation (EISB) study to test the effectiveness of EISB as a remedial option for groundwater cleanup at SSFL. Bioremediation is a cleanup technology that uses naturally occurring microorganisms to break down and eliminate COCs in the groundwater.



NASA crews drill a new well for the onsite Groundwater Extraction Treatment System (GETS).

NASA also initiated a laboratory study to look at bioaugmentation cultures that could be used for bioremediation. The study, which is being conducted by Washington State University Tri-Cities, is using rock core samples and groundwater samples from SSFL to create microcosms that will simulate the specific conditions of the SSFL site and test the ability of microbes to naturally break down COCs into non-toxic bi-products.

Finally, NASA advanced groundwater cleanup with the completion of the installation of new pipeline for the onsite Groundwater Extraction Treatment System (GETS). NASA crews worked diligently over the year to replace the GETS pipeline that burned in the Woolsey Fire. In addition, NASA drilled two new GETS replacement wells--ND-138A & ND-138B--for more targeted remedial control of seeps on NASA property.



SSFL Project Director Peter Zorba engages with a stakeholder at a November 2019 Public Meeting on the NASA SEIS.

SOILS

GROUNDWATER

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DEMOLITION

In the Spring of 2019, NASA completed the demolition work it began in 2015 in the NASA-administered areas at SSFL. During that time, NASA dismantled and removed 90 inactive structures and obsolete infrastructure. In addition, NASA removed over 20 acres of asphalt and concrete in preparation for final cleanup.

In its [2014 Programmatic Agreement](#), part of the Record of Decision for Demolition, NASA agreed to keep at least one test stand and control house for historic preservation, provided that cleanup goals could be met. In 2015, NASA deferred the demolition of all test stands and control house structures in response to a request from the Santa Ynez Band of Chumash Indians (SYBCI). NASA re-affirmed its decision to defer demolition of the test stands in 2017 in response to a bipartisan letter from several members of the California congressional delegation urging NASA to protect the historic structures.

In March of 2019, the NASA Office of Inspector General (OIG) released an [audit of NASA's progress with environmental remediation activities at the SSFL](#). The report recommended that NASA make a decision whether to preserve or demolish the test stands before soil cleanup begins. NASA Management concurred with the OIG's recommendation and began consultation with the Advisory Council on Historic Preservation and the SYBCI regarding that decision. NASA expects to make a final decision about the test stands in early 2020.



Archeologists collaborate in the field during a pedestrian survey of NASA property affected by the Woolsey Fire.

2019 marked significant progress toward meeting the stipulations of NASA's [2014 Programmatic Agreement](#) (PA) with the California State Historic Preservation Officer (SHPO), the Advisory Council on Historic Preservation, and the Santa Ynez Band of Chumash Indians. The PA, part of NASA's Record of Decision for Demolition, identifies measures to be taken for the protection and preservation of cultural resources during implementation of NASA's demolition and cleanup activities at SSFL. In November, the updated National Register of Historic Places nomination of the Burro Flats Site was accepted by the California State Historical Resources Commission and has been sent to the Keeper of the National Register, completing Stipulation III.A of the PA. Additionally, NASA's National Register nomination for the SSFL Cultural District as a Traditional Cultural Property has been accepted by the California SHPO and is expected to go before the State Historical Resources Commission in 2020. NASA also discovered additional archaeological resources in NASA areas in 2019 while conducting a pedestrian archaeological survey following the Woolsey Fire. This post-fire survey of burned areas within NASA's Area II resulted in the recordation of 16 new archaeological sites and 15 new isolated artifacts.

FOR MORE INFORMATION

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