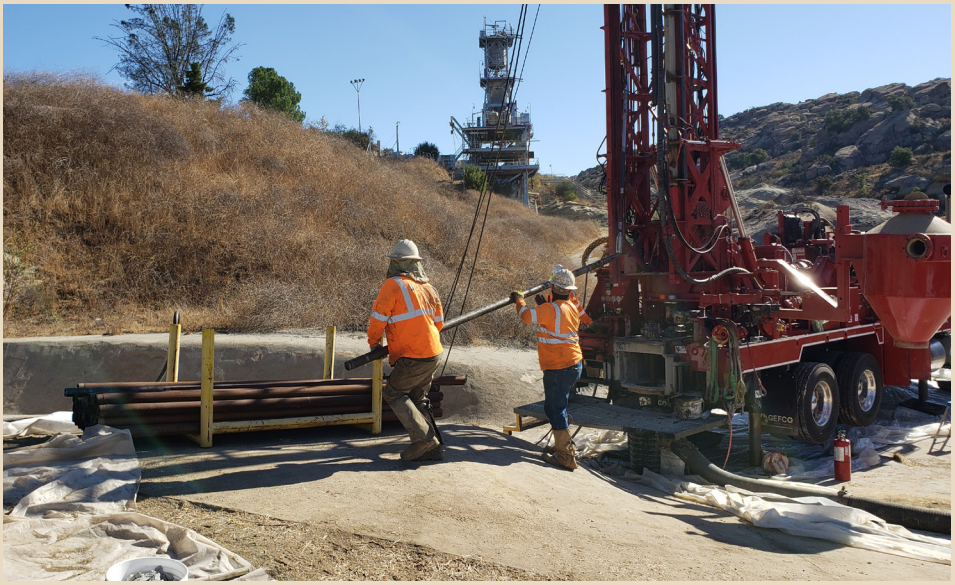
NOVEMBER 2020

FieldNOTE

An Update on NASA's Cleanup Efforts at the Santa Susana Field Laboratory



Pilot study to test capability of new groundwater treatment method

NASA continues to move forward with preparation and planning for groundwater cleanup at SSFL. One important area where NASA is making progress is the development of a pilot study to test the effectiveness of a treatment method to remove trichloroethylene (TCE) and other volatile organic compounds (VOCs) from the groundwater. Enhanced in situ bioremediation (EISB) harnesses and enhances the power of naturally occurring microorganisms that degrade groundwater contaminants into harmless byproducts.

Last month, NASA began drilling the first injection well for a pilot system that will operate near the spillway of the Alfa 3 Test Stand (as pictured, above). The entire system will take up an area about the size of a basketball court. A total of six new wells will be drilled for this study. NASA expects to complete the first injection well in December. Hydrogeological and water quality data from the injection area will allow NASA to complete its permitting process and begin drilling two more injection wells and three monitoring wells.

NASA expects to complete the remaining wells next Spring and begin the pilot study in earnest in June 2021. If the study proves EISB can successfully clean TCE and other VOCs amid the unique site conditions at SSFL, NASA can expand this remedy for larger scale application in other groundwater cleanup areas. For more information about the EISB study, check out the May 2020 FieldNOTE. **(continued, see GROUNDWATER page 2)**

NASA advances cultural resource protections

In September, NASA submitted a nomination for the Burro Flats Cultural District Traditional Cultural Property (TCP) to the National Register of Historic Places (NRHP), an action required by Stipulation II.C. of NASA's 2014 Programmatic Agreement (PA). The PA, signed by NASA, the California State Historic Preservation Officer (SHPO), the Advisory Council on Historic Preservation, and the Santa Ynez Band of Chumash Indians, stipulates actions that NASA must take to address the adverse effects of demolition and cleanup activities on the historic and cultural resources at SSFL.

Following an August hearing in which the California State Historic Resources Commission and the SHPO agreed that the nomination meets the criteria for NRHP listing, NASA submitted the nomination to the Keeper of the National Register for final review and listing. In October, NASA received technical comments from the Keeper's office and the agency is in the process of responding to those comments. Once NASA addresses the comments and they are approved by SHPO, the nomination will go back to the Keeper to make a final determination.

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Demolition of the Bravo Test Stands to begin in 2021

Demolition of the Bravo Test Area, pictured earlier this year, is expected to begin next summer.

NASA is preparing for its next phase of demolition beginning next spring in the Bravo Test Area. NASA announced its decision to retain and preserve the two remaining Alfa Test Stands and control house in March 2020. NASA will proceed with the demolition of the Bravo and Coca Test Areas in accordance with the 2014 Programmatic Agreement. NASA is working with the United States Army Corps of Engineers (USACE) to oversee the demolition work. The USACE oversaw NASA's demolition activities between 2015-2019 that focused on the removal of buildings and infrastructure outside the test areas. Now, NASA and the USACE are in the final stages of selecting a contractor to perform demolition. NASA expects to have a contract in place by the end of the year, setting the stage for demolition activities beginning next spring. Following the approval of a work plan that addresses the practices and procedures to be implemented to protect the health and safety of workers, the community and the environment, the demolition team will move into the field and begin staging materials and equipment. Demolition activities are expected to begin in earnest by the summer of 2021, with an anticipated completion date of 2022. NASA anticipates the demolition of the Coca Test Stands will begin sometime in 2023. ■

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In other progress toward groundwater cleanup, Department of Toxic Substances Control (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 that evaluates specific groundwater cleanup alternatives and proposes final cleanup actions for NASA areas.

NASA has also made great progress with the groundwater interim measure (GWIM). The GWIM, implemented at the direction and oversight of the DTSC, focuses on treating the source areas of groundwater contaminants. NASA GWIM wells pump groundwater to the above-ground groundwater extraction treatment system (GETS), that Boeing operates onsite. The GETS In 2019, NASA finished restoring the NASA portion of the GETS pipeline that burned in the 2018 Woolsey Fire. Over the course of this year, NASA has rehabilitated and optimized its GETS well infrastructure so the system can operate at full capacity treating groundwater 24 hours a day beginning in early 2021. ■

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The development and nomination of the TCP originated from a request to NASA from three Native American Tribes affiliated with the (the Chumash, Fernandeño, and Gabrieleño) area within and around the SSFL site. Listing on the NRHP would ensure the documentation and recognition of the site as a landscape of central importance to the Tribes' history and religious and cultural practices, echoing the Santa Ynez Band of Chumash Indians' 2012 designation of the SSFL site as an Indian Sacred Site under Executive Order 13007.

The listing of the Burro Flats Cultural District as Traditional Cultural Property (TCP) in the NRHP will in no way affect NASA's cleanup responsibilities or commitment to cleanup. NASA remains committed to achieving a cleanup at SSFL that is protective of public health and the environment and uses the best available science and technology, while preserving the site's natural, historic, and Native American cultural resources. ■

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