

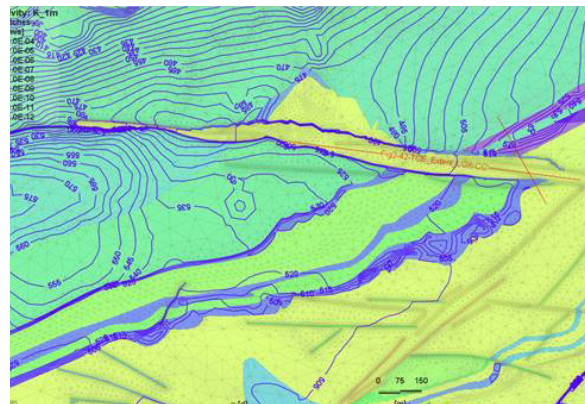
2018 YEAR in REVIEW

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.

GROUNDWATER & SOILS

NASA made significant progress toward groundwater cleanup in NASA-administered areas at SSFL during 2018. NASA continued its ongoing, quarterly monitoring and reporting program for groundwater. In addition, NASA issued a Record of Decision (ROD) for groundwater cleanup in October. The groundwater ROD outlines and affirms NASA's decision to proceed with the groundwater remediation strategies described in NASA's 2014 Final Environmental Impact Statement (EIS). The issuance of the groundwater ROD will allow NASA to begin groundwater cleanup activities as soon as the California Environmental Quality Act (CEQA) and other regulatory processes conclude.



NASA also submitted a Corrective Measures Study (CMS) to the Department of Toxic Substances Control (DTSC) for review. The CMS evaluates approaches and technologies for cleaning up contamination in the groundwater beneath the SSFL site. NASA also made significant advances in the Mountain Scale Groundwater Flow Model for SSFL (see image, above right). This model enables NASA and the DTSC to analyze groundwater flow systems, to simulate water budget changes, and to visualize groundwater contaminant fate and transport at large-scale, which will help NASA validate groundwater cleanup approaches considered in the CMS.

For soils, NASA continues to await the finalization of the Soil Data Summary Report (DSR) by the DTSC. The DSR summarizes data gathered during NASA's soil investigations, and outlines the nature and extent of soil contamination in NASA-administered areas. The DSR was sent to the DTSC for finalization in February 2017.



NASA considers stormwater management in every one of its activities at SSFL. Stormwater best management practices (BMPs) are implemented and continuously improved to mitigate runoff and help meet the strict discharge limits associated with Boeing's National Pollutant Discharge Elimination System (NPDES) permit. Over the summer, NASA reconstructed one of the existing Culvert Modifications (CM), CM-1, where stormwater runoff can be treated. The filter media, consisting of carbon, sand, and zeolite, was replaced at the culvert to increase flow through the media and enhance treatment of the stormwater before reaching Outfall 009 (see photo, left). NASA completed the reconstruction project in September.

NASA also made annual preparations for the winter rainy season.

In addition to the stormwater control measures already in place, NASA staged materials such as wattles, sandbags, gravel in strategic locations throughout Area II so they are ready to be placed as needed during rain events. Following the Woolsey Fire in November, NASA identified impacted areas where soil had a higher chance of eroding during rain events. NASA replaced BMPs that were burned in the fire and placed sandbags and straw wattles to slow runoff and reduce the potential for erosion and to maintain compliance with Stormwater Pollution Prevention Plan (SWPPP) requirements.

STORMWATER

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AIR MONITORING

In April, NASA, Boeing, and the Department of Energy, began a site-wide baseline air monitoring program for SSFL. The Baseline Air Monitoring Program (BAMP) is measuring air quality at 14 locations along the SSFL perimeter to evaluate baseline conditions. This information will help the responsible parties understand what impacts, if any, cleanup activities would have on the air quality surrounding SSFL. For this effort, NASA installed four air monitoring stations in NASA-administered areas in locations that were selected based on guidance from the U.S. Environmental Protection Agency (EPA). During the year-long BAMP, NASA is measuring concentrations of airborne dust and volatile organic compounds. At the end of the year-long program, NASA and other parties will compare the results of the local particulate concentrations with regional background levels. If excessive emissions are observed, cleanup activities may be modified or additional controls could be implemented to reduce the impacts of cleanup.



Over the year, NASA made great progress with demolition activities in NASA areas at SSFL. In early 2018, NASA completed Phase 3-A of its demolition program. This work consisted of the removal of obsolete buildings and structures throughout the Alfa and Bravo Test Areas, excluding the historic test stands and control houses. In March, NASA continued this work in the Coca Test Area with Phase 3-B. Over the summer, as part of Phase 3-B, NASA deconstructed and removed a large hydrogen tank (see photo, left). In October, NASA also began the fourth and final phase of demolition. In Phase 4, NASA is removing additional concrete at Area I LOX and a blast wall in the Bravo Test Area. NASA expects to complete all current demolition activities by mid-2019. Photos of demolition progress are available on the [Demolition Updates page](#) of the NASA SSFL website.

DEMOLITION

In November, the Woolsey Fire burned through a large portion of the NASA-administered area of the SSFL site. All NASA SSFL personnel and contractors were safely evacuated from the site and NASA fully cooperated with fire and emergency responders, as well as state and public agencies during the fire response effort. The fire resulted in numerous downed power lines and burned oak trees, and NASA has been working onsite to help clear the roadways and power poles and repair equipment and infrastructure destroyed by fire. NASA and contractor personnel continue to work onsite to restore power and recover from fire damage. Additionally, NASA is installing new, and improving existing stormwater best management practices (BMPs), in preparation for future rain events.

FOR MORE INFORMATION

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