



2010

YEAR IN REVIEW

NASA and Santa Susana Field Laboratory

NASA administers 451.2 acres in two areas of Santa Susana Field Laboratory (SSFL) used historically for the research, development, and testing of rocket engines associated with the Apollo and Space Shuttle programs. NASA is committed to a cleanup of those areas to a level protective of public health and the environment.

During 2010, NASA continued its environmental investigations and cleanup at SSFL and demonstrated its commitment to ongoing communication with the public. Project highlights are summarized below and more information including new fact sheets is available on the SSFL website <http://ssfl.msfc.nasa.gov>.

NASA Signs Agreement with DTSC on Soil Cleanup

As the year came to a close, NASA signed the Administrative Order on Consent (AOC) with the California Environmental Protection Agency in December. Under the AOC, NASA will work with the California Department of Toxic Substances Control (DTSC) to determine the chemical background for each potential chemical constituent based upon the DTSC ongoing chemical background study. NASA also will work with DTSC to determine the nature and extent of any remaining chemical contamination based on sampling results NASA previously submitted, and any additional sampling that DTSC determines necessary. Once areas with levels considered to be "above background" are determined, NASA will develop a plan (called a Remedial Action Implementation Plan) for how the soils cleanup will be conducted. NASA recognizes that environmental considerations play an important part in any cleanup. The AOC provides for NASA to evaluate the impacts of the cleanup actions in accordance with the National Environmental Policy Act (NEPA). This evaluation will include extensive community involvement.

Groundwater Education Program in Planning Stages During 2010

NASA, Boeing and the Department of Energy (DOE), together with the DTSC, were busy in 2010 developing a program to increase people's understanding of information contained in a SSFL Draft Site-wide Groundwater Remedial Investigation (RI) report submitted to DTSC in late 2009. The program of several educational sessions to be held in Spring 2011 is intended to provide key concepts related to hydrology, geology and groundwater contaminant transport and fate. The aim is to facilitate residents' understanding of basic geologic principles that will form a foundation for their review of the report and help them provide input when DTSC conducts formal public comment meetings in 2011.

Progress Made on Soil Removal Work

In October, NASA began soil removal activity on land it administers in Area II near a former incinerator and related ash pile (which burned non-hazardous wastes - from the mid-1950s through the 1970s) and sewage treatment plant (operational from 1961 to 1987). Soil removal in 2010, which targeted dioxin, was conducted in areas containing some oak trees. Work in these sensitive areas was conducted by loosening the soil with hand tools then removing soil by vacuum. No oak tree roots were exposed or damaged as a result of this practice. All heavy equipment (small excavator and transport vehicles) stayed well beyond the oak tree drip line. Approximately 273 cubic yards of soil were removed and properly disposed of at Waste Management's landfill in Lancaster, California. Final confirmation samples showed results that were below (that is, better than) cleanup goals. Site restoration activities of re-contouring the excavated areas and hydro-seeding were completed in early December.

NASA is removing soil contamination sources in phases as part of an Interim Source Removal Action (ISRA) to protect surface water quality. Phase I in the Area II Landfill vicinity was completed in 2009. Phase II was conducted during 2010 and will continue into 2011, followed by a Phase III. ISRA is being conducted at SSFL under the direction of the Regional Water Quality Control Board (RWQCB).

Groundwater Treatment "GETS" Ready to Go

Work continued in 2010 on development of a Groundwater Extraction Treatment System (GETS), based on a Groundwater Interim Measures work plan submitted by NASA, Boeing and DOE to the DTSC in September 2008. The system is designed to pump groundwater from 14 wells across the SSFL and deliver it via a network of new pipelines to a centralized location on Boeing property. The GETS facility contains a number of technologies capable of removing chemicals from groundwater.

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The facility has been partially operational since early October 2009 with groundwater being extracted from one well (NASA well WS-9A), removing chemicals at the GETS, and the treated water being hauled off site for proper disposal.

In a June 3, 2010 stormwater permit hearing, the RWQCB gave permission to relocate Outfall 019, which is the discharge of the SSFL treated groundwater. Outfall 019 has been constructed and site operators will monitor the GETS discharge to ensure treatment is working properly and that it is meeting the goal of improving water quality.

Site-Wide Groundwater Remedial Investigation

The Draft Site-wide Groundwater Remedial Investigation (RI) Report was submitted to DTSC in December 2009. Since then, NASA has participated in several meetings with DTSC staff and other SSFL partners to facilitate a better understanding of technical issues. In addition, NASA, DOE and Boeing have developed the Data Gaps Sampling and Analysis Plan (SAP) assessing the nature and extent of site-related chemicals and radionuclides in groundwater and the unsaturated bedrock at SSFL. The draft SAP, submitted to DTSC in March 2010, provides an approach and scope of work to address the data gaps identified in the Draft Site-wide Groundwater RI report. Also in October 2010, NASA submitted a Technical Memorandum to DTSC describing the approach and results of a review that NASA, DTSC and other SSFL partners conducted of each monitoring well, excluding groundwater seeps, at or near SSFL. Each monitoring location was characterized and evaluated for its attributes and purpose within the SSFL groundwater monitoring program.

Integrated Cultural Resources Management Plan (ICRMP)

In August 2010, NASA released the final version of an Integrated Cultural Resources Management Plan (ICRMP). The ICRMP describes how NASA will manage cultural resources on SSFL that were identified in site-wide archaeological and historical surveys on federally-owned land that NASA administers in Areas I and II. Properties identified include NASA rocket engine test stands and ancestral Native American sites, which are eligible for National Register of Historic Places listing. Survey results were used to develop management tools and enhanced security measures for the protection of these resources now and in the future. The ICRMP and the Historic Resources Survey and Assessment are available for download at the SSFL website as are fact sheets describing NASA's historical and archaeological surveys.

Outreach in 2010 Included Community Information Session, Site Tours

NASA remains committed to ongoing communication with the public regarding all investigation and cleanup activities at SSFL. Information such as two new fact sheets published in 2010 (NASA's historical and archaeological surveys) is provided through NASA's SSFL website, which is routinely updated. Visit <http://ssfl.msfc.nasa.gov>.

In May, NASA hosted a Community Information Session (CIS) in Chatsworth. A first gathering of its kind for this project, the CIS attracted some sixty community members. People had an opportunity to view a series of ten displays featuring descriptions and photographs of site background, history, environmental investigations, and cleanup activities. Each display was staffed by a NASA project team member. Those attending the CIS were able to talk directly with technical experts working on the project.

Frequent SSFL Bus Tours for the public were initiated in 2010. Hosted by NASA, Boeing and DOE, tours were conducted on three summer Saturdays, one in October, and one in December. Community members boarded a bus that traveled to various locations undergoing site investigation and cleanup activity at SSFL. This was an opportunity for people to learn about efforts by NASA, Boeing and DOE at their respective locations. The bus made stops for people to visit points of interest such as the newly constructed groundwater extraction treatment facility, water drainage areas and test stands. Additional tours will be scheduled in 2011. NASA also provides tours, or joins with Boeing, to provide specialized tours for groups with an identified interest in the site.

For further information, contact

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