

ANNUAL REPORT

Programmatic Agreement Regarding the Proposed Cleanup of Santa Susana Field Laboratory Area IV and Northern Buffer Zone, Ventura County, California

January 2023 – December 2023



**U.S. Department of Energy
Energy Technology Engineering Center
Santa Susana Field Laboratory
Simi Valley, CA 93063**

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ACRONYMS

AOC	Administrative Order on Consent
CMI Plan	Corrective Measures Implementation Plan
DOE	Department of Energy
DTSC	California Department of Toxic Substances Control
FSDF	Former Sodium Disposal Facility
HMSA	Hazardous Material Storage Area
ICR	Indigenous Community Representatives
NASA	National Aeronautics and Space Administration
NRHP	National Register of Historic Places
PA	Programmatic Agreement
SSFL	Santa Susana Field Laboratory
SHPO	California State Historic Preservation Officer
SRAIP	Soil Remedial Action Implementation Plan
TCP	traditional cultural property

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This annual report summarizes activities conducted from January 2023 through December 2023 pursuant to the *Programmatic Agreement between the United States Department of Energy and the California State Historic Preservation Officer Regarding the Proposed Cleanup of Santa Susana Field Laboratory Area IV and Northern Buffer Zone, Ventura County, California* (PA).

1.0 Summary of Undertaking Updates during the Reporting Period

The Department of Energy's (DOE's) undertaking at the Santa Susana Field Laboratory (SSFL) covered under the PA includes a three-phased proposal to (a) demolish and remove 18 DOE-owned buildings in Area IV; (b) perform groundwater cleanup and related activities; and (c) perform soil cleanup and related activities. This section describes the status of each of these activities and discusses anticipated actions during the next reporting period.

Building Demolitions

Activities Completed or Underway within the Reporting Period. DOE completed demolition of the above-ground portions of all 18 DOE-owned buildings by the end of 2021 (see map in Appendix A). There were no activities related to building demolitions conducted during this reporting period.

Activities Expected in 2024. No ground-disturbing activities related to buildings are expected in 2024.

Groundwater Cleanup and Related Activities

Groundwater Investigation Wells

Activities Completed or Underway within the Reporting Period. DOE installed six new monitoring wells in the Hazardous Material Storage Area (HMSA). The project entailed installing investigation wells to help inform selection of the groundwater corrective measures. In addition to drilling boreholes, the project included vegetation disturbance and some ground disturbance while moving drilling equipment within the project area.

In compliance with PA Stipulation VI and the standard protection measures in PA Attachment 8, all new well-related infrastructure was designed to avoid identified archaeological sites. Dr. Karen Foster (Leidos), an archaeologist who meets the PA's qualification standards, visited the HMSA area in September 2023 to review the location of the proposed infrastructure prior to installation. The site visit was also attended by a Native American representative and a biological resource expert. Based on the field visit, Dr. Foster confirmed that no recorded archaeological sites were located within 50 feet of proposed ground disturbance, and no new (unrecorded) archaeological material was observed during the site visit. Installation of the new HMSA monitoring wells (Figure 1) took place in November 2023 and was monitored by a Native American representative. No cultural resources were uncovered during the installation process.

Activities Expected in 2024. DOE plans to install an automated groundwater extraction system in the area of the Former Sodium Disposal Facility (FSDF). Planning activities related to this system were discussed in the 2022 PA annual report. This system will allow for more frequent groundwater extraction without having a site worker present each time groundwater is extracted. The project will include installing submersible pumps powered by solar panels along with conveyance piping for existing wells. The conveyance piping will consist of a combination of above- and below-ground piping.



Figure 1. Installation of New Monitoring Wells in the Hazardous Material Storage Area (photograph taken November 15, 2023)

Groundwater Cleanup

Activities Completed or Underway within the Reporting Period. DOE continued active groundwater remediation (e.g., manual pumping and off-site treatment and disposal of extracted groundwater) at the FSDF that has been ongoing since 2017.

Activities Expected in 2024. DOE will continue active groundwater remediation at the FSDF and there are plans to start the pilot test of *in situ* groundwater treatment at the HMSA, per the new investigation wells described above. DOE will continue coordination with the California Department of Toxic Substances Control's (DTSC) on issues related to the preparation of a draft Groundwater Corrective Measures Implementation (CMI) Plan that will describe DOE's proposed groundwater cleanup actions. Per PA Stipulation VIII, DOE commits to propose corrective measures that would avoid adverse effects to historic properties and consult with the Consulting Parties about the proposed corrective measures before finalizing the CMI Plan for submission to DTSC.

Soil Cleanup and Related Activities

Activities Completed or Underway within the Reporting Period. There were no completed activities related to soil cleanup during this reporting period.

Activities Expected in 2024. DOE will continue coordination with the DTSC on issues related to the preparation of a draft Soil Remedial Action Implementation Plan (SRAIP), which will describe DOE's proposed soil cleanup actions. DOE is currently in discussions with the DTSC about how to implement the Native Americans Artifacts Exemptions Clause under the 2010 Administrative Order on Consent (AOC). The AOC allows "Native American artifacts that are formally recognized as Cultural Resources" to be exempted from soil remediation, subject to DTSC's "oversight and approval" (2010 AOC Sections 2.1 and 2.9(4); Native American Artifacts Exemptions Clause in Attachment B of the 2010 AOC). DOE will consult with the Consulting Parties about proposed exemption areas, per PA Stipulation VIII, before finalizing the SRAIP for submission to DTSC.

Additional Activities

DOE continued consultations with local Tribes who have a demonstrated interest in the Undertaking. DOE participated in two meetings with the SSFL Sacred Sites Council, including an on-site meeting in August 2023 organized by NASA that also included senior leaders from the State of California and other parties managing the cleanup at SSFL (Figure 2).



Figure 2. Sacred Sites Council Meeting (*photograph taken August 17, 2023*)

2.0 Status of Programmatic Agreement Stipulations

The following table provides the current status of the PA stipulations. Additionally, DOE plans to develop an amendment to the PA, in accordance with Stipulation XIX, *Amendments*, to extend the duration of the PA past September 2024 to provide additional time to complete the Undertaking and implement the remaining stipulations.

Stipulation	Title	Status
I	Definitions	No change.
II	Professional Qualifications	DOE confirms that technical work during this reporting period was carried out by, or under, the direct supervision of professionals who meet professional standards.
IIIa	Tribal Involvement	DOE continued to coordinate with the Santa Ynez Band of Chumash Indians on a monthly basis. DOE participated in two Sacred Sites Council meetings organized by NASA (May and August 2023).
IIIb	Tribal Monitoring	DOE ensured its contractor(s) hired tribal monitors when required and that monitoring was conducted pursuant to the <i>Monitoring and Inadvertent Discovery Plan</i> .
IV	Modification of the Area of Potential Effects	No change; the area of potential effects has not been modified.
V	Building Demolition and Removal	All 18 above-ground structures have been demolished, as described in Section 1.0. There was no reason to reopen consultations with the Consulting Parties, per Stipulation V.c.
VI	Groundwater Investigations	Installation of new HMSA monitoring wells took place in November 2023, as described in Section 1.0.
VII	Soil and Groundwater Cleanup: Identification and Evaluation	NASA, in consultation with Native American stakeholders and tribes affiliated with SSFL and the SHPO, has determined that SSFL is a NRHP-eligible TCP. NASA has initiated the process for listing the Burro Flats Cultural District (TCP) in the NRHP in accordance with NASA's 2014 PA [<i>Programmatic Agreement Among National Aeronautics and Space Administration, the California State Historic Preservation Officer, and the Advisory Council on Historic Preservation Regarding Demolition and Soil and Groundwater Cleanup at Santa Susana Field Laboratory Ventura County, California</i>].
VIII	Soil and Groundwater Cleanup: Assessment of Adverse Effects	No completed activities to report this period.
IX	Soil and Groundwater Cleanup: Treatment of Historic Properties	No completed activities to report this period.

Stipulation	Title	Status
X	Monitoring Plan for Tribal and Archaeological Monitors	DOE developed a <i>Monitoring and Inadvertent Discovery Plan</i> in 2020. Nothing was uncovered during the current reporting period that triggered any of the Monitoring Plan's procedures for unexpected discoveries of cultural resources or human remains.
XI	Inadvertent Discovery of Cultural Resources and Human Remains, Graves, and Associated Funerary Items	DOE developed a <i>Monitoring and Inadvertent Discovery Plan</i> in 2020. Nothing was uncovered during the current reporting period that triggered any of the Monitoring Plan's procedures for unexpected discoveries of cultural resources or human remains.
XII	Curation	No activities occurred during this reporting period.
XIII	Review of Documents	DOE followed this stipulation during development and review of the <i>2022 Annual Report</i> .
XIV	Communication	DOE communications were consistent with this stipulation.
XV	Annual Reporting	DOE developed this annual report consistent with the requirements of Stipulation XV.
XVI	Confidentiality	DOE has conducted activities consistent with this stipulation.
XVII	Dispute Resolution	There were no disputes needing resolution during this reporting period.
XVIII	Duration	No change.
XIX	Amendments	No amendments were enacted during this reporting period.
XX	Addition and Termination	There were no additions or terminations during this reporting period.
XXI	Antideficiency Act	No change.
XXII	General Provisions and Scope of Agreement	No change.
XXIII	Execution	The PA was executed in September 2019.

DOE = Department of Energy; DTSC = California Department of Toxic Substances Control; HMSA = Hazardous Material Storage Area; ICR = Indigenous Community Representatives; PA = Programmatic Agreement; NASA = National Aeronautics and Space Administration; NRHP = National Register of Historic Places; SSFL = Santa Susana Field Laboratory; SHPO = California State Historic Preservation Officer; TCP = traditional cultural property

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APPENDIX A

Map showing demolished buildings

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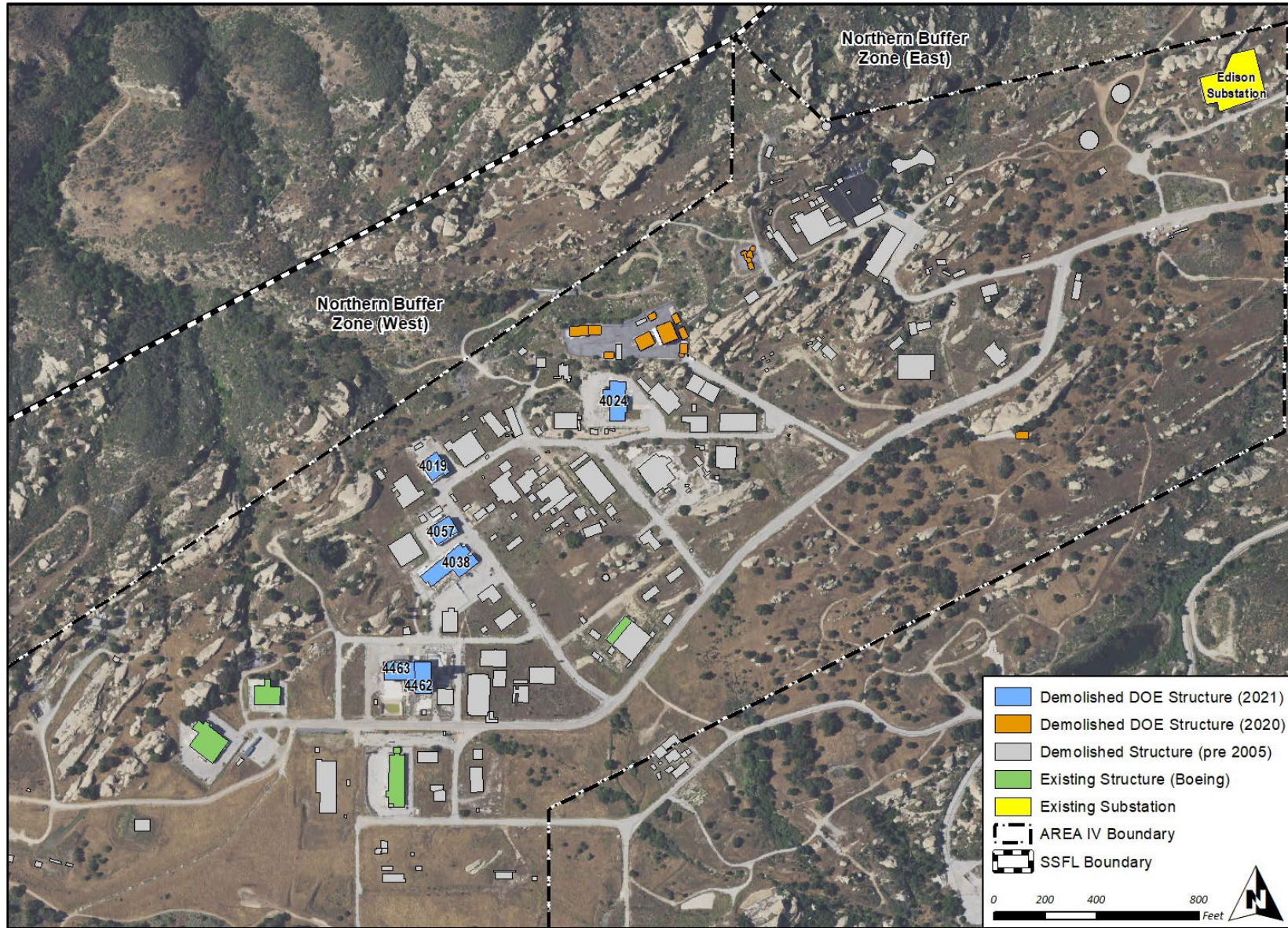


Figure A-1: Santa Susana Field Laboratory Area IV Building Status

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