

# **Cultural Resources Clearance Survey of Area IV at the Santa Susana Field Laboratory Site**

## **Draft Study Plan**

**November 2009**

### ***1.0 Background and Document Purpose***

Under an Interagency Agreement with the U.S. Department of Energy (DOE), the U.S. Environmental Protection Agency (EPA) will be undertaking radiological gamma surveys and soil sampling of Area IV and the Northern Undeveloped Lands of the Santa Susana Field Laboratory (SSFL). These surveys and soil sampling will be used to locate and characterize sources of radiological contamination associated with prior nuclear energy research conducted within Area IV of the SSFL.

The cultural resources clearance surveys addressed in this plan will be conducted on land owned by The Boeing Company (Boeing). DOE's nuclear research mission is completed. DOE has funded EPA to complete the radiological characterization of Area IV. DOE will use the data produced by EPA in the evaluation of additional site cleanup needs and the final demolition and remediation activities for the analysis required for the Area IV Environmental Impact Statement (EIS).

EPA's surveys and soil sampling activities may impact cultural resources. In advance of EPA's activities, DOE has agreed to conduct cultural resources clearance surveys of Area IV and the Northern Undeveloped Lands for such resources that are protected under state or federal law. DOE will provide the results of the surveys to EPA who then can use the information in the planning of its studies for avoidance, protection, or mitigation for any impacts to cultural resources. In addition, DOE will use the results of these surveys for the evaluation of the environmental impacts resulting from further cleanup of SSFL and for the planning of those cleanup actions.

The information collected as a result of the cultural resources survey will also be used as a basis for consultation with the State Historic Preservation Officer (SHPO) at the California Office of Historic Preservation (OHP) in compliance with Section 106 of the National Historic Preservation Act (NHPA). The information developed as a result of the survey will also be used to develop the cultural resources sections of the EIS for Santa Susana Field Laboratory Area IV.

This study plan addresses the cultural resources field survey activities that DOE cultural resource specialists will use to locate and identify cultural resources in the study area. This study plan identifies the areas targeted for the survey and the survey methods.

### ***2.0 Study Area Setting***

The SSFL is located 29 miles northwest of downtown Los Angeles, California, in the southeast corner of Ventura County (Figure 1). The SSFL occupies approximately 2,850 acres of hilly terrain, with approximately 700 feet of topographic relief near the crest of the Simi Hills. The Simi Hills are bordered on the east by the San Fernando Valley and to the north by the Simi Valley. SSFL Area IV consists of 290

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acres located in the northwestern portion of the SSFL property where final demolition and remediation activities will occur (Figure 2). The adjacent Northern Undeveloped Lands abut the northern boundary of SSFL Area IV and are approximately 182 acres in extent. Although there was no use of the Northern Undeveloped Lands for nuclear research, steep-sided drainages leading northward from Area IV cross a portion of these lands.

**Physical Setting:** The SSFL in general is characterized by steep outcrops of the Chatsworth formation, a thick sequence of steeply dipping sandstone beds interbedded with siltstone that are conspicuous features of the site. Between the resistant outcrops are more or less level areas that overlie more erodible portions of the sandstone. Much of the development in Area IV took place on “Burro Flats”, the largest of these areas of relatively flat topography.

Because of the SSFL’s location at and near the summit of a low mountain range in a semi-arid environment, water is scarce and localized to intermittent drainages and small man-made impoundments.

The Northern Undeveloped Lands adjacent to and north of Area IV are characterized by steep, nearly barren sandstone outcrops that parallel the northern border of Area IV to the west, giving way to relatively dense chaparral on less rocky slopes toward the northeastern boundary of Area IV.

Several intermittent drainages lead north from Area IV into the Northern Undeveloped Lands and southeast into Areas II and III. Engineered stormwater collection and treatment systems, developed to address National Pollutant Discharge Elimination System discharge requirements, control stormwater flows northward from Area IV. These systems are primarily used during the winter rainy season (November through April) as there is no permanent water flow or natural water bodies within the study area.

**Cultural Resources:** Cultural resources in Area IV of the SSFL have been described in two studies completed for DOE and Boeing. An archaeological survey was completed in 2001 in Area IV (W&S Consultants 2001). Four archaeological sites were recorded. Preliminary evaluation of the sites eligibility for listing in the National Register of Historic Places (NRHP) was that the four sites were not eligible. The work completed during the study is summarized, in part:

A Class III Inventory/Phase I archaeological survey was conducted for Area 4 [sic] of the Santa Susana Field Laboratory (SSFL), eastern Ventura County, California. The study area is a 290 acres parcel that has been used for aerospace and nuclear research and testing since 1947. The investigation involved an archival records search, a review of existing published and unpublished references on local prehistory and history, and an on-foot, intensive survey of the subject property. No sites had been recorded within the study area, but the study area had never been systematically surveyed by archaeologists. On-foot survey resulted in the identification of four archaeological sites. Site SSFL-1 is a small rockshelter containing a single pink painting of a burro, of unknown cultural origin and age. SSFL-2 is a small rockshelter that contained two pieces of lithic debitage and a fire-blackened ceiling. SSFL-3 is a single bedrock mortar. SSFL-4 is a small rockshelter that once contained a midden deposit; an estimated 75% of this deposit has been destroyed by artifact looting and thus the site now lacks integrity [W&S Consultants 2001: Management Summary]

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Architectural resources were documented in a 2009 study (Post/Hazeltine Associates 2009). This study evaluated the NRHP eligibility of SSFL Area IV structural resources on an individual basis, as members of building groups, and as potential members of a historic district. In many cases, all buildings within groups have been demolished. Of 32 groups of buildings, 12 have at least one building still standing. Over 270 structures once stood in Area IV, but fewer than 30 remain, including several office buildings that were moved off-site. The report authors concluded:

Area IV of the Santa Susana Field Laboratory is not eligible for listing in the National Register of Historic Places or the California Register of Historical Resources as a historic district, primarily because it lacks sufficient integrity to convey its historic appearance or association with the history of nuclear power research and development in the United States and the post World War II transformation of California. None of the buildings, structures or features within Area IV is individually eligible for listing in the National Register of Historic Places or the California Register of Historical Resources [Post/Hazeltine Associates 2009].

The archaeological fieldwork and site evaluations were completed in 2001; the architectural documentation and evaluations were completed in 2009. In both instances, the fieldwork was thorough and completed to modern cultural resources standards by qualified cultural resources professionals. However, it is important to note that to date (July 2009), the SHPO has not completed review of the work nor concurred with the eligibility evaluations. The DOE has initiated consultation with the SHPO, seeking concurrence regarding the evaluation of all cultural resources recorded in Area IV as not eligible for the NRHP.

The Northern Undeveloped Lands have not been surveyed for cultural resources, but are considered to be sensitive for their presence because of the numerous rock overhangs and exposures among the sandstone. Sites that could be located here would probably be associated with Native American occupation, as there is little or no terrain that would have been suitable for the type of use made by post-contact, Euroamerican occupants. Site types could include rock shelters, rock art, and resource procurement and possibly campsites, although the latter type is less likely.

### ***3.0 Consultation***

DOE has communicated with the OHP regarding this project through a letter dated April 20, 2009 requesting consultation. The SHPO indicated concern about the possible presence of NRHP-eligible architectural resources at Area IV, but had not yet seen the report documenting those resources (Post/Hazeltine Associates 2009). The report and resource forms will be submitted to SHPO by DOE. DOE has continued to coordinate with the OHP. DOE has also submitted a letter dated April 20, 2009 to the Native American Heritage Commission (NAHC) requesting a list of tribes with which they should consult. The NAHC has provided DOE with a list of potentially interested tribes.

### ***4.0 Project Objectives***

The objective of the proposed cultural resources survey is to locate and determine the NRHP eligibility of cultural resources within Area IV and the Northern Undeveloped Lands. The potential effect of the EPA's radiological survey and sampling on those cultural resources will also be assessed, in compliance with Section 106 of the NHPA. This includes communicating with the SHPO regarding previously completed inventories of Area IV, seeking the SHPO's concurrence on determinations of eligibility for

previously located resources, and inventory of the remaining area. As part of this process, the survey will identify cultural resources that will require protection during EPA's activities.

The cultural resources survey and associated tasks will also provide baseline data for the EIS that will in turn be used to determine the effect on cultural resources, if any, of DOE's proposal to clean up contamination and possibly remove facilities prior to making the land available for other uses.

## **5.0 Survey Scope**

To accomplish the cultural resources characterization necessary to support DOE and USEPA, a number of interdependent tasks are required.

### **Task 1: Records Search and Project Coordination**

In this task, researchers will update the records search conducted for the 2001 survey of Area IV and expand the area subjected to a records search to include the Northern Undeveloped Lands. Task 1 includes coordination among SSFL parties to plan fieldwork, keep everyone informed of activities, and respond to information requests. The California Historical Resources Information System (CHRIS) is the repository for information concerning known cultural resources and cultural resources projects throughout Ventura County as well as the rest of California. Although a records search was completed during the 2001 investigations (W&S Consultants 2001), there may have been additional work performed in the intervening years. CHRIS will provide that information to investigators for completion of the records search. As part of implementing this task and to prepare to discuss the project with the SHPO, cultural resources specialists will:

- Coordinate with the South Central Coastal Information Center of the CHRIS at California State University, Fullerton, to conduct a record search of the project area and surrounding lands within a one-mile radius (as recommended by the OHP) and develop a referral list and recommendations for the next step in the compliance process.
- Review records and reports on the previous Area IV archaeological survey in detail, particularly the four known archaeological locations and their NRHP eligibility determinations.
- Develop recommendations concerning the previous survey report's conclusions and propose a plan for proceeding based on those recommendations, if the SHPO requires additional documentation to determine NRHP eligibility.
- Prepare materials for discussing limitations and future actions with the SHPO.

### **Task 2: Pedestrian Survey of the Sampling Area.**

The purpose of this archaeological survey is to identify and record evidence of human use and occupation of the SSFL project area prior to development of the SSFL. Area IV has been previously surveyed to modern, professional standards and it is unlikely that it will be necessary to repeat the survey of this portion of the project area. The Northern Undeveloped Lands include areas with slopes of 45 to 90 degrees, as well as numerous sandstone outcrops that must be examined for the presence of cultural resources such as rock shelters and rock art.

Survey of the Northern Undeveloped Lands will consist of transects no more than 15 meters apart if the terrain allows for this. Where the terrain is steep or otherwise requires deviation from standard transects, as may be true for much of the Northern Undeveloped Lands, then surveyors will follow a sinuous tract along slopes, drainages, and other features within the project area. Archaeological

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surveyors will deviate from the planned 15-meter transects to examine rock outcrops or other features that could exhibit rock art or other evidence of human occupation. Where ground visibility is poor due to leaf litter or duff, surveyors will periodically scrape the surface. These surface scrapes will be placed so as to not disturb threatened or endangered plants or their habitats. Site recording will include standard measures such as field forms, sketch map, photographs, and verbal description.

Other aspects of the proposed pedestrian survey of the Northern Undeveloped Lands include:

- Pre-survey planning including an Activity Hazards Assessment and coordination for access.
- There will be no artifact collection.
- Locations of transects, surface scrapes, and any cultural materials encountered will be recorded on 7.5 minute USGS maps using a GPS unit.
- Notes, observations, and documentation of methods and results will be recorded on site field forms, site sketch maps, and in a notebook. A photographic record of all observed features will be made.
- Surveyors will wear snake chaps and use common sense during the course of the survey. If an area is too steep or too densely vegetated to survey safely, the area will be noted on a map, and not surveyed.

This task will be conducted by an archaeologist meeting the Secretary of the Interior's Standards (see Section 6), and a qualified survey crew. Because the land is owned by Boeing, the survey team will also follow all health and safety protocols established by Boeing for field work on its property.

### **Task 3. Survey Report.**

The Survey Report, required by the OHP to document the location of fieldwork and results, would take the form of a short report that summarizes methods and results and provides preliminary NRHP eligibility assessment for any site recorded. DOE will be able to share this report with EPA prior to the start of EPA field investigations.

### **Task 4a: SHPO Consultation Regarding Section 106 Process**

This task will be ongoing throughout the EIS process but is also essential to the cultural resources survey and compliance with Section 106 of NHPA. As noted above, a consultation letter has been sent to the SHPO. Architectural resources at Area IV have been documented and evaluated for NRHP eligibility by DOE; the report and resource forms will be submitted to the SHPO by DOE, as well as the results of the archaeological survey for the Northern Undeveloped Lands.

- DOE (or the lead cultural resource specialist at DOE's request) will continue to coordinate with the SHPO. Topics could include:
  - A description of the EPA's radiological survey.
  - Determine/verify the record search radius and discuss the results of the record search and survey with the SHPO, when available.
  - Determine the need for monitoring of the geological sampling activities.
  - SHPO's concurrence regarding the eligibility of known resources, including those already documented (both archaeological sites and structures).
  - Discuss whether or not it will be necessary to do any further work on the known sites in Area IV to determine eligibility.

#### **Task 4b: Native American Tribal Consultation**

DOE has submitted a letter, dated April 20, 2009, to the Native American Heritage Commission (NAHC) requesting a list of tribes with which to consult. NASA, which has jurisdiction on lands adjacent to Area IV and the Northern Undeveloped Lands, has also begun this process, and DOE coordinated efforts with NASA.

It is the responsibility of the federal proponent of the undertaking to conduct any formal Tribal consultation. For the radiological gamma walkover/drive over survey, tribal consultation will be EPA's responsibility; DOE will be responsible for actions covered by the EIS. It is also possible that cultural resources specialists will support the lead agency in these tasks.

As part of the tribal consultation process, the following activities will need to be completed:

- Discuss with NASA their Native American consultation experience to date.
- DOE and cultural resources specialists at DOE's request contacted the NAHC to follow up on progress in providing the list of potentially interested tribes
- NAHC provided information on Sacred Lands and Native American Contacts, and a list of potentially interested tribes. The people and groups on this list were contacted and provided with follow-up project information.
- Both federally recognized and other Native American groups might have interests in the area.
- List members and others were invited to participate in a cultural resources stakeholders meeting and tour of Area IV, to occur on December 3, 2009.

#### **Task 5: EIS Affected Environment**

Upon completion of the cultural resources survey described in this plan, the results will be used to prepare the cultural resources affected environment for the EIS for Santa Susana Field Laboratory Area IV and adjacent Northern Undeveloped Lands. The EIS cultural resource section will be based on information previously collected by DOE (W&S Consulting 2001; Post/Hazeltine Associates 2009) and new results obtained and compiled during this survey effort.

### ***6.0 Professional Qualifications of the Survey Crew***

**Secretary of the Interior's Standards and Guidelines:** The National Park Service has developed standards that "define minimum education and experience required to perform identification, evaluation, registration, and treatment activities." These "Secretary of the Interior's Standards for Archeology and Historic Preservation" include standards for archaeology:

The minimum professional qualifications in archeology are a graduate degree in archeology, anthropology, or closely related field plus:

1. At least one year of full-time professional experience or equivalent specialized training in archeological research, administration or management;
2. At least four months of supervised field and analytic experience in general North American archeology; and
3. Demonstrated ability to carry research to completion.

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In addition to these minimum qualifications, a professional in prehistoric archeology shall have at least one year of full-time professional experience at a supervisory level in the study of archeological resources of the prehistoric period. A professional in historic archeology shall have at least one year of full-time professional experience at a supervisory level in the study of archeological resources of the historic period [48 Federal Register 44738-39 (September 29, 1983)].

These qualifications apply to cultural resources specialists in supervisory roles. Field crew members and other staff are not generally required to hold graduate degrees.

### **7.0 *References***

W&S Consultants. 2001. Class III Inventory/Phase I Archaeological Survey of the Santa Susana Field Laboratory Area 4, Ventura County, California. Prepared for Montgomery Watson, Walnut Creek, California.

Post/Hazeltine Associates. 2009. Historic Structures/Sites Report for Area IV of the Santa Susana Field Laboratory. Prepared for Boeing Company, Canoga Park.