

INITIAL STUDY

The Department of Toxic Substances Control (DTSC) has completed the following Initial Study for this project in accordance with the California Environmental Quality Act (§ 21000 et seq., California Public Resources Code) and implementing Guidelines (§15000 et seq., Title 14, California Code of Regulations).

I. PROJECT INFORMATION

Project Name: Hazardous Waste Management Facility Closure Plan Approval, Santa Susana Field Laboratory, Area IV

Site Address: Santa Susana Field Laboratory, Area IV, Top of Woolsey Canyon Drive

City: Simi Hills State: CA Zip Code: _____ County: Ventura County

Company Contact Person: Mr. Brian Sujata, Project Manager, DOE Site Closure

Address: The Boeing Company, Rocketdyne Propulsion and Power, 6633 Canoga Avenue

City: Canoga Park State: CA Zip Code: 91309 Phone Number: (818) 586-6043

Project Description:

PROJECT

The Department of Toxic Substances Control (DTSC) has reviewed the proposed Closure Plan for the Hazardous Waste Management Facility (HWMF) located in the Santa Susana Field Laboratory Area IV. Closing the HWMF involves:

- decontaminating existing structures including buildings, tanks, concrete pads and asphalt pavement.
- demolishing existing structures including buildings, tanks, concrete pads and asphalt pavement.
- testing underlying soils for possible contamination.
- excavating contaminated soils (if found) and backfilling (as required) with soil from an on-site borrow area.
- grading the area for possible future use.

The proposed Closure Plan is presented by The Boeing Company. Boeing intends to "clean close" the facility to the standards for unrestricted residential use.

DISCRETIONARY JUDGMENT

The Department of Toxic Substances Control's Discretionary Judgment involves approving modification made to the previously approved Closure Plan for closing the Hazardous Waste Management Facility.

The previously approved HWMF Closure Plan is dated December 1992 and was approved with the Hazardous Waste Facility Permit issued in 1993. Boeing ceased activity at HWMF in 1997. The Closure Plan then underwent a series of reviews and revisions between DTSC and Boeing. On January 23, 2004 Boeing submitted the latest revised HWMF Closure Plan (dated December 2003) as a Class 2 Permit Modification Request. A public review period began January 30, 2004 and was extended to April 30, 2004 (92 days). Boeing held an 'open house' public meeting for the HWMF Closure Plan on March 15, 2004. After this public comment period, DTSC decided to develop a CEQA Initial Study and Negative Declaration. Public comments received during the public review of the modified Closure Plan have been incorporated into this CEQA Initial Study, as appropriate.

FACILITY LOCATION:

The Hazardous Waste Management Facility is located in Area IV of the Santa Susana Field Laboratory (SSFL). SSFL is completely in Ventura County with the eastern end of SSFL against the boundary between Ventura County and Los Angeles County.

SSFL encompasses a large area approximately 3 miles long (east to west) and 2 miles wide (north to south) atop the crest of the Simi Hills. The Simi Hills are a group of east-west tending hills with steep slopes, located south of California Highway 118 and north of U.S. Highway 101. The City of Simi Valley is to the northwest of the SSFL (along the Simi Valley Highway CA-118); Chatsworth is east of the facility just on the other side of the Ventura-Los Angeles County Line; the rural community of Bell Canyon is located to the south.

There are no non-SSFL developments within a 1 mile radius of the HWMF. The closest developments are located south and northeast

of the SSFL site. The development to the south of the site (Bell Canyon) is located approximately 6,800 feet from Building T029 (1.2 miles). The development to the northeast is approximately 13,000 feet from Building T133 (2.5 miles).

No drinking wells are located within 1/4 mile of the HWMF. Groundwater extraction wells have been installed at SSFL for industrial use only, and these are all beyond 1/4 mile of the HWMF. Four springs have been identified within a 2,000 foot radius of HWMF (designated as S2, S3, S5, and S20).

The predominant geology at SSFL is fractured sandstone with inter-beds of sand, silty sand and shale. When present, a Quaternary Alluvium is typically 5 to 15-feet thick. Otherwise, the predominant Chatsworth Formation (the "bedrock") is a marine turbidite sequence primarily comprised of medium-grained sandstone with interbedded siltstone and shale units.

FACILITY OWNER / OPERATOR

The Hazardous Waste Management Facility is owned by the U.S. Department of Energy, and co-operated by The Boeing Company. The HWMF qualifies as a federal facility. The Department of Toxic Substances Control issued a Hazardous Waste Facility Permit for the HWMF effective November 30, 1993 and expired on November 30, 2003. The HWMF had been inactive since mid-1997.

FACILITY DESCRIPTION

The Hazardous Waste Management Facility (HWMF) consists of two sub-facilities designated as Building T029 and Building T133. Both sub-facilities are located in Area IV of the Santa Susana Field Laboratory. Building T029 was a storage shed used to store the containerized alkali metals and equipment. Building T133 was a fenced-in area that included the treatment chamber, an adjoining control room, storage tanks, and staging pad. These two sub-facilities are separated by approximately 1,300 feet (0.25 miles) of paved roads.

The Hazardous Waste Management Facility (HWMF) stored and treated elemental alkali metals, such as sodium metal and potassium metal. Most of the alkali metals came from testing of heat exchangers and other equipment at SSFL. The alkali metals and/or equipment containing alkali metal residue were placed in a basin within a confined chamber, and then heated to promote oxidation with the ambient air. Then the chamber was washed down with water to complete the reaction and to wash the alkali oxides to a collection tank. Ash and fumes from the oxidation process were collected in a wet scrubber. The highly alkaline (high pH) wastewater was stored in tanks and transferred to a tanker truck for off-site disposal.

NOTE: The designation of the buildings changes slightly among various documents. Building T029 and Building T133 are the designations used in the HWMF Closure Plan. Other documents refer to them as Building 4029 and Building 4133, respectively. Public documents usually refer to them simply as Building 29 and Building 133.

HAZARDOUS WASTE GENERATION

The U.S. Department of Energy (USDOE) and The Boeing Company (Boeing) conducted research and development (R&D) activities on heat exchangers and other liquid metal components. These experiments used liquid alkali metals as a heat-exchange medium. The alkali metals eventually become contaminated with oxygen, water and carbon. Some of the contamination was removed using a device known as a "cold trap" which produced a hazardous waste stream treated at HWMF. The spent and used alkali metal was sent to the HWMF for storage and treatment, as well as pieces of equipment that contained alkali metal residue. Unused inventory of alkali metal were also handled by HWMF rather than shipping the highly reactive material back to the supplier. Alkali metals handled by the HWMF included sodium (Na), potassium (K), sodium-potassium alloy (NaK), lithium (Li) and possibly zirconium hydride and lithium hydride powder.

Alkali metals are hazardous because of their reactivity. They react with the oxygen in the air and react violently with water.

The heat exchangers were being developed for use in high energy production and nuclear reactors. The projects, however, used natural gas or electricity to produce the heat for testing the designs. No radioactive material was used to test these designs.

In 1990, sodium metal was illegally abandoned by an unknown party in Butte County, California. Seventy-five thirty-ounce containers were found abandoned in a privately owned parcel. Each container held six bars of sodium metal, measuring 1-inch x 1-inch x 6-inch per bar. This calculates to a total of 2700 cubic inches of sodium metal, and approximately 94.4 pounds (42.8 kg). The Department of Toxic Substances Control issued an Emergency Permit to allow the treatment of the abandoned sodium in the Hazardous Waste Management Facility at the Santa Susana Field Laboratory.

STORAGE IN BUILDING T029

Building T029 is a simple storage shed used to store alkali metals before transport to Building T133. Building T029 sits on a 20-foot by 40-foot concrete slab with a 12 foot eave height. It has steel frame, roof and siding. There is a large entrance door on the northwestern side of the building. The total area of Building T029 is approximately 960 sq.ft. (0.02 acres). Building T029 is currently empty; all waste, materials and equipment have been removed.

Before being permitted to store containerized alkali metal waste, Building T029 was used as an instrument calibration facility to

calibrate radioactive measuring devices. DTSC was not involved with this activity and the following information is contained in reports from the U.S. Department of Energy (owner) and Rockwell International (operator). Between 1959 and April 1974, several radioisotope sources were stored and utilized in T029, including Ra-226, Cs-137, Co-60, PoBe, and PuBe. A release of Ra-226 occurred on March 23, 1964 when a sealed source dropped to the bottom of the containment well. The containment well was made of Schedule-20 galvanized pipe casing, 12-inches in diameter and 10-feet long which was installed below grade and surrounded with concrete. The Ra-226 was raised above the containment well at a known distance from the instrument for calibration when the nylon thread suspending the source broke. The source, in a small containment "thimble", dropped 13 feet to the bottom of the well and cracked, releasing some loose radioactive material. The source, container and thimble were recovered and the area was decontaminated and cleaned, and the calibration operations resumed. The building was decommissioned in 1974 and all radioactive material was removed from T029 by April 1974. A 1988 survey concluded that no residual contamination existed on the T029 floor surface or surrounding area. The survey report also concluded that some alpha contamination existed on the bottom of the well. The storage wells (there were three of them) were all excavated and removed. Follow-up smear surveys and soil activity measurements in the affected areas showed no residual radioactivity. The wells were refilled and the floor was resurfaced. Building T029 began storing hazardous waste in 1978, received a hazardous waste facility permit in 1983, and was repermited in 1993.

TREATMENT IN BUILDING T133

Building T133 refers to the small, fenced-in area where the alkali metal wastes stored in Building T029 were sent for treatment. The fenced area is approximately 87 feet by 71 feet (6177 sq.ft., 0.14 acres). Building T133 includes the treatment room, the office/control room, an outside "size reduction" area, a sodium-potassium feed Tank T-2, an air scrubber, a below-grade Tank T-1 that accepted the wastewater from the treatment chamber, and an above-ground Tank T-3 that provided auxiliary storage of the wastewater from Tank T-1. The entire site is covered with structures, concrete pads and/or asphalt pavement.

Materials from Building T029 were transported to Building T133 using existing paved roads. The distance between T029 and T133 is approximately 1/4 mile of internal paved roads. At Building T133, the materials were placed on the "size reduction" area; a concrete slab area about 10' wide and covered with a 15' canopy. The 10' wide concrete extends to the front entrance of the treatment chamber. Oversized pieces were disassembled and/or cut using saws and lubricating oils in the size reduction area. The waste material was then placed in the treatment chamber.

An additional tank and feed line was set up to transfer sodium-potassium (NaK) alloy into the treatment center. The NaK alloy is liquid at room temperature. The NaK was stored outside the treatment center in a small tank designated as T-2. The T-2 tank was constructed with stainless steel, laid horizontally, had dimensions of 5-feet long by 3-feet wide and an operating capacity of 270 gallons. The NaK was pushed into the treatment chamber through pipes, using inert argon gas.

The Building T133 treatment chamber was an enclosed chamber approximately 21-feet by 10-feet with 10-foot high walls. The walls are steel lined, the floor is concrete. A 5-foot diameter, cast iron treatment pan is placed on the floor in the center; essentially an iron basin. The waste materials were placed in the treatment pan and the front steel doors were closed. The bottom of the pan was then heated using a natural gas ring burner. The heat melted the alkali metals, and then promoted the reaction (oxidation) with the air in the chamber. Fuming oxidation products were drawn through a wet scrubber to produce a hydroxide solution. The operation of the scrubber was permitted by the Ventura County Air Pollution Control District, Permit to Operate, Number 0271. After the oxidation was completed, the treatment pan was sprayed with water to finalize any remaining reactions and to wash the oxides to a collection sump.

The wastewater from the treatment chamber wash-down and from the wet scrubber gravity-flowed into a below-grade tank designated as T-1. The wastewater was a caustic solution of alkali hydroxide, mostly sodium hydroxide (NaOH) and potassium hydroxide (KOH). The T-1 tank was just beyond and outside of the treatment chamber. The below-grade, rectangular, steel T-1 tank is approximately 5.1 feet wide by 10.7 feet long, and 6.1 feet deep, with a capacity of 1,318 gallons. A separate tank, the T-3 Tank, was used for storage of the caustic solution prior to off-site transfer. A sump pump was used to transfer the caustic wastewater from T-1 to T-3 through an aboveground flexible hose. Tank T-3 is an above ground tank made from high-density polyethylene (HDPE resin), double walled, with an inner tank dimensions of 10-foot diameter, 8.8-feet high, and a 6,840 gallon capacity. The contents of tank T-3 would then be removed by a vacuum truck for offsite management at a permitted facility.

OPERATING HISTORY

Building T029 housed radioactive calibration equipment from 1959 until 1974. All equipment and radioactive sources were removed from T029 by April 1974. USDOE performed decommissioning and survey of Building T029 which was published in a "DOE Certification Docket" dated April 1997. The DOE Certification Docket confirmed that all radiological standards have been achieved for T029 and released the building for unrestricted use. The California Department of Health Services (CDHS) Radiologic Health Branch (RHB) reviewed USDOE data for closing Building T029 and performed an additional survey in September 1995. CDHS-RHB concurred that building T029 may be released for unrestricted use (December 21, 1995 letter).

The building structure at Building T133 was previously located at a different location and identified as Building T724. Building 724 was known as the Hot Oil Sodium Cleaning Facility and used for cleaning large pipes and assemblies from the secondary loop of the nearby Sodium Reactor Experiment reactor. In 1977, Building T77 was surveyed and decontaminated before cutting the top portion of the building from the foundation and moving it to a temporary location. Additional surveying and decontamination occurred before releasing the cut-away building for unrestricted use. The cut-away building was relocated to its present position at Building T133 and

used as the permitted sodium burn facility.

Building T133 was not used for radioactive research or handling of radioactive material. At DTSC's request, Boeing conducted a radiation screening of T133 which was reviewed by the California Department of Health Services (CDHS) Radiological Health Branch in January 2004. The survey indicated, and CDHS concurs, that all radiological standards have been achieved from T133 and no contamination is indicated.

The HWMF began operation in 1978 and was fully permitted in 1983 as a RCRA hazardous waste treatment and storage facility for non-radiological chemical wastes generated on-site. DTSC issued two consecutive Hazardous Waste Facility Permits for the HWMF. The first permit was issued in 1983, with an effective date of December 30, 1983 (CAD000629972). DTSC issued the second permit in 1993, with an effective November 30, 1993, and an expiration date of November 30, 2003 (93-3-TS-002, CAD000629972). The HWMF is considered a federal facility with USDOE as the owner and Rockwell, now Boeing, as the co-operator.

Spills of caustic hydroxide wastewater have been reported at T133. The following is a list of the spills with the approximate maximum spill volumes:

- 1984 April: 1,500 gallons
- 1985 September: 100 gallons
- 1986 February: 1,000 gallons
- April 1987: removal of T-3 tank, cleanup of leaks, replace with double wall T-3 tank
- 1987 November: 30 gallons
- 1988 September: 60 gallons
- 1989 February: 230 gallons

The cleanup activities and verification sampling includes a focus on the location of these spills.

Operations of the HWMF ceased in 1997. Rocketdyne submitted a closure notification letter in July 1998. All hazardous waste inventories were treated and/or removed. Most residuals have also been removed with the exception of NaK residuals that may still be present in the T-2 tank at T133. Possible residuals in T-2 will be handled when the interior of the tanks is exposed as part of the closure process. The HWMF Permit was allowed to expire on November 30, 2003.

Project Activities:

CLOSURE ACTIVITIES

The Hazardous Waste Management Facility (HWMF) consists of two separate sub-facilities designated as Building T029 (storage) and Building T133 (treatment). Both sub-facilities will be closed at the same time.

All hazardous wastes and materials have been previously removed from containers, tanks and associated equipment at the HWMF Buildings T029 and T133. The closure approach will start with decontamination of buildings, equipment and structures. All buildings and associated features will be demolished and removed through this closure action. There will be no reuse of any equipment. The closure will involve the following steps:

1. Decontamination of structures/equipment/area. Verification sampling.
2. Demolition and removal of buildings and equipment. Transport off-site for disposal.
3. Demolition and removal of concrete pads and asphalt paving. Transport off-site for disposal.
4. Soil verification sampling.
5. Groundwater verification sampling.
6. Soil removal action and confirmation sampling (if needed). Transport off-site for disposal.
7. Filling in excavation with on-site borrow soil (if needed).
8. Grading the site for possible future use.

Decontamination involves pressure washing the structures, concrete pads and asphalt pavement. The wastewater will be collected in a portable tanks and/or vacuum truck. The wastewater will be sent off-site for treatment and/or disposal. Verification sampling will assure that the decontamination has been completed. Any hazardous residues that cannot be removed will be noted and segregated during the demolition of the structures.

All of the structures will be demolished and segregated into separate roll-off bins. Hazardous and non-hazardous demolition debris will be separated. The demolition debris will be further separated into recyclable (such as iron), concrete/asphalt, and other debris. All material will be sent off-site for disposal or recycling.

Boeing intends to send the demolition debris from Building T029 and the building structure of Building T133 to a lined Class I landfill, most likely the Chemical Waste Management Kettleman Hills Facility. Building T029 previously housed a radioactive calibration facility which stored radioactive sources. The building structure of Building T133 was previously used at another location where radioactive contaminated material was handled. Both structures were decontaminated and cleared for unrestricted use prior to being permitted for treatment of non-radioactive alkali metals. These structures represent "decommissioned materials" which is

subject to California Executive Order D-62-02 (September 2002, Davis). The order directs a moratorium on the disposal of decommissioned materials into Class III landfills until statewide standards are developed.

After removal of the demolition debris, the underlying soil will be tested for possible contamination. If no levels above background are detected, then no further action will be performed. If contamination is detected, then the contaminated soil will be removed down to health-based cleanup levels. The determination of background levels and health-based cleanup levels is performed in accordance with the Sitewide Risk Assessment Methodology (SRAM) developed specifically for cleanups throughout the Santa Susana Field Laboratory. Any possible soil removal at the HWMF will use the Revised SRAM Guidance dated September 2005.

For planning purposes, an estimate of 2,000 cubic yards is used for the possible soil removal action. This estimate is based on the geology, locations of historic spills, and assuming that contamination exists. This volume is not based on analytical data and there may be no contaminated soils to be removed.

Excavation involves the use of heavy equipment to lift the material and transfer it to trucks. Misting is employed to suppress dust. After the excavated material is transferred, the material is covered and transferred off-site for disposal.

If soil is excavated, then fill soil may be used to bring the area back to grade. Clean fill soil can either be taken from an established on-site borrow area, or the clean fill soil can be imported from an off-site area. Using the on-site borrow area would require additional excavation of clean soil and transporting the soil to the excavated area over already established SSFL-internal roads. If the fill soil is imported, then the fill will be transported to the facility in covered trucks. The HWMF Closure Plan favors using the on-site borrow. Alternately, the site may be re-graded to the extent such that no clean fill is required.

Approximately 2 vacuum trucks will be used to remove wastewater. Up to 20 roll-off-bin trucks will be used to remove the demolition debris. If contaminated soil is excavated at the maximum assumed level of 2,000 cubic yards, then the HWMF Closure Transportation Plan estimates an average truck traffic of 18 trucks per day over an 8-day. Up to 36 trucks per day may be used to import fill soil if the on-site borrow was not used. The Peak Truck Traffic for any one day is set as 36 trucks per day to and from SSFL up Woolsey Canyon Drive.

II. DISCRETIONARY APPROVAL ACTION BEING CONSIDERED BY DTSC

- Initial Permit Issuance
- Closure Plan
- Removal Action Workplan
- Permit Renewal
- Regulations
- Interim Removal
- Permit Modification
- Remedial Action Plan
- Other (Specify)

Program/ Region Approving Project: _____

DTSC Contact Person: Mr. Stephen Baxter, P.E., Senior Hazardous Substances Engineer

Address: 1011 North Grandview Avenue

City: Glendale State: CA Zip Code: 91201 Phone Number: (818) 551-2940

III. ENVIRONMENTAL RESOURCES POTENTIALLY AFFECTED

The boxes checked below identify environmental resources in the following ENVIRONMENTAL SETTING/IMPACT ANALYSIS section found to be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact."

- None Identified
- Aesthetics
- Agricultural Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Geology And Soils
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise

- Population and Housing Public Services Recreation
- Transportation and Traffic Utilities and Service Systems

IV. ENVIRONMENTAL IMPACT ANALYSIS

The following pages provide a brief description of the physical environmental resources that exist within the area affected by the proposed project and an analysis of whether or not those resources will be potentially impacted by the proposed project. Preparation of this section follows guidance provided in DTSC's California Environmental Quality Act Initial Study Workbook [Workbook]. A list of references used to support the following discussion and analysis are contained in Attachment A and are referenced within each section below.

Mitigation measures which are made a part of the project (e.g.: permit condition) or which are required under a separate Mitigation Measure Monitoring or Reporting Plan which either avoid or reduce impacts to a level of insignificance are identified in the analysis within each section.

1. Aesthetics

Project activities likely to create an impact:

None.

Description of Environmental Setting:

The SSFL facility is located across the crest of the Simi Hills. The facility is in an industrial zoned area of Ventura County. The area immediately adjacent to the HWMF consists of other buildings and some rock outcroppings. Most of the area around the two buildings has been impacted by SSFL activities. Grasses and small bushes are in the undisturbed areas around T133. Grasses and some trees are in the undisturbed areas around T029.

Analysis of Potential Impacts. Describe to what extent project activities would:

a. Have a substantial adverse effect on a scenic vista.

No impact. Neither facility has a scenic vista, nor is in the line of sight of a scenic vista. Closure involves removal of buildings and structures which would improve any views.

b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings and historic buildings within a state scenic highway.

No impact. No scenic resources exist at the site. The area has already been impacted by the presence of the buildings and structures. No new structures will be constructed for facility closure.

c. Substantially degrade the existing visual character or quality of the site and its surroundings.

No impact. The areas around T029 and T133 have already been impacted by SSFL activities. The removal of the structures will not visually degrade the existing visual character or quality of the site and its surroundings. The area remains industrial after closure. The sites will be graded to pre-existing grade. Closure does not require nor prohibit the construction of future structures at these sites.

d. Create a new source of substantial light of glare that would adversely affect day or nighttime views in the area.

No impact. The removal of the buildings will not create nor remove substantial sources of light or glare. The removal of the concrete pads and asphalt paving will expose underlying soils to the ambient environment. Closure does not require nor prohibit the construction of future structures at these sites.

Specific References (Aesthetics):

- Closure Plan, Hazardous Waste Management Facility, Building T029 and T133, Santa Susana Field Laboratory, Ventura County, California, dated December 2003, prepared by MWH Americas, Inc., Sacramento, CA.

Findings of Significance:

- Potentially Significant Impact
 Potentially Significant Unless Mitigated
 Less Than Significant Impact
 No Impact

2. Agricultural Resources

Project activities likely to create an impact.

None.

Description of Environmental Setting:

SSFL is located in an industrial zoned area of Ventura County. The area around the HWMF consists primarily of fractured sandstone with thin layers of alluvium. No agriculture currently exists at SSFL. Some livestock grazing occurred in the past, primarily in the slopes south of the facility. It is unlikely that any agriculture will occur in the HWMF area after closure.

Analysis of Potential Impacts. Describe to what extent project activities would:

- a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.

No impact. SSFL does not have any agricultural resources on-site or nearby.

- b. Conflict with existing zoning or agriculture use, or Williamson Act contract.

No impact. The closure of the HWMF will not change the existing zoning, nor be in conflict with the existing zoning. A Williamson Act contract does not exist for this site.

- c. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural uses.

No impact. The closure of the HWMF will not change the existing zoning. The facility is in an industrial zoned area of Ventura County. SSFL is not zoned or used for agriculture.

Specific References (Agricultural Resources):

- *Closure Plan, Hazardous Waste Management Facility, Building T029 and T133, Santa Susana Field Laboratory, Ventura County, California*, dated December 2003, prepared by MWH Americas, Inc., Sacramento, CA.

Findings of Significance:

- Potentially Significant Impact
 Potentially Significant Unless Mitigated
 Less Than Significant Impact
 No Impact

3. Air Quality

Project activities likely to create an impact.

The project consists of demolition, removal and verification sampling. The possible contaminants would be alkali metal oxides and, to a much lesser extent, petroleum hydrocarbons. The possible contaminants would not be volatile and would not present an air quality issue if exposed. Possible air quality impacts would occur in the form of dust from the demolition activities and dust from possible excavation of contaminated soil (if any). In addition, emissions would result from equipment engines used for demolition, excavation, grading, and transportation of material off-site.

Description of Environmental Setting:

The HWMF is located within SSFL which is used for rocket testing, research and development, some fabrication and office buildings. There are no residences within a 1-mile radius of the facility. SSFL is located across the crest of the Simi Hills, with an elevation difference of about 1000 feet from the surrounding valley floors. Overall winds primarily blow from the northwest, although sometimes will reverse direction and come from the southeast. Canyons and rock outcroppings greatly influence the direction and magnitude of local winds at ground level throughout SSFL.

SSFL lies within the Ventura County Air Pollution Control District. The VCAPCD contact for SSFL matters is Ms. Terry Thomas (805) 645-1400.

Analysis of Potential Impacts. Describe to what extent project activities would:

a. Conflict with or obstruct implementation of the applicable air quality plan.

No impact. The project will not produce a continuing and/or stationary source. Any dust emissions and equipment emissions will be temporary. There is no conflict or obstruction with the air quality basin plan for Ventura County. A VCAPCD permit is not required. Dust suppression will be in place for demolition, any soil excavation and trucks hauling.

b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation.

No impact. The project will not produce a continuing and/or stationary source. Any dust emissions and equipment emissions will be temporary. A VCAPCD permit is not required. Dust suppression will be in place for demolition, any soil excavation and trucks hauling.

c. Result in cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).

No impact. The project will not produce a continuing and/or stationary source of a criteria pollutant. Any dust emissions and equipment emissions will be temporary. A VCAPCD permit is not required. Dust suppression will be in place for demolition, any soil excavation and trucks hauling.

d. Expose sensitive receptors to substantial pollutant concentrations.

No impact. The project will not produce a continuing and/or stationary source. Any dust emissions and equipment emissions will be temporary. A VCAPCD permit is not required. Dust suppression will be in place for demolition, any soil excavation and trucks hauling.

e. Create objectionable odors affecting a substantial number of people.

No impact. Residential developments are over 1 mile away in any direction. The project will not produce a continuing and/or stationary source. Any dust emissions and equipment emissions will be temporary. A VCAPCD permit is not required. Dust suppression will be in place for demolition, any soil excavation and trucks hauling.

f. Result in human exposure to Naturally Occurring Asbestos.

No impact. The Simi Hills do not have known natural occurrence of asbestos. The HWMF area is composed of Chatsworth Formation Sandstone and alluvial matter that is not identified as containing asbestos.

As a matter of routine, an asbestos survey will be performed on the building materials prior to demolition. Any asbestos found will follow asbestos removal protocols established by the California Department of Health Services and the Ventura County Air Pollution Control District.

Specific References (Air Quality):

- Closure Plan, Hazardous Waste Management Facility, Building T029 and T133, Santa Susana Field Laboratory, Ventura County, California, dated December 2003, prepared by MWH Americas, Inc., Sacramento, CA.
- Health and Safety Plan for Closure Plan at the Hazardous Waste Management Facility, Building T029 and T133, Santa Susana Field Laboratory - Area IV, Ventura County, California, dated December 2003, prepared by MWH Americas, Inc., Sacramento, CA.
- Ventura County Air Pollution Control District, PERMIT TO OPERATE, Number 0271, valid January 1, 1997 to December 31, 1997. [NOTE: This Permit allowed operation of the wet scrubber when HWMF was active. No air permit for closure activity is required.]

Findings of Significance:

- Potentially Significant Impact
 Potentially Significant Unless Mitigated
 Less Than Significant Impact
 No Impact

4. Biological Resources

Project activities likely to create an impact.

- Movement of equipment, demolition debris and/or excavated soils may impact non-disturbed areas adjacent to the HWMF.
- Removing soil from the borrow site, if needed.

Description of Environmental Setting:

The areas for both sub-facilities of the HWMF -- T029 and T133 -- are covered with structures, concrete pads and/or asphalt pavement. Most of the area surrounding both sub-facilities have been impacted or are inaccessible (rock outcrops, natural drainage).

The Borrow Site is an area that has not been impacted and, therefore, provides clean fill material.

All three sites are accessed by existing paved roads. No new roads or paths are required to perform the closure of the HWMF or accessing the Borrow Site. Traffic will use existing paved roads between the sites and the SSFL entrance.

A Biological Conditions Report for SSFL was conducted in 1998 and 2000. The study identified sensitive species observed or potentially occurring at SSFL. The habitat of the undeveloped portions of SSFL is generally characterized as chaparral/oak woodland.

To further evaluate the potential impact to biological resources, Boeing performed a biological survey of the three subject areas -- Building 29, Building 133 and Borrow Site. The survey was conducted on July 13, 2005. Findings were contained in a report dated August 4, 2005. The survey was conducted by Chris Dunn of Padre Associates on July 13, 2005. The survey included the search for two types of special-status vegetation -- Santa Susana tarplant (*Hemizonia minthornii*) and Branton's milk-vetch (*Astragalus brauntonii*). The survey also included a search for nesting wildlife and/or special-status wildlife.

BUILDING 29: The area around Building 29 has already been impacted and no special-status vegetation or wildlife was found which would be impacted by closure activity.

RECOMMENDED CONSERVATION MEASURE for BUILDING 29: "Due to the presence of potential nesting habitat for birds and sufficient leaf-litter to provide habitat for legless lizard habitat, we recommend at least one (1) preconstruction survey for nesting birds and legless lizard at the Building 29 site. If any partially built nests (determined by a qualified biologist) are found within 100 feet of the site, they should be removed to prevent breeding and take of migratory birds. Any special-status reptiles found during the pre-construction survey should be captured and relocated to suitable habitat areas outside of the project site. Oak trees located directly adjacent to the building and asphalt driveway (which also requires removal) should be protected in place with orange construction fencing."

BUILDING 133: The area around Building 133 has already been impacted and no special-status vegetation or wildlife was found which would be impacted by closure activity.

RECOMMENDED CONSERVATION MEASURES for BUILDING 133: "Due to the sparse vegetation and disturbed condition at or near Building 133, and negative findings of any special-status plant or wildlife species within the site, no recommendations for demolition activities are made at this time. As stated above, Santa Susana tarplants located near the existing access road will not be impacted by project activities and do not require any additional protection."

BORROW SITE: Before the June 13, 2005 survey, four Branton's milk-vetch plants were identified near the borrow site (approximately 150 feet east). These plants were tagged and a protective fence installed. During the July 13, 2005 survey, four more Branton's milk-vetch plants were observed at or near the borrow pit. Yellow flagging was placed on adjacent plants to signify their presence and provide for easy identification at a later time.

RECOMMENDED CONSERVATION MEASURES for SOIL BORROW PIT: "In order to prevent the destruction of Branton's milk-vetch plants and any potential seedbed in the immediate vicinity of these plants, it is recommended that locations of these plants measuring approximately 50 feet long adjacent to (but outside of) the road be avoided by all project-related activities and equipment at the Borrow Pit. Orange construction fencing, or at a minimum, yellow caution tape should be placed along the edge of the road to delineate these sensitive areas. All workers should be notified of the plant's presence and instructed to avoid these areas by staying within the existing roadway and avoiding two plants near the east end of the Borrow Pit. The Boeing representative (Tom) who escorted the Padre biologist throughout the July 13, 2005 survey confirmed that he would fence off the newly found plants with orange construction fencing to protect them in place."

Analysis of Potential Impacts. Describe to what extent project activities would:

- a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.

No impact. The closure of the HWMF involves demolition and removal of demolition debris from an already impacted area. Any excavation of soil will be from areas under the structures and pavement. Closure of the HWMF does not require nor restricts any future development on the two sites.

Although not specifically part of closure activities, it is possible for the movement of equipment, demolition debris or excavated soils to impact non-disturbed areas adjacent to the HWMF. This impact would be temporary and not result in a long-term habitat changes.

Sensitive plants were found in the vicinity of the Soil Barrow Pit, identified as Braunton's milk-vetch (*Astragalus brauntonii*). These plants have been flagged and orange construction fencing installed to protect them from accidental taking.

- b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.

No impact. The closure of the HWMF involves demolition and removal of demolition debris from an already impacted area. Any excavation of soil will be from areas under the structures and pavement. Closure of the HWMF does not require nor restricts any future development on the two sites.

Although not specifically part of closure activities, it is possible for the movement of equipment, demolition debris or excavated soils to impact non-disturbed areas adjacent to the HWMF. This impact would be temporary and would not result in widespread damage to any natural communities. A focused biological survey was performed in July 2003 which did not find any sensitive habitat use in the vicinity of the closing buildings. However, the survey recommended a pre-construction survey be performed to identify and possibly remove any nesting birds or sensitive reptiles that might have moved into the area after the survey.

- c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

No impact. There are no wetlands identified in the area around HWMF.

- d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

No impact. The area around either sites of the HWMF area not designated as a wildlife corridor. The closure of the HWMF generally involves the demolition and removal of demolition debris from an already impacted area. This area of SSFL is not designated as a wildlife corridor. Any movement of wildlife in the area will theoretically be improved by the removal of the structures. However, the Closure of the HWMF does not require nor restrict any future development on the two sites.

There are no wetlands or open water near HWMF areas that would support migratory birds. There are no issues of migratory fish in the SSFL area.

A focused biological survey was performed in July 2003 which did not find any sensitive habitat use in the vicinity of the closing buildings. However, the survey recommended a pre-construction survey be performed to identify and possibly remove any nesting birds or sensitive reptiles that might have moved into the area after the survey.

- e. Conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

No impact. The closure of the HWMF involves demolition and removal of demolition debris from an already impacted area. Any excavation of soil will be from areas under the structures and pavement. Closure of the HWMF does not require nor restricts any future development on the two sites.

Although not specifically part of closure activities, it is possible for the movement of equipment, demolition debris or excavated soils to impact non-disturbed areas adjacent to the HWMF. This impact would be temporary and would not result in widespread damage to any natural communities.

A focused biological survey was performed in July 2003 which did not find any sensitive habitat use in the vicinity of the closing buildings. However, the survey recommended a pre-construction survey be performed to identify and possibly remove any nesting birds or sensitive reptiles that might have moved into the area after the survey. The survey also recommended orange construction fencing to be placed around oak trees in the Building 29 area. Orange construction fencing has also been installed around sensitive Braunton's milk-vetch found in the vicinity of the Soil Borrow Site.

f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

No impact. The HWMF area is not listed in these plans.

Mitigation Measures:

A focused biological survey was performed in July 2003 for the three subject sites -- Building 29, Building 133 and Soil Borrow Site. The Survey recommended a number of mitigation measures which included:

- Due to the presence of potential nesting habitat for birds and sufficient leaf-litter to provide habitat for legless lizard habitat, we recommend at least one (1) pre-construction survey for nesting birds and legless lizard at the Building 29 site.
- Oak trees in the Building 29 area, located adjacent to the building and asphalt driveway (which requires removal) should be protected in place with orange construction fencing.
- In order to prevent the destruction of Braunton's milk-vetch plants and any potential seedbed in the immediate vicinity of these plants, it is recommended that locations of these plants measuring approximately 50 feet long adjacent to (but outside of) the road be avoided by all project-related activities and equipment at the Borrow Pit.
- Orange construction fencing, or at a minimum, yellow caution tape should be placed along the edge of the road to delineate the Braunton's milk-vetch locations and sensitive area at the Borrow Pit.
- All workers should be notified of the location of the Braunton's milk-vetch at the Borrow Pit and instructed to avoid these areas by staying within the existing roadway and avoiding the two plants near the east end of the Borrow Pit.

Specific References (Biological Resources):

- Closure Plan, Hazardous Waste Management Facility, Building T029 and T133, Santa Susana Field Laboratory, Ventura County, California, dated December 2003, prepared by MWH Americas, Inc., Sacramento, CA.
- Transportation Plan for Closure at the Hazardous Waste Management Facility, Building T029 and T133, Santa Susana Field Laboratory - Area IV, dated December 2003, prepared by MWH Americas, Inc., Sacramento, CA.
- Health and Safety Plan for Closure Plan at the Hazardous Waste Management Facility, Building T029 and T133, Santa Susana Field Laboratory - Area IV, Ventura County, California, dated December 2003, prepared by MWH Americas, Inc., Sacramento, CA.
- Report on Biological Surveys of Building 29 and 133, and Area 4 Soil Borrow Pit at the Santa Susana Field Laboratory, dated August 4, 2005. Prepared by Padre Associates, Inc. Survey performed on July 13, 2005 by Chris Dunn, Staff Biologist, Padre Associates, Inc.

Findings of Significance:

- Potentially Significant Impact
 Potentially Significant Unless Mitigated
 Less Than Significant Impact
 No Impact

5. Cultural Resources

Project activities likely to create an impact:

- Demolition of the buildings.
- Movement of debris.
- Movement of excavated soils (if required)
- Excavation and movement of borrow soils (if required)

Description of Environmental Setting:

The areas for both sub-facilities of the HWMF -- T029 and T133 -- are impacted by structures, concrete pads, asphalt pavement, graded working areas, unpaved roads and/or paved roads. Most of the area surrounding both sub-facilities have been impacted or are inaccessible (rock outcrops, natural drainage).

Neither Building T029 nor T133 is considered an historic resource. The buildings do not have any historic significance. They were created and designed for the purpose of handling hazardous materials and with the intention of decommissioning and demolishing the buildings when they were no longer needed.

The Area IV Soil Borrow Site is unimpacted by industrial activity and, therefore, provides unimpacted soils for filling and grading purposes. A paved road already exists to the Borrow Site. Soils have previously been excavated from the borrow site for previous and unrelated activities.

Native American drawings and sensitive archeological areas exist on the Santa Susana Field Laboratory. Some of these areas are located within Area IV. The exact locations are kept confidential to avoid vandalism.

Analysis of Potential Impacts. Describe to what extent project activities would:

a. Cause a substantial adverse change in the significance of a historical resource as defined in 15064.5.

No impacts.

Neither Building T029 nor T133 is considered an historic resource. There are no historical resources nearby which may be damaged by the demolition.

b. Cause a substantial adverse change in the significance of an archeological resource pursuant to 15064.5.

No impacts.

Native American drawings and sensitive archeological areas exist on the Santa Susana Field Laboratory. Some of these areas are located within Area IV. The exact locations are kept confidential to avoid vandalism.

Dr. Whitley sent an letter to DTSC, dated 17 May 2005, which he states "Our 2001 archaeological study found no evidence for the presence of cultural resources of any kind at or in the vicinity of Buildings 4029 and 4133.", and "Any activities at or adjacent to Buildings 4029 and 4133, including closure, demolition, grading and/or reconstruction, therefore do not have the potential to result in adverse impacts to cultural resources.". Dr. Whitley sent a subsequent letter dated 19 July 2005 which he states "Our 2001 archaeological study found no evidence for the presence of cultural resources of any kind at or in the vicinity of the proposed borrow area [located near the southwestern limits of SSFL Area IV]." Dr. David S. Whitley, PhD, RPA, is the owner of W and S Consultants in Simi Valley, California. W&S is a cultural resources management consulting firm that conducted a Phase I survey/Class III inventory of Area IV under Dr. Whitley's direction in September 2001. Dr. Whitley purports to have obtained a Ph.D. from USCL specializing in California archaeology, has 30 years or professional experience, and is a Registered Professional Archaeologist (RPA) (confirmed at www.rpanet.org). Dr. Whitley and W&S are retained by Boeing to assist in the management of cultural resources at SSFL.

A letter from the Native American Heritage Commission performed a record search and failed to indicate the presence of Native American cultural resources in the immediate project area.

c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

No impacts.

Native American drawings and sensitive archeological areas exist on the Santa Susana Field Laboratory. Some of these areas are located within Area IV. The exact locations are kept confidential to avoid vandalism.

Phone conversations were held with Dr. David S. Whitley, PhD, RPA, owner of W and S Consultants in Simi Valley, California. W and S Consultants is a cultural resources management consulting firm that conducted a Phase I survey/Class III inventory of Area IV under Dr. Whitley's direction in September 2001. Dr. Whitley purports to have obtained a Ph.D. from USCL specializing in California archaeology, has 30 years or professional experience, and is a Registered Professional Archaeologist (RPA) (confirmed at www.rpanet.org). Dr. Whitley and W&S are retained by Boeing to assist in the management of cultural resources at SSFL.

Dr. Whitley sent an email-letter to DTSC (2004 March 29) which he states "Our 2001 archaeological study found no evidence for the presence of cultural resources of any kind at or in the vicinity of Buildings 4029 and 4133.", and "Any activities at or adjacent to Buildings 4029 and 4133, including closure, demolition, grading and/or reconstruction, therefore do not have the potential to result in adverse impacts to cultural resources.".

d. Disturb any human remains, including those interred outside of formal cemeteries.

No impacts.

Specific References (Cultural Resources):

- Closure Plan, Hazardous Waste Management Facility, Building T029 and T133, Santa Susana Field Laboratory, Ventura County, California, dated December 2003, prepared by MWH Americas, Inc., Sacramento, CA.
- Transportation Plan for Closure at the Hazardous Waste Management Facility, Building T029 and T133, Santa Susana Field Laboratory - Area IV, dated December 2003, prepared by MWH Americas, Inc., Sacramento, CA.
- Letter from Rob Wood / Native American Heritage Commission, to Guenther W. Moskat / Department of Toxic Substances Control, dated June 6, 2005, re: Proposed Hazardous Waste Management Facility, Santa Susana Field Laboratory, Area IV, Closure Plan, Calabasas quadrangle; Ventura County.
- Letter from David S. Whitley, PhD, RPA / W and S Consultants, to Stephen Baxter / [Department of Toxic Substances Control], dated 17 May 2005, re: Potential adverse impacts to cultural resources in Area IV, SSFL.
- Letter from David S. Whitley, PhD, RPA / W and S Consultants, to Stephen Baxter / [Department of Toxic Substances Control], dated 19 July 2005, re: Potential adverse impacts to cultural resources in SSFL Area IV, Borrow Zone.

Findings of Significance:

- Potentially Significant Impact
 Potentially Significant Unless Mitigated
 Less Than Significant Impact
 No Impact

6. Geology and Soils

Project activities likely to create an impact.

The closure of the HWMF (Building T029, Building T133) involves the demolition and removal of structures and pavement. Activities that would impact the local geology and soils involve:

- the demolition of the structures and pavement;
- the potential excavation and removal of impacted soils;
- the potential movement of on-site borrow soil to fill any excavations back to grade; and
- the filling and grading of the area for preparation of future use.

Closure of the HWMF does not allow or restrict the construction of any structures after closure activities have concluded.

Description of Environmental Setting:

NOTE: A detailed description of the geology is available in the HWMF Draft Closure Plan. Excerpts are provided to judge the environmental impacts of the project. It should be noted that the characterization of the geologic framework at SSFL is still in progress.

The entire Santa Susana Field Laboratory is located in the Simi Hills of Eastern Ventura County. The Simi Hills are in the northern part of the Transverse Range geomorphic province. The east-west tending Simi Hills separate the Simi Valley (to the north) with the western part of the San Fernando Valley. There is approximately 1,000 feet elevation difference between the top of the Simi Hills at SSFL and the valley floors (Simi and San Fernando). Both buildings of the HWMF are in Area IV which is the western section (approximately 1/5) of SSFL.

The primary geologic units present at the SSFL are the Quaternary Alluvium (alluvium) and the Cretaceous Chatsworth Formation (sandstone).

The alluvium is a mixture comprised principally of sand and silty sand, with minor amounts of silt and clay. The thickness of the alluvium is typically 5 to 15-feet, but in a few locations it is over 30 feet thick.

The Chatsworth Formation is a marine turbidite sequence primarily comprised of medium-grained sandstone with interbedded siltstone and shale units. The Chatsworth Formation is highly fractured and faulted in places.

A number of faults are present at SSFL. The faults have two general orientations. The North, Coca, Burro Flats, Woolsey Canyon, IEL and the Happy Valley Faults generally strike east-west. The Shear Zone and Skyline Fault generally strike northeast-southwest. All faults appear to dip nearly vertically.

The HWMF Building T029 is located on alluvium overlying the Lower Burro Flats Member of the Chatsworth Formation south of the ELV member (a finer-grained siltstone/shale member). The alluvium just under the T029 storage structure is 12 feet or thicker. Groundwater levels at T029 have not been determined. The nearest wells would suggest shallow groundwater at 20 to 25 feet below ground surface (bgs) and Chatsworth Formation groundwater at 40 to 45 feet bgs. Geologic units between T029 and the nearby wells may alter these estimates significantly. The T029 area is generally flat with large sandstone outcroppings nearby.

The HWMF Building T133 is located on alluvium overlying the Upper Burro Flats Member of the Chatsworth formation north of the Lot Bed (as shale member). The thickness of alluvium is approximately 20 feet at the north to almost zero at the south. A shallow groundwater well (RS-25) just north of T133 is frequently dry, but has recorded intermediate readings of groundwater at 10 to 15 feet bgs. The T133 area is generally flat with large sandstone outcroppings nearby.

Analysis of Potential Impacts. Describe to what extent project activities would:

a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

NOTE: A number of faults are present at SSFL. However, this project does not involve the construction of structures. DTSC's decision does not allow nor restrict the construction of structures after closure. There are no residences near SSFL.

- Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault. (Refer to Division of Mines and Geology Special Publication 42).

No impacts. Although active earthquake faults exist on and near SSFL, the project does not involve the construction of structures after closure and, therefore, would not expose people or structures to earthquake fault risks.

- Strong seismic ground shaking.

No impacts. Although active earthquake faults exist on and near SSFL, the project does not involve the construction of structures after closure and, therefore, would not expose people or structures to earthquake fault risks. In addition, the alluvium is not very thick and overlies sandstone bedrock which would restrict strong seismic ground shaking.

- Seismic-related ground failure, including liquefaction.

No impacts. Although active earthquake faults exist on and near SSFL, the project does not involve the construction of structures after closure and, therefore, would not expose people or structures to earthquake fault risks. In addition, the alluvium is not very thick, overlies sandstone bedrock, and is not saturated with groundwater. Therefore, the area around the HWMF would not be prone to liquefaction.

- Landslides.

No impacts. Although active earthquake faults exist on and near SSFL, the project does not involve the construction of structures after closure. There are no nearby residences. Therefore, would not expose people or structures to landslide hazards. In addition, the area around both T029 and T133 is relatively flat with nearby sandstone outcrops. The alluvium not thick, nor of a slope which would suggest landslide hazards. The project would remove the structures and pavement from both sites, thus removing any overburden. The project would grade both sites to a flat, relatively natural grade which would not create a landslide hazard.

b. Result in substantial soil erosion or the loss of topsoil.

No impacts. The site will be graded relatively flat to allow for potential future use. The area is zoned for industrial and not for agricultural use.

c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.

No impacts. Both sites are located on a layer of alluvium over sandstone bedrock. The sites will be graded relatively flat to allow for potential future use. The project would not remove or add any substantial amounts of soil to create an unstable area.

Any excavation of impacted soils would need to follow OSHA guidance for worker safety. All excavations would be filled with borrow soil from a sight located on SSFL and geologically similar to the excavated soils. Grading would return the area to current topography, which is relatively flat.

- d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property.

No impacts. There are no expansive soils (i.e. silts and clays) known to exist under either T029 or T133. Each site is on alluvium which is primarily sands and gravels with some silty-sand. Furthermore, the project does not involve building structures after closure and, therefore, would not create a substantial risk to life or property even if expansive soils existed.

- e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of water.

No impacts. The project involves the demolition and removal of structures and pavement. Any excavation would involve replacement of the cavity with borrow soil from a site on SSFL. The site would be graded back to existing topography, generally flat. The project does not involve building structures after closure.

- f. Be located in an area containing naturally occurring asbestos (see also Air Quality, f.).

No impacts. There are no naturally occurring asbestos known to exist under the HWMF sites, T029 and T133. Naturally occurring asbestos is not known to occur anywhere at SSFL.

Specific References (Geology and Soils):

- Closure Plan, Hazardous Waste Management Facility, Building T029 and T133, Santa Susana Field Laboratory, Ventura County, California, dated December 2003, prepared by MWH Americas, Inc., Sacramento, CA.

Findings of Significance:

- Potentially Significant Impact
 Potentially Significant Unless Mitigated
 Less Than Significant Impact
 No Impact

7. Hazards and Hazardous Materials

Project activities likely to create an impact:

- Demolition of structures.
- Demolition and possible exposure of sodium-potassium residue in Tank 2 at Building 133
- Placement of demolition debris in trucks.
- Transportation of demolition debris in trucks.
- Possible excavation of impacted soils.
- Placement of impacted soils in piles and in trucks.
- Transportation of demolition impacted soils in trucks.

Description of Environmental Setting:

The HWMF consists of two buildings -- Building T029 and T133. Both are located in Area IV, approximately 1/4 mile apart. The area throughout Area IV, including T029 and T133 is zoned for industrial use. The area immediately around T133 is used or has been used for industrial purposes. The area immediately around T029 appears to be unused. There are no residential developments within 1-mile of either T029 or T133.

Building T029 was used for storage of alkali metals; primarily sodium (Na), potassium (K) and a sodium-potassium alloy (NaK). The alkali metals were either in bulk or the alkali metals were residue on equipment used as research/development for heat exchangers. The materials were transported to T133 for treatment. T029 is a simple shed design with steel frame and siding, on a concrete pad. Currently, T029 is empty with all wastes inventory removed.

Building T133 refers to a small fenced-in area where materials used to treat materials from T029. The fenced in area is approximately 87-feet by 71-feet, and is covered by structures, concrete pads and asphalt paving. A 10-foot wide concrete pad was used as a "size reduction" area for cutting large equipment to manageable size. The treatment chamber was an enclosed 21-foot by 10-foot by 10-foot chamber, lined with iron and containing a large iron bowl where the materials were placed and heated with natural gas burners. Fumes were captured in a wet scrubber. Wastewater was collected in a 1300-gallon below grade tank designated as T-1. Wastewater in T-1 was pumped to an above ground 6800-gallon HDPE-resin tank designated as T-3. A 270-gallon stainless steel tank, designated as T-2, was used to hold the a sodium-potassium alloy,

called NaK, which is liquid at room temperatures. The NaK was held in T-2 before being pumped directly into the treatment chamber. Adjacent to the treatment chamber was a room used as both an office and to house control equipment.

All hazardous waste inventories have already been treated and/or removed from both Building T133 and Building T029.

Hazardous waste residue may reside in Tank T-2 at Building 133. Tank T-2 held the NaK alloy before being pumped along a line into the treatment chamber. Tank T-2 does not have any access ports or windows to access the interior of the tank. It is possible that a residual layer of NaK remains in Tank T-2. As a precaution, the tank is filled with inert argon gas to prevent reaction. The interior of the tank will become exposed when it is demolished during closure activities. Tank T-2 will be cleaned on site using a water vapor nitrogen process. This process passes low concentrations water vapor carried by nitrogen over the contaminated surfaces to react with the alkaline metal. The resulting hydroxide solutions will be added to the wastewater stream. (Page 7-6 of the proposed Closure Plan).

Paved roads connect T029 with T133. These paved roads also connect with the main paved roads out of SSFL through the eastern entrance. The roads are designed for truck traffic in support of the SSFL activities.

Analysis of Potential Impacts. Describe to what extent project activities would:

- a. Create a significant hazard to the public or the environment throughout the routine transport, use or disposal of hazardous materials.

No Impact. The project involves the demolition and removal of structures used for the storage and treatment of hazardous waste. This is a one-time project which will not result in the routine transport, use or disposal of hazardous materials.

- b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

No Impact.

The project involves the demolition and removal of structures used for the storage and treatment of hazardous waste. The area is already zoned for industrial use. No residences are in the vicinity of the demolition. Transportation of the material will be performed in covered trucks. The project will result in a one-time demolition and transportation of demolition debris. If impacted soils are present, the soils will be excavated and removed. There is no continuing storage and treatment system for this project after closure.

The hazardous waste stored and treated at HWMF were alkali metals; primarily sodium (Na), potassium (K) and a sodium-potassium alloy (NaK). The hazardous nature of the alkali metal is due to its high reactivity with air and water. Once reacted, these material form hydroxides which are caustic when concentrated. The caustic wastewater formed when the system was operation primary consisted of sodium hydroxide and potassium hydroxide which is essentially lye. All waste inventory and wastewater have been previously removed. Some NaK residue may still be in the stainless steel T-2 tanks, which will be carefully decontaminated before it is demolished.

An asbestos survey will be performed prior to demolishing the buildings at T133. If asbestos is found, standard removal procedures will be followed, as per state and local regulations. Because there are no residential areas near the facility, there are no possible impacts due to accidental releases.

The buildings and structures that would have come in contact with hazardous materials will be cleaned as part of the closure process. Samples will be taken after cleaning to determine if any residue remains. The structures, pads and pavement will be demolished and segregated according to their disposal options. The demolition debris will then be removed off-site for disposal. Dust control measures will be performed during the demolition, and during the transfer of the debris into trucks. Dust covers will be employed on the trucks to control fugitive dust. Any hazardous residues on the debris will not be volatile. Dust remains the only possible pathway for release of hazardous material into the environment. There are no residences around the facility, so any accidental releases of dust will not impact the public. Any possible release of debris because of vehicle accidents will be easily managed with brooms.

After removing the structures, pads and pavement, Boeing will perform verification sampling on the underlying soils. It is possible that impacted soils will be discovered that will need to be removed. The reactive alkali metals would not be present in the soil. They would have reacted to the air and moisture. Instead, the alkali metals would be in the form of cations (Na^+ , K^+ , etc) or simple salts (NaCl, for instance). It is also possible that an alkali hydroxide salt exists, but this would be unlikely since they are very hydrophilic, that is, would grab onto any water or moisture in the air and disassociate into cation and hydroxide (OH^-). The possible constituents to be found, therefore, would include pH (elevated above neutral 7) and alkali metal components including sodium (Na), potassium (K), Lithium (Li), and zirconium (Zr). Boeing will also be testing for total petroleum hydrocarbon in the kerosene range for possible releases from oils used during the cutting operations. If any impacted soils are discovered, they will be excavated, removed, transferred to trucks, and disposed off-site.

The Sitewide Risk Assessment Methodology Guidance (SRAM) will be used to determine background levels and health-based removal levels on the underlying soil. The SRAM was developed specifically for remediation activities at the Santa Susana Field Laboratory. If needed, the closure of the HWMF will use the Revised SRAM Guidance dated September 2005.

None of the suspected contaminants are volatile. Any impacted soils are expected to be low concentrations. Dust remains the only pathway which would cause a release of hazardous waste into the environment. As part of the closure plan, dust suppression will be performed during excavation and transfer of impacted soils. Dust covers will be used on open trucks, or drums will be closed before transportation. Any spillage occurring during transportation, such as from a vehicle accident would be easily managed with a broom.

- c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances or waste within one-quarter mile of an existing or proposed school.

No Impact.

The project involves the demolition and removal of structures used for the storage and treatment of hazardous waste. The area is already zoned for industrial use. No residences or schools are within one mile of the facility to be demolished. Transportation of the material will be performed in covered trucks. The project will result in a one-time demolition and transportation of demolition debris. If impacted soils are present, the soils will be excavated and removed. There is no continuing storage and treatment system for this project after closure.

Fugitive dust remains the only possible source of emissions that could occur within one-quarter mile of a school. The amounts of trucks will be limited and they will be moving through the area. Dust covers or drums will be used when transporting any debris or impacted soils. The debris, soil and potential contaminants on the debris or soils are all solid and non-reactive. Any spills that may occur during transportation because of an upset, such as a vehicle collision, would be easily handled with a broom.

- d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to public or the environment.

No Impact.

Neither the HWMF, or SSFL Area IV, or any site in SSFL is listed on the DTSC Hazardous Waste Substance Site List (also known as the Cortese List).

There are other facilities on SSFL which have been identified under a RCRA Facility Assessment for possible corrective action; known as Solid Waste Management Units or SWMUs. The HWMF is not one of those facilities. The closure of the HWMF will not impact any SWMU nor will disrupt the corrective action program.

- e. Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan.

No Impact.

Specific References (Hazards and Hazardous Materials):

- Closure Plan, Hazardous Waste Management Facility, Building T029 and T133, Santa Susana Field Laboratory, Ventura County, California, dated December 2003, prepared by MWH Americas, Inc., Sacramento, CA.
- Transportation Plan for Closure at the Hazardous Waste Management Facility, Building T029 and T133, Santa Susana Field Laboratory - Area IV, dated December 2003, prepared by MWH Americas, Inc., Sacramento, CA.
- Health and Safety Plan for Closure Plan at the Hazardous Waste Management Facility, Building T029 and T133, Santa Susana Field Laboratory - Area IV, Ventura County, California, dated December 2003, prepared by MWH Americas, Inc., Sacramento, CA.
- Sitewide Risk Assessment Methodology Guidance for the Santa Susana Field Laboratory, dated September 2005, prepared by MWH, Pasadena, CA.

Findings of Significance:

- Potentially Significant Impact
 Potentially Significant Unless Mitigated
 Less Than Significant Impact
 No Impact

8. Hydrology and Water Quality

Project activities likely to create an impact:

Washing contaminated structures and equipment.

Leachate from piled debris or impact soils from precipitation.

Description of Environmental Setting:

The HWMF consists of two areas -- Building T029 and Building T133. These sub-facilities are separated by approximately 1/4-mile and are in different hydrogeologic units. However, both hydrogeologic units are similar for purposes of determining the impacts.

Both sub-facilities are in areas zoned for industrial use.

Concrete pads and asphalt paving cover the extent of the sub-facilities to be closed. Closure involves washing the structures, pads and paving with a pressure wash. The effluent will be collected and analyzed before disposal. The structures, pads and paving are then sampled before being demolished. The demolition debris is placed into trucks for transportation to an appropriate off-site disposal area. Some of the debris may be first piled and sampled before placing into the trucks. The underlying soil is tested. Any impacted soil will be excavated, placed in drums or trucks, and transported off-site for disposal. Uncontaminated borrow soil from an on-site source will be used to fill in any excavation and to bring the area back to grade.

Both sub-facilities are built on a relatively thin alluvial soil over sandstone bedrock. Groundwaters under both areas are usually in the sandstone bedrock, but can be in the alluvium after rain events.

Both sub-facilities have natural drainages nearby which eventually flow to a series of on-site retention ponds. Water from these retention ponds either evaporates, percolates into the soils, or flows down another natural drainage. The retention pond water can also be used for on-site industrial purposes and for fire-fighting.

Most of the overland precipitation runoff from SSFL, including the runoff from the T029 and T133 areas, flows south into the Bell Canyon drainage system when enough water is available. The Bell Canyon drainage flows to the east. Two monitoring points are maintained on SSFL just before exiting the SSFL "buffer zone". These two points, designated as Outfall 001 and Outfall 002, are regulated by the Regional Water Quality Control Board, Los Angeles Region by a NPDES Permit.

The groundwaters and surface waters around at SSFL, including the waters from the T029 and T133 areas, are not used for drinking water or for agricultural use. No resource wells or raw-water sources are within a 1/4-mile radius.

Analysis of Potential Impacts. Describe to what extent project activities would:

a. Violate any water quality standards or waste discharge requirements.

No impact. All waste inventory and treatment wastewaters have been removed. All wastewater generated during the cleaning operations will be collected, analyzed, and disposed of off-site. No discharges are expected to occur during closure activities.

b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficient in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted).

No impact. The removal of these two areas will not significantly change the groundwater recharge or the current groundwater levels. The project does not interfere with the groundwater.

c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on or off-site.

No impact. Although there are precipitation runoff drainages near the sub-facilities, these would not be considered streams or rivers. The closure activities would not cause any silt to be deposited in these drainages.

d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off-site.

No impact. The natural drainages near the two sub-facilities will not be impacted by the closure activities. Both sites will be brought back to grade after structures, pads and paving are removed.

e. Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff.

No impact.

Both areas are relatively small. The T029 area is approximately 960 sq.ft. (0.02 acres) and the T133 area is approximately 6177 sq.ft. (0.14 acres). Currently, outside runoff from the two areas are diverted into the channels.

Precipitation falling in the T029 roof and surrounding area flows into the nearby natural channel. Runoff from the T029 area would slightly decrease after closure because the now exposed area would 1) retard the overland flow and 2) allow some percolation into the now exposed soil.

Runoff from the T133 would increase slightly because water normally collected on the facility would now be allowed to run into the drainage. Not only would the added flow into the natural drainage from a 0.14 acre area be insignificant, the natural drainage was already sized for the runoff before the T133 area was paved. The flow would now be slowed because of the exposed soil, as well as some of it percolating into the soils.

f. Otherwise substantially degrade water quality.

No impact.

g. Place within a 100-flood hazard area structures which would impede or redirect flood flows.

No impact. Neither the T029 nor the T133 area is in a 100-year flood zone. The closure of the HWMF does not require nor restrict the construction of structures on these sites in the future.

h. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.

No impact. Not Applicable.

i. Inundation by sieche, tsunami or mudflow.

No impact. Not Applicable.

Specific References (Hydrology and Water Quality):

- Closure Plan, Hazardous Waste Management Facility, Building T029 and T133, Santa Susana Field Laboratory, Ventura County, California, dated December 2003, prepared by MWH Americas, Inc., Sacramento, CA.

Findings of Significance:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact

9. Land Use and Planning

Project activities likely to create an impact:

None.

Description of Environmental Setting:

The HWMF exists within the SSFL located in the Simi Hills of Ventura County. The facility is currently zoned "R-A-5-Ac", the notation for rural agricultural, five acre minimum lot size. The SSFL site was granted a Special Use Permit by Ventura County in 1954 which allows a variety of industrial activities on site.

Analysis of Potential Impacts. Describe to what extent project activities would:

- a. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.

No impacts. The closure of the HWMF involves the demolition and removal of structures, pads and paving. This activity does not impact the current zone or land-use allowed for the site. The goal is to closed the facility to allow "unrestricted use" by DTSC.

NOTE: If contamination is found which cannot be removed, then DTSC will impose post-closure requirements which may impose land-use restrictions. The decision to impose land-use restrictions would be an additional decision by DTSC and would require additional CEQA documentation.

b. Conflict with any applicable habitat conservation plan or natural community conservation plan.

No impacts. Not Applicable.

Specific References (Land Use and Planning):

- Closure Plan, Hazardous Waste Management Facility, Building T029 and T133, Santa Susana Field Laboratory, Ventura County, California, dated December 2003, prepared by MWH Americas, Inc., Sacramento, CA.

Findings of Significance:

- Potentially Significant Impact
 Potentially Significant Unless Mitigated
 Less Than Significant Impact
 No Impact

10. Mineral Resources

Project activities likely to create an impact:

No economic mineral resources exist at SSFL. However, if there were, the activities that would potentially create an impact if there were economic mineral resources would be:

- Excavation of impacted soils;
- Removal of borrow soil to fill excavation cavity.

Description of Environmental Setting:

The Santa Susana Field Laboratory straddles the crest of the Simi Hills. The primary geology consists of sandstone known as the Chatsworth Formation. The sandstone is Cretaceous-age deposits known as the Chatsworth formation. The Chatsworth Formation is described as hard coherent arkosic sandstone in thick strata separated by thin partings of siltstone. Shale and siltstone lenses are embedded in the sandstone. There are relatively thin layers of alluvium filling in the depressions between the sandstone outcrops.

No known mineral resources exist at SSFL. No mining activities have been know to have been performed anywhere at SSFL.

The borrow soil to backfill an excavation cavity can come from off-site imported soil or from a borrow site on SSFL. No economic mineral resources exist at SSFL and it is unlikely that a mineral resource would exist on the top alluvium layer at SSFL.

There are no current mining activities at SSFL. No historic mining activities are known to have occurred at SSFL. The primary activity at SSFL is research, development and testing of rocket engines and rocket fuels. Nuclear research and development was performed in Area IV and has since discontinued.

Analysis of Potential Impacts. Describe to what extent project activities would:

a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state.

No impact. Not Applicable.

b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

No impact. Not Applicable.

Specific References (Mineral Resources):

- Closure Plan, Hazardous Waste Management Facility, Building T029 and T133, Santa Susana Field Laboratory, Ventura County, California, dated December 2003, prepared by MWH Americas, Inc., Sacramento, CA.
- Transportation Plan for Closure at the Hazardous Waste Management Facility, Building T029 and T133, Santa Susana Field Laboratory - Area IV, dated December 2003, prepared by MWH Americas, Inc., Sacramento, CA.
- Health and Safety Plan for Closure Plan at the Hazardous Waste Management Facility, Building T029 and T133, Santa Susana Field Laboratory - Area IV, Ventura County, California, dated December 2003, prepared by MWH Americas, Inc., Sacramento, CA.

Findings of Significance:

- Potentially Significant Impact
 Potentially Significant Unless Mitigated
 Less Than Significant Impact
 No Impact

11. Noise

Project activities likely to create an impact:

- Demolition of structures, concrete pads, and asphalt paving.
- Coring of concrete pads and asphalt paving for sampling purposes.
- Transfer of demolition debris into trucks for offsite disposal.
- Heavy machinery used to for demolition activities and transportation of demolition debris.
- Heavy machinery used for excavating, backfilling and grading area after demolition.

Description of Environmental Setting:

The closure plan includes a Health and Safety Plan primarily for the field workers who will implement the closure plan. In addition, OSHA and Cal-OSHA regulations cover the requirements for worker health and safety. The noise impacts discussed below do include the impacts to workers.

There are no residents in or around the SSFL facilities. The nearest residents are over 1 mile away. Noise from the planned activity would not reach health and safety concerns for residents. It is unlikely that the nearest residents will be able to hear any activity from the closure.

A zero-based schedule has been provided in the closure plan for the closure of the HWMF. Accordingly, 4 weeks have been scheduled for the site demolition. If remediation of impacted soil is required, a maximum of 7 weeks have been schedule. A large fraction of site demolition involves equipment that would produce significant noise levels. A much smaller portion of the remediation would be using noisy equipment.

Analysis of Potential Impacts. Describe to what extent project activities would:

- a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

No impact. There are no residences nearby. The facilities are inside a secured, industrial area with no public accessways. There are no offices nearby to be impacted by the noise.

- b. Exposure of persons to or generation of excessive groundbourne vibration or groundbourne noise levels.

No impact. There are no residences nearby. The facilities are inside a secured, industrial area with no public accessways. There are no offices nearby to be impacted by the noise.

- c. A substantial permanent increase in ambient noise levels in the vicinity above levels existing without the project.

No impact. Significant noise levels will not be generated on an on-going basis. At most, 11 weeks of intermittent activity will occur. The vicinity is an industrial-use area with an existing elevated noise level.

- d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

No impact. Significant noise levels will not be generated on an on-going basis. At most, 11 weeks of intermittent activity will occur. The vicinity is an industrial-use area with an existing elevated noise level.

Specific References (Noise):

- Closure Plan, Hazardous Waste Management Facility, Building T029 and T133, Santa Susana Field Laboratory, Ventura County, California, dated December 2003, prepared by MWH Americas, Inc., Sacramento, CA.
- Transportation Plan for Closure at the Hazardous Waste Management Facility, Building T029 and T133, Santa Susana Field Laboratory - Area IV, dated December 2003, prepared by MWH Americas, Inc., Sacramento, CA.
- Health and Safety Plan for Closure Plan at the Hazardous Waste Management Facility, Building T029 and T133, Santa Susana Field Laboratory - Area IV, Ventura County, California, dated December 2003, prepared by MWH Americas, Inc., Sacramento, CA.

Findings of Significance:

- Potentially Significant Impact
 Potentially Significant Unless Mitigated
 Less Than Significant Impact
 No Impact

12. Population and Housing

Project activities likely to create an impact.

None.

Description of Environmental Setting:

The two units of the HWMF are located within the secured Santa Susana Field Laboratory. SSFL is currently zoned for industrial use with supporting offices. There is no residential housing at SSFL. The nearest residential area is over 1 mile away.

Boeing's goal is to completely close the HWMF to meet unrestricted use criteria. Although this cleanup goal would allow residential use on the site, the project does not change the zoning for this area. This project does not increase population growth in the area, nor does it prohibit population growth.

Analysis of Potential Impacts. Describe to what extent project activities would:

- a. Induce substantial population growth in area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).

No Impact. Not Applicable.

- b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.

No Impact. Not Applicable.

- c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

No Impact. Not Applicable.

Specific References (Population and Housing):

- Closure Plan, Hazardous Waste Management Facility, Building T029 and T133, Santa Susana Field Laboratory, Ventura County, California, dated December 2003, prepared by MWH Americas, Inc., Sacramento, CA.

Findings of Significance:

- Potentially Significant Impact
 Potentially Significant Unless Mitigated
 Less Than Significant Impact

No Impact

13. Public Services

Project activities likely to create an impact:

None.

Description of Environmental Setting:

The two units of the HWMF are located within the secured Santa Susana Field Laboratory. SSFL is currently zoned for industrial use with supporting offices. There is no residential housing at SSFL. The nearest residential area is over 1 mile away.

Boeing's goal is to completely close the HWMF to meet unrestricted use. Although this cleanup goal would allow residential use on the site, the project does not change the zoning for this area. This project does not increase population growth in the area, nor does it prohibit population growth.

The two units will be demolished and removed. In theory, this would slightly decrease the need for public services to this area. The project does not include the construction of new structures, nor restrict and new construction.

Analysis of Potential Impacts. Describe to what extent project activities would:

a. Result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following public services:

- Fire protection

No Impacts.

- Police protection

No Impacts.

- Schools

No Impacts.

- Parks

No Impacts.

- Other public facilities

No Impacts.

Specific References (Public Services):

- Closure Plan, Hazardous Waste Management Facility, Building T029 and T133, Santa Susana Field Laboratory, Ventura County, California, dated December 2003, prepared by MWH Americas, Inc., Sacramento, CA.
- Transportation Plan for Closure at the Hazardous Waste Management Facility, Building T029 and T133, Santa Susana Field Laboratory - Area IV, dated December 2003, prepared by MWH Americas, Inc., Sacramento, CA.
- Health and Safety Plan for Closure Plan at the Hazardous Waste Management Facility, Building T029 and T133, Santa Susana Field Laboratory - Area IV, Ventura County, California, dated December 2003, prepared by MWH Americas, Inc., Sacramento, CA.

Findings of Significance:

Potentially Significant Impact

- Potentially Significant Unless Mitigated
 Less Than Significant Impact
 No Impact

14. Recreation

Project activities likely to create an impact:

None.

Description of Environmental Setting:

The two units of the HWMF are located within the secured Santa Susana Field Laboratory. SSFL is currently zoned for industrial use with supporting offices.

There is no residential housing at SSFL. The nearest residential area is over 1 mile away.

A small park known as Sage Ranch exists approximately 2 miles away, across SSFL near the east entrance. Access into Sage Ranch is completely independent of SSFL.

The area directly north of SSFL is rugged slopes covered in chaparral. There are no recreational uses in the steep slopes immediately north of Building 133. Building T029 is located near the center of Area IV.

Boeing's goal is to completely close the HWMF to meet unrestricted use. Although this cleanup goal would allow recreational use on the site, the project does not change the zoning for this area. Recreational use is not planned for this project site, although the project does not prohibit recreational use in the future.

Analysis of Potential Impacts. Describe to what extent project activities would:

- a. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.

No Impact. Not Applicable.

- b. Include recreational facilities or require construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

No Impact. Not Applicable.

Specific References (Recreation):

- Closure Plan, Hazardous Waste Management Facility, Building T029 and T133, Santa Susana Field Laboratory, Ventura County, California, dated December 2003, prepared by MWH Americas, Inc., Sacramento, CA.

Findings of Significance:

- Potentially Significant Impact
 Potentially Significant Unless Mitigated
 Less Than Significant Impact
 No Impact

15. Transportation and Traffic

Project activities likely to create an impact:

The project involves the demolition of structures, concrete pads and asphalt paving. The demolition debris will be tested and then taken off-site for disposal and/or for recycling. Soils under and in the vicinity of the facilities will be tested. Any impacted soils will be excavated and removed off-site for disposal. Potential transportation and traffic might come from:

- Movement of workers to and from the facilities;
- Movement of heavy equipment to and from the facilities;
- Movement of trucks to and from the facilities for hauling demolition debris;

- Movement of trucks to and from the facilities for hauling impacted soils.

Description of Environmental Setting:

The Closure Plan for the Hazardous Waste Management Facility includes a Transportation Plan (December 2003).

The Santa Susana Field Laboratory straddles the crest of the Simi Hills. It is surrounded by undeveloped areas on all four sides. Although a few dirt roads exist, the only true access into SSFL is a main security gate located at the northeast portion of the facility.

Internal roads, both paved and dirt-graded, interconnect the various facilities throughout the four administrative areas within SSFL. There are two main paved roads that generally travel east-west -- one along the northern part of SSFL and another along the southern part of SSFL that branches from the northern road and later reconnects to the northern road. From the main entrance gate, vehicles travel westward, first entering Area I (Boeing-Rocketdyne), then encounter Area II (NASA/Boeing), then pass through Area III (Boeing-Rocketdyne), before entering Area IV (USDOE/Boeing/ETEC). The Hazardous Waste Management Facility (HWMF) buildings are both located in Area IV. To leave the Area IV HWMF area, all vehicle traffic must reverse direction and travel eastward from Area IV, to Area III, to Area II and finally to Area I where they exist at the main security gate.

SSFL is an industrial area. All roads within the SSFL boundaries are private and restricted. Many roads within SSFL are graded and paved to support heavy vehicles as well as movement of heavy equipment.

Access to the SSFL Main Gate is achieved from two roads -- Woolsey Canyon Road and Black Canyon Road. Both of these roads meet at a ridge saddle just northeast of the SSFL Main Gate.

The Black Canyon Road originates from the Santa Susana Knolls area located north of SSFL and on the southern side of Simi Valley. From Santa Susana Knolls, the Black Canyon road ascends approximately 1000 vertical feet until it meets Woolsey Canyon Drive at a Simi Hills crest saddle, just northeast of the SSFL Main Gate. The Black Canyon Road is unsuitable for heavy trucks due to the tight curves and overhead restrictions.

The Woolsey Canyon Road originates east of SSFL at Valley Circle Boulevard near the communities of Lakeside Park and Chatsworth Lake Manner. From Valley Circle Boulevard, Woolsey Canyon Road ascends eastward gaining 1200 vertical feet in a series of curves and switchbacks to meet Black Canyon Road at a Simi Hills crest saddle, just northeast of the SSFL Main Gate. Compared to Black Canyon Road, Woolsey Canyon Road has straighter sections of road that are connected with sharp curves. These curves have been widened which allow the movement of large trucks to and from SSFL. Woolsey Canyon Road is a private drive and is the access for truck/equipment traffic to the SSFL Main Gate. Although widened in key spots for large truck traffic, periodically Woolsey Canyon Road must be closed to allow extremely large pieces of equipment to be transported up to or from SSFL.

The transportation to the various disposal facilities is based on reaching California Highway 118 (Ronald Reagan 118 Freeway) that runs east-west through the Simi Valley as well as the City of Simi Valley. To reach Hwy 118 from the SSFL Main Gate, vehicles turn right on Woolsey Canyon Road (easterly direction), right on Valley Circle Boulevard (southerly direction), left on Roscoe Boulevard (westerly direction), left on Topanga Canyon Boulevard (northerly direction), and continues on Topanga to Hwy. 118. An alternate route is to continue south on Topanga Canyon Boulevard to U.S. Highway 101. U.S.-101 is less desirable because it is often congestion during the day.

Waste generated from decontamination and demolition of structures will include wastewater collected in aboveground tanks or drums, concrete, asphalt, metallic debris from dismantling of tanks, treatment chamber, etc., and other construction material debris such as dry wall, roofing material and wood. Other types of waste may include contaminated soils, if found during investigation at the HWMF, and groundwater generated from dewatering activities, if present during excavation of contaminated soils.

Hazardous waste materials will be transported in closed-top roll-off bins, each with a capacity of 20 to 25 tons. Non-hazardous waste will be transported either in closed-top roll-off bins, or in bulk, using 18-wheel end dump, or equivalent, each with a capacity of 20 to 25 tons of soil. All dump trucks will be covered with a tarp. The wastewater will be either transported in a vacuum truck or drums in a covered truck.

DEMOLITION DEBRIS: All demolition debris and contaminated soil will be hauled by trucks. The demolition debris will be segregated into roll-off bins. The proposed HWMF Closure Transportation Plan estimated approximately 10 to 20 truck loads will be needed to remove the demolition debris. This volume was based on visual inspection and the demolition debris is not expected to exceed 20 truck loads (HWMF Closure Transportation Plan, page 3-2, Section 3.1.3).

DECONTAMINATION WASTEWATER: The proposed HWMF Closure Transportation Plan estimates 2,000 gallons of wastewater will be generated during the decontamination activities (HWMF Closure Transportation Plan, page 3-2, Section 3.1.3). The wastewater will be held until testing and then transferred to a vacuum truck or drums. The amount of vehicles was not specified in the Transportation Plan. Vacuum trucks range from 1,000 to 5,000 gallon capacities. Since there are two separate buildings, two vacuum trucks can be anticipated. If all of the 2,000 gallon wastewater was placed in 55-gallon drums, then 37 drums would be needed. A typical truck carries 20 drums each. This would require two trucks. Therefore, two trucks will be needed to transfer the wastewater, weather using bulk tank or drums.

POTENTIAL CONTAMINATED SOIL: The proposed HWMF Closure Transportation Plan gives an assumed estimate of 2,000 cubic yards of contaminated soil to be removed from the facility (HWMF Closure Transportation Plan, page 3-2, Section 3.1.3). This is an estimate only and

not based on any analytical data. The actual amount could be zero. The Transportation Plan does not mention the amount of trucks needed for this removal. Roll-off bins have capacities from 10 cu.yd. to 50 cu.yd. A 20 cu.yd. bin is commonly used for soil because of weight. If 2,000 cu.yd. of soil was excavated and removed in 20 cu.yd. roll-off bins, then 100 roll-off bins would be needed and, therefore, 100 truckloads would be needed.

BORROW SOIL: To fill in any excavation of contaminated soil, the HWMF Closure Plan discusses the possibility of using an established on-site borrow area or importing soil from off-site sources. Since a possible maximum of 100 truckloads was estimated for removal of contaminated soil, then a possible maximum of 100 truckloads can be estimated for importation of fill soil.

TRUCK TRAFFIC: The estimated truck traffic is given below. The wastewater will be generated first. Afterwards, the demolition of the structures will generate the demolition debris. Only after demolition is complete will the underlying soils be tested for potential contamination and possible removal.

Decontamination Wastewater	2,000 gallons	2 trucks
Demolition Debris	20 roll-off bins	20 trucks
Contaminated Soil (assumed value)	2,000 cubic yards	100 trucks
Fill Soil (assumed value)	2,000 cubic yards	100 trucks

Total Possible Truck Traffic: 222 trucks

Estimated duration of HWMF Closure: 26 weeks

Estimated duration of closure activities involving truck traffic: 13 weeks

The HWMF Closure Transportation Plan anticipates an average of 18 trucks per day, over 8-day duration, will be necessary to remove the approximately 2,000 cubic yards of estimated contaminated soil (page 6-6, section 6.1.12). Although not anticipated during transportation of the contaminated soil off site, a maximum of 39 trucks per day may enter and leave the site 5 days a week, between the non-peak hours of 9 a.m. and 4 p.m. This is based on a maximum of six trucks per hour departing the site between the hours of 9 a.m. and 3:30 p.m. (10 minute interval, during off peak traffic). The total of 36 trucks per day will be required for hauling import fill soil to the site. It has been estimated that up to 20 trucks may be needed for hauling the demolition debris.

Truck traffic for removing wastewater: 2 trucks per day

Truck traffic for removing demolition debris: 20 trucks per day

Average truck traffic during soil removal: 18 trucks per day

Average truck traffic bringing imported fill soil: 36 trucks per day

Peak truck traffic for any day: 39 trucks per day

According to the HWMF Closure Transportation Plan, Rocketdyne has traditionally and voluntarily tried to minimize hauling to and from its site on Woolsey Canyon Road during commute hours. Thus, for this project, Rocketdyne intends to maintain a minimum 10-minute interval between trucks entering and exiting the site. Truck operations during project implementation will be limited to Monday through Friday between 7 a.m. and 7 p.m. Truck travel over city streets will be limited to off-peak hours of 9 a.m. and 4 p.m. when hauling excavated contaminated soil from the site. No trucking will be conducted under inclement weather conditions such as heavy rains, bad visibility, high winds, etc. Potential hazards on the road may be encountered in the narrow, steep hill on Woolsey Canyon road and narrow portions of Valley Circle Drive. Drivers will be instructed to exercise caution on these roads.

During heavy truck traffic, a traffic coordinator may be stationed at the entrance of 118 Fwy, at Topanga Canyon Boulevard and a second traffic coordinator may be stationed at the intersection of Woolsey Canyon Road and Valley Circle Boulevard. Both traffic coordinators would be equipped with lightweight vehicles and two-way communication radios to coordinate trucking and respond to emergencies between the site and the freeway entrance.

Analysis of Potential Impacts. Describe to what extent project activities would:

- a. Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections).

No impacts. The Closure Plan calls for spacing the trucks to 10-minute intervals to ease the impacts on Woolsey Canyon Road and vicinity. This interval should allow for no impacts to the local roads and definitely would not impact the highway system.

- b. Exceed, either individually or cumulatively, a level of service standard established by the country congestion management agency for designated roads or highway.

No impacts. The Closure Plan calls for spacing the trucks to 10-minute intervals to ease the impacts on Woolsey Canyon Road and vicinity. This interval should allow for no impacts to the local roads and definitely would not impact the highway system.

c. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

No impacts. The steep grade and sharp turns down Woolsey Canyon Road is negotiable for all trucks and equipment expected for the closure project. Speed limits are in place that, if maintained, will ensure safe transit.

Other portions of the transportation route are negotiable for the vehicles and equipment expected for the closure project. The Closure Plan calls for spotters in two areas – the intersection of Woolsey Canyon Drive with Valley Circle, and the turn from Topanga Canyon Drive onto the CA-118 Freeway. These spotters are there to radio traffic information and prevent problems from occurring.

No known overhead restrictions exist on the route to CA-118.

d. Result in inadequate emergency access.

No impacts. Both T029 and T133 are on separate side roads from the main SSFL interior road. Closure operations, therefore, should not interfere with movement of emergency vehicles within SSFL as well as access to the site activities.

Standard trucks are used for hauling debris, soil, and equipment. They would not interfere with the flow of traffic or the passage of emergency vehicles.

e. Result in inadequate parking capacity.

No impacts. Not Applicable.

f. Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks).

No impacts. Not Applicable.

Specific References (Transportation and Traffic):

- Closure Plan, Hazardous Waste Management Facility, Building T029 and T133, Santa Susana Field Laboratory, Ventura County, California, dated December 2003, prepared by MWH Americas, Inc., Sacramento, CA.
- Transportation Plan for Closure at the Hazardous Waste Management Facility, Building T029 and T133, Santa Susana Field Laboratory - Area IV, dated December 2003, prepared by MWH Americas, Inc., Sacramento, CA.
- Health and Safety Plan for Closure Plan at the Hazardous Waste Management Facility, Building T029 and T133, Santa Susana Field Laboratory - Area IV, Ventura County, California, dated December 2003, prepared by MWH Americas, Inc., Sacramento, CA.

Findings of Significance:

- Potentially Significant Impact
 Potentially Significant Unless Mitigated
 Less Than Significant Impact
 No Impact

16. Utilities and Service Systems

Project activities likely to create an impact:

None.

Description of Environmental Setting:

The Santa Susana Field Laboratory has a number of operations which require electricity, water and wastewater sewers. The HWMF also required electricity and water supplies when in operation. Any utilities that remain connected will be removed prior to closing the facility. Removing the utilities would be completely inside SSFL.

Utilities for the closure activities will either use utilities already in place, or will bring the utility to the sight.

Analysis of Potential Impacts. Describe to what extent project activities would:

a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.

No Impact. All wastewater from the cleaning / decontamination operation will be collected, tested for contaminants, then placed in a vacuum truck for off-site disposal.

b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

No Impact. Not Applicable.

c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

No Impact. Not Applicable.

d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed.

No Impact. Not Applicable.

e. Result in determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the projects projected demand in addition to the providers existing commitments.

No Impact. Not Applicable.

f. Be served by a landfill with sufficient permitted capacity to accommodate the projects solid waste disposal needs.

The closure project is expected to generate 10-20 truckloads of demolition debris. The closure plan uses an assumed estimate of 2000 cubic yards of impacted soil for planning purposes. (There may not be any impacted soil). This material will be going to various landfills, depending on the material and possible hazardous residues.

g. Comply with federal, state, and local statutes and regulations related to solid waste.

The structures, concrete and paving will be tested prior to demolition. The demolition debris will be segregated according to the test results and the materials. The demolition debris will then be taken offsite for disposal or recycling.

Boeing intends to send the demolition debris from Building T029 and the building structure of Building T133 to a lined Class I landfill, most likely the Chemical Waste Management Kettleman Hills Facility. Building T029 previously housed a radioactive calibration facility which stored radioactive sources. The building structure of Building T133 was previously used at another location where radioactive contaminated material was handled. Both structures were decontaminated and cleared for unrestricted use prior to being permitted for treatment of non-radioactive alkali metals. These structures represent “decommissioned materials” which is subject to California Executive Order D-62-02 (September 2002, Davis). The order directs a moratorium on the disposal of decommissioned materials into Class III landfills until statewide standards are developed.

After removal of the structures, concrete pads and asphalt paving, the soils will be tested for contamination. There may or may not be contamination. The Closure Plan assumes an estimate of 2000 cubic yards for planning purposes. This material will be sent to an appropriate Class I or Class II landfill, depending on the degree of contamination. No landfill-restricted waste is expected to be encountered.

Specific References:

- Closure Plan, Hazardous Waste Management Facility, Building T029 and T133, Santa Susana Field Laboratory, Ventura County, California, dated December 2003, prepared by MWH Americas, Inc., Sacramento, CA.
- Transportation Plan for Closure at the Hazardous Waste Management Facility, Building T029 and T133, Santa Susana Field Laboratory - Area IV, dated December 2003, prepared by MWH Americas, Inc., Sacramento, CA.
- Health and Safety Plan for Closure Plan at the Hazardous Waste Management Facility, Building T029 and T133, Santa Susana Field Laboratory - Area IV, Ventura County, California, dated December 2003, prepared by MWH Americas, Inc., Sacramento, CA.

Findings of Significance:

- Potentially Significant Impact
 Potentially Significant Unless Mitigated
 Less Than Significant Impact
 No Impact

17. Mandatory Findings of Significance

Analysis of Potential Impacts. Describe to what extent project activities would:

- a. Have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory.

No Impacts.

The two buildings are inside industrial areas that have already impacted the environment. Closure activities of the HWMF will NOT degrade the quality of the environment beyond the impacts already experience and will NOT add any additional degrading impacts. The removal of the structures, pads and pavement may improve the environment quality slightly.

Sensitive habitat and plant species have been identified in a focused July 2005 biological survey. Although not directly with the project sites, there are some sensitive areas in the vicinity of the project site. These sensitive areas and species will be resurveyed, marked and mitigated to avoid any accidental taking while performing the closure activities.

- b. Have impacts that are individually limited but cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.

No Impacts.

The closure of the two buildings involves removal of material. New construction is not approved for this project, although DTSC approval would not limit any new construction. Although SSFL has ongoing activity, the scheduling of the demolition and possible soil removal will be designed to limit overall truck traffic on Woolsey Canyon Road. No considerable cumulative impacts are expected from this project.

- c. Have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly.

No Impacts.

The two buildings are located in industrial areas. The closure activities involve removal of material. Residential areas are over 1 mile away. It is anticipated that the removal and any cleanup will result in unrestricted use of the parcels, including possible residential use if future land-use changes. If, however, unrestricted use is not achievable, then further action will be needed included additional impact study.

Specific References:

- Closure Plan, Hazardous Waste Management Facility, Building T029 and T133, Santa Susana Field Laboratory, Ventura County, California, dated December 2003, prepared by MWH Americas, Inc., Sacramento, CA.
- Transportation Plan for Closure at the Hazardous Waste Management Facility, Building T029 and T133, Santa Susana Field Laboratory - Area IV, dated December 2003, prepared by MWH Americas, Inc., Sacramento, CA.
- Health and Safety Plan for Closure Plan at the Hazardous Waste Management Facility, Building T029 and T133, Santa Susana Field Laboratory - Area IV, Ventura County, California, dated December 2003, prepared by MWH Americas, Inc., Sacramento, CA.

Findings of Significance:

- Potentially Significant Impact
 Potentially Significant Unless Mitigated

- Less Than Significant Impact
 No Impact

V. FINDING OF DE MINIMIS IMPACT TO FISH, WILDLIFE AND HABITAT (Optional)

Prepared only if a Finding of De Minimis Impact to fish, wildlife and habitat is proposed in lieu of payment of the Department of Fish and Game Notice of Determination filing fee required pursuant to section 711.4 of the Fish and Game Code.

Instructions

A finding of “no potential adverse effect” must be made to satisfy the requirements for the Finding of De Minimis Impact as required by title 14, California Code of Regulations, section 753.5. “No potential adverse effect” is a higher standard than “no significant impact” and the information requested to provide substantial evidence in support of a “no potential adverse effect” is not identical in either its standard or content to that in other parts of the Initial Study.

In the *Explanation and Supporting Evidence* section below, provide substantial evidence as to how the project will have **no potential adverse effect** on the following resources:

- a) Riparian land, rivers, streams, watercourse, and wetlands under state and federal jurisdiction.
- b) Native and non-native plant life and the soil required to sustain habitat for fish and wildlife.
- c) Rare and unique plant life and ecological community’s dependent on plant life.
- d) Listed threatened and endangered plant and animals and the habitat in which they are believed to reside.
- e) All species of plant or animals as listed as protected or identified for special management in the Fish and Game Code, the Public Resources Code, the Water Code, or regulation adopted there under.
- f) All marine and terrestrial species subject to the jurisdiction of the Department of Fish and Game and the ecological communities in which they reside.
- g) All air and water resources the degradation of which will individually or cumulatively result in a loss of biological diversity among the plants and animals residing in that air and water.

Explanation and Supporting Evidence

Finding

VI. DETERMINATION OF APPROPRIATE ENVIRONMENTAL DOCUMENT

On the basis of this Initial Study:

- I find that the proposed project COULD NOT have a significant effect on the environment. A NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED DECLARATION will be prepared.
- I find that the proposed project MAY HAVE a significant effect on the environment. An ENVIRONMENTAL IMPACT REPORT will be prepared.

DTSC Project Manager Signature

Date

[original signed 11/29/2005]

Stephen Baxter

Senior Hazardous Substances
Engineer

(818) 551-2940

DTSC Project Manager Name

DTSC Project Manager Title

Phone #

DTSC Branch/Unit Chief Signature

Date

[original signed 11/30/2005]

Jose Kou

Branch Chief, Southern
California Permitting and
Corrective Action Branch

(818) 551-2920

DTSC Branch/Unit Chief Name

DTSC Branch/Unit Chief Title

Phone #

ATTACHMENT A**INITIAL STUDY REFERENCE LIST**

For

Hazardous Waste Management Facility Closure Plan Approval, Santa Susana Field Laboratory, Area IV

NOTE: Reference (1), (2) and (3) constitute the “Hazardous Waste Management Facility Closure Plan”.

- 1) Closure Plan, Hazardous Waste Management Facility, Buildings T029 and T133, Santa Susana Field Laboratory, Ventura County, California, dated December 2003, prepared by MWH Americas, Inc., Sacramento, CA.
- 2) Transportation Plan for Closure at the Hazardous Waste Management Facility, Building T029 and T133, Santa Susana Field Laboratory - Area IV, Ventura County, California, dated December 2003, prepared by MWH Americas, Inc., Sacramento, CA.
- 3) Health and Safety Plan for Closure at the Hazardous Waste Management Facility, Buildings T029 and T133, Santa Susana Field Laboratory - Area IV, Ventura County, California, dated December 2003, prepared by MWH Americas, Inc., Sacramento, CA.
- 4) Letter from Rob Wood / Native American Heritage Commission, to Guenther W. Moskat / Department of Toxic Substances Control, dated June 6, 2005, re: Proposed Hazardous Waste Management Facility, Santa Susana Field Laboratory, Area IV, Closure Plan, Calabasas quadrangle; Ventura County.
- 5) Letter from David S. Whitley, PhD, RPA / W and S Consultants, to Stephen Baxter / [Department of Toxic Substances Control], dated 17 May 2005, re: Potential adverse impacts to cultural resources in Area IV, SSFL.
- 6) Letter from David S. Whitley, PhD, RPA / W and S Consultants, to Stephen Baxter / [Department of Toxic Substances Control], dated 19 July 2005, re: Potential adverse impacts to cultural resources in SSFL Area IV, Borrow Zone.
- 7) Ventura County Air Pollution Control District, PERMIT TO OPERATE, Number 0271, valid January 1, 1997 to December 31, 1997. [NOTE: This Permit allowed operation of the wet scrubber when HWMF was active. No air permit for closure activity is required.]
- 8) Report on Biological Surveys of Building 29 and 133, and Area 4 Soil Borrow Pit at the Santa Susana Field Laboratory, dated August 4, 2005. Prepared by Padre Associates, Inc. Survey performed on July 13, 2005 by Chris Dunn, Staff Biologist, Padre Associates, Inc.
- 9) Sitewide Risk Assessment Methodology for the Santa Susana Field Laboratory, dated September 2005, prepared by MWH, Pasadena, CA.
- 10) Letter from Gerard Wong, Ph.D., Chief / CA Dept. Health Services Radiologic Health Branch, to P.D. Rutherford, Manager / Rockwell International Corporation - Rocketdyne Division, dated December 21, 1995. Re: Rocketdyne’s letter dated July 6, 1995 with attachments concerning the release of Building T029, To28 and OCY.
- 11) Historical Site Assessment of Area IV, Santa Susana Field Laboratory, Ventura County, California, dated May 2005. Prepared by Sapere Consulting Inc. and The Boeing Company. Prepared for the Department of Energy under contract DE-AC03-99SF21530.

ATTACHED FIGURES

Figure 1: SSFL Location Map.

Figure 2: Building 29 and Building 133 Location Diagram

Figure 3: SSFL Soil Borrow Site Location Diagram

Figure 4: Building 29 Area Diagram

Figure 5: Building 29 Layout Diagram

Figure 6: Building 133 Area Diagram

Figure 7: Building 133 Layout Diagram

Figure 8: Transportation Route Diagram

Initial Study for Closure Plan Approval of the Hazardous Waste Management Facility,
Santa Susana Field Laboratory, Area IV
(November 30, 2005)

FIGURES

Figure 1: SSFL Location Map.

Figure 2: Building 29 and Building 133 Location Diagram

Figure 3: SSFL Soil Borrow Site Location Diagram

Figure 4: Building 29 Area Diagram

Figure 5: Building 29 Layout Diagram

Figure 6: Building 133 Area Diagram

Figure 7: Building 133 Layout Diagram

Figure 8: Transportation Route Diagram

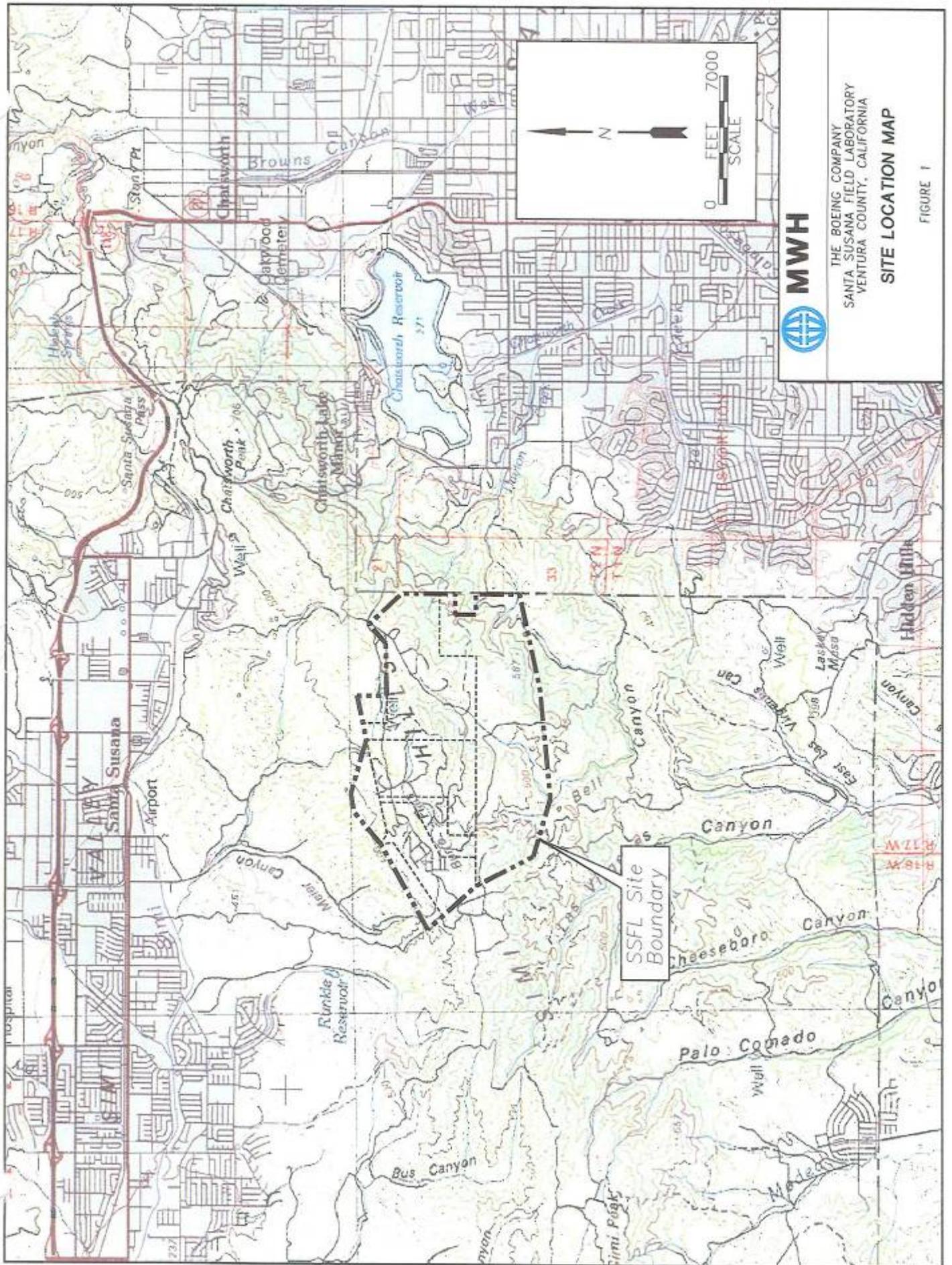


Figure 1 of 8: SSFL Location Map.

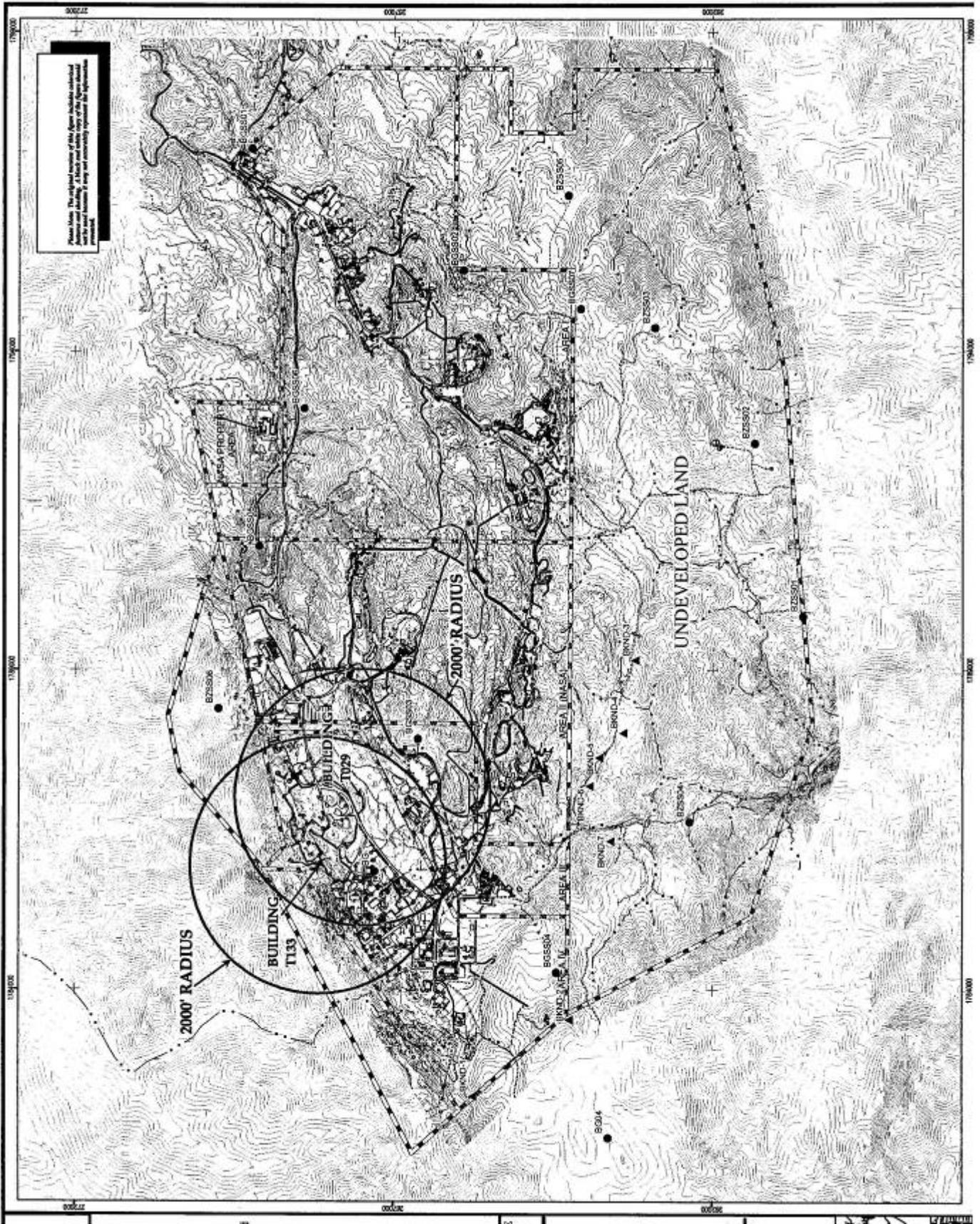
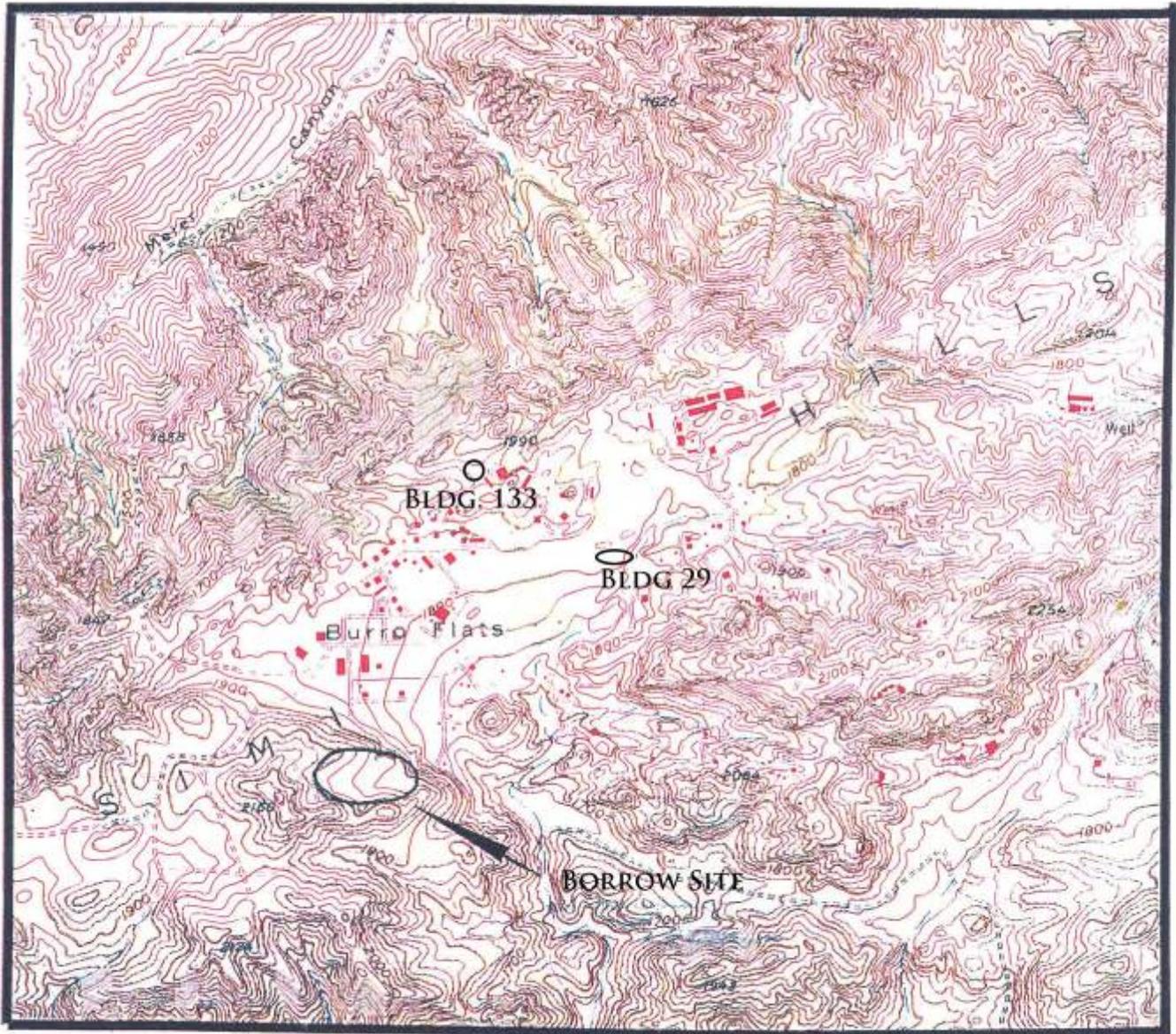


Figure 2 of 8: Building29 and Building 133 Location Diagram

MAP 2: PROJECT AREA MAP



Calabasas Quadrangle, California
1952, 7.5 Minute Series (Topographic)

Scale 0 ————— 1 mile

Figure 3 of 8: SSFL Soil Borrow Site Location Diagram

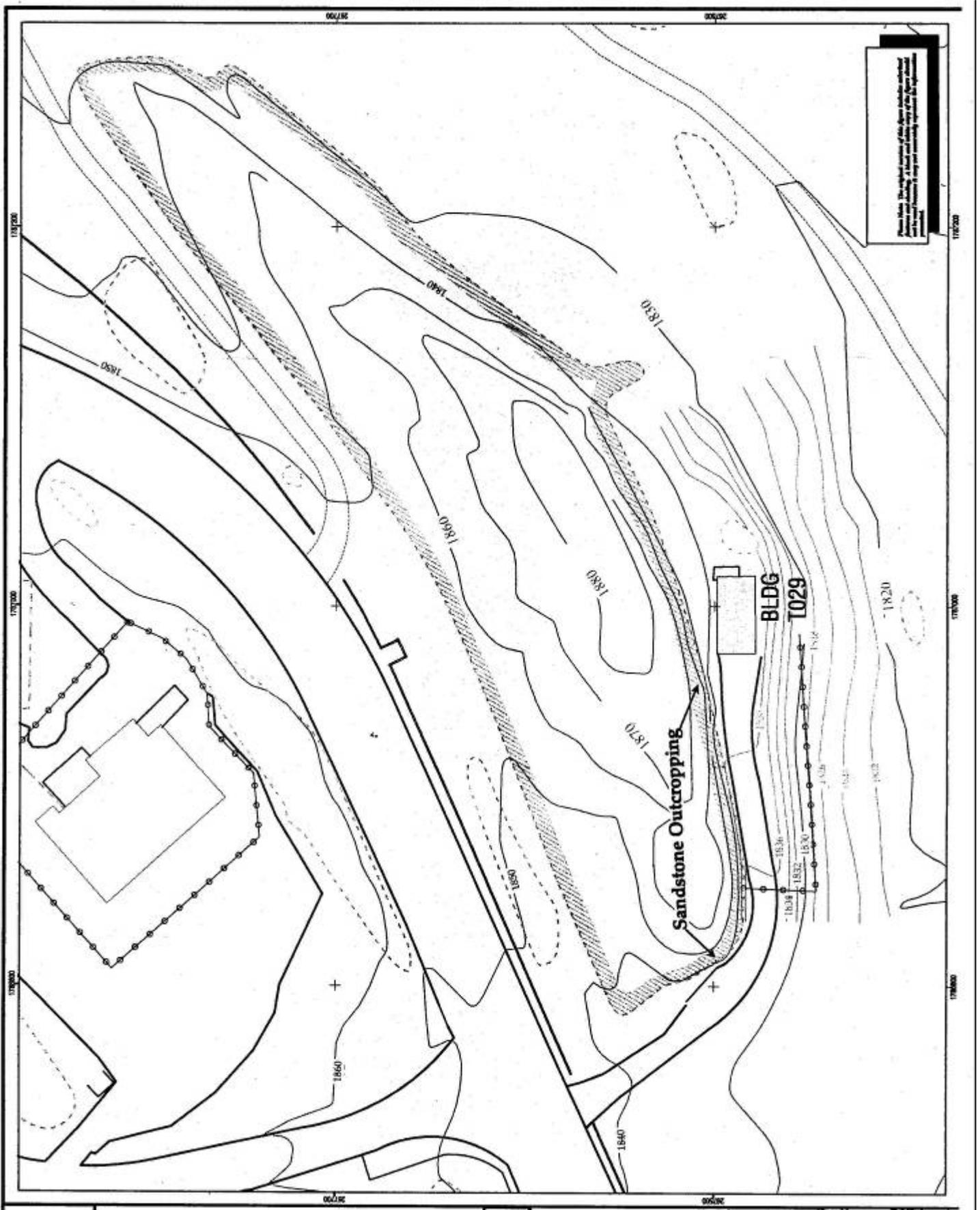
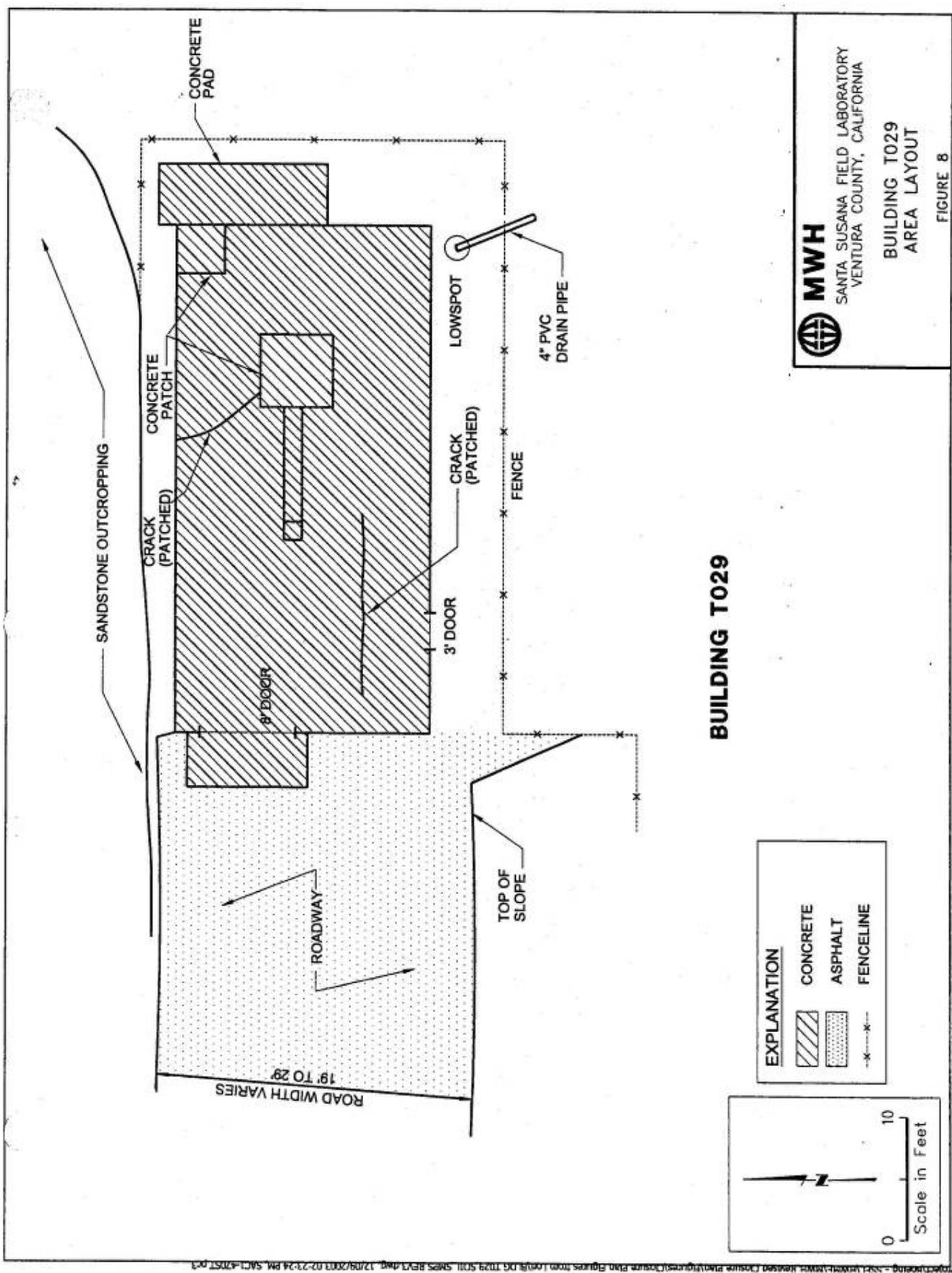


Figure 4 of 8: Building 29 Area Diagram



MWH
 SANTA SUSANA FIELD LABORATORY
 VENTURA COUNTY, CALIFORNIA

**BUILDING T029
 AREA LAYOUT**

FIGURE 8

BUILDING T029

Figure 5 of 8: Building 29 Layout Diagram

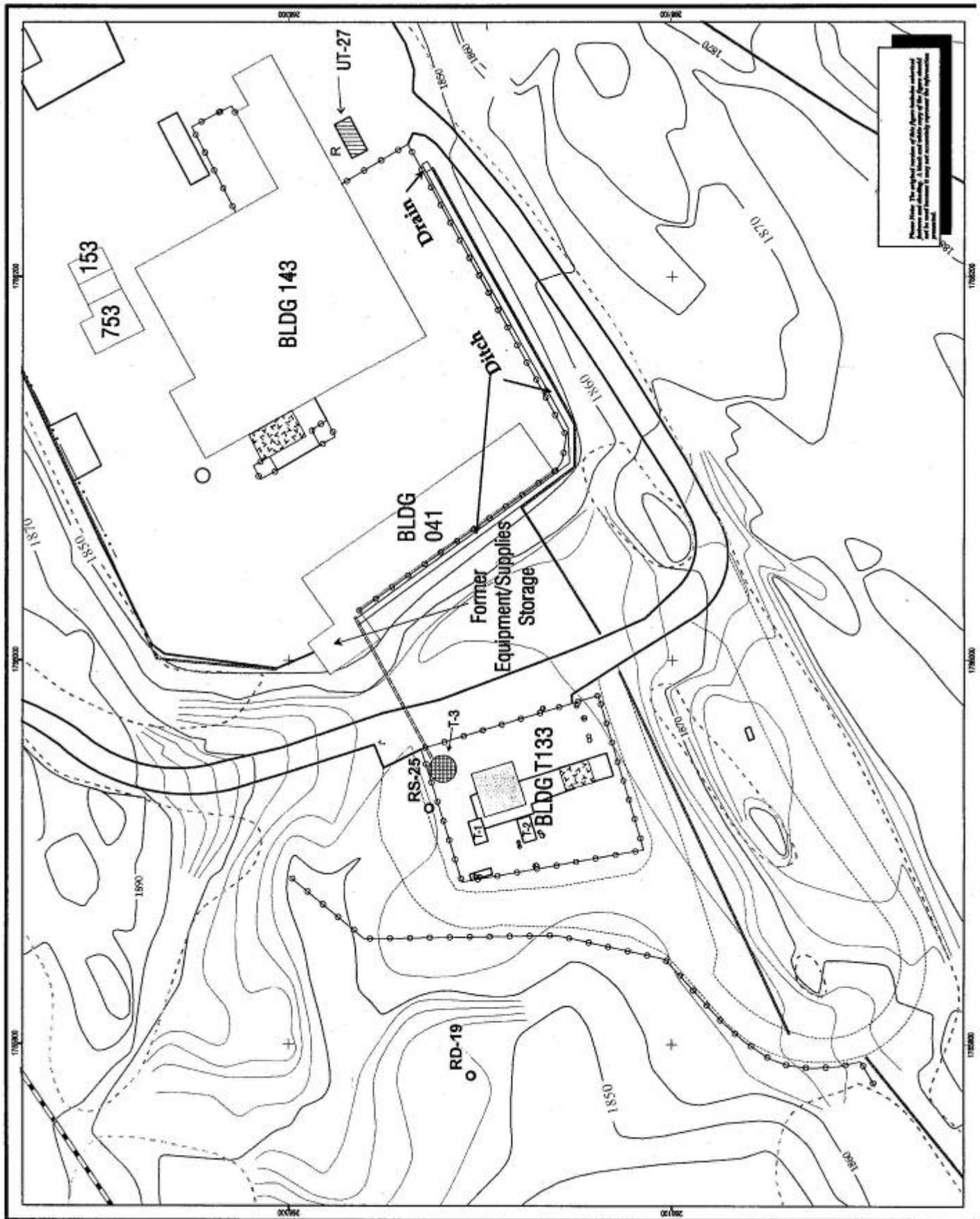


Figure 6 of 8: Building 133 Area Diagram

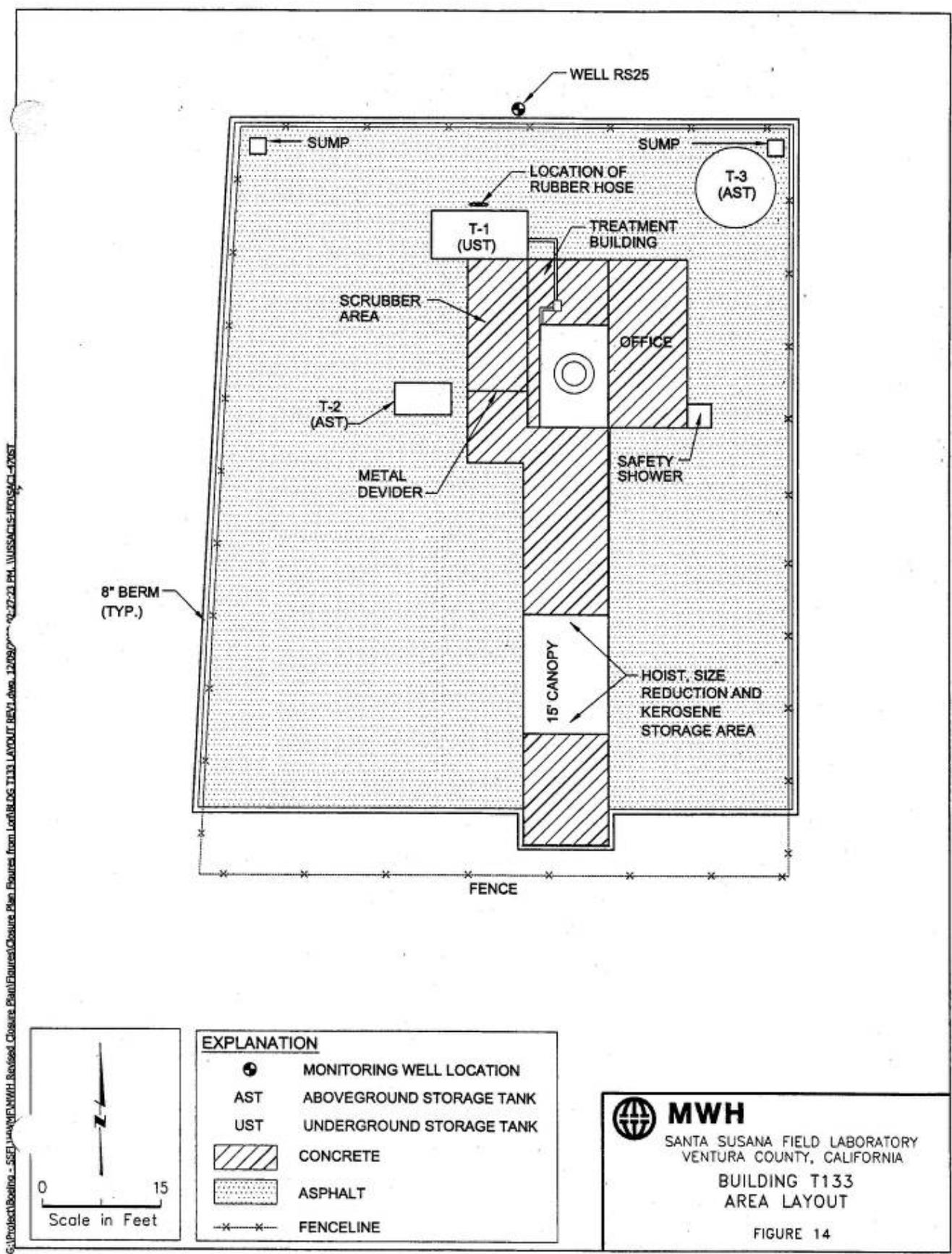


Figure 7 of 8: Building 133 Layout Diagram

