

FINAL ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT SATCOM REGIONAL HUB NODE PROJECT CAMP ROBERTS, CALIFORNIA

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Finding of No Significant Impact for the Regional Hub Node Project

This finding of no significant impact (FONSI) document has been prepared pursuant to the National Environmental Policy Act (NEPA) of 1969, Public Law 91-190 42 U.S. Code (USC) §4321 *et seq.*, and the Council on Environmental Quality (CEQ) regulations for implementing NEPA; 40 Code of Federal Regulations (CFR), Parts 1500–1508; and *Environmental Effects of Army Actions*, 32 CFR 651 (March 2002). The FONSI is the decision document for the attached Environmental Assessment (EA) for the Regional Hub Node (RHN) Project (Proposed Action).

Description of the Proposed Action

The United States (U.S.) Army Program Manager Defense Communications and Army Transmission Systems (PM–DCATS) proposes to construct the RHN at the Satellite Communications (SATCOM) Station at Camp Roberts, California. The RHN would be capable of supporting data, voice, and video satellite communication links in support of world-wide operations and would provide critical Battle Command multimedia information from the Army Service Component Command and major headquarters across a battlespace and down to maneuver battalions. The RHN would be implemented as part of the future growth of the Camp Roberts SATCOM facility in order to enable the above described technologies and capabilities.

The Proposed Action consists of construction of an RHN at the SATCOM site, which includes the construction or installation of the following components:

- three 9.2-meter Ku-Band Antennas;
- 53 communication baseband equipment racks;
- two heating, ventilation, and air conditioning units; and
- cable ladders.

Construction of the Proposed Action would begin in January 2011. Construction is expected to take 3–4 months and would require approximately 40 personnel. Once operational, the RHN would require 23 new personnel.

Description of the No Action Alternative

The No-Action Alternative was the only alternative to the Proposed Action that was considered. Under the No-Action Alternative, the RHN would not be constructed or operated. Use of the site for the Proposed Action would remain the same as under current conditions (an overflow parking lot and helipad) and no project associated environmental effects would occur. The No-Action Alternative would not be a reasonable alternative to the Proposed Action because it would not fulfill the proponent's purpose and need. However, in order to comply with the CEQ's requirements, the No-Action Alternative was examined throughout the EA.

Potential Environmental Impacts

The EA documents that no significant impacts associated with the Proposed Action would be anticipated. After an examination of all resource areas, it was determined that the Proposed Action would have no effects on agricultural resources, environmental justice, population and housing, public services, recreation, socioeconomics, and transportation. A number of measures to minimize and avoid impacts would be implemented prior, during, and after project construction. It was determined that with these measures in place, there would be no significant effects on air quality and climate, biological resources, cultural resources, geology and soils, hazards and hazardous waste, infrastructure, land use, noise, visual resources, or water resources

NEPA Considerations

Based on the environmental analyses contained in the EA, it has been found and determined that with implementation of mitigation measures, construction and operation of the Proposed Action would not have any significant direct, indirect, or cumulative impacts on the human environment (which includes the physical and natural environments and the relationship of people with those environments). Because no significant impacts would result from implementing the Proposed Action, an environmental impact statement is not required and will not be prepared.

Public Review and Comment

The public was provided the opportunity to review and comment on the Draft EA. Notices announcing the availability of the Draft EA were published in two local newspapers: the *Monterey County Herald* and the *San Luis Obispo Tribune*. The following places were provided a copy of the Draft EA for public review: Paso Robles Library, San Luis Obispo Library, Chamberlain Library (at Fort Ord), and the U.S. Army Garrison, Presidio of Monterey. The comment period was September 15, 2010 through October 15, 2010. The public was directed to send comments to Lenore Grover-Bullington U.S. Army Garrison, Presidio of Monterey, P.O. Box 5004, Monterey, CA 93944, or via electronic mail to lgroverbullington@us.army.mil. During the review period, only one comment was received (Appendix C of the EA). The comment was received from the Monterey Bay Unified Air Pollution Control District and did not request changes to the EA, but provided information on units of measurement for thresholds of significance. In addition, the Federally recognized Santa Ynez Band of Chumash Indians Native American Tribe requested a site visit at the action area after receipt of the Draft EA. The Tribe provided a letter stating that there were no adverse impacts to cultural resources of significance to the Tribe (Appendix C of the EA).



Darcy A. Brewer,
Colonel, U.S. Army
Commanding
Presidio of Monterey



Date

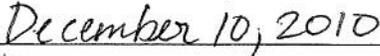
**Final Environmental Assessment and Finding of No Significant Impact
SATCOM Regional Hub Node Project**

December 2010

Prepared by:

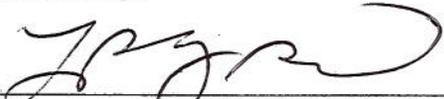


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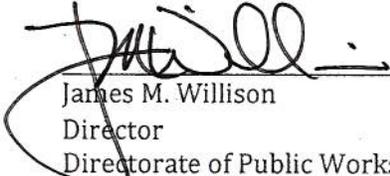
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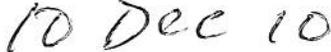


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Acronyms and Abbreviations

AB 32	Assembly Bill 32
ADP	Area Development Plan
BMP	best management practice
CAAA	1990 Clean Air Act Amendments
CAAQS	California Ambient Air Quality Standards
CAARNG	California Army National Guard
CARB	California Air Resources Board
CCAR	California Climate Action Registry
CDFG	California Department of Fish and Game
CEQ	Council on Environmental Quality
CFGC	California Fish and Game Code
CFR	Code of Federal Regulations
CH ₄	methane
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CO	carbon monoxide
CO ₂	carbon dioxide
CO ₂ e	CO ₂ equivalents
EA	Environmental Assessment
EO	Executive Order
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
FONSI	Finding of No Significant Impact
General Construction Permit	General Permit for Discharges Associated with Construction Activity
GHG	greenhouse gas
HVAC	heating, ventilation, and air conditioning
Inc1	Increment 1
INRMP	Integrated Natural Resources Management Plan
IPCC	Intergovernmental Panel on Climate Change
kW	kilowatts
MBTA	Migratory Bird Treaty Act
MT	metric tons
N ₂ O	nitrous oxide
NAHC	Native American Heritage Commission
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NG	National Guard
NHPA	National Historic Preservation Act

NO ₂	nitrogen dioxide
NO _x	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
PD-SCS	Product Director Satellite Communications Systems
PEO EIS	Program Executive Officer, Enterprise Information Systems
PG&E	Pacific Gas & Electric
PM2.5	particulate matter less than 2.5 microns in diameter
PM10	particulate matter less than 10 microns in diameter
PM-DCATS	Army Program Manager Defense Communications and Army Transmission Systems
POM	U.S. Army Garrison, Presidio of Monterey
PRC	Public Resources Code
RHN	Regional Hub Node
SATCOM	Satellite Communications
SCCAB	South Central Coast Air Basin
SHPO	State Historic Preservation Officer
SIP	State Implementation Plan
SLOAPCD	San Luis Obispo Air Pollution Control District
SO ₂	sulfur dioxide
State Water Board	State Water Resources Control Board
STRATCOM	Strategic Command
SWPPP	storm water pollution prevention plan
U.S.	United States
USC	U.S. Code
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Society
WGS	Wideband Global Satellite Communications
WIN-T	Warfighter Information Network

Chapter 1

Description of the Proposed Action and No-Action Alternative

Background

ICF International has prepared this Environmental Assessment (EA) for the United States (U.S.) Army Program Manager Defense Communications and Army Transmission Systems (PM-DCATS) to address the potential environmental effects of constructing a Regional Hub Node (RHN) at the existing Camp Roberts Satellite Communications (SATCOM) site (Proposed Action). PM-DCATS is located at Fort Monmouth, New Jersey, and reports to the Army's Program Executive Officer, Enterprise Information Systems (PEO EIS), which is headquartered at Fort Belvoir, Virginia. PM-DCATS manages a suite of more than 100 projects that supports joint warfighters, major commands, and combatant commanders worldwide. Projects include strategic satellite communications and wideband control systems, long-haul terrestrial microwave and fiber optic communications systems, tech control facilities, Combat Service Support Communications systems, critical power infrastructure, and combat vehicle intercom systems. Product Director Satellite Communications Systems (PD-SCS), a division of PM-DCATS, manages the modernization, development, and acquisition of Defense Satellite Communications System (DSCS) and Wideband Global Satellite Communications (WGS) system earth terminals and baseband equipment for all military services and agencies.

The SATCOM facility occupies a fenced 24-acre area on the 200-acre SATCOM property at the southern end of Camp Roberts, which is located in Monterey and San Luis Obispo Counties, California (Figure 1-1). The 24-acre area is a portion of 28 acres defined in the lease agreement between the U.S. Army and the State of California. In addition to the 28 acres, there has been an agreement that SATCOM retains rights to a total of 200 acres. The SATCOM is located in a hilly area west of the East Perimeter Road.

The SATCOM facility's security fence surrounds two main hills. The southern hill is largely an operational area that contains operations buildings, communications antennas, machine shop, substations, utility building, propane tanks, Ka-band terminal, and parking lots. The northern hill has a smaller operational area and an industrial area that contain teleport terminals and dishes, a water tank and pumps, a substation, and an equipment shelter. An industrial area (powerhouse, utility building, and two warehouses) and a fitness center are also located on the site. The RHN would be located in the northeast corner of the SATCOM site. The proposed project site is a former asphalt helipad that is currently used as an overflow parking area (Figure 1-2).

This Draft EA has been prepared pursuant to the National Environmental Policy Act (NEPA) of 1969; 42 United States Code (USC) §4321 *et seq.*; and the Council on Environmental Quality (CEQ) regulations for implementing NEPA, 40 Code of Federal Regulations (CFR), Parts 1500–1508. PM-DCATS is the lead agency with support from the U.S. Army Garrison, Presidio of Monterey (POM).

Purpose and Need

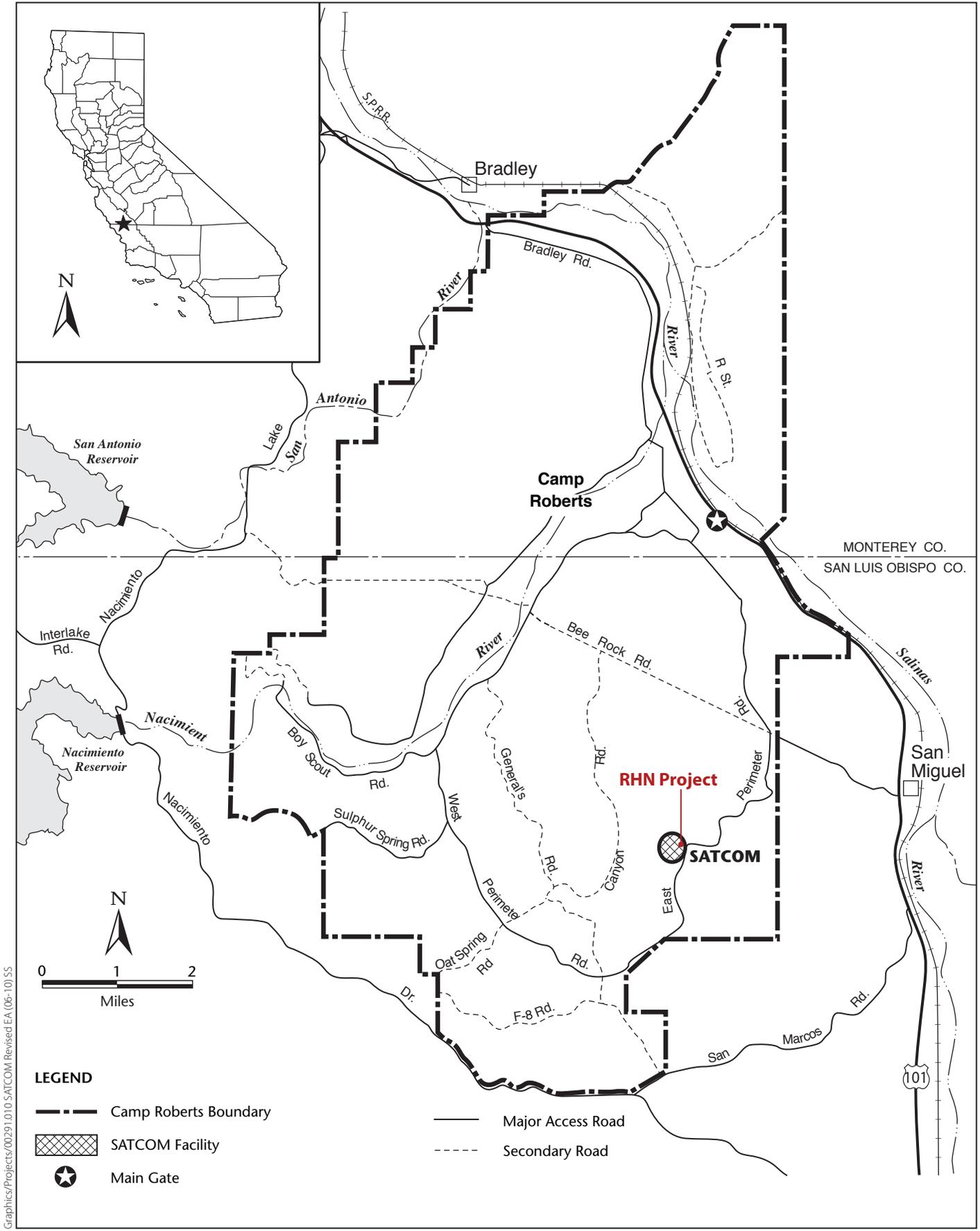
The RHN would be capable of supporting data, voice, and video satellite communication links in support of world-wide operations. The RHN would provide critical Battle Command multimedia information from the Army Service Component Command and major headquarters across a battlespace and down to maneuver battalions. The RHN is a key combat enabler, and provides critical battle command information to commanders that allows them situational awareness and a common operational picture for decisive engagement of the enemy.

The RHN would be implemented as part of the future growth of the Camp Roberts SATCOM facility in order to enable the above described technologies and capabilities. The action was initiated in response to immediate demands for facility optimization and expansion to accommodate additional communications missions and associated equipment systems scheduled for placement on the SATCOM site.

The Warfighter Information Network – Tactical (WIN-T) Increment 1(Inc1) Regional Hub Node program was stood-up to augment the WIN-T Inc1 Division operated, Unit Hub Node, previously known as Tactical Hub Nodes, as the Army's modular construct doctrine was employed. The Army realized in the 2005 time frame in order to most cost effectively support the brigade sized Army and other joint forces units, who were utilizing the WIN-T Network, the System Timing and Global Information Grid access functions could best be accomplished by establishing regional points of access, via the already existing U.S. Forces Satellite Communication Stations. The RHN at Camp Roberts would be the fourth of five such stations which are designed to provide global coverage for all U.S. forces. Although the details of the RHN mission cannot be discussed in this document, the RHN Camp Roberts is a critical element which would allow all the forces who utilize the WIN-T Network to share critical information with minimal delay wherever they are located, worldwide. Such a capability does not exist today and such a capability would allow U.S. forces to be more effective.

Scope of the Document

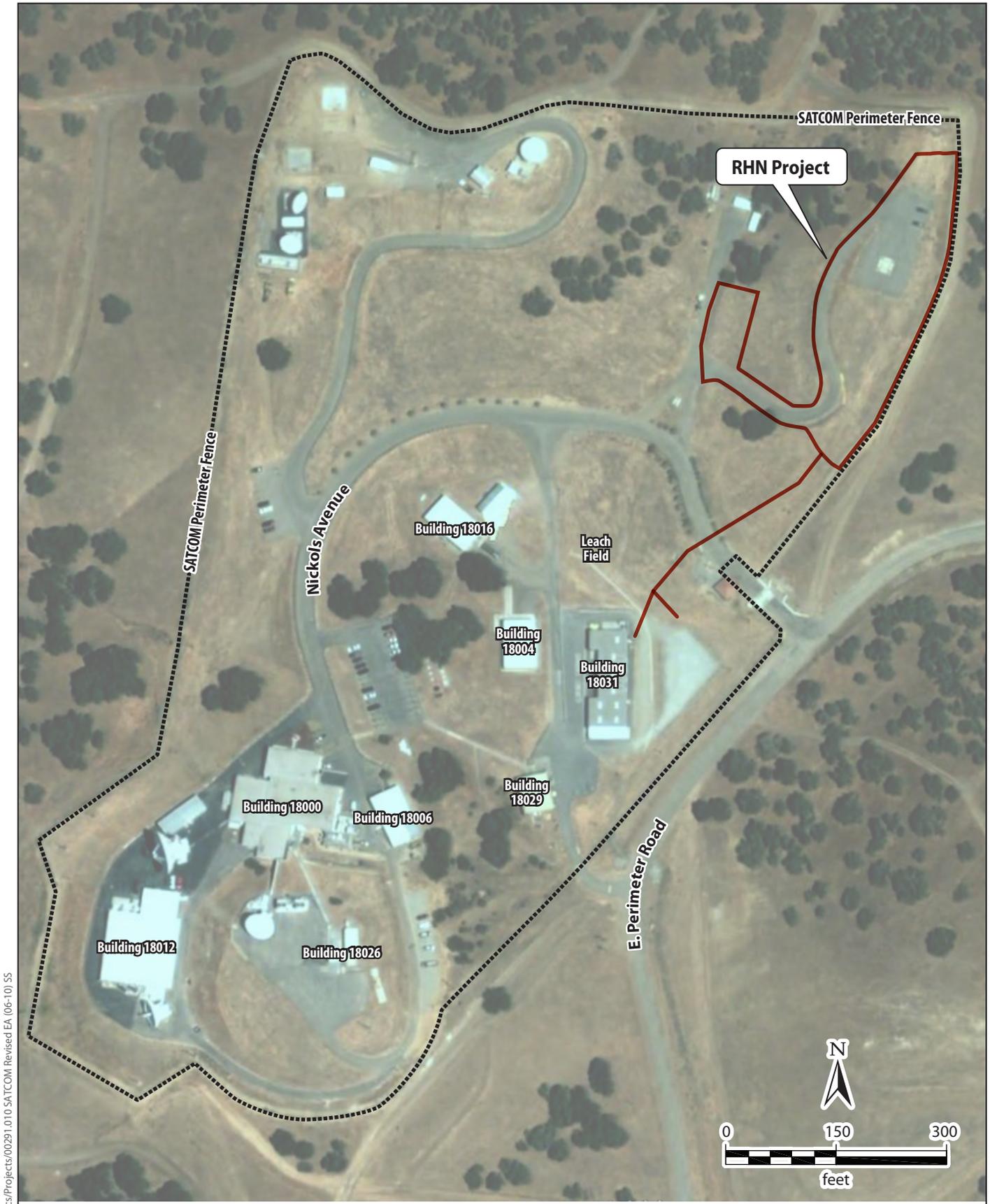
This Draft EA identifies, evaluates, and documents the environmental effects of the Proposed Action and the No-Action Alternative. This chapter describes the Proposed Action and the No-Action Alternative. The existing resource conditions at the RHN site and the environmental effects of the Proposed Action and the No-Action Alternative are described in Chapter 2, "Existing Conditions and Environmental Consequences." The existing conditions constitute the baseline for analyzing the effects of the Proposed Action and the No-Action Alternative. CEQ recommends considering the inclusion of a No-Action Alternative, which serves as a benchmark against which the Proposed Action (and any other action alternatives) can be evaluated. This Draft EA analyzes direct impacts (those caused by an action and occurring at the same time and place as the action), indirect impacts (those caused by an action but occurring later or farther away, but at a reasonably foreseeable time or place), and cumulative impacts (those of the Proposed Action in concert with other past, present, and reasonably foreseeable future actions). The direct and indirect impacts are addressed in the relevant resource area discussions. Chapter 3, "Findings and Conclusions," summarizes the results of the environmental analysis.



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Figure 1-1
Location of the Regional Hub Node Project
at Camp Roberts



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Source: Google Inc. 2010. Google Earth Pro, Version 5.2. Accessed: June 30, 2010.



Figure 1-2
Location of the Regional Hub Node Project
at the SATCOM Site

Previous Environmental Analysis

In September 2005, a Programmatic EA/Finding of No Significant Impact (FONSI) was prepared for the SATCOM Area Development Plan (ADP) (Jones & Stokes 2005). This document analyzed directed future growth of the SATCOM facility and allowed for augmentation of its capacity and capabilities to fulfill its mission. The RHN was not included in the ADP, and therefore it was determined a separate EA was necessary.

Agency and Public Participation

United States Fish and Wildlife Service

A general list of candidate, proposed, threatened, and endangered species for San Luis Obispo County was obtained from the U.S. Fish and Wildlife Service (USFWS) Ventura Field Office website on June 11, 2010. A letter dated June 30, 2010 was sent to the USFWS Ventura Field Office describing the Proposed Action and requesting a list of candidate, proposed, threatened, and endangered species that could occur in the action area. An official list dated July 23, 2010 was received by ICF International (Appendix A). The Presidio of Monterey (POM) initiated informal Section 7 consultation with USFWS on October 4, 2010. Potential effects on listed species are extremely unlikely to occur with implementation of avoidance and minimization measures and given that the action is located within an existing fenced area on a developed site where a substantial portion of the action area is paved. On November 3, 2010, the USFWS provided a verbal concurrence on a not likely to adversely affect determination. Therefore, the Proposed Action is not likely to adversely affect federally listed species and formal consultation will not be needed.

Cultural Resources

The POM sent a letter dated May 27, 2010, requesting consultation with the State Historic Preservation Officer (SHPO) for the Proposed Action. The POM requested concurrence that the SATCOM facility is not eligible for the National Register of Historic Places and that the Proposed Action would have no effect on historic properties (Willison pers. comm.). The SHPO concurred with these determinations in a letter dated July 16, 2010 (Donaldson pers. comm.).

Additionally, the Draft EA was sent to the Santa Ynez Band of Chumash Indians Native American Tribe, the only federally recognized Tribe with a proclaimed association with Camp Roberts. A Tribal representative met with representatives of the U.S. Army on November 29, 2010 at the project site to view the project location and discuss the Proposed Action. A letter concurring on a no adverse effect determination was received by the U.S. Army on December 8, 2010 (Appendix C).

Camp Roberts Environmental Office

ICF International contacted personnel at the Camp Roberts Environmental Office regarding resource information at or near the SATCOM site, and inquired about any environmental concerns with the Proposed Action. These discussions emphasized biological and cultural resources. POM's subject matter experts were also consulted during preparation of the document.

Public Involvement

The public was provided the opportunity to review and comment on the Draft EA. Notices announcing the availability of the Draft EA were published in two local newspapers (the *Monterey County Herald* and the *San Luis Obispo Tribune*). The Notices of Availability provided information identifying the project proponent and lead agency, a description of the project, locations where the EA was available, and how and when to provide comments. The 30-day comment period was September 15, 2010 through October 15, 2010. The public was instructed to send comments to Lenore Grover-Bullington U.S. Army Garrison, Presidio of Monterey, P.O. Box 5004, Monterey, CA 93944, or via electronic mail to l.groverbullington@us.army.mil.

Regulatory Framework

In addressing environmental considerations, Department of Defense actions are guided by several relevant statutes that establish standards and provide guidance on environmental and natural resources management and planning. Some of these statutes are listed below; however, it is not necessarily an exhaustive list.

- Clean Air Act, 40 CFR Part 51.
- Clean Water Act (Federal Water Pollution Control Act) of 1972, Pub. L. 92-500, as amended (33 USC §§ 1251–1387).
- Noise Control Act, 42 USC 4901-4918.
- Endangered Species Act (ESA), 50 CFR 17, 401-424, 450-453.
- National Historic Preservation Act (NHPA) of 1966, Pub. L. 89-665, as amended (16 USC §§ 470aa-470mm).

Where useful in providing a better understanding of issues related to the Proposed Action, key provisions of the above are described in more detail in the relevant discussions.

Location of the Proposed Action

Camp Roberts

Camp Roberts is a 42,784-acre military installation in west-central California midway between San Francisco and Los Angeles, 25 miles east of the Pacific Ocean (Figure 1-1). The installation is bisected by the Monterey–San Luis Obispo County line and is divided by U.S. Highway 101 into the East Garrison and the Main Garrison. Camp Roberts is federally owned and administered by the U.S. Army. With the exception of the 200-acre SATCOM property, Camp Roberts is leased to the State of California as a National Guard (NG) training site. The Camp Roberts Army National Guard Training Site is used primarily for training the California Army National Guard (CAARNG), active units of the Army, and other active and reserve units from other branches of the armed forces.

Satellite Communications Station

The SATCOM site is located immediately west of East Perimeter Road within the boundaries of the Main Garrison (Figure 1-1). It is approximately 5 miles south-southwest of the Camp Roberts main gate and approximately 1.3 miles north of McMillan Airstrip. A security fence surrounds the 24-acre site. Camp Roberts SATCOM is on federally owned land, and currently managed by the POM. U.S. Army Network Enterprise Technology Command/9th Army Signal Command and the U.S. Army Strategic Command (STRATCOM) own the existing aboveground structures and equipment at the SATCOM site. The Proposed Action would be located in the northeastern corner of SATCOM, on the hilltop commonly referred to as the helipad (Figure 1-2).

Proposed Action

The Proposed Action consists of construction of an RHN at the SATCOM site, which includes the construction or installation of the following components:

- three 9.2-meter Ku-Band Antennas;
- 53 communication baseband equipment racks;
- two heating, ventilation, and air conditioning (HVAC) units; and
- cable ladders.

The three 9.2-meter satellite antennas would be constructed at the asphalt helipad along the eastern border of the SATCOM site. The 53 racks would be installed within the Technical Control Facility (Building 18000) and would house electronic equipment such as modems, routers, and servers that condition the radio frequency coming from the satellite to make it usable.

In order to make room for the antennas, modification of the helipad hilltop would be required. The Proposed Action would also include the removal of a portion of the access road to the helipad and construction of a new portion of road. Portions of the existing metal guardrail along the access road would be removed and relocated. All work would occur within the existing perimeter fence and no modifications would be made to the perimeter fencing. The excess area at the top of the hill would be used for parking (similar to its current use).

Site Preparation

The existing asphalt helipad is approximately 11,000 square feet, and is capable of holding three fixed antennas with little room for staging or construction. In order to provide enough room for staging and construction, the upper portion of the hill would be removed to provide a larger surface area. By removing 3–4 feet of soil from the top of the hill, the flat surface area would be increased to approximately 24,000 square feet. During this process, the asphalt helipad and the existing roadway providing access to the site would be excavated. All of the excavated material would be reused as a subbase for the antenna foundations and for the proposed new portion and reworked portion of roadway (described below). If there is an excess of natural soil that cannot be reused, it would be disposed of offsite at the closest excavation/borrow pit that would accept the soil. If additional natural soil is needed, it would be obtained offsite from the closest excavation/borrow pit so that the soils would be the same or similar type. All of the excavated natural soil may or may not be used. No trees would need to be removed to accommodate the proposed expanded pad or access road to

it. A 4,750-square-foot area that would be used for the construction trailer, portable toilets, dumpster, and parking equipment and vehicles would be graded just north of the access road entrance (Figure 1-3).

Project Construction

To provide safe access for large cranes and concrete trucks to the helipad, the upper section of the existing roadway would be removed and a new portion of road installed (Figure 1-3). Removal of the upper section of road would provide soil to back-fill the topmost segment of the access road, thus further increasing the hilltop surface area. The new portion of road would connect the south edge of the hilltop pad to the curve in the existing road. This would eliminate the 180 degree turn in the existing road, which currently limits its use by larger vehicles needed for construction.

The entire access road would be stripped, the subgrade would be regraded and compacted, and the material removed (asphalt and gravel) would be reused as base along with additional gravel for the new portion of access road. This new road surface would be used by the heavy construction traffic, including concrete trucks, pump trucks, and assembly cranes. Base coarse and subbase for the proposed new portion of road would be installed starting at the switchback in the existing road and extending to the edge of the proposed pad. The abandoned section of road between the western portion of the proposed pad and the 180 degree curve in the access road, as well as all other temporarily disturbed areas, would be restored as grassland upon project completion. A portion of the upper section of the access road would also be restored as grassland, as it would become part of the slope for the proposed pad.

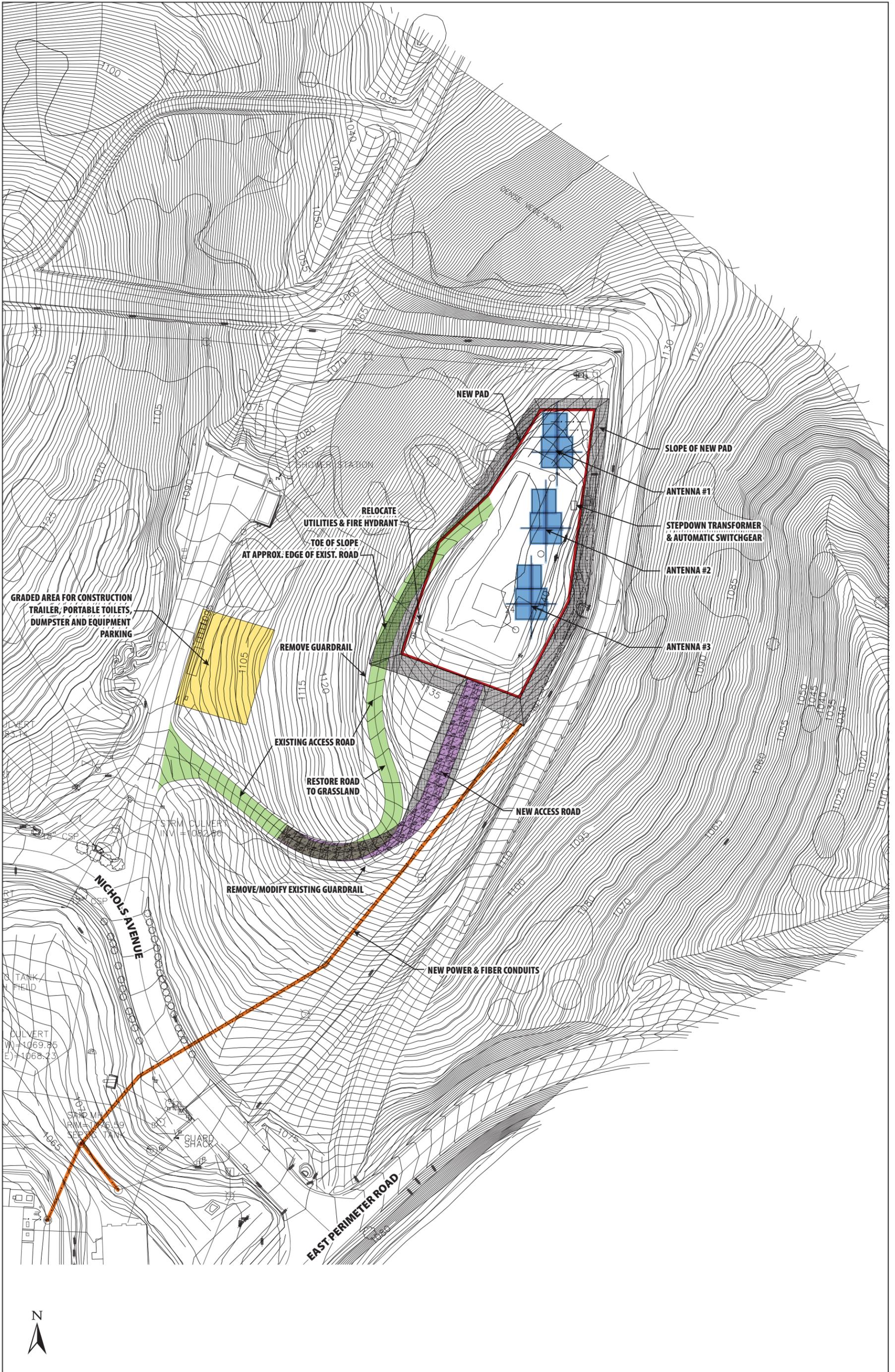
After modifying the hill and road as described above, excavations would be made to build concrete foundations for the antennas and their respective support shelters. Each RHN antenna installation would include two foundations, underground conduit and wiring, and electrical grounding grids consisting of copper grounding rods and cables.

During construction of the foundations and after backfilling to final grade, the site would be compacted and graded out. A finished asphalt surface and seal coat would be placed on the entire access road upon completion of the antennas installations and end of heavy traffic. Construction of the roadway would comply with statewide and local rules and regulations to minimize affects to air quality (see Appendix B for these rules and regulations).

Utilities

The Proposed Action would include the installation of new manholes and underground fiber and power conduit. The placement of these items would involve trenching (approximately 3 feet deep) and placement of concrete supports, as well as avoiding any SATCOM obstructions such as underground cables and pipes. The trench for the electrical and fiber optic conduit would extend from Building 18031 to north of the guard shack, underneath the entry road, and northeast between the eastern fence line and access road to the proposed pad at the top of the hill (Figure 1-3). The fiber would then be routed to Building 18000 via the existing conduit network. Utility and water lines on the top of the hill would be relocated.

A new penetration in the exterior wall of Building 18031 would be made for electrical conduit, penetrations in the roof of Building 18000 to support condenser lines, and the addition of an elevated structural support platform for the two HVAC condenser units on the roof of Building 18000.



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In order to remove interferences from the viewing range of the RHN antennas, one or more perimeter light poles may need to be either relocated or shortened. Additional lighting would consist of platform access lighting (standard household grade lights) and LED aircraft warning lights. The platform access lighting would be needed for working on the antennas platforms. Additional perimeter lighting or other lights similar to the industrial grade high-power lights on the perimeter fence would not be needed.

No new potable water infrastructure is proposed. Construction personnel would use portable restroom facilities that would be serviced by an outside company. Storm water drainage pipes and inlets would be constructed to control storm water post-construction. Specific post construction best management practices (BMPs) to reduce flow velocities and provide water quality treatment would be incorporated into the drainage plan to ensure hydromodification would not occur.

Electrical usage for the RHN antennas and communication baseband equipment racks would be approximately 231 kilowatts (kW). The new HVAC units would require 160 kW of power. The equipment would be used 24 hours a day, 7 days a week. The distance from the power generation building to the proposed RHN site is over 700 feet; therefore, a transformer would be required in order to distribute adequate power for the RHN antennas.

Staffing

Approximately 40 personnel would be needed for construction of the proposed RHN. The estimated construction start time would be January 2011. The duration of construction depends on how much the rainy season affects the efforts, but it is expected to take approximately 3–4 months. Construction would occur Monday through Saturday between 0700 and 1700. The only activity that would occur during the evening hours would be filling the water truck (to avoid taking water during peak hours at the SATCOM site).

Once operational, the RHN would require 23 new personnel. RHN would be manned 7 days a week, 24 hours a day. There would be seven personnel per shift, with two additional personnel during the 0700 to 1600 shift.

No-Action Alternative

The No-Action Alternative consists of not constructing the RHN. Under this alternative, the Proposed Action would not be constructed, and operations would continue under current conditions. This alternative is a point of reference to provide context for the Proposed Action. The No-Action Alternative would not be a reasonable alternative to the Proposed Action because it would not fulfill the purpose and need for the proposed action. However, in order to comply with CEQ the No-Action Alternative was examined throughout this analysis.

Chapter 2

Existing Conditions and Environmental Consequences

Background

This chapter describes the direct, indirect, and cumulative impacts of the Proposed Action and the No-Action Alternative. The purpose of this analysis is to describe the *context* and *intensity* of the impacts of the Proposed Action, such that a determination of significance can be made by the deciding official.

In 1978, the CEQ promulgated regulations for implementing NEPA. These regulations include a definition of *significantly* as used in NEPA (40 CFR 1508.27). The elements of this definition are critical to reducing paperwork through use of a FONSI when an action would not have a significant effect on the human environment and would therefore be exempt from requirements to prepare an Environmental Impact Study (EIS). *Human environment* is a comprehensive phrase that includes the physical and natural environments and the relationship of people with those environments. It is important to note that all resource areas (e.g., air quality, biological resources, land use, water quality) or effects on the human environment have been considered.

Context

The significance of an action must be analyzed in several contexts, such as the whole of society (e.g., ethical considerations, national interests); affected region; affected interests; and locality. Significance varies with the setting. In the case of a site-specific action, significance usually depends on the effects in the locale rather than in the world as a whole. Both short- and long-term effects are relevant.

Intensity

Intensity refers to the severity of a given impact. Evaluation of intensity can be either quantitative or qualitative depending on what is more appropriate for the given resource or type of effect.

Resource Areas Excluded from Further Analysis

After an examination of all resource areas, it was determined that the Proposed Action would have no effects on agricultural resources, environmental justice, population and housing, public services, recreation, socioeconomics, and transportation (Table 2-1).

Table 2-1. Resource Categories Not Addressed

Resource Category	Reason for Exclusion
Agricultural Resources	The SATCOM facility is not used for farming; implementation of the Proposed Action would not convert farmland to nonagricultural use.
Environmental Justice	There are no communities within or immediately adjacent to the SATCOM facility. Implementation of the Proposed Action would not affect nearby communities, including low-income and minority communities.
Population and Housing	Implementation of the Proposed Action would result in a minimal increase in employees and would not affect population trends or the demand for housing.
Public Services	Implementation of the Proposed Action would result in a minimal increase in employees and would not affect the demand for public services.
Recreation	Recreation does not occur within the existing SATCOM fence. Implementation of the Proposed Action would not interfere with recreation activities (hunting) at Camp Roberts.
Socioeconomics and Quality of Life	Implementation of the Proposed Action would result in minor activities that would not affect employment, expenditures, or other features of the local economy or government.
Transportation	Implementation of the Proposed Action would result in a minimal increase in employees and would not affect transportation and traffic outside Camp Roberts.

Air Quality and Climate Change

This section provides an analysis of air quality and climate change effects resulting from the Proposed Action. It discusses existing air quality conditions in the action area, summarizes the overall regulatory framework for air quality management in California and the region, and identifies sensitive land-uses. Environmental effects related to air quality and climate change, as well as mitigation measures to reduce or eliminate potential effects, are also discussed.

Existing Conditions

Climate and Meteorology

The Proposed Action would be located in the South Central Coast Air Basin (SCCAB), which includes San Luis Obispo, Santa Barbara, and Ventura Counties. The climate of the surrounding area is characterized by hot, dry summers and mild, rainy winters. The mean annual precipitation is approximately 13 inches, and the mean annual air temperature is approximately 60°F. Refer to Appendix B for more detailed climate and meteorology information for the SCCAB.

Local Air Quality Conditions

The existing air quality conditions in the action area can be characterized by monitoring data collected in the region. Information obtained from monitoring stations near the SATCOM facility for the past 3 years (2007–2009) indicates that air quality in the region is relatively good, experiencing few violations of the National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) (California Air Resources Board 2009).

Areas are classified as either *attainment* or *nonattainment* with respect to NAAQS and CAAQS based on local monitoring data. If a pollutant concentration is consistently lower than the state or federal standard, the area is classified as being *in attainment* of the standard for that pollutant. If a pollutant violates the standard for several consecutive years, the area is considered a *nonattainment area*. Finally, regions previously designated nonattainment areas that since have obtained attainment are designated *maintenance areas*.

The U.S. Environmental Protection Agency (EPA) has classified San Luis Obispo County as an attainment area for all federal standards (U.S. Environmental Protection Agency 2010a). The California Air Resources Board (ARB) has classified the county as a moderate nonattainment area for the state 1-hour ozone standard, a nonattainment area for the state 8-hour ozone and particulate matter less than 10 microns in diameter (PM10) standards, and an attainment area for the state particulate matter less than 2.5 microns in diameter (PM2.5) and carbon monoxide (CO) standards (California Air Resources Board 2010a).

Regulatory Setting

Federal

The federal Clean Air Act, enacted in 1963 and amended several times thereafter (most recently with the 1990 Clean Air Act Amendments [CAAA]), establishes the framework for modern air pollution control. The act directs the EPA to establish NAAQS for six pollutants: ozone, CO, lead, nitrogen dioxide (NO₂), particulate matter, and sulfur dioxide (SO₂). The NAAQS and CAAQS are shown in Table 2-2.

Table 2-2. Air Quality Standards Applicable in California

Pollutant	Symbol	Average Time	Standard (parts per million)		Standard (micrograms per cubic meter)		Violation Criteria	
			California	National	California	National	California	National
Ozone*	O ₃	1 hour	0.09	NA	180	NA	If exceeded	NA
		8 hours	0.070	0.075	137	147	If exceeded	If fourth highest 8-hour concentration in a year, averaged over 3 years, is exceeded at each monitor within an area
Carbon monoxide (Lake Tahoe only)	CO	8 hours	9.0	9	10,000	10,000	If exceeded	If exceeded on more than 1 day per year
		1 hour	20	35	23,000	40,000	If exceeded	If exceeded on more than 1 day per year
		8 hours	6	NA	7,000	NA	If equaled or exceeded	NA
Nitrogen dioxide	NO ₂	Annual arithmetic mean	0.030	0.053	57	100	If exceeded	If exceeded on more than 1 day per year
		1 hour	0.18	0.100	339	190	If exceeded	3-year average of 98 th percentile highest daily 1-hour value
Sulfur dioxide	SO ₂	Annual arithmetic mean	NA	0.030	NA	80	NA	If exceeded
		24 hours	0.04	0.14	105	365	If exceeded	If exceeded on more than 1 day per year
		1 hour	0.25	0.075	655	NA	If exceeded	NA
Hydrogen sulfide	H ₂ S	1 hour	0.03	NA	42	NA	If equaled or exceeded	NA
Vinyl chloride	C ₂ H ₃ Cl	24 hours	0.01	NA	26	NA	If equaled or exceeded	NA

Table 2-2. Continued

Pollutant	Symbol	Average Time	Standard (parts per million)		Standard (micrograms per cubic meter)		Violation Criteria	
			California	National	California	National	California	National
Inhalable particulate matter	PM10	Annual arithmetic mean	NA	NA	20	NA	NA	NA
		24 hours	NA	NA	50	150	If exceeded	If exceeded on more than 1 day per year
	PM2.5	Annual arithmetic mean	NA	NA	12	15	NA	If 3-year average from single or multiple community-oriented monitors is exceeded
		24 hours	NA	NA	NA	35	NA	If 3-year average of 98th percentile at each population- oriented monitor within an area is exceeded
Sulfate particles	SO ₄	24 hours	NA	NA	25	NA	If equaled or exceeded	NA
Lead particles	Pb	Calendar quarter	NA	NA	NA	1.5	NA	If exceeded no more than 1 day per year
		30-day average	NA	NA	1.5	NA	If equaled or exceeded	NA
		Rolling 3- month average	NA	NA	NA	0.15	If equaled or exceeded	Averaged over a rolling 3- month period

Source: California Air Resources Board 2010b; U.S. Environmental Protection Agency 2010b

The CAAA requires that all federally funded projects conform to the appropriate State Implementation Plan (SIP) so that the projects do not interfere with strategies employed to attain the NAAQS. The conformity rule applies to federal projects in areas designated as nonattainment areas for any of the six criteria pollutants and in some areas designated as maintenance areas. Project-level conformance with the SIP is demonstrated through a general conformity analysis.

As discussed above, San Luis Obispo County is classified as a federal attainment area for all NAAQS. Consequently, general conformity does not apply as there are no adopted SIPs for the region. An analysis of direct and indirect emissions against the federal *de minimis* thresholds is not required.

State and Local

The state and local agencies responsible for the air quality management in the action area are the ARB and the SLOAPCD, respectively. These agencies have primary implementation responsibility for the NAAQS and CAAQS (Table 2-2). In addition, both the ARB and the SLOAPCD have adopted rules and regulations to reduce emissions throughout the district. All projects are required to comply with these rules and regulations (see Appendix B for statewide and local [SLOAPCD] rules and regulations).

Climate Change

On December 7, 2009, the EPA Administrator found that current and projected concentrations of GHGs threaten public health and welfare. The CEQ also has issued a memorandum providing guidance on the consideration of the effects of climate change and GHG emissions under NEPA (Sutley 2010). The draft guidance suggests that the effects of projects directly emitting GHGs in excess of 25,000 metric tons (MT) annually be considered in a qualitative and quantitative manner.

The State of California also has several programs in place that reduce and minimize GHG emissions. The most stringent of these are Executive Order (EO) S-3-05 and Assembly Bill 32 (AB 32). EO S-3-05 is designed to reduce California's GHG emissions to: 2000 levels by 2010, 1990 levels by 2020, and 80% below 1990 levels by 2050. AB 32 sets the same overall reduction goals as EO S-3-05 while further mandating that ARB create a plan, which could include market mechanisms, and implement rules to achieve "real, quantifiable, cost-effective reductions of greenhouse gases."

Sensitive Receptors

Sensitive receptors are locations where human populations, especially children, seniors, and sick persons are found, and there is reasonable expectation of continuous human exposure according to the averaging period for ambient air quality standards. Typical sensitive receptors include residences, hospitals, and schools. There are no sensitive receptors within the immediate vicinity of the action area as the SATCOM facility is surrounded by open areas of grassland and oak woodland. The nearest residences are located over 1.5 miles to the east of the facility.

Environmental Consequences

Approach and Methods

Construction

Criteria Pollutant Emissions

Construction of the Proposed Action would generate short-term emissions of reactive organic gases, oxides of nitrogen (NO_x), CO, PM10, and PM2.5. These emissions were estimated using the URBEMIS2007, Version 9.2.4 model. It was assumed that construction would begin in January 2011 and last approximately 4 months, with work occurring 6 days per week.

Based on the information provided by the project applicant, the following assumptions were made for the emissions modeling (Dickey pers. comm. A):

- Total acreage graded: 0.97 acre, with approximately 0.24 acre disturbed per day over a period of 6 weeks (default assumption of one-quarter the total area); and
- Total acreage paved: 0.37 acre.

Table 2-3 summarizes the construction activities and pieces of diesel-powered equipment assumed in the emissions modeling.

Table 2-3. Summary of Construction Equipment

Activity	Duration (weeks)	Equipment	Quantity	Horsepower	Hours/day
Surface grading	1	Backhoe	1	87	6
Grading of existing road	3	Backhoe	1	87	3
		Grader	1	161	3
Grading of hilltop and new road	6	Backhoe	1	87	2
		Grader	1	161	2
		Excavator	1	148	2
Compaction of new road and hilltop	3	Grader	1	161	2
		Preventive compactor	1	100	2
Excavation	3	Vibratory compactor	1	81	2
		Backhoe	1	87	6
Paving	4	Paver	1	173.5	6

Dickey pers. comm. A

Emissions from on-road workforce traffic and off-road diesel-powered delivery trucks were estimated using the URBEMIS2007 model and the anticipated number of employees and delivery trucks. As described in the project description, construction would require 40 personnel. To ensure emissions were not underrepresented, it was assumed that each individual would make two trips per day to the construction site (total of 80 trips per day). Delivery of building materials and supplies would require up to 20 trucks over a period of 1 week (Dickey pers. comm. A). It was therefore assumed that a total of 40 truck trips (two trips per truck) would be made each day, and that each trip would be 20 miles.

Greenhouse Gas Emissions

GHG emissions from construction activities are primarily the result of fuel use by construction equipment and worker trips. The primary GHG emissions generated by construction activities are carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O).

CO₂ emissions were estimated using URBEMIS2007 and the assumptions described above. URBEMIS does not quantify CH₄ and N₂O emissions from off-road equipment or worker commutes. Emissions of CH₄ and N₂O from diesel equipment were determined by scaling the construction CO₂ emissions predicted by URBEMIS by the ratio of CH₄/CO₂ (0.0000571429) and N₂O/CO₂ (0.0000256158) emissions expected per gallon of diesel fuel according to the California Climate Action Registry (CCAR) (California Climate Action Registry 2009). GHG emissions from worker commutes were determined by dividing the annual CO₂ emissions from construction worker and vendor commutes by 0.95. This statistic is based on the EPA's recommendation that CH₄, N₂O, and other GHG emissions account for 5% of on-road emissions (U.S. Environmental Protection Agency 2010c).

Methods have been set forth to describe emissions of GHGs in terms of a single gas. The most commonly accepted method to compare GHG emissions is the "global warming potential" (GWP) methodology defined by the Intergovernmental Panel on Climate Change (IPCC). The IPCC defines the GWP of various GHG emissions on a normalized scale that recasts all GHG emissions in terms of CO₂ equivalents (CO₂e), which compares the gas in question to that of the same mass of CO₂ (CO₂ has a GWP of 1 by definition). For ease of analysis, total GHG emissions were converted to CO₂e.

Operations

Criteria Pollutant Emissions

Operation of the Proposed Action would generate long-term emissions of ROG, NO_x, CO, PM₁₀, and PM_{2.5} from maintenance and testing of the emergency generators and employee vehicle commutes. These emissions were estimated using the URBEMIS2007 model and the following assumptions (Lyson pers. comm.):

- Three 750-kW (1,005.36-horsepower) diesel powered emergency generators would operate a total of 12 hours per year; and
- Employee travel would require 16,790 vehicle trips per year.¹

Greenhouse Gas Emissions

Direct GHG emissions from project operations would be generated from employee vehicle travel, maintenance and testing of the generators, and antenna and HVAC electricity usage. CO₂ emissions from employee commutes and operation of the generators were estimated using URBEMIS2007, Version 9.2.4 model and the assumptions described above. Emissions of CH₄ and N₂O from vehicle travel were calculated using the 5% figure recommended by the EPA, while these emissions from the diesel-powered generators were estimated using the ratios provided by CCAR.

Operation of the three antennas and HVAC systems would result in indirect GHG emissions from electricity consumption. Total electrical demand associated with these units was assumed to be 2,356,440 kilowatt-hours per year (Dickey pers. comm. B). Because the Proposed Action would receive electricity generated by Pacific Gas & Electric (PG&E), the PG&E CO₂ emission factor was

¹ Based on 23 personnel making two trips per day for 365 days per year.

used to calculate CO₂ emissions (Pacific Gas & Electric 2008). State-specific emission factors for CH₄ and N₂O were obtained from CCAR as PG&E currently does not calculate these emission factors (California Climate Action Registry 2009). Table 2-4 summarizes the GHG emission factors used in this analysis.

Table 2-4. Greenhouse Gas Emission Factors for Electricity Consumption

Greenhouse Gas	Emission Factor (pounds per megawatt-hour)
Carbon dioxide	641.35
Methane	0.0302
Nitrous oxide	0.0081

Sources: Pacific Gas & Electric 2008; California Climate Action Registry 2009

Determination of Effects

As discussed above, the Proposed Action would be located in a federal attainment area for all criteria pollutants. While a conformity analysis is not required, the federal *de minimis* threshold of 100 tons per year was used to evaluate the significance of indirect and direct criteria pollutant emissions. Therefore, the Proposed Action would be considered to have a significant effect on air quality if construction or operational emissions exceeded 100 tons per year.

To date, specific thresholds to evaluate significant effects pertaining to GHG emissions have not been established by the SLOAPCD, the state, or the federal government. The CEQ has proposed a reference point of 25,000 MT of CO₂e emissions to identify projects that warrant additional consideration in terms of their potential to contribute to global climate change. While 25,000 MT of CO₂e emissions are not proposed as a national threshold, this level provides a useful benchmark for considering possible effects of the Proposed Action. Consequently, the Proposed Action would be considered to have a significant effect on climate change if total CO₂e emissions exceeded 25,000 MT per year.

Proposed Action

Generation of Emissions in Excess of Federal *de minimis* Thresholds

Table 2-5 provides a summary of the total criteria pollutant emissions associated with construction and operation of the Proposed Action. Generation of construction emissions would vary depending on the level of activity, specific construction operations, types of equipment, number of personnel, and climatic conditions. Generation of operational emissions would originate from employee vehicle travel and testing of the emergency generators.

Table 2-5. Summary of Construction and Operational Emissions (tons per year)

Year	Activity	ROG	NO _x	CO	Total PM10	PM10 Dust	PM10 Exhaust	Total PM2.5	PM2.5 Dust	PM2.5 Exhaust
2010	Construction	0.060	0.310	0.880	0.160	0.150	0.020	0.050	0.030	0.020
2011	Construction	0.010	0.060	0.030	0.000	0.000	0.000	0.000	0.000	0.000
	Operation Employee trips	0.070	0.090	1.000	0.190	-	-	0.030	-	-
	Generators	0.004	0.046	0.015	0.001	-	-	0.001	-	-
<i>2011 total</i>		0.084	0.196	1.045	0.191	0.000	0.000	0.031	0.000	0.000
2012	Operation Employee trips	0.070	0.090	1.000	0.190	-	-	0.030	-	-
	Generators	0.004	0.046	0.015	0.001	-	-	0.001	-	-
<i>2012 to end of project lifetime total</i>		0.074	0.136	1.015	0.191	-	-	0.031	-	-
<i>de minimis threshold</i>		100	100	100	100	-	-	100	-	-
Exceed threshold?	2010	No	No	No	No	No	No	No	No	No
	2011	No	No	No	No	No	No	No	No	No
	2012 to end of project lifetime	No	No	No	No	No	No	No	No	No

Based on Table 2-5, total criteria pollutant emissions associated with the Proposed Action are not expected to exceed the federal *de minimis* thresholds. Therefore, there would be no significant effect.

Generation of Significant Levels of Greenhouse Gas Emissions

The effects associated with GHGs are long-term climatic changes. GHG emissions tend to accumulate in the atmosphere because of their relatively long lifespan. As a result, their effect on the atmosphere is mostly independent of the point of emission; GHG contaminant emissions are more appropriately evaluated on a regional, state, or even national scale than on an individual project level. Therefore, project-level GHGs would be considered a less than significant impact. A discussion of GHG emissions and their affects on global climate change are included in the Cumulative Effects section below.

Exposure of Sensitive Receptors to Substantial Amounts of Diesel Particulate Matter

Diesel particulate matter, which is classified as a carcinogenic toxic air contaminant by the ARB, is the primary pollutant of concern with regards to health risks to sensitive receptors. Cancer health risks associated with exposures to diesel exhaust are typically associated with chronic exposure, in which a 70-year exposure period is assumed. Because construction would be of short duration, lasting approximately 4 months, it is not expected that the construction associated with the Proposed Action would result in an elevated cancer risk to exposed sensitive receptors. In addition, particulate matter emitted during construction would dissipate as a function of distance. Because the nearest sensitive land uses are more than 1.5 miles from the action area, elevated cancer risks would not be anticipated. This effect would be less than significant.

No-Action Alternative

Under the No-Action Alternative, there would be no change in effects on local air quality in the action area or on regional air quality. Individual components of the Proposed Action would not be implemented, and the facility would remain unchanged. Therefore, the No-Action Alternative would have no effect on air quality or climate change.

Cumulative Effects

Criteria Pollutants

It is anticipated that criteria pollutant emissions associated with the Proposed Action would be very low (Table 5-2). The highest emissions are CO emissions in 2011 because construction and operation overlap in 2011. CO emissions in 2011 amount to 1.045 tons per year, which is approximately 0.01 of the federal *de minimis* threshold. Therefore, it is anticipated that the Proposed Action would not result in a cumulatively significant effect on criteria pollutant levels. This impact would be less than significant.

Greenhouse Gas Emissions

GHG emissions generated by the Proposed Action can be divided into those emitted during construction and those emitted during project operations.

Construction

Table 2-6 summarizes GHG emissions from construction activities. As discussed above, these emissions would primarily be the result of fuel use by construction equipment, as well as worker and vendor trips.

Table 2-6. Summary of Greenhouse Gas Emissions from Construction Activities (metric tons per year)

Year	Diesel Equipment			Vehicle Travel		Total CO ₂ e
	CO ₂	CH ₄	N ₂ O	CO ₂	Other	
2010	23.33	0.00	0.00	48.29	2.54	74.38
2011	4.32	0.00	0.00	0.24	0.01	4.61
<i>Total</i>	<i>27.65</i>	<i>0.00</i>	<i>0.00</i>	<i>48.53</i>	<i>2.55</i>	<i>79.00</i>

Table 2-6 indicates that construction of the Proposed Action would generate 79 MT of GHG emissions. This would be the equivalent of adding approximately 53 typical passenger cars to the road during the construction period (U.S. Environmental Protection Agency 2010c). These emissions would be miniscule compared to state, national, and federal GHG emissions. Moreover, they would be temporary and cease once construction activities are complete.

Operations

Operational GHG emissions would be emitted from employee vehicle travel, operation of the diesel generators, and electricity consumption.

Table 2-7. Summary of Greenhouse Gas Emissions from Project Operations (metric tons per year)

Year	CO ₂	CH ₄	N ₂ O	Total CO ₂ e
Employee Trips	73.00	— ^a	— ^a	77.00
Generators	3.76	0.00	0.00	3.79
Electricity	685.52	0.03	0.01	697.05
<i>Total</i>	<i>762</i>	<i>—^a</i>	<i>—^a</i>	<i>778</i>

^a Emissions of CH₄, N₂O, and other GHGs were calculated as a lump sum percentage of CO₂ emissions and are therefore not presented individually. The total of these emissions is 4.00 metric tons and is reflected in the total CO₂e.

Based on Table 2-7, operation of the Proposed Action would generate 778 MT of GHG emissions per year. This would be the equivalent of adding approximately 519 typical passenger cars to the road (U.S. Environmental Protection Agency 2010c).

Construction and Operation Combined

Table 2-8 summarizes combined yearly construction and operational GHG emissions projected to result from the Proposed Action.

Table 2-8. Estimated Summary of Yearly Construction and Operational Greenhouse Gas Emissions for Proposed Action

Year	Activity		CO ₂	CH ₄	N ₂ O	CO ₂ e
2010	Construction	Off-road	23.334	0.001	0.001	74.384
		On-road	48.295	- ^a	- ^a	
<i>2010 Total</i>			71.629	0.001	0.001	74.384
2011	Construction	Off-road	4.321	0.000	0.000	77.000
		On-road	0.239	- ^a	- ^a	
	Operation	Employee trips	73.000	- ^a	- ^a	77.000
<i>2011 Total</i>		Generators	3.758	0.000	0.000	3.792
		Electricity	685.515	0.032	0.009	697.052
			766.833	0.033	0.009	854.844
2012 to end of project lifetime	Operation	Employee trips	73.000	- ^a	- ^a	77.000
		Generators	3.758	0.000	0.000	3.792
		Electricity	685.515	0.032	0.009	697.052
<i>2012 to end of project lifetime total</i>			762.273	0.032	0.009	777.844
<i>CEQ reference point</i>			<i>25,000</i>	<i>25,000</i>	<i>25,000</i>	<i>25,000</i>
Exceed reference point?	2010		No	No	No	No
			No	No	No	No
			No	No	No	No
	2011		No	No	No	No
	2012 to end of project lifetime		No	No	No	No

Emissions of CH₄, N₂O, and other GHGs were calculated as a lump sum percentage of CO₂ emissions and are not presented individually. The total of these emissions is 4.00 metric tons and is reflected in the total CO₂e.

When considered in tandem with construction emissions, the highest levels of GHG emissions generated by the Proposed Action would occur in 2011, with projected total CO₂e emissions of approximately 855 MT. This would equate to approximately 3% of the CEQ reference point of 25,000 MT per year. Considering the 25,000 MT reference point suggested by the CEQ is not a formal national threshold for GHGs, it cannot be determined whether or not GHG emissions would contribute to a significant effect.

Biological Resources

This section describes biological resources that occur or have the potential to occur within the area that may be affected by the Proposed Action. Special-status plant and wildlife species that could be affected by the Proposed Action were identified through record searches, a literature review, a reconnaissance-level field survey, a botanical survey, and input from the Camp Roberts environmental office and the POM. The record searches and literature review consisted of examining the following sources:

- the California Native Plant Society's (CNPS's) online *Inventory of Rare and Endangered Plants of California* (2010);
- a list of sensitive species from the CNDDDB records search for the U.S. Geological Society (USGS) 7.5-minute Adelaida, Bradley, Paso Robles, and San Miguel quadrangles (2010);
- lists of threatened and endangered species obtained from the USFWS Ventura Fish and Wildlife Office for the Proposed Action and for San Luis Obispo County (Cooper pers. comm., U.S. Fish and Wildlife Service 2010); and
- the *Final Programmatic Environmental Assessment and Finding of No Significant Impact, SATCOM Area Development Plan, Camp Roberts, California* (Jones & Stokes 2005).

The special-status plant and wildlife species that were identified from record searches and the literature review as having the potential to occur in the action area are included in Tables 2-9 and 2-10, respectively.

An ICF International botanist and wildlife biologist conducted a reconnaissance-level field survey of the Proposed Action area on April 30, 2010. The botanist conducted the botanical survey by walking meandering transects through the areas of annual grassland and blue oak woodland and recording plant species observed. A habitat-based assessment was conducted to evaluate the potential for special-status plant species to occur in the action area.

The wildlife biologist walked meandering transects throughout the area that would be affected by the Proposed Action and evaluated the suitability of the habitat to support special-status wildlife species. To the extent feasible, potential effects on wildlife habitat that could result from the Proposed Action were evaluated during the survey. Wildlife species or evidence of the presence of wildlife species (e.g., tracks, scat) observed during the survey was recorded.

Existing Conditions

The SATCOM facility is within the Outer South Coast Ranges geographic subregion of the California Floristic Province (Hickman 1993: 45). The topography in the action area is hilly, and the elevation is approximately 900–950 feet above mean sea level. The climate of the surrounding area is characterized by hot, dry summers and mild, rainy winters; the mean annual precipitation is

approximately 13 inches, and the mean annual air temperature is approximately 60°F (Natural Resources Conservation Service 2010). The SATCOM facility is surrounded by open areas of grassland and blue oak (*Quercus douglasii*) woodland.

Natural Communities

The majority of the SATCOM facility property, which is fenced, consists of developed areas (i.e., buildings and pavement), and only remnants of the historic natural communities (i.e., annual grassland and blue oak woodland) are present. The natural communities in the action area and their associated wildlife species are described below.

Annual Grassland

The annual grassland in the action area is dominated by wild oat (*Avena* spp.). Other nonnative, annual grasses observed were rigput brome (*Bromus diandrus*), red brome (*B. madritensis* ssp. *rubens*), cheatgrass (*B. tectorum*), rattail fescue (*Vulpia myuros* ssp. *myuros*), and foxtail barley (*Hordeum murinum* ssp. *leporinum*). The annual grassland also contained a relatively high proportion of nonnative forbs, some of which are considered invasive, including tocalote (*Centaurea melitensis*), redstem filaree (*Erodium cicutarium*), big heronbill (*E. botrys*), prickly lettuce (*Lactuca serriola*), and bur-clover (*Medicago polymorpha*). Native forbs observed in the annual grassland included purple navarretia (*Navarretia pubescens*), milkweed (*Asclepias* sp.), miniature lupine (*Lupinus bicolor*), soap plant (*Chlorogalum pomeridianum* ssp. *pomeridianum*), purple owl's-clover (*Castilleja exserta* ssp. *exserta*), and succulent lupine (*L. succulentus*). The majority of the annual grassland appears to be periodically mowed.

Annual grasslands are used by many wildlife species for foraging. Some of these species also inhabit annual grassland if special features such as cliffs, caves, ponds, or woody plants are available for breeding or resting habitat, or as escape cover. Reptiles that breed in annual grassland habitats include western fence lizard (*Sceloporus occidentalis*), common garter snake (*Thamnophis sirtalis*), and western rattlesnake (*Crotalus tigris*). Grasslands provide foraging habitat for wide-ranging species such as red-tailed hawk (*Buteo jamaicensis*), turkey vulture (*Cathartes aura*), American kestrel (*Falco sparverius*), and northern harrier (*Circus cyaneus*). Mammals typically found in this habitat include California vole (*Microtus californicus*), western harvest mouse (*Reithrodontomys megalotis*), California ground squirrel (*Spermophilus beecheyi*), black-tailed hare (*Lepus californicus*), coyote (*Canis latrans*), and American badger (*Taxidea taxus*). (Mayer and Laudenslayer 1988: 118.) In addition, many species that nest or roost in open woodlands may forage in associated grasslands, including western bluebirds (*Sialia mexicana*), western kingbirds (*Tyrannus verticalis*), and some species of bats (Zeiner et al. 1990a: 428, 510 and 1990b).

Blue Oak Woodland

The blue oak woodland in the action area has an open canopy; lacks a shrub understory; and has an herbaceous understory that consists of annual grassland, which does not appear to be as regularly maintained as the remainder of the annual grassland in the action area. Wood rush (*Luzula comosa*), miner's lettuce (*Claytonia perfoliata*), woodland pterostegia (*Pterostegia drymarioides*), rancheria clover (*Trifolium albopurpureum*), mini-tomcat clover (*T. oliganthum*), and wild onion (*Allium* sp.) were observed in the herbaceous understory of the blue oak woodland. Some of the blue oaks were parasitized by oak mistletoe (*Phoradendron villosum*). Blue oak woodland is identified as a sensitive natural community on the list maintained by the California Natural Diversity Database (CNDDB)

(California Natural Diversity Database 2010). Sensitive natural communities are characterized by high species diversity, high productivity, unusual nature, limited distribution, or declining status.

Oak woodlands are important habitats because of their high value to wildlife in the form of nesting sites, cover, and food (Mayer and Laudenslayer 1988:80). Birds associated with oak woodlands include acorn woodpecker (*Melanerpes formicivorus*), western scrub jay (*Aphelocoma californica*), yellow-billed magpie (*Pica nuttalli*), and many warblers and flycatchers (Zeiner et al. 1990a: 376, 452, 460). Cavities in oak trees are important nesting sites for acorn woodpecker, oak titmouse (*Baeolophus inornatus*), Bewick's wren (*Thryomanes bewickii*), and western bluebird (California Partners in Flight 2002:24). Oak woodlands provide nesting sites and/or foraging habitat for raptors, such as red-tailed hawks (*Buteo jamaicensis*), red-shouldered hawks (*Buteo lineatus*), and great-horned owls (*Bubo virginianus*) (Zeiner et al. 1990a: 132, 136, 326; California Partners in Flight 2002:24). Mammals associated with woodlands include western gray squirrel (*Sciurus griseus*), pallid bat (*Antrozous pallidus*), bobcat (*Lynx rufus*), mule deer (*Odocoileus hemionus*), and gray fox (*Urocyon cinereoargenteus*) (Zeiner et al. 1990b: 70, 146, 324, 352). Acorns are an important food source for species such as California quail (*Callipepla californica*), wild turkey (*Meleagris gallopavo*), western gray squirrel, and mule deer (Mayer and Laudenslayer 1988:79).

Special-Status Species

Special-Status Plants

No special-status plants were observed during the survey. The timing of the botanical survey coincided with the reported blooming periods of 23 of the 37 special-status plant species identified during the review of existing information as have the potential to occur in the action area (Table 2-9). One special-status plant, Koch's cord moss (*Entosthodon kochii*) is not a flowering plant and therefore does not have a finite blooming period. Therefore, the timing of the April 2010 botanical survey was appropriate for Koch's cord moss. The survey was outside of the reported blooming period for the remaining 13 species.

Two of the 13 remaining special-status plant species, Davidson's bush-mallow (*Malacothamnus davidsonii*) and Morro manzanita (*Arctostaphylos morroensis*), are shrubs that persist year-round and would have been identifiable to the genus level at the time of the botanical survey but were not observed. Eight of the remaining 13 special-status plant species do not have potential habitat (e.g., marsh, coastal scrub, chaparral) or microhabitat (e.g., serpentine seeps, specific soil types) in the action area. The three remaining special-status plant species (Indian Valley spine-flower [*Aristocapsa insignis*], Santa Cruz Mountains pussypaws [*Calyptridium parryi* var. *hesseae*], and Pismo clarkia [*Clarkia speciosa* var. *immaculata*]) have the potential occur in blue oak woodland; however, the likelihood of occurrence of these special-status species is low due to the small amount of blue oak woodland present in the action area. Additionally, the reported elevation range for Pismo clarkia (i.e., 82–607 feet above mean sea level) is substantially lower than the approximate elevation of the action area (i.e., 900–950 feet above mean sea level). Neither Santa Cruz Mountains pussypaws nor Indian Valley spine-flower is federally or state listed as threatened or endangered, but they have been designated by CNPS as List 3 and List 1B.2 species, respectively. Pismo clarkia is federally listed as endangered, state-listed as rare, and designated by CNPS as a List 1B.1 species. Pismo clarkia is known from fewer than 20 occurrences in San Luis Obispo County, and these occurrences are restricted to the Arroyo Grand NE, Pismo Beach, and Oceano USGS 7.5-minute quadrangles that are on the coast (California Native Plant Society 2010).

Special Status Wildlife

Based on the records search, literature review, and input from the Camp Roberts environmental office and the POM, 38 special-status wildlife species (including fish) were identified as having the potential to occur in the action area. The listing status, preferred habitat, and potential for occurrence of each species are listed in Table 2-10. After the field survey was conducted, it was determined the 24 species would not occur in the action area because it lacks suitable habitat or is outside the species' known range. In addition, eight species were considered to be very unlikely to occur in the action area based on one or more of the following reasons:

- the presence of low quality habitat within the action area,
- a lack of suitable habitat in the action area but suitable habitat present near the action area, and/or
- a lack of suitable habitat in the action area but the species is known to occur at Camp Roberts.

The rationale for why each wildlife species would not occur or would be very unlikely to occur in the action area is included in Table 2-10. Swainson's hawk (*Buteo swainsoni*) has a moderate potential to occur in the action area, but is not known to nest and is unlikely to nest at Camp Roberts, and therefore would not be affected by the Proposed Action. The remaining five species have a moderate potential to occur in the action area and may be affected by the Proposed Action: golden eagle (*Aquila chrysaetos*), bald eagle (*Haliaeetus leucocephalus*), western burrowing owl (*Athene cunicularia hypugea*), San Joaquin kit fox (*Vulpes macrotis mutica*), and American badger.

In addition to these five special-status species, several non-special-status migratory birds, including raptors, could nest in and adjacent to the action area. The breeding season for most birds is generally from February 1 to September 30. The occupied nests and eggs of these birds are protected by federal and state laws, including the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code (CFG) Sections 3503 and 3503.5. USFWS is responsible for overseeing compliance with the MBTA, and CDFG is responsible for overseeing compliance with the CFGC and making recommendations on nesting bird and raptor protection.

Table 2-9. Special-Status Plants Identified as Occurring in the Vicinity of the Action Area

Common and Scientific Names	Status Federal/State/CNPS	Geographic Distribution/Floristic Province	Habitat Requirements	Blooming Period	Likelihood of Occurrence in Study Area
Oval-leaved snapdragon <i>Antirrhinum ovatum</i>	-/-/4.2	Inner Coast Ranges from San Benito County to Kern and Ventura Counties	Clay or gypsum soils (often alkaline) in chaparral, cismontane woodland, pinyon-juniper woodland, valley and foothill grassland; 656–3,281 feet above mean sea level	May–Nov	No indicators of clay or gypsum soils observed in blue oak woodland or grassland.
Morro manzanita <i>Arctostaphylos morroensis</i>	T/-/1B.1	Southern Central Coast, Morro Bay, San Luis Obispo County	Sandy loams in maritime chaparral, cismontane woodland, pre-Flandrian coastal dunes, and coastal scrub; 16–672 feet above mean sea level	Dec–Mar	Potential habitat present in blue oak woodland but no <i>Arctostaphylos</i> sp. observed during botanical survey.
Marsh sandwort <i>Arenaria paludicola</i>	E/E/1B.1	Known from only two natural occurrences in Black Lake Canyon on Nipomo Mesa and Oso Flaco Lake, San Luis Obispo County; historically more wide ranging through the Central and South Coasts	Sandy openings in freshwater or brackish marshes and swamps; 10–558 feet above mean sea level	May–Aug	No freshwater or brackish marshes present.
Indian Valley spine-flower <i>Aristocapsa insignis</i>	-/-/1B.2	Inner South Coast Range, Monterey and San Luis Obispo Counties	Sandy soils in cismontane woodland; 984–1,968 feet above mean sea level	May–Sep	Low-potential habitat present in blue oak woodland.

Table 2-9. Continued

Common and Scientific Names	Status Federal/State/CNPS	Geographic Distribution/Floristic Province	Habitat Requirements	Blooming Period	Likelihood of Occurrence in Study Area
Round-leaved filaree <i>California macrophylla</i>	-/-/1B.1	Scattered occurrences in the Great Valley, southern North Coast Ranges, San Francisco Bay Area, South Coast Ranges, Channel Islands, Transverse Ranges, and Peninsular Ranges	Cismontane woodland, valley and foothill grassland on clay soils; 49–3,937 feet above mean sea level	Mar–May	Potential habitat present in blue oak woodland but not observed during botanical survey. Grassland remaining in study area is substantially disturbed.
Dwarf calycadenia <i>Calycadenia villosa</i>	-/-/1B.1	Known from about 20 occurrences in interior foothills of South Coast Ranges in Fresno, Kern*, Monterey, Santa Barbara, and San Luis Obispo Counties	Rocky areas in chaparral, cismontane woodland, meadows and seeps, valley and foothill grassland; 787–4,429 feet above mean sea level	May–Oct	No suitable microhabitat (rocky areas) in blue oak woodland or grassland.
Santa Cruz Mountains pussypaws <i>Calyptridium parryi</i> var. <i>hesseae</i>	-/-/3	Southern San Francisco Bay, Mount Hamilton, Santa Cruz Mountains, northern Inner South Coast Ranges, Monterey, San Benito, Santa Clara, San Luis Obispo, Stanislaus, and Santa Cruz Counties	Chaparral, cismontane woodland; 1,001–3,658 feet above mean sea level	May–Aug	Low-potential habitat present in blue oak woodland.
Hardham’s evening-primrose <i>Camissonia hardhamiae</i>	-/-/1B.2	South Coast Ranges, Monterey and San Luis Obispo Counties	Sandy, decomposed carbonate in disturbed or burned areas in chaparral, cismontane woodland; 459–3,100 feet above mean sea level	Mar–May	Potential habitat present in blue oak woodland but not observed during botanical survey.

Table 2-9. Continued

Common and Scientific Names	Status Federal/State/CNPS	Geographic Distribution/Floristic Province	Habitat Requirements	Blooming Period	Likelihood of Occurrence in Study Area
San Luis Obispo owl's-clover <i>Castilleja densiflora</i> ssp. <i>obispoensis</i>	-/-/1B.2	Endemic to San Luis Obispo County	Valley and foothill grassland; 33–1,312 feet above mean sea level	Mar–May	Grassland remaining in study area is substantially disturbed and not observed during botanical survey.
California jewel-flower <i>Caulanthus californicus</i>	E/E/1B.1	Historically common in western San Joaquin Valley and interior foothills, currently known from scattered locations in Fresno, Kern, Santa Barbara, and San Luis Obispo Counties	Sandy soils in valley and foothill grassland, chenopod scrub, and pinyon-juniper woodland; 200–3,281 feet above mean sea level	Feb–May	Grassland remaining in study area is substantially disturbed and not observed during botanical survey.
Lemmon's jewel-flower <i>Caulanthus coulteri</i> var. <i>lemmonii</i>	-/-/1B.2	Southeast San Francisco Bay Area, south through the South Coast Ranges and adjacent San Joaquin Valley to Ventura County	Dry, exposed slopes in grasslands and pinyon-juniper woodland; 262–4,003 feet above mean sea level	Mar–May	Grassland remaining in study area is substantially disturbed and not observed during botanical survey.
Santa Lucia purple amole <i>Chlorogalum purpureum</i> var. <i>purpureum</i>	T/-/1B.1	Northeastern Outer South Coast Ranges, eastern Santa Lucia Mountains, Monterey County	Gravelly or clay soils in cismontane woodland, chaparral, and valley and foothill grassland; 672–1,148 feet above mean sea level	Apr–Jun	Potential habitat present in blue oak woodland but not observed during botanical survey.
Camatta Canyon amole <i>Chlorogalum purpureum</i> var. <i>reductum</i>	T/R/1B.1	Known from only two occurrences in the La Panza Range, San Luis Obispo County	Cismontane woodland on serpentine soils; 1,001–2,067 feet above mean sea level	Apr–May	No indicators of serpentine soils present and not observed during botanical survey.

Table 2-9. Continued

Common and Scientific Names	Status Federal/State/CNPS	Geographic Distribution/Floristic Province	Habitat Requirements	Blooming Period	Likelihood of Occurrence in Study Area
Monterey spineflower <i>Chorizanthe pungens</i> var. <i>pungens</i>	T/-/1B.2	Northern and Central Coast, San Francisco Bay in Monterey, Santa Cruz, and San Luis Obispo* Counties	Sandy areas in maritime chaparral, cismontane woodland, coastal dunes, coastal scrub, valley and foothill grassland; below 1,476 feet above mean sea level	Apr-Jun (uncommonly Jul)	Potential habitat present in blue oak woodland but not observed during botanical survey.
Straight-awned spineflower <i>Chorizanthe rectispina</i>	-/-/1B.3	Outer South Coast Ranges: Monterey, Santa Barbara, and San Luis Obispo Counties	Often on granitic soils in chaparral, coastal scrub, cismontane woodland; 279–3,396 feet above mean sea level	Apr-Jul	Potential habitat present in blue oak woodland but not observed during botanical survey.
Chorro Creek bog thistle <i>Cirsium fontinale</i> var. <i>obispoense</i>	E/E/1B.2	Endemic to San Luis Obispo County	Serpentine seeps, drainages, and stream banks in chaparral, oak woodlands, coastal scrub, valley and foothill grassland; 115–1,247 feet above mean sea level	Feb-Jul (uncommonly Aug-Sep)	No serpentine seeps, drainages, or stream banks and not observed during botanical survey.
La Graciosa thistle <i>Cirsium loncholepis</i>	E/T/1B.1	Southern Central Coast in Monterey, Santa Barbara, San Luis Obispo, and Ventura Counties	Coastal dunes, brackish marsh; 13–722 feet above mean sea level	May-Aug	No coastal dunes or brackish marsh present.
Pismo clarkia <i>Clarkia speciosa</i> var. <i>immaculata</i>	E/R/1B.1	Endemic to San Luis Obispo County	Sandy soils in oak woodland, valley and foothill grassland, grassy openings and margins in chaparral; 82–607 feet above mean sea level	May-Jul	Low-potential habitat present in blue oak woodland but elevation range of species is substantially lower than elevation of SATCOM facility.

Table 2-9. Continued

Common and Scientific Names	Status Federal/State/CNPS	Geographic Distribution/Floristic Province	Habitat Requirements	Blooming Period	Likelihood of Occurrence in Study Area
Salt marsh bird's-beak <i>Cordylanthus maritimus</i> ssp. <i>maritimus</i>	E/E/1B.2	Coastal California from San Diego County to San Luis Obispo County	Tidal salt marsh, coastal dunes; below 98 feet above mean sea level	May–Oct	No tidal salt marsh or coastal dunes present.
Umbrella larkspur <i>Delphinium umbraculorum</i>	–/–/1B.3	Monterey, Santa Barbara, San Luis Obispo, and Ventura Counties	Moist areas in cismontane woodland; 1,312–5,249 feet above mean sea level	Apr–Jun	Potential habitat present in blue oak woodland but no microhabitat (moist areas) present and not observed during botanical survey.
Koch's cord moss <i>Entosthodon kochii</i>	–/–/1B.3	Known from Mariposa County along the Merced River, Mendocino, Marin, and San Luis Obispo Counties	On soil in cismontane woodland; 590–3,281 feet above mean sea level	NA	Potential habitat present in blue oak woodland but not observed during botanical survey.
Indian Knob mountainbalm <i>Eriodictyon altissimum</i>	E/E/1B.1	Endemic to San Luis Obispo County	Open areas in maritime chaparral, coastal scrub, and oak woodland, on sandstone ridges; 262–886 feet above mean sea level	Mar–Jun	Potential habitat present in blue oak woodland but not observed during botanical survey/
Kellogg's horkelia <i>Horkelia cuneata</i> ssp. <i>sericea</i>	–/–/1B.1	Coastal California from San Mateo to Santa Barbara Counties, formerly further north	Openings in closed-cone coniferous forest, coastal scrub, maritime chaparral, on sandy or gravelly soils; 33–656 feet above mean sea level	Apr–Sep	No potential habitat types present.

Table 2-9. Continued

Common and Scientific Names	Status Federal/State/CNPS	Geographic Distribution/Floristic Province	Habitat Requirements	Blooming Period	Likelihood of Occurrence in Study Area
Santa Lucia dwarf rush <i>Juncus luciensis</i>	-/-/1B.2	Lassen, Monterey, Modoc, Napa, Nevada, Placer, Plumas, Riverside, Santa Barbara, San Benito, San Diego, Shasta, and San Luis Obispo Counties	Chaparral, Great Basin scrub, lower montane coniferous forest, meadows and seeps, vernal pools; 984–6,693 feet above mean sea level	Apr–Jul	No potential habitat types present.
Pale-yellow layia <i>Layia heterotricha</i>	-/-/1B.1	Interior foothills of the South Coast Ranges, Transverse Ranges, and Tehachapi Mountains in Fresno, Kings*, Kern*, Monterey*, Santa Barbara, San Luis Obispo*, Ventura, and possibly San Benito Counties	Alkaline or clay soils in coastal scrub, cismontane woodland, pinyon- juniper woodland, valley and foothill grassland in open areas; 984–5,594 feet above mean sea level	Mar–Jun	Potential habitat present in blue oak woodland but not observed during botanical survey. Grassland remaining in study area is substantially disturbed.
San Joaquin woolly-threads <i>Monolopia congdonii</i> (formerly <i>Lembertia congdonii</i>)	E/-/1B.2	Carrizo Plain and western San Joaquin valley from San Benito County to Kern County	Saltbush scrub, sandy soils in valley and foothill grassland, on flats in alkaline or loamy soils; 197– 2,625 feet above mean sea level	Feb–May	Grassland remaining in study area is substantially disturbed and not observed during botanical survey.
Jared’s pepper-grass <i>Lepidium jaredii</i> ssp. <i>jaredii</i>	-/-/1B.2	Inner South Coast Ranges, Carrizo Plain and western San Joaquin Valley from Kern County south to San Luis Obispo County	Alkaline, adobe soils in grassland, in sinks, alluvial fans, and washes; 1,099–3,297 feet above mean sea level	Mar–May	Grassland remaining in study area is substantially disturbed and not observed during botanical survey.
Nipomo mesa lupine <i>Lupinus nipomensis</i>	E/E/1B.1	San Luis Obispo County	Coastal dunes; 33–164 feet above mean sea level	Dec–May	No coastal dunes present and not observed during botanical survey.

Table 2-9. Continued

Common and Scientific Names	Status Federal/State/CNPS	Geographic Distribution/Floristic Province	Habitat Requirements	Blooming Period	Likelihood of Occurrence in Study Area
Davidson's bush-mallow <i>Malacothamnus davidsonii</i>	-/-/1B.2	Los Angeles, Monterey, Santa Clara, San Luis Obispo, and San Mateo Counties	Coastal scrub, chaparral, cismontane woodland, and riparian woodland in sandy washes; 607–2,805 feet above mean sea level	Jun–Jan	Potential habitat present in blue oak woodland but no <i>Malacothamnus</i> sp. observed during botanical survey.
Carmel Valley malacothrix <i>Malacothrix saxatilis</i> var. <i>arachnoidea</i>	-/-/1B.2	Monterey, Santa Barbara, San Benito, and San Luis Obispo Counties	Rocky areas in chaparral, coastal scrub; 82–3,399 feet above mean sea level	Jun–Dec (uncommonly Mar)	No chaparral or coastal scrub present.
Mt. Diablo cottonweed <i>Micropus amphibolus</i>	-/-/3.2	Coast Ranges from Lake County to Santa Barbara County	Rocky sites in broadleafed upland forest, mixed evergreen forest, oak woodland, chaparral, valley and foothill grasslands; 148–2,707 feet above mean sea level	Mar–May	Potential habitat present in blue oak woodland but not observed during botanical survey. Grassland remaining in study area is substantially disturbed.
Shining navarretia <i>Navarretia nigelliformis</i> ssp. <i>radians</i>	-/-/1B.2	Interior foothills of South Coast Ranges from Merced County to San Luis Obispo County	Mesic areas with heavy clay soils, in swales and clay flats; in oak woodland, grassland; 249–3,281 feet above mean sea level	Apr–Jul	Potential habitat present in blue oak woodland but not observed during botanical survey. Grassland remaining in study area is substantially disturbed.

Table 2-9. Continued

Common and Scientific Names	Status Federal/State/CNPS	Geographic Distribution/Floristic Province	Habitat Requirements	Blooming Period	Likelihood of Occurrence in Study Area
Prostrate vernal pool navarretia <i>Navarretia prostrata</i>	-/-/1B.1	Western San Joaquin Valley, Inner South Coast Ranges, central South Coast, Peninsular Ranges: Alameda, Los Angeles, Merced, Monterey, Orange, Riverside, San Bernardino(*?), San Diego, and San Luis Obispo Counties	Vernal pools and mesic areas in coastal scrub and alkali grasslands; 49–2,296 feet above mean sea level	Apr–Jul	No vernal pools, coastal scrub, or alkali grasslands present.
Hooked popcorn-flower <i>Plagiobothrys uncinatus</i>	-/-/1B.2	Monterey, San Benito, Santa Clara, San Luis Obispo, and Stanislaus Counties	Chaparral on sandy soils, cismontane woodland, valley and foothill grassland; 984–2,493 feet above mean sea level	Apr–May	Potential habitat present in blue oak woodland but not observed during botanical survey. Grassland remaining in study area is substantially disturbed.
Santa Cruz microseris <i>Stebbinsoseris decipiens</i>	-/-/1B.2	Coastal California: scattered occurrences from Marin County to Monterey County	Broadleafed upland forest, closed-cone coniferous forest, chaparral, valley and foothill grasslands, coastal prairie, coastal scrub, and open grassy areas in other habitat types, sometimes on serpentinite; 33–1,640 feet above mean sea level	Apr–May	Grassland remaining in study area is substantially disturbed and not observed during botanical survey.
California seablite <i>Suaeda californica</i>	E/-/1B.1	Morro Bay, San Luis Obispo County, and San Francisco and Contra Costa Counties; historically found in the south San Francisco Bay	Margins of tidal salt marsh; below 49 feet above mean sea level	Jul–Oct	No tidal salt marsh present.

Table 2-9. Continued

Common and Scientific Names	Status Federal/State/CNPS	Geographic Distribution/Floristic Province	Habitat Requirements	Blooming Period	Likelihood of Occurrence in Study Area
Cook's triteleia <i>Triteleia ixioides</i> ssp. <i>cookii</i>	-/-/1B.3	Monterey and San Luis Obispo Counties	On serpentine seeps in closed-cone coniferous forest, cismontane woodland; 492-2,296 feet above mean sea level	May-Jun	No microhabitat (serpentine seeps) present in blue oak woodland.

Status explanations:

Federal

- E = listed as endangered under the federal Endangered Species Act.
- T = listed as threatened under the federal Endangered Species Act.
- = no listing.

State

- E = listed as endangered under the California Endangered Species Act.
- T = listed as threatened under the California Endangered Species Act.
- R = listed as rare under the California Native Plant Protection Act. This category is no longer used for newly listed plants, but some plants previously listed as rare retain this designation.
- = no listing.

California Native Plant Society (CNPS)

- 1B = List 1B species; rare, threatened, or endangered in California and elsewhere.
- 3 = List 3 species: more information is needed about this plant
- 4 = List 4 species: limited distribution and on a watch list
- 0.1 = Seriously endangered in California.
- 0.2 = Fairly endangered in California.
- 0.3 = Not very endangered in California
- ? = Population status in County uncertain
- * = Population believed extirpated from the county

Table 2-10. Special-Status Wildlife Species Identified as Occurring in the Vicinity of the Action Area

Common and Scientific Name	Status		Habitats	Potential for Occurrence
	Federal/State	California Distribution		
Invertebrates				
Morro shoulderband (=banded dune) <i>Helminthoglypta walkeriana</i>	E/—	From north of the city of Morro Bay, south to Montana de Oro, and east to Los Osos; western San Luis Obispo County	Relic dune soils that support coastal scrub; dense cover and leaf litter	None – outside of species known range; no suitable habitat
Longhorn fairy shrimp <i>Branchinecta longiantenna</i>	E/—	Eastern margin of central Coast Ranges from Contra Costa County to San Luis Obispo County; disjunct population in Madera County	Small, clear pools in sandstone rock outcrops of clear to moderately turbid clay- or grass-bottomed pools	None – no suitable habitat at RHN site
Conservancy fairy shrimp <i>Branchinecta conservatio</i>	E/—	Disjunct occurrences in Solano, Merced, Tehama, Ventura, Butte, and Glenn Counties	Large, deep vernal pools in annual grasslands	None – no suitable habitat at RHN site
Vernal pool fairy shrimp <i>Branchinecta lynchi</i>	T/—	Central Valley, central and south Coast Ranges from Tehama County to Santa Barbara County. Isolated populations also in Riverside County	Common in vernal pools; also found in sandstone rock outcrop pools	None – no suitable habitat at RHN site
El Segundo blue <i>Euphilotes battoides allyni</i>	E/—	Although once more widespread, now restricted to two sites: approximately 270 acres at Los Angeles International Airport and approximately 1.3 acres at the Chevron refinery in El Segundo	Native vegetated sand dune habitats with its host plant, <i>Eriogonum parvifolium</i>	None – outside of species known range; no suitable habitat
Smith's blue butterfly <i>Euphilotes enoptes smithi</i>	E/—	Localized populations along the immediate coast and in coastal canyons of Monterey County; single populations reported in Santa Cruz and San Mateo Counties	Coastal dunes and hillsides that support seacliff buckwheat (<i>Eriogonum parvifolium</i>) or coast buck-wheat (<i>Eriogonum latifolium</i>); these plants used as a nectar source for adults and host plant for larvae	None – no suitable habitat at RHN site
Kern primrose sphinx moth <i>Euproserpinus euterpe</i>	T/—	Walker Basin, Kern County	Dry, disturbed, sandy-gravelly washes adjacent to fallow fields where its larval food plant, the evening primrose, occurs	None – outside of species known range; no suitable habitat

Table 2-10. Continued

Common and Scientific Name	Status		Habitats	Potential for Occurrence
	Federal/State	California Distribution		
Fish				
Tidewater goby <i>Eucyclogobius newberryi</i>	E/SSC	Occur in lagoons of coastal streams from the Smith River (Del Norte County), to the south in Agua Hedionda Lagoon (San Diego County). Extirpated from San Francisco Bay (Moyle 2002).	Coastal lagoons along California. Prefer water with high dissolved oxygen levels and salinities less than 10 parts per thousand (Moyle 2002).	None – no rivers or streams at or near the RHN site
Southern California steelhead <i>Oncorhynchus mykiss</i>	E/SSC	Includes populations from the Santa Maria River (inclusive) south to the US – Mexico border.	Migrate into fresh water streams when sandbars breach during winter and spring rains. Same habitat requirements as other steelhead.	None – no rivers or streams at or near the RHN site
Amphibians				
California tiger salamander <i>Ambystoma californiense</i>	T/T	Central Valley, including Sierra Nevada foothills, up to approximately 1,000 feet, and coastal region from Butte County south to northeastern San Luis Obispo County.	Small ponds, lakes, or vernal pools in grass-lands and oak woodlands for larvae; rodent burrows, rock crevices, or fallen logs for cover for adults and for summer dormancy	None– no suitable aquatic habitat at RHN site; not known to occur at Camp Roberts
Western spadefoot <i>Spea hammondi</i>	—/SSC	Sierra Nevada foothills, Central Valley, Coast Ranges, coastal counties in southern California	Shallow streams with riffles and seasonal wetlands, such as vernal pools in annual grasslands and oak woodlands	Low – no suitable aquatic habitat at RHN site but known to occur at Camp Roberts
Arroyo toad <i>Bufo californicus</i>	E/SSC	Along the coast and foothills from San Luis Obispo County to San Diego County and inland to San Bernardino County	Sandy riverbanks, washes, and arroyos with open riparian vegetation. Prefers shallow, exposed streamside, quiet water stretches, or overflow pools with silt-free sandy or gravelly bottoms for breeding. Adults and young use nearby damp sandy terraces with scattered vegetation for shelter and burrow sites.	None– no suitable aquatic habitat at RHN site; not known to occur at Camp Roberts

Table 2-10. Continued

Common and Scientific Name	Status		Habitats	Potential for Occurrence
	Federal/State	California Distribution		
California red-legged frog <i>Rana draytonii</i>	T/SSC	Found along the coast and coastal mountain ranges of California from Marin County to San Diego County and in the Sierra Nevada from Tehama County to Fresno County	Permanent and semipermanent aquatic habitats, such as creeks and cold-water ponds, with emergent and submergent vegetation. May estivate in rodent burrows or cracks during dry periods	None – no suitable aquatic habitat at RHN site; not known to occur at Camp Roberts
Reptiles				
Western pond turtle <i>Actinemys marmorata</i>	—/SSC	Occurs throughout California west of the Sierra-Cascade crest. Found from sea level to 6,000 feet. Does not occur in desert regions except for along the Mojave River and its tributaries.	Occupies aquatic habitats, such as ponds, marshes, or streams, with rocky or muddy bottoms in woodlands, grasslands, and open forests. Also requires aquatic vegetation for cover and food. Nests in upland adjacent to aquatic habitat.	None – no suitable habitat at RHN site
Coast horned lizard <i>Phrynosoma blainvillii</i>	—/SSC	Sacramento Valley, including foothills, south to southern California; Coast Ranges south of Sonoma County; below 4,000 feet in northern California	Grasslands, brushlands, woodlands, and open coniferous forest with sandy or loose soil; requires abundant ant colonies for foraging	Low – unlikely to occur within SATCOM facility due to disturbed nature of site.
Blunt-nosed leopard lizard <i>Gambelia silus</i>	E/E, FP	San Joaquin Valley from Stanislaus County through Kern County and along the eastern edges of San Luis Obispo and San Benito Counties	Open habitats with scattered low bushes on alkali flats, and low foothills, canyon floors, plains, washes, and arroyos; substrates may range from sandy or gravelly soils to hardpan	None – outside of species known range

Table 2-10. Continued

Common and Scientific Name	Status		Habitats	Potential for Occurrence
	Federal/State	California Distribution		
Birds				
Brown pelican <i>Pelecanus occidentalis</i> (nesting colony)	D/E	Present along the entire coastline of California, but does not breed north of Monterey County; extremely rare inland	Typically in littoral ocean zones, just outside the surf line; nests on offshore islands	None – suitable habitat not present
California condor <i>Gymnogyps californianus</i>	E/E	Historically, rugged mountain ranges surrounding the southern San Joaquin Valley; currently, most individuals are in captive populations, but a few birds were recently released in the rugged portions of the Los Padres National Forest	Requires large blocks of open savanna, grasslands, and foothill chaparral with large trees, cliffs, and snags for roosting and nesting	Low – may occasionally forage or perch near the RHN site
Golden eagle <i>Aquila chrysaetos</i>	PR/ FP	Foothills and mountains throughout California. Uncommon nonbreeding visitor to lowlands such as the Central Valley	Nest on cliffs and escarpments or in tall trees overlooking open country. Forages in annual grasslands, chaparral, and oak woodlands with plentiful medium and large-sized mammals	Moderate – could nest or forage near the RHN site; known to occur at Camp Roberts
Bald eagle <i>Haliaeetus leucocephalus</i>	PR/E, FP	Nests in Siskiyou, Modoc, Trinity, Shasta, Lassen, Plumas, Butte, Tehama, Lake, and Mendocino Counties and in the Lake Tahoe Basin. Reintroduced into central coast. Winter range includes the rest of California, except the southeastern deserts, very high altitudes in the Sierra Nevada, and east of the Sierra Nevada south of Mono County	In western North America, nests and roosts in coniferous forests within 1 mile of a lake, reservoir, stream, or the ocean	Moderate – could nest or forage in the vicinity of the RHN site; known to occur at Camp Roberts
Swainson's hawk <i>Buteo swainsoni</i>	—/T	Lower Sacramento and San Joaquin Valleys, the Klamath Basin, and Butte Valley. Highest nesting densities occur near Davis and Woodland, Yolo County	Nests in oaks or cottonwoods in or near riparian habitats. Forages in grasslands, irrigated pastures, and grain fields	Moderate – known to occasionally perch or forage at Camp Roberts; unlikely to nest at Camp Roberts (outside of known breeding range)

Table 2-10. Continued

Common and Scientific Name	Status		Habitats	Potential for Occurrence
	Federal/State	California Distribution		
California clapper rail <i>Rallus longirostris obsoletus</i>	E/E, FP	Marshes around the San Francisco Bay and east through the Delta to Suisun Marsh	Restricted to salt marshes and tidal sloughs; usually associated with heavy growth of pickleweed; feeds on mollusks removed from the mud in sloughs	None – outside of species known range; suitable habitat not present
Western snowy plover <i>Charadrius alexandrinus nivosus</i>	T/SSC	Population defined as those birds that nest adjacent to or near tidal waters, including all nests along the mainland coast, peninsulas, offshore islands, and adjacent bays and estuaries. Twenty breeding sites are known in California from Del Norte to Diego County	Coastal beaches above the normal high tide limit in flat, open areas with sandy or saline substrates; vegetation and driftwood are usually sparse or absent	None – outside of species known range; suitable habitat not present
California least tern <i>Sterna antillarum browni</i>	E/E, FP	Nests on beaches along the San Francisco Bay and along the southern California coast from southern San Luis Obispo County south to San Diego County	Nests on sandy, upper ocean beaches, and occasionally uses mudflats; forages on adjacent surf line, estuaries, or the open ocean	None – outside of species known range; suitable habitat not present
Western yellow-billed cuckoo <i>Coccyzus americanus occidentalis</i>	C/E	Nests along the upper Sacramento, lower Feather, south fork of the Kern, Amargosa, Santa Ana, and Colorado Rivers	Wide, dense riparian forests with a thick understory of willows for nesting; sites with a dominant cottonwood overstory are preferred for foraging; may avoid valley-oak riparian habitats where scrub jays are abundant	None – suitable habitat not present
Western burrowing owl <i>Athene cunicularia hypugea</i>	—/SSC	Lowlands throughout California, including the Central Valley, northeastern plateau, southeastern deserts, and coastal areas. Rare along south coast	Level, open, dry, heavily grazed or low stature grassland or desert vegetation with available burrows	Moderate – could nest or forage in or near the RHN site; known to occur at Camp Roberts
Least Bell's vireo <i>Vireo bellii pusillus</i>	E/E	Small populations remain in southern Inyo, southern San Bernardino, Riverside, San Diego, Orange, Los Angeles, Ventura, and Santa Barbara Counties	Riparian thickets either near water or in dry portions of river bottoms; nests along margins of bushes and forages low to the ground; may also be found using mesquite and arrow weed in desert canyons	None – suitable habitat not present

Table 2-10. Continued

Common and Scientific Name	Status		Habitats	Potential for Occurrence
	Federal/State	California Distribution		
Tricolored blackbird <i>Agelaius tricolor</i>	—/SSC	Permanent resident in the Central Valley from Butte County to Kern County. Breeds at scattered coastal locations from Marin County south to San Diego County; and at scattered locations in Lake, Sonoma, and Solano Counties. Rare nester in Siskiyou, Modoc, and Lassen Counties	Nests in dense colonies in emergent marsh vegetation, such as tules and cattails, or upland sites with blackberries, nettles, thistles, and grainfields. Habitat must be large enough to support 50 pairs. Probably requires water at or near the nesting colony	None – suitable habitat not present
Yellow warbler <i>Dendroica petechia brewsteri</i>	—/SSC	Nests over all of California except the Central Valley, the Mojave Desert region, and high altitudes and the eastern side of the Sierra Nevada. Winters along the Colorado River and in parts of Imperial and Riverside Counties. Two small permanent populations in San Diego and Santa Barbara Counties	Nests in riparian areas dominated by willows, cottonwoods, sycamores, or alders or in mature chaparral; may also use oaks, conifers, and urban areas near stream courses	Low – suitable nesting habitat not present but could occasionally occur in or near RHN site
Mammals				
Pallid bat <i>Antrozous pallidus</i>	—/SSC (WBWG high priority)	Occurs throughout California except the high Sierra from Shasta to Kern County and the northwest coast, primarily at lower and mid elevations	Occurs in a variety of habitats from desert to coniferous forest. Most closely associated with oak, yellow pine, redwood, and giant sequoia habitats in northern California and oak woodland, grassland, and desert scrub in southern California. Relies heavily on trees for roosts	Low – could forage in or near the RHN site; could roost in trees in vicinity of site; known to occur at Camp Roberts
Long-legged myotis <i>Myotis volans</i>	—/— (WBWG high priority)	Mountains throughout California, including ranges in the Mojave desert	Most common in woodlands and forests above 4,000 feet, but occurs from sea level to 11,000 feet	Low – could forage in or near the RHN site; could roost in vicinity of site; not known to occur at Camp Roberts

Table 2-10. Continued

Common and Scientific Name	Status		Habitats	Potential for Occurrence
	Federal/State	California Distribution		
Morro Bay kangaroo rat <i>Dipodomys heermanni morroensis</i>	E/E, FP	Found only near Los Osos, San Luis Obispo County	Coastal scrub habitats on old sand dune soils	None – outside of species known range; no suitable habitat
Giant kangaroo rat <i>Dipodomys ingens</i>	E/E	Occurs at high densities in only 12 square miles of habitat along the western side of the San Joaquin Valley, in five separate localities on Elkhorn Plain, Carrizo Plain, McKittrick Valley, and Cuyama Valley in Kern and San Luis Obispo Counties	Restricted to flat, sparsely vegetated areas with native annual grassland and shrubland habitats; requires uncultivated soils consisting of dry, fine, sandy loams for burrowing	None – outside of species known range
Salinas pocket mouse <i>Perognathus inornatus psammophilus</i>	—/SSC	The known range extends from near Soledad to Hog Canyon in the Salinas Valley, Monterey County	Dry, open grasslands with sandy soils	Low – suitable habitat is present; not known to occur at Camp Roberts
Monterey dusky-footed woodrat <i>Neotoma macrotis luciana</i>	—/SSC	Occurs throughout Monterey and northern San Luis Obispo Counties where appropriate habitat is available	Coast live oak woodland and chaparral habitats with moderate canopy cover and moderate to dense understory and abundant deadwood for nest construction	Low – no suitable habitat at RHN site but could occur in vicinity; known to occur at Camp Roberts
San Joaquin kit fox <i>Vulpes macrotis mutica</i>	E/T	Principally occurs in the San Joaquin Valley and adjacent open foothills to the west; recent records from 17 counties extending from Kern County north to Contra Costa County	Saltbush scrub, grassland, oak, savanna, and freshwater scrub	Moderate – suitable habitat present; one individual observed at Camp Roberts in 2007
Southern sea otter <i>Enhydra lutris nereis</i>	T/ FP	Occurs approximately from the vicinity of Half Moon Bay south to Gaviota, California. Approximately 20 otters, including pups, are at San Nicolas Island as a result of translocation efforts to establish an experimental population	Coastal waters, typically within 1 km of shoreline. Often associated with kelp beds	None - outside of species known range; suitable habitat not present

Table 2-10. Continued

Common and Scientific Name	Status		Habitats	Potential for Occurrence
	Federal/State	California Distribution		
American badger <i>Taxidea taxus</i>	—/SSC	Throughout California, except for the humid coastal forests of northwestern California in Del Norte and the northwestern Humboldt Counties	Requires sufficient food, friable soils, and relatively open uncultivated ground; preferred habitat includes grasslands, savannas, and mountain meadows near timberline	Moderate – suitable habitat present; known to occur at Camp Roberts

Notes:

^a Status explanations:

Federal

- E = listed as endangered under the federal Endangered Species Act.
- T = listed as threatened under the federal Endangered Species Act.
- C = candidate for threatened or endangered status.
- PR = protected by the Bald and Golden Eagle Protection Act.
- D = delisted (removed from the federal list of endangered and threatened wildlife). Delisted species are monitored for 5 years.
- = no status.

State

- E = listed as endangered under the California Endangered Species Act.
- T = listed as threatened under the California Endangered Species Act.
- FP = fully protected under the California Fish and Game Code.
- SSC = species of special concern in California.
- = no status.

Western Bat Working Group (WBWG) Available: http://www.wbwg.org/spp_matrix.html)

High priority = species are imperiled or at high risk of imperilment

Environmental Consequences

Proposed Action

Sensitive Natural Communities

Based on project design information, the Proposed Action would not result in the loss or disturbance of the blue oak woodland, a sensitive natural community.

Oak Trees

Although no trees would be removed as part of the Proposed Action, construction activities would occur near several blue oaks. To ensure that blue oak trees are protected from direct effects such as root damage and indirect effects such as soil compaction, Bio Measure 1, would be implemented. Implementation of this measure would ensure that effects on trees from the Proposed Action would be less than significant.

Bio Measure 1: Protect Oak Trees from Root Damage and Soil Compaction

Oak trees within and adjacent to disturbance areas would be protected from root damage and soil compaction by installing temporary, 6 foot tall orange construction fencing around the perimeter of their drip-lines. No ground disturbance, equipment, materials or foot traffic would be allowed within these protected areas. Roots outside of the drip-line that must be cut should be cut cleanly with a saw in a manner that minimizes surface area exposure.

Special-Status Plants

The blue oak woodland in the action area provides potential habitat for two special-status plant species, Santa Cruz Mountains pussypaws and Indian Valley spineflower. Although it is unlikely that these two special-status plants would be present in the small patch of blue oak woodland on the facility property, there is still a low likelihood for occurrence. However; because the blue oak woodland would not be affected during construction, the Proposed Action would not have an effect on these special-status plant species.

Special-Status Wildlife

Potential Disturbance of Golden Eagle and Bald Eagle

The oak woodland surrounding the existing SATCOM facility provide suitable nesting habitat for bald eagles and golden eagles, although no eagles have been observed nesting in the area. The oak woodland also provides suitable foraging habitat for golden eagles. No trees would be removed as part of the Proposed Action. Construction is expected to begin in January, which is at the beginning of the breeding/nesting seasons of these species (January through August for golden eagle [Zeiner et al. 1990a] and February through mid-September for bald eagle [Zeiner et al. 1990; Buehler 2000]). Because the exact timing of the start of construction is not known, and construction activities could disturb eagles attempting to nest, Bio Measure 2 would be implemented. Use of construction equipment at the SATCOM site could result in a minor disturbance to golden eagles foraging in the general vicinity of the Proposed Action. Potential impacts on golden and bald eagles would be less than significant.

Bio Measure 2: Conduct a Preconstruction Survey for Nesting Migratory Birds

A qualified wildlife biologist with knowledge of the relevant species would conduct a nesting bird survey before the start of construction of the Proposed Action. The survey would be conducted within 2 weeks of the start of proposed construction. The survey would be conducted within the action area and a 500-foot buffer around this area. If no active nests are detected during these surveys, no additional measures would be required.

If an active nest is found in the survey area, a no-disturbance buffer would be established around the site to avoid disturbance or destruction of the nest site until the end of the breeding season (September 30), or until after a qualified wildlife biologist determines that the young have fledged and moved out of the action area (this date varies by species). The extent of these buffers would be determined by the biologist in coordination with USFWS and CDFG and would depend on the level of noise or construction disturbance, line-of-sight between the nest and the disturbance, ambient levels of noise and other disturbances, and other topographical or artificial barriers. Suitable buffer distances may vary between species.

Potential Disturbance of Western Burrowing Owl and Temporary and Permanent Loss of Suitable Habitat

The grassland and associated small mammal burrows in the action area provide suitable habitat for western burrowing owl. Owls were not observed during the field survey of the site, but there is some potential for their presence. Construction of the Proposed Action could remove suitable burrow sites and temporarily and permanently remove suitable foraging and burrow habitat. Removal of habitat could result in disturbance or mortality of burrowing owls. Although a small amount of grassland (0.25 acre) would be permanently removed, 0.08 acre of paved surface (from the existing roadway) would be restored as annual grassland. The net loss of 0.17 acre of grassland habitat would not substantially affect western burrowing owl. In addition, all temporarily disturbed grassland areas (0.29 acre) would be restored with native grasses. Bio Measures 3, 4, and 5 below would be implemented to avoid and minimize impacts to western burrowing owl during project construction. With these measures in place, potential impacts on western burrowing owl from the Proposed Action would be less than significant.

Bio Measure 3: Minimize the Loss or Degradation of Suitable Western Burrowing Owl, San Joaquin Kit Fox, and American Badger Habitat

The amount of annual grassland permanently affected would be minimized to maximum extent practicable. All temporarily affected grassland would be reseeded with native grasses immediately upon project completion.

In addition, to avoid and minimize the spread of invasive plant species and subsequent degradation of grassland habitat, the following measures would be implemented during construction.

- Educate construction supervisors and managers on the importance of controlling and preventing the spread of invasive weeds.
- Wash construction vehicles and equipment offsite before arriving at the construction site. If vehicles or equipment leave the construction site prior to the end of the construction period, they would be washed prior to re-entry.
- Use erosion control materials (e.g., straw wattles) that are certified weed-free.

Bio Measure 4: Revegetate Temporarily Disturbed Areas

Revegetation would be undertaken on any disturbed areas to provide stabilization through erosion control. The area would be immediately reseeded with annual and perennial grasses and forbs that are native to the Camp Roberts region, which would result in improved structure and composition compared to preconstruction conditions. The seed mix would be approved by the U.S. Army Garrison POM Directorate of Public Works Environmental Division prior to construction. Disturbed areas may require temporary stabilization (e.g., biodegradable erosion control netting) until the native seeds can germinate and become established.

Bio Measure 5: Implement Avoidance and Minimization Measures to Protect Western Burrowing Owl, San Joaquin Kit Fox, and American Badger

The following measures would be implemented to avoid and minimize the potential for injury and mortality of western burrowing owl, San Joaquin kit fox, and American badger. These measures were largely taken from the *Biological Opinion for Normal Operations and Construction Activities in Support of the Satellite Communications Facility at Camp Roberts, San Luis Obispo, California (1-8-96-F-25)* (U.S. Fish and Wildlife Service 1996), or were modified slightly from this document. These measures were written for the protection of San Joaquin kit fox, but would also avoid and minimize potential injury or mortality of western burrowing owl and American badger.

Preactivity surveys for the presence of burrowing owl, San Joaquin kit fox, and American badger would be conducted within 30 days of project initiation. Surveys would be conducted by qualified biologists who would cover all off-road areas where ground-disturbing activities would occur. Exclusion zones would be established around dens found within the action area. No ground disturbance or vehicle traffic would be allowed within the exclusion zones. If an established roadway falls within the exclusion zone, vehicle traffic would be allowed only if critical need exists and alternate routes are not available. Foot traffic would be allowed for transit only when necessary and alternate routes are not available. Exclusion zones would be based on the following criteria:

- potential den: 50-foot (15-meter) radius;
- known den: 100-foot (30-meter) radius; and
- known natal or pupping den: 150-foot (45-meter) radius.

Potential dens are defined as dens with entrances of sufficient size to allow use by San Joaquin kit fox (4-inch or greater diameter) and that occur in suitable habitat. *Known dens* are those that are currently inhabited by kit foxes or where kit foxes have been observed in the past. *Known natal or pupping dens* are those dens where pregnant females or females with pups have been observed. The exclusion radius is measured from the center of a single den, or from the center of a group of dens.

Only qualified biologists would conduct preactivity den surveys and other activities that pertain to San Joaquin kit fox. The names and credentials of qualified biologists would be supplied to USFWS for its review and approval at least 15 days prior to the onset of activities that they would be authorized to conduct. Biologists already approved to conduct kit fox burrow clearance surveys would not need to submit their credentials to USFWS for approval.

Exclusion zones would be clearly staked, encircled with cord or tape, and flagged. Exclusion zones would be established by a qualified biologist prior to the start of construction.

Disturbance to all *potential* San Joaquin kit fox dens would be avoided to the maximum extent possible. In the event that the destruction of a potential den is unavoidable, a biologist qualified to conduct preactivity surveys may, after appropriate monitoring, destroy a potential den without prior approval from USFWS. Potential dens would only be destroyed in the event that construction activities would destroy the den and the den cannot be avoided. A potential den would be carefully excavated with hand tools by a qualified biologist or under the direction of a qualified biologist before proposed construction begins. If at any point during excavation a San Joaquin kit fox is discovered inside the den, the excavation activity would cease immediately and monitoring as described in the *Standard Recommendations for Protection of the San Joaquin Kit Fox Prior to or During Ground Disturbance* (U.S. Fish and Wildlife Service 1999) would resume. Destruction of the den may resume when, in the judgment of the qualified biologist, the animal has escaped from the partially destroyed den. The den would be fully excavated and then filled with dirt and compacted to ensure that kit foxes cannot reenter or use the den during the construction period. If a western burrowing owl or American badger is found during den excavation, excavation activity would cease immediately, and the California Department of Fish and Game (CDFG) would be contacted immediately for direction on how to proceed.

Limited destruction of *known* kit fox dens may be allowed, but would be avoided except where absolutely necessary. Prior to destruction of any known den, the USFWS would be notified in writing of the intent to destroy the subject den(s) and the reasons why alternate courses of action would not be possible. The USFWS would review the proposal and either concur or recommend alternate methods to avoid den destruction or reduce impacts. Destruction of known or suspected natal or pupping dens would be avoided during the breeding season (November 1 to July 31). This may result in the postponement of some construction activities. Destruction of known dens may require mitigation measures such as installation of replacement dens, as directed by USFWS. Destruction of known dens would proceed as described above for the destruction of potential dens.

Construction activities would be designed to minimize off-road vehicle traffic and limited to the smallest possible areas of disturbance. Construction personnel would make use of existing roads, trails, and previously disturbed areas whenever possible. Off-road parking and staging areas would be clearly delineated.

All vehicle traffic would be subject to a 25 mile per hour speed limit, except where posted lower. Nighttime construction activities would be avoided.

To avoid accidental entrapment of animals, the following measures would be implemented:

- All steep-sided excavations greater than 2 feet deep would be equipped with one or more earth or plank escape ramps.
- All excavations would be thoroughly inspected for animals prior to sealing or refilling to avoid accidental burial. Permanent and semi permanent structures installed in-ground or underground would be constructed so that animals would not become trapped within.
- Any pipe, culvert, or similar material with an inside diameter of 4 inches or more would be thoroughly inspected for animals prior to sealing or reconnection. If animals are found inside the materials, the material would not be removed, or moved only once to remove it

from the path of construction activity, until the animals vacate the area. Pipelines temporarily left open in place would be covered or blocked until proposed work has been completed.

Contour and restoration of disturbed areas would be performed following conclusion of construction activities. All temporary excavations would be filled in, contoured, and vegetated where practicable to restore as closely as possible the existing conditions of the site. Permanent and semi permanent construction would be blended into the surrounding landscape and vegetated where practicable. Local native plant species would be used.

To avoid attracting San Joaquin kit fox to the construction site, all trash—especially food-related items—would be deposited in closed containers or bags and regularly removed from the site.

To avoid harassment of San Joaquin kit fox by construction crews, these crews would receive environmental awareness training from a qualified biologist before construction begins. The training would include a brief review of San Joaquin kit fox, including its life history and habitat requirements, and photographs of the species would be shown (also see Bio Measure 5 for training to avoid mortality from vehicle collisions). The training would also include information on western burrowing owl and American badger, environmental concerns, and conservation measures. A fact sheet conveying this information would be prepared for distribution to all contractors, their employees, and military and agency personnel involved in construction.

Potential Disturbance of San Joaquin Kit Fox and American Badger and Temporary and Permanent Loss or Degradation of Suitable Habitat

The grassland and associated small mammal burrows in the action area provide suitable habitat for San Joaquin kit fox and American badger. No evidence of use of burrows by these species was observed during the field survey of the site, but there is some potential for their presence. Construction of the Proposed Action could remove suitable burrow sites and temporarily and permanently remove suitable foraging and burrow habitat. Removal of habitat could result in disturbance to or mortality of San Joaquin kit fox and American badger. Introduction or spread of invasive plant species from construction equipment could result in the degradation of grassland habitat. Although a small amount of grassland (0.25 acre) would be permanently removed, 0.08 acre of paved surface (from the existing roadway) would be restored to annual and perennial grasses that are native to the Camp Roberts region. The net loss of 0.17 acre of grassland habitat would not substantially affect San Joaquin kit fox or American badger. In addition, all temporarily disturbed grassland areas (0.29 acre) would be restored with annual and perennial grasses that are native to the Camp Roberts region. Bio Measures 3, 4, and 5 (discussed above) would be implemented to avoid and minimize impacts to San Joaquin kit fox and American badger during project construction. With these measures in place, potential impacts on San Joaquin kit fox and American badger from the Proposed Action would be less than significant.

Potential Increase in Injury or Mortality of San Joaquin Kit Fox from Increased Traffic Resulting from the Proposed Action

Annual live-trapping data indicate that the population of San Joaquin kit foxes at Camp Roberts declined substantially between 1988 and 2002 (National Guard Bureau and California Army National Guard 2002; U.S. Fish and Wildlife Service 2009:36). Annual live-trapping was discontinued in 2002, but night spotlighting surveys have continued. A single kit fox was observed during spotlighting in both 2003 and 2007 (U.S. Fish and Wildlife Service 2009:36). Three kit foxes have

been reported killed by vehicle strikes on East Perimeter Road since 1994 (U.S. Fish and Wildlife Service 1996; National Guard Bureau and California Army National Guard 2000; Moore pers. comm). The most recent road mortality was in 1999; a maximum of five kit foxes were captured during live-trapping activities that year (Moore pers. comm., National Guard Bureau and California Army National Guard 2000). There is some uncertainty regarding the precise number of individuals trapped because the 1999 live-trapping survey entailed two separate trapping efforts (neither the live trapping nor the roadkill occurred within the SATCOM facility). These data suggest that mortality of kit foxes from vehicle strikes can occur even when the population is very small.

The SATCOM facility is accessed through Camp Roberts from East Perimeter Road (Figure 1-1). Traffic levels on East Perimeter Road are expected to increase both during construction and upon completion of the Proposed Action. The traffic volume increase associated with construction would be temporary; increases associated with operation of the RHN would be permanent. Approximately 40 construction personnel would be required to construct the Proposed Action and would travel through Camp Roberts along East Perimeter Road to reach the construction site. This increase in daily traffic during the 3–4 month construction period could result in a temporary increase in the potential for injury or mortality of San Joaquin kit fox from vehicle strikes.

In addition, operation of the RHN would require an additional 23 personnel. The RHN would be manned 7 days a week, 24 hours a day. Seven personnel would work per 8-hour shift with an additional two personnel (nine total) during the 0700–1600 shift. Deliveries for RHN operation would likely occur once per month. The current (2010) number of personnel at SATCOM was estimated to be 80 military and civilian personnel and 51 contractors (Martin pers. comm). Delivery services are estimated to occur once per day. Accordingly, the current (2010) number of vehicles traveling to and from SATCOM during the course of normal facility operations and maintenance was estimated to be 132 round-trips daily (assuming one round-trip per person per day). With the additional 23 personnel traveling to SATCOM to operate the RHN, the number of vehicles traveling to and from SATCOM daily would increase to 155 (a 14.8 % increase). This increase in daily traffic for operation of the RHN could result in a long-term increase in the potential for injury or mortality of San Joaquin kit fox from vehicle strikes.

Because approximately 14 Army Space Command personnel will be relocating from the SATCOM site to Hawaii prior to the start of construction and operation of the RHN (Martin pers. comm.), the amount of traffic to and from the SATCOM site from construction and operation of the RHN would be partially offset. The cumulative change in traffic associated with these two circumstances would result in an increase in daily trips to and from SATCOM from 132 to 141 (a 6.8% increase; assuming one round-trip per person per day). Because there would be a small increase (6.8%) in the number of daily vehicle trips, the threat of vehicle strikes along East Perimeter Road would increase. Bio Measure 5 below would be implemented to avoid and minimize the potential for injury and mortality of kit foxes from vehicle collisions both during construction and operation of the RHN. With this measure in place, potential traffic related impacts on San Joaquin kit fox from the Proposed Action would be less than significant.

Bio Measure 5: Minimize Injury and Mortality of San Joaquin Kit Fox from Traffic on East Perimeter Road

Prior to the start of proposed construction activities, a qualified biologist would provide information to construction personnel on the need to adhere to the posted speed limits on East Perimeter Road and to slow or stop vehicles when in proximity to animals near roads. In

addition, personnel responsible for operation of the RHN would be educated regarding the need to adhere to the posted speed limits and to slow or stop vehicles when in proximity to animals. This information would be provided to RHN personnel and contractors periodically to remind them of the importance of maintaining low speeds to avoid injury or mortality of San Joaquin kit fox and other animals at Camp Roberts.

Potential Disturbance of Nesting Migratory Birds, Including Raptors, and Removal of Grassland Habitat

The grassland in the action area and the oak woodland surrounding the action area provide suitable nesting habitat for migratory birds, including raptors. No trees would be removed as part of the Proposed Action. Construction is expected to begin in January, which is just before the beginning of the breeding/nesting period for migratory birds (generally between February 1 and September 30). Construction activities and noise could result in the disturbance of nesting birds, including raptors, if present in the vicinity of construction. This disturbance could result in the incidental loss of fertile eggs or nestlings or otherwise lead to nest abandonment. Such disturbance could also violate CFGC Sections 3503 (active bird nests) and 3503.5 (active raptor nests) and the MBTA. If construction of the Proposed Action begins after February 1, Bio Measure 2 (discussed above) would be implemented prior to ground disturbance to avoid and minimize impacts to nesting migratory birds. With this measure in place, potential impacts on nesting migratory birds from the Proposed Action would be less than significant.

Construction of the Proposed Action would also result in the permanent removal of a small amount of grassland (0.25 acre) that could be used by ground nesting nesting birds. However, 0.08 acre of paved surface (from the existing roadway) would be restored as annual grassland. The net loss of 0.17 acre of grassland habitat would not substantially affect migratory birds. This impact is less than significant.

Cumulative Effects

Because there would be no impacts to natural communities or special-status plants, the Proposed Action would not contribute to cumulative effects on these biological resources. Avoidance of potential impacts to oak trees (Bio Measure 1) would ensure that the Proposed Action would not contribute to cumulative effects on oak trees. Measures to avoid potential injury and mortality of special status wildlife and minimize the temporary and permanent loss and degradation of suitable habitat (Bio Measures 2–5) would minimize the Proposed Action's contribution to cumulative effects on special-status wildlife. The Proposed Action would result in incremental contribution to cumulative effects on special-status wildlife due to the permanent loss of 0.17 acre of grassland habitat. In addition, there would be an incremental contribution to cumulative effects on San Joaquin kit fox from a small increase in traffic to the SATCOM facility for construction and operation of the Proposed Action. Because the impact to grassland is very small, the increases in traffic from construction is temporary, and the increase in traffic from operations is very small (a 6.8%) increase, the contribution to cumulative effects is less than significant.

No-Action Alternative

Under the No-Action Alternative, there would be no effect on blue oak woodland, a sensitive natural community, or on special-status plant species that could potentially occur in the blue oak woodland. In addition, there would be no construction or operation impacts on special-status wildlife or

migratory birds because the Proposed Action would not be constructed and the existing facility would remain unchanged. The No-Action Alternative would have no adverse effect on biological resources.

Cultural Resources

In September 2005, a Programmatic EA/FONSI was prepared for the SATCOM ADP (Jones & Stokes 2005). This document analyzed directed future growth of the SATCOM facility and allowed for augmentation of its capacity and capabilities to fulfill its mission. Although the RHN was not included in the ADP, it was determined that the cultural resources study conducted in support of the ADP is adequate for the Proposed Action.

Existing Conditions

In compliance with Section 106 of the NHPA, a cultural resources study was conducted in the action area to inventory and evaluate cultural resources that could be considered eligible for listing in the NRHP and that might be affected by the Proposed Action. This study entailed prefield research, consultation with Native Americans and other interested parties, archival research, a cultural resources field survey, and evaluation of the SATCOM facility for eligibility to be listed in the NRHP.

Construction of Camp Roberts began in 1941. Since that time, the facility has undergone numerous metamorphoses and served multiple purposes. An agreement was reached between the Army and the CAARNG in April 1971 whereby the CAARNG would assume management of most of the post. Under CAARNG management, the training of Reserve and NG units from all over the western United States has remained Camp Roberts' primary function.

The SATCOM facility was first established in 1961. From that time until the end of the Cold War in 1989, SATCOM was instrumental in the evolution and application of military satellite communications technology. While the arms and technology race of the Cold War is in the past, SATCOM continues its mission by providing facilities for critical command, control, communications, computer, and intelligence systems for the National Command Authority, the Joint Chiefs of Staff, warfighting commanders-in-chief, the service branches, and other federal agencies.

Although numerous cultural resource sites have been identified at Camp Roberts, none have been identified as occurring within the SATCOM site in past studies (U.S. Army Corps of Engineers 2002).

Environmental Consequences

Proposed Action

One cultural resource, the SATCOM facility, was identified and examined in the course of this study. The inception of missions and programs conducted at SATCOM largely took place during the middle of the Cold War and continue today, beyond the 1946 to 1989 period of significance. Despite its evolving state, and due to the continually changing mission over time, alteration and additions made to SATCOM over the years can be viewed as a predictable and necessary manifestation of the facility. Despite reuse of the facility grounds and the somewhat modern appearance of some of the buildings, SATCOM still retains integrity due to its mission and program contributions as a research, design, and testing facility.

The SATCOM facility was evaluated in terms of eligibility for listing in the NRHP. NRHP significance criteria applied to evaluate the facility are defined in 36 CFR 60.4, as provided below. The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and

- that are associated with events that have made a significant contribution to the broad patterns of our history; or
- that are associated with the lives of persons significant in our past; or
- that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- that have yielded, or may be likely to yield, information important in prehistory or history.

Criteria Consideration G requires properties less than 50 years old to be of exceptional importance or value in a significant historic context. Although the SATCOM facility is significant because of its role during the Cold War to provide the United States with a technologically sophisticated and advanced satellite communication capacity through research, design, testing, and application of various programs, it does not retain sufficient integrity due to changes and alterations over time. For this reason, the SATCOM facility is not eligible to the NRHP as a district (Donaldson pers. comm.) (Appendix A). Therefore the Proposed Action would have no effect on historic properties.

The Proposed Action generally would be consistent with the intended function of the resource and therefore would not significantly alter the setting or function of the SATCOM facility. Because of this, the Proposed Action would have no significant effects on any known cultural resources.

After distribution of the Draft EA, a Section 106 tribal consultation site visit occurred on November 29, 2010. Representatives of the U.S. Army and the Santa Ynez Band of Chumash Indians Native American Tribe were in attendance. During the site visit, Tribal representative determined that there would be no adverse effects to cultural resources of significance to the Tribe from the Proposed Action. The Tribal representative followed up with a formal letter stating this (Appendix C).

No further cultural resources work is recommended unless the Proposed Action or the action area is altered. Cultural Measures 1 and 2 would be incorporated during project construction to minimize impacts to potential buried cultural resources.

Cultural Measure 1: Stop Work and Consult a Qualified Archeologist if There Is an Unanticipated Discovery of Archaeological Resources during Construction

If buried cultural resources—such as chipped or ground stone, historic debris, building foundations, or human bone—are inadvertently discovered during ground-disturbing activities, work would stop in that area and within 100 feet of the find until a qualified archaeologist can assess the significance of the find and, if necessary, develops appropriate treatment measures in consultation with the appropriate agencies.

Cultural Measure 2: Stop Work and Consult a Qualified Archeologist if There Is an Unanticipated Discovery of Human Remains during Construction

If human remains of Native American origin are discovered during project construction, it would be necessary to comply with state laws relating to the disposition of Native American burials, which fall within the jurisdiction of the Native American Heritage Commission (NAHC) (California Public Resources Code [PRC] Section 5097). If any human remains are discovered or recognized in any location other than a dedicated cemetery, there would be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until:

- a. the coroner of the county has been informed and has determined that no investigation of the cause of death is required; and
- b. if the remains are of Native American origin,
 - 1) the descendants of the deceased Native Americans have made a recommendation to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in PRC Section 5097.98, or
 - 2) the NAHC was unable to identify a descendant or the descendant failed to make a recommendation within 24 hours after being notified by the commission.

According to California Health and Safety Code, six or more human burials at one location constitute a cemetery (Section 8100) and disturbance of Native American cemeteries is a felony (Section 7052). Section 7050.5 requires that construction or excavation be stopped in the vicinity of discovered human remains until the coroner can determine whether the remains are those of a Native American. If the remains are determined to be Native American, the coroner must contact the California NAHC.

Cumulative Effects

Because the Proposed Action would have no effect on historic properties and is not anticipated to impact any buried archeological resources or human remains, there would be no contribution to cumulative effects on cultural resources.

No-Action Alternative

Under the No-Action Alternative, there would be no ground-disturbing activities that could damage undiscovered cultural resources. The Proposed Action would not be constructed, and the existing facility would remain unchanged. The No-Action Alternative would have no significant effect on cultural resources.

Geology and Soils

Existing Conditions

Geology

Camp Roberts lies in the California Coast Range section of the Pacific Border Physiographic Province. Geologic formations in the Camp Roberts region consist of uplifted seafloor sediments that have been compressed and consolidated to form sandstone and shale. Weathering of these materials has created numerous hills and valleys with variable slopes. The predominant geologic formation is the Paso Robles Formation, which is widely distributed on both sides of the Salinas Valley. The formation ranges in age from late Pliocene to mid-Pleistocene. Characteristics of the formation include conglomerate sandstone, silt, clay, and limestone deposited as alluvial fan and basin deposits (California Army National Guard 2001).

According to the USGS, Camp Roberts is located in Seismic Risk Zone III, where earthquakes are expected to reach an intensity of VII and higher on the Mercalli Intensity Scale. Earthquakes of these intensities are considered moderate to intense in magnitude and generally cause considerable damage. Camp Roberts is underlain by the Riconada Fault system. This system comprises, in part, the San Marcos (Paso Robles) and Jolon Faults, which traverse the southwestern area of the installation, and the Espinosa and San Antonio Faults located northwest of the installation. Moreover, the San Andreas Fault is located approximately 25 miles east of Camp Roberts. The San Andreas Fault has been active more recently than the Riconada fault system (California Army National Guard 2001).

In 1972, the Alquist-Priolo Earthquake Fault Zoning Act was passed to prevent the construction of buildings for human occupancy on the surface trace of active faults. Earthquake fault zones are regulatory zones around active faults. The zones vary in width but average about 0.25 mile. Earthquake fault zone maps show the locations of zones; Camp Roberts is not located within an earthquake fault zone (California Department of Conservation 2004).

Soils

Based on parent material and geographic location, three main categories of soils occur at Camp Roberts: soils on alluvial fans and floodplains, soils on terraces, and soils on upland hills and mountains. Because the Proposed Action is located among upland hills, soils in this area are discussed here. In general, soils on upland hills and mountains formed from weathered sandstone and shale and are shallow to moderately deep on steep to very steep slopes. These soils are composed of clay loams to shale clay loams that are well to excessively well drained. The soils' high clay content causes them to have high shrink-swell potential. Depending on vegetative cover and slope severity, these soils have variable erosion potential (California Army National Guard 2001).

The soil erosion potential is largely determined by slope. The southern portion of Camp Roberts, with older, steeply dipping sedimentary rocks underlying the area, is highly to very highly susceptible to erosion. The SATCOM facility and the area around it are on soils with high erosion potential (California Army National Guard 2001).

Environmental Consequences

Proposed Action

Geology

Implementation of the Proposed Action would result in the installation of three 9.2-meter Ku-Band antennas at the SATCOM facility. These structures would require additional personnel who would be at risk of exposure to potential seismic hazards. New structures would be built in accordance with applicable building codes and state and federal regulations related to the structural integrity of structures in seismically active areas. Such conformity would minimize the risk of exposure of personnel in the event that an earthquake occurs. Therefore, this impact is less than significant.

Soils

Construction of some components of the Proposed Action would require grading and cut-and-fill activities for site preparation. Trenching would be required for replacement of utilities. Some of these activities would take place on the slopes and/or top of a steep hill. Construction activities could activate soil erosion processes in the area and contribute to decreases in slope stability. Slope stability could be decreased if cut-and-fill slopes are not suitable for the conditions or because of the occurrence of landslides, soil creep, and adverse bedrock layering. Grading, construction, the addition of water to slopes, or combinations of these activities may reactivate ancient landslide deposits.

The Proposed Action would result in a change in the slope of the access road. The slope of the existing road ranges from 15.5% near the base to approximately 7% near the top of the hill. The proposed road would have a continuous slope of approximately 14% from the base of the hill to the proposed pad. This degree of slope would be slightly steeper than preferred, but is necessitated by the existing slope of the hill and the distance between the base of the road and the proposed pad, and what is financially feasible.

Construction could result in soil erosion by disturbing the soil surface and removing vegetative cover. Because the Proposed Action would be located on the top and slopes of a steep hill where there are fine sandy to silty soils and where it would be difficult to revegetate after disturbance, an erosion control plan would be necessary to avoid soil erosion problems.

The extent and severity of soil loss from wind erosion would depend largely on the success of site rehabilitation; rehabilitation techniques used; and amount of time necessary for a permanent, stable vegetative cover to become reestablished. Regardless of the specific rehabilitation measures employed, some erosion could occur in areas of steep slopes, heavy precipitation, and high winds.

Bio Measure 4 (discussed above) and Geo Measures 1 and 2 would be implemented to avoid and minimize surface disturbance and erosion associated with construction of the Proposed Action. With these measures in place, impacts from the Proposed Action would be less than significant.

Geo Measure 1: Minimize Surface Disturbance during Construction

To the extent possible, the temporary work area would be limited to the minimum area necessary for construction activities. Topsoil would be removed and stockpiled for use during site restoration.

In sensitive areas, construction equipment that minimizes surface disturbance, soil compaction, and loss of topsoil would be used. Such equipment includes low ground-pressure tracks or tires, blade shoes, and brush rake attachments. Steep, erodible slopes would not be cleared until immediately prior to the start of proposed construction activities on these slopes.

Geo Measure 2: Prepare and Implement an Erosion Control Plan

An erosion control plan would be part of the plans and specifications for this action. General and site-specific measures would be included in the erosion control plan and implemented to minimize the effects of grading, trenching, and backfilling; to enhance rehabilitation; and to minimize erosion. These following measures would be included in the plan:

- graded areas would be the minimum size required for construction activities;
- the time between trenching and backfilling would be minimized;
- backfilling would commence immediately after lowering-in; and
- after final grading, all compacted areas would be lightly disked or raked before reseeding.

After the completion of backfilling, all disturbed areas (including temporary workspace, temporary access roads, and stockpile sites) would be restored to approximately the original grade. Any excessively steep cuts that are unstable would be graded back to an acceptable slope, or retaining walls would be installed. Topsoil stockpiled during initial site excavation would be spread over freshly graded areas.

Trench backfill would be compacted by driving tracked or rubber-tired equipment over the trench. Because compaction would still be incomplete, a roach (or crown) would be left over the trench. It would be feathered on either side to blend the trench with adjacent areas.

The RHN would be located at the top of steep slopes and the access road along the slopes would be modified. For soils on these slopes, the following measures would be implemented in addition to those listed above:

- topsoil would be replaced, leaving the seedbed rough and fertilized appropriately; and
- mulch or erosion control matting would be used to protect the seed and seedbed from wind and water erosion. Any erosion control features used would be certified weed-free and biodegradable.

Cumulative Effects

Potential geological impacts would be avoided through building new structures in accordance with applicable building codes and state and federal regulations. Potential impacts to soils would be avoided and minimized through implementation of Geo Measures 1 and 2 and would ensure that the Proposed Action's contribution to cumulative effects is less than significant.

No-Action Alternative

Under the No-Action Alternative, the Proposed Action would not be implemented, and the action area would remain unchanged. Additional personnel would not be at risk for exposure to potential seismic hazards, and the possibility of erosion at the site would remain at present levels. The No-Action Alternative would have no effect on geology or soils.

Hazardous Materials and Safety Hazards

Existing Conditions

There is no public access to the SATCOM facility or to the land surrounding the facility (U.S. Army Corps of Engineers 2002). Approximately 80 military and civilian personnel and 51 contractors work at the facility (Martin pers. comm.). Because of different work schedules and shifts, not all these people are present at the facility on a daily basis. However, the SATCOM facility is operational 24 hours a day, 7 days a week (Jones & Stokes 2005). Most exposure to hazardous materials and hazards are limited to facility personnel, except during activities involving other personnel (e.g., repair, maintenance, and construction) or special events.

Hazardous Materials

Hazardous materials are currently stored within the SATCOM site. Hazardous waste materials generated or stored onsite include waste oil, battery electrolytes, spent solvents, paint waste, explosives, and pesticide and herbicide rinse water. Diesel fuel is stored near the industrial section of the facility.

Unscreened propane tanks are located at the SATCOM site (Nakata Planning Group 2004). The U.S. Army Corps of Engineers tested floor tiles and paint from several buildings at SATCOM for asbestos and lead for the Teleport Project in 2002; these substances were found to be present (U.S. Army Corps of Engineers 2002).

Safety Hazards

Several hazards to humans exist inside and immediately outside the existing SATCOM facility. These include wildfires that begin inside or outside the facility and unexploded ordnance from training activities at Camp Roberts.

Wildfires can occur during any month of the year, but May through October is typically considered to be the period of high fire hazard. Fires can result from activities that produce sparks, such as welding, use of off-road construction equipment with defective exhaust systems, and use of vehicles equipped with catalytic converters in areas of tall grass. A firebreak to control the spread of wildfire surrounds the SATCOM facility along the existing perimeter fence.

The SATCOM facility is located in an isolated portion of Camp Roberts. Two types of training activities are conducted at Camp Roberts: live fire exercises and field training exercises. Live fire exercises involve the use of live ammunition or ordnance. Because of safety concerns, live fire exercises are highly structured, occur only at specific locations, and are tightly controlled (CAARNG 2001.) It is unlikely that these activities would occur near the SATCOM facility. There is low potential for unexploded ordnance to be present within the existing perimeter fence because of the disturbed nature of the site.

Environmental Consequences

Proposed Action

Hazardous Materials

During construction activities, hazardous materials such as gasoline, diesel fuel, oil, or paint could be spilled. Materials such as oils, lubricants, other petroleum based products, and hazardous chemicals would be stored on hard surfaces or other areas where leakage/spills would be contained.

Implementation of Haz Measure 1 would avoid and minimize hazardous waste spills and exposure to hazardous materials. PM-DCATS would require all users of hazardous materials to comply with state and federal occupational safety and health codes and regulations and to review and keep a record of material safety data sheets for site materials.

Modifications to existing structures that would be part of the Proposed Action include a new penetration in the exterior wall of Building 18031 for electrical conduit, penetrations in the roof of Building 18000 to support condenser lines (approximately 1 inch in diameter), and the addition of an elevated structural support platform for two condenser units on the roof to the substation adjacent to Building 18000. It is unlikely that these minor building modifications would result in asbestos and/or lead becoming airborne.

The existing bituminous materials making up the access road and helipad would be excavated and disposed of or contained and stored for reuse. This could be in excess of 600 cubic yards. Trash containers would be provided for general refuse such as wood-forming materials, paper trash, metals, and other standard items generated during construction.

No hazardous materials would be needed for long term operations and maintenance of the RHN or associated components. With implementation of Haz Measure 1, potential hazardous materials impacts from the Proposed Action would be less than significant.

Haz Measure 1: Prevent and Clean Up Spills

Lids would be affixed to all containers containing hazardous materials to prevent spilling of hazardous wastes. Accidental spills of hazardous material would be cleaned up immediately.

Safety Hazards

During construction or operation of the Proposed Action, fires could be accidentally ignited. The firebreak around the existing perimeter fence would help prevent the spread of wildfire out of the facility. In addition, Haz Measure 2 would be implemented to avoid and minimize the potential for construction-related wildfires from construction of the Proposed Action.

Haz Measure 2: Utilize Spark Arrests on Construction Equipment and Prohibit Smoking in the Construction Area

To avoid and minimize the potential for wildfires, construction equipment would be equipped with spark arresters maintained in effective working order, unless the engine is constructed, equipped, and maintained for the prevention of fire pursuant to PRC Section 4443. In addition, the construction contractor would prohibit smoking at the project site during construction to

reduce the chance of igniting a wildfire that could damage biological resources and structures at the SATCOM site.

The Proposed Action would be located in an area where there is a small probability that unexploded ordnance is present. Implementation of Haz Measure 3 would ensure that potential impacts from unexploded ordnance would be avoided. With Haz Measures 1, 2 and 3 implemented, potential impacts from hazardous materials and safety hazards would be less than significant.

Haz Measure 3: Provide Training on Unexploded Ordnance

Construction personnel would receive training on identifying unexploded ordnance and the appropriate response if such material is found during the course of construction.

Cumulative Effects

Because potential impacts from hazardous materials and safety hazards would be avoided through implementation of Haz Measures 1–3, there would be no contribution to cumulative effects from hazardous materials and safety hazards.

No-Action Alternative

Under the No-Action Alternative, existing conditions would remain unchanged. There would be no change to existing and hazardous materials or hazards at the SATCOM site. Accidental fires would continue to be managed by maintaining the firebreaks along the security fence. The No-Action Alternative would have no impact on hazards and hazardous materials.

Infrastructure

Existing Conditions

Roads and Parking Areas

An access road to the helipad currently exists. This road includes a 180 degree turn that limits its use by larger vehicles.

The helipad where the Proposed Action would be constructed also serves as an overflow parking area. Adequate parking is not currently available on some days in the existing designated parking areas. In addition, some of the parking lots are insufficient for the number of personnel at the buildings they support (Nakata Planning Group 2004).

Utilities

Utilities onsite were constructed in the 1940s. The electrical power system and water distribution system were upgraded in 1998. Two wells, located approximately 1 mile away, provide water for the facility. The primary well was constructed in 1996. Another well that was built in 1963 has high nitrates and is currently used only as a back-up well. A water tank in the northern portion of the facility stores water for onsite use. Current water production and storage are inadequate to respond to an emergency situation. The water tower onsite must remain full at all times in order to provide

fire suppression flows for the existing building inventory. Nine fire hydrants are located throughout the facility. There are four septic tanks, sewer lines, and a leach field onsite. A security fence surrounds the facility. Lighting along the perimeter fence was upgraded in 1998; additional lights exist within the interior of the facility. (Nakata Planning Group 2004.)

Storm Water Drainage

A series of pipes collect storm water runoff from the facility and carry the water offsite. Release points are immediately outside the existing perimeter fence. No storm water pipes or drainages that carry storm water are located in the action area.

Environmental Consequences

Proposed Action

Roads and Parking Areas

The Proposed Action would include the removal of a portion of the access road to the helipad and construction of a new portion of road. Removal of the upper section of road would provide soil to back-fill the top-most segment of the access road, thus further increasing the hilltop surface area. The new portion of road would connect the south edge of the hilltop pad to the curve in the existing road. This would eliminate the 180 degree turn in the existing road, which currently limits its use by larger vehicles needed for construction, thereby increasing access to the helipad and action area.

A finished asphalt surface and seal coat would be placed on the entire access road upon completion of installation of the antennas and end of heavy traffic. The completed access road would have a different alignment but would still allow access to the same area.

A portion of the completed pad would be available for overflow parking. With construction of the Proposed Action, the amount of available overflow parking would be similar to current conditions (based on the portion of the helipad that is striped for parking). The Proposed Action would not substantially change access to the top of the hill or the amount of overflow parking in the action area. Therefore, potential impacts from the Proposed Action would be less than significant.

Utilities

The Proposed Action would include the installation of new maintenance holes and underground fiber and power conduit. The placement of these items would involve trenching (approximately 3 feet deep) and placement of concrete supports, as well as avoiding any underground cables and pipes. The trench for the electrical and fiber conduit would extend from Building 18031 to north of the guard shack, underneath the entry road, and northeast between the eastern fence line and access road to the new pad at the top of the hill (Figure 1-3). The fiber would then be routed to Building 18000 via the existing conduit network. Utility and water lines on the top of the hill would be relocated. Other than the construction impacts from ground disturbance to install the maintenance holes and conduit, no additional impacts would occur.

A new penetration in the exterior wall of Building 18031 would be made for electrical conduit, penetrations in the roof of Building 18000 to support condenser lines, and the addition of an elevated structural support platform for the two HVAC condenser units on the roof of the substation adjacent to Building 18000.

In order to remove interferences from the viewing range of the RHN antennas, one or more perimeter light poles may need to be either relocated or shortened. Additional lighting would consist of platform access lighting (standard household grade lights) and LED aircraft warning lights. The platform access lighting would be needed for working on the antenna platforms. Additional perimeter lighting or other lights similar to the industrial grade, high-power lights on the perimeter fence would not be needed.

Electrical requirements for the RHN antennas and HVAC units would be approximately 319 kW. The distance from the power generation building to the Proposed Action would be over 700 feet, and therefore a transformer would be required in order to distribute adequate power for the RHN antennas.

The changes in utilities as a result of the Proposed Action would be minor and would have no significant effects on the human environment.

Water/Storm Water Drainage

No new potable water infrastructure would be included as part of the Proposed Action. Construction personnel would use portable restroom facilities that would be serviced by an outside company. Dust control during construction would occur through the use of a watering truck. The watering truck would be filled with water in coordination with the local site command and would only be filled during off-peak hours. Because the Proposed Action would be constructed during the fall and winter, it is unlikely that watering for dust control would be needed for the duration of construction.

Storm water drainage pipes and inlets would be constructed to control storm water runoff from the project site post-construction according to the drainage plan prepared for the Proposed Action. Since the Proposed Action would increase impervious surface, specific post construction BMPs to reduce flow velocities and provide water quality treatment would be incorporated into the drainage plan to ensure hydromodification would not occur. With BMPs in place, the changes in water use and storm water drainage as a result of the Proposed Action would be minor and would have no significant effects on the human environment.

Cumulative Effects

Because potential impacts to infrastructure would be minor changes to utilities and storm water drainage that would be localized, the incremental contribution to cumulative effects on infrastructure from the Proposed Action would be less than significant.

No-Action Alternative

Under the No-Action Alternative, there would be no change in infrastructure in the action area. The Proposed Action would not be constructed. The access road would not be modified to accommodate large vehicles; however, since this is only necessary for construction of the Proposed Action and the road would still provide access to the top of the hill, not modifying the access road would not be a significant impact.

Land Use

Existing Conditions

Camp Roberts is located in central California, in the southern portion of the Salinas River Valley. Camp Roberts is divided into two sections by U.S. Highway 101, which parallels the Salinas River. The two portions of Camp Roberts are referred to as the Main Garrison (west of the highway), and the East Garrison (east of the highway). The majority of the area bordering Camp Roberts is undeveloped and is primarily used for agriculture, rural residential, and recreation. The closest communities to the installation are San Miguel, about 4 miles southeast of the main gate in San Luis Obispo County, and Bradley, about 7 miles northwest of the main gate in Monterey County. Paso Robles, 11 miles southeast of the installation, is the largest nearby town (California Army National Guard 2001.)

The SATCOM facility is located at the southern end of Camp Roberts on East Perimeter Road (Figure 1-1). The land surrounding the SATCOM facility is used for military training activities and for grazing sheep. SATCOM is accessed through the facility's main entrance at the guardhouse on East Perimeter Road. The SATCOM facility was established in the early 1960s to operate and maintain satellite ground terminals, technical control facilities, and a telecommunication center (California Army National Guard 2001).

The SATCOM facility's security fence surrounds two main hills. The southern hill is largely an operational area that contains operations buildings, communications antennas, a machine shop, substations, a utility building, propane tanks, Ka-band terminal, and parking lots (Figure 1-2). The northern hill has a smaller operational area and an industrial area that contain teleport terminals and dishes, a water tank and pumps, a substation, and an equipment shelter. An industrial area (powerhouse, utility building, and two warehouses) and a fitness center are also located on the site. The Proposed Action would be located in the northeast corner of the SATCOM site. The current land uses of the proposed project site are a helipad, overflow parking, and open space (annual grassland).

The CAARNG has prepared an Integrated Natural Resources Management Plan (INRMP) for the Camp Roberts Training Site (California Army National Guard 2001). The INRMP is a 5-year plan that:

- guides natural resources management in support of the military training mission of Camp Roberts;
- ensures no net loss in the capability of Camp Roberts' training lands to support the military training mission; and
- satisfies legal requirements of the Sikes Act (16 USC 670a et seq., as amended).

The existing Camp Roberts INRMP addresses resources and uses of lands surrounding the existing 28-acre SATCOM site, but not the land within the site. The CAARNG is in the process of updating its INRMP for Camp Roberts. Although the INRMP does not strictly apply to the SATCOM site, natural resource practices in the INRMP are generally incorporated for projects at SATCOM, where possible.

The SATCOM ADP is currently being implemented. The purpose of the ADP is to provide a plan for the SATCOM site that sets forth a strategy to address immediate needs for facility optimization and to provide longer-term development direction to accommodate additional communications needs associated with enhanced mission definition and associated equipment systems.

Environmental Consequences

Proposed Action

The Proposed Action would be consistent with the current land use within the SATCOM facility, and the land use associated with the Proposed Action would be consistent with activities and operations over the last 40 years.

The Proposed Action would be constructed inside the existing fence in a partially developed area. Construction of the Proposed Action would result in the net loss of 0.17 acre of grassland (0.25 acre of grassland would be converted to developed area and 0.08 acre of paved area would be restored to grassland). The grassland converted to developed area would no longer provide habitat for some of the plant and wildlife species that currently exist there. Impacts on special-status species resulting from changes in land use are discussed in the “Biological Resources” section. The conversion of natural habitat to additional components of the SATCOM facility would not result in any effects on land use activities (sheep grazing, military training, and hunting) that occur at Camp Roberts.

Cumulative Effects

The cumulative effect from conversion of grassland to paved area was discussed above in the cumulative section for Biological Resources. Because the Proposed Action would have no effect on land use, there would be no contribution to cumulative effects.

No-Action Alternative

Under the No-Action Alternative, there would be no change in land use within the SATCOM facility. The Proposed Action would not be implemented, and the facility would remain unchanged. Therefore, the No-Action Alternative would have no impact on land use.

Noise

Existing Conditions

Because of its remote location, the SATCOM facility is isolated from many sources of noise. The current (2010) number of personnel at SATCOM was estimated to be 80 military and civilian personnel and 51 contractors (Martin pers. comm). The surrounding land is used for military training and grazing sheep. Training activities can occasionally be heard at SATCOM.

Sources of noise within the SATCOM facility include vehicles, generators, pumps, motors for air conditioning units, and a machine shop. Sensitive noise receptors include SATCOM personnel and wildlife. Noise-related effects on wildlife are addressed in the “Biological Resources” section.

Environmental Consequences

Proposed Action

During construction of the Proposed Action, heavy vehicles and equipment would be used to prepare the site for and construct project components. Anticipated construction equipment that

would be used includes a bulldozer, backhoe, an excavator, a crane, and concrete trucks. Construction would take place Monday through Friday between 0700 and 1700 hours.

Increased noise from equipment during construction of the Proposed Action could affect sensitive receptors. Hearing damage could result from excessive sound exposure. Because most of the SATCOM personnel and contractors work inside, the majority would not be exposed to excessive sound levels. Noise Measure 1 (described below) would be implemented to avoid and minimize noise impacts to personnel and contractors that work at or near the construction site. Because sensitive receptors such as residences, schools, and hospitals are not located near the action area, these receptors would not be affected by increased noise levels associated with proposed construction. Construction of the Proposed Action would occur over a 3- to 4-month period. Effects from construction noise associated with the Proposed Action would be temporary and minor.

Upon completion of the Proposed Action, additional operational noise is expected to occur. Twenty-three new personnel would be required for operation of the RHN; however approximately 14 personnel associated with Army Space Command are relocating to Hawaii prior to construction of the Proposed Action due to decreased operations at SATCOM (removal of a satellite dish and demolition of a building). Therefore, the number of vehicles and related noise onsite would be partially offset by this decrease in personnel. Two additional air conditioning units would be installed to cool the new RHN facilities. Consequently, the noise from air conditioning motors would increase with implementation of the Proposed Action. The noise from additional vehicles and air conditioning units would not be excessive and would not be an adverse affect. Potential noise impacts from the Proposed Action would be less than significant.

Noise Measure 1. Provide Earplugs if Necessary

If necessary or requested, earplugs would be provided to SATCOM personnel that work outside near the construction site to avoid exposure to excessive sound during construction.

Cumulative Effects

Because potential noise would be minor and would be avoided through implementation of Noise Measure 1, there would be no contribution to cumulative effects from the Proposed Action.

No-Action Alternative

Under the No-Action Alternative, there would be no change in ambient noise levels in the action area. The No-Action Alternative would have no impact on ambient noise levels.

Visual Resources

Existing Conditions

The action area is located in the southeast portion of the Main Garrison of Camp Roberts. Rolling hills dominated by annual grassland and blue oak woodland vegetation communities surround the SATCOM facility. The SATCOM facility comprises two operational areas located on hilltops, with logistical/industrial areas located in the valley at the base of the hills. These areas are connected by a primary road system. A mixture of building types (cinder block and masonry, brick-faced, and

corrugated metal) is present at the facility. Landscape features are sparse and uncoordinated throughout the majority of the facility. In addition to the grassland and oak woodland communities surrounding the facility, a number of paved roads and unpaved paths that traverse the surrounding hills are also visible from the facility.

The closest public views of the SATCOM facility are from vineyards approximately 2 miles to the northeast; existing buildings are not discernable from that distance (U.S. Army Corps of Engineers 2002). Within Camp Roberts, the hills surrounding SATCOM partially obstruct views of the site. Views of the facility from the east are obstructed by a hill adjacent to the site.

Environmental Consequences

Proposed Action

The Proposed Action would be located among other buildings and antennas at SATCOM. There are no public vantage points of the proposed site. Personnel working and training at Camp Roberts are accustomed to seeing the SATCOM facility. The new antennas would be similar to existing structures within the SATCOM site. The new antennas are unlikely to be noticed from the vineyards that are 2 miles east of SATCOM due to the distance and hills between the project site and the vineyards. Depending on elevation, vegetation cover, and proximity, the new antennas could be visible from the west and south.

In addition to the proposed antennas, other components of the Proposed Action would result in visual changes within the SATCOM site. A retaining wall would be constructed along the western and northwestern edge of the new pad and the configuration of the access road to the top of the hill would be modified. Because the existing facility is characterized by a mixture of building styles, types, and materials, there would be no aesthetic conflict between new and existing structures. Therefore, there would be no impact on visual resources.

Cumulative Effects

The Proposed Action is consistent with the buildings and other antennas at SATCOM and would have limited visibility to areas outside of Camp Roberts. Therefore, the Proposed Action would have no effect on visual resources and there would be no contribution to cumulative effects.

No-Action Alternative

Under the No-Action Alternative, there would be no visual changes to the action area. No new antennas would be constructed. The No-Action Alternative would have no impact on visual resources.

Water Resources

Existing Conditions

Surface Water

Annual precipitation is approximately 13 inches at the nearby Paso Robles Federal Aviation Administration Airport (Natural Resources Conservation Service 2010). Nearly all of the area's precipitation occurs from October through April (California Army National Guard 2001).

Camp Roberts is located in the southern portion of the Salinas River Valley in the Salinas River Watershed. Three rivers (Salinas, Nacimiento, and San Antonio) and one creek (San Marcos) traverse Camp Roberts. The northeastern portion of the installation drains into the Salinas River, which flows northwest across the northern portion of Camp Roberts. The Nacimiento River flows northeast to its confluence with the Salinas River at East Garrison. The San Antonio River follows the northwest border of the training site and joins the Salinas River just north of the Camp Roberts boundary. San Marcos Creek flows along the southern boundary of Camp Roberts and enters the Salinas River southeast of the installation (California Army National Guard 2001.)

The SATCOM facility straddles the border of the Nacimiento and San Marcos Creek subwatersheds (California Army National Guard 2001). Several ephemeral streams within the SATCOM site carry water from a few hours to a few days after heavy rains. Three small seasonal wetlands are located in narrow drainages at the SATCOM site and appear to be fed solely by discharges from air conditioning units. SATCOM is not located within or immediately adjacent to a floodplain, wetland, or coastal zone. A storm water infrastructure for the area around Building 18000 manages surface water from precipitation in order to reduce soil erosion and to limit runoff from leaving the SATCOM facility (U.S. Army Corps of Engineers 2002). There are no streams or wetlands in the action area.

Groundwater

The Paso Robles groundwater basin underlies the southern portion of Camp Roberts (where the SATCOM facility is located). The Paso Robles groundwater basin is characterized by thick continental gravel, sand, and clay, which yield high volumes of water. Water wells in the Paso Robles groundwater basin range in depth from 50 to 250 feet and yield an average of 500 gallons per minute. The aquifer is recharged mostly through percolation from streams; precipitation, irrigation water, and treated wastewater contribute to recharge as well. Groundwater from this basin supplies the agricultural community in the region and provides a source of drinking water to local communities. (California Army National Guard 2001.)

Environmental Consequences

Proposed Action

Surface Water

Surface waters can be affected either directly by actions that occur within waterways or that alter them, or indirectly by erosion, sedimentation, and storm water discharge. The Proposed Action would not occur within or near a water of the United States or any other waterway. The potential

exists for construction-related activities to convey soil or contaminants offsite and into surface waters. Potential impacts on surface waters would be avoided or minimized through designing the proposed RHN to manage surface water (such as including erosion control at the end of outlets) so that drainage would not cause or contribute to surface water problems offsite and implementation of Water Measures 1 and 2 (described below), which would avoid or minimize impacts on surface waters. With project design features and implementation of Water Measures 1 and 2, impacts from the Proposed Action would be less than significant.

Groundwater

During construction, contaminants that are spilled could, if left uncontained, percolate through the soil and enter the aquifer. Such infiltration can be affected by either percolation of rainfall or natural flow of the spilled material. Haz Measure 1 (discussed above) and Water Measure 2 (described below) would avoid or minimize potential impacts from the Proposed Action on groundwater. As most construction would occur during the wet season, extreme caution should be exhibited when working with hazardous substances to reduce the chances of precipitation conveying discharged contaminants into the aquifer. With implementation of Haz Measure 1 and Water Measures 1 and 2, impacts from the Proposed Action on water resources would be less than significant.

Water Measure 1. Prepare and Implement a Storm Water Pollution Prevention Plan

Because the Proposed Action would result in the disturbance of at least 1 acre, it would require coverage under the State Water Resources Control Board's (State Water Board) National Pollutant Discharge Elimination System (NPDES) General Permit for Discharges Associated with Construction Activity (General Construction Permit). Obtaining coverage under the General Construction Permit requires that the PD-MCATS file a Notice of Intent to the State Water Board and prepare a storm water pollution prevention plan (SWPPP). The SWPPP would identify the potential onsite sources of sediment and other pollutants that could affect the quality of storm water discharges and describe the BMPs that would be implemented to control or avoid accelerated erosion, sedimentation, and other pollutants in storm water as well as non-storm water discharges during and after project construction. The specific BMPs that would be incorporated into the SWPPP would be determined during the final design phase of the Proposed Action, and would be implemented by the construction contractor in accordance with the Central Coast Regional Water Quality Control Board *Erosion and Sediment Control Field Manual*. Preparation of the SWPPP would satisfy Section 402 of the federal Clean Water Act (NPDES) for nonpoint source pollutant discharges caused by construction activities.

Water Measure 2. Prepare and Implement a Hazardous Material Spill Prevention, Control, and Countermeasure Plan

As part of compliance with the NPDES General Construction Permit, the contractor would prepare a Hazardous Material Spill Prevention, Control, and Countermeasure Plan for the use of construction equipment for the Proposed Action. This plan would minimize the potential for, and the effects of, spills of hazardous, toxic, or petroleum substances during construction of the Proposed Action. The plan would describe storage procedures and construction site housekeeping practices and would identify the parties responsible for monitoring and spill response. The measures and monitoring procedures required under the General Construction Permit would minimize the potential for release of hazardous materials to the environment.

Cumulative Effects

Potential impacts to water resources would be avoided and minimized through designing the Proposed Action to manage surface water runoff and implementation of Water Measures 1 and 2. The Proposed Action may have an incremental effect on nearby surface waters due to the timing of construction during the winter and spring, when rainfall could carry additional sediment from disturbed areas at the project site; however, the Proposed Action's contribution to cumulative effects would be considered less than significant.

No-Action Alternative

Under the No-Action Alternative, the Proposed Action would not be constructed and there would be no potential to impact surface water offsite. The No-Action Alternative would have no impact on groundwater.

Findings

After an examination of all resource areas, it has been determined that the Proposed Action would have no effects on agricultural resources, environmental justice, population and housing, public services, recreation, socioeconomics, and transportation. Upon further analyses it was determined that, with mitigation measures implemented, there would be no significant effects on air quality and climate change; biological resources; cultural resources; geology and soils; hazardous materials, hazardous wastes, and safety hazards; infrastructure; land use; noise; visual resources; or water resources from the Proposed Action.

Conclusions

Based on the environmental analyses contained in this EA, it has been determined that with implementation of mitigation measures, construction and operation of the Proposed Action would not have any significant direct, indirect, or cumulative impacts on the human environment. Because no significant impacts would result from implementing the Proposed Action, an EIS is not required and will not be prepared. These EA findings and conclusions are the basis for the FONSI.

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Personal Communications

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Appendix A
Correspondence with Agencies



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Ventura Fish and Wildlife Office
2493 Portola Road, Suite B
Ventura, California 93003

IN REPLY REFER TO:
81440-2010-SL-0360

July 23, 2010

Jennifer Haire
ICF International
630 K Street, Suite 400
Sacramento, California 95814

Subject: Species List for the Regional Hub Node Project at Camp Roberts, Monterey and San Luis Obispo Counties, California

Dear Ms. Haire:

This letter is in response to your request, dated June 30, 2010, and received by our office via electronic mail on July 6, 2010, for a list of endangered, threatened, and other special status species that may occur in vicinity of the SATCOM facility at Camp Roberts, Monterey and San Luis Obispo Counties, California. The lead agency on this project is the U.S. Army, Program Manager Defense Communications and Army Transmission Systems (Army).

The enclosed list of species fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act of 1973, as amended (Act). The Army, as the designated Federal representative for the project, has the responsibility to review its proposed activities and determine whether any listed species may be affected. If the project is a construction project¹ which may require an environmental impact statement, the Army has the responsibility to prepare a biological assessment to make a determination of the effects of the action on the listed species or critical habitat. If the Army determines that a listed species or critical habitat is likely to be adversely affected, it should request, in writing through our office, formal consultation pursuant to section 7 of the Act. Informal consultation may be used to exchange information and resolve conflicts with respect to threatened or endangered species or their critical habitat prior to a written request for formal consultation. During this review process, the Army may engage in planning efforts but may not make any irreversible commitment of resources. Such a commitment could constitute a violation of section 7(d) of the Act.

¹ "Construction project" means any major Federal action which significantly affects the quality of the human environment designed primarily to result in the building of structures such as dams, buildings, roads, pipelines, and channels. This includes Federal actions such as permits, grants, licenses, or other forms of Federal authorizations or approval which may result in construction.

Jennifer Haire

2

We recommend that you review information in the California Department of Fish and Game's Natural Diversity Data Base and contact the California Department of Fish and Game at (916) 324-3812 for information on other sensitive species that may occur in this area.

If you have any questions, please call Christopher Diel of my staff at (805) 644-1766, extension 305.

Sincerely,

A handwritten signature in black ink that reads "Douglas M. Cooper" followed by "for" written in a smaller, cursive script below it.

Douglas M. Cooper
Deputy Assistant Field Supervisor

Enclosure

**LISTED SPECIES WHICH MAY OCCUR AT
CAMP ROBERTS, MONTEREY AND SAN LUIS OBISPO COUNTIES,
CALIFORNIA**

<u>Mammals</u>		<u>Federal Listing</u>
San Joaquin kit fox	<i>Vulpes macrotis mutica</i>	E
<u>Birds</u>		
California condor	<i>Gymnogyps californianus</i>	E
<u>Invertebrates</u>		
Longhorn fairy shrimp	<i>Branchinecta longiantenna</i>	E
Vernal pool fairy shrimp	<i>Branchinecta lynchi</i>	T
Conservancy fairy shrimp	<i>Branchinecta conservatio</i>	E
<u>Plants</u>		
Purple amole	<i>Chlorogalum purpureum</i> var. <i>purpureum</i>	T
Camatta Canyon amole	<i>Chlorogalum purpureum</i> var. <i>reductum</i>	T

Key:

E Endangered
T Threatened



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY

UNITED STATES ARMY GARRISON, PRESIDIO OF MONTEREY
DIRECTORATE OF PUBLIC WORKS
BLDG 4463 GIGLING RD – P.O. BOX 5004
MONTEREY, CA 93944-5004

October 4, 2010

Directorate of Public Works

Diane Noda
Executive Field Supervisor
U.S. Fish and Wildlife Service
2493 Portola Road, Suite B
Ventura, California 93003

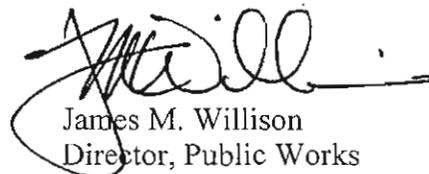
Dear Ms. Noda:

The purpose of this letter is to request U.S. Fish and Wildlife Service (FWS) concurrence that the proposed Regional Hub Node Project at the Satellite Communication Station (SATCOM) at Camp Roberts is not likely to adversely affect the federally endangered San Joaquin kit fox (*Vulpes macrotis mutica*), the endangered California condor (*Gymnogyps californianus*) or the threatened vernal fairy shrimp (*Branchinecta lynchi*), or critical habitat for any of these species. Our determination that the project will not affect these species is based on the project description detailed in the enclosed Environmental Assessment (EA). In addition, the US Army will employ the avoidance and mitigation measures outlined in the 1996 *Biological Opinion for Normal Operations and Construction Activities in Support of the Satellite Communications Facility at Camp Roberts, San Luis Obispo and Monterey Counties, California* (1-8-96-F-25), as amended, during the installation of the hub node, and provide FWS with a copy of the San Joaquin kit fox pre-construction activity survey.

Please review the enclosed project description at your earliest convenience and provide your concurrence.

We appreciate your continued cooperation and support. Any questions or comments should be directed to Natural Resources Specialist, Ms. Lorrie Madison at (831) 242-6736 (lorrie.madison@us.army.mil).

Sincerely,



James M. Willison
Director, Public Works

Enclosure

cc: DM PCATS
SATCOM
NETCOM



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
US ARMY GARRISON, PRESIDIO OF MONTEREY
DIRECTORATE OF PUBLIC WORKS
BLDG 4463 GIGLING RD - P.O. BOX 5004
MONTEREY, CA 93944-5004

MAY 27 2010

Directorate of Public Works

Milford Wayne Donaldson
California Office of Historic Preservation
Post Office Box 94289
Sacramento, California 94296-0001

Dear Mr. Donaldson:

The purpose of this letter is to consult with the California State Historic Preservation Office (SHPO) in accordance with Section 106 of the National Historic Preservation Act for proposed work at the SATCOM facility at Camp Roberts, San Luis Obispo County, California. The US Army intends to expand the facility by constructing three buildings, demolishing one, and constructing two terminal fields. The project area and Area of Potential Effect (APE) are provided at Figures 1 - 3.

SATCOM is a restricted US Army facility located within Camp Roberts, a California Army National Guard installation. The SATCOM facility is being enlarged from 23 acres to 81 acres. The current fence will be extended to enclose an additional 53 acres. Two projects are planned (Figure 3). The first project is the Area Development Plan that includes three new buildings: a new Operations Building (43,000sf), a Repair and Utilities building (5,736sf), and a new Administration building (6,880sf). Each will require parking lots, road expansion and enhancements, and utilities. To be demolished is Building 18006 (2884sf). Additionally, there will be a new satellite terminal field. The second project is the Regional Hub Node project that will install another satellite terminal field upon an existing helipad.

Larry Moore, environmental protection specialist and archeologist from this office, conducted a cultural resource survey of the APE. His report is enclosed. No archeological sites were found during the survey. A limitation of his report is that no photographs were taken of the buildings or structures due to the restricted nature of the facility; photography of buildings was not allowed by the SATCOM security officer.

SATCOM was created in 1961 during the Cold War as an intelligence gathering site; it was one of the first sites to use new satellite technologies in gathering intelligence. Moore documents that there have been many changes to the SATCOM facility such that it no longer has integrity; it is a much different facility today than in the 1960s, especially since its current mission is combat support. The SATCOM facility is not eligible to the National Register of Historic Places as a district.

Table One lists the current SATCOM buildings, structures, and features. For those items older than 45 years, an evaluation for eligibility to the National Register of Historic Places is given:

Table One: List of buildings, structures and features at SATCOM.

Building	Description	Sq feet	Yr built	Evaluation
18000	COMMO CTR	19386	1963	no-integrity
18001	FLAGPOLE		1980	
18003	WTR SUP BLD NP	44	1963	no-integrity

18005	WTR SUP BLD NP	180	1963	no-integrity
18006	COMP ITEM REP	2884	1964	Not eligible
18007	HEAT FUEL UNGD		1963	no-integrity
18008	PWR PLT BLDG	512	1977	
18009	SEP TK/DRN FLD		1963	no-integrity
18010	SUBSTATION		1963	no-integrity
18011	SEP TK/DRN FLD		1963	no-integrity
18012	COMMO CTR	10349	1984	
18014	SEP TK/DRN FLD		1984	
18015	SUBSTATION		1984	
18016	STORAGE GP INST	2000	1984	
18021	ACCESS CNT FAC	225	1997	
18022	SEP TK/DRN FLD		1986	
18023	PHYS FIT CTR	700	1989	
18023	SEP TOIL/SHOWER	700	1989	
18024	TOWER		1990	
18027	TOWER		1997	
18029	STR SHED GP INS	576	1982	
18031	PWR PLT BLDG	5780	2000	
18332	COMMO CTR	252	2003	
18333	PWR PLT BLDG	252	2003	
18334	PAD	54	2003	
18335	PAD	54	2003	
45290	OPEN STR INST	1398	1976	
81260	TRANSFORMERS		1989	
83120	SEP TK/DRN FLD		1989	
85130	ROADS, UNPAVED	1952	1963	no-integrity
85215	NONORG PK PAVD	3204	1963	no-integrity
87120	DRAINAGE DITCH		1977	
87150	RETAIN STRUCTUR		1963	no-integrity
87175	RETAIN STRUCTUR		1990	
87190	ROADS, PAVED	143	1978	
91110	LAND HELD PUR	23	1980	
96044	ARMY LODGING	8800	1997	
97008	ARMY LODGING	7700	1997	
FENC1	FENCING/WALLS		1963	no-integrity
GASL1	GAS PIPELINES		1963	no-integrity
GATE1	ENTRANCE GATE		1980	
ROAD1	ROADS, PAVED	5166	1963	no-integrity
SEWR1	SANITARY SEWER		1976	
STRM1	STORM SEWER		1976	
UGEL1	UNG ELECT LINES		1977	
WALK1	SIDEWALKS PVD	154	1963	no-integrity
WATR1	WATER DIST POT		1963	no-integrity
XFMR1	TRANSFORMERS		1990	
XLIT1	EXT LIGHTING		1963	no-integrity

As noted there have been numerous upgrades to the facility since the 1960s. The basic infrastructure of the facility--septic tanks, walkways, water tanks, pipes, walls, roads, utilities--have all been changed over time due to repairs, upgrades and/or replacements. Individually and collectively, they have no integrity and thus are not eligible to the National Register of Historic Places.

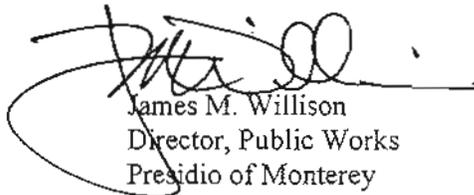
Two 1960s buildings remain for consideration. In the planned action Building 18006 (maintenance and repair shed) will be demolished; it is a Butler Building that has no architectural or historical value; it is not eligible to the National Register of Historic Places.

Building 18000 is the original communications and operations center; it is a concrete bunker-like building. The complete number and types of changes to it are not known. There was a significant renovation in 1995 that modified the interior and the roof. These modifications indicate that it no longer has the required integrity for eligibility to the National Register of Historic Places. This building is not being repaired or modified under the Area Development Plan or the Regional Hub Node projects, and will continue to be used.

The U.S Army has applied the criteria of effect found in 36 CFR 800 and determined that these actions will Not Effect any historic properties.

We request your agency review for the action described above. Please contact Ms. Lenore Grover-Bullington at (831) 242-7925 or e-mail l.groverbullington@us.army.mil should you require further information.

Sincerely,



James M. Willison
Director, Public Works
Presidio of Monterey

Enclosures



Legend
Structures
Fences
Boundary

SATCOM - Camp Roberts Boundary

0 180 360 720 Feet

Figure 1: SATCOM located on the Adelaida Quad map. Blue line is the lease boundary, mostly not fenced. APE is the green line.

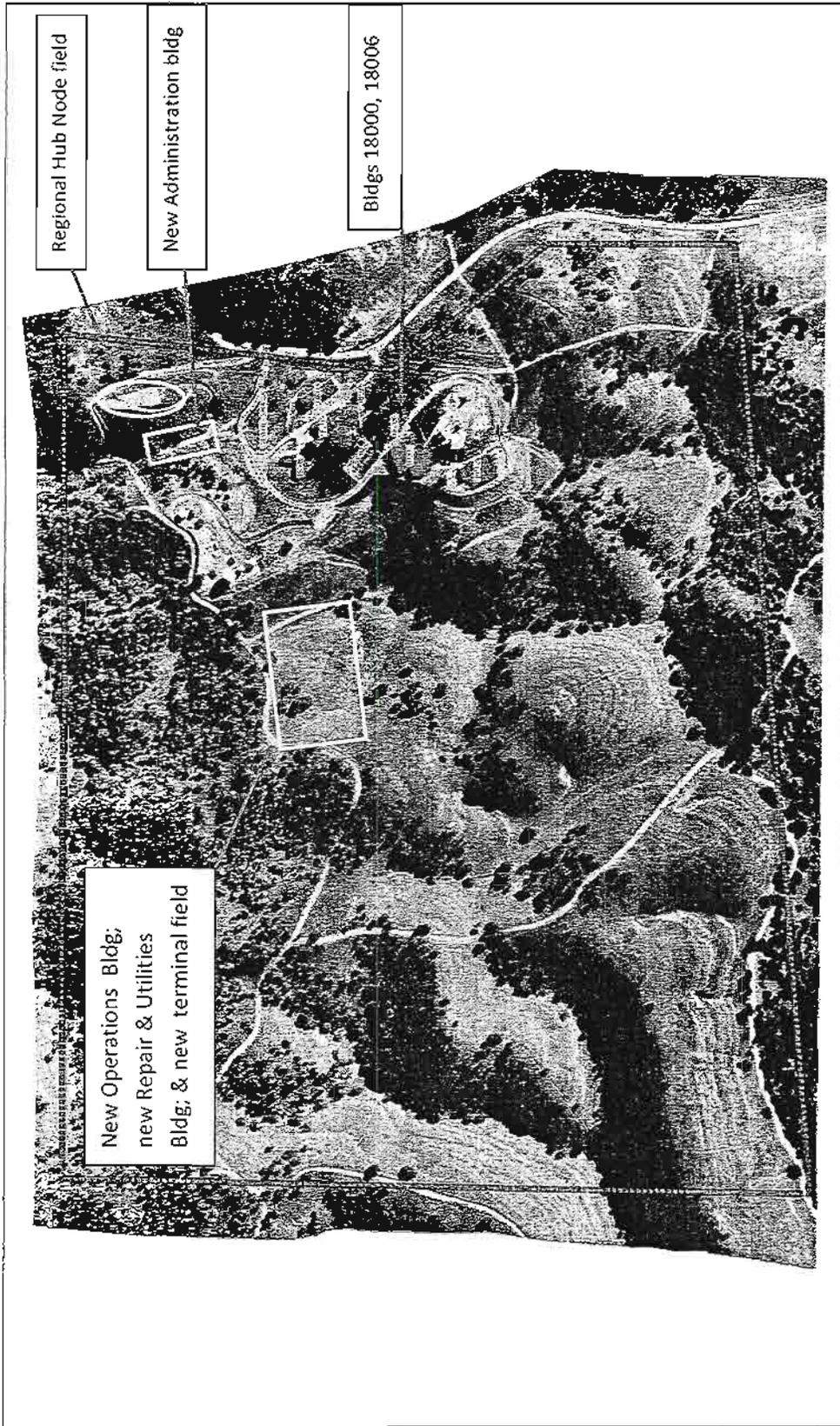


Figure 2: SATCOM layout and proposed construction and demolition areas.

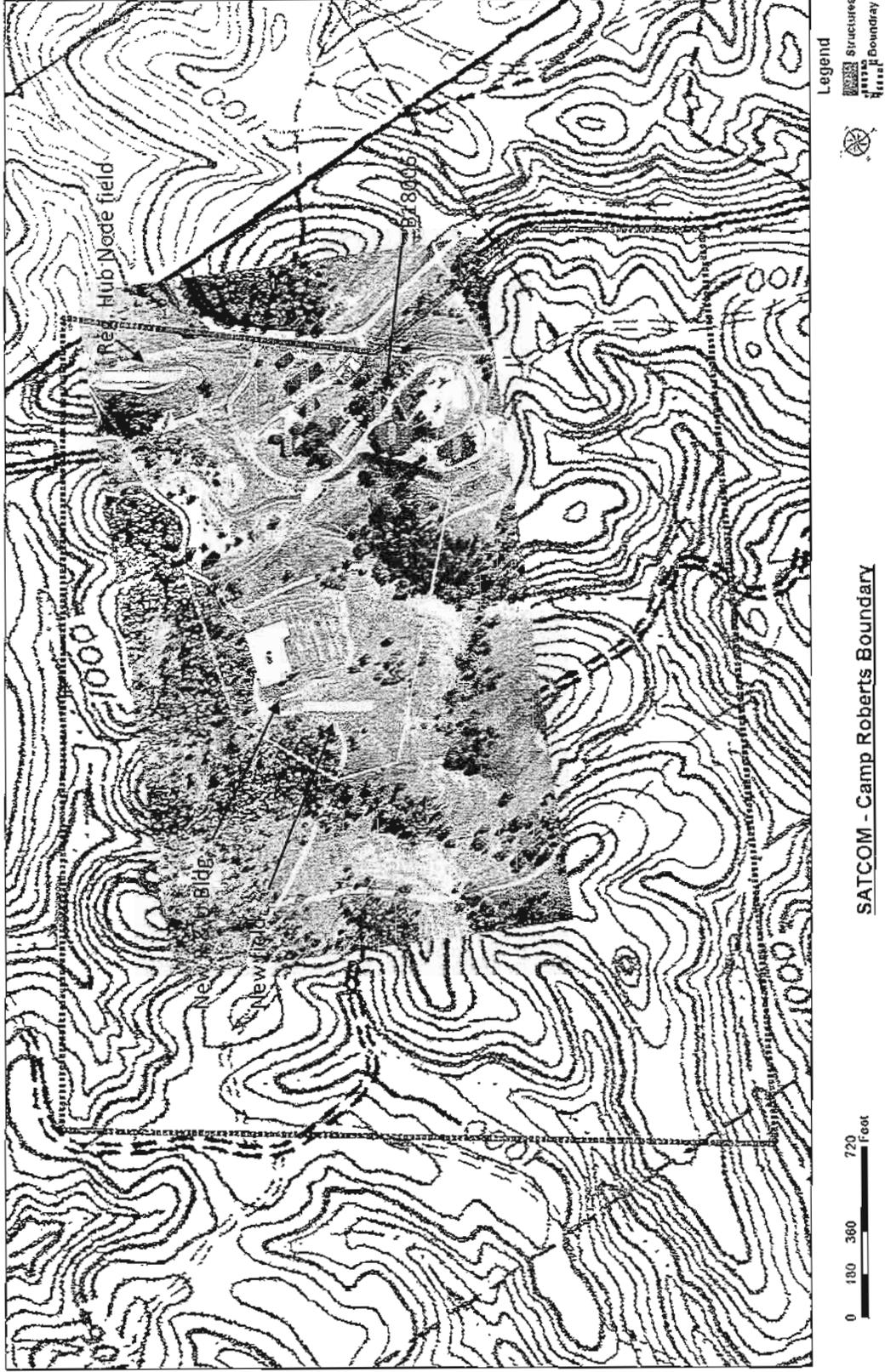


Figure 3: Conceptual layout of the SATCOM Area Development Plan and Regional Hub Node.

**Cultural Resource Inventory, SATCOM Expansion,
Camp Roberts, San Luis Obispo County, CA**

By
Lawrence E Moore
Archeologist/Environmental Protection Specialist
Dept of Public Works, Environmental Division
US Army Garrison, Presidio of Monterey
4463 Gigling RD, Monterey CA 93944-5004
Phone: 831 242-7925



May 25, 2010

Summary

This report documents a cultural resource inventory of the proposed expansion of the Satellite Communications (SATCOM) facility at Camp Roberts in San Luis Obispo County, California (Figures 1, 2, and 3). The Army intends to construct several new structures and demolish one. In compliance with Section 106 of the National Historic Preservation Act (NHPA), the purpose of the inventory was to identify cultural resources within the project area that are or may qualify as historic properties, and, whether any such properties may be impacted by construction and demolition. The proposed expansion covers approximately 53 acres and this survey covered the entire Area of Potential Effect (Figure 1).

No archeological sites were found and no buildings, structures, or features older than 45 years are eligible to the National Register of Historic Places. This finding corrects a previous public statement that was false and misleading. One limitation of this study is that no photographs were taken of the facility or any of its architecture due to its current restricted status.

Proposed Expansion

SATCOM is a restricted US Army facility located within Camp Roberts, a California Army National Guard installation. Currently, the 28 acre facility is enclosed by a fence; the expansion will eventually extend the fence to enclose a total of 81 acres. Two projects are planned (Figure 3). The first is the Area Development Plan that includes three new buildings: a new Operations Building (43,000sf), a Repair and Utilities building (5,736sf), and a new Administration building (6,880sf). Each will require parking lots, road expansion and enhancements, and utilities. To be demolished is Building 18006 (2884sf), built in 1964, that is a maintenance shed in the Butler Building style. Additionally, there will be a new satellite terminal field. The second project is the Regional Hub Node project that will install another satellite field upon an existing helipad; it is about one acre in extent, including enhancing road access to the site location.

New structures to be placed inside the current compound include: the Regional Hub Node project, and the new Administration building. Outside the current fence will be the new Operations building, the new repair and utilities building, and a new satellite terminal field.

The Area Development Plan was first described in 2004 (Nakata Planning Group LLC 2004) and it was followed by an *Environmental Assessment and Finding of No Significant Impact* (Jones and Stokes 2005) that was done in compliance to the National Environmental Policy Act (NEPA). The Regional Hub Node project team is currently preparing another Environmental Assessment.

This cultural resource inventory supports the proposed projects described above. Combined, these two projects are a substantial expansion of the facility.

The Environmental Setting

Camp Roberts is located in the rolling hills along the border of San Luis Obispo and Monterey Counties within the Coastal Ranges. It is at the lower end of the Nacimiento Valley where the Nacimiento River flows into the Salinas River. SATCOM is located in a remote portion within the training areas. The appropriate USGS map is the Adelaida Quadrangle (7.5 minute; digital, no date). Elevation at the center of the facility is approximately 1115 feet above sea level.

Within the current compound the project area is developed with introduced grasses as green space; outside the compound vegetation is Blue Oak woodland and open grassland.

Soils of the project area are Nacimiento series inside the current compound; outside of it are similar Balcom series soils. The Nacimiento series consists of moderately deep, well drained, soils that formed in material weathered from calcareous shale and sandstone. Nacimiento soils are on rolling uplands and have mostly complex slopes of 9 to 75 percent. The Balcom series consists of moderately deep, well drained, soils that formed in material that weathered from soft, calcareous shale and sandstone. Balcom soils are on hills and have slopes of 5 to 75 percent (NRCS soil maps and descriptions at <http://websoilsurvey.nrcs.usda.gov/app/> and <http://soils.usda.gov/>).

Cultural Background Research

The archaeological and historical chronology of the region is well developed. The California Central Coast is covered thoroughly in Jones and Klar 2007 (chapter nine). Terry Jones' prehistoric model includes a Millingstone period (3500 B.C. – 8000 B.C.), an Early period (3500 B.C. – 600 B.C.), a Middle period (600 B.C. – A.D. 1000), a Middle/Late transition (A.D. 1000 – 1200), and a Late period (A.D. 1200 – 1769), concluding with Spanish colonization. The historic era includes Spanish, Mexican and American subdivisions. The history of Camp Roberts is described in the Integrated Cultural Resource Management Plan for the installation (Jones and Stokes 2004). The base began in 1941 as World War II began. The Camp Roberts facility that is now called SATCOM began in 1961, and its original mission was to gather intelligence during the Cold War era. Today, a system of SATCOM facilities worldwide support

the communication needs of combat units for in-theater operations.

The Native Americans associated with the project area are members of the Salinan tribe, a non-federally recognized tribe.

An internal file search was done at the environmental office at the Presidio of Monterey which also includes files from Fort Lewis that previously administered the facility. No archaeological sites are known within the project area or nearby. Prior cultural resources studies within and adjacent to the facility are reports by Russell (1993) and Foster (1995) that were done for water, power, and lighting upgrades. These studies did not find any archaeological sites or identify any historic properties.

Prior consultations under Section 106 of the NHPA regarding SATCOM have been done periodically over many years. These include the following:

1. COE931105D (1993): Power and lighting upgrades
2. USA951013A (1995): Maintenance activities on building 18012
3. USA951013B (1995): Repair and replacement activities, building 18000
4. USA951226A (1996): Demolition of building 18002 (guard shack)
5. COE951214A (1996): Water delivery system installation
6. USA970527A (1997): Demolition of buildings 18013 (storage shed) and 18030 (gas station).
7. USA040217E (2004): Satellite dish installation, Teleport project. This project demolished building 18300 and shelters 18017 and 18018.

The Archeological Study

This cultural resource inventory involved two studies, an archeological assessment of the APE and an assessment of buildings and structures. Both were done in April 2010.

An archeological survey of the APE was appropriate as the upland location and environmental setting is conducive to prehistoric sites and possibly historic ones. A one hundred percent walkover of the APE property was conducted. Exposed soil visibility was good, approximately thirty percent. No archeological resources were seen.

Architectural Statement

Table One lists the current SATCOM buildings, structures, and features. For those items older than 45 years an evaluation for eligibility to the National Register of Historic Places (NRHP) is given:

Table One: List of buildings, structures and features at SATCOM.

Building	Description	Sq feet	Yr built	Evaluation
18000	COMMO CTR	19386	1963	no-integrity
18001	FLAGPOLE		1980	
18003	WTR SUP BLD NP	44	1963	no-integrity

18005	WTR SUP BLD NP	180	1963	no-integrity
18006	COMP ITEM REP	2884	1964	Not eligible
18007	HEAT FUEL UNGD		1963	no-integrity
18008	PWR PLT BLDG	512	1977	
18009	SEP TK/DRN FLD		1963	no-integrity
18010	SUBSTATION		1963	no-integrity
18011	SEP TK/DRN FLD		1963	no-integrity
18012	COMMO CTR	10349	1984	
18014	SEP TK/DRN FLD		1984	
18015	SUBSTATION		1984	
18016	STORAGE GP INST	2000	1984	
18021	ACCESS CNT FAC	225	1997	
18022	SEP TK/DRN FLD		1986	
18023	PHYS FIT CTR	700	1989	
18023	SEP TOIL/SHOWER	700	1989	
18024	TOWER		1990	
18027	TOWER		1997	
18029	STR SHED GP INS	576	1982	
18031	PWR PLT BLDG	5780	2000	
18332	COMMO CTR	252	2003	
18333	PWR PLT BLDG	252	2003	
18334	PAD	54	2003	
18335	PAD	54	2003	
45290	OPEN STR INST	1398	1976	
81260	TRANSFORMERS		1989	
83120	SEP TK/DRN FLD		1989	
85130	ROADS, UNPAVED	1952	1963	no-integrity
85215	NONORG PK PAVD	3204	1963	no-integrity
87120	DRAINAGE DITCH		1977	
87150	RETAIN STRUCTUR		1963	no-integrity
87175	RETAIN STRUCTUR		1990	
87190	ROADS, PAVED	143	1978	
91110	LAND HELD PUR	23	1980	
96044	ARMY LODGING	8800	1997	
97008	ARMY LODGING	7700	1997	
FENC1	FENCING/WALLS		1963	no-integrity
GASL1	GAS PIPELINES		1963	no-integrity
GATE1	ENTRANCE GATE		1980	
ROAD1	ROADS, PAVED	5166	1963	no-integrity
SEWR1	SANITARY SEWER		1976	
STRM1	STORM SEWER		1976	
UGEL1	UNG ELECT LINES		1977	
WALK1	SIDEWALKS PVD	154	1963	no-integrity
WATR1	WATER DIST POT		1963	no-integrity
XFMR1	TRANSFORMERS		1990	
XLIT1	EXT LIGHTING		1963	no-integrity

Several waves of construction at SATCOM are evident from this list (years 1963-1964, 1976-

1977, 1980, 1984-1990, 1997, 2000, and 2003). Operations in 1961-1962 were likely conducted from temporary structures. The facility has continued to grow as various tasks were added to its main missions (which also have changed over time). All these waves have added more buildings and structures, added and changed roads, parking lots, walkways, fencing, and lighting; added or replaced terminal fields and replaced obsolete equipment, and, overall, transformed the facility greatly. Today, SATCOM is far from a Cold War Era intelligence gathering center; it is a center for aggressive, heated, combat support.

The first eleven items on the list appear to have been constructed in the early 1960s. Three have been replaced with newer construction (18001, 18007); the original guard shack (18002) was replaced by 18021. Seven of the eleven are still in use, although maintenance records indicate they have all been modified or updated; these, like all the other early infrastructure items, have no integrity due to many modifications and upgrades. All the 1960s built infrastructure items listed on Table One that have “no-integrity” are not eligible to the NRHP.

Two early buildings (18000 and 18006) remain for consideration. Building 18006 (repair and maintenance building) is planned to be demolished and replaced; it is a Butler Building that has no architectural or historical value; it is not eligible to the NRHP.

Building 18000 is the original communications and operations center; it is a concrete bunker-like building that looks like it could withstand a rocket attack. The complete number and types of changes to it are not known. There was a significant renovation in 1995 (see above consultation #3) that modified the interior and the roof. These modifications indicate that it no longer has the required integrity for eligibility to the NRHP. This building is not being repaired or modified under the Area Development Plan or the Regional Hub Node projects, and will continue to be used.

Discussion

The above review has been necessary because the question of whether or not SATCOM, as a collection of buildings, structures and features, is eligible to the National Register of Historic Places (NRHP) as a district needs to be addressed due to its association with the Cold War Era. The simple answer is that the SATCOM “facility” does not have the required integrity of original design, buildings, infrastructure, mission, and character because there have been too many changes to the whole collection.

This decision is important because it corrects two public comments that have been made over the years about the SATCOM facility. In the Jones and Stokes (2005) Environmental Assessment (EA) for the Area Development Plan was the following statement:

“The SATCOM facility is recommended eligible under NRHP Criterion A and meets the requirements of Criteria Consideration G because of its role during the Cold War to provide the U.S. with a technologically sophisticated and advanced satellite communication capacity through research, design, testing, and application of various programs (pg. 3-32).”

How this statement made it through the various reviews that are done to complete an EA is not

known. Regardless, it was never the intent of the US Army to make such a recommendation, and, NEPA documents are not the appropriate place to be making such evaluations. The proper format for such statements is in documents exchanged between the US Army and the California State Historic Preservation Office (SHPO) under the NHPA legislation. None of the consultations listed above discuss or claim the “facility” to be an historic property; those documents all state that no historic properties are present and the use of Consideration G has never been previously invoked.

Complicating the above issue is that a second EA (Tetra Tech 2008) reiterated the above issue:

“[I]n the *SATCOM Area Development Plan Programmatic Environmental Assessment*... the SATCOM facility itself was recorded as a historic cultural resource due to its role during the Cold War. Under Criteria Consideration g, buildings associated with Cold War activities and less than 50 years old can be considered historic resources and eligible for NRHP listing. Therefore, even though the buildings at the SATCOM Station are less than 50 years old, the facility’s association with the Cold War and continuing “mission and program contributions as a research, design, and testing facility” (Jones and Stokes 2005) have made it eligible for the NRHP under Criterion A and Criteria Consideration g, as provided above. It appears that the SHPO has not concurred with this recommendation... (pg 3-13)”

Again, how this statement made it through the various reviews that are done to complete an EA is not known. Tetra Tech recognized the incomplete nature of the recommendation--no SHPO consultation--but did not question it.

For both EAs above a Findings of No Significant Impact was issued in the belief that there would be no impacts to any historic properties.

Conclusion

This cultural resource inventory supports the SATCOM Area Development Plan and the Regional Hub Node projects. No archeological sites were found during the study. The buildings, structures, and features at SATCOM that are older than 45 years are not eligible to the NRHP because they either lack integrity or have no architectural or historical value. Likewise, the facility itself, as a collective entity, does not constitute a district that could be considered for NRHP eligibility.

References Cited

Foster, Lee

1995 *SATCOM Water Distribution System, Camp Roberts, San Luis Obispo County, California: Cultural Resources Survey and Investigation*. U. S Army Corps of Engineers, Sacramento District.

Jones, Terry L., and Kathryn A. Klar (eds.)

2007 *California Prehistory: Colonization, Culture, and Complexity*. Altamira Press, Lanham, MD.

Jones & Stokes, Inc.

2004 *Integrated Cultural Resources Management Plan for the California Army National Guard, 2005–2009*. Jones and Stokes Inc., Sacramento, for the California Army National Guard Environmental Management, Sacramento, CA.

2005 *Final Programmatic Environmental Assessment and Finding of No Significant Impact: SATCOM Area Development Plan, Camp Roberts, California*. Jones & Stokes Inc., Sacramento, CA for the Nakata Planning Group, LLC, Colorado Springs, CO.

Nakata Planning Group, LLC

2004 *Area Development Plan, SATCOM Complex Expansion, Camp Roberts, California*. Nakata Planning Group, LLC, Colorado Springs, CO for the US Army Network Enterprise Technology Command, Fort Huachuca, AZ.

Russell, Jane

1993 *Power and Lighting Upgrades to U. S. Army Information Systems Command satellite Communications Facility*. Cultural Resource Letter Report, Jones and Stokes Associates, Inc., Sacramento CA, for the U S Army Corps of Engineers, Sacramento District.

Tetra Tech Inc.

2008 *Environmental Assessment of KA-Band Satellite Transmit and Receive System Earth Terminal, Satellite Communications Station, Camp Roberts, California*. Tetra Tech Inc., San Francisco CA, for L-3 Communications Services Group, Virginia Beach, VA.

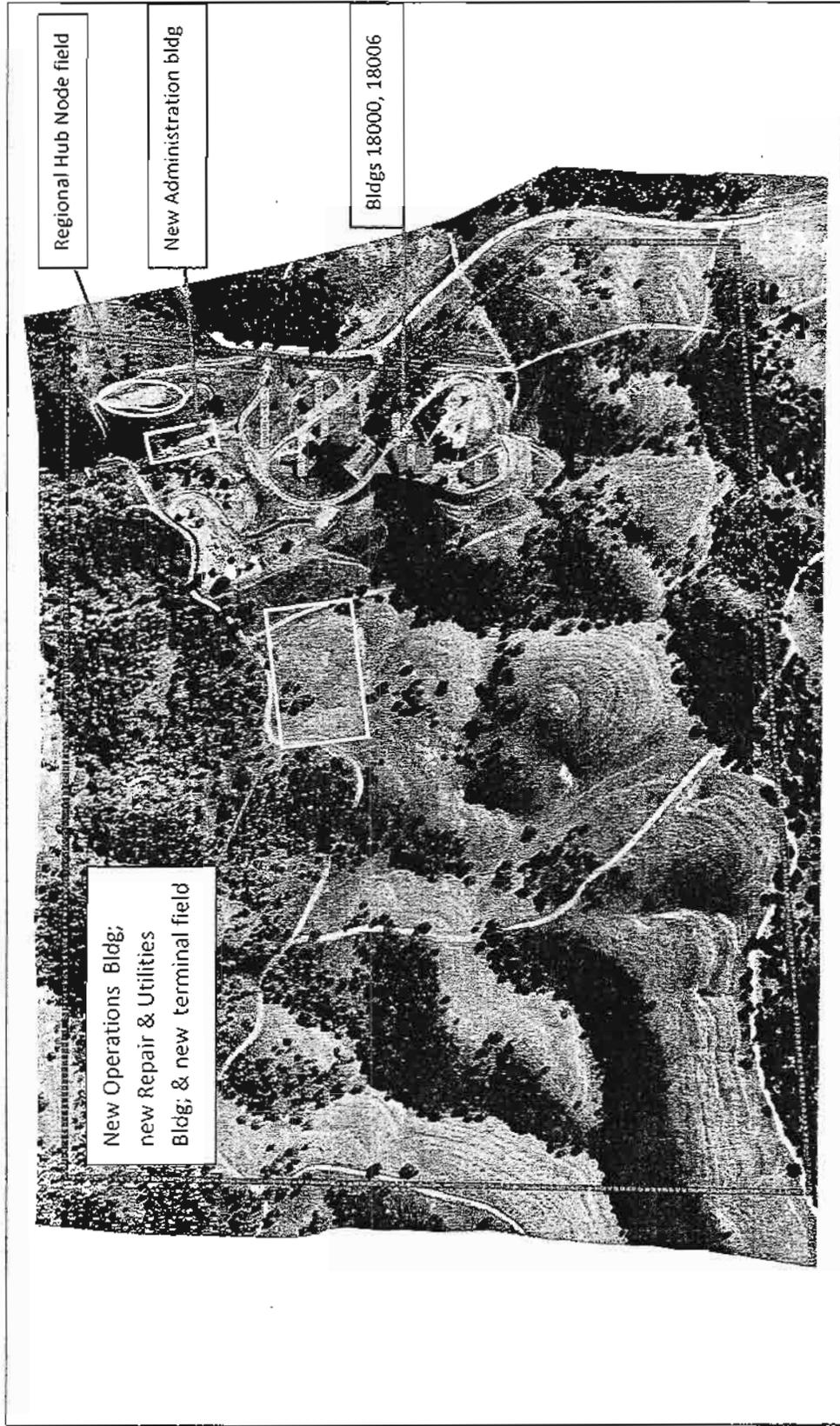


Legend
Structures
Lease Boundary
Fence Boundary

SATCOM - Camp Roberts Boundary

0 100 300 720 Feet

Figure 1: SATCOM located on the Adelaida Quad map. Blue line is the lease boundary, mostly not fenced. APE is the green line.



Legend

-  Structures
-  Boundary

SATCOM - Camp Roberts Boundary

0 180 360 720 Feet

Figure 2: SATCOM layout and proposed construction and demolition areas.



Figure 3: Conceptual layout of the SATCOM Area Development Plan and Regional Hub Node.

**OFFICE OF HISTORIC PRESERVATION
DEPARTMENT OF PARKS AND RECREATION**

P.O. BOX 942896
SACRAMENTO, CA 94296-0001
(916) 653-6624 Fax: (916) 653-9824
calshpo@ohp.parks.ca.gov
www.ohp.parks.ca.gov



16 July 2010

In reply refer to: USA100617A

James M. Willison
Director, Public Works
Presidio of Monterey
Building 4463 Gigling Rd, P.O. Box 5004
Monterey, CA 93944-5004

Re: Section 106 Consultation for the Expansion of the SATCOM Facility Camp
Roberts, San Luis Obispo County, CA

Dear Mr. Willison:

Thank you for your letter of 27 May 2010 requesting my review and comment pursuant to the National Historic Preservation Act of 1966 as amended and the implementing regulations in 36 CFR 800 in regard to the above referenced undertaking. Specifically, you are seeking my concurrence with the US Army's determination finding that the above mentioned undertaking will result in No Effect on Historic Properties.

As I presently understand it, the undertaking consists of construction of three buildings, demolishing one building, and constructing two terminal fields at the SATCOM facility at Camp Roberts. The building which will be constructed will require parking lots, road expansion and enhancements, and utilities.

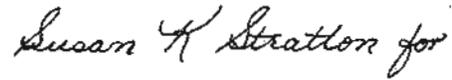
The Army established the APE as shown in Figures 1-3 which includes the boundaries of the SATCOM facility. I find this sufficient pursuant to 36 CFR 800.4(1)(a).

Within the APE, Larry Moore, the Army's environmental protection specialist and archaeologist, identified 17 buildings of sufficient age to be considered for inclusion in the National Register of Historic Places (NRHP) and evaluated the complex of buildings as a district. Constructed in 1961 during the Cold War, as an intelligence gathering site, it was one of the first sites to use new satellite technologies in gathering intelligence. Despite its significance, the facility does not retain sufficient integrity due to the changes and alterations over time. I concur with the determination of eligibility. Additionally, the installation archaeologist did not identify any archaeological sites within the SATCOM boundaries.

In the future, I would recommend the Army use a historian or architectural historian who meets the *Secretary of Interior's Standards and Guidelines for Professional Qualifications* to evaluate built environment resources.

I look forward to future consultation regarding historic properties. If you have any questions, please contact Amanda Blosser of my staff at (916) 445-7048 or e-mail at ablosser@parks.ca.gov.

Sincerely,

A handwritten signature in cursive script that reads "Susan H. Stratton for".

Milford Wayne Donaldson, FAIA
State Historic Preservation Officer

MWD:ab

Appendix B
Air Quality Appendix

South Central Coast Climate and Meteorology

SLO County is located in the SCCAB, which is comprised of three counties: SLO, Santa Barbara, and Ventura Counties.

The climate of SLO County is generally characterized as Mediterranean, with warm, dry summers and cooler, relatively damp winters. Temperatures are mild throughout the year along the coast. Due to distance from the Pacific Ocean and the coastal ranges, inland areas experience a wider range of temperature conditions. Maximum summer temperatures average about 70 degrees Fahrenheit near the coast, while inland valleys are often in the high 90s. Minimum winter temperatures average from the low 30s along the coast to the low 20s inland.

About 90 percent of the total annual rainfall in SLO County occurs from November through April. Rainfall amounts can vary considerably among different regions in the county. In the Coastal Plain, annual rainfall averages 16 to 28 inches, while the Upper Salinas River Valley generally receives about 12 to 20 inches of rain. The Carrizo Plain is the driest area of the county with less than 12 inches of rain in a typical year.

Airflow plays an important role in the movement and dispersion of pollutants. In spring and summer months, when the Pacific High pressure system attains its greatest strength, onshore winds from the northwest generally prevail during the day. At night, as the sea breeze dies, weak drainage winds flow down the coastal mountains and valleys to form a light, easterly land breeze.

In the fall, onshore surface winds decline and the marine layer grows shallow, allowing an occasional reversal to a weak offshore flow. This, along with the diurnal alternation of land-sea breeze circulation, can sometimes cause pollutants to accumulate over the ocean for a period of one or more days and are subsequently carried back onshore with the return of the sea breeze. Strong inversions can form at this time, which can trap pollutants near the surface.

This effect is intensified when the Pacific High weakens or moves inland to the east. This may cause pollutant-laden air to be transported into the county from the east and southeast. This can occur over a period of several days until the high pressure system returns to its normal location, breaking the pattern. The onset of the typical daytime sea breeze can bring these pollutants back onshore, where they can combine with local emissions to cause high pollutant concentrations.

In addition, surface inversions are a common occurrence throughout the county during the winter. As the morning sun warms the earth and the air near the ground, the inversion lifts, gradually dissipating as the day progresses.

During the late spring and early summer months, cool air over the ocean can intrude under the relatively warmer air over land, causing a marine inversion. These inversions can restrict dispersion along the coast, but they are typically shallow and will dissipate with surface heating. In contrast, in the summertime the presence of the Pacific high pressure cell can cause the air mass aloft to sink. As the air descends, compressional heating warms it to a temperature higher than the air below. This

highly stable atmospheric condition, termed a subsidence inversion, can act as a nearly impenetrable lid to the vertical mixing of pollutants (San Luis Obispo County Air Pollution Control District 2001).

Statewide and SLOAPCD Applicable Rules and Regulations

Statewide Rules and Regulations

Diesel Idling Restrictions for Construction Phases: The following idle restricting measures are required for the construction phase of projects:

- Idling Restrictions for On-road Vehicles:

Section 2485 of Title 13, the California Code of Regulations limits diesel-fueled commercial motor vehicles that operate in the State of California with gross vehicular weight ratings of greater than 10,000 pounds and licensed for operation on highways. It applies to California and non-California based vehicles. In general, the regulation specifies that drivers of said vehicles:

1. Shall not idle the vehicle's primary diesel engine for greater than 5 minutes at any location, except as noted in Subsection (d) of the regulation; and,
2. Shall not operate a diesel-fueled auxiliary power system (APS) to power a heater, air conditioner, or any ancillary equipment on that vehicle during sleeping or resting in a sleeper berth for greater than 5.0 minutes at any location when within 100 feet of a restricted area, except as noted in Subsection (d) of the regulation.

Signs must be posted in the designated queuing areas and job sites to remind drivers of the 5 minute idling limit. The specific requirements and exceptions in the regulation can be reviewed at the following web site: www.arb.ca.gov/msprog/truck-idling/2485.pdf.

- Idling Restrictions for off-Road Equipment

Off-road diesel equipment shall comply with the 5 minute idling restriction identified in Section 2449(d)(3) of the California Air Resources Board's In-Use off-Road Diesel regulation: www.arb.ca.gov/regact/2007/ordiesl07/frooal.pdf.

Signs shall be posted in the designated queuing areas and job sites to remind off-road equipment operators of the 5 minute idling limit.

Naturally Occurring Asbestos: Under the ARB Air Toxics Control Measure (ATCM) for Construction, Grading, Quarrying, and Surface Mining Operations, prior to any grading activities a geologic evaluation should be conducted to determine if NOA is present within the area that will be disturbed. If NOA is not present, an exemption request must be filed with the District. If NOA is found at the site, the applicant must comply with all requirements outlined in the Asbestos ATCM. This may include development of an Asbestos Dust Mitigation Plan and an Asbestos Health and Safety Program for approval by the SLOAPCD.

Asbestos Demolition & Renovation: Pursuant to 40CFR61.145, *Standard for Demolition and Renovation*, each owner or operator of a demolition or renovation activity shall provide the ARB or SLOAPCD with written notice of intention to demolish or renovate. Prior to the commencement of the demolition or renovation, the structure or will be thoroughly inspected to determine the presence of Asbestos Containing Material (ACM).

Permits: Portable equipment and engines 50 horsepower (hp) or greater, used during construction activities will require California statewide portable equipment registration (issued by the ARB) or an Air District permit. The following list is provided as a guide to equipment and operations that may have permitting requirements, but should not be viewed as exclusive:

- Power screens, conveyors, diesel engines, and/or crushers;
- Portable generators and equipment with engines that are 50 hp or greater;
- Internal combustion engines;
- Unconfined abrasive blasting operations;
- Concrete batch plants;
- Rock and pavement crushing;
- Tub grinders; and
- Trommel screens.

SLOCAPCD Rules and Regulations

Sensitive Receptors: The proximity of sensitive receptors to a construction site may require a more comprehensive evaluation of toxic DPM impacts and if deemed necessary by the SLOCAPCD, more aggressive implementation of mitigation measures than described below in the diesel idling section. Areas where sensitive receptors are most likely to spend time include schools, parks and playgrounds, day care centers, nursing homes, hospitals, and residential dwelling units. Sensitive receptor locations for a project need to be identified during the CEQA review process and mitigation to minimize toxic DPM impacts need to be defined. The types of construction projects that typically require a more comprehensive evaluation include large-scale, long-term projects that occur within 1,000 feet of a sensitive receptor locations. The proposed project is not anticipated to impact any sensitive receptors.

Diesel Idling Restrictions for Construction Phases: The following idle restricting measures are required for the construction phase of projects:

- Idling Restrictions near Sensitive Receptors for Both on and off-Road Equipment:
 1. Staging and queuing areas shall not be located within 1,000 feet of sensitive receptors;
 2. Diesel idling within 1,000 feet of sensitive receptors is not permitted;
 3. Use of alternative fueled equipment is recommended whenever possible; and,
 4. Signs that specify the no idling requirements must be posted and enforced at the construction site.

Naturally Occurring Asbestos: Per the ARB ATCMs, a geologic evaluation should be conducted to determine if NOA is present within the area that will be disturbed. If NOA is not present, an exemption request must be filed with the District. If NOA is found at the site, the applicant must comply with all requirements outlined in the Asbestos ATCM. This may include development of an Asbestos Dust Mitigation Plan and an Asbestos Health and Safety Program for approval by the SLOCAPCD.

Developmental Burning: SLOCAPCD regulations prohibit developmental burning of vegetative material within San Luis Obispo (SLO) County.

Appendix C
Comment Letters



MBUAPCD

Monterey Bay Unified Air Pollution Control District
Serving Monterey, San Benito, and Santa Cruz Counties

24580 Silver Cloud Court
Monterey, CA 93940
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September 23, 2010

Ms. Lenore Grover-Bullington
U.S. Army Garrison, Presidio of Monterey
Directorate of Public Works, Environmental Division
P. O. Box 5004
Monterey, CA 93944

Sent Electronically to:
l.groverbullington@us.army.mil
Original Sent by First Class Mail

SUBJECT: SATCOM Regional Hub Node Project at Camp Roberts, California,

Dear Ms. Grover-Bullington:

Because the project is located entirely in San Luis Obispo County, the Monterey Bay Unified Air Pollution Control District submits no comments on the project. However, as prior comment letters to the U. S. Army have indicated, applicable Air District thresholds of significance are expressed in lbs/day, not tons/year. Please see Table 5-3 of the Air District's CEQA Air Quality Guidelines (February 2008), which is included in Attachment A of this letter.

Thank you for circulating the document for our review.

Best regards,

Jean Getchell
Supervising Planner
Planning and Air Monitoring Division

Attachment

cc: Aeron Arlin Genet, San Luis Obispo County APCD

ATTACHMENT A

**TABLE 5-3
THRESHOLDS OF SIGNIFICANCE
FOR CRITERIA POLLUTANTS OF CONCERN
OPERATIONAL IMPACTS***

Pollutant Source	Threshold(s) of Significance
VOC	137 lb/day (direct + indirect)
NO _x , as NO ₂	137 lb/day (direct + indirect)
PM ₁₀	82 lb/day (on-site)**
	AAQS exceeded along unpaved roads (off-site)
CO	LOS at intersection/road segment degrades from D or better to E or F <u>or</u> V/C ratio at intersection/road segment at LOS E or F increases by 0.05 or more <u>or</u> delay at intersection at LOS E or F increases by 10 seconds or more <u>or</u> reserve capacity at unsignalized intersection at LOS E or F decreases by 50 or more***
	550 lb/day (direct)***
SO _x , as SO ₂	150 lb/day (direct)**

- * Projects that emit other criteria pollutant emissions would have a significant impact if emissions would cause or substantially contribute to the violation of State or national AAQS. Criteria pollutant emissions could also have a significant impact if they would alter air movement, moisture, temperature, climate, or create objectionable odors in substantial concentrations. When estimating project emissions, local or project-specific conditions should be considered.
- ** The District's 82 lb/day operational phase threshold of significance applies only to onsite emissions and project-related exceedances along unpaved roads. These impacts are generally less than significant. On large development projects, almost all travel is on paved roads (0% unpaved), and entrained road dust from vehicular travel can exceed the significance threshold. Please contact the Air District to discuss estimating emissions from vehicular travel on paved roads. District-approved dispersion modeling can be used to refute (or validate) a determination of significance if modeling shows that emissions would not cause or substantially contribute to an exceedance of State and national AAQS
- *** Modeling should be undertaken to determine if the project would cause or substantially contribute (550 lb/day) to exceedance of CO AAQS. If not, the project would not have a significant impact

Source: Monterey Bay Unified Air Pollution Control District.



SANTA YNEZ CHUMASH
TRIBAL ELDER'S COUNCIL

TO PROTECT AND PRESERVE TRIBAL ANCESTRY,
TRADITIONS AND CULTURE

James M. Willison
Directorate of Public Works
Bldg. 4463 Gigling Rd.
P.O. Box 5004
Monterey, Calif. 93944

11-30-2010

Re: RHN & R&U project at Camp Roberts

Mr. Willison,

The Elders Council would like to thank you for the invitation to complete a site to view the aforementioned project. Our representative Freddie Romero has informed us of the project and what it entails.

Based on the description of the work proposed for these projects, the Elders council concurs with Mr. Romero's findings and his recommendation of no adverse effects and sees no need for any further consultation concerning this work.

The Elders Council would like to thank you for concern and efforts to protect and preserve our cultural heritage. If you should have any questions or need any further assistance with this project, feel free to contact Mr. Romero At following contact info;

Freddie Romero
P.O. Box 365
Santa Ynez, Calif. 93460
805-688-7997 X37
805-403-2873

Sincerely,


Alex Valencia, Chairman
SYBCI Elders Council