U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
PALM SPRINGS-SOUTH COAST FIELD OFFICE

PUBLIC SAFETY ENTERPRISE COMMUNICATION (PSEC) PROJECT BLACK JACK, BOX CANYON, MIDLAND, PALEN-MCCOY, AND ROAD 62 COMMUNICATION SITES

ENVIRONMENTAL ASSESSMENT
DOI-BLM-CA-060-0010-0055-EA

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DATE: October 13, 2010

TITLE/PROJECT TYPE: Public Safety Enterprise Communication (PSEC) Project: Black Jack, Box Canyon, Midland, Palen-McCoy, and Road 62 Communication Sites

BLM OFFICE: Palm Springs-South Coast Field Office
1201 Bird Center Drive
Palm Springs, CA 92262

APPLICANT/PROPONENT: County of Riverside

LOCATION OF PROPOSED ACTION:

This Environmental Assessment (EA) assesses proposed actions at the following PSEC sites located on Bureau of Land Management (BLM) lands:

Black Jack Communication Site

Riverside County, California, Township 4 South, Range 20 East, Section 15. The communication site is located southwest of the Little Maria Mountains and northeast of the McCoy Mountains, approximately five miles west of Midland-Rice Road and 22 miles northwest of Blythe.

Box Canyon Communication Site

Riverside County, California, Township 6 South, Range 10 East, Section 26. The communication site is located in the Mecca Hills at the eastern end of Box Canyon, adjacent to Box Canyon Road (State Highway 195), and approximately 10 miles northeast of Mecca.

Midland Communication Site

Riverside County, California, Township 4 South, Range 19 East, Section 11. The communication site is located near the northern tip of the McCoy Mountains, adjacent to Palen Pass Road, and approximately 15 miles west of Midland-Rice Road.

Palen-McCoy Communication Site

Riverside County, California, Township 3 South, Range 19 East, Section 7. The communication site is located between the Granite Mountains, Palen Mountains, and Little Maria Mountains, approximately 1.75 miles east of Palen Pass.

Road 62 Communication Site

Riverside County, California, Township 1 South, Range 17 East, Section 32. The communication site is located at the junction of State Highway 62 and State Highway 177, approximately 22 miles north of Desert Center and 48 miles east of Twentynine Palms.

PROJECT ACREAGE

Table 1: Project Acreages

Site Name	BLM	Tribal	Private	Other Federal	State
Black Jack	0.10-acre communication site	N/A	N/A	N/A	N/A
Box Canyon	0.10-acre communication site and 3,300-foot access road (0.63 acre)	N/A	N/A	N/A	N/A
Midland	0.10-acre communication site	N/A	N/A	N/A	N/A
Palen-McCoy	0.10-acre communication site	N/A	N/A	N/A	N/A
Road 62	0.10-acre communication site	N/A	N/A	N/A	N/A
TOTAL	**1.13 acres**	**N/A**	**N/A**	**N/A**	**N/A**

Note: The access road acreage calculation for the Box Canyon site assumes a 12-foot-wide access road easement along a 3,300-foot alignment, for a total of 39,600 square feet or 0.63 acre.

U.S. GEOLOGICAL SURVEY (USGS) 7.5-MINUTE TOPOGRAPHIC MAPS

Black Jack Communication Site: Inca Quadrangle; Box Canyon Communication Site: Mortmar Quadrangle; Midland Communication Site: Arlington Mine Quadrangle; Palen-McCoy Communication Site: Palen Pass Quadrangle; and Road 62 Communication Site: Granite Pass Quadrangle.

LAND USE PLAN CONFORMANCE

In accordance with Title 43 Code of Federal Regulations 1610.5-3, the proposed action and alternatives are in conformance with the following approved land use plans: California Desert Conservation Area (CDCA) Plan (1980) Northern and Eastern Colorado Desert (NECO) Amendment (2002). NECO land use designations for each site are noted below.

Black Jack Communication Site

NECO Amendment to the CDCA Plan. The proposed site is located on lands designated as Multiple-Use Class L. No communication site plans have been adopted for this area.

Box Canyon Communication Site

NECO Amendment to the CDCA Plan. The proposed site is located on lands designated as Multiple-Use Class M. No communication site plans have been adopted for this area.

Midland Communication Site

NECO Amendment to the CDCA Plan. The proposed site is located on lands designated as Multiple-Use Class L. No communication site plans have been adopted for this area.

Palen-McCoy Communication Site

NECO Amendment to the CDCA Plan. The proposed site is located on lands designated as Multiple-Use Class M. No communication site plans have been adopted for this area.

Road 62 Communication Site

NECO Amendment to the CDCA Plan. The proposed site is located on lands designated as Multiple-Use Class M. No communication site plans have been adopted for this area.

REGULATORY COMPLIANCE

The proposed action has been assessed in accordance with applicable regulations and guidelines associated with the following issues:

Biological Resources

A Biological Resources Assessment for each of the project areas was prepared by PBS&J. The purpose of the assessment was to determine the affected environment at each site and to identify expected effects to biological resources, especially those related to sensitive resources. The assessment also identified additional steps that may be required to preserve and/or avoid sensitive biological resources.

Each project area was assessed for sensitive resources as listed in applicable federal, state, and local policies and plans, including the NECO plan. In addition to these informational resources, the California Natural Diversity Database (CNDDB) and California Native Plant Society (CNPS) lists were also consulted to determine if additional sensitive resources not listed in any of the above inventories have the potential to occur at any of the project sites. Where required, focused surveys for sensitive species were conducted following established U.S. Fish and Wildlife Service (USFWS) protocols. Additional information regarding the assessment and the identified effects of the project on biological resources can be found in Sections 4 and 5 of this EA, and also within the Biological Resources Assessment prepared for this project, which is on file and available for public viewing at the BLM Palm Springs-South Coast Field Office.

Fish and Wildlife Consultation

All of the proposed project sites are located in areas of suitable habitat for desert tortoise, a species that is listed as Threatened under the Endangered Species Act. One of the project sites (Box Canyon) is located within USFWS-designated Critical Habitat for tortoise. However, the proposed project falls within the definition of actions covered by the Biological Opinion (BO) for Small Projects Affecting Desert Tortoise Habitat in Imperial, Inyo, Kern, Los Angeles, Riverside, and San Bernardino Counties (Small Projects BO; 1-8-97-F-17) and the BO for the California Desert Conservation Area Plan [Desert Tortoise] (6840 CA930(P)) (1-8-04-F-43R). Both of these BOs analyzed the potential impacts to the desert tortoise and its

designated critical habitat on BLM lands from minor construction projects, defined as projects impacting less than two acres. These biological opinions specifically covered the construction of communication facilities, such as those proposed in this EA. The terms and conditions of the Small Projects BO, as well as the desert tortoise mitigation measures from the NECO plan, have been incorporated into the mitigation measures found in Section 7 of this EA.

Cultural Resources

A Cultural Resources Assessment for each of the project areas was prepared by PBS&J. The purpose of the assessment was to identify whether any cultural resources, including Historic Properties, would be affected by the proposed action. The report was prepared in compliance with the National Environmental Policy Act (NEPA) of 1969; the National Historic Preservation Act (NHPA) of 1966, Section 106, as amended; Section 106 of the NHPA, as implemented at 36 Code of Federal Regulations (CFR) 800; and the BLM 8110 Manual Series, Identifying and Evaluating Cultural Resources. The report also reflected project-specific requirements contained within the BLM Fieldwork Authorizations. Additional information regarding the assessment and the identified effects of the proposed action on cultural resources can be found in Sections 4 and 5 of this EA.

Potential effects to resources of traditional cultural value were explored through information scoping efforts with numerous Native American Tribal groups and individuals. For each project site, a Sacred Lands File (SLF) Search was conducted by the Native American Heritage Commission (NAHC), and additional contact was made with the groups and individuals named by the NAHC.

Visual Resources

Effects to visual resources were assessed using applicable Visual Resource Management (VRM) guidelines. Only one of the proposed project sites (Box Canyon) had previously established VRM classifications assigned. Therefore, interim classifications were established as part of this EA for the remaining four sites. The VRM Site Data Sheets for each of the assessed sites can be found in Appendix B of this EA.

Visual simulations were created to help determine the before and after views of each of the project sites. Site photographs can be found with the individual Communication Site exhibits located in Appendix A of this EA, and the visual simulations are contained within Appendix B, Visual Resource Management Data. It should be noted that the towers depicted in the simulations have been generated to reflect the proposed tower height, while the overall design of each tower functions as a prototype. The actual placement of antennas may vary from site to site. Additional information regarding the VRM analysis can be found in Sections 4 and 5 of this EA.

SECTION 1: PURPOSE AND NEED OF THE PROPOSED ACTION

1.1 – Overview

The County of Riverside desires to implement an improved public safety communication system to resolve radio coverage issues for public safety emergency responders. The County's fire and law enforcement agencies currently utilize approximately 25 communication sites throughout the County to provide public safety voice and data transmission capabilities to assigned personnel in the field. As currently configured, the system provides coverage to only about 60 percent of the County and is at the end of its useful life. Population growth within the County, and particularly in areas that have been traditionally only sparsely populated, necessitates the expansion of the radio coverage footprint. The current system is no longer adequate to meet the County's coverage and capacity needs. Additionally, due to increases in the County's radio voice and data usage, additional traffic-carrying capacity is required to meet the needs of emergency services personnel in the field. The proposed PSEC project is the expansion and upgrade of the system's capabilities and its associated infrastructure. This upgraded and expanded system will allow public safety officials to share information via voice and data on-demand and in real time over all types of topography throughout the County. The project has as its principal purpose the attainment of the following objectives:

1) Provide appropriate and adequate voice and data communication coverage to County emergency services personnel and their cooperators over at least 95 percent of the County's land area.
2) Allow for interoperability between providers in a manner that assures adequate communication capability during emergency incidents, including wildfires, earthquakes, large-scale releases of hazardous substances and other natural or human-made disasters that cross jurisdictional boundaries or require multiple-agency cooperation.
3) Provide a secure voice and data communication network that is not dependent upon commercial facilities for its operation.
4) Allow for co-location of facilities with other government agencies and jurisdictions.
5) Develop the system with the fewest effects to the environment as possible, while still meeting coverage needs and project objectives.
6) Develop the system cost-effectively and in a manner that provides the highest value and public service to the County and its citizens.

To meet the above requirements, the County will be constructing and operating approximately 65 new communication facilities throughout the County and adjacent portions of San Bernardino, San Diego, and Orange Counties. The County will also be upgrading its existing facilities to accommodate the improved communication network. This EA assesses five communication facilities and/or associated infrastructure components that are proposed to be located on federal lands managed by the BLM.

1.2 – Need for Use of Federal Lands

As part of its environmental assessment and permit process, the BLM must consider whether or not a project can be feasibly accommodated on non-federal lands. In this case, the sites assessed in this EA cannot be feasibly accommodated on non-federal lands because alternative, non-federal land locations would not provide effective emergency communication services to those areas requiring coverage. Since most of the lands in this portion of the County are under the management of the BLM, alternative locations that are not on federal lands are, in many cases, simply not available. See Section 3.1.1 of this EA for a discussion of alternative locations that were considered.

Even though the proposed project is being undertaken by the County, the County and its emergency services personnel regularly provide emergency services on BLM lands as authorized by the BLM's mutual aid agreements with the County. During wildfire events and other emergencies on BLM lands, the County is an active cooperator with the BLM. The project would also provide facilities within which other federal agencies, such as the Department of Homeland Security, the Drug Enforcement Agency, the Department of Defense, and other government agencies could be collocated within the County's facilities. Therefore, even though the project is being proposed by a non-federal applicant (the County), the project presents opportunities for federal agencies to participate in furthering their own missions and duties. Also, since the County provides emergency services on BLM lands in accordance with applicable mutual aid agreements, the County would be providing a service to the BLM and the individuals and organizations that use BLM lands.

1.3 – Site-Specific Purpose and Need Requirements

The sites identified in the proposed action were selected to meet specific communication coverage requirements and also for their ability to interconnect with the larger PSEC communication network. The purpose and need for each of the proposed sites is as follows:

Black Jack Communication Site

This site will provide communication coverage to the desert valley areas northwest of Blythe, as well as coverage to the Little Maria and McCoy Mountains. Much of this area is currently without coverage. The Black Jack Communication Site will be linked to the rest of the PSEC network by microwave through the County's existing Blythe Communication Site, which is located approximately 22 miles to the southeast at the Sheriff's station in the City of Blythe.

Box Canyon Communication Site

The proposed Box Canyon Communication Site will provide coverage to a portion of the Mecca Hills and the adjacent Shavers Valley area located to the south of Interstate 10 (I-10). Much of this area is currently without coverage. An especially important area that will be covered by this site is Box Canyon Road (State Highway 195) through the Mecca Hills. This hazardous roadway is currently without any emergency services communication coverage. The Box Canyon Communication Site will be linked with the rest of the PSEC network through the County's proposed Toro Peak Communication Site. The Toro

Peak Communication Site is proposed to be located on non-BLM lands within an existing communication site complex, located approximately 30 miles to the west in the Santa Rosa Mountains.

Midland Communication Site

This site will provide communication coverage to the expansive valley area between the Little Maria, McCoy, and Palen Mountains northwest of Blythe. Currently, this area is completely without coverage. The Midland Communication Site will be linked to the rest of the PSEC network by microwave through the County's proposed Black Jack Communication Site approximately seven miles to the east.

Palen-McCoy Communication Site

This site will provide communication coverage to the northern valley area encompassed by the Little Maria, McCoy, and Palen Mountains northwest of Blythe. The site will also provide coverage to the Granite Mountains area, and the expansive valley area found to the north of the Granite and Little Maria Mountains and south of State Highway 62. Nearly all of this area is currently without coverage. The Palen-McCoy Communication Site will be linked to the rest of the PSEC network by microwave through the County's proposed Midland Communication Site approximately eight miles to the south.

Road 62 Communication Site

This site will provide communication coverage at the junction of State Highways 62 and 177, as well as to each of those roadways in west, east, and southerly directions. Nearly all of this area is currently without coverage, and both of these roadways are heavily traveled. The Road 62 site will be linked to the rest of the PSEC network by microwave through the County's existing Road 177 Communication Site approximately 12 miles to the south.

SECTION 2: DECISION TO BE MADE

The BLM will use this EA to determine the suitability of the County of Riverside's proposal to construct and operate public safety communication facilities on BLM lands. The EA will be used as a basis for decisions involving the entering into of leases with the County, the issuance of permits, and the application of restrictions or other measures to lessen identified environmental effects or to meet the adopted management goals of the BLM.

SECTION 3: ALTERNATIVES

3.1 – Alternatives Considered but Not Subjected to Detailed Analysis

A number of alternatives for the project were considered but were not carried forward for detailed analysis. Those alternatives and the reasons for their abandonment are provided below.

3.1.1 – Alternate Locations Alternative

This alternative would have built a comparable number of towers as the proposed action, but those towers would be in different locations than what has been proposed. The reasons for considering this alternative center around the possibility that the County may have been able to select different sites than the ones proposed and thus minimize or eliminate some or all of the project's impacts.

This project is somewhat different from other types of projects in that radio towers have limited options insofar as to where they can be placed while still fulfilling their intended purpose. The physical characteristics of radio science place specific constraints on where a facility can be located while still meeting radio coverage needs. Radio waves cannot travel through mountains, for example, and the strength of a signal decreases the further away one gets from a transmitter. Another consideration is the fact that radio networks are interconnected systems, meaning that each tower must be able to "see" other towers in a line-of-sight manner in order to transmit and receive signals to the rest of the network. In the case of radio, especially in an area as topographically diverse as Riverside County, there are few options in regards to tower placement if a particular area needs to be covered. This fact is particularly applicable to emergency services communication systems. In non-emergency networks (cellular telephones, etc.), a lack of coverage in a certain area is an inconvenience, whereas in an emergency services system, a lack of coverage could directly impact the ability of a provider to meet mission objectives (i.e., protection of life and property).

These facts make alternate site selection for public safety radio systems uniquely challenging. Nevertheless, the County completed a comprehensive site selection process with the goal of developing a system that provided the greatest level of radio coverage, while still minimizing environmental impacts to the greatest extent possible. For most sites, candidate locations were chosen based on their ability to provide coverage to particular areas that had been identified as critical to meeting project objectives. Most final sites began with several candidates that were identified as possible locations from which coverage objectives could be met. For the five new sites that are assessed in this EA, 12 candidate locations were initially identified, from which the five new proposed sites were ultimately selected.

Reasons for a candidate's lack of suitability and subsequent abandonment from consideration could include lack of suitable radio coverage, undesirable environmental impacts, acquisition or access constraints, cost, and other factors. Since these potential constraints could not be identified without further investigation, multiple candidates were identified for each site, with the understanding that some of the candidate locations would be dropped from consideration once a due-diligence investigation had

been conducted. In this manner, the candidate that best met project objectives with the fewest constraints could be identified and ultimately selected.

Following a rigorous constraints analysis and design process, final site selection was undertaken using all of the information gathered. The first priority for any selected site was the provision of adequate radio coverage. During the site selection process, many otherwise suitable sites were rejected because they could not provide adequate coverage to specific areas. Other sites were rejected on environmental grounds or because they could not be feasibly acquired, accessed, or constructed.

At this point, the County believes it has conducted sufficient due-diligence in the site selection process. For many sites, the supply of available candidates has essentially been exhausted and the proposed locations are the best that are available given numerous site-specific constraints. The end result of the site selection process is the proposed site locations presented and analyzed in this EA.

3.1.2 – Nonfederal Lands Alternative

As part of its environmental assessment and permit process, the BLM must consider whether or not a project can be feasibly accommodated on non-federal lands. In this case the project cannot be accommodated on non-federal lands because alternative locations outside of federal lands would not provide radio coverage to those areas requiring coverage. Since most of the lands in this portion of the County are under the management of the BLM, alternative locations that are not on federal lands are in many cases simply not available.

3.1.3 – Commercial Electric Power Provision Alternative

This alternative would provide commercial electric power to each of the proposed communication sites. Power would be brought to the sites via the installation and maintenance of aboveground utility lines mounted on traditional wooden utility poles measuring approximately 40 feet in height.

This alternative was thoroughly evaluated by the County, and was originally assumed to be part of the preferred action. However, a number of substantial constraints were identified during the assessment process and this alternative was eventually dropped from consideration.

The first constraint with this alternative is the substantial increase in the amount of impacts that would result as part of the installation and operation of commercial electric power lines to each of the five sites assessed in this EA. Since each of the sites is relatively far-removed from existing commercial power sources, the linear distance of new utility lines that would need to be installed to reach each site would be substantial. Table 2, below, provides the linear mileage requirements needed to install commercial electric power from the nearest existing power source to each of the proposed communication sites.

Table 2: Commercial Electric Power Alternative, Required Alignments

Site Name	Nearest Commercial Power Source	Linear Distance (miles)[1]	Number of Utility Poles Required[2]
Black Jack	Inca Railroad Siding, adjacent to Midland-Rice Road	6.2 miles	164
Box Canyon	Mecca Landfill, adjacent to Coachella Canal OR Cactus City Rest Area adjacent to I-10	8.4 miles	225
Midland	Proposed Black Jack Communication Site	6.4 miles	169
Palen-McCoy	Proposed Midland Communication Site	7.1 miles	188
Road 62	Existing County Road 177 Communication Site on State Highway 177 to south	11.7 miles	309
TOTALS:		**39.8 miles**	**1,055**

Notes:
1 – Linear mileage calculations were derived based on likely routes of power alignments to each of the proposed communication sites. In all cases, the potential alignments follow existing access roads to each of the sites and therefore may not represent the shortest direct linear distance to each site.
2 – Calculation uses an average of approximately 200 feet between each utility pole. Terrain features in some locations may require the installation of utility poles at closer intervals, thus increasing the actual pole count. Therefore, the quantities provided are probably less than what would actually be required and represent a best-case scenario.

Installing and operating 1,055 utility poles across a total distance of 39.8 miles would create a substantially greater level of impacts than if the utility lines were not installed. Generally, impacts would be directed towards three broad categories: 1) biological resources; 2) cultural resources; and 3) visual resources.

In regards to biological resources, the amount of ground disturbance associated with the installation of the utility poles would be substantial. Even though the poles would be installed adjacent to existing access roads and could be installed with minimal ground disturbance outside of the existing roadways, the aggregate impact associated with the installation of nearly 1,100 utility poles would be substantial. Since each of the proposed communication sites is within habitat that is suitable for desert tortoise, the potential impacts to tortoise from the project would be much greater than if the utility lines were not installed. In addition, utility poles would provide perching areas for ravens, a known predator of tortoise. Based on these considerations alone, the potential impacts to biological resources from the installation of the utility poles would indicate that another, less intrusive alternative be considered.

In regards to cultural resources, the potential impacts associated with the installation of utility lines would be similar to that associated with biological resources, in that the aggregate quantity of ground disturbance associated with the activity would be substantial. Therefore, it would be much more likely that cultural resources could be encountered, disturbed, and destroyed during the installation of the utility poles.

In regards to visual resources, each of these proposed communication sites are located in areas where utility poles and similar structures are not currently present. Therefore, the installation of the utility lines

would be a new visual impact and would introduce a new visual element to areas along a cumulatively lengthy alignment.

Some of these impacts, especially those related to visual resources, could be minimized with the installation of underground commercial electric power. This alternative was dropped from consideration based on the substantially greater impacts that would be encountered if this alternative were pursued. Underground power lines are typically installed within a trench that is excavated adjacent to a roadway or within the roadbed itself. The level of ground disturbance associated with this effort would be substantial, especially over an aggregate distance of 39.8 miles. Therefore, the impacts to biological and cultural resources would be even greater than that which would occur if traditional aboveground utilities poles were installed. In addition, the potential for soils erosion and the potential for long-term maintenance issues associated with buried utilities would be far greater. Since the proposed communication sites are accessed by existing roadways that are crosscut by arroyos and other ephemeral stream courses, the potential for buried utilities to be unearthed and damaged during runoff events is substantial. This potential impact could be reduced by improving the stream crossings or through other measures, but the ground disturbance and long-term alterations to existing hydrologic processes associated with these improvements would only result in greater levels of impact. Based on each of these considerations, it was determined that the installation of underground electric power to each of the sites was not a viable alternative. Therefore, this alternative will not be assessed further in this EA.

3.1.4 – Solar Power Provision Alternative

This alternative would serve each of the proposed communication sites with electric power via the use of photovoltaic solar panels and associated storage batteries. This alternative would allow the sites to be powered without the need for commercial electric power lines or primary-power (24 hours, 7 days per week) diesel or propane-fueled generators. Solar-powered sites are utilized by a number of commercial communication providers (cellular communications, etc.) in areas where traditional commercial power is not readily available.

This alternative underwent a comprehensive technical assessment to determine if this option could provide the proposed communication sites with a reliable and efficient source of electric power. Ultimately it was determined that the use of solar power as a means of primary electric power production was neither feasible nor desirable for a number of reasons: 1) an overall lack of reliability in the generation of required electric power; 2) susceptibility of the solar equipment to vandalism, theft, and mechanical problems; and 3) a substantial increase in the footprint of each site would be required.

Since these sites are related specifically to the provision of emergency services communication, reliability is a key concern. While solar power is used by commercial communication providers, those types of communication sites are not subject to the same reliability requirements as an emergency services communication network. While it is inconvenient if a cellular site goes off the air for a period of time due to a reliability issue, it is intolerable for an emergency services communication where public safety

officers are relying on the site to carry out their duties. Many of the duties carried out by these personnel are dangerous and involve the protection of life and property. These types of activities require a system that is as reliable as possible and solar power cannot provide the needed level of reliability.

During the technical assessment stage of this alternative, the County communicated with several commercial communication providers and inquired as to the reliability of solar power at their communication sites. These commercial providers indicated that their solar-powered sites can, and do, go off the air on a regular basis, usually due to vandalism, theft, or mechanical problems. Several of the commercial sites have had the solar panels stolen numerous times. Solar panels are also a popular target for illicit shooting and vandalism. The remote nature of these sites makes them difficult to monitor and secure and also makes prompt repairs difficult.

An analysis of the electrical amperage needs of the sites determined that approximately 2,000 square feet of solar panels would be required at each site to generate the amperage necessary to operate the communication equipment and cooling systems. Because of the higher wattages at which emergency services communications operate, this quantity of solar panels is approximately 10 times greater than what would be required to run a cellular site. In addition, the equipment shelter at each site would also need to be enlarged to accommodate the batteries and other components that would be necessary. Both the solar panels and the larger equipment shelter would result in a twofold increase in the footprint at each site. Greater impacts to biological and cultural impacts would result, and the visual impacts would be substantial and would become an attractive nuisance to persons in the area, thus increasing the likelihood of vandalism and theft.

Based on each of these considerations, it was determined that the solar power alternative did not offer any advantages to the project and, in fact, presented a number of considerable disadvantages that made it a less than attractive alternative. The most significant of these disadvantages would be the loss of reliability for emergency services communications. For this reason, the use of solar power at the sites will not be considered further in this EA.

3.1.5 – Propane Power Provision Alternative

Since commercial electric power and solar-generated power were determined infeasible for the project, other sources of on-site power generation were considered. The County currently operates a primary power (24/7) diesel generator to power its Santa Rosa Peak Communication Site in the Santa Rosa Mountains in south-central Riverside County. That site is similar to the communication sites assessed in this EA, in that it is far-removed from sources of commercial electric power and running commercial power to the site has been determined to be infeasible. The electrical power generators at the Santa Rosa Peak site have proven to be very reliable during their 15 years of operation. Based on this experience, the County determined that a 24/7 generator option would be feasible for future remote sites, but that propane rather than diesel might offer advantages since it is cleaner-burning and generally does not present the

same level of potential contamination issues. The County undertook a multi-month evaluation process to determine the feasibility of using propane-powered generator sets at its remote sites.

The results of that evaluation determined that 24/7 propane-powered generators were not a feasible option. The reason for this determination centered around two principal issues: 1) the projected operational life of a continuous-use propane-powered generator; and 2) the amount of propane that would be consumed during continuous operation.

Propane-powered generators are suitable for use as standby generators, but they are not suitable for continuous 24/7 operation. This is due to the lack of lubricating qualities provided by propane fuel and the resultant wear on the internal components of the internal combustion engines that provide power to the generators themselves. Unlike diesel fuel, propane is an extremely dry fuel and does not provide the lubrication needed to the valves and cylinder liners of the engines. As such, the service life of a 24/7 propane-powered generator is less than one year between overhauls or replacement, and manufacturers do not warranty their propane-powered generator sets for more than 12 months when they are used in continuous operation mode. The service life of a diesel-powered generator, on the other hand, is approximately 10 years. For this reason, propane-powered generators are almost never used in continuous-use operations.

The other constraint with propane is the amount of fuel required to run a generator in continuous mode. Table 3, shows the consumption rates for both propane and diesel generator sets operating under a continuous-duty, 24/7 operating regime. A 2,000-gallon propane tank holds enough fuel to operate a standard generator approximately 168 hours, or seven days, which means that approximately 8,000 gallons of propane would be required to run each generator for one month. Assuming that each site would contain a single 2,000-gallon propane tank, approximately four to five trips per month by a fuel truck would be needed to maintain a reliable supply of propane. The cost of propane is also a factor. A delivered gallon of propane in 2010 cost an average of $3.50 per gallon, which means the monthly cost to power one site would be $30,000, or $360,000 per year.

Table 3: Propane vs. Diesel Fuel Consumption (per site)

Fuel Type	Fuel Consumption (gallons)			Cost (annual)	Number of Fueling Trips
	Daily	Monthly	Yearly		
Propane	285	8,571	102,857	$360,000	51
Diesel	42	1,277	15,319	$53,617	8
Notes: Annual cost for both propane and diesel fuel assumes a delivered price of $3.50 per gallon.					

Diesel is much more efficient, and 2,000 gallons of diesel fuel can operate a 24/7 generator for approximately 47 days. Assuming a delivered price of diesel fuel is $3.50 per gallon, the monthly operating cost to run a 24/7 generator would be $4,468, or $53,617 over a 12-month period. Based on

these calculations, the operating cost for propane would be nearly seven times that of diesel, and that does not factor in the cost of annual engine overhauls (approximately $12,000 each) and the increased maintenance costs associated with propane use.

Based on each of these considerations, the County determined that operating the communication sites with propane was not feasible. The costs associated with propane, the time between engine overhauls and replacement, and the number of refueling trips all contributed to the determination that propane was not a viable option. Therefore, the use of 24/7 propane-powered generators to power the sites will not be considered further in this EA.

3.1.6 – Alternatives Summary

Based on the evaluations already conducted for each of the potential alternatives, the No Action alternative is the only feasible alternative to the Proposed Action that is available to this project. A comprehensive site selection process was undertaken, and the proposed locations offer the only alternatives whereby the County can meet the emergency services communication coverage that it requires to meet its public safety mandate. Alternative electric power options have also been carefully considered and none of the potential options have been determined to be feasible. Since the proposed site locations and site design represent the best and only option currently available to obtain the desired emergency services radio coverage, the only alternative available to reduce the environmental impacts of the project is the No Action alternative. Therefore, this EA will only analyze the Proposed Action and the No Action Alternative.

3.2 – Proposed Action

The proposed action consists of the construction, operation, and maintenance of five new communication sites on BLM lands. Exhibit 1 provides a regional map with each site location identified and Table 4 provides specific information about each site. Besides providing the locations of the sites, the table also presents the general characteristics of each site, including tower height, equipment shelter size, and the access road length, if applicable. Additional information about each site, including detailed maps, aerial photographs, site photographs, and other information can be found with the individual project site exhibits contained in Appendix A of this EA.

Co-location is a significant component of the PSEC project. This means that other government users may maintain a presence at PSEC sites, assuming that sufficient space is available. Besides the County, other users could include other law enforcement and emergency service agencies, local governments, land management agencies, and other government organizations. Co-location allows for cost sharing between agencies, as well as ease of maintenance. Co-location can also reduce the number of individual communication sites that would be otherwise required if each agency were to construct their own separate facilities.

Exhibit 1: Proposed Tower Locations Map

AVAILABLE FROM BLM PALM SPRINGS-SOUTH COAST FIELD OFFICE

Table 4: Information for Sites on BLM Lands

Site Name	Latitude[1]	Longitude[1]	Elevation (feet)[2]	USGS 7.5-minute Quadrangle	Township/ Range/Section	Tower Height (feet)	Equipment Shelter Size (feet)	Access Road Length (feet)	BLM Management Plan[3]	BLM Multiple Use Class	BLM VRM Class[4]
Black Jack	33°49'35.0"	114°51'39.4"	980	Inca	T4S, R20E Sec. 15	150	12W x 26L x 10H Prefabricated shelter	40	NECO	Limited	IV
Box Canyon	33°36'49.9"	115°54'46.6"	1,312	Mortmar	T6S, R10E Sec. 26	100	Three equipment cabinets within a 12 x 26 block enclosure beneath a steel roof	3,300	NECO	Moderate	II
Midland	33°50'26.0"	114°57'20.0"	849	Arlington Mine	T4S, R19E Sec.11	100	Three equipment cabinets within a 12 x 26 block enclosure beneath a steel roof	40	NECO	Limited	IV
Palen-McCoy	33°55'16.9"	115°01'26.1"	1,321	Palen Pass	T3S, R19E Sec. 7	330	Three equipment cabinets within a 12 x 26 block enclosure beneath a steel roof	60	NECO	Limited	IV
Road 62	34°02'48.0"	115°13'16.2"	1,426	Granite Pass	T1S, R17E Sec. 32	210	Three equipment cabinets within a 12 x 26 block enclosure beneath a steel roof	40	NECO	Moderate	IV

Notes:
1 – All coordinates utilize NAD83 datum
2 – Elevation above mean sea level
3 – NECO = Northern and Eastern Colorado Coordinated Management Plan
4 – VRM = Visual Resource Management. All classifications provided are interim classifications only. None of the sites have been assigned a VRM classification through the formal Resource Management Plan process. However, the Box Canyon site was assigned an interim classification during preparation of the Environmental Impact Statement (EIS) for the Palo Verde-Devers Transmission Line Project.

Co-location with non-government or commercial operators can create maintenance and security problems, since non-authorized individuals can gain access to vital public safety communication equipment if the equipment is located in the same space as a commercial user. For this reason, co-location at PSEC sites will only be available to other government organizations. Conversely, the County will not be collocating its equipment within facilities not under its direct control or not under the control of an appropriate government entity.

3.2.1 – Scope of Work Overview

The PSEC facilities on BLM lands assessed in this EA consist of the construction of five new communication sites (see Exhibit 1). The basic scope of work for each site is described below and is summarized in Table 4. Further detail about each of the described components is provided later in Section 3.2.2 of this EA.

3.2.1.1 – Black Jack Communication Site

The Black Jack Communication Site will consist of the construction of a 65-foot by 65-foot communication site with a 150-foot, lattice-style, self-supporting tower and a 12-foot by 26-foot prefabricated equipment shelter. Electric power will be provided by a 24/7 diesel-powered generator located at the base of the tower, fed by a 2,000-gallon aboveground fuel tank. The generator and the fuel tank will be positioned within a concrete-lined spill containment basin capable of holding 125 percent of the total fuel/liquids. Arlington Mine Road passes immediately adjacent to the proposed communication site, but a short spur road measuring approximately 40 feet in length will need to be bladed from the existing roadway to the communication site itself. Additional information about the Black Jack Communication Site, including detailed maps, aerial photographs, site photographs, and other information can be found with the individual project site exhibits contained in Appendix A of this EA.

3.2.1.2 – Box Canyon Communication Site and Access Road

The Box Canyon Communication Site and Access Road will consist of the construction of a 65-foot by 65-foot communication site with a 100-foot, lattice-style, self-supporting tower. Equipment will be housed within a series of equipment cabinets located at the base of the tower. Electric power will be provided by a 24/7 diesel-powered generator, fed by a 2,000-gallon aboveground fuel tank. The generator and the fuel tank will be positioned within a concrete-lined spill containment basin capable of holding 125 percent of the total fuel/liquids.

The Box Canyon Communication Site is the only site proposed for this project that is not located immediately adjacent to a suitable access road. An existing off-highway-vehicle (OHV) road does provide access to the site from State Highway 195, but the trail is in poor condition and is extremely rough, loose, and steep in a number of locations. Therefore, this roadway will need to be improved and/or rerouted, as applicable, to provide safe access to the site for construction vehicles and for fuel and maintenance trucks once the site becomes operational. The total length of this roadway is approximately 3,300 feet (0.63 mile).

Additional information about the Box Canyon Communication Site, including detailed maps, aerial photographs, site photographs, and other information can be found with the individual project site exhibits contained in Appendix A of this EA.

3.2.1.3 – Midland Communication Site

The Midland Communication Site will consist of the construction of a 65-foot by 65-foot communication site with a 100-foot, lattice-style, self-supporting tower. Equipment will be housed within a series of equipment cabinets located at the base of the tower. Electric power will be provided by a 24/7 diesel-powered generator located at the base of the tower, fed by a 2,000-gallon aboveground fuel tank. The generator and the fuel tank will be positioned within a concrete-lined spill containment basin capable of holding 125 percent of the total fuel/liquids. Palen Pass Road is located immediately adjacent to the proposed communication site, but a short spur road measuring approximately 40 feet in length will need to be bladed from the existing roadway to the communication site itself. Additional information about the Midland Communication Site, including detailed maps, aerial photographs, site photographs, and other information can be found with the individual project site exhibits contained in Appendix A of this EA.

3.2.1.4 – Palen-McCoy Communication Site

The Palen-McCoy Communication Site will consist of the construction of a 65-foot by 65-foot communication site with a 330-foot, guy-line supported tower. Equipment will be housed within a series of equipment cabinets located at the base of the tower. Electric power will be provided by a 24/7 diesel-powered generator located at the base of the tower, fed by a 2,000-gallon aboveground fuel tank. The generator and the fuel tank will be positioned within a concrete-lined spill containment basin capable of holding 125 percent of the total fuel/liquids. Palen Pass Road is located immediately adjacent to the proposed communication site, but a short spur road measuring approximately 60 feet in length will need to be bladed from the existing roadway to the communication site itself. Additional information about the Palen-McCoy Communication Site, including detailed maps, aerial photographs, site photographs, and other information can be found with the individual project site exhibits contained in Appendix A of this EA.

3.2.1.5 – Road 62 Communication Site

The Road 62 Communication Site will consist of the construction of a 65-foot by 65-foot communication site with a 210-foot, lattice-style, self-supporting tower. Equipment will be housed within a series of equipment cabinets located at the base of the tower. Electric power will be provided by a 24/7 diesel-powered generator located at the base of the tower, fed by a 2,000-gallon aboveground fuel tank. The generator and the fuel tank will be positioned within a concrete-lined spill containment basin capable of holding 125 percent of the total fuel/liquids. State Highway 62 passes immediately adjacent to the proposed communication site, but a short spur road measuring approximately 40 feet in length will need to be bladed from the existing roadway to the communication site itself. Additional information about the Road 62 Communication Site, including detailed maps, aerial photographs, site photographs, and other information can be found with the individual project site exhibits contained in Appendix A of this EA.

3.2.2 – Project Components Overview

3.2.2.1 – Communication Sites Description

A total of five communication sites are proposed as part of the proposed action. Four of the five sites will utilize self-supporting, lattice-type towers and will be virtually identical in terms of appearance and footprint. One of the five sites (Palen-McCoy) will utilize a guy-line supported tower and will thus be configured differently from the other four sites.

The permanent site compound footprint of the four "typical" sites will measure 65 feet by 65 feet (4,225 square feet), within a 100-foot by 100-foot (10,000-square-foot/0.23-acre) lease area (see Exhibit 2). An additional 100-foot by 100-foot temporary staging area adjacent to each site is also proposed to facilitate site construction and the temporary laying down of building materials. As stated previously, the Palen-McCoy site will utilize a guy-line tower support system and will thus be configured differently (see Exhibit 4). Additional information about the Palen-McCoy site is provided below.

Regardless of the type of tower, all five communication sites will be comprised of four principal components: 1) tower; 2) equipment shelter/cabinets and supporting components; 3) electric power generator and fuel tank; and 4) road access. Additional information about each of these components is provided below. Detailed site plans that illustrate the proposed work for each of the sites can be found with the individual project site exhibits located in Appendix A.

Towers

The four "typical" towers will be constructed using a self-supporting, three-legged, lattice-type style and will range from 100 feet to 210 feet in height. A photograph showing a typical self-supporting tower is provided as Exhibit 3, and Table 4 provides the proposed heights of each of the towers.

The Palen-McCoy tower will use a guy-line support system and will thus be configured in a different manner than the four self-supporting tower sites (see Exhibits 4 and 5). Besides the 65-foot by 65-foot tower compound described above, the Palen-McCoy site will also require the placement of three guy-line anchor points positioned approximately 265 feet from the tower itself in a radial pattern at the 10 o'clock, 2 o'clock, and 6 o'clock positions. Each of these three anchor points will measure approximately 25 feet by 5 feet and will be enclosed within a chain-link fence. From each anchor point, five guy-lines will be attached at varying heights on the tower. Thus, a total of 15 guy-lines will be used.

Each tower will be placed upon a concrete slab foundation, and could consist of either cast-in-place caissons or shallow foundations designed to carry axial loads and moments of force applied by wind and other factors on the tower. Towers, foundations, and all other structures on each site will be built to professional standards and appropriate building codes. Soil tests and other investigations will be performed at each site to determine the specific foundation requirements at each site. All towers and other structures will be subject to review by County engineers to ensure compliance with applicable standards and codes.

Exhibit 2: Typical Self-Supporting Tower Site Layout

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Exhibit 3: Photograph of Typical Self-Supporting Tower Site

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Exhibit 4: Guy-Line Supported Tower Site Layout (Palen-McCoy Communication Site Only)

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Exhibit 5: Photograph of Typical Guy-Line Supported Tower Site

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The structural members and bracing units of the towers will be constructed of industry-standard galvanized steel with a silver-gray color tone. Over a period of several years, the galvanized steel weathers to a dull gray that minimizes the structure's contrast to the sky and background landscapes, and is rendered less visibly intrusive.

Federal Aviation Administration (FAA) regulations require that any tower over 200 feet in height be fitted with an aviation warning light at its apex and/or an alternating red and white paint scheme. Due to their heights, the Road 62 and Palen-McCoy towers will require one or both of these treatments. Both the lighting and the alternating paint scheme treatments are intended to provide against potential hazards to aircraft that might be operating in the area. The final determination of specific lighting and/or paint requirements are at the discretion of the FAA.

The communication equipment installed on each tower will vary depending on the specific coverage requirements for each site. Typical equipment will include several omni antennas, VHF antennas, and microwave dishes. A grounding system will also be installed.

Each site compound will be enclosed within a chain link fence measuring eight feet in height, with three strands of barbed wire on the top, totaling nine feet in height. A gate will provide access into the site for persons and vehicles. A downward-shielded security light will be mounted to the outside of each shelter. The light will be connected to a motion sensor that will turn the light on when movement is detected within the compound.

Equipment Shelters/Cabinets and Supporting Components

Four of the proposed communication sites will be fitted with outdoor cabinets to house the electronic communication equipment. Three cabinets will be installed at each site, and these cabinets will be enclosed within a three-sided concrete block wall measuring 12 feet by 26 feet and covered with a steel roof. The entire cabinet and enclosure wall structure will be built atop a concrete foundation. An appropriately-sized air conditioning unit will be attached to the cabinets. These units are required to control the temperatures of the electronic equipment in each cabinet. The cabinets and the concrete enclosure wall will be painted in appropriate earth tones as required under BLM guidelines.

Because it will serve as a network connection point for a number of other sites, the Black Jack site will be fitted with an industry-standard prefabricated equipment shelter rather than equipment cabinets. The shelter will be mounted on a concrete foundation and will be divided into two compartments or rooms, with one room housing the communication equipment and the other housing the generator. Besides the radio equipment and generator, the other principal component of the shelter will be an environmental control system for heating, ventilation, and air conditioning (HVAC) to keep the interior of the shelter within the temperature range required for the operation of the electronic communication equipment inside.

Electric Power Generators and Fuel Tanks

Each of the five sites assessed in this EA will be provided with electric power via diesel-fueled generators located at each site. Two 30 kilowatt/37 horsepower generators will be placed within weatherproof enclosures at each site, and each will be operated on a one-week-on, one-week-off basis. The weatherproof enclosures will be fitted with noise abatement baffles to lessen the operational noise levels associated with the generators. The generators will also be fitted with exhaust silencers. The electric power produced by the generators will be supplied to the equipment shelter/cabinets via a buried conduit.

Fuel will be supplied from a 2,000-gallon aboveground, bunker-style concrete fuel tank. The generators and the fuel tank will be positioned within a curbed, concrete-lined containment basin capable of holding 125 percent of the total fuel/liquids contained at each site. This containment basin will be constructed to catch any fuel, coolant, oil, or other fluids that could spill or leak. Since the basin will be oversized (2,500 gallons), it will be able to contain any and all spills, leaks or ruptures of the 2,000-gallon fuel tank or the generators. All piping or other components will be encased in concrete and/or contained within the containment basin. Finally, the containment basin will be surrounded by bollards to protect against vehicles backing into them or other impacts.

Road Access

All but one of the proposed communication sites has a road leading directly to or immediately adjacent to the area where the tower and shelter will be located. In these cases, a short spur road measuring 40 to 60 feet in length will be bladed from the existing roadway to the site compound location. All roads are proposed to be dirt only.

The proposed Box Canyon Communication Site is the only site proposed for this project that is not located immediately adjacent to a suitable access road. An OHV road does provide access to the site from State Highway 195, but the trail is in poor condition and is extremely rough, loose, and steep in a number of locations. Therefore, this roadway will need to be improved and/or rerouted, as applicable, to provide safe access to the site for construction vehicles and for fuel and maintenance trucks once the site becomes operational. The total length of this roadway is approximately 3,300 feet (0.63 mile). Additional information about the Box Canyon Communication Site, including a map and aerial photograph of the improved access route, can be found with the individual project site exhibits contained in Appendix A of this EA.

3.2.3 – Project Construction Overview

3.2.3.1 – Communication Site Construction

Construction at each of the communication sites will be very similar, and a general sequence of construction activities is provided below.

Pre-Construction Geotechnical Assessment

Prior to construction, the soils and substrate at each communication site location will be sampled and tested to assist in tower foundation design. Typically, a mobile boring machine will be utilized to bore a

number of six- to eight-inch diameter holes using a hollow boring auger. These tests will only be conducted within the area of the proposed project footprint. Soils density tests will be performed at specified levels and samples will be collected for laboratory analysis. This information will be used to determine the tower foundation designs and methods of construction. As per occupational safety and desert tortoise habitat regulations, the holes will be backfilled immediately following the drilling and analysis processes, and prior to moving to the next boring location.

General Construction Process

Generally, construction at each communication site will proceed in typical fashion, with site preparation and grading occurring first, followed by excavation for tower footings and shelter slabs. Depending on foundation design, auguring may be required for the placement of caissons. Spoils or excess soil materials resulting from excavations or borings will be distributed evenly across the site. Sites that are practically accessible by concrete trucks will have premixed concrete delivered directly to the site. Sites that are remote or otherwise inaccessible by concrete trucks will require a batch concrete mixing station to be located onsite with water hauled in using water trucks. Concrete mixing and other staging operations would only take place within designated temporary staging areas. Following placement of necessary foundations, the tower will be erected and the shelter and supporting components put in place. Equipment shelters and equipment cabinets will usually arrive onsite with most of their internal components already installed.

Construction equipment to be used onsite will vary according to site characteristics and the type of work to be done, but equipment will likely be confined to that listed below in Table 5. All of the equipment listed in the table may not be necessary at each site, nor would it all be operating at the same time.

Table 5: Construction Equipment

Equipment Type	Quantity
Drill Rig/Boring Machine	1
Tractors/Loaders/Backhoes	1
Bulldozer	1
Water Truck	1
Cement/Mortar Mixers	2
Crane	1
Portable Generator	1

Each site is expected to take 60 to 120 days to construct. The actual time period will vary depending on difficulty of construction, the remoteness of the site, and other factors. The number of workers at each site on any given day during construction will typically vary from four to six. Following completion of the

construction process, all debris and waste materials will be removed from the site and disposed of in accordance with applicable regulations.

3.2.4 – Practices Adopted to Minimize Environmental Impacts During Construction

During construction of the communication sites, a number of measures will be implemented to minimize the potential for undue impacts on the environment. These measures are briefly described below in Sections 3.2.4.1 through 3.2.4.3.

3.2.4.1 – Construction Activities in Desert Tortoise Habitat

The USFWS, the BLM, the Desert Tortoise Council, and a number of other organizations have adopted a series of measures designed to minimize or eliminate unauthorized take of desert tortoise during construction activities. These measures will be implemented during construction at all sites where suitable habitat for tortoise is present. The requirements of these measures are explained in detail in Section 7 of this EA, but can be briefly summarized as follows:

1) Pre-construction clearance surveys of the affected area by a qualified biologist and the installation of tortoise-proof fencing around the project site once the site is cleared.
2) The appointment of a Field Contact Representative (FCR) at each site to oversee construction operations and to ensure that all required protection measures are being adequately implemented.
3) Onsite monitoring of construction activities, as necessary, by a qualified biologist.
4) Training by a qualified biologist of all project-related personnel and contractors in a desert tortoise education program.
5) Appropriate marking of areas of allowed surface disturbance. All surface disturbances shall be limited to the minimum area possible and any disturbance outside of that area will be restricted. This restriction applies to the site itself, as well as all temporary staging and parking areas.
6) Adoption of appropriate stewardship practices, such as containment of all trash, prohibition of dogs at construction sites, the use of portable toilets, and immediate backfilling of all excavations to prevent possible tortoise entrapment.

3.2.4.2 – Invasive Species Control Measures

A number of invasive plant species are known to occur throughout the region, and control measures will be implemented during construction to limit the further spread of these species. Specific requirements will be further detailed in the BLM's final conditions of approval, but will likely include the following Best Management Practices (BMP):

1) Having a monitoring and treatment plan in place for specific sites and species.
2) Procuring gravel, base materials, and other imported earthen products that are weed free or are washed prior to transport to the site.

3) Providing a vehicle and equipment wash station in an offsite area to minimize the inadvertent transport of noxious weed seeds into undisturbed areas. Mud and other material on equipment that could contain noxious weed seeds would be removed at a location where the equipment washing itself would not introduce noxious weeds into unaffected areas.

4) Minimizing soil disturbance.

3.2.4.3 – Water Quality Control Measures

In addition to any construction and operation requirements imposed by the BLM, the proposed action is being undertaken by the County of Riverside, and is thus required to abide by the construction permitting requirements of the County. A number of project-specific requirements have been adopted by the County and can be briefly summarized as follows:

1) The County has prepared and will implement erosion and sediment control plans to help protect water quality.

2) Site-specific Emergency Response Plans (ERPs) have been prepared and will be posted/ implemented at every site to provide for any contingencies that could arise during construction or operation. The ERP will provide direction regarding specific actions to be taken in the event of spillage, leakage, or upset at any of the sites.

3.2.5 – Practices and Designs Adopted to Minimize Environmental Impacts During Operation

During operation of the communication sites, a number of measures will be implemented to minimize the potential for undue impacts on the environment. These measures are briefly described below in Sections 3.2.5.1 and 3.2.5.2.

3.2.5.1 – Prevention of Diesel Fuel Spillage and Leakage

All the proposed sites will utilize diesel fuel-powered generators to provide primary power. As such, a number of design and operational measures have been adopted to minimize the risk of fuel leakage and spillage during operation of each site, and are briefly summarized as follows:

1) All fuel tanks and generators will be placed within an appropriately-sized spill containment basin that will be oversized to 125 percent capacity to enable containment of any and all spills associated with the tanks and generators. Fluids to be used at each site include diesel fuel, antifreeze/coolant, engine oil, and general lubricants. Any and all fluids and all generator equipment will be contained within these basins. In the unlikely event of a complete rupture of the fuel tank, all fuel will be contained within the basin, thus facilitating cleanup and avoidance of contamination to surrounding soil. The containment basins themselves will be protected from impacts by protective bollards.

2) Fuel tanks will be constructed as concrete-vault style structures and will be impact, ballistic, fire, and corrosion resistant. Reinforced concrete will surround a secondary containment chamber within the vault structure, and the internal fuel tank itself will be enclosed within this secondary

chamber. The tanks will be placed within the containment basins discussed above, thereby providing three layers of fuel containment protection.

3) Since the generators will also be positioned within the containment basins, all maintenance activities, such as generator oil changes, antifreeze/coolant changes, etc., will take place within the containment basins, thus minimizing potential spillage and/or leakage from the generators. Liquids and other waste materials produced during regular maintenance activities will be disposed of offsite at an approved waste disposal facility in accordance with applicable local, state, and federal regulations.

4) In the event of spillage or upset during operation, the Riverside County Fire Department has established protocols regarding initial response and follow-up remediation. The site-specific ERPs (discussed above in Section 3.2.4.3) will outline these protocols and they will be posted at each site so that field operators will immediately know what actions to take. All fuel providers will be licensed, insured, and bonded as per standard County requirements.

3.2.5.2 – Noise Abatement

A number of design features have been incorporated to lessen the level of noise emitted from the generators, and can be briefly summarized as follows:

1) Each generator will be enclosed within a sound-dampened and insulated weatherproof enclosure. The level of noise abatement provided by these enclosures is approximately 14 dBA below what would be the case if the units were mounted in an open configuration without the enclosures. Thus, the enclosures will have much the same effect as if the generators were installed inside an actual equipment shelter. At 23 feet from the generators, the sound levels would be approximately 66 dBA, or about the same level as a normal human conversation overheard from a distance of three to five feet. At a distance of 100 feet, noise levels from the generators would be nearly undetectable.

2) Generators will be equipped with noise mufflers to minimize exhaust noise.

3.2.6 – Project Operation Overview

The communication facilities will operate 24 hours a day, 7 days a week for the life of the site. The electronic equipment housed in the shelters and equipment cabinets will be temperature controlled by wall-mounted HVAC units. During warmer periods of the year, the cooling units could periodically be in operation 24 hours a day. Security lighting will be installed outside of each shelter within the chain link enclosure, usually on the exterior wall of the shelter, and will be controlled by means of a motion sensor. Lights will be downshielded to prevent light spill-over outside of the sites.

Electrical power will be supplied by diesel-fueled generators. Two generators will be located at each site, and will be operated on a one-week-on/one-week-off duty cycle. As such, only one generator will typically be running at each site at any given time.

Refills of the diesel fuel for the generators will require periodic visits by a fuel truck. Fuel levels will be monitored by a remote system, and when the fuel supply has dropped below a certain level, a fuel truck will be dispatched. For primary generating units operating on a 24/7 basis, the 2,000-gallon fuel tanks will typically provide an approximately 47-day supply of fuel. As such, a fuel truck will likely visit each site every four to five weeks to refill the tanks.

Besides fuel truck visits, maintenance activities at the sites would consist of monthly visits by technicians associated with each of the organizations having equipment at the site. The PSEC project will not only provide facilities for the County's radio equipment, but it will also provide facilities for its cooperators. This could include other law enforcement and emergency service agencies, local governments, land management agencies, and other government organizations. Therefore, the number of maintenance visits to a given site could vary, depending on the number of users associated with the equipment at the facility. Regardless, the amount of activity at any given site, once it is constructed and fully operational, is expected to be minimal.

3.3 – No Action Alternative

Under the No Action alternative, Communication Use Leases or Right-of-Way Grants would not be authorized. The Proposed Action would not be undertaken and the County would continue to utilize its existing emergency services communication network into the foreseeable future. No new facilities would be built. Enhanced and expanded emergency services communication coverage would not be provided. Existing management and use of the sites would continue to be subject to applicable statutes, regulations, policies, and land use plans.

SECTION 4: AFFECTED ENVIRONMENT

4.1 – Black Jack Communication Site

4.1.1 – Area Description

The proposed Black Jack Communication Site is located adjacent to Arlington Mine Road in a broad desert valley area approximately 22 miles northwest of Blythe (see Exhibit 1). The Little Maria Mountains lie to the north of the communication site and the McCoy Mountains lie to the southwest. Arlington Mine Road continues north, beyond the site, to a series of active gypsum mining areas (the Standard Mine).

Arlington Mine Road is an active and well maintained dirt roadway. It is heavily used on a daily basis by mining trucks and other vehicles associated with the gypsum mining operations (the Standard Mine) to the north of the proposed communication site. The roadway is also used by recreationists and other persons seeking to access areas to the west. Disturbance along the roadway and at the proposed communication site is for the most part limited to the Arlington Mine Road itself. Open desert extends on either side of the roadway, and this larger area is relatively undisturbed. Some off-road vehicle tracks can occasionally be seen branching off of the roadway, but for the most part the area has encountered little disturbance. See Appendix A of this EA for an overview of the proposed communication site, its location and site-specific photographs.

4.1.2 – Land Use Plan Classification and Wilderness Proximity

The site is located within the NECO planning area of the CDCA, and is managed from the Palm Springs-South Coast Field Office. The area is subject to the planning criteria established in the NECO plan. Under the plan the site is designated as Multiple Use Class L (Limited Use). Lands classified as Class L are intended to be managed in a manner that provides for generally lower-intensity, carefully controlled multiple use of resources, while ensuring that sensitive values are not significantly diminished. New communication sites are allowable within Class L lands. NEPA requirements must be met, and a 30-day public comment period is required for EAs of communication systems of three or more sites.

It should be noted that Arlington Mine Road, beside which the communication site is proposed to be located, forms the boundary between BLM-designated Class L and Class M (Moderate Use) lands in this area. Lands lying to the south of the roadway are classified as Class L while those lying on the northern side of the road are classified as Class L. The centerline of the road forms the class boundary in this area. Since the proposed communication site is located on the southern side of the roadway, it is therefore situated on Class L lands.

The nearest designated Wilderness Area to the proposed site is the Palen-McCoy Wilderness. The nearest boundary of this Wilderness Area is approximately 3.1 miles north of the project site in the Little Maria Mountains. Nearby Wilderness Area boundaries, if they are present, are depicted in the individual site exhibits in Appendix A of this EA.

4.1.3 – Wildlife and Botany

The plant community within the project area is a Sonoran creosote bush-scrub dominated by creosote bush (*Larrea tridentata*) and white bursage (*Ambrosia dumosa*). Additional species observed within this plant community and within the various desert washes in the area include brittlebush (*Encelia farinosa*), white rhatany (*Krameria grayi*), catclaw (*Acacia greggii*), ocotillo (*Fourquieria splendens*), palo verde (*Cercidium microphyllum*), and occasional ironwood (*Olneya tesota*). Most of the plant species present are native with the exception of several species including mustard (*Brassica tournefortii*) and Mediterranean Grass (*Schismus* sp.). Perennial plant distribution is highly heterogeneous with desert pavement areas characterized by low density and interspersed washes characterized by a much higher density.

The site is not located within a Desert Wildlife Management Unit (DWMA), Area of Critical Environmental Concern (ACEC), or within designated Critical Habitat for any species. However, the site does contain suitable habitat for desert tortoise (*Gopherus agassizii*), a federally listed threatened species. Focused surveys for desert tortoise were conducted along Arlington Mine Road in May, 2009. No tortoise or tortoise sign were found upon the proposed communication site, but several items of desert tortoise sign were found adjacent to Arlington Mine Road, including tortoise tracks, two carcasses, a burrow/scat combination, and a possible drinking depression. Therefore, desert tortoise is presumed to be present in the area, though at relatively low densities.

Suitable habitat for six sensitive plant species occurs within the site area. These are 1) winged cryptantha (*Cryptantha holoptera*), a CNPS List 4.3 species; 2) glandular ditaxis (*Ditaxis claryana*), a CNPS List 2.2 species; 3) California ditaxis (*Ditaxis serrat* var. *californica*), a CNPS List 3.2 species; 4) desert unicorn plant (*Proboscidea althaeifolia*), a CNPS List 4.3 species; 5) Coves' cassia (*Senna covesii*), a CNPS List 2.2 species; and 6) jackass clover (*Wislizenia refracta* spp. *palmeri*), a CNPS List 2.2 species. These species were not directly observed in the project area.

Suitable habitat for loggerhead shrike (*Lanius ludovicianus*), a California Species of Special Concern, occurs within the project area. Loggerhead shrike was observed during the focused desert tortoise survey. No other sensitive plant or wildlife species were observed on the communication site or in the vicinity.

Additional information relating to wildlife and botany on the project site can be found in the Biological Resources Assessment prepared for this project, which is on file and available for public viewing at the BLM Palm Springs-South Coast Field Office.

4.1.4 – Cultural Resources

An existing literature review and records search was conducted for the Black Jack Communication Site Area of Potential Effect (APE), and for all lands within one mile of the facility. The APE was defined by considering the radio tower location with a 300 foot buffer extending in every direction to account for potential indirect impacts, minute changes to tower placement, staging areas, and access from the adjacent and existing Arlington Mine Road. This resulted in an APE measuring approximately 6.5 acres. The

records search was conducted at the Eastern Information Center (EIC) located at the University of California, Riverside on March 5, 2009.

The records search indicated that there is one known and recorded cultural resource found within the APE (33-16949). In addition, the records search and existing literature review indicated that the entirety of the APE had been previously surveyed for the presence or absence of cultural resources in 2008 (RI-8171 [MBA 2008]) and in 2010 (PBS&J 2010). The APE was first inventoried in 2008 for previous PSEC project-related studies, and this study recorded resource 33-16949 (RI-8171). Resource 33-16949 was originally recorded as a historic-age isolated find comprised of potential tank tracks associated with the Desert Training Center/California-Arizona Maneuver Area (DTC/C-AMA), based upon the presence of observable tracks and the location of the APE within the Palen Pass Maneuver Area of the DTC/C-AMA. The DTC/C-AMA is a sizable portion of the California and Arizona deserts where military exercises were conducted in preparation for World War II, and under the leadership of General George S. Patton Jr. The Black Jack APE and vicinity served as a military maneuver practice area to provide field training for the Allied invasion of North Africa (Bischoff 2000). This resource was subsequently found to be associated with heavy equipment employed by the nearby modern Standard Mine during another survey conducted in support of the PSEC project, and of modern origin (PBS&J 2010). Therefore, as 33-16949 is considered of modern age, it is not considered a cultural resource for the purposes of this assessment. Including the two studies which have addressed the Black Jack APE, a total of three reports have assessed the lands within one mile of the project site (RI-8171; PBS&J 2010; and RI-1249). Collectively these studies identified the modern tracks within the APE (33-16949) and two historic-age isolated finds. These previously recorded historic age isolated finds (33-17871 and 33-17869) are found more than 0.5 mile from the APE.

A Class III intensive pedestrian survey was conducted for the APE by a project archaeologist on September 18, 2009. The total survey area encompassed approximately 6.5 acres of the 6.5 acre APE. During the pedestrian survey, no previously undetected cultural resources were observed within or adjacent to the APE.

The NAHC SLF search did not indicate the presence of known Native American cultural resources within the APE or within 0.5 mile.

4.1.5 – Visual Resources

The Black Jack Communication Site is in an expansive desert mountain valley area. The Little Maria Mountains lie to the north, northeast and east of the communication site. Vegetation is sparse and is typical of that which is present in most of the Lower Colorado River Valley Subdivision of the Sonoran Desert.

Most viewers could see the communication tower site from along Arlington Mine Road. The dominant human-made visual features around the project area include Arlington Mine Road and the active gypsum mines approximately one mile north of the site. Otherwise, views of open desert surrounded by mountains

are uninterrupted in all directions. See Appendix A of this EA for site photographs and a pictorial overview of the site and its location.

The Black Jack Communication Site is located on public lands that have not been assigned formal VRM classifications through the RMP process. Where no formal VRM classes have been assigned, it is BLM policy that interim VRM objectives be established, consistent with the guidelines provided in BLM Manual 8410 and using the VRM analytical system. Since an interim classification has not been assigned to the Black Jack Communication Site project area, an interim classification for the site will be established as part of this EA and is provided below. The corresponding VRM data sheets are included in Appendix B of this EA.

The VRM system is an analytical process that identifies, sets, and meets objectives for maintaining scenic values and visual quality. It functions in two ways. First, lands are evaluated and assigned management classifications. Management classes describe the different degrees of modification allowed to the basic elements of the landscape. Second, when development is proposed, the degree of contrast between the proposed activity and the existing landscape is measured. This value is referred to as the Contrast Rating. The visual inventory evaluation is provided below and the assignment of a Contrast Rating for this site is described in the Environmental Consequences section of this EA.

4.1.5.1 – Scenic Quality

Scenic quality is a measure of the visual appeal of a tract of land. In the visual resource inventory process, public lands are given an A, B, or C rating based on the apparent scenic quality which is determined using seven key factors: landform, vegetation, water, color, adjacent scenery, scarcity, and cultural modifications. The Scenic Quality Field Inventory Form (BLM Form 8400-1) is included in Appendix B of this EA, and a summary is provided below.

1) **Landform:** The site is located within a broad valley with few interesting landscape features (Score: 1).

2) **Vegetation:** There is little variety in the vegetation, with minimal contrast and a lack of intriguing detail (Score: 1).

3) **Water:** No watercourses are found on the project site, and water is not present (Score: 0).

4) **Color:** The area contains only subtle color variations, contrast, or interest, and is generally comprised of mute tones (Score: 1).

5) **Adjacent Scenery:** Several mountain ranges are observable nearby, including the Little Maria Mountains to the north (approximately 0.25 mile distant) and the McCoy Mountains to the west and southwest (approximately four miles distant). The open nature of the valley allows for

striking and unadulterated views of all the nearby mountains, and this substantially enhances overall visual quality (Score: 5).

6) **Scarcity:** The site is interesting within its setting, but is fairly common to the region. However, this common setting lacks significant cultural modifications, thereby contributing to its overall scarcity (Score: 3).

7) **Cultural Modifications:** The site is immediately adjacent to the existing Arlington Mine Road, and active open pit gypsum mines can be seen to the north of the site. These features neither detract nor significantly compliment the scenic quality (Score: 0).

Scenic Quality Score: 11. In accordance with BLM Manual 8410, a scenic quality score of 11 or less yields an overall scenic quality rating of "C."

4.1.5.2 – Viewer Sensitivity

Although landscapes have common elements that can be measured, there is still a subjective dimension to landscape aesthetics. Each viewer has perceptions about visual quality that are formed by individual influences, culture, visual training, familiarity with local geography, and personal values. In essence, sensitivity levels are a measure of public concern for scenic quality. Factors to consider in a sensitivity level analysis are the types of users, amount of use, public interest, adjacent land uses, and special areas. The Sensitivity Level Rating Sheet (BLM Form 8400-6) is included in Appendix B of this EA, and the analysis is discussed in detail below.

1) **Types of Users:** Typical viewers would predominantly be users of Arlington Mine Road, which mainly includes traffic associated with Standard Mine employees. Some recreational traffic is also likely, as these public lands exhibit a moderate level of camping and off-road vehicle activity. In general, the latter type is more sensitive to changes in visual quality than the former (Moderate).

2) **Amount of Use:** Low numbers of people using Arlington Mine Road and low numbers of recreational visitors would see the project site. Protection of visual resources usually becomes more important as the number of viewers increase (Low).

3) **Public Interest:** The proposed project occurs adjacent to an active mine, and is situated adjacent to approximately 600 acres of patented and permitted land which comprises the Sun Services Standard Mine. Over the course of active mining, the public land contained herein has been allocated to the mine for the purposes of mineral extraction and/or related activities. Thus, it is expected that this area would be subjected to some level of cultural modification, and comparatively lower scenic quality (Low).

4) **Adjacent Land Uses:** The project site is located in a very rural area and would not be visible from residential areas or major transportation arteries, where sensitivities to visual changes would be comparatively great. However, the Palen-McCoy Wilderness Area is located several miles to the north of the site, where maintenance of visual quality becomes more important (Moderate).

5) **Special Areas:** It should be noted that Arlington Mine Road forms the boundary between BLM-designated Class L (Limited Use) and Class M (Moderate Use) lands in this area, as defined in the NECO plan. Lands lying to the south of the roadway are classified as Class L, while those found on the northern side of the road are classified as Class M. The centerline of the road forms the class boundary in this area. Since the proposed communication site is located on the southern side of the roadway, it is therefore situated on Class L lands and within areas where maintenance of the existing landscape is moderately to very important (High).

Viewer Sensitivity Rating: The area considered during the sensitivity analysis is not observable from any residential areas or major transportation arteries, and will be viewed by very few people. The majority of viewers would be comprised of mine employees, as well as some recreational viewers. Considering the level of use in conjunction with the potential for some recreational traffic, as well as the location within classified areas where the maintenance of scenic quality is likely moderately to very important, the viewer sensitivity level is considered "moderate."

4.1.5.3 – Distance Zone

The visual quality of a landscape (and user reaction) may be magnified or diminished by the visibility of the landscape from major viewing routes and key observation points. The proposed project is located within the seldom-seen (ss) zone, which includes areas hidden from view. Specifically, while the site is found within 15 miles of a viewing route (Midland Road), and would normally be considered in the background zone, the location of the site behind the Little Maria Mountains effectively obscures the site from view. Therefore, as the site is hidden from viewers traveling along Midland Road, it is found within the seldom-seen zone.

4.1.5.4 – VRM Summary and Assignment of Interim Classification

In accordance with BLM Manual 8410, Illustration 11, public lands assigned a visual quality rating of "C," a viewer sensitivity level of "moderate," and a "seldom-seen" distance zone, are designated as VRM Class 4. The management objective of this class is to provide for management activities which require major modifications of the existing character of the landscape, and the level of change to the landscape can be high. Management activities may dominate the view and be the major focus of viewer attention. However, every attempt should be made to minimize the impact of activities through carful location, minimal disturbance, and repeating the basic elements.

4.2 – Box Canyon Communication Site

4.2.1 – Area Description

See Appendix A of this EA for an overview of the proposed communication site, its location and site-specific photographs.

The proposed Box Canyon Communication Site is located in the Mecca Hills on a hilltop overlooking State Highway 195 (Box Canyon Road). See Exhibit 1 for a regional location of the project site. The site is located in the northern portion of Box Canyon, shortly before the point where the canyon exits the Mecca Hills and opens into Shavers Valley. The site is approximately 0.25 mile east of Box Canyon Road and the hilltop upon which it is located is approximately 400 feet higher in elevation than the roadway. The San Andreas Fault lies approximately five miles to the southwest of the project site at the southern mouth of Box Canyon. As a result, the terrain in the area is steep and broken and consists of a complex mix of sedimentary and metamorphic rock stratum that have been tilted and folded by faulting.

Box Canyon Road is a paved, two-lane roadway that sees a substantial amount of use by vehicles traveling between the agricultural areas of Mecca and I-10. The roadway is regularly used as a shortcut for persons traveling from I-10 to State Highways 86 and 111 in the Coachella and Imperial Valleys. Heavy truck traffic constitutes a substantial portion of the use on the roadway through the canyon. The Mecca Hills Wilderness Area lies to the west of the project site, on the far side of Box Canyon Road and approximately 0.28 mile from the site. Another section of the Mecca Hills Wilderness lies approximately one mile to the south of the site.

The site is reached via an existing OHV road that leads off of Box Canyon Road. That roadway is depicted on the BLM's Eagle Mountains 1:100,000-scale topographic Desert Access Guide as the Meccacopia Trail (SR1811). After traveling about 500 feet east on the Meccacopia Trail after leaving Box Canyon Road, a rough OHV trail branches off of the Meccacopia Trail to the southwest and climbs a ridge to the proposed communication site. The trail is rough, loose, and steep in a number of locations and is only passable by a well-equipped four-wheel-drive vehicle. The total length of the trail from the Meccacopia Trail to the site is approximately 3,300 feet (0.63 mile). The trail continues past the site and eventually loops back around to the east and rejoins the Meccacopia Trail after travelling an additional 1.5 miles past the proposed communication site.

Besides the OHV trail lying adjacent to the site, disturbance at the site is minimal. However, traffic from Box Canyon Road can be heard quite readily. Views to the south and southwest include the Salton Sea and Coachella Valley, and views to the north include the alluvial fan of Shavers Valley, a number of electrical transmission lines, and I-10 approximately four miles distant. To the west and east, the view is of the peaks of the Mecca Hills and the Orocopia Mountains, respectively. In general, the site itself could be characterized as an area of minimal disturbance. However, signs of human activity are noticeably present in the surrounding area.

4.2.2 – Land Use Plan Classification and Wilderness Proximity

The site is located within the NECO planning area of the CDCA, and is managed from the Palm Springs-South Coast Field Office. The area is subject to the planning criteria established in the NECO plan and is classified under the plan as Multiple Use Class M (Moderate Use). Lands classified as Class M are intended to be managed in a manner that allows for a controlled balance between higher intensity use and protection of public lands. The class provides for a wide variety of present and future uses such as mining, livestock grazing, recreation, energy, and utility development. The Class M classification is designed to conserve desert resources and to mitigate damage to those resources that permitted uses may cause. Electric distribution facilities are allowed under this classification but should be placed within existing rights-of-way where they are reasonably available.

The nearest designated Wilderness Area to the proposed site is the Mecca Hills Wilderness. The nearest boundary of this Wilderness Area is approximately 0.28 mile (1,500 feet) west of the project site across State Highway 195. Nearby Wilderness Area boundaries, if they are present, are depicted in the individual site exhibits in Appendix A of this EA.

4.2.3 – Wildlife and Botany

With the exception of the existing access road, which is characterized by bare earth, Sonoran Desert Scrub vegetation occupies the entire project area. Within the immediate area, this community is relatively sparse and homogenous with limited overstory development and moderate plant species richness. Dominate shrub layer species observed within the Sonoran Desert Scrub that occupies the site include creosote bush, brittlebush, and ocotillo. Other shrub layer species observed in lower percent cover include burro-bush, cheese bush (*Hymenoclea salsola* var. *salsola*), catclaw, silver cholla (*Cylindropuntia echinocarpa*), and pencil cholla (*Cylindropuntia ramosissima*). Dominant herbaceous layer species observed include Arizona lupine (*Lupinus arizonicus*), pebble pincushion (*Chaenactis carphoclinia*), desert dandelion (*Malacothrix glabrata*), desert trumpet (*Eriogonum inflatum*), skeleton weed (*Eriogonum deflexum*), and Mediterranean grass. Herbaceous layer species observed in lower percent cover include sand blazing star (*Mentzelia involcrata*), phacelia (*Phacelia* sp.), dove weed (*Eremocarpis setigeris*), small-seeded spurge (*Chamaesyce polycarpa*), Parish's poppy (*Eschscholzia parishii*), bearded forget-me-not (*Cryptantha barbigera*), wooly plantain (*Plantago ovata*), desert broom-rape (*Orobanche cooperi*), and Saharan mustard. In addition, a few blue palo verde trees (*Cercidium floridum*) were also observed in the lowest elevations of the project area, and near the northern terminus of the existing access road.

The site is not located within an ACEC, but it is located within the Chuckwalla DWMA and is also located within Critical Habitat for the federally threatened desert tortoise, as designated by the USFWS. No tortoises or direct tortoise sign were observed on or in the immediate vicinity of the project area. However, due to the presence of suitable habitat and known tortoise occurrences in the vicinity of the site, this species was determined to have a high potential to occur.

Suitable habitat for seven sensitive plant species occurs within the site area. These are 1) sand evening-primrose (*Camissonia arenaria*), a CNPS List 2.2 species; 2) foxtail cactus, a CNPS List 4.3 species; 3) winged cryptantha, a CNPS List 4.3 species; 4) glandular ditaxis, a CNPS List 2.2 species; 5) California ditaxis, a CNPS List 3.2 species; 6) desert unicorn plant (*Proboscidea althaeifolia*), a CNPS List 4.3 species; and 7) Coves' cassia, a CNPS List 2.2 species. None of these seven species were directly observed in the project area.

Suitable habitat occurs within the project vicinity that could be used as foraging or nesting habitat for the California State species of special concern loggerhead shrike. No shrikes were observed on or in the immediate vicinity of the project area. However, due to the presence of suitable habitat and the location of the project area, this species was determined to have a moderate potential to occur. No additional non-listed sensitive wildlife species were determined to have a moderate or high potential to occur within the project area.

Additional information relating to wildlife and botany on the project site can be found in the Biological Resources Assessment prepared for this project, which is on file and available for public viewing at the BLM Palm Springs-South Coast Field Office.

4.2.4 – Cultural Resources

An existing literature review and records search was conducted for the Box Canyon Communication Site APE, and for all lands within one mile of the APE. The APE was defined by considering the Box Canyon tower site with a 300 foot buffer extending in every direction to account for potential indirect impacts and minute changes to tower placement. In addition, the APE considers approximately 3,300 feet of an existing OHV road proposed for improvement activities with a 50 foot buffer extending in every direction. This resulted in an APE measuring approximately 13.4 acres. The records search was conducted at the EIC on May 21, 2010.

The records search indicated that there are no known and recorded cultural resources located within or adjacent to the APE. Portions of the APE had been previously surveyed in 1991 (RI-3150) and 2006 (RI-6972) with negative results for observable cultural resources within the APE. Including these studies, a total of eight assessments have been completed for the lands within one mile of the project site. Collectively, these reports and additional academic archaeological studies on file at the EIC identified three prehistoric-age resources and one historic-age resource (CA-RIV-250T; -251T; -343T and California Point of Historical Interest Plaque Number 148). Three of these previously recorded resources are found within 0.25 mile of the APE, but beyond the APE boundary. The remaining resource (CA-RIV-251T) is found more than 0.5 mile from the APE.

A Class III intensive pedestrian survey was conducted for the APE by a project archaeologist on June 4, 2010. The total survey area encompassed 7.6 acres of the 13.4 acre APE. Portions of the APE were not surveyed due to the presence of loose and unstable rock found on steep slopes. Those portions not surveyed in their entirety were visually scrutinized for the presence of cultural resources. During the

pedestrian survey, no previously undetected cultural resources were observed within or adjacent to the APE.

The NAHC SLF search did not indicate the presence of known Native American cultural resources within the APE or within 0.5 mile. However, the NAHC did note the presence of Native American resources in close proximity to the APE. Therefore, these known Native American resources are found more than 0.5 mile from the APE.

4.2.5 – Visual Resources

The Box Canyon Communication Site is located on a hilltop within the Mecca Hills, and approximately 0.25 mile east of State Highway 195 (Box Canyon Road). The area is characterized by hills and steep valleys, extending west into a continuation of the Mecca Hills and east into the Orocopia Mountains. The Mecca Hills abruptly terminate about 0.5 mile north of the site, and open into a broad valley, known as Shavers Valley. Shavers Valley is bordered by the Mecca Hills to the south and the Cottonwood Mountains to the north, and I-10 bisects the valley, trending east to west. A transmission line is located near the I-10 corridor, trending east to west; however, the transmission line is generally unobservable from the site. The Mecca Hills continue for approximately 5.5 miles to the south of the site, where the hills terminate and open into the Coachella Valley and the Salton Sea. Vegetation is sparse, and consists of creosote, ocotillo, and other low-lying desert plants.

While the site is found about four miles to the south of I-10, the majority of viewers will see the site as they travel in either direction along State Highway 195 (Box Canyon Road). Due to the location of State Highway 195 within Box Canyon, consistent views of the site are interrupted by the edges of the meandering canyon. The dominant human-made visual features around the project area include Box Canyon Road, the existing OHV road used to access the Box Canyon tower location, and I-10 in the background, to the north of the project area. Otherwise, views of the Mecca Hills, Shavers Valley, and the Cottonwood Mountains are generally uninterrupted in all directions. The only exception is I-10, as found within Shavers Valley to the north of the site; however, I-10 is not easily observable from the site. Refer to Appendix A of this EA for site photographs that present a visual overview of the site and the surrounding area.

The Box Canyon project site is located on BLM lands that have not been assigned formal VRM classifications through the RMP process. Where no formal VRM classes have been assigned, it is BLM policy that interim visual management objectives be assigned, consistent with the guidelines provided in BLM Manual 8410.

An interim classification was established for the project site by the BLM as part of the analysis undertaken during preparation of the Environmental Impact Report (EIR)/EIS for the Devers-Palo Verde No. 2 Transmission Line Project. During the VRM assessment stage of the Devers-Palo Verde project, VRM classifications were established for areas extending several miles on either side of the proposed transmission line corridor, which roughly paralleled I-10 from the Colorado River to the Devers

substation north of Palm Springs. The proposed Box Canyon Communication Site is within one of the areas that were classified during this process. The site area was assigned a VRM classification of Class 2. Management objectives for areas within this class are to retain the existing character of the landscape, and the level of change to the characteristic landscape should be low. Management activities may be seen, but should not attract the attention of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.

4.3 – Midland Communication Site

4.3.1 – Area Description

See Appendix A of this EA for an overview of the proposed communication site, its location and site-specific photographs.

The proposed Midland Communication Site is located in a broad, unnamed valley that lies between the Little Maria, McCoy, and Palen Mountains. The site lies approximately 16.5 miles directly north of the Wileys Well exit on I-10, and about 26 miles northwest of Blythe. See Exhibit 1 for a regional location of the project site. The site is located in a flat valley area near the northern tip of the McCoy Mountains, which lie approximately two miles directly southeast of the site. The base of the Little Maria Mountains is approximately three miles to the northeast, and the base of the Palen Mountains is about 3.25 miles directly west of the site.

The site lies adjacent to a dirt roadway that is known locally as Palen Pass Road. This roadway begins approximately two miles to the south, near the northern tip of the McCoy Mountains in the vicinity of the abandoned Black Jack Mine. The road is a north-trending branch of the Arlington Mine Road, which accesses the area from the paved Midland Road approximately 14 miles to the east. While Arlington Mine Road appears to receive occasional maintenance, Palen Pass Road appears to receive little, if any, regular maintenance and is sandy and rough, especially as it travels further north towards Palen Pass. The roadway is used to access several abandoned gypsum mining operations north of the site near Palen Pass, and is also a route for recreationists using four-wheel-drive vehicles. The roadway reaches Palen Pass after traveling north from the site for about 10 miles, and then travels an additional 13 miles to the west before reaching State Highway 177 (Desert Center-Rice Road). Due to the remote nature of the area, Palen Pass Road receives limited use with the principal users being vehicular-based recreationists. Besides Palen Pass Road lying adjacent to the site, disturbance at the site is minimal. No structures are visible in any direction. Human disturbance is essentially absent, and persons visiting the area are likely to consider themselves fairly remote and isolated from civilization.

4.3.2 – Land Use Plan Classification and Wilderness Proximity

The site is located within the NECO planning area of the CDCA, and is managed from the Palm Springs-South Coast Field Office. The area is subject to the planning criteria established in the NECO plan. Under the plan the site is designated as Multiple Use Class L (Limited Use). Lands classified as Class L are intended to be managed in a manner that provides for generally lower-intensity, carefully controlled

multiple use of resources, while ensuring that sensitive values are not significantly diminished. New communication sites are allowable within Class L lands. NEPA requirements must be met, and a 30-day public comment period is required for EAs of communication systems of three or more sites.

The nearest designated Wilderness Area to the proposed site is the Palen-McCoy Wilderness. The nearest boundary of this Wilderness Area is approximately 1.25 miles to the south of the site at the base of the McCoy Mountains. Nearby Wilderness Area boundaries, if they are present, are depicted in the individual site exhibits in Appendix A of this EA.

4.3.3 – Wildlife and Botany

The communication site area contains vegetation associated with a Sonoran desert scrub plant community. The plant community within the area is a Sonoran creosote bush-scrub dominated by creosote bush and white bursage. Vegetation on the proposed communication site itself is very sparse, and is comprised of a handful of creosote bushes and white bursage, with several occurrences of annual Saharan mustard growing beneath the creosote. Several braided desert wash areas are present southeast of the site, and this area contains additional species, such as: brittlebush, white rhatany, catclaw, palo verde, and ironwood.

The site is not located within a DWMA, ACEC, or within designated Critical Habitat for any species. However, the site does contain suitable habitat for desert tortoise, a federally listed threatened species. While no tortoise or tortoise sign was directly observed on the project site, desert tortoise is presumed to be present in the area, though at relatively low densities.

Suitable habitat for loggerhead shrike, a California Species of Special Concern, occurs within the project area. No other sensitive plant or wildlife species were observed on the communication site or in the vicinity.

Additional information relating to wildlife and botany on the project site can be found in the Biological Resources Assessment prepared for this project, which is on file and available for public viewing at the BLM Palm Springs-South Coast Field Office.

4.3.4 – Cultural Resources

An existing literature review and records search was conducted for the Midland Communication Site APE, and for all lands within one mile of the facility. The APE was defined by considering the radio tower location with a 300 foot buffer extending in every direction to account for potential indirect impacts, minute changes to tower placement, staging areas, and access from the adjacent and existing Palen Pass Road. This resulted in an APE measuring approximately 6.5 acres. The records search was conducted at the EIC on January 27, 2010.

The records search indicated that there are no known and recorded cultural resources located within or adjacent to the APE, and no resources are known within one mile of the APE. In addition, the records

search showed that one study has been completed within one mile of the APE (RI-1249). This report retuned negative results for observable cultural resources within their study area; however, this report did not address the APE or immediately adjacent lands.

A Class III intensive pedestrian survey was conducted for the APE by a project archaeologist on April 1, 2010. The total survey area encompassed approximately 6.5 acres of the 6.5 acre APE. During the pedestrian survey, one previously undetected cultural resource was observed and recorded within the APE (Midland Isolate Primary Number 33-18105). This resource is found to the southwest of the proposed candidate, and was recorded as an historic-age isolated find consisting of four US Army C-ration cans. These cans are likely associated with the use of this area for military exercises associated with the DTC/C-AMA. The Midland APE and vicinity served as a military maneuver practice area to provide field training for the Allied invasion of North Africa during World War II.

The NAHC SLF search did not indicate the presence of known Native American cultural resources within the APE or within 0.5 mile. However, the NAHC did note the presence of Native American resources in close proximity to the APE. Therefore, these known Native American resources are found more than 0.5 mile from the APE.

4.3.5 – Visual Resources

The Midland Communication Site is located within a broad, unnamed valley, with the Little Maria Mountains to north, northeast, and east, the McCoy Mountains to the southeast, and Palen Mountains to the west. Vegetation is sparse, and is typical of that which is present in most of the Lower Colorado River Valley Subdivision of the Sonoran Desert.

Most viewers will see the communication tower site from along Palen Pass Road, and the dominant human-made visual features around the project area include Palen Pass Road, OHV tracks, and various prospecting pits in the nearby mountains. Otherwise, views of open desert surrounded by mountains are uninterrupted in all directions. See Appendix A of this EA for site photographs and a pictorial overview of the site and its location.

The Midland Communication Site is located on public lands that have not been assigned formal VRM classifications through the RMP process. Where no formal VRM classes have been assigned, it is BLM policy that interim VRM objectives be established, consistent with the guidelines provided in BLM Manual 8410 and using the VRM analytical system. Since an interim classification has not been assigned to the Midland Communication Site project area, an interim classification for the site will be established as part of this EA and is provided below. The corresponding VRM data sheets are included in Appendix B of this EA.

The VRM system is an analytical process that identifies, sets, and meets objectives for maintaining scenic values and visual quality. It functions in two ways. First, lands are evaluated and assigned management classifications. Management classes describe the different degrees of modification allowed to the basic

elements of the landscape. Second, when development is proposed, the degree of contrast between the proposed activity and the existing landscape is measured. This value is referred to as the Contrast Rating. The visual inventory evaluation is provided below and the assignment of a Contrast Rating for this site is described in the Environmental Consequences section of this EA.

4.3.5.1 – Scenic Quality

Scenic quality is a measure of the visual appeal of a tract of land. In the visual resource inventory process, public lands are given an A, B, or C rating based on the apparent scenic quality which is determined using seven key factors: landform, vegetation, water, color, adjacent scenery, scarcity, and cultural modifications. The Scenic Quality Field Inventory Form (BLM Form 8400-1) is included in Appendix B of this EA, and a summary is provided below.

1) **Landform:** The site is located within a broad valley with few remarkable or interesting landscape features (Score: 1).

2) **Vegetation:** There is little variety in the vegetation, minimal contrast, and a lack of intriguing detail (Score: 1).

3) **Water:** No watercourses are found on the project site, and water is not present (Score: 0).

4) **Color:** The area contains only subtle color variations, contrast, or interest, and is generally comprised of monochromatic tones (Score: 1).

5) **Adjacent Scenery:** Several mountain ranges are observable nearby, including the Little Maria Mountains to the north, northeast and east (approximately 3 miles distant); the McCoy Mountains to the southeast (approximately 2 miles distant); and the Palen Mountains to the west (approximately 3.25 miles distant). The open nature of the valley allows for striking and unadulterated views of all the nearby mountains, and this substantially enhances overall visual quality (Score: 5).

6) **Scarcity:** The site is interesting within its setting, but is fairly common to the region. However, this common setting lacks significant cultural modifications, thereby contributing to its overall scarcity (Score: 3).

7) **Cultural Modifications:** The site is immediately adjacent to the existing Palen Pass Road, and a few prospecting pits and tailings can be seen in the nearby mountains. These features neither detract nor significantly compliment the scenic quality (Score: 0).

Scenic Quality Score: 11. In accordance with BLM Manual 8410, a scenic quality score of 11 or less yields an overall scenic quality rating of "C."

4.3.5.2 – Viewer Sensitivity

Although landscapes have common elements that can be measured, there is still a subjective dimension to landscape aesthetics. Each viewer has perceptions about visual quality that are formed by individual influences, culture, visual training, familiarity with local geography, and personal values. In essence, sensitivity levels are a measure of public concern for scenic quality. Factors to consider in a sensitivity level analysis are the types of users, amount of use, public interest, adjacent land uses, and special areas. The Sensitivity Level Rating Sheet (BLM Form 8400-6) is included in Appendix B of this EA, and the analysis is discussed in detail below.

1) **Types of Users:** Typical viewers would predominantly be users of Palen Pass Road, which mainly includes recreational traffic, as this area is very remote. In general, this type of viewer is more sensitive to changes in visual quality than persons traversing the area on a regular basis (High).

2) **Amount of Use:** Low numbers of recreational visitors and using Palen Pass Road would see the project site. Protection of visual resources usually becomes more important as the number of viewers increase (Low).

3) **Public Interest:** Public interest in the visual quality of an area can be inferred by considering assigned land use designations. The Midland site is located within an area designated as Multiple Use Class L (Limited Use) in the NECO plan. Lands classified as Class L are intended to be managed in a manner that provides for generally lower-intensity, carefully controlled multiple uses of resources, while ensuring that sensitive values are not significantly diminished. This land use designation implies that the public may have some interest in the scenic quality of this area (Moderate).

4) **Adjacent Land Uses:** The project site is located in a very rural area and would not be visible from residential areas or major transportation arteries, where sensitivities to visual changes would be comparatively great. However, the Palen-McCoy Wilderness Area is located about 1.25 miles to the south of the site, where maintenance of visual quality becomes more important (Moderate).

5) **Special Areas:** The site is located within an area designated as Multiple Use Class L (Limited Use) in the NECO plan. Therefore, the maintenance of the existing landscape can be considered moderately to very important (High).

Viewer Sensitivity Rating: The area considered during the sensitivity analysis is not observable from any residential areas or major transportation arteries, and will be viewed by very few people. The majority of viewers would be comprised of recreational viewers, which are generally more sensitive to changes in visual quality than persons traversing an area on a regular basis. Considering the types of viewers and the location within an area where the maintenance of scenic quality is likely moderately to very important, tempered by the very low amount of use, the viewer sensitivity level is considered "moderate to high."

4.3.5.3 – Distance Zone

The visual quality of a landscape (and user reaction) may be magnified or diminished by the visibility of the landscape from major viewing routes and key observation points. The proposed project is located within the seldom-seen (ss) zone, which includes areas hidden from view. Specifically, the site is hidden from the view of any major viewing or traveling route, as the site is completely obscured by the nearby Little Maria, McCoy and Palen Mountains.

4.3.5.4 – VRM Summary and Assignment of Interim Classification

In accordance with BLM Manual 8410, Illustration 11, public lands assigned a visual quality rating of "C," a viewer sensitivity level of "moderate to high" and a "seldom-seen" distance zone, are designated as VRM Class 4. The management objective of this class is to provide for management activities which require major modifications of the existing character of the landscape, and the level of change to the landscape can be high. Management activities may dominate the view and be the major focus of viewer attention. However, every attempt should be made to minimize the impact of activities through careful location, minimal disturbance, and repeating the basic elements.

4.4 – Palen-McCoy Communication Site

4.4.1 – Area Description

See Appendix A of this EA for an overview of the proposed communication site, its location and site-specific photographs.

The proposed Palen-McCoy Communication Site is located in a broad gap where the Palen, Granite, and Little Maria Mountains come together. The site lies approximately eight miles north of the previously described Midland Communication Site, and adjacent to Palen Pass Road. Palen Pass itself lies 1.75 miles further west on Palen Pass Road, and State Highway 177 (Desert Center-Rice Road) lies an additional 13 miles beyond Palen Pass. See Exhibit 1 for a regional location of the project site.

Disturbance in the area is greater than that described for the Midland Communication Site to the south, and the area in which the Palen-McCoy Communication Site is located is less flat, exhibits more hills, and is broken by ephemeral drainages. Since the site is in an upland area, views are more expansive than in the valley area. An abandoned gypsum mining operation lies one mile to the northwest of the site, near Palen Pass. Palen Pass Road is very wide in this area, was graded within the historically recent past, and contains a number of parallel tracks. Numerous older vehicle tracks traverse the roadway, and extend across the desert in numerous locations throughout the area. The Palen Pass area was heavily impacted during training exercises conducted as part of the DTC/C-AMA during World War II, and there is a possibility that at least some of the tracks are remnants of those activities.

Like the previously described Midland Communication Site, the Palen Pass Communication Site is relatively isolated and remote. Beyond the limited ground disturbance that is present throughout the

general vicinity, no structures are present or visible in any direction. As such, visitors to the area are likely to consider themselves fairly remote and isolated from civilization.

4.4.2 – Land Use Plan Classification and Wilderness Proximity

The site is located within the NECO planning area of the CDCA, and is managed from the Palm Springs-South Coast Field Office. The area is subject to the planning criteria established in the NECO plan. Under the plan, the site is designated as Multiple Use Class L (Limited Use). Lands classified as Class L are intended to be managed in a manner that provides for generally lower-intensity, carefully controlled multiple use of resources, while ensuring that sensitive values are not significantly diminished. New communication sites are allowable within Class L lands. NEPA requirements must be met, and a 30-day public comment period is required for EAs of communication systems of three or more sites.

The nearest designated Wilderness Area to the proposed site is the Palen-McCoy Wilderness. The nearest boundary of this Wilderness Area is approximately 0.5 mile (2,500 feet) to the southwest of the site at the base of the Palen Mountains. Nearby Wilderness Area boundaries, if they are present, are depicted in the individual site exhibits in Appendix A of this EA.

4.4.3 – Wildlife and Botany

The larger project area vicinity contains vegetation associated with a Sonoran desert scrub plant community. The plant community within the vicinity of the project area is a Sonoran creosote bush-scrub dominated by creosote bush, white bursage, brittlebush, and ocotillo. The proposed communication site itself contains no vegetation, and is instead an area of tightly-packed desert pavement interspersed with larger rocks. Areas immediately adjacent to the proposed site, however, contain scattered occurrences of creosote and brittlebush.

The site is not located within a DWMA, ACEC, or within designated Critical Habitat for any species. However, the general project area contains suitable habitat for desert tortoise. A small fragment of an older tortoise carapace was found approximately 300 feet north of the proposed project site. Therefore, desert tortoise is presumed present within the general area.

Suitable habitat for two sensitive plant species occurs within the project area. These are 1) foxtail cactus, a CNPS List 4.3 species; and 2) winged cryptantha, a CNPS List 4.3 species. None of these species were observed within the immediate project area.

Additional information relating to wildlife and botany on the project site can be found in the Biological Resources Assessment prepared for this project, which is on file and available for public viewing at the BLM Palm Springs-South Coast Field Office.

4.4.4 – Cultural Resources

An existing literature review and records search was conducted for the Palen-McCoy Communication Site APE, and for all lands within one mile of the APE. The APE was defined by considering the radio tower

location with a 300 foot buffer extending in every direction to account for potential indirect impacts, minute changes to tower placement, staging areas, and access from the adjacent and existing Palen Pass Road. This resulted in an APE measuring approximately 6.5 acres. The records search was conducted at the EIC on January 27, 2010.

The records search indicated that there were no known and recorded cultural resources located within or adjacent to the APE. In addition, one assessment has been completed for the lands within one mile of the project site. This report returned positive results for observable cultural resources beyond the boundaries of the APE (RI-1249), and recorded site CA-RIV-1463. This sizable known and recorded resource consists of more than 100 features and approximately 2,500 artifacts associated with military activities completed within the Palen Pass Maneuver Area of the DTC/C-AMA. The Palen-McCoy APE and vicinity served as a military maneuver practice area to provide field training for the Allied invasion of North Africa during World War II. CA-RIV-1463 is the only known and recorded resource found within one mile of the APE, and is located more than 0.5 mile from the APE boundary.

A Class III intensive pedestrian survey was conducted for the APE by a project archaeologist on April 1, 2010. The total survey area encompassed approximately 6.5 acres of the 6.5 acre APE. During the pedestrian survey, one previously undetected cultural resource was observed and recorded within the APE (Palen-McCoy Isolate Primary Number 33-18106). This resource is found to the north and northwest of the proposed candidate, and was recorded as an historic age isolated find consisting of at least four fragmented Coca-Cola bottles and three US Army C-ration cans. This refuse is likely associated with the use of this area for military exercises associated with the DTC/C-AMA.

The NAHC SLF search did not indicate the presence of known Native American cultural resources within the APE or within 0.5 mile. However, the NAHC did note the presence of Native American resources in close proximity to the APE. Therefore, these known Native American resources are found more than 0.5 mile from the APE.

4.4.5 – Visual Resources

The Palen-McCoy Communication Site is located within a narrow valley or gap, surrounded by the Little Maria, Palen and Granite Mountains. The Little Maria Mountains are found to the east, while the Palen Mountains are found to the west, and the Granite Mountains are found to the northwest. Vegetation is sparse, and is typical of that which is present in most of the Lower Colorado River Valley Subdivision of the Sonoran Desert.

Most viewers will see the communication tower site from along Palen Pass Road, and the dominant human-made visual features around the project area include Palen Pass Road and some prospecting pits and tailings observable within the nearby mountains. Otherwise, views of open desert surrounded by mountains are uninterrupted in all directions. See Appendix A of this EA for site photographs and a pictorial overview of the site and its location.

The Palen-McCoy Communication Site is located on public lands that have not been assigned formal VRM classifications through the RMP process. Where no formal VRM classes have been assigned, it is BLM policy that interim VRM objectives be established, consistent with the guidelines provided in BLM Manual 8410 and using the VRM analytical system. Since an interim classification has not been assigned to the Palen-McCoy Communication Site project area, an interim classification for the site will be established as part of this EA and is provided below. The corresponding VRM data sheets are included in Appendix B of this EA.

The VRM system is an analytical process that identifies, sets, and meets objectives for maintaining scenic values and visual quality. It functions in two ways. First, lands are evaluated and assigned management classifications. Management classes describe the different degrees of modification allowed to the basic elements of the landscape. Second, when development is proposed, the degree of contrast between the proposed activity and the existing landscape is measured. This value is referred to as the Contrast Rating. The visual inventory evaluation is provided below and the assignment of a Contrast Rating for this site is described in the Environmental Consequences section of this EA.

4.4.5.1 – Scenic Quality

Scenic quality is a measure of the visual appeal of a tract of land. In the visual resource inventory process, public lands are given an A, B, or C rating based on the apparent scenic quality which is determined using seven key factors: landform, vegetation, water, color, adjacent scenery, scarcity, and cultural modifications. The Scenic Quality Field Inventory Form (BLM Form 8400-1) is included in Appendix B of this EA, and a summary is provided below.

1) **Landform:** The site is located within a valley or gap with few interesting landscape features (Score: 1).

2) **Vegetation:** There is little variety in the vegetation, minimal contrast, and a lack of intriguing detail (Score: 1).

3) **Water:** No watercourses are found on the project site, and water is not present (Score: 0).

4) **Color:** The area contains only subtle color variations, contrast, or interest, and is generally comprised of muted, monochromatic tones (Score: 1).

5) **Adjacent Scenery:** Several mountain ranges are observable nearby, including the Little Maria Mountains to the north, northeast and east (approximately 2.5 miles distant); the McCoy Mountains to the southeast (approximately 1.8 miles distant); and the Palen Mountains to the west (approximately 3 miles distant). The open nature of the valley allows for striking and unadulterated views of all the nearby mountains, and this substantially enhances overall visual quality (Score: 5).

6) **Scarcity:** The site is interesting within its setting, but is fairly common to the region. However, this common setting lacks significant cultural modifications, thereby contributing to its overall scarcity (Score: 3).

7) **Cultural Modifications:** The site is immediately adjacent to the existing Palen Pass Road, exhibits numerous vehicle tracks and an abandoned gypsum mine can be seen in the nearby mountains. These features neither detract nor significantly compliment the scenic quality (Score: 0).

Scenic Quality Score: 11. In accordance with BLM Manual 8410, a scenic quality score of 11 or less yields an overall scenic quality rating of "C."

4.5.5.2 – Viewer Sensitivity

Although landscapes have common elements that can be measured, there is still a subjective dimension to landscape aesthetics. Each viewer has perceptions about visual quality that are formed by individual influences, culture, visual training, familiarity with local geography, and personal values. In essence, sensitivity levels are a measure of public concern for scenic quality. Factors to consider in a sensitivity level analysis are the types of users, amount of use, public interest, adjacent land uses, and special areas. The Sensitivity Level Rating Sheet (BLM Form 8400-6) is included in Appendix B of this EA, and the analysis is discussed in detail below.

1) **Types of Users:** Typical viewers would be users of Palen Pass Road, which mainly includes recreational traffic, as this area is very remote. In general, this type of viewer is more sensitive to changes in visual quality than persons traversing the area on a regular basis (High).

2) **Amount of Use:** Low numbers of recreational visitors and using Palen Pass Road would see the project site. Protection of visual resources usually becomes more important as the number of viewers increase (Low).

3) **Public Interest:** Public interest in the visual quality of an area can be inferred by considering assigned land use designations. The Palen-McCoy site is located within an area designated as Multiple Use Class L (Limited Use) in the NECO plan. Lands classified as Class L are intended to be managed in a manner that provides for generally lower-intensity, carefully controlled multiple uses of resources, while ensuring that sensitive values are not significantly diminished. This land use designation implies that the public may have some interest in the scenic quality of this area (Moderate).

4) **Adjacent Land Uses:** The project site is located in a very rural area and would not be visible from residential areas or major transportation arteries, where sensitivities to visual changes would be comparatively great. However, the Palen-McCoy Wilderness Area is located about 0.5 mile to the southwest of the site, where maintenance of visual quality becomes more important (High).

5) **Special Areas:** The site is located within an area designated as Multiple Use Class L (Limited Use) in the NECO plan. Therefore, the maintenance of the existing landscape can be considered moderately to very important (High).

Viewer Sensitivity Rating: The area considered during the sensitivity analysis is not observable from any residential areas or major transportation arteries, and will be viewed by very few people. The majority of viewers would be comprised of recreational viewers along Palen Pass Road. However, even though the number of viewers will be very low, the location of the site within lands designated as Class L (Limited Use) and within 0.5 mile of the Palen-McCoy Wilderness renders the viewer sensitivity level "high."

4.4.5.3 – Distance Zone

The visual quality of a landscape (and user reaction) may be magnified or diminished by the visibility of the landscape from major viewing routes and key observation points. The proposed project is located within the seldom-seen (ss) zone, which includes areas hidden from view. Specifically, the site is hidden from the view of any major viewing or traveling route, as the site is completely obscured by the nearby Little Maria, Palen, and Granite Mountains.

4.4.5.4 – VRM Summary and Assignment of Interim Classification

In accordance with BLM Manual 8410, Illustration 11, public lands assigned a visual quality rating of "C," a viewer sensitivity level of "high" and a "seldom-seen" distance zone, are designated as VRM Class 4. The management objective of this class is to provide for management activities which require major modifications of the existing character of the landscape, and the level of change to the landscape can be high. Management activities may dominate the view and be the major focus of viewer attention. However, every attempt should be made to minimize the impact of activities through careful location, minimal disturbance, and repeating the basic elements.

4.5 – Road 62 Communication Site

4.5.1 – Area Description

See Appendix A of this EA for an overview of the proposed communication site, its location and site-specific photographs.

The proposed Road 62 is located at the junction of State Highway 62 (Twentynine Palms Highway) and State Highway 177 (Desert Center-Rice Road). See Exhibit 1 for a regional location of the project site. The junction is located in a broad pass, with the Iron Mountains found to the north and the Granite Mountains to the south. The pass contains some components of critical infrastructure, including the Colorado River Aqueduct and a high-tension power line. From the junction it is approximately 52 miles west on State Highway 62 to Twentynine Palms, approximately 60 miles east on State Highway 62 to Parker, Arizona, and approximately 27 miles south on State Highway 177 to Desert Center and I-10.

Disturbance in the area and vicinity is extensive. The California Department of Transportation (Caltrans) uses an area immediately adjacent to the proposed communication site to store large piles of road-making

materials, most notably asphalt and gravel. Litter accumulation at the junction is substantial, and a high-tension power line is visible a short distance to the east. The junction is also a busy intersection. Caltrans estimates an average annual daily traffic count of approximately 500 vehicles per day, with as many as 2,750 vehicles passing through the junction daily during peak periods, usually weekends. The route is popular with persons heading from the greater Los Angeles area to the Colorado River.

4.5.2 – Land Use Plan Classification and Wilderness Proximity

The site is located within the NECO planning area of the CDCA, and is managed from the Palm Springs-South Coast Field Office. The area is subject to the planning criteria established in the NECO plan and is classified under the plan as Multiple Use Class M (Moderate Use). Lands classified as Class M are intended to be managed in a manner that allows for a controlled balance between higher intensity use and protection of public lands. The class provides for a wide variety of present and future uses such as mining, livestock grazing, recreation, energy, and utility development. The Class M classification is designed to conserve desert resources and to mitigate damage to those resources that permitted uses may cause. Electric distribution facilities are allowed under this classification, but should be placed within existing rights-of-way where they are reasonably available.

The nearest designated Wilderness Area to the proposed site is the Palen-McCoy Wilderness. The nearest boundary of this Wilderness Area is approximately five miles to the southeast of the site in the Granite Mountains. Nearby Wilderness Area boundaries, if they are present, are depicted in the individual site exhibits in Appendix A of this EA.

4.5.3 – Wildlife and Botany

The larger project area vicinity contains vegetation associated with a Sonoran desert scrub plant community. The plant community within the vicinity of the site is a Sonoran creosote bush-scrub dominated by creosote bush, white bursage, and brittlebush. The surrounding area contains significant quantities of Sahara mustard, which in some areas creates a nearly continuous ground cover that is broken only by occasional creosote. The proposed communication site itself contains very little vegetation, appears to have been graded at some point in the past and is still subject to occasional vehicular traffic and parking. Bare desert soils predominate throughout the proposed site itself, interspersed with sparse occurrences of creosote.

The site is not located within a DWMA, ACEC, or within designated Critical Habitat for any species. However, the general project area contains suitable habitat for desert tortoise. No tortoise or tortoise sign was found on the project site during the survey. However, desert tortoise is known to occur in low densities within the general vicinity of the project site. Therefore, desert tortoise is presumed present within the project area and may be affected by the proposed project.

Suitable habitat for three sensitive plant species occurs within the project area. These are 1) winged cryptantha, a CNPS List 4.3 species; 2) foxtail cactus, a CNPS List 4.3 species; and 3) small-flowered androstephium, a CNPS List 2.2 species. These species were not observed in the project area.

Suitable habitat for loggerhead shrike, a California Species of Special Concern, occurs within the project area.

Additional information relating to wildlife and botany on the project site can be found in the Biological Resources Assessment prepared for this project, which is on file and available for public viewing at the BLM Palm Springs-South Coast Field Office.

4.5.4 – Cultural Resources

An existing literature review and records search was conducted for the Road 62 Communication Site APE, and for all lands within one mile of the facility. The APE was defined by considering the radio tower location with a 300 foot buffer extending in every direction to account for potential indirect impacts, minute changes to tower placement, staging areas, and access from the adjacent and existing State Highway 62. This resulted in an APE measuring approximately 6.5 acres. The records search was conducted at the EIC on January 27, 2010.

The records search indicated that there are no known and recorded cultural resources located within or adjacent to the APE, and no resources are known within one mile of the APE. In addition, the records search showed that three studies have been completed within one mile of the APE (RI-0617; RI-1855; and RI-8050). All of these studies returned negative results for observable cultural resources within the one mile search radius of the APE.

A Class III intensive pedestrian survey was conducted for the APE by a project archaeologist on April 1, 2010. The total survey area encompassed approximately 6.5 acres of the 6.5 acre APE. During the pedestrian survey, no previously undetected cultural resources were observed within or adjacent to the APE.

The NAHC SLF search did not indicate the presence of known Native American cultural resources within the APE or within 0.5 mile. However, the NAHC did note the presence of Native American resources in close proximity to the APE. Therefore, these known Native American resources are found more than 0.5 mile from the APE.

4.5.5 – Visual Resources

The Road 62 Communication Site is located at the junction of State Highway 62 and State Highway 177 and within a broad pass or valley. The pass is situated between the Iron, Granite and Coxcomb Mountains. The Iron Mountains are located about two miles to the north of the site, while the Granite Mountains are found about 0.6 mile to the south and the Coxcomb Mountains are located about six miles to the west and southwest, in the distance. The area is characterized by broad valleys with sporadic mountains. Vegetation at the site is extremely sparse due to soil disturbances, and the larger area exhibits a Sonoran creosote bush-scrub community. The surrounding area contains significant quantities of Sahara mustard, which in some areas creates a nearly continuous ground cover that is broken only by occasional creosote.

Most viewers can see the communication tower site from either State Highway 62 or State Highway 177, and the junction can be very busy during peak periods associated with recreational activities at the Colorado River. The dominant human-made visual features around the project area include State Highway 62, State Highway 177, associated Highway signage, piles of gravels and asphalt associated with Caltrans road maintenance activities, and a high-tension power line. With the exception of these noted cultural modifications, views of the open valley surrounded by mountains are uninterrupted in all directions. See Appendix A of this EA for site photographs and a pictorial overview of the site and its location.

The Road 62 Communication Site is located on public lands that have not been assigned formal VRM classifications through the RMP process. Where no formal VRM classes have been assigned, it is BLM policy that interim VRM objectives be established, consistent with the guidelines provided in BLM Manual 8410 and using the VRM analytical system. Since an interim classification has not been assigned to the Road 62 Communication Site project area, an interim classification for the site will be established as part of this EA and is provided below. The corresponding VRM data sheets are included in Appendix B of this EA.

The VRM system is an analytical process that identifies, sets, and meets objectives for maintaining scenic values and visual quality. It functions in two ways. First, lands are evaluated and assigned management classifications. Management classes describe the different degrees of modification allowed to the basic elements of the landscape. Second, when development is proposed, the degree of contrast between the proposed activity and the existing landscape is measured. This value is referred to as the Contrast Rating. The visual inventory evaluation is provided below and the assignment of a Contrast Rating for this site is described in the Environmental Consequences section of this EA.

4.5.5.1 – Scenic Quality

Scenic quality is a measure of the visual appeal of a tract of land. In the visual resource inventory process, public lands are given an A, B, or C rating based on the apparent scenic quality which is determined using seven key factors: landform, vegetation, water, color, adjacent scenery, scarcity, and cultural modifications. The Scenic Quality Field Inventory Form (BLM Form 8400-1) is included in Appendix B of this EA, and a summary is provided below.

1) **Landform:** The site is located within a broad valley with few interesting landscape features (Score: 1).

2) **Vegetation:** There is little variety in the vegetation, with minimal contrast and a lack of intriguing detail. The only noted exception is the presence of Sahara mustard, which introduces light yellows into the color palate (Score: 2).

3) **Water:** No watercourses are found on the project site, and water is not present (Score: 0).

4) **Color:** The area generally contains only subtle color variations, contrast, or interest, and is generally monochrome (Score: 1).

5) **Adjacent Scenery:** Several mountain ranges are observable nearby, including the Iron Mountains to the north (approximately two miles distant), the Granite Mountains to the south (approximately 0.6 mile distant) and the Coxcomb Mountains to the west (approximately six miles distant). The open nature of the valley allows for unadulterated views of all the nearby mountains, and this substantially enhances overall visual quality (Score: 5).

6) **Scarcity:** The site is interesting within its setting, but is fairly common to the region (Score: 1).

7) **Cultural Modifications:** The site is immediately adjacent to the existing State Highway 62 and State Highway 177. In addition, high-tension power lines are found in the area, and are observable from the site. These features neither significantly detract from nor enhance the scenic quality (Score: 0).

Scenic Quality Score: 10. In accordance with BLM Manual 8410, a scenic quality score of 11 or less yields an overall scenic quality rating of "C."

4.5.5.2 – Viewer Sensitivity

Although landscapes have common elements that can be measured, there is still a subjective dimension to landscape aesthetics. Each viewer has perceptions about visual quality that are formed by individual influences, culture, visual training, familiarity with local geography, and personal values. In essence, sensitivity levels are a measure of public concern for scenic quality. Factors to consider in a sensitivity level analysis are the types of users, amount of use, public interest, adjacent land uses, and special areas. The Sensitivity Level Rating Sheet (BLM Form 8400-6) is included in Appendix B of this EA, and the analysis is discussed in detail below.

1) **Types of Users:** Typical viewers would predominantly be users of State Highway 62 and State Highway 177. During peak travel periods, the users would mainly consist of recreational travelers, and likely traffic to and from the Colorado River recreational areas. In general, recreational travelers are more sensitive to changes in visual quality than persons traversing an area on a fairly regular basis, such as commuters (High).

2) **Amount of Use:** Based upon Caltrans estimates of vehicular activity at the junction of State Highway 62 and State Highway 177, the area experiences a high volume of traffic. Protection of visual resources usually becomes more important as the number of viewers increase (High).

3) **Public Interest:** Public interest in the visual quality of an area can be inferred by considering assigned land use designations. The Road 62 site is located within an area designated as Multiple Use Class M (Moderate Use) in the NECO plan. Lands classified as Class M serve to provide for

a wide variety of present and future uses such as mining, livestock grazing, recreation, energy, and utility development. This land use designation implies that the public may expect modifications to the scenic quality of the area to support such land use endeavors. In addition, the location of the site adjacent to existing critical infrastructure, such as State highways, transmission lines and the Colorado River Aqueduct, indicates that there is the likely expectation that this area would be subjected to some level of cultural modification, and comparatively lower scenic quality (Low).

4) **Adjacent Land Uses:** The project site is located in a rural area that is not visible from residential areas, but is adjacent to State highways that experience a high volume of recreational traffic. While these types of viewers are more sensitive to changes in visual quality, the presence of existing infrastructure in this area likely creates an expectation that some changes will occur in overall visual quality. The nearest designated Wilderness Area to the proposed site is the Palen-McCoy Wilderness, and the boundary is found approximately five miles to the southeast of the site. As the site is located within an area supporting critical infrastructure elements, and is far beyond the boundaries of sensitive Wilderness Areas, the maintenance of visual quality is likely considered only somewhat important (Low).

5) **Special Areas:** The site is located within an area designated as Multiple Use Class M (Moderate Use) in the NECO plan. Therefore, the maintenance of the existing landscape can be considered moderately important (Moderate).

Viewer Sensitivity Rating: The area considered during the sensitivity analysis is not observable from any residential areas, but will be viewed from two major transportation arteries, and a high volume of traffic. The majority of viewers would be comprised of recreational viewers, and these types of viewers are generally more sensitive to changes in visual quality. This area has been classified as Multiple Use Class M (Moderate Use) in the NECO plan, which provides for a wide variety of management activities during the present and into the future. A moderate amount of cultural modification already exists in the area, and consists of State highways, transmission lines and the Colorado River Aqueduct. Considering the level of use and types of viewers against the existing cultural modifications, as well as the likely expectation for additional modifications, the viewer sensitivity is considered "moderate."

4.5.5.3 – Distance Zone

The visual quality of a landscape (and user reaction) may be magnified or diminished by the visibility of the landscape from major viewing routes and key observation points. The proposed project is located within the foreground-middleground (fm) zone, which includes areas observable from highways, rivers, and other vantage points. In these areas, management activities can be viewed, and might be viewed in detail. Specifically, the site is found immediately adjacent to State Highway 62 and State Highway 177. Therefore, as the site is observable from these adjacent vantage points, it is found within the foreground-middleground zone.

4.5.5.4 – VRM Summary and Assignment of Interim Classification

In accordance with BLM Manual 8410 and Illustration 11, public lands assigned a visual quality rating of "C," a viewer sensitivity level of "moderate," and are within the "foreground-middleground" distance zone, are designated as VRM Class 4. The management objective of this class is to provide for management activities which require major modifications of the existing character of the landscape, and the level of change to the landscape can be high. Management activities may dominate the view and be the major focus of viewer attention. However, every attempt should be made to minimize the impact of activities through careful location, minimal disturbance, and repeating the basic elements.

SECTION 5: ENVIRONMENTAL CONSEQUENCES

Table 6 lists the potential effects to various elements of the human environment, including the "critical elements" listed in BLM Manual H-1790-1. Table 6 also summarizes the potential effects of the project in relation to the Proposed Action and the No Action Alternative. Elements for which there are no identified effects will not be assessed further in this document.

Table 6: Critical Elements

Environmental Element	Proposed Action	No Action Alternative
Air Quality	No effect	No effect
Areas of Critical Environmental Concern (ACEC)/Desert Wildlife Management Units (DWMA)	May effect, but will not adversely affect, as mitigated	No effect
Cultural Resources	May effect, but will not adversely affect	No effect
Native American Concerns	No effect	No effect
Farmlands	Not applicable	No effect
Floodplains	Not applicable	No effect
Energy (Executive Order 13212)	Not applicable	No effect
Minerals	Not applicable	No effect
Threatened and & Endangered Animal Species	May effect, but will not adversely affect, as mitigated	No effect
T&E Plant Species	May effect, but will not adversely affect, as mitigated	No effect
Invasive, Nonnative Species	No effect	No effect
Wastes (hazardous/solid)	No effect	No effect
Water Quality (surface and ground)	No effect	No effect
Wetlands/Riparian Zones	Not applicable	No effect
Wild and Scenic Rivers	Not applicable	No effect
Wilderness	Not applicable	No effect
Environmental Justice	Not applicable	No effect
Health and Safety Risks to Children	Not applicable	No effect
Visual Resource Management	Conforms to appropriate BLM VRM Class objectives	No effect

5.1 – Black Jack Communication Site

5.1.1 – Wildlife and Botany

The project site is not located within a DWMA, an ACEC, or within designated Critical Habitat for any species. However, suitable habitat for desert tortoise is present throughout the project area and during the focused survey the species was determined to be present in the area. The proposed undertaking falls within the definition of actions covered by the BO for Small Projects Affecting Desert Tortoise Habitat in Imperial, Inyo, Kern, Los Angeles, Riverside, and San Bernardino Counties (Small Projects BO; 1-8-97-F-17) and the BO for the California Desert Conservation Area Plan [Desert Tortoise] (6840 CA930(P)) (1-8-04-F-43R). Both of these biological opinions analyzed the potential impacts to the desert tortoise on BLM lands from minor construction projects, defined as projects impacting less than two acres. These biological opinions specifically covered the construction of communication facilities. As per the BO, mitigation measures will be implemented to protect against inadvertent take of the species. Measures to that effect are provided in Section 7 of this EA. Thus, this undertaking will effect, but not adversely affect desert tortoise, as mitigated.

Suitable habitat for winged cryptantha, glandular ditaxis, California ditaxis, desert unicorn plant, Coves' cassia, and jackass clover is present in the vicinity of the project site. None of these species were directly observed in the immediate area. Regardless, the limited impacts associated with this undertaking would not likely affect the viability of any self-sustaining population, if these species did occur onsite. Therefore, these species would not be adversely affected by the undertaking.

Suitable habitat for loggerhead shrike occurs within the project area. However, due to the limited impacts associated with this undertaking, populations of the species would not be adversely affected. The overall footprint of the undertaking is negligible when considered against the overall availability of habitat in the area for this species. Therefore, the undertaking would not likely affect the viability of any self-sustaining population of these species.

Areas within and adjacent to the project site contain suitable nesting habitat for avian species. Therefore, construction activities have the potential to affect nesting avian species protected under the Migratory Bird Treaty Act (MBTA) if those activities take place during the avian nesting season, and measures to provide against potential impacts are provided in Section 7 of this EA. Thus, this undertaking will not adversely affect nesting birds, as mitigated.

5.1.2 – Cultural Resources

The results of the records searches and the Class III intensive pedestrian survey indicate that one known and recorded cultural resource is located within the APE (33-16949). However, previous studies have determined that this resource is of modern age, and is therefore not considered a cultural resource for the purposes of this assessment. Beyond this modern resource, the records search and pedestrian survey did not indicate the presence of any cultural resources within the Black Jack Communication Site APE for

this undertaking. In addition, the closest known and recorded cultural resources are located more than 0.5 mile from the APE. These known resources will not be impacted by the undertaking.

This undertaking will not adversely affect any known or recorded cultural resources within the APE, including Historic Properties, defined as cultural resources included in or eligible for inclusion in the National Register of Historic Places (NRHP). Additionally, the construction of the proposed communication site does not negatively impact the current viewshed as it relates to known Historic Properties. Thus, this undertaking will have no effect on Historic Properties.

5.1.3 – Visual Resources

The basic philosophy underlying the visual quality of a landscape depends on the visual contrast created between a project and the existing landscape. The contrast can be measured by comparing the project features with the major features in the surrounding landscape. The contrast rating evaluation should be conducted from the most critical viewpoint(s). These are usually along commonly traveled routes or at other likely observation points. The Black Jack Communication Site is unobservable from any major transportation routes, and is best observed from Arlington Mine Road. Accordingly, the visual simulation rendering prepared for the undertaking was created as if a viewer were observing the site from Arlington Mine Road, approximately 0.25 mile from the Black Jack tower location. Viewers traveling along Arlington Mine Road in this area would experience a very similar view. The visual simulations are located in Appendix B of this EA.

The simulated rendering of the proposed Black Jack Communication Site allows for a reasonable comparison of the visual environment both "before" and "after" project implementation. It also allows for an accurate evaluation as to the degree of contrast that would be created by the undertaking. This evaluation and the assignment of a contrast rating is based on information contained in the Visual Contrast Rating Worksheet (BLM Form 8400-4), included in Appendix B of this EA. The contrast rating and a summary of the worksheet data for the proposed communication site is provided below.

5.1.3.1 – Contrast Rating

A contrast evaluation for the project reveals that the degree of contrast would be weak to moderate. This is based primarily on the small scope of the project, the proposed colors of the project, and the replication of lines already present on site. The proposed lines and colors of the proposed tower blend into the nearby brown and light brown mountains. The predominant contrast would be the vertical line established by the new 150-foot tower viewed against the irregular silhouette-lines of the nearby mountains to the west, southwest, north and east. Depending on the angle of view, the tower may be seen extending above the horizon. However, due to the spatial relationship of the proposed project to the numerous brown and light brown mountains nearby, the angles at which the tower can be viewed extending above the horizon are diminished. Additionally, given the jagged silhouette-line formed by the mountains against the sky, the vertical lines of the proposed project appear less dominant or bold.

The tower and associated facilities would likely attract the view of travelers on Arlington Mine Road. However, the project is not observable from any major transportation corridor, including Midland Road, which is the only paved road within close proximity to the project site. Therefore, a small number of viewers would likely notice and pay attention to the project while traveling along Arlington Mine Road, and while adjacent to the project. Their view will not be completely dominated by the project, as the scale of the proposed project is relatively small and its setting against the nearby mountains would prevent the vertical lines from dominating the characteristic landscape. The complexity of the Little Maria, Big Maria and McCoy Mountain's forms serves to diminish the vertical line of the tower, as it appears to blend into the brown and jagged ridgeline. These factors associated with Landforms, considered in conjunction with weak contrast ratings with regard to Vegetation and Structures, suggests that an appropriate contrast rating for the proposed communication tower would be "weak to moderate."

As was noted in the Affected Environment analysis for the Black Jack site, the interim VRM classification for this site is Class 4. According to BLM Manual 8410, the objective for Class 4 is to provide for management activities which require major modifications of the existing character of the landscape, and the level of change to the landscape can be high. When the degree of contrast is weak to moderate, a project can be seen and may attract minimal attention, but does not dominate the view of the casual observer. A contrast rating of "weak to moderate" for the undertaking is consistent with VRM objectives for Class 4 areas. Thus, this undertaking has no effect on visual resources.

5.1.4 – Residual Impacts

Approximately 0.23 acre of previously disturbed lands would be permanently lost along with its plants and wildlife. The communication tower would be visible from observation points in the area.

5.2 – Box Canyon Communication Site

5.2.1 – Wildlife and Botany

The project site is not located within an ACEC, but it is located within the Chuckwalla DWMA and designated Critical Habitat for desert tortoise. Suitable habitat for desert tortoise is present throughout the project area. The proposed project falls within the definition of actions covered by the BO for Small Projects Affecting Desert Tortoise Habitat in Imperial, Inyo, Kern, Los Angeles, Riverside, and San Bernardino Counties (Small Projects BO; 1-8-97-F-17) and the BO for the California Desert Conservation Area Plan [Desert Tortoise] (6840 CA930(P)) (1-8-04-F-43R). Both of these biological opinions analyzed the potential impacts to the desert tortoise on BLM lands from minor construction projects, defined as projects impacting less than two acres. These biological opinions specifically covered the construction of communication facilities. As per the BO, mitigation measures will be implemented to protect against inadvertent take of the species. Measures to that effect are provided in Section 7 of this EA. Thus, this undertaking will effect, but not adversely affect desert tortoise, as mitigated.

The project area contains suitable habitat for foxtail cactus, glandular ditaxis, California ditaxis, Coves' cassia, desert unicorn plant, sand-evening primrose, and winged cryptantha. However, the proposed

project is limited in size and the extent of overall impacts to suitable habitat for these species is minimal. Due to the small size of the proposed impact area and the fact that none of these species were observed within the project area and immediate vicinity, it is not likely that the site would support large numbers of these species, nor would it contribute substantially to the overall populations of these species. Therefore, these species' populations would not likely be substantially affected by the proposed undertaking. Any potential impacts to individuals would be considered less than significant.

Suitable habitat for loggerhead shrike occurs within the project area. However, due to the limited impacts associated with this project, populations of the species would not be adversely affected. The overall footprint of the undertaking is negligible when considered against the overall availability of habitat in the area for this species. Therefore, the undertaking would not likely affect the viability of any self-sustaining population of these species.

Areas within and adjacent to the project site contain suitable nesting habitat for avian species. Therefore, construction activities have the potential to affect nesting avian species protected under the MBTA if those activities take place during the avian nesting season, and measures to provide against potential impacts are provided in Section 7 of this EA. Thus, this undertaking will not adversely affect nesting birds, as mitigated

5.2.2 – Cultural Resources

The results of the records search and the Class III intensive pedestrian survey indicate that no known or recorded cultural resources are located within the Box Canyon Communication Site APE for this undertaking. Four known and recorded cultural resources are located within one mile of the proposed communication site. Three of these previously recorded resources are found within 0.25 mile of the APE, but beyond the APE boundary, while the remaining resource is found more than 0.5 mile from the APE. None of these known and recorded resources will be impacted by the undertaking.

This undertaking will not adversely affect any known or recorded cultural resources within the APE, including Historic Properties, defined as cultural resources included in or eligible for inclusion in the NRHP. Additionally, the construction of the proposed communication site does not negatively impact the current viewshed as it relates to known Historic Properties. Thus, this undertaking will have no effect on Historic Properties.

5.2.3 – Visual Resources

The basic philosophy underlying the visual quality of a landscape depends on the visual contrast created between a project and the existing landscape. The contrast can be measured by comparing the project features with the major features in the surrounding landscape. The contrast rating evaluation should be conducted from the most critical viewpoint(s). These are usually along commonly traveled routes or at other likely observation points. While the site is found about four miles to the south of I-10, the majority of viewers will see the site as they travel in either direction along State Highway 195 (Box Canyon Road). Accordingly, the visual simulation rendering prepared for the undertaking was created as if a viewer were

observing the site from State Highway 195 (Box Canyon Road), approximately 0.5 mile from the Box Canyon tower location. Viewers traveling along State Highway 195 in this area would experience a very similar view from this particular vantage point. The visual simulations are located in Appendix B of this EA.

The simulated rendering of the proposed Box Canyon Communication Site allows for a reasonable comparison of the visual environment both "before" and "after" project implementation. It also allows for an accurate evaluation as to the degree of contrast that would be created by the undertaking. This evaluation and the assignment of a contrast rating is based on information contained in the Visual Contrast Rating Worksheet (BLM Form 8400-4), and included in Appendix B of this EA. The contrast rating and a summary of the worksheet data for the proposed communication site is provided below.

5.2.3.1 – Contrast Rating

A contrast evaluation for the undertaking reveals that the degree of contrast would be weak to moderate. This is based primarily on the small scope of the project and the proposed colors of the project, as the proposed grey, galvanized steel tower does not introduce discordant colors into the area. The predominant contrast would be the vertical line established by the new 100-foot tower viewed against the skyline, as most views result in the tower extending into the skyline, and above the horizon. However, the small size, grey color and the low glare of the tower render the vertical line of the proposed project less dominant or bold.

The tower and associated facilities would likely be noticeable to a casual observer traveling through the area for a very short period of time, but their view would not be dominated or necessarily attracted by the project. The view of a casual observer would not be attracted by the project from a major transportation corridor, such as I-10 found four miles to the north, as I-10 is nearly unobservable from the site. Therefore, a comparatively smaller number of viewers would likely observe the project as they travel along State Highway 195. The project would be observable to viewers on State Highway 195 for only short periods of time, as the edges of the meandering Box Canyon obscure the project from view, depending on the viewing angle. In addition, the existing character of the terrain, punctuated by sparse vegetation, would remain unaltered after project implementation. These factors, considered in conjunction with the weak or non-existent contrast rating with regard to Vegetation and Structures suggests that an appropriate contrast rating for the proposed communication tower would be "weak moderate."

As was noted in the Affected Environment analysis for the Box Canyon site, the interim VRM classification for this site is Class 2. According to BLM Manual 8410, the objective for Class 2 is to retain the existing character of the landscape, and the level of change to the characteristic landscape should be low. Management activities may be seen, but should not attract the attention of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape. When the degree of contrast is weak to moderate, a project can

be seen and noticed, but would not attract the attention of a casual observer. A contrast rating of "weak to moderate" for the undertaking is consistent with VRM objectives for Class 2 areas. Thus, this undertaking has no effect on visual resources.

5.2.4 – Residual Impacts

Approximately 0.23 acre of previously disturbed lands would be permanently lost along with its plants and wildlife. The communication tower would be visible from observation points in the area.

5.3 – Midland Communication Site

5.3.1 – Wildlife and Botany

The project site is not located within a DWMA, an ACEC, or within designated Critical Habitat for any species. However, suitable habitat for desert tortoise is present throughout the project area. The proposed project falls within the definition of actions covered by the BO for Small Projects Affecting Desert Tortoise Habitat in Imperial, Inyo, Kern, Los Angeles, Riverside, and San Bernardino Counties (Small Projects BO; 1-8-97-F-17) and the BO for the California Desert Conservation Area Plan [Desert Tortoise] (6840 CA930(P)) (1-8-04-F-43R). Both of these biological opinions analyzed the potential impacts to the desert tortoise on BLM lands from minor construction projects, defined as projects impacting less than two acres. These biological opinions specifically covered the construction of communication facilities. As per the BO, mitigation measures will be implemented to protect against inadvertent take of the species. Measures to that effect are provided in Section 7 of this EA. Thus, this undertaking will effect, but not adversely affect desert tortoise, as mitigated.

Suitable habitat for winged cryptantha, California ditaxis, desert unicorn plant, and Coves' cassia is present within the project area. None of these species were observed in the project area. Regardless, the limited impacts associated with this project would not likely affect the viability of any self-sustaining population, if these species did occur onsite. Therefore, these species would not be adversely affected by the undertaking.

Suitable habitat for loggerhead shrike occurs within the project area. However, due to the limited impacts associated with this undertaking, populations of the species would not be adversely affected.

Areas within and adjacent to the project site contain suitable nesting habitat for avian species. Therefore, construction activities have the potential to affect nesting avian species protected under the MBTA if those activities take place during the avian nesting season, and measures to provide against potential impacts are provided in Section 7 of this EA. Thus, this undertaking will not adversely affect nesting birds, as mitigated.

5.3.2 – Cultural Resources

The results of the records search indicate that no known and recorded cultural resources are located within the Midland Communication Site APE, or within one mile in any direction. However, the Class III intensive pedestrian survey detected one previously unrecorded cultural resource within the APE for this

undertaking. This resource is found to the southwest of the proposed tower location, and is an historic age isolated find consisting of four US Army C-ration cans. This resource was recorded onto a Department of Parks and Recreation (DPR) 523 Isolate form, which will be submitted to the EIC for the assignment of a permanent identification number upon the authorization of the BLM.

In the case of most isolated cultural resources, the lack of artifact content and context and the absence of significant interpretive data cannot meet the minimal requirements of the NRHP eligibility criteria. This renders the majority of all isolated resources ineligible for listing in the NRHP. Resource Midland Isolate cannot meet the minimal requirements of the NRHP eligibility criteria, in that the resource is not historically significant under criterion a, b, c, or d. Thus, Resource Midland Isolate is recommended as not eligible for the NRHP.

This undertaking will not adversely affect any Historic Properties, defined as cultural resources included in or eligible for inclusion in the NRHP. Additionally, the construction of the proposed communication site does not negatively impact the current viewshed as it relates to known Historic Properties. Thus, this undertaking will have no effect on Historic Properties.

5.3.3 – Visual Resources

The basic philosophy underlying the visual quality of a landscape depends on the visual contrast created between a project and the existing landscape. The contrast can be measured by comparing the project features with the major features in the surrounding landscape. The contrast rating evaluation should be conducted from the most critical viewpoint(s). These are usually along commonly traveled routes or at other likely observation points. The Midland Communication Site is unobservable from any major transportation routes, and is best observed from Palen Pass Road. Accordingly, the visual simulation rendering prepared for the undertaking was created as if a viewer were observing the site from Palen Pass Road, approximately 0.35 mile from the Midland tower location. Viewers traveling along Palen Pass Road in this area would experience a very similar view. The visual simulations are located in Appendix B of this EA.

The simulated rendering of the proposed Midland Communication Site allows for a reasonable comparison of the visual environment both "before" and "after" project implementation. It also allows for an accurate evaluation as to the degree of contrast that would be created by the undertaking. This evaluation and the assignment of a contrast rating is based on information contained in the Visual Contrast Rating Worksheet (BLM Form 8400-4), and included in Appendix B of this EA. The contrast rating and a summary of the worksheet data for the proposed communication site is provided below.

5.3.3.1 – Contrast Rating

A contrast evaluation for the undertaking reveals that the degree of contrast would be weak to moderate. This is based primarily on the small scope of the project, the proposed colors of the project, and the replication of lines already present on site. The proposed lines and colors of the proposed tower blend into the nearby brown and light brown mountains. The predominant contrast would be the vertical lines

established by the new 100-foot tower viewed against the irregular silhouette-line of the nearby mountains to the north, northeast, east, southeast, and west. Depending on the angle of view, the tower may be seen extending above the horizon, and viewers traveling along Palen Pass Road would notice the tower extending beyond the silhouette-line formed by the mountains and the sky. However, due to the spatial relationship of the proposed project to the numerous brown and light brown mountains nearby, the angles at which the tower can be viewed extending above the horizon are diminished. Additionally, given the jagged silhouette-line formed by the mountains against the sky, the vertical lines of the proposed project appear less dominant or bold.

The tower and associated facilities would likely attract the view of travelers on Palen Pass Road. However, the project is not observable from any major transportation corridor, as it is found within the seldom-seen (ss) zone. Therefore, a small number of viewers would likely notice and pay attention to the project while traveling along Palen Pass Road, and while adjacent to the project. Their view will not be completely dominated by the project, as the scale of the proposed project is relatively small and its setting against the nearby mountains would prevent the vertical lines from dominating the characteristic landscape. The complexity of the Little Maria, McCoy and Palen Mountain's forms serves to diminish the vertical line of the tower, as it appears to blend into the brown and jagged ridgeline. These factors associated with Landforms, considered in conjunction with weak contrast ratings with regard to Vegetation and Structures, suggests that an appropriate contrast rating for the proposed communication tower would be "weak to moderate."

As was noted in the Affected Environment analysis for the Midland site, the interim VRM classification for this site is Class 4. According to BLM Manual 8410, the objective for Class 4 is to provide for management activities which require major modifications of the existing character of the landscape, and the level of change to the landscape can be high. In these areas, management activities may dominate the view and be the major focus of viewer attention. However, every attempt should be made to minimize the impact of activities through carful location, minimal disturbance, and repeating the basic elements. A contrast rating of "weak to moderate" for the undertaking is consistent with VRM objectives for Class 4 areas. Thus, this undertaking has no effect on visual resources.

5.3.4 – Residual Impacts

Approximately 0.23 acre of previously disturbed lands would be permanently lost along with its plants and wildlife. The communication tower would be visible from observation points in the area.

5.4 – Palen-McCoy Communication Site

5.4.1 – Wildlife and Botany

The project site is not located within a DWMA, an ACEC, or within designated Critical Habitat for any species. However, suitable habitat for desert tortoise is present throughout the project area. The proposed project falls within the definition of actions covered by the BO for Small Projects Affecting Desert Tortoise Habitat in Imperial, Inyo, Kern, Los Angeles, Riverside, and San Bernardino Counties (Small

Projects BO; 1-8-97-F-17) and the BO for the California Desert Conservation Area Plan [Desert Tortoise] (6840 CA930(P)) (1-8-04-F-43R). Both of these biological opinions analyzed the potential impacts to the desert tortoise on BLM lands from minor construction projects, defined as projects impacting less than two acres. These biological opinions specifically covered the construction of communication facilities. As per the BO, mitigation measures will be implemented to protect against inadvertent take of the species. Measures to that effect are provided in Section 7 of this EA. Thus, this undertaking will effect, but not adversely affect desert tortoise, as mitigated.

Suitable habitat for foxtail cactus and winged cryptantha occurs within the project area. Neither of these species was observed in the immediate area. Regardless, the limited impacts associated with this project would not likely affect the viability of any self-sustaining population, if these species did occur onsite. Therefore, these species would not be adversely affected by the undertaking.

Areas within and adjacent to the project site contain suitable nesting habitat for avian species. Therefore, construction activities have the potential to affect nesting avian species protected under the MBTA if those activities take place during the avian nesting season, and measures to provide against potential impacts are provided in Section 7 of this EA. Thus, this undertaking will not adversely affect nesting birds, as mitigated.

5.4.2 – Cultural Resources

The results of the records search indicate that no known and recorded cultural resources are located within the Palen-McCoy Communication Site APE, or within one mile in any direction. However, the Class III intensive pedestrian survey indicated that one previously undetected cultural resource is located within the APE for this undertaking. This resource is found to the north and northwest of the proposed tower location, and is an historic-age isolated find consisting of at least four fragmented Coca-Cola bottles and three US Army C-ration cans. This resource was recorded onto a DPR 523 Isolate form (Palen-McCoy Isolate), which will be submitted to the EIC for the assignment of a permanent identification number upon the authorization of the BLM.

In the case of most isolated cultural resources, the lack of artifact content and context and the absence of significant interpretive data cannot meet the minimal requirements of the NRHP eligibility criteria. This renders the majority of all isolated resources ineligible for listing in the NRHP. Resource Palen-McCoy Isolate cannot meet the minimal requirements of the NRHP eligibility criteria, in that the resource is not historically significant under criterion a, b, c or d. Thus, Resource Palen-McCoy Isolate is recommended as not eligible for the NRHP.

This undertaking will not adversely affect any Historic Properties, defined as cultural resources included in or eligible for inclusion in the NRHP. Additionally, the construction of the proposed communication site does not negatively impact the current viewshed as it relates to known Historic Properties. Thus, this undertaking will have no effect on Historic Properties.

5.4.3 – Visual Resources

The basic philosophy underlying the visual quality of a landscape depends on the visual contrast created between a project and the existing landscape. The contrast can be measured by comparing the project features with the major features in the surrounding landscape. The contrast rating evaluation should be conducted from the most critical viewpoint(s). These are usually along commonly traveled routes or at other likely observation points. The Palen-McCoy Communication Site is unobservable from any major transportation routes, and is best observed from Palen Pass Road. Accordingly, the visual simulation rendering prepared for the undertaking as if a viewer were observing the site from Palen Pass Road, approximately 0.4 mile from the Palen-McCoy tower location. Viewers traveling along Palen Pass Road in this area would experience a very similar view. The visual simulation includes a rendering of the Palen-McCoy tower with an alternating red and white paint scheme. This paint scheme is depicted in an effort to account for the possibility that the FAA may require such a treatment for the tower. The visual simulations are located in Appendix B of this EA.

The simulated rendering of the proposed Palen-McCoy Communication Site allows for a reasonable comparison of the visual environment both "before" and "after" project implementation. The simulated rendering also allows for an accurate evaluation as to the degree of contrast that would be created by the undertaking. This evaluation and the assignment of a contrast rating is based on information contained in the Visual Contrast Rating Worksheet (BLM Form 8400-4), and included in Appendix B of this EA. The contrast rating and a summary of the worksheet data for the proposed communication site is provided below.

5.4.3.1 – Contrast Rating

A contrast evaluation for the undertaking reveals that the degree of contrast would be moderate to strong. This is based primarily on the potential for a vivid red and white alternating paint scheme against the nearby brown mountains and the existing brown hues of the general area. The need for the red and white paint scheme will be determined by the FAA, and there is the potential that the FAA may solely require additional lighting at the apex of the tower. In the event that the red and white paint scheme is deemed unnecessary, the contrast would be diminished. A noticeable contrast would also be created by the construction of a 330-foot tower viewed against the existing landscape, as the tower will extend above the horizon.

The tower and associated facilities would attract the view of travelers on Palen Pass Road. However, the project is not observable from any major transportation corridor, and a small number of viewers would likely observe the project while traveling along Palen Pass Road. Their view will likely be dominated, but not absolutely dominated by the project, as the complexity of the Little Maria, Palen and Granite Mountain's forms is somewhat complimentary to the vertical line of the tower. These factors associated with Landforms, considered in conjunction with weak to non-existent contrast ratings with regard to Vegetation and Structures, suggests that an appropriate contrast rating for the proposed communication tower would be "moderate to strong."

As was noted in the Affected Environment analysis for the Palen-McCoy site, the interim VRM classification for this site is Class 4. According to BLM Manual 8410, the objective for Class 4 is to provide for management activities which require major modifications of the existing character of the landscape, and the level of change to the landscape can be high. In these areas, management activities may dominate the view and be the major focus of viewer attention. However, every attempt should be made to minimize the impact of activities through carful location, minimal disturbance, and repeating the basic elements. A contrast rating of "moderate to strong" for the undertaking is consistent with VRM objectives for Class 4 areas. Thus, this undertaking has no effect on visual resources.

5.4.4 – Residual Impacts

Approximately 0.23 acre of previously disturbed lands would be permanently lost along with its plants and wildlife. The communication tower would be visible from observation points in the area.

5.5 – Road 62 Communication Site

5.5.1 – Wildlife and Botany

The project site is not located within a DWMA, an ACEC, or within designated Critical Habitat for any species. However, suitable habitat for desert tortoise is present throughout the project area. The proposed project falls within the definition of actions covered by the BO for Small Projects Affecting Desert Tortoise Habitat in Imperial, Inyo, Kern, Los Angeles, Riverside, and San Bernardino Counties (Small Projects BO; 1-8-97-F-17) and the BO for the California Desert Conservation Area Plan [Desert Tortoise] (6840 CA930(P)) (1-8-04-F-43R). Both of these biological opinions analyzed the potential impacts to the desert tortoise on BLM lands from minor construction projects, defined as projects impacting less than two acres. These biological opinions specifically covered the construction of communication facilities. As per the BO, mitigation measures will be implemented to protect against inadvertent take of the species. Measures to that effect are provided in Section 7 of this EA. Thus, this undertaking will effect, but not adversely affect desert tortoise, as mitigated.

Suitable habitat for winged cryptantha, foxtail cactus, and small-flowered androstephium occurs within the larger project area. None of these species were observed in the project area. Regardless, the limited impacts associated with this project would not likely affect the viability of any self-sustaining population, if these species did occur onsite. Therefore, these species would not be adversely affected by the undertaking.

Areas within and adjacent to the project site contain suitable nesting habitat for avian species. Therefore, construction activities have the potential to affect nesting avian species protected under the MBTA if those activities take place during the avian nesting season, and measures to provide against potential impacts are provided in Section 7 of this EA. Thus, this undertaking will not adversely affect nesting birds, as mitigated.

5.5.2 – Cultural Resources

The results of the records searches and the Class III intensive pedestrian survey indicate that no known or recorded cultural resources are located within the Road 62 Communication Site APE for this undertaking. In addition, no known or recorded cultural resources are located within one mile of the proposed communication site.

This undertaking will not adversely affect any known or recorded cultural resources within the APE, including Historic Properties, defined as cultural resources included in or eligible for inclusion in the NRHP. Additionally, the construction of the proposed communication site does not negatively impact the current viewshed as it relates to known Historic Properties. Thus, this undertaking will have no effect on Historic Properties.

5.5.3 – Visual Resources

The basic philosophy underlying the visual quality of a landscape depends on the visual contrast created between a project and the existing landscape. The contrast can be measured by comparing the project features with the major features in the surrounding landscape. The contrast rating evaluation should be conducted from the most critical viewpoint(s). These are usually along commonly traveled routes or at other likely observation points. The Road 62 Communication Site is observable from two major transportation routes, including State Highway 62 and 177, and is best observed from State Highway 62. Accordingly, the visual simulation rendering prepared for the undertaking was created as if a viewer were observing the site from State Highway 62, approximately 0.25 mile from the Road 62 tower location. Viewers traveling eastbound along State Highway 62 in this area would experience a very similar view. The visual simulations are located in Appendix B of this EA.

The simulated rendering of the proposed Road 62 Communication Site allows for a reasonable comparison of the visual environment both "before" and "after" project implementation. It also allows for an accurate evaluation as to the degree of contrast that would be created by the undertaking. This evaluation and the assignment of a contrast rating is based on information contained in the Visual Contrast Rating Worksheet (BLM Form 8400-4), and included in Appendix B of this EA. The contrast rating and a summary of the worksheet data for the proposed communication site is provided below.

5.5.3.1 – Contrast Rating

A contrast evaluation for the undertaking reveals that the degree of contrast would be weak. This is based primarily on the small scope of the project, the proposed colors of the project, and the replication of lines already present on site. The proposed lines and colors of the proposed tower blend into the nearby light brown and brown mountains. The predominant contrast would be the vertical line established by the new 210-foot tower viewed against the irregular silhouette-lines of the nearby mountains to the east of the proposed tower location. Depending on the angle of view, the tower may be seen extending above the horizon. However, due to the spatial relationship of the proposed project to the numerous brown and light brown mountains nearby, the angles at which the tower can be viewed extending above the horizon are diminished. For example, a northbound traveler on State Highway 177 would see the proposed tower set

against the Iron Mountains, and the tower would not extend into the horizon. Additionally, given the jagged silhouette-line formed by the mountains against the sky, the vertical lines of the proposed project appear less dominant or bold.

The tower and associated facilities would likely attract the view of travelers on State Highway 62 for a short period of time. Their view will not be completely dominated by the project, as the scale of the proposed project is relatively small and its setting against the nearby mountains would prevent the vertical lines from dominating the characteristic landscape. The complexity of the Iron, Granite and Coxcomb Mountain's forms serves to diminish the vertical line of the tower, as it appears to blend into the brown and jagged ridgeline. These factors associated with Landforms, considered in conjunction with weak or non-existent contrast ratings with regard to Vegetation and Structures, suggests that an appropriate contrast rating for the proposed communication tower would be "weak."

As was noted in the Affected Environment analysis for the Road 62 site, the interim VRM classification for this site is Class 4. According to BLM Manual 8410, the objective for Class 4 is to provide for management activities which require major modifications of the existing character of the landscape, and the level of change to the landscape can be high. When the degree of contrast is weak, a project can be seen, but will not dominate the view of the casual observer. A contrast rating of "weak" for the undertaking is consistent with VRM objectives for Class 4 areas. Thus, this undertaking has no effect on visual resources.

5.5.4 – Residual Impacts

Approximately 0.23 acre of previously disturbed lands would be permanently lost along with its plants and wildlife. The communication tower would be visible from observation points in the area.

SECTION 6: CUMULATIVE IMPACTS

This action would not significantly increase the level of cumulative impacts in Riverside County area or adjacent areas. This area has been impacted by established highways, electric power lines, off-road vehicle recreation, and other existing communications sites. Each of these activities has cumulatively degraded the natural environment with varying effects on plants, wildlife and soils.

The undertaking is part of a number of ongoing environmental impacts occurring throughout the area. Similar impacts are likely to continue well into the foreseeable future as the human population of southern California increases. Human activity in the County of Riverside is considerable, and several thousand communication sites are already present throughout the region. The undertaking represents the need for additional emergency support communication capability due to increased use and development throughout the region. Further intensification of human use and development will continue this trend. While this is a fundamental change to the historical land use patterns in the area, this change need not be adverse (i.e., cumulatively considerable) as long as development complies with applicable environmental regulations, land use and planning standards. This undertaking is consistent with those regulations and standards, and with implementation of the mitigation measures contained in this EA will not create cumulatively considerable or adverse effects.

SECTION 7: MITIGATION MEASURES

As noted in Section 5 of this EA, a number of mitigation measures are required to lessen the effects of the proposed action to less than an adverse effect. Those measures are provided below.

BR-1: The project proponent shall submit the names of the potential "Qualified Biologist" and/or "Authorized Biologist" to the BLM for approval prior to the start of construction activities. A Qualified or Authorized Biologist is defined as a trained wildlife biologist who is knowledgeable concerning desert tortoise biology, tortoise minimization techniques, tortoise habitat requirements, identification of tortoise sign, and procedures for surveying for tortoises. Evidence of such knowledge may include one or more of the following: 1) employment as a field biologist working on desert tortoise; 2) successful completion of a contract dealing with desert tortoise fieldwork; and/or 3) attendance at a training course sponsored by the Desert Tortoise Council.

The name(s) of proposed Authorized Biologist(s) must be submitted to USFWS and California Department of Fish and Game (CDFG) for approval at least 15 days prior to anticipated need. An "Authorized Biologist" is defined as a wildlife biologist who has been authorized to handle desert tortoises by USFWS and CDFG for this project. **This measure applies to the all sites planned for development as part of the undertaking.**

BR-2: A Field Contact Representative (FCR) must be on-site during all project activities. The FCR shall have the authority to halt all project activities that are in violation of all prescribed mitigation measures relating to desert tortoise. The FCR shall have a copy of all tortoise protective measures when work is being conducted on the site. The FCR may be an agent for the company, the site manager, any other project employee, a biological monitor, or other contracted biologist. An FCR is defined as a person designated by the project proponent who is responsible for overseeing compliance with desert tortoise protective measure and for coordination with the agency compliance officer. **This measure applies to the all sites planned for development as part of the undertaking.**

BR-3: All employees of the project shall be given a desert tortoise education program by a Qualified/Authorized Biologist. This instruction would include training on the natural history of the desert tortoise, threats to the desert tortoise, protection afforded by State and Federal Endangered Species Acts (including prohibitions and penalties), the procedures for reporting encounters, and the importance of following the protection measures. The education program may consist of a class or video. It is recommended that workers carry wallet cards with important information while in the field. **This measure applies to the all sites planned for development as part of the undertaking.**

BR-4: Pre-construction surveys shall be conducted to locate and remove desert tortoises prior to grading or actions which might result in harm to a desert tortoise or which remove tortoise

habitat. The survey shall be conducted by an Authorized Biologist within 24 hours of the onset of the surface disturbance unless a tortoise-proof fence has been installed that would prevent re-entry of the animals. **This measure applies to the all sites planned for development as part of the undertaking.**

BR-5: The FCR shall oversee compliance and coordination with the authorizing agency. Compliance shall include conducting species surveys, proper removal of species from areas being impacted, assurance that a sufficient number of Qualified/Authorized Biologists are present during surface disturbance, and that all conditions of the authorization are being met by proponent, contractors, and workers. The FCR shall have the authority to halt activities that are in not in compliance with the authorization. Any incident occurring during project activities which is considered by the biological monitor to be in non-compliance with the mitigation plan shall be documented immediately by the biological monitor. The FCR shall ensure that appropriate corrective action is taken. Corrective action shall be documented by the monitor. The following incidents shall require immediate cessation of the construction activities causing the incident, including 1) imminent threat of injury or death to a desert tortoise; 2) unauthorized handling of a desert tortoise, regardless of intent; 3) operation of construction equipment or vehicles outside a project area cleared of desert tortoise, except on designated roads, and 4) conducting any construction activity without a biological monitor where one is required. If the monitor and FCR do not agree, the Federal agency's compliance officer shall be contacted for resolution. All parties may refer to the resolution to the Federal agency's authorized officer. **This measure applies to the all sites planned for development as part of the undertaking.**

BR-6: A mitigation fee based on the amount of acreage disturbed shall be required of proponents of new development. Lands will be acquired or enhanced within the same recovery unit as the disturbance. For project sites within designated Critical Habitat and/or a DWMA/ACEC, the lands delivered or equivalent fee shall be an amount that achieves a ratio of five acres of compensation land for every one acre disturbed (5:1). For those lands not within designated Critical Habitat and/or a DWMA/ACEC, the ratio shall be one acre of compensation land for every one acre disturbed (1:1). **This measure applies to the all sites planned for development as part of the undertaking.**

BR-7: To the extent possible, activities shall be scheduled when tortoises are generally inactive (November 1 through March 15). **This measure applies to the all sites planned for development as part of the undertaking.**

BR-8: During the tortoise active season (March 15 through November 1), no overnight hazards to desert tortoise (e.g., auger holes, trenches, pits, or other step-sided depressions) shall be left unfenced or uncovered. Such hazards shall be eliminated each day prior to the work crew leaving the site. **This measure applies to the all sites planned for development as part of the undertaking.**

BR-9: All surface disturbance activity shall be limited to the land area essential for the project. Work area boundaries and special habitat features shall be appropriately marked to minimize disturbance. All workers shall strictly limit their activities and vehicles to the areas marked. All workers shall be trained to recognize work area markers and to understand equipment movement restrictions. Wherever possible, previously disturbed areas shall be used as worksites and for storage of equipment, supplies, and excavated material. Blading of work areas shall be minimized to the extent possible. Pre-construction activity, such as removal of vegetation, shall occur in the presence of a Qualified Biologist. Disturbance of shrubs shall be avoided to the extent possible. Where shrubs must be disturbed, they shall be crushed rather than bladed or excavated. Project maintenance and construction, stockpiles of excavated materials, equipment storage, and vehicle parking shall be limited to existing disturbed areas wherever possible. Should use of existing disturbed areas prove infeasible, any new disturbance shall be confined to the smallest practical area, considering topography, placement of facilities, location of burrows or vegetation, public health and safety, and other limiting factors. Special habitat features, particularly tortoise burrows, shall be flagged by the Qualified Biologist so that they may be avoided by construction equipment. **This measure applies to the all sites planned for development as part of the undertaking.**

BR-10: For activities conducted between March 15 and November 1 in desert tortoise habitat, construction and operation activities shall be monitored by a Qualified Biologist approved by BLM. The Qualified Biologist shall be present during all activities in which encounters with tortoises may occur. The Qualified Biologist shall watch for tortoises wandering into the construction areas, check under vehicles, examine excavations and other potential pitfalls for entrapping animals, examine exclusion fencing, and conduct other activities necessary to ensure that death or injuries of tortoise is minimized. **This measure applies to the all sites planned for development as part of the undertaking.**

BR-11: Where possible, motor vehicle access shall be limited to maintained roads and designated routes. Where temporary access off a maintained road or designated route is permitted, a Qualified Biologist shall travel with each work crew to ensure that all desert tortoises and their burrows are avoided and that impact to the habitat is minimized. All vehicle tracks that might encourage public use shall be obliterated after temporary use. Where access from a maintained road or designated route to a project's site is part of the approved development plan, length and location of the route shall be designed to minimize impact to the habitat. The amount of disturbed area shall be subject to the mitigation fee, and the route shall be designated "Limited Use" and not open to the public. Vehicle speed within a project area, along right-of-way maintenance roads and on routes designated for limited use shall not exceed 20 miles per hour. Speed limits shall be clearly marked by the proponent and workers shall be made aware of these limits. Vehicles parked in desert tortoise habitat shall be inspected immediately prior to being moved. If a tortoise is found beneath a vehicle, the Authorized Biologist shall be contacted to move the animal from harm's way, or the vehicle

shall not be moved until the desert tortoise leaves of its own accord. The Authorized Biologist shall be responsible for taking appropriate measures to ensure that any desert tortoise moved in this manner is not exposed to temperature extremes which could be harmful to the animal. **This measure applies to the all sites planned for development as part of the undertaking.**

BR-12: All trash and food items generated by construction and maintenance activities shall be promptly contained and regularly removed from the project site to reduce the attractiveness of the area to common ravens and other predators. Portable toilets shall be provided on site if appropriate. **This measure applies to the all sites planned for development as part of the undertaking.**

BR-13: No dogs shall be allowed at any work site. **This measure applies to the all sites planned for development as part of the undertaking.**

BR-14: If construction is proposed to commence during the avian nesting season (defined as February 1 through August 31), then a pre-construction nesting bird survey of the site shall be conducted by a qualified biologist no more than 30 days prior to construction activities. If active nests are found onsite, then they must be avoided by an appropriate buffer until any young birds have fledged and the nest has completed its cycle, as determined by a qualified biologist. If construction occurs outside of the avian nesting period, then construction may commence without further impediment. **This measure applies to all sites planned for development as part of the undertaking.**

SECTION 8: FREEDOM OF INFORMATION ACT CONSIDERATIONS

Public comments submitted for this environmental assessment, including names and street addresses of respondents, will be available for public review at the BLM Palm Springs-South Coast Field Office during regular business hours (7:45 a.m. to 4:30 p.m.), Monday through Friday, except holidays. Individual respondents may request confidentiality. If you wish to withhold your name or address from public review or from disclosure under the Freedom of Information Act, you must state this prominently at the beginning of your comments. Such requests will be honored to the extent allowed by law. All submissions from organizations or businesses, and from individuals identifying themselves as representatives or officials of organizations or businesses, will be made available for public inspection in their entirety.

SECTION 9: LIST OF ACRONYMS

24/7	24 hours per day, 7 days per week
ACEC	Area of Critical Environmental Concern
APE	Area of Potential Effect
BLM	Bureau of Land Management
BMP	Best Management Practices
BO	Biological Opinion
Caltrans	California Department of Transportation
CDCA	California Desert Conservation Area
CDFG	California Department of Fish and Game
CFR	Code of Federal Regulations
CNDDB	California Natural Diversity Database
CPHI	California Point of Historic Interest
CNPS	California Native Plant Society
DOI	Department of the Interior
DPR	Department of Parks and Recreation
DTC/C-AMA	Desert Training Center/California-Arizona Maneuver Area
DWMA	Desert Wildlife Management Area
EA	Environmental Assessment
EIC	Eastern Information Center
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
ERP	Emergency Response Plan
FAA	Federal Aviation Administration
FCC	Federal Communications Commission
FCR	Field Contact Representative
HVAC	Heating, Ventilation, and Cooling
I-10	Interstate Highway 10
MBA	Michael Brandman Associates

MBTA	Migratory Bird Treaty Act
NAHC	Native American Heritage Commission
NECO	Northern and Eastern Colorado Desert Amendment
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NRHP	National Register of Historic Places
OHV	Off-highway Vehicle
PSEC	Public Safety Enterprise Communication
SHPO	State Historic Preservation Office/Officer
SLF	Sacred Lands File
TCNS	Tower Construction Notification System
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
VHF	Very High Frequency
VRM	Visual Resource Management

SECTION 10: PERSONS/AGENCIES CONSULTED

U.S. Department of the Interior, Bureau of Land Management, Palm Springs-South Coast Field Office

Holly Roberts, Associate Field Office Manager

Greg Hill, Environmental Coordinator

Claude Kirby, Realty Specialist

Mark Massar, Wildlife Biologist

Chris Dalu, Cultural Resources Specialist

Public Safety Enterprise Communication Project

Dan Nila, Project Manager

Chuck Rushing, Project Engineer

Ron Arbo, Cal-Fire Battalion Chief

Scott Crawford, Motorola

County of Riverside Economic Development Agency

Claudia Steiding, Senior Environmental Planner

Gerald Doak, Realty Specialist

SECTION 11: LIST OF PREPARERS

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Karl Osmundson, Project Biologist, PBS&J

Marnie McKernan, Project Biologist, PBS&J

Marnie Aislin-Kay, Staff Archaeologist, PBS&J

Raul Henderson, Urban Designer, PBS&J

Tony Duerkop, GIS Analyst, PBS&J

Sandi Palkki, Senior Word Processor, PBS&J

SECTION 12: LIST OF REFERENCES

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PBS&J. 2010. *Biological Resource Assessments for the Public Safety Enterprise Communication Project: Black Jack, Box Canyon, Midland, Palen-McCoy, and Road 62 Communication Sites, Riverside County, California.* Report on file and available for viewing at the BLM Palm Springs-South Coast Field Office.

Appendix A – Project Site Exhibits

Black Jack Communication Site
Box Canyon Communication Site
Midland Communication Site
Palen-McCoy Communication Site
Road 62 Communication Site

AVAILABLE FROM BLM PALM SPRINGS-SOUTH COAST FIELD OFFICE

Appendix B – Visual Resource Management Data

Black Jack Communication Site
Box Canyon Communication Site
Midland Communication Site
Palen-McCoy Communication Site
Road 62 Communication Site

AVAILABLE FROM BLM PALM SPRINGS-SOUTH COAST FIELD OFFICE