

**Biological Resources Impact Analysis
Verizon Wireless Candidate Oasis
Pinon Hills, San Bernardino County, California**

Prepared for:

Spectrum Surveying & Engineering, Inc.
8390 Maple Place, Suite 110
Rancho Cucamonga, CA 91730

Contact: Mr. Randi Newton

Prepared by:

Michael Brandman Associates
220 Commerce, Suite 200
Irvine, CA 92602
714.508.4100

Contact: Tommy Molioo, Biologist



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TABLE OF CONTENTS

Section 1: Introduction	1
Section 2: Methodology.....	2
2.1 - Biological Resources.....	2
Section 3: Existing Conditions	3
3.1 - Site Description	3
3.2 - Vegetation	3
3.3 - General Wildlife.....	3
3.4 - Sensitive Biological Resources.....	4
Special Status Species.....	4
3.5 - Jurisdictional Areas	7
Waters of the U.S.	7
Wetlands.....	7
3.6 - Nesting Birds.....	8
Section 4: Sensitive Biological Resources Impact Analysis	9
4.1 - Sensitive Plant and Wildlife Species.....	9
4.2 - Jurisdictional Areas	10
4.3 - Nesting Birds.....	10
Section 5: References.....	11

LIST OF APPENDICES

Appendix A: Field Data Sheets And Site Photographs

SECTION 1: INTRODUCTION

This report contains the findings of a Biological Resources Impact Analysis conducted by Michael Brandman Associates (MBA) on a proposed Verizon Wireless cellular facility, Oasis, in the Pinon Hills area of San Bernardino County, California. The project site is generally located north of Interstate (I) 210, south of I-40, west of I-15, and east of State Route 14, in the Pinon Hills area of unincorporated San Bernardino County, California. The site is depicted on the Phelan, California U.S. Geological Survey (USGS) 7.5-minute topographic map. The proposed project consists of twelve panel antennas mounted to a new 100-foot tall lattice tower, construction of an above ground equipment shelter, and associated trenching for electrical and telecommunications (telco) utility lines.

The project site was surveyed on June 18, 2013 by qualified MBA biologist Tommy Molioo. The biological resources within the site are described in terms of plant communities and jurisdictional drainage features. A literature review provided information regarding sensitive plant and wildlife species potentially occurring within the project site and immediate vicinity. Based on current site conditions and suitable habitat requirements of sensitive species, this report provides an assessment of the sensitive resources found on the site and analyzes the biological significance of the site in view of federal, state, and local laws and policies.

SECTION 2: METHODOLOGY

2.1 - BIOLOGICAL RESOURCES

Data regarding biological resources on the project site were obtained through a literature review that included data on biological resources in the project vicinity, and applicable reference materials provided by Verizon Wireless. The primary objective of the assessment was to document the existing conditions of the onsite biological resources.

Sensitive biological resources present, or potentially present, onsite were identified through a literature review using the following resources: California Department of Fish and Wildlife (CDFW 2013), California Natural Diversity Data Base (CNDDDB 2013), and the California Native Plant Society (Tibor 2001 and CNPSEI 2013). For the purpose of this report, “sensitive” or “special status” species are those plant or wildlife species that are federally and/or state listed species, proposed for listing, or candidate species.

An initial review indicated that the project site is located within undeveloped land in the vicinity of rural residences. Tommy Molioo conducted the biological resources field survey to document existing conditions and to determine potential impacts to sensitive biological resources based on current site plans. The survey was conducted on foot making note of biological resources, such as plant and wildlife species, on field data sheets. These data sheets are included in Appendix A. Special attention was paid to plant communities to determine the presence or potential occurrence of any sensitive species that may occur on the project site.

SECTION 3: EXISTING CONDITIONS

3.1 - SITE DESCRIPTION

The field survey of the project site was conducted on June 18, 2013. Weather conditions included a temperature of approximately 81 degrees Fahrenheit, winds of 3 to 6 miles per hour, and clear skies. The site is specifically located within an undeveloped parcel located to the northwest of the intersection of Minero Road and Smoke Tree Road, Pinon Hills, California. The GPS coordinates for the site are: 34° 26' 28.089" N, 117° 36' 15.843" W. Land use adjacent to the site consists of undeveloped raw land with scattered rural residences to the north, south, east, and west. Previous disturbances onsite include off-road vehicle use and illegal trash dumping.

The proposed project consists of the installation of panel antennas, constructing an above ground equipment shelter, and utility line trenching. Twelve panel antennas will be mounted 97-feet high on a new 100-foot tall lattice tower. Equipment cabinets will be placed within the new shelter adjacent to the new lattice tower. Electrical and telco utility line trenching will run from the lattice tower approximately 1,900-feet east to the existing utility sources.

3.2 - VEGETATION

The project site is located within relatively undisturbed desert scrub habitat on an undeveloped parcel. Vegetation on the project site primarily consists of native trees and shrub species typically observed in desert scrub habitats. Dominant species observed onsite include California juniper (*Juniperus californica*), chaparral yucca (*Hesperoyucca whipplei*), and Mojave buckwheat (*Eriogonum fasciculatum* var. *polifolium*). Other common native species observed include Joshua tree (*Yucca brevifolia*), California ephedra (*Ephedra californica*), spiny saltbush (*Atriplex spinifera*), and goldenbush (*Isocoma* sp.). Non-native and/or ornamental species observed include red gum tree (*Eucalyptus camaldulensis*), single leaf pinyon (*Pinus monophylla*), pomegranate (*Punica granatum*), and cheatgrass (*Bromus tectorum*). A complete list of plant species observed on or in the vicinity of the project site can be found in Appendix A: Field Data Sheets.

3.3 - GENERAL WILDLIFE

The project site and surrounding area provide habitat for wildlife species that commonly occur in desert scrub communities. No amphibian species were observed or detected during the field survey.

Avian species observed/detected include:

- Olive-sided flycatcher (*Contopus cooper*)
- Ash-throated flycatcher (*Myiarchus cinerascens*)
- Common raven (*Corvus corax*)
- Red-tailed hawk (*Buteo jamaicensis*)

Mammalian species observed include California ground squirrel (*Spermophilus beecheyi*) and white-tailed antelope ground squirrel (*Ammospermophilus leucurus*). The single reptile species observed onsite was side-blotched lizard (*Uta stansburiana*). Other wildlife species expected to occur onsite include black phoebe (*Sayornis nigricans*), and desert cottontail (*Sylvilagus audubonii*).

3.4 - SENSITIVE BIOLOGICAL RESOURCES

Special Status Species

Special status species are native species that have been accorded special legal or management protection because of concern for their continued existence. There are several categories of protection at both federal and state levels, depending on the magnitude of threat to continued existence and existing knowledge of population levels.

The U.S. Fish and Wildlife Service (USFWS) administers the federal Endangered Species Act (ESA). The ESA provides a process for listing species as either threatened or endangered, and methods of protecting listed species. The ESA defines as “endangered” any plant or animal species that is in danger of extinction throughout all or a significant portion of its range. A “threatened” species is a species that is likely to become endangered in the foreseeable future. A “proposed” species is one that has been officially proposed by USFWS for addition to the federal threatened and endangered species list.

Section 9 of the ESA prohibits “take” of threatened or endangered species. The term “take” means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in such conduct. Take can include disturbance to habitats used by a threatened or endangered species during any portion of its life history. The presence of any federally threatened or endangered species that is in a project area generally imposes severe constraints on development, particularly if development would result in take of the species or its habitat. Under the regulations of the ESA, the USFWS may authorize take when it is incidental to, but not the purpose of, an otherwise lawful act.

The California Department of Fish and Wildlife (CDFW) administers the California Endangered Species Act (CESA). The State of California considers an “endangered” species one whose prospects

of survival and reproduction are in immediate jeopardy, a “threatened” species is one present in such small numbers throughout its range that it is likely to become an endangered species in the near future in the absence of special protection or management, and a “rare” species is one present in such small numbers throughout its range that it may become endangered if its present environment worsens. The term “rare” species applies to California native plants. State threatened and endangered species are fully protected against take, as defined above. “Species of special concern” is an informal designation used by CDFW for some declining wildlife species that are not state candidates. This designation does not provide legal protection, but signifies that these species are recognized as sensitive by CDFW.

The California Native Plant Society (CNPS) has developed an inventory of California’s sensitive plant species (Tibor 2001). This inventory summarizes information on the distribution, rarity, and endangerment of California’s vascular plants. The inventory is divided into four lists based on the rarity of the species. In addition, the CNPS provides an inventory of plant communities that are considered sensitive by the state and federal resource agencies, academic institutions, and various conservation groups. Determination of the level of sensitivity is based on the number and size of remaining occurrences as well as recognized threats.

Sensitive habitats are natural communities that support concentrations of sensitive plant or wildlife species, are of relatively limited distribution, or are of particular value to wildlife (CNDDDB 2012). Sensitive habitats are not afforded legal protection unless they support protected species, except for wetland habitats, which cannot be filled without authorization from the U.S. Army Corps of Engineers (USACE) and CDFW.

The following discussion describes the special-status plants, wildlife, and habitats that have been afforded special recognition by federal, state, or local resource agencies or organizations and are known to occur in the region of the project site. Sources used for the classification of sensitive resources are as follows:

- Plants - California Department of Fish and Wildlife (CDFW 2013), California Natural Diversity Data Base (CNDDDB 2013), and California Native Plant Society (Tibor 2001 and CNPSEI 2008)
- Habitats - CNDDDB (2013), Holland (1986)
- Wildlife - CDFW (2013), CNDDDB (2013)

A review of the CNDDDB and the CNPS Electronic Inventory of Rare and Endangered Vascular Plants resulted in a list of 3 sensitive plant species, 2 sensitive wildlife species, and no sensitive plant communities that occur within the Phelan, USGS topographic quadrangle.

The sensitive plant species include:

- Mojave paintbrush (*Castilleja plagiotoma*)
- Short-joint beavertail (*Opuntia basilaris* var. *brachyclada*)
- White pygmy-poppy (*Canbya candida*)

Proposed development will be contained within a relatively undisturbed and undeveloped parcel located in the vicinity of rural residences. The project site is subject to disturbances associated with off-road vehicle use. The observed soils onsite are somewhat compacted and sandy. Several occurrences of these three species have been recorded within 3 miles of the project site and the site provides moderately suitable habitat to support these species. However, the survey was conducted during the flowering period for all three species and none of these species was observed onsite during the survey, significantly reducing the potential for these species to occur.

Additionally, the project site and immediate vicinity contain Joshua trees, which are protected under the California Desert Native Plants Act (CDNPA) as well as § 88.01.060 Desert Native Plant Protection of the San Bernardino County Code. If the project will result in any impacts to Joshua trees, including trimming or removal, a County issued permit will be required.

The sensitive wildlife species include:

- Le Conte's thrasher (*Toxostoma lecontei*)
- Coast horned lizard (*Phrynosoma blainvillii*)
- Desert tortoise (*Gopherus agassizii*)

The project site is located within an undeveloped parcel characterized by desert scrub habitat. The project site lacks a dominance of spiny shrub or cactus species to support suitable nesting habitat for Le Conte's thrasher. However, the potential for this species to forage within the vicinity of the site cannot be completely ruled out. The site lacks friable soils for digging and burying, as well as a lack of sandy washes to support coast horned lizard.

The project site is located within habitat for the State and federally-threatened desert tortoise, according to the County of San Bernardino Biological Resources Map. No occurrences of desert tortoise have been recorded in the CNDDDB within 5 miles of the project site. However, the project

site and vicinity provide moderately suitable habitat for this species and the presence/absence of desert tortoise must be determined prior to construction of the proposed project.

No sensitive plant communities occur on or within the immediate vicinity of the project site.

3.5 - JURISDICTIONAL AREAS

The USACE regulates discharges of dredged or fill material into waters of the United States. These waters include wetlands and non-wetland bodies of water that meet specific criteria. USACE regulatory jurisdiction pursuant to Section 404 of the federal Clean Water Act is founded on a connection or nexus between the water body in question and interstate commerce. This connection may be direct through a tributary system, linking a stream channel with traditional navigable waters used in interstate or foreign commerce, or may be indirect, through a nexus identified in the USACE regulations.

Waters of the U.S.

USACE jurisdiction over non-tidal waters of the United States extends laterally to the ordinary high water mark (OHWM) or beyond the OHWM to the limit of any adjacent wetlands, if present (33 CFR 328.4). The OHWM is defined as “that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding area” [33 CFR 329.11(a) (1)]. Jurisdiction typically extends upstream to the point where the OHWM is no longer perceptible. Recently, the federal courts have restricted USACE jurisdiction over waters that are not directly connected to traditional navigable waters (isolated waters), thereby increasing the focus on clearly establishing the physical connection between the subject water body(ies) as a tributary to traditional navigable waters or otherwise by directly establishing the nexus with interstate commerce.

During the biological assessment survey, the site was evaluated according to the guidelines provided in the USACE 1987 Manual (i.e. Environmental Laboratory, 1987). Waters of the U.S. were absent from the site; no water bodies having a perceptible OHWM were identified on site or adjacent to the site.

Wetlands

The USACE and EPA define “wetlands” as “areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted to life in saturated soil conditions.” In order to be considered a jurisdictional wetland under Section 404, an area must possess three wetland

characteristics: hydrophytic vegetation, hydric soils, and wetland hydrology. Each characteristic has a specific set of mandatory wetland criteria that must be satisfied in order for that particular wetland characteristic to be met. Several parameters may be analyzed to determine whether the criteria are satisfied.

The project site and surrounding area contain plant species commonly found in desert scrub habitats. No hydrophytic plant species were observed on the project site; therefore, it was not necessary to examine the other two wetland criteria (hydrology and soils), since all three criteria must be met where wetlands are present. No jurisdictional wetlands will be impacted by the installation of the proposed facility.

3.6 - NESTING BIRDS

The Migratory Bird Treaty Act (MBTA) protects all common wild birds found in the United States except the house sparrow, starling, feral pigeon, and resident game birds such as pheasant, grouse, quail, and wild turkey. Resident game birds are managed separately by each state. The MBTA makes it unlawful for anyone to kill, capture, collect, possess, buy, sell, trade, ship, import, or export any migratory bird including feathers, parts, nests, or eggs.

California Fish and Game (CFG) Code 3503 makes it illegal to destroy any birds' nest or any birds' eggs that are protected under the MBTA. CFG Code 3503.5 further protects all birds in the orders *Falconiformes* and *Strigiformes* (birds of prey, such as hawks and owls) and their eggs and nests from any form of take.

No nests or nesting activity were observed during the biological assessment survey. The native shrubs, and non-native and ornamental trees located on and within the immediate vicinity of the project site provides suitable nesting habitat for a number of common species known to occur in the region.

SECTION 4: SENSITIVE BIOLOGICAL RESOURCES IMPACT ANALYSIS

4.1 - SENSITIVE PLANT AND WILDLIFE SPECIES

- **Sensitive Plant Species:** The project site contains no suitable habitat for the three sensitive plant species listed in Section 3. However, the project site and immediate vicinity contain several Joshua trees, which are protected by the State and County. Therefore, no project-related impacts to Joshua trees may occur without a permit from the County of San Bernardino. Prior to construction activities, a qualified biologist should survey and flag all Joshua trees onsite and within 100-feet of the project site to ensure no impacts occur. If it is determined that the project will impact Joshua tree(s), project re-alignment or County permitting for relocating the trees will be required.
- **Sensitive Wildlife Species:** The project site contains moderately suitable foraging habitat for Le Conte's thrasher, a California species of special concern. This species is unlikely to nest on the project site, but could forage onsite or within the immediate vicinity. Therefore, a pre-construction clearance survey for this species will be required to determine if Le Conte's thrasher occurs onsite or within 250-feet of the project site. If Le Conte's thrasher is observed during the pre-construction survey, additional avoidance measures and/or project monitoring will be required.

The project site and immediate vicinity provide moderately suitable habitat for desert tortoise. Additionally, the project site is located within the known range of the species as identified by the County of San Bernardino Biological Resources Map. Therefore, a focused presence/absence survey for desert tortoise must be conducted prior to project construction to determine if desert tortoise occupies any portion of the project site and the Zone of Influence surrounding the project site. A qualified biologist following accepted protocol outlined by the United States Fish and Wildlife Service (1992) must conduct the presence/absence survey. If desert tortoise are observed or determined to occur on or adjacent to the project site, additional avoidance and/or mitigation measures will be required.

- **Sensitive Plant Communities:** No sensitive plant communities will be impacted by the installation of the proposed facility.

4.2 - JURISDICTIONAL AREAS

No potentially jurisdictional waters or wetlands are present on or in the vicinity of the project site. Therefore, installation of the proposed facility will not impact any jurisdictional areas.

4.3 - NESTING BIRDS

The native shrubs, and non-native and ornamental trees located on and within the immediate vicinity of the site provides suitable habitat for a number of common bird species known to occur in the region. Therefore, pursuant to the MBTA and CFG Code, installation of the proposed facility should be conducted outside the nesting season. The nesting season generally extends from February through August, but can vary slightly from year to year based upon seasonal weather conditions.

If facility installation must occur during the nesting season, a qualified biologist should conduct a nesting bird survey to identify any potential nesting activity. If active nests are observed, construction activity must be prohibited within an appropriate buffer around the nest until the nestlings have fledged. All construction activity within the vicinity of active nests must be conducted in the presence of a qualified biological monitor. Construction activity may encroach into the buffer area only at the discretion of the biological monitor.

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Appendix A: Field Data Sheets and Site Photographs

Field Notes – Oasis

Location: Pinon, San Bernardino County, California

Weather Conditions: 81 Degrees Fahrenheit, 3-6 mph wind, clear skies

Plant Community/Site description: Site is located within an undeveloped parcel near road. Characterized by desert scrub habitat. Relatively undisturbed.

Wildlife Species Observed:

Olive-sided flycatcher, ash-throated flycatcher, red-tailed hawk, common raven, California ground squirrel, white-tailed antelope ground squirrel.

Plant Species Observed:

Juniper, chaparral yucca, Mojave buckwheat, ephedra, spiny saltbush, goldenbush, cheatgrass, red gum tree, single-leaf pine, pomegranate



View of project site facing north



View of project site facing east



View of project site facing west



View from the project site facing south.



View of trench route facing east.



View utility point of connection adjacent to residence.



Tommy Molioo
Staff Ecologist

As a Staff Ecologist for Michael Brandman Associates, Mr. Molioo has provided biological resources technical assistance in planning and natural resources management through the execution of various technical field studies and the preparation of various biological resources technical reports for projects requiring CEQA and NEPA compliance. He has independently conducted general habitat assessments and nesting surveys, and has assisted with various focused protocol surveys for sensitive plant and wildlife species, wetlands assessments, and restoration and mitigation monitoring. He has provided extensive biological resources technical support for various wireless telecommunications projects throughout southern California.

PROFESSIONAL EXPERIENCE

- Staff Ecologist for wireless telecommunications projects requiring biological resources impact analyses and project processing throughout southern California, specializing in San Diego, Orange, Los Angeles, San Bernardino and Riverside Counties.
- Staff Ecologist and field biologist for a number of habitat assessments, monitoring surveys, and focused protocol surveys for narrow endemic (rare) plant and sensitive wildlife species. Assisted with monitoring surveys and focused protocol surveys for rare plants throughout western Riverside County, including Marvin's onion and many-stemmed dudleya, and sensitive wildlife species throughout southern California, including coastal California gnatcatcher, least Bell's vireo, desert tortoise, Los Angeles pocket mouse, Arroyo toad, San Bernardino kangaroo rat, and burrowing owl. The surveys involve a general habitat assessment, vegetation mapping, and an inventory of all plant and wildlife species observed, including overall species accounts, nest locations, and behavioral monitoring.
- Staff Ecologist and field biologist for projects requiring habitat assessments, biological resources impact analyses, and local and regional habitat conservation plan (HCP) compliance and strategic planning. Assisted with report preparation for projects within the Multiple Species Conservation Program (MSCP) and Multiple Habitat Conservation Plan (MHCP), including associated County and City Subarea Plans, and the western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). Involving preparation of written habitat assessments and conservation plan consistency analysis.
- Staff Ecologist and field biologist for projects requiring wetlands permitting under USACE, RWQCB, and CDFG jurisdiction. Assisted with formal wetland delineations for projects within the arid southwest region.
- Staff Ecologist for restoration projects requiring mitigation monitoring components. Assisted with restoration plan implementation and quarterly monitoring for projects within southern California.

EDUCATION

2008 B.A. Biology, Minot State University, North Dakota

PROFESSIONAL HISTORY

Michael Brandman Associates, Staff Ecologist