



June 4, 2007

Jim Kennedy
Sprint Nextel
5761 Copley Drive
San Diego, CA 92111

**Subject: Biological Resources Letter Report
Sprint Nextel Communications Cellular Facility CA8406, Banner Canyon
Project Number P06-046
Banner, Unincorporated San Diego County, California**

Dear Mr. Kennedy:

At the request of Sprint Nextel Communications and the County of San Diego (County), Michael Brandman Associates (MBA) has completed a Biological Resources Letter Report for Sprint Nextel cellular facility CA8406 (Banner Canyon), herein referred to as project site or site, located in unincorporated portions of San Diego County. The proposed project is being processed by the County of San Diego as Project Number P06-046.

The subject letter report addresses the findings of a literature review and reconnaissance-level survey conducted as part of a biological resources impact analysis of the project site and surrounding area. The report also details the potential for sensitive biological resources to occur on the site, and analyzes the proposed project against relevant local, State, and/or federal policies as they pertain to biological resources. The report also includes the results of project-conditioned focused surveys for the plant species, caraway-leaved gilia (*Gilia caruifolia*), as required by the County of San Diego. Recommended mitigation measures according to these policies are provided herein.

This report has been prepared by a County-approved consultant and in accordance with the County requirements and guidelines for biological resources, and addresses the project-specific biological resource requirements outlined by the County of San Diego Department of Planning and Land Use in the application package for the proposed project.

If you have any questions or concerns regarding this report, please do not hesitate to contact Karl Osmundson or Scott Crawford at 714.508.4100.

Sincerely,



Karl Osmundson, Assistant Project Manager
Michael Brandman Associates
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Irvine, CA 92602



Scott Crawford, Senior Project Manager
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Enclosures: Exhibit 1: Regional Location Map
 Exhibit 2: Local Vicinity USGS Map
 Exhibit 3: Local Vicinity Aerial Map
 Exhibit 4: Biological Resources Map
 Attachment A: Species Compendium
 Attachment B-1: Sensitive Plant Species Table
 Attachment B-2: Sensitive Wildlife Species Table
 Attachment C: Site Photographs

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SECTION 1: SUMMARY

A biological resources impact analysis was conducted for the proposed Sprint Nextel cellular facility, CA8406 (Banner Canyon), as required by the County of San Diego Department of Planning and Land Use in application for a Major Use Permit. The proposed project is a small unmanned cellular facility located off Rodriguez Spur Truck Trail Road near the community of Banner in unincorporated San Diego County, California.

As currently planned, the proposed project will result in approximately 0.14 acres of impacts to native vegetation, desert transition chaparral, including suitable habitat conditions for a single special status plant species and suitable foraging habitat for five special status wildlife species. The project site and immediate vicinity also provide suitable habitat for nesting bird species protected under California Fish and Game Code (CFG Code) and the federal Migratory Bird Treaty Act (MBTA).

Habitat-based mitigation at a 1:1 ratio is herein proposed to mitigate for impacts to desert transition chaparral in accordance with the County's habitats and mitigation ratios guidelines. This habitat-based mitigation is also proposed for potential project-impacts to suitable foraging habitat for the five special status wildlife species. As required by the County of San Diego, focused surveys are required for caraway-leaved gilia (*Gilia caruifolia*) and have been scheduled for 2007 were conducted by MBA on May 30, 2007. This species was not observed during the focused survey effort and is considered absent from the project site. No further action is recommended with regard to caraway-leaved gilia. Proposed mitigation also includes preconstruction surveys to determine the presence/absence of nesting birds on and in the immediate vicinity of the site.

SECTION 2: INTRODUCTION

The proposed project is currently in application for a Major Use Permit pursuant to § 6980 et al. of the County of San Diego's Zoning Ordinance and thus is required to provide a thorough analysis of all potential on and offsite impacts through preparation of a Californian Environmental Quality Act (CEQA) level biological resources assessment. Per the request of the San Diego County Department of Planning and Land Use, a biological resources assessment was prepared to meet the survey requirements for 14 sensitive plant and wildlife species and address any potential project impacts to native vegetation or other sensitive natural resources.

2.1 - Project Site Location

The project site is generally located north of Interstate 8, south of State Route 78, east of State Route 79, and west of the Great Southern Overland Route of 1849 in San Diego County, California (Exhibit 1). The site can be found on the *Julian, California* United States Geological Survey (USGS) 7.5-minute topographic map, and is specifically located north of Rodriguez Spur Truck Trail Road, in undeveloped rural land, and south of the unincorporated town of Banner, California, (Exhibit 2 and Exhibit 3).

2.2 - Project Description

The proposed project is a Major Use Project and will include a new approximately 12-foot by 20-foot prefabricated concrete equipment shelter, a new 45-foot tall faux water tower, and 12 panel-antennas mounted inside the faux water tank. A 6-foot tall woven fence is proposed surrounding the perimeter of the larger lease area. Additionally, a new approximately 12-foot wide and 325-foot long dirt access road will provide access to the site from Rodriguez Truck Trail to the south.

Lastly, a 6-foot high concrete block wall is proposed as a noise attenuation barrier in addition to the prefabricated concrete equipment shelter. The concrete noise attenuation barrier will surround the prefabricated concrete equipment shelter to the immediate north, and will be entirely contained within the existing proposed total impact area.

SECTION 3: METHODOLOGY

Analysis of the biological resources associated with the project site began with a thorough review of relevant literature followed by a reconnaissance-level survey of the site and immediate vicinity.

3.1 - Literature Review

Prior to the reconnaissance-level survey of the project site, a literature review was conducted of the environmental setting of the project site and vicinity. The literature review provides a baseline from which to evaluate the biological resources potentially occurring on the project site, as well as the surrounding area. For reference, the San Diego County Sensitive Plant and Wildlife Lists were reviewed for habitat assessment requirements as well as habitat suitability elements for 14 sensitive plant and wildlife species provided by the County of San Diego for review. The County of San Diego's Resource Protection Ordinance was reviewed for all applicable regulatory policy and potential mitigation requirements for the project.

The literature review also included aerial photographs of the project site and vicinity, as well as the topographic electronic and hard copies of the *Julian, California* USGS 7.5-minute topographic quadrangle map.

In addition, a compilation of sensitive plant and wildlife species and their habitats that have been recorded in the vicinity of the project site was derived from the California Department of Fish and Game's (CDFG) California Natural Diversity Database (CNDDDB), a sensitive species and plant community account database. MBA conducted a query of the CNDDDB for the *Julian, California* USGS 7.5-minute topographic quadrangle.

The California Native Plant Society (CNPS) online inventory database was also queried for the project site and vicinity. The CNPS online inventory provided additional sensitive species information for many species that have not been reported to the CNDDDB database. Other references used for the subject analysis include *Rare Plants of San Diego County* by Craig Rieser, posted for the San Diego Chapter of the Sierra Club's website (<http://sandiego.sierraclub.org/rareplants/>), and *San Diego Native Plants* by James Lightner.

3.2 - Habitat Assessment Survey

MBA biologist Karl Osmundson conducted an initial reconnaissance-level survey of the project site on December 13, 2006. At the request of the County of San Diego, an additional site visit was conducted by Karl Osmundson on February 21, 2007. The survey area, which includes the site and an approximate 500-foot buffer surrounding it, was surveyed on foot and by focal observations in order to document existing conditions, identify suitable habitat for sensitive plant and wildlife species, and analyze potential impacts to sensitive biological resources based on current project plans. Special attention was directed to portions of the survey area that may provide suitable habitat for the 14 sensitive plant and wildlife species provided for analysis by the County.

Parameters assessed regarding the habitat requirements for the 14 sensitive plant and wildlife species include the presence of suitable physical characteristics in topography, vegetation and plant community compositions, and soils. Additionally the presence of suitable nesting, roosting, foraging, including suitable prey base, or dispersing habitat was assessed. Any evidence of previous disturbance on the project site was carefully documented.

The locations of previously documented observations for the 14 sensitive plant and wildlife species were identified and plotted onto aerial and topographic maps to determine connectivity of suitable habitat and/or likely dispersing routes between the locations of observations and the project site. Habitat descriptions, plant communities, and a list of plant and wildlife species observed during the survey were recorded in a Floral and Fauna Compendium (Attachment A).

3.3 - Focused Plant Survey

MBA biologist Karl Osmundson conducted a focused survey of the project site for caraway-leaved gilia on May 30, 2007. No formal survey protocol exists that is specific to caraway-leaved gilia. The survey effort included a thorough literature review of this species life history, available information on current population status, and known recorded locations of individuals and populations of this species. Known recorded locations of the target species were visited as control and reference sites in confirming the blooming period in the region. Control sites were visited immediately prior to conducting the focused survey of the project site.

The entire survey area was surveyed on foot and by focal observations to specifically locate and identify any caraway-leaved gilia specimens during its respective blooming period. An inventory of all plant species observed within the project site was noted and later compiled onto a complete species compendium (Attachment A). Characteristic information on all plant species not identified in the field was gathered, and further taxonomic analysis was later conducted. All specimens observed during the survey were identified to genus and species when feasible.

SECTION 4: HABITAT ASSESSMENT RESULTS

4.1 - Weather Conditions

An initial reconnaissance-level survey of the survey area was conducted on December 13, 2006, by qualified MBA biologist Karl Osmundson between the hours of 1410 and 1450. Weather conditions during this survey included partly cloudy skies and a temperature of 75 degrees Fahrenheit, with winds ranging from approximately 5 to 6 miles per hour out of the northwest.

A follow-up reconnaissance-level survey was conducted on February 21, 2007 by Karl Osmundson between the hours of 1100 and 1230. Weather conditions during this survey included clear skies and a temperature of approximately 70 degrees Fahrenheit, with winds ranging from approximately 1 to 2 miles per hour out of the northeast.

A focused plant survey was conducted on May 30, 2007 by Karl Osmundson between the hours of 0930 and 1100. Weather conditions during this survey included clear skies and a temperature of approximately 75 degrees Fahrenheit, with winds ranging from approximately 1 to 2 miles per hour out of the west.

4.2 - Existing Conditions

Investigation of the project site confirmed that the proposed facility will be constructed within undeveloped rural property located immediately north of Rodriguez Spur Truck Trail near Banner, California. Disturbed undeveloped land containing native and non-native vegetation, and bare ground, occupies the project site and immediate vicinity. Land use beyond the immediate vicinity of the site includes undeveloped rural property to the north, south, east, and west. An existing radio tower and communications facility occurs approximately 500 feet east of the site.

The proposed unmanned wireless facility will occur within an approximately 0.14-acre area. A disturbed desert transition chaparral plant community occupies the impact area and adjacent open land. The new approximately 12-foot by 20-foot prefabricated concrete equipment shelter and new 45-foot tall faux water tower mounted with 12 panel-antennas will be located in the central portions of the lease area within undeveloped, previously burned and grazed portions of the desert transition chaparral plant community. The 12 panel-antennas will be mounted at a height of approximately 40 feet within the faux water tank. A 6-foot tall woven fence will surround the perimeter of the lease area and include an access gate that will provide access to the lease area from the south. The new approximately 12-foot wide and 325-foot long dirt access road will provide access to the lease area from the south via Rodriguez Spur Truck Trail. The new access road will occur within low quality and sparse portions of the desert transition chaparral plant community that have been subjected to fire disturbance and heavy grazing. According to recent project plans, electrical and telecommunication utilities will be provided using overhead lines to connect with utilities provided in the adjacent communications facility.

Total permanent project impacts to disturbed desert transition chaparral are approximately 0.14 acres, including those impacts proposed for the equipment and access road construction. Plant species specifically observed within the project footprint in addition to those dominant species observed within the adjacent offsite portions of the desert transition chaparral are included below in Section 6.2.3.

4.2.1 - Topography and Soils

The area that encompasses the site occurs at an elevation of approximately 3,500 feet above mean sea level, immediately north of Rodriguez Canyon and west of Granite Mountain. The surrounding topography in the immediate vicinity of the project site generally consists of steep rocky slopes and small, isolated, higher elevation flats to the north, south, east, and west.

The project site contains three separate soil map units belonging to the Mottsville and Sheephead soil series. A soil series is a group of soils with similar profiles. These profiles include major horizons with similar thickness, arrangement, and other important characteristics. The dominant soil present on the project site is Mottsville loamy coarse sand, 2 to 9 percent slopes. The other soils onsite include Sheephead rocky fine sandy loam, 9 to 30 percent slopes, eroded, and Sheephead rocky fine sandy loam, 30 to 65 percent slopes, eroded.

4.2.2 - Disturbance

Disturbances to the survey area include recent fire disturbance, prevalence of low quality native and non-native herbaceous species, trampling, and vegetation removal as a result of heavy grazing.

4.2.3 - Habitats/Vegetation Communities

Installation of the proposed facility will occur within portions of two southern mixed chaparral alliances, each different in vegetative composition and ecological function as a result of previous and ongoing disturbances. These two chaparrals include sugar bush-, scrub oak-, and chamise-dominated Desert Transition Chaparral and deer weed- and California buckwheat-dominated Desert Transition Chaparral (Exhibit 4).

The names of these two plant communities have been better defined by MBA to provide clarity; however, these two community names may be considered synonymous with Desert Transition Chaparral or Semi-Desert Chaparral, Holland Code 37400, from the formal list of *Terrestrial Vegetation Communities in San Diego County* from Holland and Oberbauer.

A complete list of plant species observed on and in the immediate vicinity of the project site during the survey is provided in Attachment A.

Sugar Bush - Scrub Oak - Chamise Desert Transition Chaparral

The majority of the proposed project footprint occurs within this plant community. This community generally occupies the immediate project vicinity and continues further to the general north and down slope into lower elevations. The project site occurs within an ecotonal transition area between more mesic and higher elevation scrub, woodland, and forest to the west toward Julian, and more xeric lower elevation scrub to the east toward Borrego Springs. This community can generally be described as an open-canopy scrub that is moderately sparse and dominated by a few woody perennial shrubs. It has suffered moderate to heavy fire disturbance, presumably most recently from the Cedar Fire of 2003, in addition to moderate to heavy grazing and trampling disturbance. Based on current project plans, approximately 0.13 acres of temporary and permanent impacts will result to this community as a result of the proposed project.

Dominant plant species observed within this plant community include the native shrubs sugarbush (*Rhus ovata*), scrub oak (*Quercus berberidifolia*), and chamise (*Adenostoma fasciculatum*). Subdominant plant species include natives such as scarlet buglar (*Penstemon centranthifolius*) and felt-leaf yerba santa (*Eriodictyon crassifolium*). Other natives observed within this community in fewer numbers include manzanita (*Arctostaphylos* sp.), bush mallow (*Malacothamnus* sp.), and deerweed (*Lotus scoparia*). Non-native species observed include annual grasses such as wild oats (*Avena fatua*) and foxtail fescue (*Vulpia myuros*), and forbs such as shortpod mustard (*Hirshfeldia incana*).

Deer Weed - California Buckwheat Desert Transition Chaparral

A limited portion of the proposed dirt access road occurs within this plant community. This community continues further to the general south and occupies areas that have been subjected to heavy grazing and fire disturbance. This community contains a limited number of taller, emergent, mature native shrubs, and is characterized by poor species diversity with a strong dominance of deerweed and California buckwheat (*Eriogonum fasciculatum*). This community is continuing to recover from recent fire and can be considered in the early to middle stages of succession in the re-establishment of a functioning mixed chaparral or desert transition chaparral. Other species observed within this community include herbaceous species such as wild oats, foxtail fescue, and shortpod mustard. Based on current project plans, approximately 0.01 acres of temporary and permanent impacts will result to this community as a result of the proposed project.

4.2.4 - General Wildlife

The project site and surrounding area provide habitat for wildlife species that commonly occur in chaparral and scrub-type plant communities. Avian species observed or otherwise detected on or in the vicinity of the site include western scrub jay (*Aphelocoma californica*), yellow-rumped warbler (*Dendroica coronata*), California towhee (*Pipilo crissalis*), California thrasher (*Toxostoma redivivum*), spotted towhee (*Pipilo maculatus*), common raven (*Corvus corax*), white-crowned sparrow (*Zonotrichia albicollis*), black-chinned sparrow (*Spizella atrogularis*), northern flicker (*Colaptes auratus*) and Say's phoebe (*Sayornis saya*). A single mammalian species was detected on the project site; domestic cow (*Bos taurus*). No other wildlife species were observed or otherwise detected during the assessment.

A complete list of wildlife species observed on and in the immediate vicinity of the project site during the survey is provided in Attachment A.

SECTION 5: SPECIAL STATUS SPECIES

As provided by the County of San Diego records, a list of 14 sensitive plant and wildlife species was reviewed and analyzed. Two sensitive species tables have been prepared (Attachments B-1 and B-2) that detail the 14 sensitive plant and wildlife species, their legal status under endangered species acts, preferred habitat, detection results onsite, and potential for occurrence.

Based on the existing conditions observed on and in the immediate vicinity of the project site during the reconnaissance-level survey, one sensitive plant species and five sensitive wildlife species have a moderate or high potential to occur within the project site.

The following sensitive plant species was determined to have a moderate or high potential to utilize the project site:

- Caraway-leaved gilia (*Gilia caruifolia*)

The following five sensitive wildlife species were determined to have a moderate or high potential to utilize the project site:

- American badger (*Taxidea taxus*)
- Coast (San Diego) horned lizard (*Phrynosoma coronatum blainvillii*)
- Northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*)
- San Diego black-tailed jackrabbit (*Lepus californica bennetti*)
- Golden eagle (*Aquila chrysaetos*)

Potential project-related impacts for these six sensitive plant and wildlife species are provided in Section 7.1.2 of this report. Proposed mitigation measures for potential impacts are provided in Section 7.2.2 of this report.

5.1 - Nesting Birds

The 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.

Section 3503 of the CFG Code makes it illegal to destroy any birds' nest or any birds' eggs that are protected under the MBTA. Section 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.

The proposed project will result in approximately 0.14 acres of impacts to portions of a desert transition chaparral plant community that provides suitable nesting habitat for bird species protected under the MBTA and CFG Code; therefore, the proposed project may result in significant impacts to nesting birds.

Potential project-related impacts to Nesting Birds are provided in Section 7.1.3 of this report. Proposed Mitigation Measures for potential impacts are provided in Section 7.2.3 of this report.

SECTION 6: JURISDICTIONAL WETLANDS AND WATERWAYS

The United States Army Corps of Engineers (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 (CWA) 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.

6.1 - 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 project site was evaluated according to the guidelines provided in the USACE's 1987 Manual (Wetland Training Institute 1995). The project site does not contain any jurisdictional areas. Waters of the U.S. are absent from the site; no water bodies having a perceptible OHWM were identified on site or adjacent to the site.

No impacts to any waters of the U.S. are expected to occur as a result of the proposed project; therefore, no mitigation is required.

6.2 - USACE Wetlands

The USACE and the Environmental Protection Act (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 of the CWA, 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 occurs within a slightly-sloping upland area characterized by southern mixed chaparral vegetation. No natural drainage courses, waterways, and/or wetlands containing hydrophytic plant species were observed on or in the immediate vicinity of the 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 impacts to any USACE-defined wetlands are expected to occur as a result of the proposed project; therefore, no mitigation is required.

6.3 - County of San Diego Wetlands

The County of San Diego in their County Resource Protection Ordinance define "wetlands" as "All lands which are transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or where the land is covered by water. All lands having one or more of the following attributes are wetlands: a) At least periodically, the land supports predominately hydrophytes (plants whose habitat is water or very wet places); b) The substratum is predominately undrained hydric soil; or c) The substratum is non-soil and is saturated with water or covered by water at some time during the growing season of each year." In this definition, a "non-soil" substrate includes, but is not limited to, rock outcroppings, deepwater habitats, generally greater than 6.6 feet in depth, cobble rock, bedrock, or scoured channels.

The project site occurs within a generally flat, sloping, upland area characterized by desert transition chaparral in the foothills of a desert transition zone. No drainage features or depression areas subject to ponding exist on or in the immediate vicinity of the site. No hydrophytes were observed during the survey. The underlying substratum of the site is non-hydric, and is mapped as Mottsville loamy coarse sand, and Sheephead rocky fine sandy loam.

No impacts to any County-defined wetlands are expected to occur as a result of the proposed project; therefore, no mitigation is required.

SECTION 7: OTHER UNIQUE FEATURES/RESOURCES

7.1 - Wildlife Corridors and Linkages

The County of San Diego in their Subarea Plan of the Multiple Species Conservation Program (MSCP) define regional linkages/corridors as “Land which contains topography which serves to allow for the movement of all sizes of wildlife and is used by wildlife, including large animals on a regional scale; and contains adequate vegetation cover providing visual continuity so as to encourage the use of the corridor by wildlife; or It has been identified as the primary linkage/corridor between the northern and southern regional populations of the California gnatcatcher in the population viability analysis for the California gnatcatcher”.

Currently, the project site lies within a large block of disturbed undeveloped chaparral and scrub in the desert transition zone. Wildlife potentially using the site have relatively unrestricted access through the site and the adjacent land. The proposed project is limited in size and the extent of impacts to existing habitat is minimal (0.14 acres). The operational requirements of the proposed project are minimal as well. The proposed project will be required to mitigate for impacts to chaparral (desert transition/semi-desert chaparral) at a ratio of 1:1. The majority of the project impacts will result from the proposed dirt access road that will provide access to the site from Rodriguez Truck Trail. These impacts will be minimal in ground and vegetation disturbance, and will not result in any significant physical hindrance to wildlife potentially using the site and adjacent land. The proposed dirt access road will be designed to impact the least number of native shrubs that exist along the proposed route.

Due to the fact that project impacts to existing disturbed habitat will be limited in size and due to the abundance of undeveloped chaparral and scrub habitat that surrounds the project site in all directions, impacts to wildlife corridors and linkages are expected to be less than significant with compensatory habitat mitigation at a 1:1 ratio incorporated.

7.2 - Urban/Wildlands Interface and Adjacency Management Issues

An urban/wildlands interface is generally defined as land that presently contains, or will contain as a result of a proposed action, both elements of an urban setting and raw undeveloped land or protected land. This land is situated as such to present a sharply defined physical contrast between the two, potentially creating an adverse edge effect resulting from direct and/or indirect impacts derived from the urban elements. An urban/wildlands interface may be most recognizable in larger multi-use developments that occur within or immediately adjacent to completely undeveloped and undisturbed land that provides habitat for plant and wildlife species in the area.

No design elements are proposed that would result in any significant indirect impacts to any adjacent undeveloped land or protected land, or any wildlife potentially using the project vicinity. The project shall incorporate lighting features that will minimize all lighting to the maximum extent feasible away from the adjacent undeveloped land. External light sources will be designed with internal baffles to direct the lighting towards the ground and have a zero side angle cut off to the horizon.

Due to the limited size and operational requirements of the proposed project, impacts to an urban/wildlands interface are expected to be less than significant.

7.2.1 - Noise-Related Impacts

The proposed project includes additional specific design features to minimize and reduce any potential noise impacts to biological resources which may result from the operation of the proposed project. These design features will ensure that operation of the proposed project will achieve compliance with the required noise standards as required by the County. Equipment for the proposed project will be contained within a prefabricated concrete shelter that has been designed to reduce external noise levels on and in the immediate vicinity of the site.

Furthermore, the proposed project includes an external concrete wall to be installed immediately north of the prefabricated equipment shelter. This concrete wall will provide an adequate sound attenuation barrier that will further reduce noise output to any of the adjacent land located on or in the immediate vicinity of the project site to a less than significant level. The proposed sound attenuation barrier will be entirely contained within the existing proposed impact area, and will result in no additional impacts to the onsite desert transition chaparral habitat.

Potential noise-related impacts resulting from the operation of the proposed project are expected to be less than significant with the proposed noise-reducing design features incorporated. Additionally, mitigation measures to reduce any onsite impacts to desert transition chaparral habitat to a level of less than significant are provided in Section 8.2.

SECTION 8: SIGNIFICANCE OF PROJECT IMPACTS AND PROPOSED MITIGATION

8.1 - Impact Analysis

This section of the report provides a discussion of potential project-related impacts. Mitigation to reduce these impacts to less than significant is provided in Section 8.2 below.

8.1.1 - Desert Transition Chaparral

As currently designed, a total of approximately 0.14 acres of disturbed desert transition chaparral will be impacted by the proposed project. Overall, due to existing disturbance the proposed impacts to portions of desert transition chaparral habitat that occurs within the project site provides only marginally suitable habitat for common and sensitive plant and wildlife species typical of such chaparral habitats. No sensitive plant species were observed during the two habitat assessment surveys, or the focused plant survey effort, and the area has been significantly disturbed as a result of fire disturbance, grazing, and presence of non-native species. Native plant species observed within the proposed trench route during the survey were limited to a few poor quality chamise, felt-leaf yerba santa, scarlet buglar, and scrub oak specimens.

Table 1 below provides existing and impacted acreages of each habitat type/vegetation community determined to exist on the project site, in addition to the required habitat mitigation ratio for impacts and proposed mitigation.

Table 1: Habitat Type/Vegetation Communities Impacts and Mitigation

Habitat / Vegetation Community	Existing (acres)	Impacts (acres)	Required Habitat Mitigation Ratio	Proposed Mitigation (acres)
Desert Transition Chaparral	0.14	0.14	1:1	0.14
<u>TOTAL</u>	0.14	0.14	-	0.14

Impacts to desert transition chaparral require compensatory mitigation by the County of San Diego. Mitigation Measure MM-1 provided below will reduce impacts to desert transition chaparral to less than significant.

8.1.2 - Special Status Species

Based on the existing conditions observed on and in the immediate vicinity of the project site during the reconnaissance-level survey, one of the sensitive plant species and five of the sensitive wildlife species from the County of San Diego’s records list have a moderate or high potential to occur within the project site. These include the special status plant species, caraway-leaved gilia, and the special status wildlife species American badger, San Diego horned lizard, northwestern San Diego pocket mouse, San Diego black-tailed jackrabbit, and golden eagle.

The proposed project will result in approximately 0.14 acres of disturbed desert transition chaparral, which was determined to have the potential to provide marginally suitable habitat conditions for caraway-leaved gilia, and marginally suitable foraging habitat for the five special status wildlife species.

Caraway-Leaved Gilia

Caraway-leaved gilia is an annual herb and has the potential to exist within the project footprint during its blooming period, which typically extends from May to August. This species was not observed during the two habitat assessment surveys of the project site in December 2006 and February 2007, or during the focused survey effort conducted in May 2007. A very limited portion of the proposed project, approximately 0.14 acres, is expected to result in direct impacts to suitable habitat for caraway-leaved gilia. Therefore, there is a potential for the proposed project to result in significant impacts to this species.

Focused surveys are scheduled to be conducted in May 2007 were conducted by qualified MBA biologist Karl Osmundson on May 30, 2007 to determine the presence/absence of this species on the project site. The 2004 Rancho Cuyumaca State Park reference site located along Fern Flat Fire Road in the West Mesa was used as a control site for this focused plant survey effort (BerkeleyMapper 2007, Consortium of California Herbaria 2007). No caraway-leaved gilia were observed on or in the immediate vicinity of the project site during the focused survey effort. This species is considered absent from the project site.

Mitigation Measures MM-1 and MM-2 provided below will further reduce potential project impacts to caraway-leaved gilia and its habitat to less than significant.

American Badger, San Diego Horned Lizard, Northwestern San Diego Pocket Mouse, San Diego Black-Tailed Jackrabbit, and Golden Eagle

The project site provides marginally suitable foraging opportunities for American badger, San Diego horned lizard, northwestern San Diego pocket mouse, San Diego black-tailed jackrabbit, and golden eagle. According to County records, an active golden eagle nest is known in the area, and the project site may occur within the territory of the individual(s) occupying this nest site. A very limited portion of the proposed project, approximately 0.14 acres, is expected to result in direct impacts to marginally suitable foraging habitat for these five special status wildlife species. None of these species were observed or otherwise detected during the two habitat assessment surveys of the project site in December 2006 and February 2007, no potential burrows and no sign was observed on or in the immediate vicinity of the project site for these species.

Due to the fact that the project site and immediate vicinity provides marginal foraging opportunities for these five special status wildlife species, there is a potential for the proposed project to result in significant indirect impacts to these species through the loss of foraging habitat.

Mitigation Measures MM-1, and MM-2 provided below will reduce potential project impacts to foraging habitat for these five special status species to less than significant.

8.1.3 - Nesting Birds

The project site occurs on and in the immediate vicinity of disturbed portions of a desert transition chaparral plant community that contains suitable nesting habitat for a number of common birds, which may occur in the project vicinity. A very limited portion of the proposed project, approximately 0.14 acres, is expected to result in direct impacts to nesting habitat. Therefore, there is a potential for the proposed project to result in significant impacts to nesting birds pursuant to the MBTA and CFG Code.

Mitigation Measure MM-3 provided below will reduce potential project impacts to nesting bird species to less than significant.

8.2 - Proposed Mitigation

The following is a list of recommended mitigation measures that will reduce potential project-related impacts to biological resources to less than significant.

8.2.1 - Desert Transition Chaparral

The proposed project will result in temporary impacts to approximately 0.14 acres of disturbed desert transition chaparral. ~~If determined necessary during project review, the~~ The following will reduce impacts to disturbed desert transition chaparral to less than significant.

MM-1 The proposed activities include minor excavation and ground disturbance totaling approximately 0.14 acres. This includes those impacts that will result from the 0.006-acre equipment shelter pad and faux water tank lattice support beams and from the dirt access road. Construction methods are anticipated to be low-impact and non-intrusive, and will either be conducted by hand-trench or small "ditch witch" type equipment where feasible. Impacts associated with the dirt access road ~~will be temporary in nature, and shall be~~ executed in a method to avoid native shrubs to the greatest extent feasible to reduce the extent of impacts to desert transition chaparral habitat.

Prior to project implementation, the applicant will be required to provide habitat based mitigation at a set ratio for impacts to desert transition chaparral habitat. Habitat based mitigation, ~~if required,~~ shall be mitigated for at a ratio of 1:1, 1.0 acre of mitigation land for every 1.0 acre of habitat impacted. For the proposed project, habitat based mitigation for 0.14 acres of impacts to desert transition chaparral, at a ratio of 1:1, shall be executed for a total of 0.14 acres. Habitat based mitigation shall be executed according to the policy set forth by the County of San Diego. Onsite mitigation is preferred, however there are mitigation banking opportunities according to the mitigation banking policy provided by the County of San Diego. Due to the extent of existing disturbances on and in the immediate vicinity of the project site, there are a number of onsite opportunities for habitat replacement and enhancement.

8.2.2 - Special Status Species

The proposed project will result in impacts to approximately 0.14 acres of disturbed desert transition chaparral which provides marginally suitable habitat for one special status plant species (caraway-leaved gilia), and five special status wildlife species (American badger, San Diego horned lizard, northwestern San Diego pocket mouse, San Diego black-tailed jackrabbit, and golden eagle). ~~If determined necessary during project review,~~ The following will reduce impacts to these special status species to less than significant.

MM-2 Focused surveys for caraway-leaved gilia ~~shall be~~ conducted by a qualified biologist to determine the presence/absence of this species on the project site MBA on May 30, 2007. This species was determined to be absent from the project site, and no impacts are expected to occur to this species or occupied habitat by this species as a result of the proposed project. ~~If this species is determined to be present on the project site, further consultation with the County will be required and avoidance measures shall be implemented into a revised project design.~~ No further mitigation is required with regard to caraway-leaved gilia.

As discussed in MM-1, impacts to disturbed, marginally suitable desert transition chaparral ~~will be primarily temporary, and~~ shall be executed in a method to avoid native shrubs to the greatest extent feasible thus reducing any potential direct or indirect impacts to these species and their habitat to less than significant. This includes mitigation to offset the potential loss of marginal foraging habitat for the American badger, San Diego horned lizard, northwestern San Diego pocket mouse, San Diego black-tailed jackrabbit, and golden eagle. Habitat based mitigation at a ration of 1:1, if necessary, will reduce impacts to these species' habitat to less than significant through either onsite restoration or mitigation banking.

8.2.3 - Nesting Birds

The proposed project will result in ~~temporary~~ impacts to approximately 0.14 acres of disturbed desert transition chaparral that provides marginally suitable nesting habitat for a number of common bird species. The following will reduce impacts to nesting birds pursuant to CFG Code and the MBTA to less than significant.

MM-3 To avoid any direct or indirect impacts to nesting birds, removal of any suitable nesting habitat that may support active nests should occur outside of the breeding season between January 15 and August 15. If the removal of habitat that may support active nests must occur during the breeding season, the applicant shall retain a County-approved biologist to conduct a pre-construction survey for the presence of nesting birds on and within an approximately 500-foot buffer surrounding the construction area. The pre-construction survey must be conducted within 10 calendar days prior to initiating any construction activities, or a set number of days prior according to the County. If nesting birds are detected by the County-

approved biologist, a bio-monitor should be present on-site during construction to minimize construction impacts and ensure that no nest is removed or disturbed until all young have fledged.

SECTION 9: CUMULATIVE IMPACTS

The proposed project is a small unmanned cellular wireless facility that will provide service for the local area. Unmanned wireless facility projects are regionally sparse and limited to specific locations to achieve maximum service coverage. Ideal facility locations are often used by multiple carriers and collocations are common. As such, when considered with unmanned cellular wireless facility projects that currently exist or are proposed in the region, cumulative impacts to biological resources resulting from the proposed project are considered cumulatively insignificant with in-kind habitat-based mitigation incorporated.

The proposed project will be limited in overall direct and indirect impacts during the construction and operational phases. The proposed project will result in the loss of approximately 0.14 acres of disturbed desert transition chaparral habitat. This habitat is locally abundant and extends further to the north, south, east and west from the project site throughout lands surrounding Banner Grade and even further to the general north and south. MM-1 provides habitat-based mitigation at a 1:1 ratio for impacts to desert transition chaparral that should be considered adequate by the County of San Diego to mitigate for project impacts and any potential cumulative impacts.

SECTION 10: REFERENCES

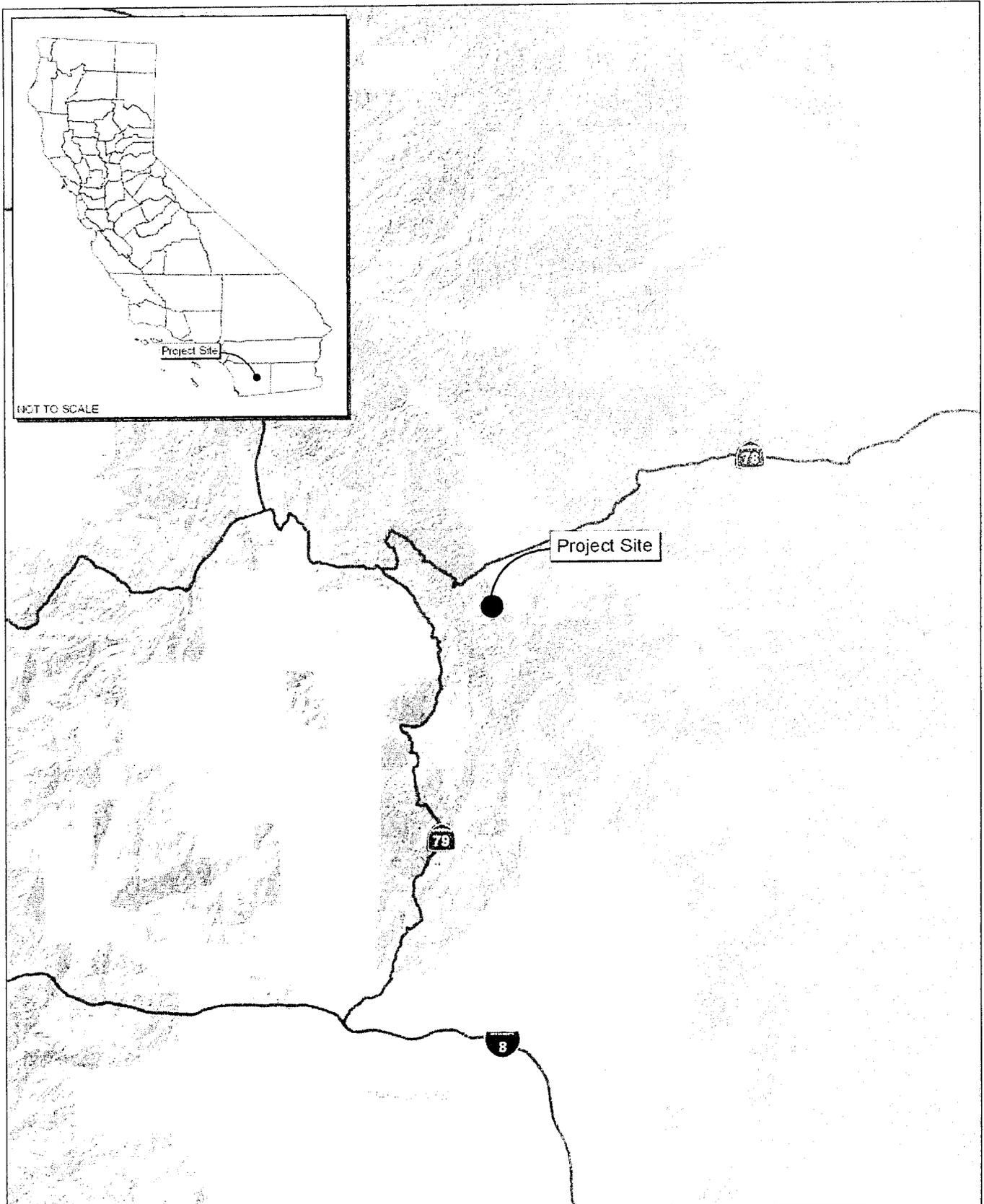
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SECTION 11: PREPARER AND PERSONS/ORGANIZATIONS CONTACTED

This report was prepared in accordance with the County of San Diego report format and content requirements for biological resources by MBA Biologist Karl Osmundson. It has been reviewed and approved by MBA Senior Biologist Scott Crawford, a County-approved consultant. The statements furnished above and in the attached exhibits present data and information required for this biological evaluation, and the facts, statements, and information presented are true and correct in the professional opinion of MBA.

If you have any questions or concerns regarding this report, please do not hesitate to contact Karl Osmundson or Scott Crawford at 714.508.4100.



Source: Census 2000 Data. The CaSIL. MBA GIS 2006.



Michael Brandman Associates

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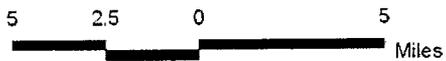
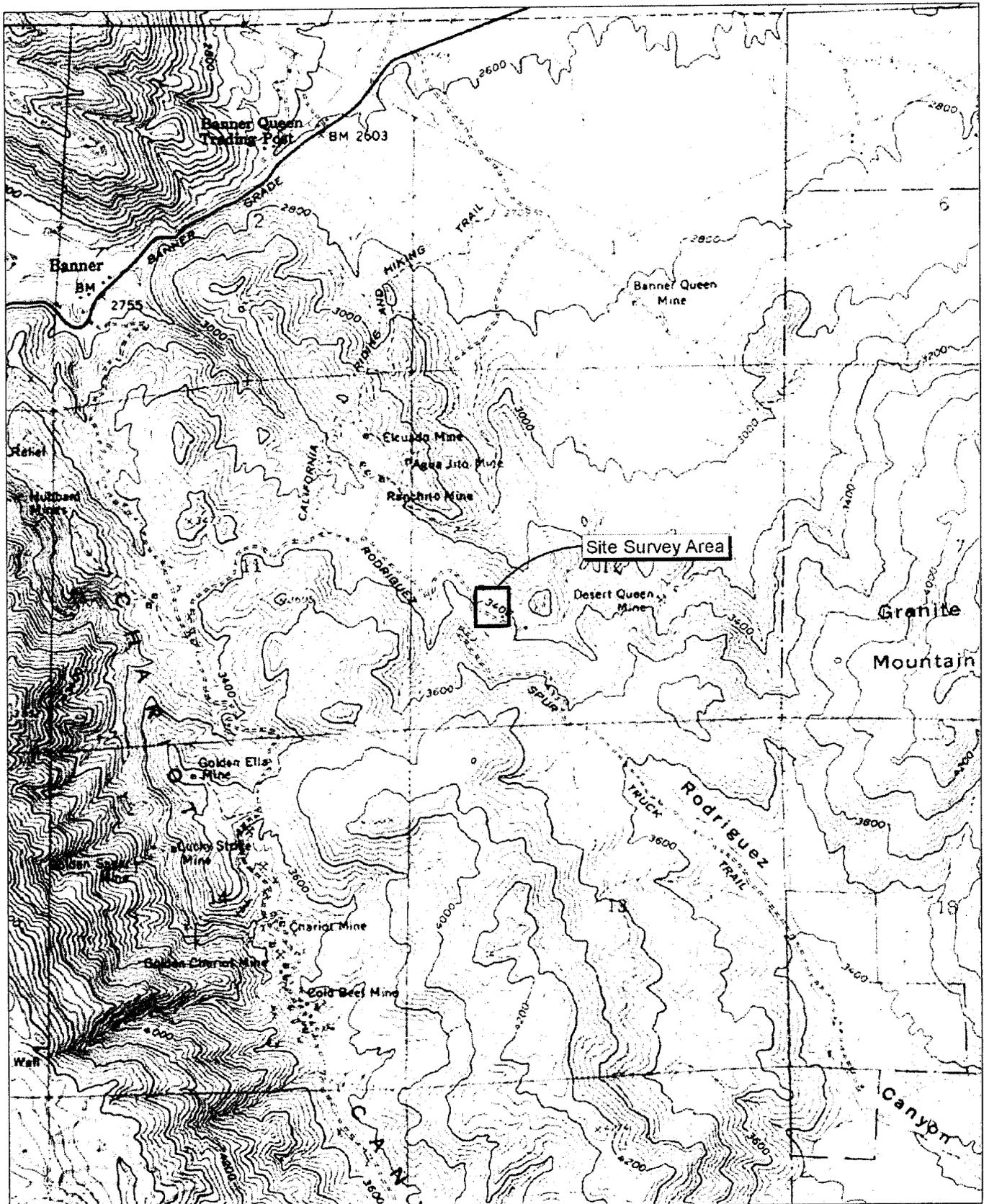


Exhibit 1 Regional Location Map

SPRINT-NEXTEL • CA-8406
BIOLOGICAL RESOURCES IMPACT ANALYSIS



Source: TOPO! USGS Julian (1988) 7.5' DRG.



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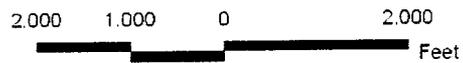


Exhibit 2 Local Vicinity USGS Map

SPRINT-NEXTEL • CA-8406
BIOLOGICAL RESOURCES IMPACT ANALYSIS



Source: National Agriculture Imagery Program 2005.



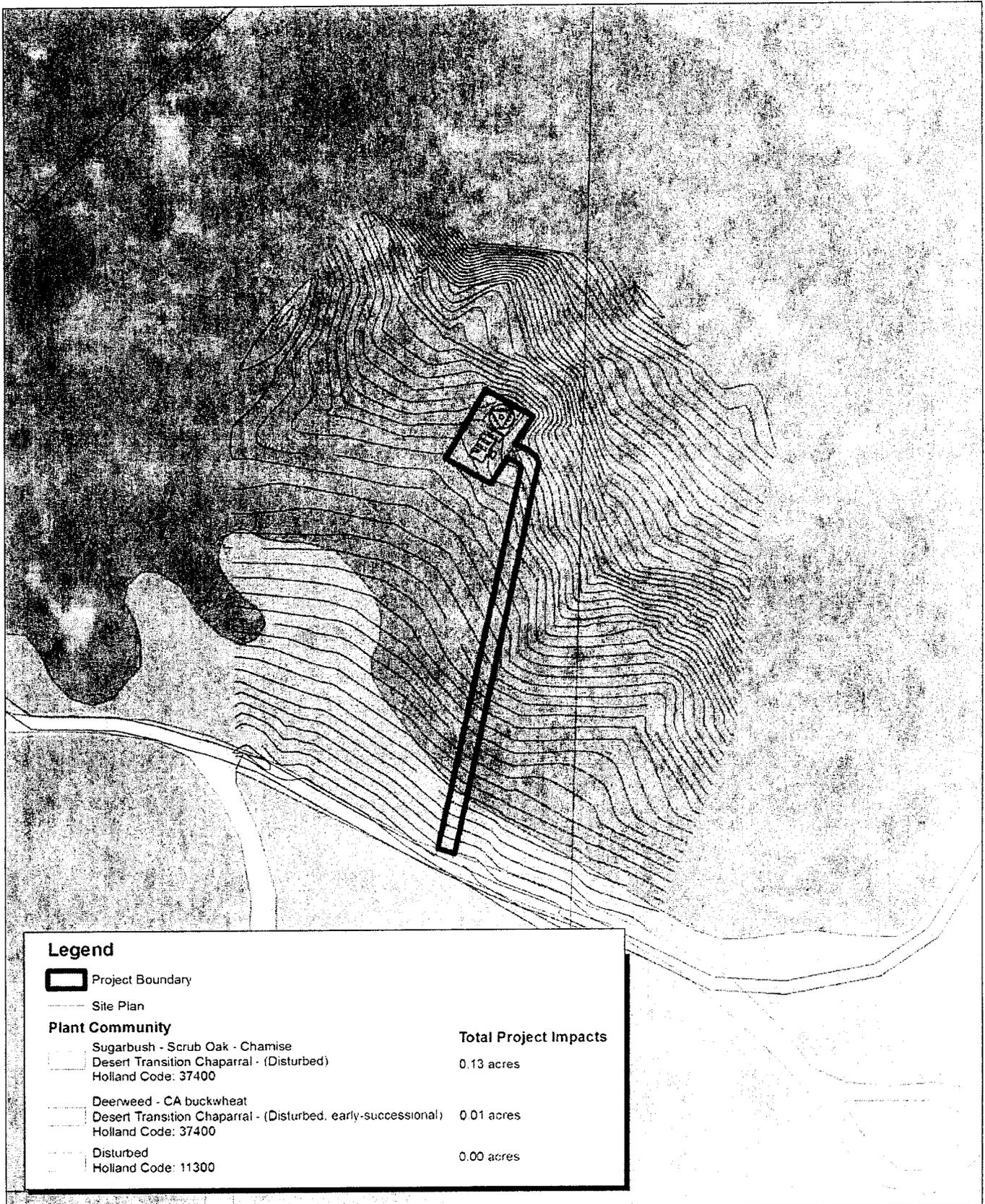
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Exhibit 3 Local Vicinity Aerial Map

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BIOLOGICAL RESOURCES IMPACT ANALYSIS



Source: National Agriculture Imagery Program, 2005 and MBA Field Data, 2007



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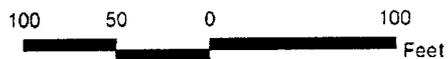


Exhibit 4 Biological Resources Map

SPRINT-NEXTEL • CA-8406
BIOLOGICAL RESOURCES IMPACT ANALYSIS

Attachment A: Floral and Faunal Compendia

FLORAL COMPENDIA

Anacardiaceae

- A *Malosma laurina*
- A *Rhus ovata*

Asteraceae

- A *Encelia farinosa*

Brassicaceae

- A *Hirshfeldia incana**

Boraginaceae

- A *Turricula parryi*

Cactaceae

- A *Opuntia basilaris* var. *basilaris*
- A *Cylindropuntia californica* var. *californica*

Chenopodiaceae

- B *Salsola tragus**

Ericaceae

- A *Arctostaphylos* sp.

Euphorbiaceae

- B *Croton setigerus**

Fabaceae

- B *Lotus scoparia*

Fagaceae

- A *Quercus berberidifolia*

Hydrophyllaceae

- A *Eriodictyon crassifolium*
- A *Eriodictyon trichocalyx*
- A *Phacelia* sp.

Malvaceae

- B *Malacothamnus* sp.

Papaveraceae

- A *Dicentra chrysantha*

Sumac or Cashew Family

- laurel sumac
- sugar bush

Sunflower Family

- brittlebush

Mustard Family

- short-podded mustard

Borage Family

- Poodle-dog bush

Cactus Family

- Beavertail cactus
- Snake cholla

Goosefoot Family

- Russian thistle

Heath Family

- manzanita

Spurge Family

- dove weed

Legume Family

- deerweed

Oak Family

- scrub oak

Waterleaf Family

- felt-leaf yerba santa
- hairy yerba santa
- phacelia

Mallow Family

- bushmallow

Poppy Family

- Golden ear-drops

Poaceae

- B *Avena fatua**
- B *Bromus madritensis ssp. rubens**
- B *Vulpia myuros**
- B *Bromus hordeaceus*

Polygonaceae

- B *Eriogonum gracile*
- B *Eriogonum fasciculatum*

Grass Family

- slender oat
- red brome
- foxtail fescue
- Soft chess

Buckwheat Family

- slender buckwheat
- California buckwheat

FLORAL COMPENDIA (CONT.)

Rhamnaceae

B *Ceanothus foliosus* var. *foliosus*

Rosaceae

A *Adenostoma fasciculatum*

Scrophulariaceae

A *Penstemon centranthifolius*

Buckthorn Family

wavy-leaf ceanothus

Rose Family

chamise

Figwort Family

scarlet buglar

Plant Community ID Legend

A – Desert Transition Chaparral

B – Disturbed Habitat

* Non-Native Species

FAUNA COMPENDIUM

Birds

Accipitridae

C *Buteo jamaicensis*

Cathartidae

C *Cathartes aura*

Columbidae

C *Zenaidura macroura*

Corvidae

C *Corvus brachyrhynchos*

C *Corvus corax*

A *Aphelocoma californica*

Emberizidae

A *Pipilo crissalis*

C *Pipilo maculatus*

C *Zonotrichia leucophrys*

C *Spizella atrogularis*

Mimidae

C *Toxostoma redivivum*

Parulidae

C *Dendroica coronata*

Picidae

C *Colaptes auratus*

Tyrannidae

C *Sayornis nigricans*

Mammals

Leporidae

A *Lepus californicus*

A *Sylvilagus audubonii*

Iguanidae

A *Uta stansburiana*

Bovidae

A *Bos taurus*

Hawks

red-tailed hawk

New World Vultures

turkey vulture

Pigeons and Doves

mourning dove

Jays and Crows

American crow

common raven

western scrub jay

Emberizids

California towhee

spotted towhee

white-crowned sparrow

black-chinned sparrow

Thrashers

California thrasher

Wood Warblers

yellow-rumped warbler

Woodpeckers

northern flicker

Tyrant Flycatchers

black phoebe

Hares and Rabbits

black-tailed jackrabbit

Audubon cottontail

Iguanids

side-blotched lizard

Bovids

domestic cow

Plant Community ID Legend

A – Desert Transition Chaparral

B – Disturbed Habitat

C – Other (Call Detection, In-Flight Observation, Undetermined)

Attachment B-1: Special-Status Plant Species Table

Special Status Plant Species Table

Species		Status			Preferred Habitat	Life Form	Blooming Period	Potential to Occur / Known Occurrence / Suitable Habitat
Scientific Name	Common Name	USFWS	CDFG	CNPS				
<i>Brodiaea orcutti</i>	Orcutt's brodiaea	---	---	1B.1	Closed cone coniferous forest, chaparral openings, cismontane woodland, valley and foothill grasslands, meadows and seeps, vernal pools. Clay and serpentine soils. Elevation limits: 30 - 1692m.	Bulbiferous Herb	May - July	Not Likely to Occur -- Not Present. This species was not found on the project site. No suitable habitat for this species occurs on the site due to previous disturbance and lack of suitable soils and vegetation characteristics.
<i>Gilia (Saltugilia) caruifolia</i>	Caraway-leaved gilia	---	---	4.3	Chaparral and lower montane coniferous forest. Canopy openings and sandy soils. Elevation limits: 1400 - 2300m.	Annual Herb	May - Aug	Moderate Potential to Occur. This species was not found on the project site during the December 2006 and February 2007 surveys. Marginally suitable chaparral habitat with sandy soils occurs within limited portions of the proposed project footprint.
U.S. Fish and Wildlife Service FE Federal Endangered FT Federal Threatened PE Proposed Endangered PT Proposed Threatened FC Federal Candidate FSC Species of Concern* *No longer recognized as a federal designation.		California Department of Fish and Game CE California Endangered CT California Threatened CR California Rare			California Native Plant Society 1A Plants presumed extinct in California. 1B Plants rare, threatened, or endangered in California and elsewhere. 2 Plants rare, threatened, or endangered in California, but more common elsewhere. 3 Plants about which we need more information. 4 Plants of limited distribution.			

Special Status Plant Species Table (Cont.)

Species		Status			Preferred Habitat	Life Form	Blooming Period	Potential to Occur / Known Occurrence / Suitable Habitat
Scientific Name	Common Name	USFWS	CDFG	CNPS				
<p>Not Likely to Occur – Not Present – This species was not observed or otherwise detected on the project site, and it is improbable that this species would be found on the project site. There are no present or historical records of the species occurring on or in the immediate vicinity (within 3 miles) of the project site and the diagnostic habitats strongly associated with the species do not occur on or in the immediate vicinity of the site.</p> <p>Low Potential to Occur - There is a historical record of the species in the vicinity of the project site and potentially suitable habitat on site, but existing conditions (e.g. density of cover, prevalence of non-native species, evidence of disturbance, limited habitat area, isolation) substantially reduce the possibility that the species may occur. The site is above or below the recognized elevation limits for this species.</p> <p>Moderate Potential to Occur - The diagnostic habitats associated with the species occur on or in the immediate vicinity of the project site, but there is not a recorded occurrence of the species within the immediate vicinity (within three miles). Some species that contain extremely limited distributions may be considered moderate, even if there is a recorded occurrence in the immediate vicinity.</p> <p>High Potential to Occur - There is both suitable habitat associated with the species and a historical record of the species on or in the immediate vicinity of the project site (within 3 miles).</p> <p>Species Present – The species was observed on the project site at the time of the survey or during a previous biological survey.</p>								

Attachment B-2: Special-Status Wildlife Species Table

Special Status Wildlife Species Table

Species		Status			Required Habitat	Potential to Occur / Known Occurrence / Suitable Habitat
		Common Name	Federal	State		
Reptiles and Amphibians						
<i>Phrynosoma coronatum blainvillei</i>	San Diego horned-lizard	—	—	—	Coastal sage scrub and chaparral habitat with suitable basking areas. Primary prey source is native ant species.	Moderate Potential to Occur. Marginally suitable southern mixed chaparral habitat occurs on the project site. Marginal basking and foraging habitat occurs on and in the immediate vicinity of the site.
Birds						
<i>Accipiter cooperi</i>	Cooper's hawk	—	—	—	(Nesting) Open, uninterrupted or marginal type woodlands. Nest sites in riparian growths of deciduous trees, live oaks.	Not Likely to Occur -- Not Present. No suitable habitat for this species occurs on the site due to lack of suitable woodland habitat.
<i>Aquila chrysaetos</i>	Golden eagle	—	—	—	(Nesting and Wintering) Rolling foothills and mountain areas, juniper-sage flats, and deserts. Primarily associated with cliff-walled canyons and large trees in open habitats for nesting.	Not Likely to Occur -- Not Present (Nesting and Wintering). No suitable nesting habitat for this species occurs on site due to lack of suitable cliff and large tree habitat for nesting. However, the site may occur within the vicinity of a known nest site for this species, and marginally suitable foraging habitat occurs within limited portions of the site.
<i>Cathartes aura</i>	Turkey vulture	—	—	—	Open valley and foothill grassland, scrub, chaparral, savannah, and cismontane woodland habitat with suitable trees for nesting.	Not Likely to Occur -- Not Present. No suitable habitat for this species occurs on site due to lack of suitable habitat for nesting.

Special Status Wildlife Species Table (Cont.)

Species		Status			Required Habitat	Potential to Occur / Known Occurrence / Suitable Habitat
Scientific Name	Common Name	Federal	State	Other		
Mammals						
<i>Antrozous pallidus</i>	Pallid bat	---	---	CDFG: CSC	Roosts in crevices, caves, mine shafts, bridges, buildings and tree hollows. Forages on insects in wide variety of habitats.	Not Likely to Occur – Not Present. No suitable roosting or foraging habitat for this species occurs on site.
<i>Chaetodipus fallax fallax</i>	Northwestern San Diego pocket mouse	---	---	CDFG: CSC	Sage scrub, chaparral and grassland habitats with open sandy areas.	Moderate Potential to Occur. No burrows were observed during the survey. Marginally suitable foraging habitat and burrowing substrate for this species occurs on site.
<i>Corynorhinus townsendii</i>	Townsend's big-eared bat	---	---	CDFG: CSC	Desert scrub and coniferous forest. Roosts in caves or abandoned mines, occasionally in buildings.	Not Likely to Occur – Not Present. No suitable roosting or foraging habitat for this species occurs on site.
<i>Eumops perotis californicus</i>	Greater western mastiff bat	---	---	CDFG: CSC	Rocky areas and cliff faces. Roosts in cliff crevices and buildings.	Not Likely to Occur – Not Present. No suitable roosting or foraging habitat for this species occurs on site.
<i>Lepus californicus bennettii</i>	San Diego black-tailed jackrabbit	---	---	CDFG: CSC	Coastal sage scrub, sparse chaparral and desert scrubs with loose soils for burrowing.	Moderate Potential to Occur. No burrows were observed during the survey. Marginally suitable foraging habitat and burrowing substrate for this species occurs on site.

Special Status Wildlife Species Table (Cont.)

Species		Status			Required Habitat	Potential to Occur / Known Occurrence / Suitable Habitat
Scientific Name	Common Name	Federal	State	Other		
Mammals (Cont.)						
<i>Myotis yumanensis</i>	Yuma myotis bat	—	—	CDFG: CSC	Near lakes, creeks or ponds. Roosts by day under building sidings or shingles. Nursery colonies choose caves, mines, buildings or under bridges.	Not Likely to Occur – Not Present. No suitable roosting or foraging habitat for this species occurs on site.
<i>Odocoileus hemionus</i>	Southern mule deer	—	—	CDFG: CSC	Expansive scrub, chaparral, valley and foothill grassland, cismontane woodland, mixed coniferous forest in east County.	Low Potential to Occur. This species may occasionally forage in the vicinity of the site. No suitable primary habitat occurs within the project footprint.
<i>Taxidea taxus</i>	American badger	—	—	CDFG: CSC	Friable soils in most drier open stages of shrub, woodland, and herbaceous habitats. Digs its own burrows. Requires rodents for foraging.	Moderate Potential to Occur. No burrows were observed during the survey. Marginally suitable foraging habitat and burrowing substrate for this species occurs on the site.
Federal				State	Other	
FE	Federal Endangered			SE	State Endangered	California Species of Special Concern
FT	Federal Threatened			ST	State Threatened	Fully Protected Species
FSC	Federal Species of Concern				CDFG:FP	Protected Species
PFT	Proposed Federal Threatened				CDFG: P	
C	Candidate for Federal Listing					
D	Delisted					

Special Status Wildlife Species Table (Cont.)

Species		Status			Required Habitat	Potential to Occur / Known Occurrence / Suitable Habitat
		Common Name	Federal	State		
Scientific Name						
<p>Not Likely to Occur - Not Present - This species was not observed or otherwise detected on the project site, and it is improbable that this species would be found on the project site. There are no present or historical records of the species occurring on or in the immediate vicinity (within 3 miles) of the project site and the diagnostic habitats strongly associated with the species do not occur on or in the immediate vicinity of the site.</p> <p>Low Potential to Occur - There is a historical record of the species in the vicinity of the project site and potentially suitable habitat on site, but existing conditions (e.g. density of cover, prevalence of non-native species, evidence of disturbance, limited habitat area, isolation) substantially reduce the possibility that the species may occur. The site is above or below the recognized elevation limits for this species.</p> <p>Moderate Potential to Occur - The diagnostic habitats associated with the species occur on or in the immediate vicinity of the project site, but there is not a recorded occurrence of the species within the immediate vicinity (within three miles). Some species that contain extremely limited distributions may be considered moderate, even if there is a recorded occurrence in the immediate vicinity.</p> <p>High Potential to Occur - There is both suitable habitat associated with the species and a historical record of the species on or in the immediate vicinity of the project site (within 3 miles).</p> <p>Species Present - The species was observed on the project site at the time of the survey or during a previous biological survey.</p>						



Photograph 1: View of proposed equipment shelter and faux water tower location within disturbed Sugarbush-Scrub Oak-Chamise Southern Mixed Chaparral, north facing. Note fire disturbance and evidence of trampling and grazing.



Photograph 2: View of proposed equipment shelter and faux water tower location, east facing.

Source: Michael Brandman Associates, 2007.



Michael Brandman Associates

27110701 • 02/2007 | C_site_photos_1and2.cdr

Appendix C Site Photographs 1 and 2

SPRINT-NEXTEL • CA-8406
BIOLOGICAL RESOURCES IMPACT ANALYSIS



Photograph 3: View of proposed equipment shelter and faux water tower location, south facing.



Photograph 4: View of proposed equipment shelter and faux water tower location, west facing.

Source: Michael Brandman Associates, 2007.



Michael Brandman Associates

27110701 • 02/2007 | C_site_photos_3and4.cdr

Appendix C Site Photographs 3 and 4

SPRINT-NEXTEL • CA-8406
BIOLOGICAL RESOURCES IMPACT ANALYSIS



Photograph 5: View of proposed route for access road extending south from the equipment toward Rodriguez Truck Trail Road, south facing. Note heavy fire and grazing disturbance and dominance of early-succession plant species such as *Lotus scoparia*, *Eriogonum fasciculatum*, and non-native grasses.



Photograph 6: View of proposed route for access road looking back toward the equipment shelter and faux water tower location in background, north facing.

Source: Michael Brandman Associates, 2007.



Michael Brandman Associates

27110701 • 02/2007 | C_site_photos_5and6.cdr

Appendix C Site Photographs 5 and 6

SPRINT-NEXTEL • CA-8406
BIOLOGICAL RESOURCES IMPACT ANALYSIS



Karl L. Osmundson
Biologist / Assistant Project Manager

Mr. Osmundson is a wildlife and fish biologist with over 5 years experience in the environmental field. He has conducted research in ecology and the aquatic sciences throughout California as a biologist and ichthyologist for the University of California at Davis, department of Wildlife, Fish, and Conservation Biology, and as a Biologist for Michael Brandman Associates, among others. In addition to conducting ecological research, he has provided various federal, State, local, and private clients with consultation in planning and natural resources management through the execution of CEQA/NEPA compliance biological assessments, including directing and writing technical reports and EIRs, conducting focused surveys for sensitive flora and fauna, habitat assessments, habitat conservation plan compliance surveys, habitat acquisition/conservation strategies, nesting surveys, relocation studies, aquatic species population studies, wetlands delineations, and restoration monitoring surveys for various projects throughout California.

PROFESSIONAL EXPERIENCE

- Project Manager/Biologist for a number of habitat assessments, monitoring surveys, and focused protocol surveys for threatened and endangered aquatic species, including sensitive fish, avian, reptile, and invertebrate species throughout California. Conducted monitoring surveys and focused protocol surveys for Riverside fairy shrimp, vernal pool fairy shrimp, San Diego fairy shrimp, Quino checkerspot butterfly, Santa Ana speckled dace, coastal California gnatcatcher, least Bell's vireo, desert tortoise, and burrowing owl, among others, for projects in Los Angeles, Orange, Riverside, and San Bernardino Counties. The surveys involve overall species accounts, including monitoring behavior and nest locations, and also consisted of an inventory of all plant and wildlife species observed on the sites, vegetation mapping, and habitat assessment.
- Project Manager/Biologist for projects requiring habitat assessments, biological resources impact analyses, and local and regional habitat conservation plan (HCP) compliance and strategic planning. Project processing and specialized HCP experience includes projects within the San Diego Multiple Species Conservation Program (MSCP) and associated City Subarea Plans, the western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) and associated City Plans, Metropolitan Bakersfield Habitat Conservation Plan (MBHCP), and various Draft HCPs throughout the State.
- Project Manager/Biologist for wireless telecommunications projects requiring biological resources impact analyses and project processing throughout southern California, specializing in San Diego and Riverside Counties.
- Project Manager/Biologist for Determination of Biological Equivalent or Superior Preservation (DBESP) analyses for projects impacting sensitive riparian/riverine habitat. Executed delineation assessments and impact determinations for habitat loss. Developed avoidance, conservation, and resource enhancement/restoration strategies for project feasibility and compliance with USACE, RWQCB, and CDFG regulations, and compliance with the County Flood Control and the Multiple Species Habitat Conservation Plan in Riverside County.
- Project Manager/Biologist for a number of projects requiring wetlands permitting under USACE, RWQCB, and CDFG jurisdiction. Performed formal wetland delineations throughout the State of California.
- Project Manager/Biologist for sensitive species relocation projects for the California State species of concern burrowing owl within Riverside and San Bernardino Counties. Relocation study included delineating conservation area and exclusion sites within occupied owl habitat, setting one-way doors, monitoring active burrows occupied by owls and artificial burrow creation.

- Project Biologist for a number of restoration projects requiring mitigation monitoring components. Assisted with the management of restoration plan implementation including generation of seed/container plan/cuttings palettes, installation and maintenance, quarterly monitoring, and progress reports.
- Research Biologist, Conducted fish biology and ecological research on the Sacramento/San Joaquin Delta and Cosumnes River watershed in northern California in affiliation with University of California at Davis, John Muir Institute for the Environment, The Nature Conservancy, and California Department of Water Resources. Research conducted for the recovery of native fish populations and eradication of non-native fish species, and included the construction of an ecological food web for an approximately 80 mile stretch of the watershed using stable isotope analysis and various sampling techniques for plant, invertebrate, amphibian, avian, mammal, and fish species inhabiting the watershed, with emphasis on fish and aquatic avian species.

PROFESSIONAL HISTORY

Michael Brandman Associates, Biologist
 Jones and Stokes Associates, Biologist
 California Waterfowl Association, Waterfowl Research Technician
 Hubbs-Sea World Marine Research Institute, Hatchery Technician
 John Muir Institute for the Environment, Research Assistance
 Yolo Basin Foundation, Wetlands Docent
 University of California, Davis, Research Assistant
 University of California, Davis, Teachers Assistant

EDUCATION

B.S., Wildlife, Fish, and Conservation Biology, University of California, Davis

TRAINING

AEP CEQA Workshop 11/03
 Fairy Shrimp Workshop 4/05
 CNPS Vegetation and Habitat Rapid Assessment Method Workshop 8/05
 RCIP MSHCP Workshop 9/04, 2/06
 Wetlands Training Institute Vernal Pool and Restoration Workshop 4/06
 Technologies for Monitoring Habitats Workshop 6/06
 Wetlands Training Institute Basic Wetland Delineation Certification 7/06
 AIA Project Management Certification 9/06
 ACOE Sacramento District Regulatory Branch Training 10/06

PERMITS

Permit Applications in progress:
 Federal 10(a)(1)(A) Permit -
 Coastal California Gnatcatcher, Vernal Pool Branchiopod Species

SCIENTIFIC PUBLICATIONS

Osmundson, K.L. 2002. The Effects of Environmental Variability on Western Grebe Foraging Success. WFCB Journal of Field Research. 2002 ed. Pgs1-20

PROFESSIONAL AFFILIATIONS

The Wildlife Society – Western Chapter
 American Fisheries Society
 The Audubon Society - Sea and Sage
 Associate of Environmental Professionals