Biological Constraints Analysis
Verizon Facility Candidate Turnbull Canyon
Unincorporated Community of Hacienda Heights,
Los Angeles County, California

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SECTION 1:
INTRODUCTION

The Turnbull Canyon Project involves the installation of an unmanned wireless communication facility within an existing residence located at 14251 Skyline Drive in the unincorporated community of Hacienda Heights, California, hereafter referred to as project site or site. The project is currently in the early planning stages and this report is intended to assist with the overall project design to avoid or minimize impacts to sensitive biological resources where possible.

The project site is located within Significant Ecological Area (SEA) 44 – Sycamore Canyon and Turnbull Canyon. These canyons and adjacent ridges possess one of the finest undisturbed examples of natural vegetation remaining in the Puente Hills. In addition, Sycamore Canyon contains a stream that usually flows year-round, and supports one of the best examples of riparian woodland found in the region.

However, the project site and immediate vicinity to the north have a history of agricultural use dating back to the 1940's (HistoricAerials.com). The extensive orchards were removed and replaced with rural residential housing starting in the 1970's. Currently, the project site is developed with landscape vegetation surrounding the tennis court and residence. The vegetation is regularly maintained by trimming and artificially irrigated and is not within or immediately adjacent to the natural vegetation mentioned above in the SEA.

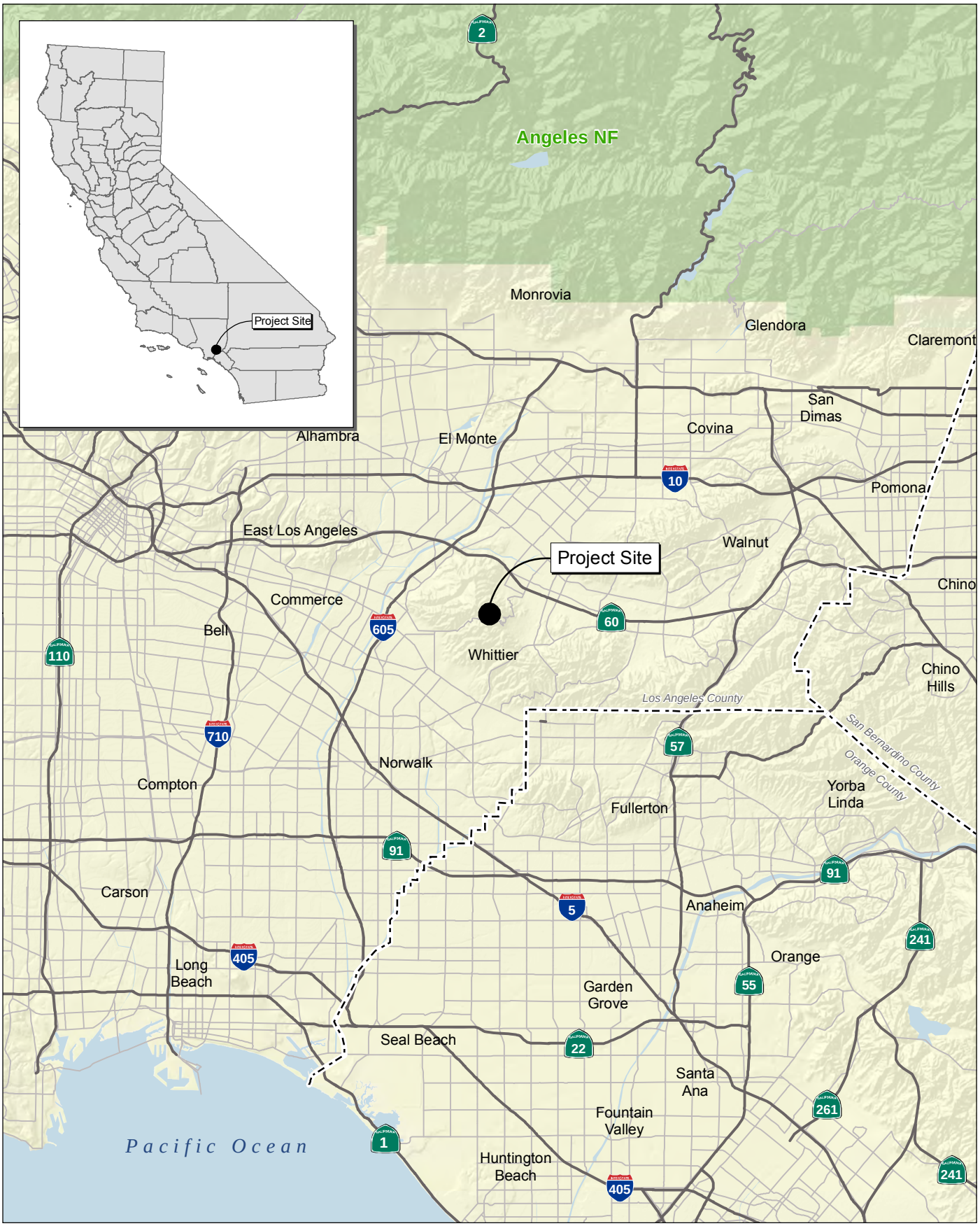
The goal of the report is to provide the basis for subsequent evaluations for potential biological resource impacts associated with the Turnbull Canyon Project, thus enabling a meaningful comparison of impacts among various alternative project elements in terms of significance and magnitude. This report provides an initial constraint analysis as required by Los Angeles County Department of Regional Planning for project assessment. A more detailed biota report may be required at the request of the Significant Ecological Area Technical Advisory Committee (SEATAC).

1.1 - PROJECT LOCATION

The project site is generally located north of Interstate (I) 5, south of State Route (SR) 60, east of I-605, and west of SR-57 (Exhibit 1). The project site is found in the La Puente Land Grant as depicted on the Whittier, California United States Geographical Survey (USGS) 7.5-minute series quadrangle map (Exhibit 2). The project site is specifically located north of 14251 Skyline Drive, south of Oak Canyon Drive, east of Descending Drive, and west of Edgeridge Drive (Exhibit 3).

1.2 - PROJECT DESCRIPTION

The proposed project is an unmanned cellular communication facility that will be installed within an existing residence. Cellular communication antennae will be installed on light poles that will replace the existing light poles associated with the existing tennis court. Four BTS cabinets will be installed along the western side of the tennis courts within the landscape portion of the residence. A small trench of approximately 50 feet will be required to connect the cellular communication facility with electrical and telecommunication wires. The trenching will be within the landscape area along the southern edge of the tennis court and will eventually terminate just east of Skyline Drive at the utility pole in the southwestern corner of the property.



Source: Census 2000 Data, The CaSIL, MBA GIS 2011.

NORTH

5 2.5 0 5 Miles

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Exhibit 1
Regional Location Map

VERIZON WIRELESS • TURNBULL CANYON
BIOLOGICAL CONSTRAINTS ANALYSIS

Source: NGS USA Topographic Maps, Whittier, CA (1981), El Monte, CA (1966) 7.5' DRG.

NORTH

2,000 1,000 0 2,000 Feet

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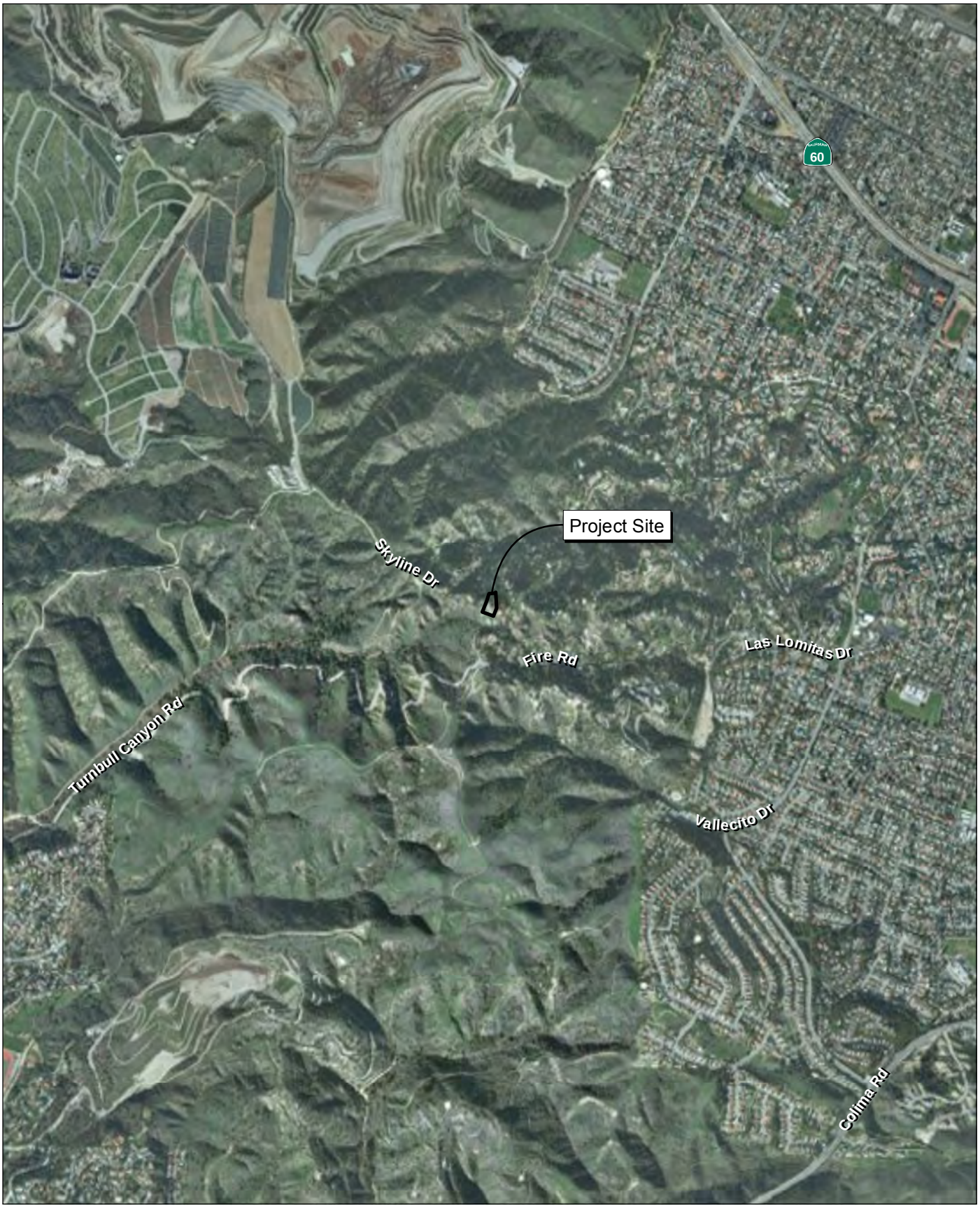
Exhibit 2
Local Vicinity Map
Topographic Base



Source: USA Prime Imagery.

Exhibit 3
Local Vicinity Map
Aerial Base

NORTH

2,000 1,000 0 2,000
Feet

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SECTION 2:
METHODS

Studies of biological resources associated with the Turnbull Canyon Project Site began with a thorough review of relevant literature in concert with a reconnaissance-level field survey. A single biologist conducted a general reconnaissance-level survey on foot on June 28, 2011. The primary objective of that survey was to document the existing conditions on the project site. To MBA's knowledge, no documentation is available regarding previous biological surveys conducted on the project site.

2.1 - LITERATURE REVIEW

The literature review provides a baseline from which to inventory the biological resources potentially occurring on the project site, as well as the surrounding area.

A compilation of sensitive plant and animal species recorded in the vicinity of the site was derived from the California Department of Fish and Game's (CDFG) Natural Diversity Database (CNDDB), a sensitive species and plant community account database. Additional recorded occurrences of plant species found on or near the site were derived from the California Native Plant Society's (CNPS) Electronic Inventory of Rare and Endangered Vascular Plants of California database. The CNDDB and CNPS searches were based on the Baldwin Park, El Monte, La Habra, and Whittier, California USGS 7.5-minute topographic quadrangles.

Federal register listings, protocols, and species data provided by the U.S. Fish and Wildlife Service (USFWS) and CDFG were reviewed in conjunction with anticipated federal and state listed species potentially occurring within the vicinity. Also reviewed was "Appendix H - Comprehensive Floral and Faunal Compendium" of the *Proposed Los Angeles County Significant Ecological Areas, 2000*. These and other references are included in Section 6, References.

2.2 - RECONNAISSANCE-LEVEL SURVEYS

MBA's biologists Scott Crawford conducted a site survey on foot over the entire project site on June 28, 2011. Special attention was paid to the core values of the proposed Sycamore and Turnbull Canyon Significant Ecological Area (SEA), i.e., sensitive habitats or those areas potentially supporting sensitive flora and fauna species, wildlife movement potential and regional biological values. The reconnaissance-level survey focused on four primary objectives:

- Vegetation mapping
- Special status species and vegetation community assessment
- General habitat assessment
- Jurisdictional assessment

Vegetation communities were mapped using 7.5-minute USGS topographic base maps and aerial photography (ca. 1999). Plant communities within the project site were classified at a general level of detail using the widely accepted descriptions provided in Holland's *Preliminary Descriptions of the Terrestrial Natural Communities of California* (1986 and 1992 update).

1.1.1 - Plant Species

Common plant species observed during the field survey were recorded in a field notebook. Species information was reproduced and included in Appendix A, Floral and Fauna Compendium. Unusual and less familiar plants were identified using plant identification keys. A list of all plant species observed on the project site was compiled and is included in Appendix A. Taxonomic nomenclature used in this study follows Hickman (1993). Common plant names, when not available from Hickman (1993), were taken from Munz (1974) or Roberts (1998). In this report, scientific names are provided immediately following common names of plant species (first reference only), because common names vary considerably among many botanical reference sources.

1.1.2 - Wildlife Species

Wildlife species detected during the field survey by sight, calls, tracks, scat, or other sign were noted as species potentially occurring in the project site or general vicinity according to the cited literature. Field guides were used to assist with species identification during surveys and included Stebbins (2003) for amphibians and reptiles, *National Geographic Society Field Guide to the Birds of North America* (1987) for birds, and Burt and Grossenheider (1980) for mammals. Common names of wildlife species are standard; however, scientific names are provided immediately following common names (first reference only). Appendix A lists all wildlife species observed or detected on the project site.

General wildlife surveys were conducted in non-native landscape vegetation during daylight hours. The object of this survey was not to extensively search for every species occurring within the project site, but to ascertain general conditions and identify habitat areas that could be suitable for various common and special status species. Common species are generally considered potentially present if suitable habitat is present and the area lies within a species geographic range. Biologists inspected habitat areas for diagnostic wildlife sign such as nests, burrows, tracks, vocalizations, and noted all direct observations. Surveyors also inspected surface litter, and occasionally turned over stones,

fallen bark, and tree branches to look for secretive reptiles and amphibians. Many reptiles, amphibians, and mammals are secretive by nature and some are only nocturnally active, making diurnal (daytime) observations problematic. Observations of diagnostic signs may provide evidence of occurrence of these species. Otherwise, conclusions regarding potential occurrence are based on consideration of habitat suitability factors.

Surveys for raptors (birds of prey) were conducted simultaneously with the field survey. Efforts included direct and incidental observation of raptor nests, owl pellets, and identification of soaring or perched raptor species.

2.3 - USACE AND CDFG JURISDICTIONAL AREAS

MBA biologists reviewed USGS topographic maps and recent aerial photography prior to conducting the reconnaissance-level survey. The survey was conducted to identify areas that could potentially contain jurisdictional drainage features. The topographic maps and aerial photos were used to identify potential natural drainage features and water bodies within the project study area. All project areas were surveyed to document the occurrence of any jurisdictional features within the project site.

2.4 - WILDLIFE MOVEMENT CORRIDORS

Wildlife corridors link areas of suitable habitat that are otherwise separated by rugged terrain, changes in vegetation, or human disturbance. The fragmentation of open space areas by urbanization creates isolated “islands” of wildlife habitat. In the absence of habitat linkages that allow movement to adjoining open space areas, various studies have concluded that some wildlife species, especially the larger and more mobile mammals, will not likely persist over time in fragmented or isolated habitat areas because they prohibit the infusion of new individuals and genetic information (MacArthur and Wilson 1967, Soule 1987, Harris and Gallager 1989, Bennett 1990). Corridors effectively act as links between different populations of a species. A group of smaller populations (termed “demes”) linked together via a system of corridors is termed a “meta-population.” The long-term health of each deme within the meta-population is dependent upon its size and the frequency of interchange of individuals (immigration vs. emigration). The smaller the deme, the more important immigration becomes, because prolonged inbreeding with the same individuals can reduce genetic variability. Immigrant individuals that move into the adjoining demes mate with individuals and supply that deem with new genes and gene combinations that increases overall genetic diversity. An increase in a population’s genetic variability is generally associated with an increase in a population’s health.

Corridors mitigate the effects of habitat fragmentation by (1) allowing animals to move between remaining habitats, which allows depleted populations to be replenished and promotes genetic diversity; (2) providing escape routes from fire, predators, and human disturbances, thus reducing the risk that catastrophic events (such as fires or disease) will result in population or local species extinction; and (3) serving as travel routes for individual animals as they move within their home ranges in search of food, water, mates, and other needs (Noss 1983, Fahrig and Merriam 1985, Simberloff and Cox 1987, Harris and Gallagher 1989).

Wildlife movement activities usually fall into one of three movement categories: (1) dispersal (e.g., juvenile animals from natal areas, individuals extending range distributions); (2) seasonal migration; and (3) movements related to home range activities (foraging for food or water, defending territories, searching for mates, breeding areas, or cover). A number of terms have been used in various wildlife movement studies, such as "wildlife corridor,", "travel route,", "habitat linkage,", and "wildlife crossing" to refer to areas in which wildlife move from one area to another. To clarify the meaning of these terms and facilitate the discussion on wildlife movement in this study, these terms are defined as follows:

Travel Route: A landscape feature (such as a ridgeline, drainage, canyon, or riparian strip) within a larger natural habitat area that is used frequently by animals to facilitate movement and provide access to necessary resources (e.g., water, food, cover, den sites). The travel route is generally preferred because it provides the least amount of topographic resistance in moving from one area to another; it contains adequate food, water, and/or cover while moving between habitat areas; and provides a relative direct link between target habitat areas.

Wildlife Corridor: A piece of habitat, usually linear in nature that connects two or more habitat patches that would otherwise be fragmented or isolated from one another. Wildlife corridors are usually bounded by urban land areas or other areas unsuitable for wildlife. The corridor generally contains suitable cover, food, and/or water to support species and facilitate movement while in the corridor. Larger, landscape-level corridors (often referred to as "habitat or landscape linkages") can provide both transitory and resident habitat for a variety of species.

Wildlife Crossing: A small, narrow area, relatively short in length and generally constricted in nature, that allows wildlife to pass under or through an obstacle or barrier that otherwise hinders or prevents movement. Crossings typically are manmade and include culverts, underpasses, drainage pipes, and tunnels to provide access across or under roads, highways, pipelines, or other physical obstacles. These are often "choke points" along a movement corridor.

2.5 - SURVEY CONDITIONS

A general biological habitat assessment was conducted in 2011, which was an above average rain year. These climate conditions likely have positive effects on local plant and wildlife species. The surveys were conducted in early summer when many dominant plant and wildlife species are present. Some evidence of local plant and wildlife species remain detectible throughout the summer; therefore, even during dormancy plant and wildlife species can still be detected.

Due to the existing plant community within the project site, early spring season surveys are not required or recommended. Surveys were conducted following an above average rainfall year.

Biological resource assessment surveys are generally conducted only during a few days out of the entire year and are generally limited to one or two years of study. This type of study is designed to document common plant and wildlife species in order to identify the type of habitats that occur within the project site. This survey was not designed to obtain an exhaustive list of all plant and wildlife species that occur on the Project Site.

Finally, the project site and immediate vicinity has a history of agricultural use dating back to the 1940's (HistoricAerials.com). The orchards were removed and replaced with rural residential housing starting in the 1970's. The project site was built in the mid to late 1980's. All of the landscape vegetation within the project site was planted in the 1980's and is well established. The vegetation is regularly maintained by trimming and artificially irrigated.

2.6 - ENVIRONMENTAL POLICY

The environmental policies used in evaluating the potential biological constraints include:

- Federal Endangered Species Act (FESA) of 1973
- Section 404 of the Clean Water Act (CWA)
- The Migratory Bird Treaty Act (MBTA)
- California's Endangered Species Act (CESA)
- California Native Plant Society (CNPS)

SECTION 3:
ENVIRONMENTAL SETTING OF THE PROJECT AREA

3.1 - SOIL AND TOPOGRAPHIC FEATURES

The project site contains six different soil series. A soil series is a group of soils with common characteristics. The project site is with the San Andreas-San Benito associations (Report and General Soil Map, USDA 1969). The soils of this association occur on steep to very steep slopes between 200 and 1,500 feet above mean sea level.

Topographically, the project site is located along a ridgeline at the northern end of Turnbull Canyon within the Puente Hills. The site is relatively flat with an elevation range from 1,170 to 1,200 feet above sea level (Exhibit 4). Geographically, the project site is located in the western portion of the Puente Hills, north of Workman Hill. The site is located on the prominent ridgeline with Turnbull Canyon to the southwest and Oak Canyon to the northeast.

3.2 - LEVEL OF DISTURBANCE

The project site contains artificially irrigated and maintained landscape vegetation. This area is designated as a non-native plant community, but does provide some habitat for species that have adapted to residential development such as house finch (*Carpodacus mexicanus*), house sparrow (*Passer domesticus*), and northern mockingbird (*Mimus polyglottos*). Prior to construction of the single-family residence, the surrounding area was utilized as an active orchard for many decades. This type of continuous disturbance typically reduces the amount of native species diversity and the likelihood of establishing sensitive plant and wildlife populations.

Skyline Drive is a paved road that provides access to the project site. There is no road-widening requirement for installation of the project.

3.3 - PLANT COMMUNITIES

The project site and immediate vicinity occurs within a single plant community or habitat:

- Non-Native Vegetation (Residential Landscape)

Although not considered a natural community, this area does have a unique plant component. The majority of vegetation associated with the proposed development is considered non-native artificially irrigated landscape vegetation.

Non-Native Vegetation 11000 (1 acre)

General Description and Occurrence within the Site: Non-native vegetation occurs along the northern edge of Skyline Drive along the properties southern boundary. The vegetation continues along the perimeter of the residential property. The plants are artificially irrigated and regularly trimmed and maintained. Although the majority of the plants within the project site are non-native landscape plants, there are a few non-native weedy species (Exhibit 4).

Common Vegetation: This community is dominated by several landscape species including cape honeysuckle (*Tecomaria capensis*), baby sun rose (*Aptenia cordifolia*), wavy-leaf privet (*Ligustrum japonicum*), Delosperma iceplant (*Drosanthemum floribundum*), and red wood (*Sequoia gigantea*). Other non-native plant species observed within the project site include red brome (*Bromus rubens*), and lambs quarter (*Chenopodium alba*), as well as native species such as laurel sumac (*Malosma laurina*), toyon (*Heteromeles arbutifolia*), prickly pear cactus (*Opuntia occidentalis*), and a single coast live oak (*Quercus agrifolia*). A complete list of plant species observed on site can be found in Appendix A – Species Compendium.

Wildlife Species: Avian species commonly observed within this community include northern mockingbird, house finch, spotted towhee (*Pipilo maculatus*), California towhee (*Pipilo crissalis*), and Anna's hummingbird (*Calypte anna*). Mammal species detected within this habitat include desert cottontail (*Sylvilagus audubonii*) and coyote (*Canis latrans*). Other wildlife species that may potentially use this community include western fence lizard (*Sceloporus occidentalis*), side-blotched lizards (*Uta stansburiana*), gopher snake (*Pituophis melanoleuca*), and California ground squirrel (*Spermophilus beecheyi*).

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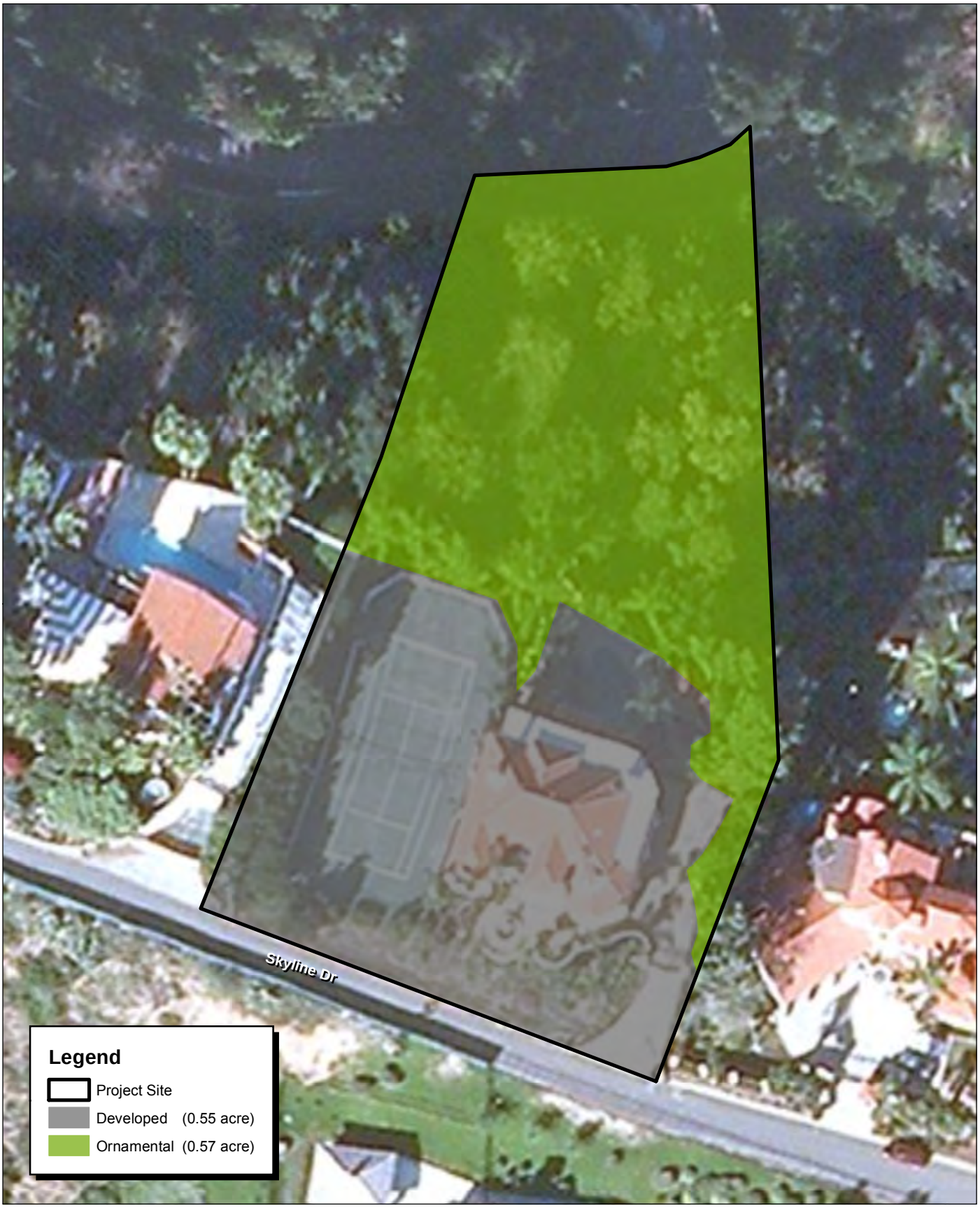

Source: USA Prime Imagery.

NORTH

50 25 0 50

Feet

Michael Brandman Associates

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Exhibit 4
Plant Communities Map

VERIZON WIRELESS • TURNBULL CANYON
BIOLOGICAL CONSTRAINTS ANALYSIS

3.4 - ADJACENT NATURAL RESOURCES

The area north of the project site contains a dense stand of non-native trees and shrubs dominated by several species of eucalyptus (*Eucalyptus* sp.) and ash (*Fraxinus* sp.). The area immediately south of the project site contains a single-family residence with associated landscape vegetation. However, the area to the southwest of the project site contains coastal sage scrub habitat followed by a dense stand of southern mixed chaparral. These native plant communities continue further to the west and south and are part of the much larger Puente Hills complex of remnant native plant communities. The close proximately of the project site to these open space areas allows for some native recruitment within the non-native landscape such as laurel sumac, toyon, and coast live oak.

SECTION 4:
POTENTIAL BIOLOGICAL RESOURCES WITHIN THE PROJECT SITE AND SURROUNDING AREA

4.1 - SENSITIVE PLANT AND WILDLIFE SPECIES

Based on literature review and MBA's in-house database, MBA determined that sensitive biological resources recorded to occur within the Whittier USGS topographic quadrangle and surrounding three quadrangles include three sensitive communities, 15 sensitive plant species, and 20 sensitive wildlife species.

A discussion of each sensitive species recognized by the CNDDB, CNPS, and MBA as potentially present on the project site is presented in Tables 1 and 2. No special status species were observed within the project site during the reconnaissance-level survey. There is no recorded occurrence of any sensitive plant community, plant or wildlife species within the survey area. A special status species is considered a potential inhabitant of the project site if its known geographical distribution encompassed all or part of the project site or if its distribution was near the project site and its general habitat requirements were present. Furthermore, the potential for each species to occur in the project site is assessed.

The Potential for Occurrence ranking is based on the following criteria:

> **Not Likely to Occur -** There are no present or historical records of the species occurring on or in the immediate vicinity (within 3 miles) of the project area and the diagnostic habitats strongly associated with the species do not occur on or in the immediate vicinity of the project area.
>
> **Low Potential for Occurrence -** There is a historical record of the species within the vicinity of the Project Site, but no existing suitable habitat on or in the immediate vicinity of the project area. The Project Site is above or below the recognized elevation limits for this species.
>
> **Moderate Potential for Occurrence -** The diagnostic habitats associated with the species occur on or in the immediate vicinity of the project area, but there is not a recorded occurrence of the species within the immediate vicinity of the Project Site. Some species that contain extremely limited distributions may be considered moderate, even if there is a recorded occurrence within the vicinity.

High Potential for Occurrence - There is both a historical record of the species in the immediate vicinity of the Project Site and the diagnostic habitats strongly associated with the species occur on or in the immediate vicinity of the Project Site.

Species Present - The species was observed on the Project Site at the time of the survey.

Based on the MBA's literature review the following sensitive plant communities were recorded to occur within one of the four USGS topographic quadrangles surrounding the project site:

- California walnut woodland
- Riversidean alluvial fan sage scrub
- Walnut forest

There are no sensitive plant communities within the project site and are not likely to occur within the project site.

Table 1 and 2 identify the sensitive plant and wildlife species that potentially occur within the project site. Based on the literature review and existing habitat within the project site, there are no species with a high or moderate potential to occur within the project site. The following nine species do not have suitable habitat within the project site, but have a low potential to occur on site due to recorded occurrences within three miles of the project site:

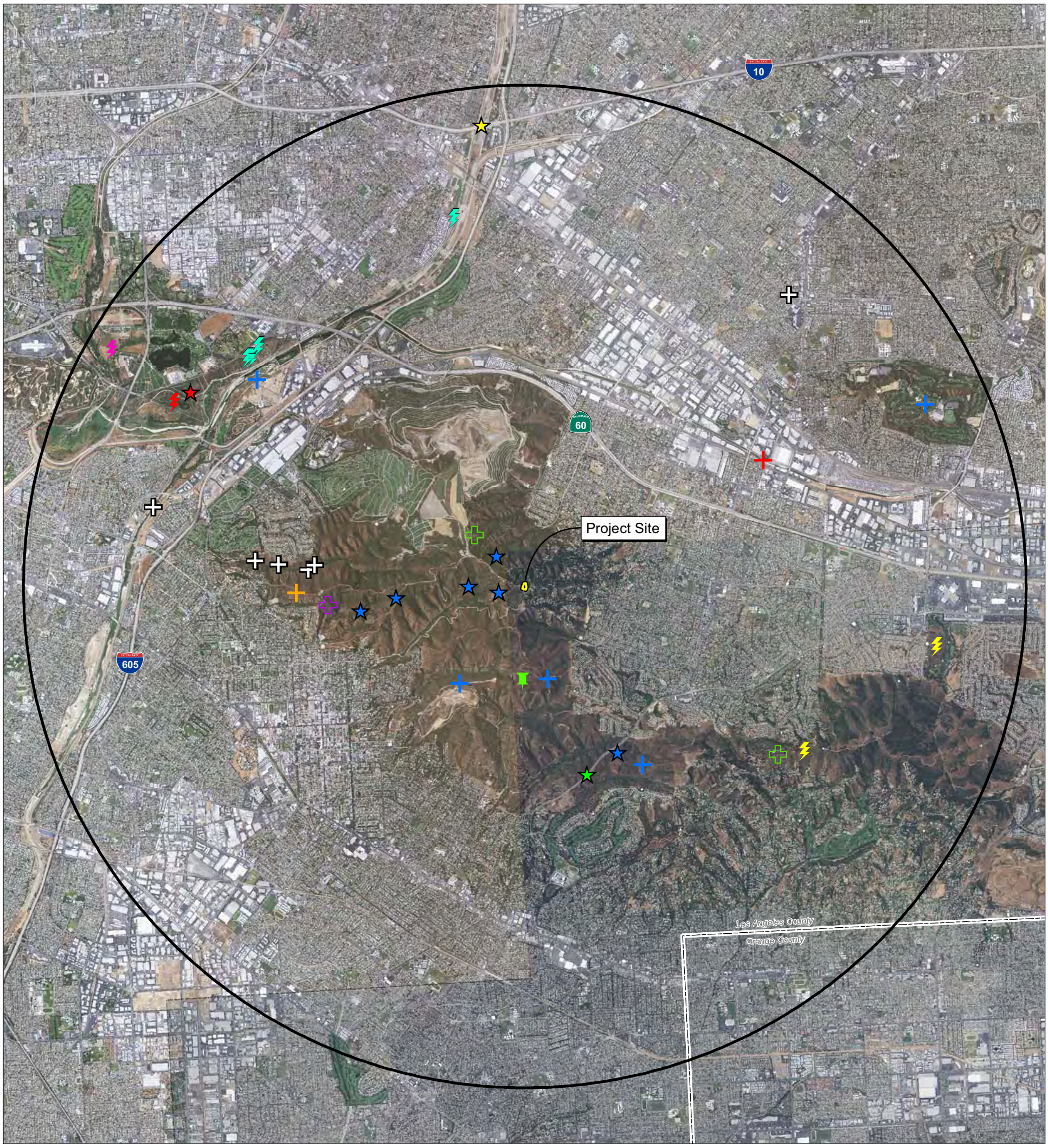
- *Calochortus weedii* var. *intermedius* , intermediate mariposa-lily
- *Calochortus plummerae,* Plummer's mariposa-lily
- *Symphyotrichum defoliatum,* San Bernardino aster
- *Spea hammondii,* western spadefoot
- *Phrynosoma blainvillii,* coast horned lizard
- *Aspidoscelis tigris stejnegeri,* coastal whiptail
- *Athene cunicularia,* burrowing owl
- *Polioptila californica californica,* coastal California gnatcatcher
- *Taxidea taxus,* American badger

Species designated as not likely to occur have not been recorded in the immediate vicinity and there is no suitable habitat found within the project site. Although we cannot completely rule out the possibility of these species occurring within the project site, it is highly unlikely that these species occur within the project site and will not be further discussed in this report.

Not Likely to Occur

- *Orcuttia californica*, California Orcutt grass
- *Horkelia cuneata* var. *puberula*, mesa horkelia
- *Navarretia fossalis*, prostrate vernal pool navarretia
- *Chorizanthe parryi* var. *parryi*, Parry's spineflower
- *Scutellaria bolanderi* ssp. *austromontana*, southern mountains skullcap
- *Phacelia stellaris*, Brand's phacelia
- *Ribes divaricatum var. parishii*, Parish's gooseberry
- *Dudleya multicaulis*, many-stemmed dudleya
- *Atriplex parishii*, Parish's brittlescale
- *Berberis nevinii*, Nevin's barberry
- *Lasthenia glabrata* spp. *Coulteri*, Coulter's goldfields
- *Centromadia parryi* spp. *australis*, southern tarplant
- *Emys marmorata*, western pond turtle
- *Lepus californicus*, black tailed jackrabbit
- *Nyctinomops macrotis*, big free-tailed bat
- *Eumops perotis*, Californicus western mastiff bat
- *Antrozous pallidus*, pallid bat
- *Lasiurus xanthinus*, western yellow bat
- *Lasiurus cinereus*, hoary bat.
- *Icteria virens*, yellow-breasted chat
- *Vireo bellii pusillus*, least Bell's vireo
- *Campylorhynchus brunneicapillus sandiegensis*, coastal cactus wren
- *Empidonax traillii extimus*, southwestern willow flycatcher
- *Coccyzus americanus occidentalis*, western yellow-billed cuckoo
- *Accipiter cooperii*, Cooper's hawk

The known recorded occurrences of the above mentioned sensitive species with a low potential to occur within the project site is found in Exhibit 5.



Source: NAIP Los Angeles, CA (2009), CNDDB Data (July 2011).

Legend

- Project Site
- 5 Mile Buffer

Common Name - Scientific Name

- American badger - Taxidea taxus
- Brand's star phacelia - Phacelia stellaris
- Parish's gooseberry - Ribes divaricatum var. parishii
- Plummer's mariposa-lily - Calochortus plummerae
- San Bernardino aster - Symphyotrichum defoliatum
- burrowing owl - Athene cunicularia
- coast horned lizard - Phrynosoma blainvillii
- coastal California gnatcatcher - Polioptila californica californica
- coastal whiptail - Aspidoscelis tigris stejnegeri
- intermediate mariposa-lily - Calochortus weedii var. intermedius
- least Bell's vireo - Vireo bellii pusillus
- many-stemmed dudleya - Dudleya multicaulis
- southern tarplant - Centromadia parryi ssp. australis
- western pond turtle - Emys marmorata
- western spadefoot - Spea hammondii

NORTH

5,500 2,750 0 5,500 Feet

Michael Brandman Associates

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Exhibit 5
CNDDB-Recorded Occurrences of Special-Status Species within 5 Miles of the Project Site

VERIZON WIRELESS • TURNBULL CANYON
BIOLOGICAL CONSTRAINTS ANALYSIS

Table 1: Special Status Plant Species

Species		Status			Preferred Habitat	Life Form	Blooming Period	Potential on Site/Known Presence/Potential Habitat
Scientific Name	**Common Name**	**USFWS**	**CDFG**	**CNPS**				
Calochortus plummerae	Plummer's mariposa lily	—	—	1B.2	Coastal sage scrub, chaparral, forest, below about 5,500 ft. elev.; widespread but uncommon; Santa Barb. to Riverside Counties	Bulbiferous herb	May - July	**Low potential to occur.** No suitable habitat within the project site. Known population a third of a mile west and north of the project site.
Calochortus weedii var. *intermedius*	Intermediate mariposa lily	—	—	1B.2	Chaparral, cismontane woodland, and riparian woodland/ serpintinite Elev. limit 275 – 900 m. Monterey to Ventura Counties	Bulbiferous herb	Jun - Aug	**Low potential to occur.** No suitable habitat within the project site. Known population a quarter mile west of the project site.
Symphyotrichum defoliatum	San Bernardino aster	—	—	1B.2	Cismontane woodland, coastal scrub, lower montane coniferous forest, meadows and seeps, marshes and swamps, valley and foothill grassland.	Rhizomatous herb	July-November	**Low potential to occur.** No suitable habitat within the project site. Known population 1.2 miles northeast of the project site.
Scientific Name	**Common Name**	**USFWS**	**CDFG**	**CNPS**				

U.S. Fish and Wildlife Service

- FE Federal Endangered
- FT Federal Threatened
- FPE Proposed Endangered
- FPT 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.

Not Likely to Occur - There are no present or historical records of the species occurring on or in the immediate vicinity (within 2 to 3 miles) of the project area and the diagnostic habitats strongly associated with the species does not occur on or in the immediate vicinity of the project area.
Low Potential for Occurrence - There is a historical record of the species within the vicinity of the property, but no existing suitable habitat on or in the immediate vicinity of the project area. Project is not within the known elevation range of the species.
Moderate Potential for Occurrence - The diagnostic habitats associated with the species occur on or in the immediate vicinity of the project area, but there is not a recorded occurrence of the species within the immediate vicinity of the property.
High Potential for Occurrence - There is both a historical record of the species on or in the immediate vicinity of the project area and the diagnostic habitats strongly associated with the species occur on or in the immediate vicinity of the project area.
Species Present - The species was observed on the property at the time of the survey.

Table 2: Special Status Wildlife Species

Scientific Name	Common Name	Status		Habitat	Potential on Site/Known Presence/Potential Habitat
		USFWS	CDFG		
Amphibians					
Spea hammondii	Western spadefoot	—	CSC	Streams, ponded areas, vernal pools	**Low potential to occur.** No suitable habitat within the project site. A known recorded occurrence is located one mile south of the project site.
Reptiles					
Phrynosoma coronatum frontale	San Diego horned lizard	—	CSC	Coastal sage scrub and chaparral with friable, rocky or shallow sandy soils.	**Low potential to occur.** No suitable habitat within the project site. A known recorded occurrence is located two miles west of the project site.
Aspidoscelis tigris stejnegeri	Coastal western whiptail	—	—	Inhabits deserts and semiarid areas with sparse vegetation and open areas.	**Low potential to occur.** No suitable habitat within the project site. A known recorded occurrence is located three miles west of the project site.
Birds					
Athene cunicularia	Burrowing owl	—	CSC	Open, dry, grasslands, desert, and scrublands with low growing vegetation.	**Low potential to occur.** No suitable habitat within the project site. A known recorded occurrence is located two miles west of the project site.
Polioptila californica californica	Coastal California gnatcatcher	FT	CSC	Coastal scrub, dry washes, ravines	**Low potential to occur.** No suitable habitat within the project site. A known recorded occurrence is located one mile south of the project site.
Mammals					
Taxidea taxus	American badger	—	—	Open grassland and desert	**Low potential to occur.** No suitable habitat within the project site. A known recorded occurrence is located two mile south of the project site.

U.S. Fish and Wildlife Service
- FE Federal Endangered
- FT Federal Threatened
- PE Proposed Endangered
- FC Federal Candidate
- FSC Federal Species of Concern
- * No longer recognized as a federal designation.

California Department of Fish and Game
- CE California Endangered
- CT California Threatened
- CSC Species of Special Concern
- FP Fully Protected
- Considered sensitive by the California Natural Diversity Data Base.

Not Likely to Occur - There are no present or historical records of the species occurring on or in the immediate vicinity (within 2 to 3 miles) of the project area and the diagnostic habitats strongly associated with the species does not occur on or in the immediate vicinity of the project area.
Low Potential for Occurrence - There is a historical record of the species within the vicinity of the Project Site, but no existing suitable habitat on or in the immediate vicinity of the project area.
Moderate Potential for Occurrence - The diagnostic habitats associated with the species occur on or in the immediate vicinity of the project area, but there is not a recorded occurrence of the species within the immediate vicinity of the Project Site.
High Potential for Occurrence - There is both a historical record of the species on or in the immediate vicinity of the project area and the diagnostic habitats strongly associated with the species occur on or in the immediate vicinity of the project area.
Species Present - The species was observed on the Project Site at the time of the survey.

4.2 - JURISDICTIONAL WATERS AND WETLANDS

Based on MBA's preliminary survey findings and review of existing USGS topographic maps, MBA has determined that the project site contains no drainage features that are likely to be considered under the jurisdiction of both the USACE and CDFG.

4.3 - WILDLIFE MOVEMENT CORRIDOR

A wildlife movement corridor assessment was conducted to determine if the alteration of current land use on the project site would have significant impacts on the regional movement of wildlife. Since the proposed project is located within a previously developed residence, the development of the proposed cellular communication facility will not affect any existing wildlife movement corridors.

Currently, wildlife have nearly uninhibited movement south of the project site and the Puente Hills is considered a significant wildlife corridor for wildlife movement in an east-west direction. However, there are several bottleneck areas at significant road crossings. Urban development occurs on both the northern and southern edges of the Puente Hills.

The proposed project will be completely within a fenced area within the existing residence. In addition, a fence runs along the southern edge of Skyline Drive making the site relatively isolated from any native habitats.

Wildlife may utilize the residential development for foraging, but are not likely to use the development as a wildlife movement corridor.

SECTION 5:
IMPACT ANALYSIS

5.1 - PROJECT IMPACTS

The impacts to biological resources are assessed using impact significance criteria, which implement the policy statement contained in Section 21001(c) of the Public Resources Code California Environmental Quality Act (CEQA) Statutes. This section reflects that the legislature has established it to be the policy of the State to:

> *"Prevent the elimination of fish or wildlife species due to man's activities, ensure that fish and wildlife populations do not drop below self perpetuating levels, and preserve for future generations representations of all plant and animal communities..."*

The following definitions are used in establishing the significance criteria for biological resources:

- "Endangered" means that the species is listed as endangered under state or federal law.
- "Threatened" means that the species is listed as threatened under state or federal law.
- "Sensitive habitat" refers to habitat for plants and animals (1) that play a special role in perpetuating species using the habitat on the Project Site, and, (2) without which there would be substantial danger that the population of that species would drop below self-perpetuating levels.
- "Substantial effect" means significant loss or harm of a magnitude that, based on current scientific data and knowledge, (1) would cause a species or a native plant or animal community to drop below self perpetuating levels on a statewide or regional basis or, (2) would cause a species to become threatened or endangered.

Pursuant to thresholds of significance used in this analysis, impacts to the following biological resources were deemed insignificant or significant owing to a number of factors including likelihood of occurrence onsite, presence of suitable habitat, or known abundance on a regional scale. Impacts found to be significant follow the CEQA environmental checklist as outlined in the 2011 California Environmental Quality Act CEQA Guidelines.

5.2 - IMPACTS TO NATURAL COMMUNITIES

Based on the preliminary site plan, project impacts would result in the direct removal of a variety of non-native ornamental landscape plants. The removal of non-native shrubs and weedy species is considered less than significant with respect to impacts to "Special Habitat or Substantial Effect" under CEQA guidelines. This plant community is not considered sensitive by any local or regional resource agencies.

Impacts to commonly occurring plant communities is not considered a significant impact, however, if these habitats are directly linked to a known wildlife movement corridor or adjacent sensitive plant community that may be indirectly affected by future project development, then the installation of the project may be considered significant. Based on the most current site plan (February 22, 2011), no direct or indirect impacts will occur to any natural plant communities. Therefore, impacts are considered less than significant.

5.3 - IMPACTS ON GENERAL FLORA

The primary impacts of project implementation on plant species is the removal of non-native landscape species. Project implementation would result in the direct removal of numerous common plant species on the project site such as Cape honeysuckle, oleander, English ivy, and horseweed. Common plant species impacts are not considered significant. In addition, common plant species existing within disturbed areas on the site are typically disturbance-tolerant and expected to be found in abundance off-site on suitable habitat in remaining open space throughout the region. Project related impacts to general plant species are considered less than significant under CEQA.

5.4 - IMPACTS ON SENSITIVE FLORA

There are no sensitive plant species likely to occur within the project site. The species are not listed as threatened or endangered under the federal or state Endangered Species Act (FESA or CESA). All three of the plants are listed as 1B.2 by the CNPS. These three species have a limited distribution but are not considered rare, threatened, or endangered. Since the project site does not contain any suitable habitat, impacts to these sensitive plant species are considered less than significant.

5.5 - IMPACTS ON GENERAL FAUNA

Project implementation in the short- and long-term would result in direct removal of existing landscape habitat and disturbance of a few common wildlife species existing on the project site such as western fence lizard, California towhee, desert cottontail, and coyote. Elimination or disruption of habitat for these species would not represent a regionally significant impact. Project related impacts to general wildlife species are considered less than significant.

5.6 - IMPACTS ON SENSITIVE FAUNA

The proposed development area contains no suitable habitat for any of the potentially occurring species. The coastal California gnatcatcher is the only species with a low potential to occur within the project site that is protected by the FESA or CESA. The remaining five species as designated as California species of concern by the California Department of Fish and Game, but are not legally protected by the FESA or CESA.

Although these species do not have direct legal protection, they are still required to be evaluated under the CEQA process. The proposed development of this project site is not likely to reduce the regional population size to a level that is considered less than self-sustaining. There is no suitable habitat within the project site for any sensitive wildlife species. Project impacts regarding these species are considered less than significant.

5.7 - MIGRATORY BIRD TREATY ACT

All breeding migratory birds, regardless of their listing status, are protected under the Migratory Bird Treaty Act. The proposed development plan contains numerous shrubs and trees that are considered suitable habitat for nesting migratory birds. Any project activity that results in the failure of a nest is considered significant under CEQA. A preconstruction nesting survey will be conducted prior to shrub and tree removal activities in order to identify any active nests during the breeding season (February to August). In the event that an active nest is observed, a qualified biologist will monitor construction activity that may affect the nest. Generally, construction activity should not occur within 250 feet of any active nest unless a monitor is present. Construction activity may occur within this limit at the discretion of the monitoring biologist.

1.1.3 - Raptors

Removal of raptor foraging habitat is increasingly becoming a more significant environmental issue. Removal of this habitat may be considered significant depending on the extent of habitat removal and quality of foraging habitat. Based on the total amount of habitat removal associated with the proposed development and the type of habitat being moved, impacts to raptor foraging habitat are considered less than significant.

5.8 - IMPACTS ON REGIONAL CONNECTIVITY/WILDLIFE MOVEMENT CORRIDORS

The proposed project will not create a physical barrier that would prohibit wildlife movement on a regional basis. Wildlife movement corridors will continue to be of greater significance if the surrounding land becomes developed. Development of the cellular communication facility will not impact wildlife movement corridors within the vicinity of the project site. Project related impacts to regional connectivity/wildlife movement corridors are considered less than significant.

5.9 - IMPACTS ON USACE AND CDFG JURISDICTIONAL WATERS

Any impacts to jurisdictional areas are considered significant. The proposed project will not impact any areas under USACE and CDFG jurisdiction. Based on the current preliminary site plan, the impacts to jurisdictional drainage features is considered less than significant.

5.10 - UNAVOIDABLE SIGNIFICANT IMPACTS

The proposed project, inclusive of project design features and mitigation measures will be able to mitigate all significant adverse impacts to a level less than significant. There are no unavoidable significant impacts.

5.11 - CUMULATIVE IMPACTS

Per the provisions of CEQA [App. F, XXI(c)], actions, which have impacts that are individually limited, but cumulatively considerable, may be considered significant and adverse. Potential cumulative impacts on biological resources are primarily related to both the regional and local loss of existing plant communities and habitat they afford wildlife. Potential cumulative effects include habitat fragmentation, disruption of wildlife corridors, extirpation of species from the region, as well as the decrease of genetic fitness through inbreeding of small, isolated populations. Contribution to the cumulative loss of vegetation, habitats, and wildlife populations existing in the Puente Hills area from the proposed project is expected to be less than significant.

5.12 - OAK TREE ORDINANCE

Los Angeles County has an oak tree ordinance that protects all oak trees within County jurisdiction.

> *Except as otherwise provided in Section 22.56.2070, a person shall not cut, destroy, remove, relocate, inflict damage or encroach into a protected zone of any tree of the oak genus which is (a) 25 inches or more in circumference (eight inches in diameter) as measured four and one-half feet above mean natural grade; in the case of an oak*

> *with more than one trunk, whose combined circumference of any two trunks is at least 38 inches (12 inches in diameter) as measured four and one half feet above mean natural grade, on any lot or parcel of land within the unincorporated area of Los Angeles County, or (b) any tree that has been provided as a replacement tree, pursuant to Section 22.56.2180, on any lot or parcel of land within the unincorporated area of Los Angeles County, unless an oak tree permit is first obtained as provided by this Part 16.*

Based on the ordinance, any impact to oak trees of a minimal size, including the single coast live oak present within the project site, requires a County Oak Tree Permit. The single oak tree will be avoided during project installation. In the event that any oak trees are required to be removed, all permit requirements and mitigation will be fully met prior to any tree removal.

5.13 - REGIONAL SIGNIFICANCE

The project site is located within Significant Ecological Area (SEA) 44 – Sycamore Canyon and Turnbull Canyon. These canyons and adjacent ridges possess one of the finest undisturbed examples of natural vegetation remaining in the Puente Hills. In addition, Sycamore Canyon contains a stream that usually flows year-round, and supports one of the best examples of riparian woodland found in the region.

A variety of plant communities is found in the area including riparian woodland, oak woodland, costal sage scrub, and chaparral. The lush riparian vegetation provides food, nesting sites, and cover for many animals. The surrounding undisturbed vegetation is extensive enough to enable uncommon species like deer, coyote, bobcat, and badger to frequent the area.

The project site is not expected to support any sensitive plant communities or provide suitable habitat for any sensitive plants or wildlife species. Based on a preliminary project design provided to MBA by Verizon Wireless, the proposed project is designed to avoid all significant biological resources. Based on the current existing conditions, impacts to the project site will not have a significant impact regarding regional significance.

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SECTION 7:
DEFINITION OF TERMS AND ACRONYMS

7.1 - DEFINITION OF TERMS

Blue Line Drainage Feature: A drainage feature specifically indicated on a USGS topographic map. These lines may or may not represent drainage features considered jurisdictional by either USACE or CDFG. These drainage features only represent canyon bottom that likely contains an area that contains flows during storm events.

Drainage Feature: A drainage feature is a topographic low spot that channels run-off from storm events. Drainage features are often considered streams, rivers, creeks, and brooks, but may also include upland drainage features that are often dry during most of the year. Drainage features typically have a definable bed and bank feature caused by erosion from moving water.

Focused Survey: A specific survey for a single species that has a specific written protocol as approved by the USFWS.

Jurisdictional Features: Drainage features considered jurisdictional by USACE and CDFG.

Natural Communities: Native undisturbed habitats that provide suitable habitat for common and sensitive plant and wildlife species.

Ornamental Vegetation: Non-native landscape vegetation generally associated with residential development.

Project: The construction footprint, which includes the limits of grading and allowable work area.

Project Site: The entire area considered to be owned or potentially owned by the project proponent.

Reconnaissance-Level Survey: A field investigation of common plants and wildlife species observed within a Project Site, often limited to a single point in time during the year. The survey is conducted to get a general understanding of the habitats within the Project Site and not to systematically survey the entire Project Site for every plant and wildlife species present.

Taxonomic Nomenclature: A system of labeling an individual species with a standardized Latin-based scientific name.

Vegetation Communities: A classification of natural or human influenced assemblage of plants that have common characteristics and can be easily identified by key plant species.

Vicinity: A general term referring to the area immediately adjacent to the Project Site boundary. This area typically includes a half-mile to a one-mile buffer area surrounding the Project Site.

Wetlands: These areas must meet the three parameter criteria set forth by the USACE. All wetland areas must have hydrophytic vegetation, hydric soils, and wetland hydrology.

7.2 - ACRONYMS

BLM .....Bureau of Land Management
CDFG .....California Department of Fish and Game
CEQA .....California Environmental Quality Act
CNDDB.....California Natural Diversity Database
CNPS.....California Native Plant Society
CSC .....California Special Concern Species
CSS.....Coastal Sage Scrub
FC .....Federal candidate species
FE .....Federally listed as Endangered
FPD.....Federally proposed for delisting
FPE .....Federally proposed for listing as Endangered
FPT .....Federally proposed for listing as Threatened
FSC.....Federal Species of Concern
FT .....Federally listed as Threatened
MBA.....Michael Brandman Associates
MOU.....Memorandum of Understanding
NEPA .....National Environmental Policy Act
OHWM.....Ordinary High Water Mark
SCE.....State candidate for listing as Endangered (California)
SCT.....State candidate for listing as Threatened (California).
SE .....State listed as Endangered (California)
SEA .....Significant Ecological Area
SFP .....State Fully Protected (California)
SP .....State Protected (California)
ST .....State listed as Threatened (California)
USACE.....United States Army Corp of Engineers
USFWS.....United States Fish and Wildlife Service
USGS.....United States Geological Survey

SECTION 8:
REPORT PREPARATION PERSONNEL

8.1 - MICHAEL BRANDMAN ASSOCIATES

Principal-In-Charge ..... Tom Holm.
Project Manager/Project Biologist ..... Scott Crawford
Initial Project Manager ..... Al Martinez
Technical Peer Review ..... Kelly Rios
Editor & Word Processing Sandi Tomlin
Graphics ..... Ricardo Marquez
Reproduction ..... José Morelos

Appendix A: Floral and Faunal Compendia

Flora Compendia

Pinaceae		**Pine Family**
Pinus	*sp.*	Unknown pine species
Aizoaceae		**Fig-Marigold Family**
Aptenia	*cordifolia*	baby sun rose
Drosanthemum	*floribundum*	showy dewflower
Anacardiaceae		**Sumac or Cashew Family**
Malosma	*laurina*	laurel sumac
Araliaceae		**Ginseng Family**
Hedera	*helix*	English ivy
Asteraceae		**Sunflower Family**
Conyza	*canadensis*	horseweed
Sonchus	*asper*	sow thistle
Brassicaceae		**Mustard Family**
Hirschfeldia	*incana*	short-podded mustard
Cactaceae		**Cactus Family**
Opuntia	*littoralis*	coastal prickly pear
Caprifoliaceae		**Honeysuckle Family**
Tecomaria	*capensis*	Cape honeysuckle
Chenopodiaceae		**Goosefoot Family**
Chenopodium	*album*	lamb's quarters
Fabaceae		**Legume Family**
Caesalpinia	*gilliesii*	bird-of-paradise
Fagaceae		**Oak Family**
Quercus	*agrifolia*	coast live oak
Oleaceae		**Olive Family**
Ligustrum	*japonicum*	Japanese privet
Rosaceae		**Rose Family**
Rhaphiolepis	*indica*	India Hawthorne
Rosaceae		**Rose Family**
Heteromeles	*arbutifolia*	toyon
Verbenaceae		**Vervain Family**
Lantana	*camara*	lantana
Arecaceae		**Palm Family**
Phoenix	*canariensis*	Canary Island date palm
Washingtonia	*filifera*	California Washington palm
Asparagaceae		**Asparagus Family**
Asparagus	*aethiopicus*	asparagus
Poaceae		**Grass Family**
Bromus	*rubens*	red brome

Fauna Compendia

Trochilidae		**Hummingbirds**
Calypte	*anna*	Anna's hummingbird
Mimidae		**Mockingbirds/Thrashers**
Mimus	*polyglottos*	northern mockingbird
Emberizidae		**Warblers, sparrow, etc.**
Pipilo	*maculatus*	spotted towhee
Pipilo	*crissalis*	California towhee
Fringillidae		**Finches**
Carpodacus	*mexicanus*	house finch
Leporidae		**Hares and Rabbits**
Sylvilagus	*audubonii*	desert cottontail
Canidae		**Wolves and Foxes**
Canis	*latrans*	coyote

Appendix B: Site Photographs

Photograph 1: Looking north at the northwest corner of the property from Skyline Drive. The utility lines will be trenched from the pole in the foreground straight back to the equipment cabinets, which will all be contained within the landscape area of the residence.

Photograph 2: Looking southwest at the trench-line location from the western edge of the residence. Trench line will be located outside of the tennis court area and will be contained within the landscape area. Utility pole in the background is the southern extent of the required trenching.

Source: Michael Brandman Associates (2011).

Photograph 3: Looking north at the proposed equipment cabinet location from the southern end of the tennis court area. The proposed equipment cabinets will be installed outside of the existing tennis court area.

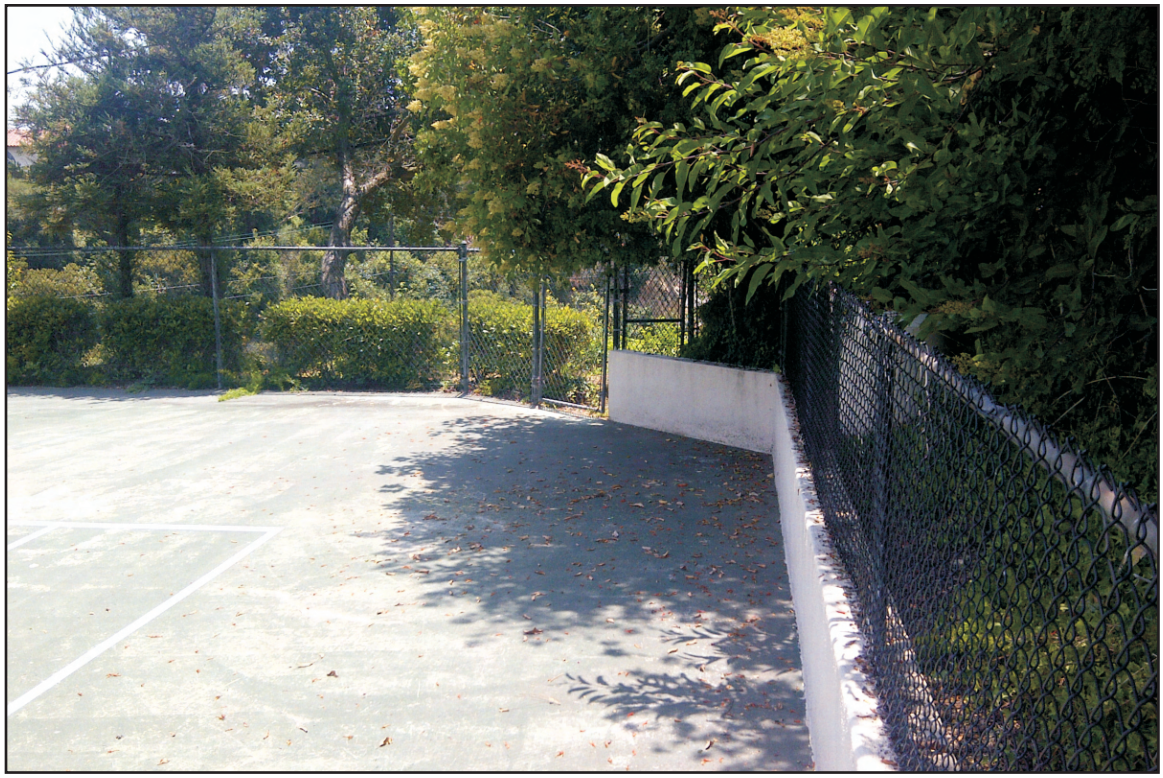
Photograph 4: Looking west at the proposed equipment cabinet location from the western edge of the residence. Note the existing light pole will be replaced with a new light-pole with attached antenna.

Source: Michael Brandman Associates (2011).

Michael Brandman Associates

Appendix B
Site Photographs 3 and 4

Photograph 5: Looking southwest at the proposed equipment cabinet location from the northern edge of the existing tennis court area. Both light-poles will be replaced with new light-poles with attached antenna.



Photograph 6: Looking south at the proposed trench route from proposed equipment cabinet location. The proposed trenching activities will be contained outside of the existing chain-linked fence area.

Source: Michael Brandman Associates (2011).

Michael Brandman Associates

Appendix B
Site Photographs 5 and 6

Appendix C: Field Survey Notes

Call Site Hacienda Heights DATE 6/28/2011

Overcast 100% Cloud Cover 55° Wind 2 mph

Acha	Red Stone Tojon	
Abma	Lambs	Oleander
Cedo	Quaker	Horse weed
Hedg	Asparagus fern	English Ivy
Spoto	Gazanias	Orange trumpet
	baby sun rose	Senna shrub
	Aphex	Bird of Paradise
	Aptenia Cordifolia	Carpet rose.
	Waxy leaf Privet	Red wood
	Ligustrum Japonicum	Pink Victory Honeysuckle.
	Cape honeysuckle	Privet
	Tecomaria capensis	Fuchsia weed
	Delosperma Icepl	Canary Island date Palm.
	Sod Seed	Coast live oak.
	Fern Pole.	Ivy Lawn
	Dasanthemum	Prickly Pear.
	Flor. burdum	Washington Fan Palm
	Shrubs	Red Pointed Bottlebrush

Appendix D: Preparer's Resume/Qualifications

Scott Crawford
Senior Project Manager

Education
M.A., Biological Science, California State University, Fullerton 1997

B.A., Environmental Biology, California State University, Northridge 1995

Professional Registrations
Collection Permit: 801087-03 Exp. 1/19/2012

Flat-Tailed Horned Lizard Certification 6/2001

Wetland Training Institute: Wetland Delineation Training: 12/1998

Desert Tortoise Council Workshop 10/1999

Desert Tortoise Egg Handling/ Artificial Burrow Construction 10/1999

Project Management Boot Camp 1 – PSMJ Resources, Inc. 3/2004

Managing Multiple Project Objectives and Deadlines, Skill Path 1/2006

Registered Wildlife Biologist – San Diego County- 3/2006

LAX Security Clearance/Driving Clearance – 2001

FEDERAL PERMIT # TE019947-03, California gnatcatcher, Quino Checkerspot Butterfly, Listed Fairy Shrimp

Experience Summary

Since 1994 Mr. Crawford has obtained experience conducting herpetological, mammalian and avian surveys throughout California. He is experienced in conducting jurisdictional delineations and sensitive plant surveys. Mr. Crawford has a federal permit to conduct surveys for the California Gnatcatcher, Quino Checkerspot Butterfly and listed fairy shrimp species. He also possesses extensive experience in conducting surveys for other sensitive wildlife species including El Segundo Blue Butterfly, Red-Legged Frog, Arroyo Toad, Western Spadefoot, Desert Tortoise, Western Pond Turtle, Least Bell's Vireo, and Burrowing Owl. Mr. Crawford is well-seasoned in GIS (Geographic Information Systems) and vegetation mapping. In addition to his years of fieldwork, Mr. Crawford is experienced in preparing biological sections for General Plans, Specific Plans and EIRs. He participates in third-party reviews for both cities and counties. Along with preparing and reviewing written documents, Mr. Crawford is a practiced technical expert for public hearings including City Council Meetings, Planning Commission meetings and County Board of Supervisors. Mr. Crawford currently assists in the management of the natural resource team at MBA.

Recent Project Experience

Biological Resources Assessments

Biological Resources Assessment, Searless Company, City of Orange. A biological resources assessment was conducted on a 66-acre project site. The existing conditions were documented in order to assist in the development of a future senior living facility. Also conducted during the site visit was a full jurisdictional delineation as well as an arborist survey and a CRAM assessment 2007 (2011 updated).

Conducted a Biological Resources Assessment for the Westland Solar Farms, LLC Project, Fresno County, California. Conducted a biological resources assessment for a 162-acre project site evaluated for the Environmental Field Office. The entire project site was surveyed on foot to document any potential suitable habitat for sensitive plant and/or wildlife species. No suitable habitat was observed. 2010

Conducted a Biological Resources Assessment for the Apple Valley Re-Entry Facility, California Department of Corrections and Rehabilitation. Conducted a biological resources assessment for a 20-acre re-entry facility in the town of Apple Valley The entire project site was surveyed on foot to document any potential suitable habitat for sensitive plant and/or wildlife species. Suitable habitat for desert tortoise was observed. No desert tortoise were observed during the survey. 2010

Conducted a Biological Resources Assessment for GROW Land and Water, LLC. Kings County. Conducted a biological resources assessment for a 3,200-acre solar project near Kettleman City, Kings County. The assessment was used to redesign the existing project to avoid or eliminate most of the proposed significant project related impacts. 2010

Conducted a Biological Resources Assessment for Redco Solar, LLC. Conducted a biological resources assessment for a 400-acre solar project near the City of Needles. Identified fatal flaws and provided areas of construction that would limit the regulatory burden. 2009

Conducted a Biological Resources Assessment for the Santa Ana River Trail System for the County of Riverside. Conducted a biological resources assessment for the construction of a proposed trail system connecting the existing trail from below Prado Dam to the Hidden Valley Nature Center, approximately 10 miles. Also conducted as part of the biological resources assessment were burrowing owls and sensitive plant surveys. All of which were negative for sensitive plant and wildlife species. 2009

Conducted a Biological Resources Study on the West Simi Valley Recycling Project for the City of Simi Valley. Conducted a biological resources study for the proposed reclaimed water line that will be used to supply portions of the City with reclaimed water from that which is currently discharged into Arroyo Simi. The information will be used to monitor the long-term affects of the removal a the reclaimed water from the downstream system. 2009

Conducted a complete Biological Inventory on the Wilderness Gardens and Mount Olympus Parks for County of San Diego. Conducted a three month documentation of all plant and wildlife species observed or detected within the 730-acre and 700-acre parks respectively. Surveys included scent stations, camera stations, avian point counts, bat surveys, vegetation mapping, and invasive species mapping. The information will be used to monitor the function and value of the park over time. 2009

Sensitive Species Focused Surveys

Burrowing Owl Focused Survey, Highland Fairview Properties, City of Moreno Valley, Riverside County. Conducted focused surveys for burrowing owl within a 1,200-acreproposed mixed use property. No burrowing owls were observed during the survey. 2010

California Gnatcatcher Surveys, Serrano Lattice Tower, Orange County. Conducted protocol surveys for California gnatcatcher prior to installation of a proposed cellular communication facility. The surveys were conducted on a 5-acre patch of coastal sage scrub within the vicinity of an existing water tank facility. A single male California gnatcatchers were observed. 2010

Informal Consultation with Resource Agencies for several well locations, King/Kern County. Conducted informal consultation with USFWS, CDFG, BLM, and DOGGR with regard to appropriate mitigation measures for potential impacts to threatened and/or endangered species protected under the Endangered Species Act. Coordinated Blunt-nosed leopard lizard surveys to determine presence/absence prior to grading activities.

Avian Surveys for a Wind Energy Project in Pine Canyon, LADWP, Kern County. Conducted avian point count surveys for a proposed wind energy project for LADWP. As part of the avian surveys, we also mapped existing vegetation and conducted bat surveys for a better understanding the biological resources present within the area. The surveys were conducted with the use of LADWP Helicopters. Approximately 40 hours of helicopter time was logged throughout the surveys.

Western Spadefoot Capture and Relocation Study- Conducted a pre-construction survey for western spadefoot in the summer by artificially flooding existing ponded areas. Pit fall traps and silt fence were installed to assist in capturing western spadefoots. A single western spadefoot was captured and relocated. 2009

Wildlife Movement Corridor Study, Los Angeles and Orange Counties. Conducted a year-long study of wildlife movement within the Tonner Canyon property in the Los Angeles and Orange Counties. Surveys included spot counts for birds, scent stations for tracks, and photo stations for active wildlife movement photographs. The survey was conducted for a 5-day period once a month for an entire year. 2007 to 2008.

Jurisdictional Delineation Surveys

Wetland Delineation. Greenpark Runkle Canyon LLC. Conducted wetland delineation on a 1600-acre site in the City of Simi Valley (Runkle Canyon Specific Plan). The delineation was mapped with the aid of Trimble GPS unit and GIS software. 2010

Viewpoint School Wetland Delineation, City of Calabasas, Los Angeles County. Conducted wetland delineation for a proposed drainage relocation project associated with a poorly constructed concrete lined channel. The low-flow channel remains intact, but an underground flood control channel was build below the school to reduce flooding. 2009

Randal Street Bridge Wetland Delineation, County of Orange, Orange County. Conducted wetland delineation for a proposed bridge replacement over an unnamed drainage feature. 2007

Wetland Delineation, City of Bakersfield, Kern County. Conducted wetland delineation for a 6,000 acre proposed off-road vehicle use park. Surveys were conducted as part of the initial design phase of the project. 2007

Biological Monitoring

Pre-Construction monitoring and educational program for the San Joaquin kit fox and burrow owl, for the SPG Solar project in Merced County. . Conducted a pre-construction monitoring survey and an educational program for San Joaquin kit fox and burrowing owl for a proposed solar facility. No burrowing owl or kit fox were observed on site. 2010

Construction monitoring, Antonio Parkway Bridge Expansion Project. Ladera LLC DMB. Conducted construction monitoring on expansion of a bridge structure of a drainage feature along Antonio Parkway. Monitoring included several site visits and coordination with construction crews. 2008

Vegetation monitoring, Rancho Diamante Restoration Site. City of Hemet. Riverside County. Conducted vegetation monitoring on the restoration site associated with mitigation requirements for the Rancho Diamante project site. Monitoring included a site visit and plant recordation. 2008

Construction monitoring. Wind Fence Construction. City of Cathedral City, Riverside County, California. Conducted construction monitoring to minimize impacts to Coachella Valley Milkvetch, fridge-toed lizards, and Palm Springs pocket mouse for a wind fence in Riverside County, California. 2008

Compliance Inspections and restoration monitoring. Federal Energy Regulatory Commission. Conducted site inspections of natural gas pipeline right-of-ways throughout the western United States. The purpose of these inspections is to evaluate natural gas pipeline companies' compliance with the environmental conditions of the Commission's order for the subject project. Inspection reports are prepared to describe existing conditions and to offer recommendations to correct any problem areas or areas of non-compliance observed during the inspection, 1998 to 1999.

General Plan Update Biological Assessment

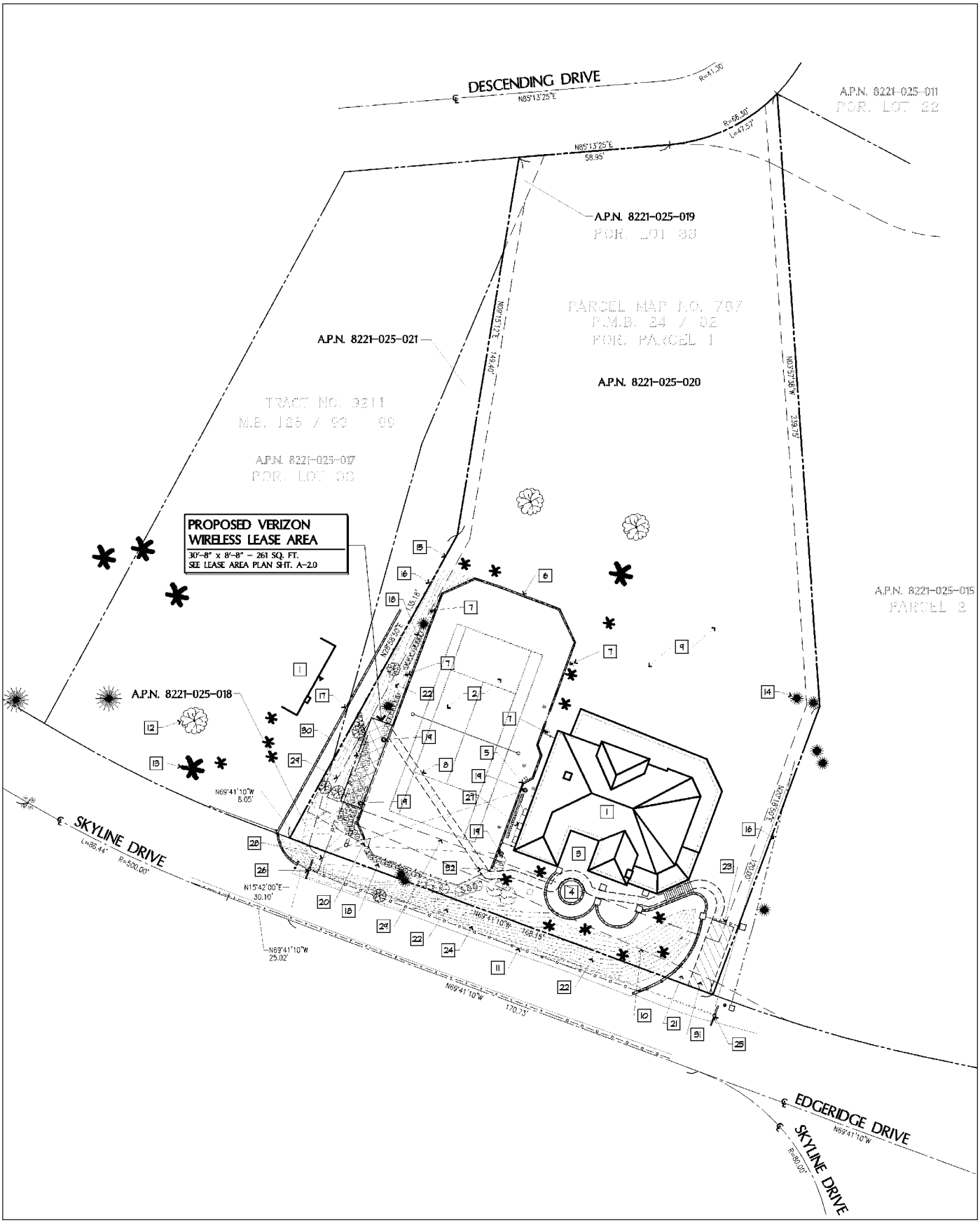
City of Chino, Subarea 2 General Plan. Assisted in the preparation of the biological resources section of the City of Chino, Subarea 2 General Plan. Conducted a complete vegetation map and jurisdictional delineation over the entire General Plan area. 2002

City of Perris General Plan Update. Prepared the biological resources section of the City of Perris General Plan Update. Conducted a complete survey and evaluation of all property within the City limits. 2002

City of Rancho Santa Margarita General Plan Update. Prepared the biological resources section of the City of Rancho Santa Margarita General Plan Update. Conducted a complete survey and evaluation of all property within the City limits. 2001

Appendix E: Initial Study Questionnaire

Appendix F: Project Site Plan



Source: C.R. Carney Architects (2011).

NORTH

Michael Brandman Associates

Appendix F
Site Plan

Appendix G: Guidelines Compliance Checklist

GUIDELINE COMPLIANCE CHECKLIST

	PREPARER'S INITIALS	PAGE
Setting	_____	_____
Original U.S.G.S. Topographical Quad Sheet (or color photocopy)	_____	_____
Project Site Photographs or Color Photocopies	_____	_____
Color Aerial Photographs	_____	_____
Biota Survey of the Project Site	_____	_____
Flora and Fauna Lists in Alphabetic/Systematic Order	_____	_____
Table of Sensitive Species Impacts Matrix	_____	_____
Document showing CNDDB Contact	_____	_____
Site/Grading Plans	_____	_____
Initial Study Questionnaire	_____	_____
Impacts	_____	_____
Mitigation Measures	_____	_____
Mitigation Monitoring	_____	_____
Preparers Resume/Qualifications	_____	_____

Appendix H: CNDDB Contact Information

From: Kristina Donat <KDONAT@dfg.ca.gov>
To: Kristina Donat <KDONAT@dfg.ca.gov>
Date: 7/6/2011 8:57 AM
Subject: CNDDB Password for July 2011 Data Updates and Online Access

Dear CNDDB client,

New CNDDB data is now available for downloading to update your RareFind 3 application and your CNDDB GIS project. Our Internet products, RareFind 4 and the CNDDB data found in BIOS via the CNDDB and Spotted Owl Data Viewer, have also been updated. The next data update will be on Tuesday August 2, 2011.

Commercial clients may use the following user name and password:

Username: cnddb_com
Password: Fraxi#448

The CNDDB provides its data in several formats to try to accommodate various user groups.

The following webpage explains how to access and/or update our various products:
http://www.dfg.ca.gov/biogeodata/cnddb/mapsanddata.asp

For those needing further assistance, please contact us at (916) 324-3812 or (916) 322-2493.

Thank you,

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Kristine Donat
kdonat@dfg.ca.gov
Information Services Coordinator
Wildlife & Fisheries Division - Biogeographic Data Branch
California Department of Fish & Game
1807 13th Street, Suite #202
Sacramento, CA 95811
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