

Biological Resources Report  
Rancho Palma Project  
San Bernardino, California

USGS 7.5' Series San Bernardino North Quadrangle  
Sections 1, 2, and 8, of Township 1 North, Range 5 West

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# Certification

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Certification: I hereby certify that the statements furnished herein, and in the attached exhibits present data and information required for this analysis to the best of my ability, and the facts, statements, and information presented are true and correct to the best of my knowledge and belief. This report was prepared in accordance with professional requirements and standards. Fieldwork conducted for this assessment was performed by me. I certify that I have not signed a non-disclosure or consultant confidentiality agreement with the project proponent and that I have no financial interest in the project.

A handwritten signature in cursive script that reads "Shay Lawrey".

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Shay Lawrey, Ecologist/Regulatory Specialist

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# 1 Introduction

Jericho Systems, Inc. (Jericho) performed a general biological resources survey of the property associated with the proposed Rancho Palma Project (Project) to identify any sensitive or protected biological resources that occur within or adjacent to the Project footprint and to determine if any project-related impacts would result in impacts to those resources. This report is designed to address potential effects of the Project to designated critical habitats and/or any species currently listed or formally proposed for listing as endangered or threatened under the federal Endangered Species Act (ESA) and the California Endangered Species Act (CESA) or species designated as sensitive by the California Department of Fish and Wildlife (CDFW, formerly California Department and Fish and Game) or the California Native Plant Society (CNPS).

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

- ❖ The U.S. Fish and Wildlife Service (USFWS) administers the federal ESA of 1973. The ESA provides a legal mechanism for listing species as either threatened or endangered, and a process of protection for those species listed. Section 9 of the ESA prohibits "take" of threatened or endangered species. The term "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in such conduct. "Take" can include adverse modification of habitats used by a threatened or endangered species during any portion of its life history. Under the regulations of the ESA, the USFWS may authorize "take" when it is incidental to, but not the purpose of, an otherwise lawful act. Take authorization can be obtained under Section 7 or Section 10 of the act.
- ❖ The Migratory Bird Treaty Act protects all native breeding birds, whether or not they are considered sensitive by resource agencies.
- ❖ The CDFW administers the state CESA. The State of California considers an endangered species one whose prospects of survival and reproduction are in immediate jeopardy. A threatened species is one present in such small numbers throughout its range that it is likely to become an endangered species in the near future in the absence of special protection or management. And a rare species is one present in such small numbers throughout its range that it may become endangered if its present environment worsens. Rare species applies to California native plants. Further, all raptors and their nests are protected under 3503.5 of the California Fish and Game Code. Species that are California fully protected include those protected by special legislation for various reasons, such as the California condor. Species of Special Concern (SSC) is an informal designation used by CDFW for some declining wildlife species that are not proposed for listing as threatened or endangered. This designation does not provide legal protection, but signifies that these species are recognized as sensitive by CDFW.

In addition to potential impacts to designated critical habitats and special status species, potential impacts to jurisdictional waters must be considered. The Project is located adjacent to Cable Creek. Impacts to jurisdictional waters typically require regulatory approvals from one or more of the following regulatory agencies: U.S. Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), and/or CDFW.

## 2 Description of Project Area

The approximately 40-acre Project site is located along the northeast side of West Little League Drive and west of Palm Avenue in the Verdemon Area of San Bernardino County, California and can be found within Sections 1, 2, and 8, of Township 1 North, Range 5 West of the 7.5' U.S. Geological Survey (USGS) – *San Bernardino North* topographic quadrangle. More specifically, the property is identified as Assessor Parcel Numbers (APNs) 0261-181-01, 0261-181-13, 0261-181-14, 0261-181-15, and 0261-182-10. The land is relatively flat with no notable natural features and is situated at an elevation of approximately 1,750 feet above mean sea level (Figures 1-3).

## 3 Methods

Data regarding biological resources on the project area were obtained through literature review and field investigations. Background information was gathered prior to visiting this site in order to determine which species would be expected in the Area of Potential Effect (APE) for this project. The USFWS Information, Planning, and Conservation System (IPaC) was reviewed for an up to date list of federally-listed species and critical habitats occurring or expected to occur within the Project area. The California Natural Diversity Database (CNDDDB) and the California Native Plant Society's (CNPS) Inventory of Rare and Endangered Plants of California were reviewed for the San Bernardino North and Devore U.S. Geological Survey (USGS) quadrangles. The Project site occurs in the west portion of the San Bernardino North USGS quadrangle and the site's close proximity to the Devore USGS quadrangle lead to its inclusion in the review. These databases contain records of reported occurrences of State and/or federally-listed endangered or threatened species, proposed endangered or threatened species, California Species of Concern (CSC), or otherwise sensitive species or habitats that may occur within or in the immediate vicinity of the Project site.

Jericho biologist Shay Lawrey surveyed the Project site on May 15, 2015. Ms. Lawrey is an Ecologist and Regulatory Specialist that is permitted (USFWS permit number TE 094308-3) by the USFWS to trap and handle San Bernardino kangaroo rat (*Dipodomys merriami parvus*) [SBKR]. She received a B.A. in Environmental Studies from the University of California, Santa Cruz and M.S. in Biology from Occidental College. Ms. Lawrey specializes in endangered species surveys and has over fifteen years of biological survey experience throughout San Bernardino and Riverside Counties.

Ms. Lawrey walked the entire Project site as well as a buffer area of approximately 200 feet wherever adjacent habitat was present. The survey encompassed the following objectives: (1) recording of dominant vegetation communities; (2) floristic plant surveys; (3) general wildlife surveys; and habitat assessment for sensitive species. Wildlife species were detected during field surveys by sight, calls, tracks, scat, or other sign. In addition to species actually observed, expected wildlife usage of the site was determined according to known habitat preferences of regional wildlife species and knowledge of their relative distributions in the area. The focus of the faunal species surveys was to identify potential habitat for special status wildlife within the project area. Special attention was focused toward SBKR and burrowing owl (*Athene cunicularia*) [BUOW] and those habitats potentially supporting BUOW and/or SBKR. The habitat assessment for BUOW and SBKR included a pedestrian field assessment and a review of reported occurrences of these species in the region. Field assessment methods adhered to Ms. Lawrey's Section 10a permit for SBKR and to the "Burrowing Owl Survey Protocol and Mitigation Guidelines" prepared by the California Burrowing Owl Consortium on April 1993 and the March 7, 2012 "California Department of Fish and Game staff report on Burrowing Owl Mitigation". Survey transects were spaced to allow 100 percent visual coverage of the ground surface. The bases of perennial shrubs were checked for burrows and signs. Natural and non-natural substrates were examined for potential burrow sites. All

burrows encountered were examined for tail drags, tracks, and scat indicative of kangaroo rats and owl white wash, feathers and castings indicative of BUOW. The soil type and level of friability was assessed, as well as habitat type and habitat structure. Disturbance characteristics and all other animal sign encountered on the site are recorded in the results section. Date time and weather conditions were logged.

Ms. Lawrey also evaluated the property for the presence of jurisdictional waters i.e. waters of the U.S. as regulated by the U.S. Army Corps of Engineers (USACE) and the Regional Water Quality Control Board (RWQCB), and/or jurisdictional streambed and associated riparian habitat as regulated by the California Department of Fish and Wildlife (CDFW). Ms. Lawrey is an experienced and qualified Regulatory Specialist who conducted the routine JD in accordance with regulations set forth in the Fish and Game Code and 33CFR part 328 and the USACE guidance documents. Ms. Lawrey reviewed the pertinent topographic map to identify topographic changes, blue-line features, or visible drainage patterns and she examined historical aerial photographs to gain an understanding of the impact of land-use on natural drainage patterns in the area. The National Wetland Inventory and Environmental Protection Agency (EPA) Water Program “My Waters” data layer was also reviewed to determine whether any hydrologic features and wetland areas had been documented within the vicinity of the site. She systematically inspected on site and adjacent drainage features to determine the jurisdictional status.

## **4 Results**

No limitations or constraints could be identified that could influence the survey results. Surveys were conducted during the appropriate season, in preferable weather conditions, and by a qualified biologist who followed all pertinent protocols and/or guidelines.

### **4.1 Environmental Setting**

The San Bernardino area is subject to both seasonal and annual variations in temperature and precipitation. Average annual maximum temperatures typically peak at 96 degrees Fahrenheit (°F) in August, and fall to an annual minimum temperatures of 41°F in December. Average annual precipitation is greatest from December through March and reaches a peak in February (3.83 inches). Precipitation is lowest in the month of July (0.04 inches). Annual precipitation averages 22.6 inches.

Located east of Cajon Creek Wash and adjacent to the west side of Cable Creek, the 40-acre Project site is on the south side of the San Bernardino Mountains within the Verdemont area of San Bernardino County. An approximately 0.5-acre portion of APN 0261-181-15 exists on the east side of Cable Creek as well. Soils in this area are dominated by Soboba Stony Loamy Sand and Tujunga Gravelly Loamy Sand series. These series are characteristically excessively well drained to somewhat excessively well drained soils formed in alluvium from predominantly granitic rock sources and is usually found in alluvial fans and flood plains. They primarily consist of very stony, gravelly, loamy sand.

Hydrologically, the Verdemont area is located within the Cable Creek Sub-unit (HUC 180702030304) which comprises a 22 square mile drainage area within the larger Santa Ana River Watershed (HUC 18070203). The closest tributary to the Santa Ana River is Lytle Creek Wash, which is located approximately 2 miles southwest of the project site and west of Cajon Wash. Cable Creek is tributary to Cajon Wash which flows adjacent to the project site, approximately 0.63 mile to the west. Cajon Wash converges with Lytle Creek Wash approximately 8.3 miles northwest (upstream) of the Lytle Creek/Santa Ana River Confluence. The Santa Ana River watershed is located in southern California, south and east of the city of Los Angeles. The watershed includes much of Orange County, the northwestern corner of Riverside County, the southwestern corner of San Bernardino County, and a small portion of Los Angeles

County. The watershed is bounded on the south by the Santa Margarita watershed, on the east by the Salton Sea and Southern Mojave watersheds, and on the north/west by the Mojave and San Gabriel watersheds. The watershed is approximately 2,800 square miles in area.

## 4.2 Habitat within the Project Area

The Project site is completely surrounded by residential and commercial development. Currently, regular disking appears to be occurring onsite as it has apparently occurred onsite for at least the past 12 years (Figure 3). The site is completely disturbed and there is evidence of dumping. Only bare ground, non-native and ruderal vegetation exists throughout most of the site. The 0.5-acre portion of the site that is adjacent the north side of Cable Creek consists mostly of non-native ruderal species. Native plant species observed onsite include mulefat (*Baccharis salicifolia*), hairy yerba santa (*Eriodictyon trichocalyx*), buckwheat (*Eriogonum fasciculatum*), sunflower (*Helianthus annuus*), and scalebroom (*Lepidospartum squamatum*). The majority of plant species observed onsite were non-native, invasive species including giant reed (*Arundo donax*), star thistle (*Centaurea melitensis*), redstem stork's bill (*Erodium cicutarium*), shortpod mustard (*Hirschfeldia incana*), tree tobacco (*Nicotiana glauca*), Russian thistle (*Salsola tragus*), tamarisk (*Tamarix ramosissima*), and puncturevine (*Tribulus terrestris*). There are also numerous non-native olive trees (*Olea europaea*) lining the northwestern boundary of the site, adjacent to the southeast side of the Magnolia Avenue alignment.

There is a very small patch (less than 2500 square feet) of native alluvial scrub vegetation at the furthest southeast corner of the site consisting of hairy yerba santa, buckwheat, and scalebroom. Much of the northern boundary of the Project site abuts the levee of the south side of Cable Creek and an approximately 475-foot stretch of Cable Creek is located within the northeastern corner of the Project site. The immediately adjacent uses are consistent with the land uses in the general area and include residential and commercial uses.

## 4.3 Common Species

### 4.3.1 Amphibians and Reptiles

No amphibian species were observed within the project area and none are expected to occur. Reptile species observed within the project area include the side-blotched lizard (*Uta stansburiana*) and Great Basin fence lizard (*Sceloporus occidentalis longipes*).

### 4.3.2 Birds

Bird species observed in the project area include American crow (*Corvus brachyrhynchos*), common raven (*C. corax*), California horned lark (*Eremophila alpestris actia*), American kestrel (*Falco sparverius*), house finch (*Haemorhous mexicanus*), Say's phoebe (*Sayornis saya*) and European starling (*Sturnus vulgaris*). Other common species expected to occur within the project area include red-tailed hawk (*Buteo jamaicensis*), killedeer (*Charadrius vociferus*), northern mockingbird (*Mimus polyglottos*), black phoebe (*Sayornis nigricans*) and mourning dove (*Zenaida macroura*).

### 4.3.3 Mammals

Identification of mammals from the project area was generally determined by physical evidence rather than direct visual identification. This is because (1) many of the mammal species that potentially occur onsite are nocturnal and would not have been active during the survey and (2) no mammal trapping was

performed. The project area is heavily disturbed and does not provide many benefits for mammal species for foraging, nesting, burrowing, or wildlife movement. The most common mammals occurring or expected to occur in the project area include domestic dogs, California ground squirrel (*Otospermophilus beecheyi*), desert cottontail (*Sylvilagus audubonii*) and pocket gopher (*Thomomys bottae*),.

#### 4.4 USFWS IPac Species

According to the USFWS IPac list, the Project area is not located within or adjacent any designated critical habitat. The IPac list shows that seven (7) federally listed species are documented in the local area. Those species are as follows:

1. California Condor (*Gymnogyps californianus*)
2. Coastal California gnatcatcher (*Polioptila californica californica*)
3. Least Bell's Vireo (*Vireo bellii pusillus*)
4. Southwestern willow flycatcher (*Empidonax traillii extimus*)
5. Santa Ana River woollystar (*Eriastrum densifolium ssp. sanctorum*):
6. Thread-leaved brodiaea (*Brodiaea filifolia*):
7. San Bernardino kangaroo rat (*Dipodomys merriami parvus*) [SBKR]:

Habitat on site is not suitable for any of these species and focused surveys were not warranted.

In November of 2006, LSA, Associates, Inc. conducted focused small mammal live trapping within the boundaries of the proposed project to determine the presence or absence of SBKR. The result was that no SBKR were trapped during the focused survey and that they are presumed absent from the site. Site conditions have not changed significantly since the 2006 SBKR surveys. The project area is not within SBKR critical habitat and the ground cover onsite consists mostly of ruderal vegetation and a very small remnant patch (less than 2,500 square feet) of alluvial sage scrub. Additionally, the site has been disked for weed abatement purposes twice annually since the 2006 surveys.

SBKR are typically associated with alluvial fan scrub habitats and with sandy soils. SBKR are confined to inland valley scrub communities, and more particularly, to scrub communities occurring along rivers, streams and drainage. The primary constituent elements (PCE) defined by the USFWS for SBKR are as follows: (1) Soil series consisting predominantly of sand, loamy sand, sandy loam, or loam; (2) Alluvial sage scrub and associated vegetation, such as coastal sage scrub and chamise chaparral, with a moderately open canopy; (3) River, creek, stream, and wash channels; alluvial fans; floodplains; floodplain benches and terraces; and historic braided channels that are subject to dynamic geomorphological and hydrological processes typical of fluvial systems within the historical range of the San Bernardino kangaroo rat; and (4) Upland areas proximal to floodplains with suitable habitat.

The habitat on site is not considered suitable for SBKR because appropriate vegetative communities do not exist on site and the site is completely surrounded by development and isolated from any suitable or occupied SBKR habitat. Although the soil on site is friable and conducive for burrowing, none of the other PCEs listed for SBKR are present. The nearest location that displays SBKR PCEs is within Cable Creek approximately 2 miles upstream. The nearest documented SBKR occurrence is approximately 1.5 mile west of the site in suitable habitat in Cajon Creek. There is no evidence of SBKR occupation or utilization of the project site (i.e., no burrows for shelter, no vegetation for food or refugia). Given the close proximity to the adjacent residential neighborhood and the presence of domestic predators, as well as the adjacent utility poles that provide perches for avian predators such as owls, any small mammal present within the area would be extremely vulnerable to predation. Therefore, all indications are that SBKR do not occur on the Project site. No potential direct or indirect impacts to SBKR can be identified.



The IPaC also lists several migratory birds of concern that have been documented in the vicinity of the project. Within and adjacent to the APE, however, there is no suitable habitat on site capable of supporting the following 22 migratory bird species:

Bald eagle	Lewis's woodpecker
Black-chinned sparrow	Loggerhead shrike
Brewer's sparrow	Nuttall's woodpecker
California spotted owl	Oak titmouse
Calliope hummingbird	Olive-sided flycatcher
Cassin's finch	Peregrine falcon
Costa's hummingbird	Short-eared owl
Flammulated owl	Swainson's hawk
Fox sparrow	Tricolored blackbird
Le Conte's thrasher	White headed woodpecker
Least bittern	Williamson's sapsucker

The Project site does contain suitable habitat for BUOW. Additionally, some habitat suitable for nesting birds in general exists along the western border of the Project site, which could be considered potentially suitable for Lawrence's goldfinch and possibly Mountain plover.

#### 4.5 CNDDDB

According to the CNDDDB, 48 sensitive species (23 plant species and 25 animal species) and three (3) sensitive plant communities have been documented to occur in the *San Bernardino North* and *Devore* - USGS 7.5-minute series quadrangles. Of the approximately 48 sensitive species identified in these quadrangles, 11 are State and/or federally-listed as threatened or endangered species, with SBKR, Santa Ana River woollystar, Coastal California gnatcatcher, and least Bell's vireo being reported locally (These species have been addressed above in Section 3.4.2).

Based on required habitat elements and range relative to the current conditions only two species, the BUOW and California horned-lark, have a moderate to high potential to occur in the vicinity of the project site. Focused protocol-level surveys were conducted for BUOW with the result that no BUOW individuals or sign were observed within the Project site during survey. BUOW are considered absent from the Project site. The BUOW survey letter report is provided in Attachment A. California horned-lark were observed onsite during survey.

#### 4.6 CNPS

According to the CNPS, 28 sensitive plant species have been documented to occur in the *San Bernardino North* and *Devore* USGS quads. Those species are:

- Singlewhorl burrobush (*Ambrosia monogyra*)
- Thread-leaved brodiaea (*Brodiaea filifolia*)
- Catalina mariposa lily (*Calochortus catalinae*)
- Plummer's mariposa lily (*C. plummerae*)
- San Bernardino mountains owl's-clover (*Castilleja lasiorhyncha*)
- Smooth tarplant (*Centromadia pungens* ssp. *laevis*)
- Parry's spineflower (*Chorizanthe parryi* var. *parryi*)
- Southern California black walnut (*Juglans californica*)
- Duran's rush (*Juncus duranii*)
- Ocellated Humboldt lily (*Lilium humboldtii* ssp. *ocellatum*)
- Lemon lily (*L. parryi*)
- Parish's desert-thorn (*Lycium parishii*)
- Rock monardella (*Monardella saxicola*)
- California muhly (*Muhlenbergia californica*)

- *parryi*
- White-bracted spineflower (*C. xanti* var. *leucotheca*)
- Slender-horned spineflower (*Dodecahema leptoceras*)
- Santa Ana River woollystar (*Eriastrum densifolium* ssp. *sanctorum*)
- Hot springs fimbriatylis (*Fimbristylis thermalis*)
- Pine-green gentian (*Frasera neglecta*)
- Johnston's bedstraw (*Galium johnstonii*)
- California satintail (*Imperata brevifolia*)
- Short-joint beavertail (*Opuntia basilaris* var. *brachyclada*)
- Woolly chaparral-pea (*Pickeringia montana* var. *tomentosa*)
- Black bog-rush (*Schoenus nigricans*)
- San Gabriel ragwort (*Senecio astephanus*)
- Laguna Mountains jewel-flower (*Streptanthus bernardinus*)
- Southern jewel-flower (*S. campestris*)
- San Bernardino aster (*Symphotrichum defoliatum*)

None of these species are documented within or near the Project site and none were observed during the field survey. In fact, no special-status plants were observed in the project area during survey. The occurrence potential for all of the sensitive plant species listed above is low. Focused botanical surveys are not warranted or recommended.

## 5 Potential Effects of the Project on Special Status Species, Critical Habitat and Jurisdictional Waters

### 5.1 Federally Designated Critical Habitat

The Project site is not within or adjacent to any USFWS designated critical habitat.

### 5.2 Special Status Species

The project area lies within the historic range of numerous sensitive species. Of the seven (7) State and/or federally-listed species reported locally, all have a very low potential to occur within the Project area. The habitat on site was determined to be unsuitable for SBKR. No direct or indirect impacts to special status species are identified

Currently, only two sensitive species (BUOW and HOLA) have a moderate to high potential to occur in or adjacent to the Project area. Suitable habitat for BUOW exists on site. Focused breeding season protocol-level surveys were conducted by a qualified biologist in accordance with the "Burrowing Owl Survey Protocol and Mitigation Guidelines" prepared by the California Burrowing Owl Consortium on April 1993 and the March 7, 2012 "California Department of Fish and Game staff report on Burrowing Owl Mitigation" and were structured to detect BUOW. The result of these surveys was that no BUOW individuals or sign were observed within the Project site during survey. The California horned lark is not a State or federally-listed species, but is on the CDFW Watch List. This species was observed within the Project area during survey.

### 5.3 Jurisdictional Waters

There are potentially jurisdictional waters within the property associated with the Project site. Much of the northern boundary of the Project site abuts the levee of the south side of Cable Creek and an approximately 475-foot stretch of Cable Creek is located within the northeastern corner of the Project site. Cable Creek is an ephemeral stream tributary to Cajon Wash. The stretch of Cable Creek that is adjacent and within the Project site consists of improved and maintained channel. Cable Creek is a jurisdictional

water subject to the Clean Water Act (CWA) and Fish and Game Code under the jurisdictions of U.S. Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), and CDFW respectively. The Project proposes to make minor modifications as necessary to ensure that the flows remain entrenched in Cable Creek. Any project related impacts to Cable Creek will likely require a Streambed Alteration Agreement from the CDFW, and CWA Sections 401/404 permits from the RWQCB and Corps respectively.

## 6 Conclusions and Recommendations

The project site does not have appropriate habitat for any of the special status species that occur in the area. It has been determined that the project will not result in direct or indirect impacts to federally or State listed species. The project does not propose land disturbance in or near to areas that support federally or State listed species, and as such this project will not inadvertently result in indirect impacts to listed species. Development on the Project site will not result in direct impacts to any sensitive vegetation community. This project will not affect sensitive biological resources. No evidence was found on site during the 2015 focused surveys of BUOW presence or habitat utilization. The survey results indicate that BUOW is absent from the project site. As such, there will be no effect to BUOW. The project will comply with all applicable laws when implementing this project.

Since most birds are protected by the Migratory Bird Treaty Act, it is recommended that the project include the following measures to avoid or minimize impacts to nesting birds:

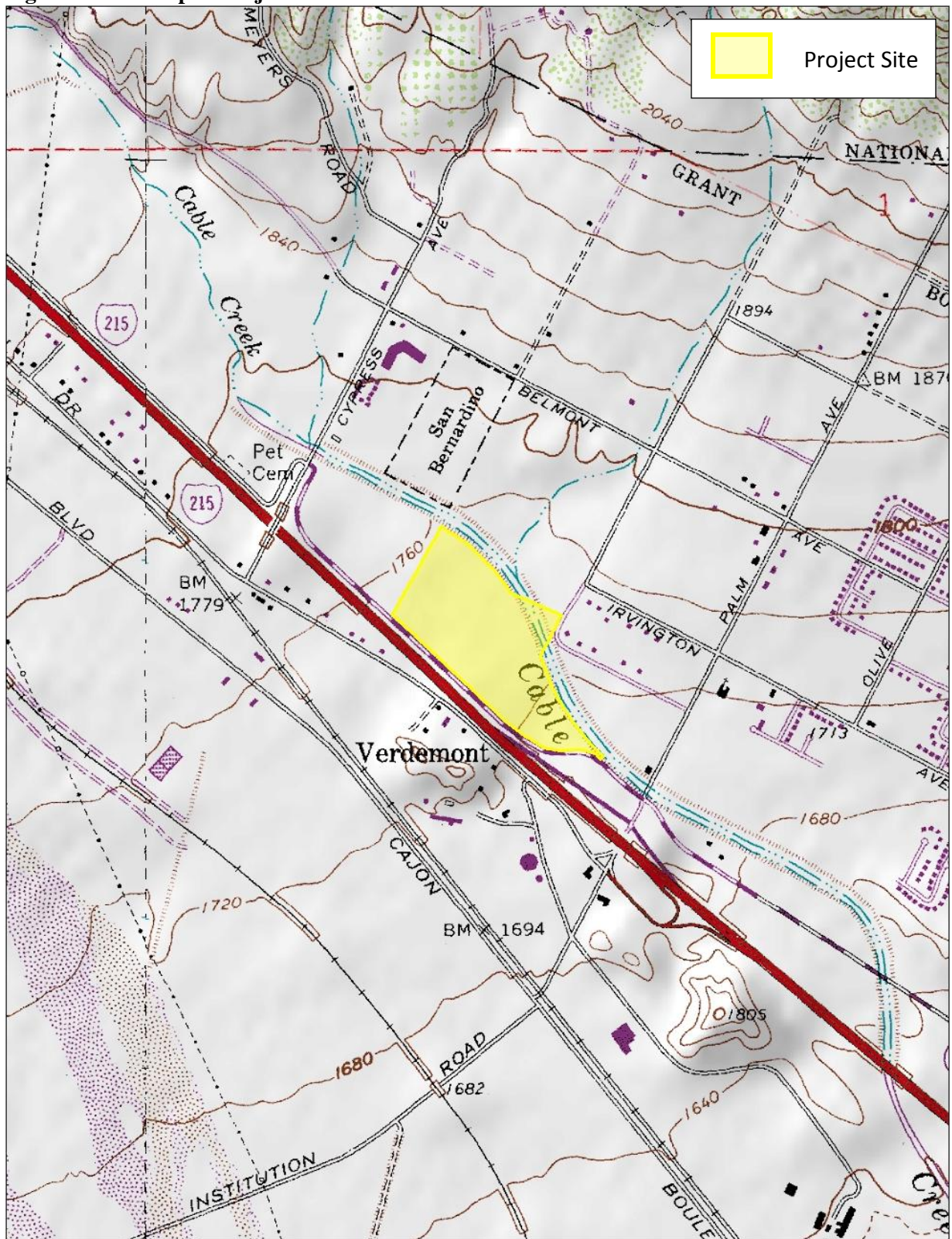
- 1. A migratory nesting bird survey of the Project's impact footprint shall be conducted by a qualified biologist within two weeks and 3 days prior to initiating vegetation clearing or ground disturbance. If active nests are found during the pre-construction nesting bird surveys, a Nesting Bird Plan (NBP) will be prepared and implemented. At a minimum the NBP will include guidelines for addressing active nests, establishing buffers, monitoring, and reporting. The NBP will include a copy of maps showing the location of all nests and an appropriate buffer zone around each nest sufficient to protect the nest from direct and indirect impact. The size and location of all buffer zones, if required, shall be determined by the biologist in consultation with the CDFW, and shall be based on the nesting species, its sensitivity to disturbance, and expected types of disturbance. The nests and buffer zones shall be field checked weekly by a qualified biological monitor. The approved buffer zone shall be marked in the field with construction fencing, within which no vegetation clearing or ground disturbance shall commence until the qualified biologist has determined the young birds have successfully fledged and a monitoring report has been submitted to the CDFW for review and approval.*
- 2. In compliance with the CDFW Staff Report on Burrowing Owl Mitigation (CDFW 2012) the Project proponent shall ensure that a pre-construction burrowing owl survey is conducted at least 30 days prior to construction activities. A qualified Biologist shall conduct the survey to Determine if there are any active burrowing owl burrows within or adjacent to the impact area. If an active burrow is observed outside the nesting season (September 1 to January 31) and the burrow is within the impact area, a Burrowing Owl Exclusion Plan shall be prepared and submitted to CDFW for approval, outlining standard burrowing owl burrow closing procedures used to exclude burrowing owls (e.g., using passive relocation with one-way doors). The loss of any active burrowing owl burrow/territory shall be mitigated through replacement of habitat and burrows at no less than a 1:1 ratio. If an active burrow is observed outside the nesting season (i.e., between September 1 and January 31) and the burrow is not within the impact area, construction work shall be restricted within 160 to 1,605 feet of the burrow depending on the time of year and level of disturbance near the site in accordance with guidelines specified by the CDFW.*

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Figure 2. Site Map of Project Location



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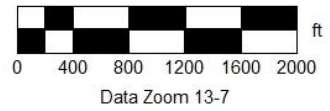
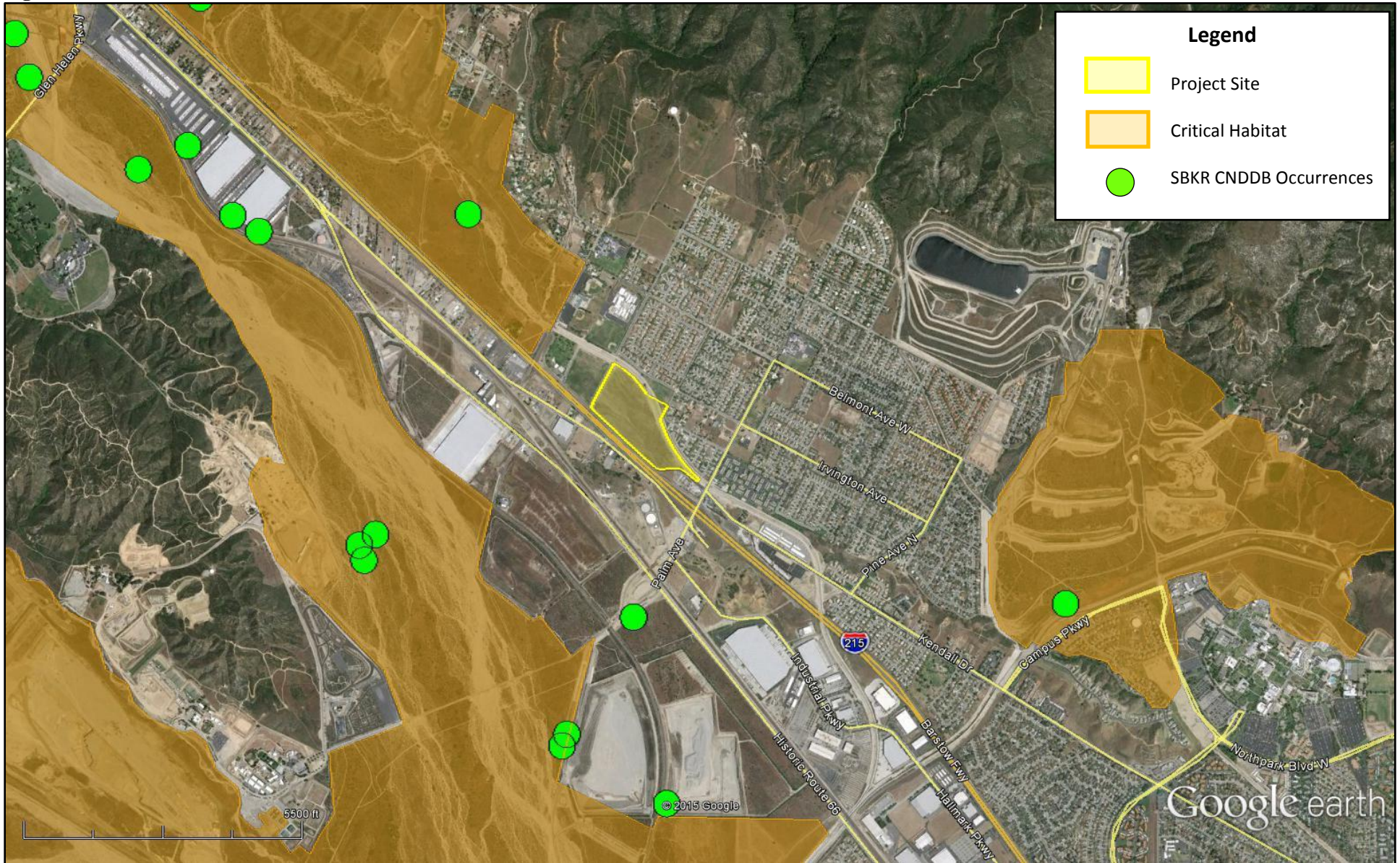


Figure 3. Aerial Photograph of Project Area.



Figure 4. SBKR CNDDDB Occurrences and Critical Habitat.





## Site Photographs



Photo 1. Subject parcels (facing east) from the northwest corner of the site.



Photo 2. Subject parcels (facing northwest) from the southeast corner of the site.



Photo 3. Subject parcels (facing north) from southwest corner, showing onsite disturbance. Olive trees visible on left hand side of photo.



Photo 4. Project site (facing northwest) from southwestern most corner of site, showing small patch of native alluvial scrub vegetation. Cable Creek levee visible on right hand side of photo.



Photo 5. Northwest corner of Project site, facing east. Site recently disked; Cable Creek levee visible on the upper left side.



Photo 6. Northeast corner of Project site; 0.5-acre portion north of Cable Creek, facing north.

**Appendix A:  
Burrowing Owl Survey Report**



September 1, 2015

Eric Flodine  
Strata Equity Group  
Real Estate Investments  
4370 La Jolla Village Dr. Suite 960  
San Diego, CA 92122

**RE: Burrowing Owl Survey Report Property on Little League Drive, West of Palm Avenue, Verdemont Area of San Bernardino County**

Dear Mr. Flodine,

Jericho Systems, Inc. (Jericho) is pleased to provide this letter report of findings for a protocol burrowing owl (*Athene cunicularia*, [BUOW]) survey conducted for the approximately 40-acre site along Little League Drive, west of Palm Avenue, in the Verdemont area of San Bernardino County.

Summary information:

- *Date report prepared: July 23, 2015*
- *Project site location USGS – San Bernardino North 7.5 Minute Series Quadrangle, Sections 1, 2, and 12, of Township 1 North, Range 5 West*
- *Assessor's Parcel Numbers: 0261-181-01, 0261-181-13, 0261-181-14, 0261-181-15, and 0261-182-10*
- *Owner/Applicant: Strata Equity Group, Inc.*
- *Principal Investigator: Shay Lawrey*
- *Name of person preparing report: Shay Lawrey*
- *Address: 18 E. State Street, Ste. 208, Redlands, CA 92373*
- *Phone: (909) 915-5900*
- *Report Summary: No BUOW individuals, active burrows or BUOW sign was observed during survey. This project will not result in significant impacts to burrowing owl pursuant to the California Environmental Quality Act.*

The approximately 40-acre site is located along the northeast side of West Little League Drive and west of Palm Avenue in the Verdemont Area of San Bernardino County, California. The Assessor's Parcel Numbers (APNs) associated with the site include 0261-181-01, 0261-181-13, 0261-181-14, 0261-181-15, and 0261-182-10. The parcels fall within the boundaries of the "Biological Resources Management Area" (BRM) identified in the City of San Bernardino General Plan, which requires that all proposed land uses in the BRM be subject to review by the Environmental Review Committee (ERC). Among other requirements, the City General Plan requires that the proposed project's impact on sensitive species and habitat, especially those that are identified in State and Federal conservation programs, must be addressed before development in the BRM.

Jericho conducted protocol-level focused BUOW surveys to determine the presence or absence of BUOW on the site. The results of Jericho's BUOW focused survey are intended to provide sufficient baseline information to the City of San Bernardino and, if required, to federal and State regulatory agencies, including U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW), respectively, to determine if impacts will occur and to identify mitigation measures to offset those impacts.

## Species Information

The BUOW is a small, long-legged, ground-dwelling bird species, well-adapted to open, relatively flat expanses. In California, preferred habitat is generally typified by short, sparse vegetation with few shrubs, level to gentle topography and well-drained soils (Haug et al. 1993). Grassland, shrub steppe, and desert are naturally occurring habitat types used by the species. In addition, BUOW may occur in some agricultural areas, ruderal grassy fields, vacant lots and pastures, and flood control facilities, if the vegetation structure is suitable and there are useable burrows and foraging habitat in proximity (Gervais et al 2008). Unique among North American raptors, the BUOW requires underground burrows or other cavities for nesting during the breeding season and for roosting and cover, year round. Burrows used by the owls are usually dug by other species termed host burrowers. In California, California ground squirrel (*Spermophilus beecheyi*) and round-tailed ground squirrel (*Citellus tereticaudus*) burrows are frequently used by BUOW but they may use dens or holes dug by other fossorial species. Habitat loss, fragmentation, and alteration of the ecosystem have contributed to burrowing owl declines. BUOW are protected under the Migratory Bird Treaty Act (MBTA) and are considered by CDFW as a Species of Special Concern.

## Project Location

The Project site located along the northeast side of West Little League Drive and west of Palm Avenue in the Verdmont Area of San Bernardino County, California and can be found within Sections 1, 2, and 8, of Township 1 North, Range 5 West of the 7.5' U.S. Geological Survey (USGS) – *San Bernardino North* topographic quadrangle. The land is relatively flat with no notable natural features and is situated at an elevation of approximately 1,750 feet above mean sea level (Figures 1-3).

## Site Characteristics

The approximately 40-acre site is surrounded entirely by urban development including commercial and residential land uses. Currently, regular disking appears to be occurring onsite as it has apparently occurred onsite for at least the past 12 years (Figure 3). Only bare ground, non-native and ruderal vegetation exists throughout most of the site. The 0.5-acre portion of the site that is adjacent the north side of Cable Creek consists mostly of non-native ruderal species. Native plant species observed onsite include mulefat (*Baccharis salicifolia*), hairy yerba santa (*Eriodictyon trichocalyx*), buckwheat (*Eriogonum fasciculatum*), sunflower (*Helianthus annuus*), and scalebroom (*Lepidospartum squamatum*). The majority of plant species observed onsite were non-native, invasive species including giant reed (*Arundo donax*), star thistle (*Centaurea melitensis*), redstem stork's bill (*Erodium cicutarium*), shortpod mustard (*Hirschfeldia incana*), tree tobacco (*Nicotiana glauca*), Russian thistle (*Salsola tragus*), tamarisk (*Tamarix ramosissima*), and puncturevine (*Tribulus terrestris*). There are also numerous non-native olive trees (*Olea europaea*) lining the northwestern boundary of the site, adjacent to the southeast side of the Magnolia Avenue alignment.

There is a very small patch (less than 2500 square feet) of native alluvial scrub vegetation at the furthest southeast corner of the site consisting of hairy yerba santa, buckwheat, and scalebroom. Much of the northern boundary of the Project site abuts the levee of the south side of Cable Creek and an approximately 475-foot stretch of Cable Creek is located within the northeastern corner of the Project site. The immediately adjacent uses are consistent with the land uses in the general area and include residential and commercial uses.

## Methods

An initial BUOW habitat suitability assessment was conducted by a combination of database research and field reconnaissance. All project site research and survey was conducted by Jericho

Ecologist Shay Lawrey. Ms. Lawrey is an Ecologist and Regulatory Specialist who received a B.A. in Environmental Studies from the University of California, Santa Cruz and M.S. in Biology from Occidental College. Ms. Lawrey has over a decade of experience conducting BUOW habitat assessments and focused/protocol surveys for BUOW throughout the desert ecotones of Riverside and San Bernardino Counties.

Background information was gathered prior to visiting the project site to obtain information on rare and listed plant and animal species' occurrences in the vicinity. The reconnaissance-level survey was conducted on November 2, 2014 and included complete coverage of the subject property and surrounding areas when feasible, with special attention focused toward BUOW and those habitats potentially supporting BUOW. The habitat assessment for BUOW included a pedestrian field assessment, review of reported occurrences of the BUOW in the region (CNDDDB 2014), and adherence to the "Burrowing Owl Survey Protocol and Mitigation Guidelines" prepared by the California Burrowing Owl Consortium on April 1993 and the March 7, 2012 "California Department of Fish and Game staff report on Burrowing Owl Mitigation". During the site walk over, Ms. Lawrey looked for sign including, burrows, molted feathers, cast pellets, prey remains, and owl white wash. The area was also assessed for soil type and level of friability as well as habitat type and habitat structure. The result of the habitat assessment was that numerous potentially suitable burrows were identified and the habitat onsite is suitable for BUOW. This species has been documented to occur within the general area. No BUOW individuals or sign were observed during the habitat assessment.

Since suitable burrowing owl habitat was found on site, focused surveys were conducted per protocol on March 9<sup>th</sup>, April 21<sup>st</sup>, June 1<sup>st</sup>, and July 14<sup>th</sup>, 2015. These surveys typically take place during the breeding season (February 1<sup>st</sup> to August 31<sup>st</sup>), though they can be conducted out of season. If the surveys are conducted in breeding season, four surveys are required, one of which must occur between February 15<sup>th</sup> and April 15<sup>th</sup>, with the other three at least three weeks apart between April 15<sup>th</sup> and July 15<sup>th</sup>. Of these final three surveys, one must occur after June 15<sup>th</sup>. If the surveys are conducted outside of the breeding season (September 1<sup>st</sup> through January 31<sup>st</sup>), there must be four surveys on the property site with the timing of the surveys spread evenly throughout the non-breeding season.

Ms. Lawrey followed the BUOW protocols and guidelines stated above. The BUOW survey protocol calls for transects spaced at no more than 100-foot intervals. If signs of historical or recent burrowing owl activity is found on site, then a breeding season survey and census is required. The surveys were conducted on calm weather days, during peak BUOW activity between the morning hours of 6:00 a.m. and 9:30 a.m. and evening hours of 2:30 p.m. to 5:30 p.m. During the site visits, pedestrian surveys covered all open areas of the project site and zone of influence areas (where accessible) to account for any adjacent burrows or foraging habitat. Pedestrian survey transects were spaced to allow 100 percent visual coverage of the ground surface. Natural and non-natural substrates were examined for potential burrow sites. All burrows encountered were examined for shape, scat, pellets, and tracks. Disturbance characteristics and all other animal sign encountered on the site are recorded in the results section. Date time and weather conditions were logged. A hand-held, global positioning system (GPS) unit was used to survey straight transects and record Universal Transverse Mercator (UTM) coordinates (North American Datum - NAD 27), to identify project boundaries, and for other pertinent information. A digital camera was used to take representative photographs, and 2015 Google Earth Pro was accessed to provide recent aerial photographs of the project site and surrounding area.

No limitations significantly affected the results and conclusions given herein. Zone of influence transects could not be surveyed within the areas occupied by existing housing and other development. Surveys were conducted during the appropriate season to observe the target species, in good weather conditions, by a qualified biologist who followed all pertinent protocols.

## Results

The Project site has been disturbed by regular disking, pedestrian traffic and canine presence. Only bare ground and ruderal vegetation exists throughout most of the site. The 0.5-acre portion of the site that is adjacent the north side of Cable Creek consists mostly of non-native ruderal species. There are no natural watercourses or wetlands on the site. There are numerous non-native olive trees lining the northwestern boundary of the site, adjacent the southeast side of the Magnolia Avenue alignment. The soils on site are friable and conducive to burrowing.

The focused surveys were structured to detect BUOW. No evidence of BUOW was found in the survey area. There are numerous ground squirrel and other small mammal burrows located throughout the site, particularly along the Cable Creek levee, which borders the north side of the site. No BUOW sign including burrows, molted feathers, cast pellets, prey remains, and owl white wash was observed within the survey area. No BUOW individuals were observed within the survey area.

## Conclusions

BUOW are considered absent from the 40-acre project site located along the northeast side of West Little League Drive and west of Palm Avenue in the Verdernont Area of San Bernardino County, California. According to protocol and standard practices, the results of this survey will remain valid for the period of one year, after which time, if the site has not been disturbed in the interim, another survey may be required to determine the presence of BUOW and other sensitive flora and fauna on-site.

As discussed, the BUOW are a CDFW Species of Special Concern and are protected by the MBTA. In general, impacts to BUOW can be avoided by conducting work outside of their nesting season (peak burrowing owl breeding season is identified as April 15<sup>th</sup> to July 15<sup>th</sup>), and conducting a worker awareness training. However, if all work cannot be conducted outside of nesting season, a project-specific BUOW protection and/or passive relocation plan can be prepared to determine suitable buffers and/or artificial burrow construction locations.

Regardless of survey results and conclusions given herein, BUOW are protected by applicable State and/or federal laws. As such, if a BUOW is found on-site at the time of construction, all activities likely to affect the animal(s) should cease immediately and regulatory agencies should be contacted to determine appropriate management actions. Importantly, nothing given in this report is intended to authorize any form of disturbance to BUOW. Such authorization must come from the appropriate regulatory agencies, including CDFG and/or USFWS.

Please do not hesitate to contact me at 909-915-5900 should you have any questions or require further information.

Sincerely,



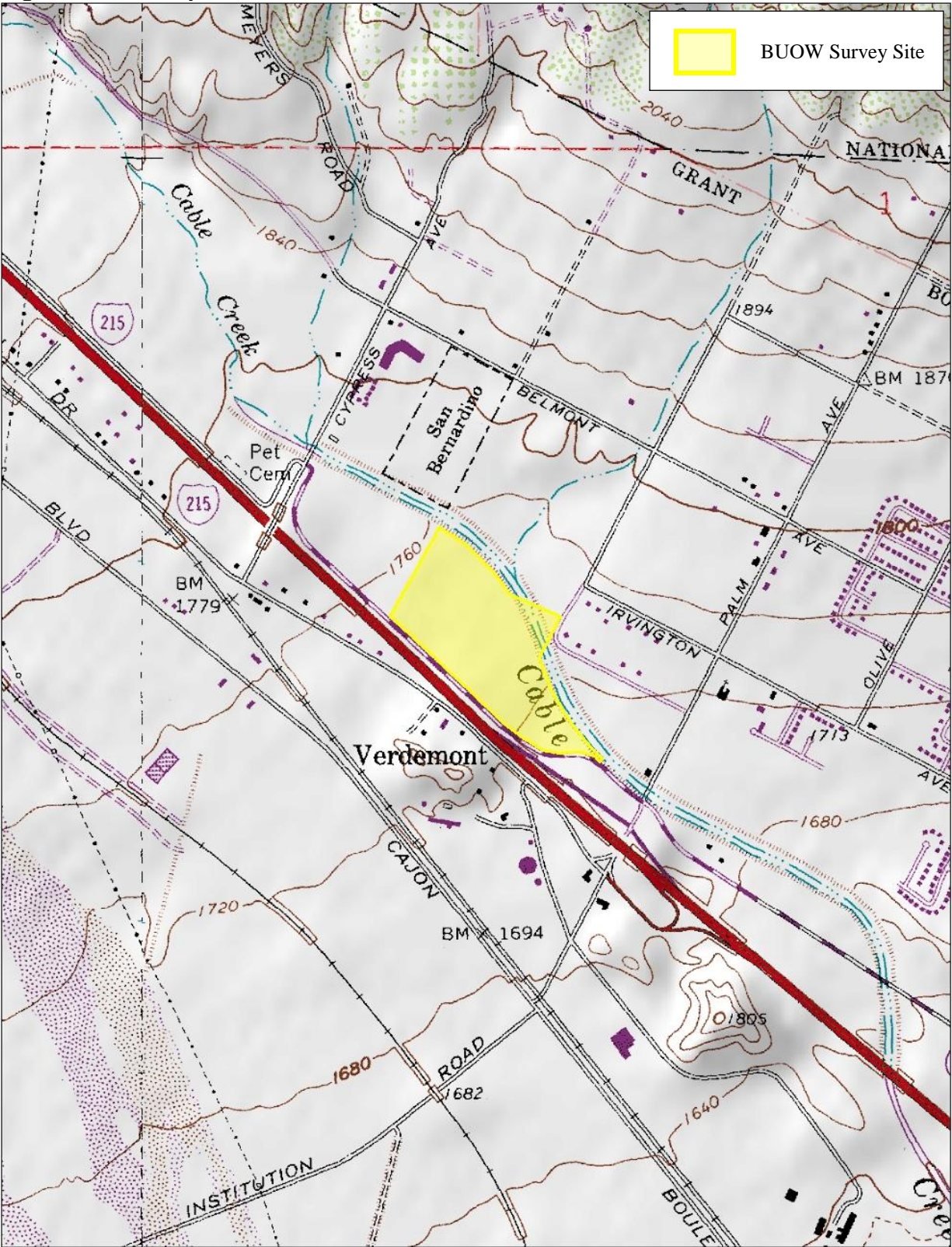
Shay Lawrey, President  
Ecologist/Regulatory Specialist



Attachments:

- ▶ Figures
  - Project Site Map
  - Aerial Photograph of Site
- ▶ Site Photographs 1-2
- ▶ Wildlife Species Observed

Figure 1. Site Map



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MN (12.0° E)

0 400 800 1200 1600 2000 ft  
Data Zoom 13-7

Figure 2. Aerial Photograph of Site



## Site Photographs



Photo 1. Northwest corner of Project site, facing east. Site recently disked; Cable Creek levee visible on the upper left side.



Photo 2. Northeast corner of Project site; 0.5-acre portion north of Cable Creek, facing north.

## Wildlife Species Observed

Common Name	Scientific Name
<b>Birds</b>	<b>Class Aves</b>
<b>Larks</b>	<b>Alaudidea</b>
horned lark	<i>Eremophila alpestris</i>
<b>Jays, magpies, and crows</b>	<b>Corvidae</b>
American crow	<i>Corvus brachyrhynchos</i>
common raven	<i>Corvus corax</i>
<b>Caracaras and falcons</b>	<b>Falconidae</b>
American kestrel	<i>Falco sparverius</i>
<b>Finches</b>	<b>Fringillidae</b>
house finch	<i>Haemorhous mexicanus</i>
<b>Swallows</b>	<b>Hirundinidae</b>
northern rough-winged swallow	<i>Stelgidopteryx serripennis</i>
<b>Starlings and allies</b>	<b>Sturnidae</b>
European starling	<i>Sturnus vulgaris</i>
<b>Tyrant flycatchers</b>	<b>Tyrannidae</b>
Say's phoebe	<i>Sayornis saya</i>
<b>Mammals</b>	<b>Class Mammalia</b>
<b>Foxes, Wolves, and Relatives</b>	<b>Canidae</b>
domestic dog	<i>Canis lupus familiaris</i>
<b>Pocket gophers</b>	<b>Geomyidae</b>
Botta's pocket gopher	<i>Thomomys bottae</i>
<b>Squirrels, Chipmunks, and Marmots</b>	<b>Sciuridae</b>
California ground squirrel	<i>Spermophilus beecheyi</i>
<b>Reptiles</b>	<b>Class Reptilia</b>
<b>Alligator lizards and relatives</b>	<b>Anguidae</b>
western side-blotched lizard	<i>Uta stansburiana elegans</i>