NESTING SEASON SURVEY
BURROWING OWL
(Athene cunicularia hypugaea)

DP-2021-2347

ASSESSOR'S PARCEL NUMBER 392-320-014

18.08-ACRE SITE / ±30 ACRES SURVEYED

LOCATION:
Southeast corner of the intersection of Whitewood Road and Lee Lane in the City of Murrieta, Riverside County, California. Portion of Section 35, Township 6 South and Range 3 West S.B.M. of the USGS Topographic Map, 7.5 Minute Series, Murrieta, California Quadrangle

OWNER/APPLICANT:
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SURVEYS CONDUCTED BY PAUL A. PRINCIPE ON:
May 2, 10, 18, and 28, 2021

REPORT DATE:
June 11, 2021

INFORMATION SUMMARY

REPORT DATE

June 11, 2021

REPORT TITLE

Nesting Season Survey for the Burrowing Owl *(Athene cunicularia hypugaea)*

CASE NUMBER

DP-2021-2347

ASSESSOR'S PARCEL NUMBER

392-320-014

SITE LOCATION

Southeast corner of the intersection of Whitewood Road and Lee Lane in the City of Murrieta, Riverside County, California **(Site Vicinity Map)**. Portion of Section 35, Township 6 South and Range 3 West S.B.M. of the USGS Topographic Map, 7.5 Minute Series, Murrieta, California Quadrangle (**USGS Location Map)**.

ACREAGES

18.08 acre-site
±30 acres surveyed on the site and in the buffer zone

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Source of Aerial Photo: Google Earth 1-2020

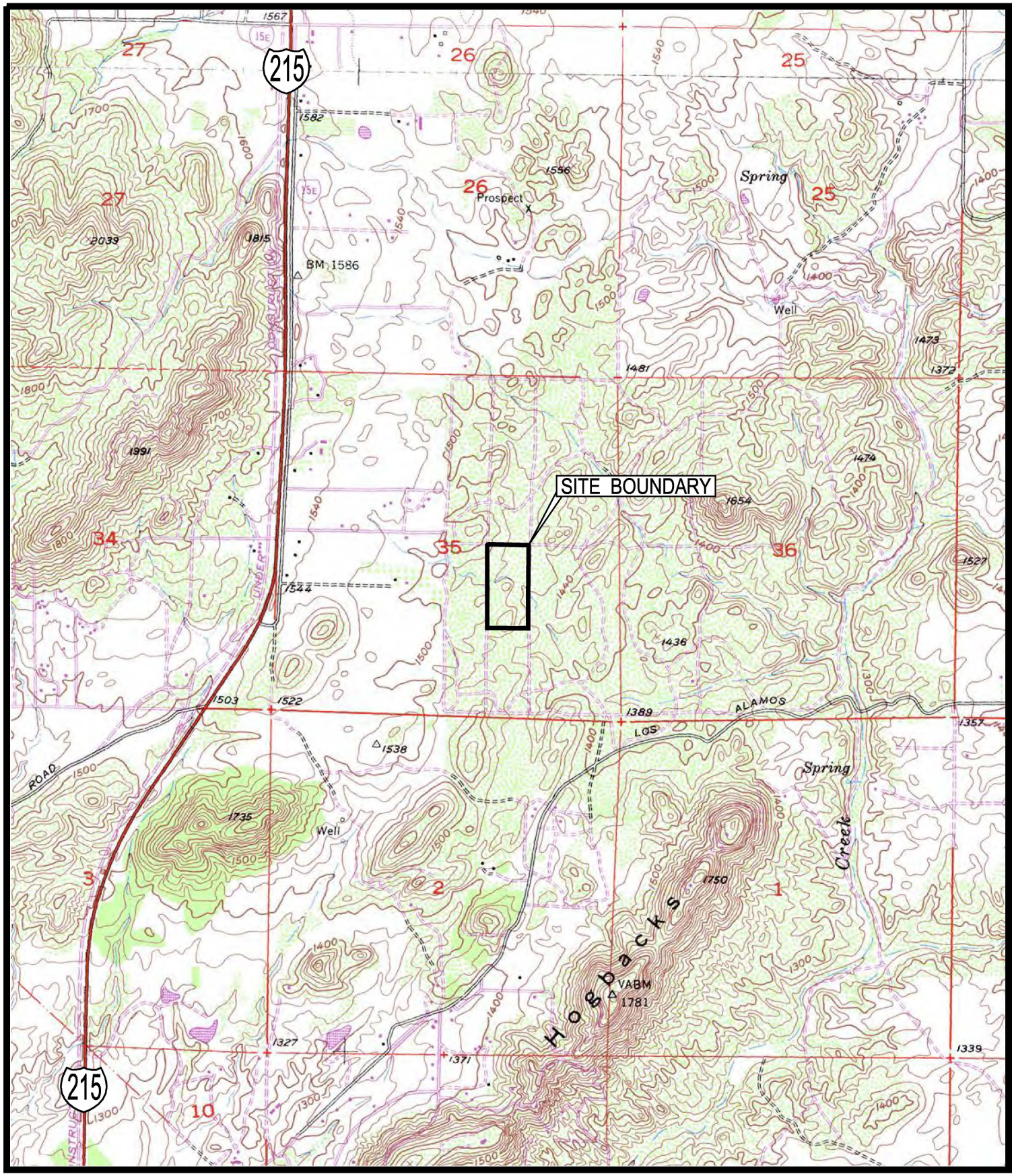
Scale: 1"= 1000'

0 1000 2000 Feet

SITE VICINITY MAP

DP 2021-2347

PRINCIPE AND ASSOCIATES



Base Map Source: USGS 7.5 Min.
Murrieta, Calif. Quad.

Feet

0 2000 4000

USGS LOCATION MAP

DP 2021-2347

PRINCIPE AND ASSOCIATES

PRINCIPAL INVESTIGATOR

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SURVEY SUMMARY

Based on the Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area, an independent assessment was made of the presence or absence of suitable burrowing owl habitats on the site and in a 150-meter buffer zone around the project boundary. The assessment determined that the majority of the site is providing suitable habitats consisting of annual grassland and lowland scrub on gentle rolling and level terrain with active small mammal burrows. Required habitat features capable of being used for roosting and/or nesting are also present, and included abandoned burrows of California ground squirrels with openings 4-inches or greater and crevices in rock outcrops.

The Riversidean Sage Scrub located north of the site in the buffer zone that has a canopy cover greater than 30 percent of the ground surface was not surveyed. The single-family developments located northeast, south, southeast, and east of the site in the buffer zone that are fenced-in and posted were surveyed with binoculars. The existing residential developments and the residential developments under construction located west of the site in buffer zone were not surveyed.

A Nesting Season Survey following the survey instructions was then prepared. Four surveys were conducted between May 2 and 28, 2021. Standard survey transects were used, and spaced approximately 30 meters (±100 feet) to allow 100 percent visual coverage of the ground surface. During the 2021 nesting season surveys, burrowing owls were not observed. Required burrowing owl habitats capable of being used for roosting or nesting were not being used. And, animal signs diagnostic of burrowing owls that are sometimes overlooked were not discovered anywhere on the site or in the buffer zone. There was no evidence of either active habitats presently being used by burrowing owls, or habitats abandoned within the last three years.

Completion of this Nesting Season Survey is consistent with Species Conservation Objective 5 of the MSHCP that was developed for the burrowing owl. To ensure direct mortality of burrowing owls is avoided in the future, a pre-construction presence/absence survey should be conducted within thirty (30) days prior to ground disturbance at the site. The proposed project would then be consistent with Species Conservation Objective 6 of the MSHCP.

ABSTRACT

Due to the presence of suitable and required burrowing owl habitats, a **Nesting Season Survey for the Burrowing Owl *(Athene cunicularia hypugaea)*** was completed at the site. Four nesting season surveys were conducted between May 2 and 28, 2021. The surveys followed the Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area (March 29, 2006).

DESCRIPTION OF THE SITE, INCLUDING TOPOGRAPHY, HYDROGRAPHY, SOILS, VEGETATION ASSOCIATIONS AND SPECIES COMPOSITION, AND ANIMALS OBSERVED DURING VISIT(S)

Site

The site is presently vacant and undeveloped. Aerial photographs from 1996 and 2004 show that most of the upland scrublands present on the site were cleared and annual grassland was succeeding onto the site surface. The unnamed tributary of Warm Springs Creek that dissects the northern portion of the site was sparsely vegetated, and only a few clumps of large trees were visible. Meadowlark Lane crossed the tributary along the site's west property line.

The 2007 aerial photograph shows that some riparian vegetation had been established along the banks of the tributary, and an isolated ephemeral stream formed a confluence in the west central portion of the site. Riparian vegetation was starting to grow along this ephemeral stream. It appears that some shrub vegetation was resprouting in the annual grassland. Whitewood Road was being constructed to replace Meadowlark Lane along the site's west property line.

Between 2010 and 2012 the construction of Whitewood Road was completed at a few feet above the natural grade of the site. The tributary and ephemeral stream were placed in culverts beneath Whitewood Road and surface drains were constructed to drain water into the tributary. This probably resulted in an expansion of the riparian vegetation along the tributary and ephemeral stream. The resprouting shrub vegetation was becoming denser and more widespread. The site has remained vacant and undeveloped since that time. Recently, a homeless camp has been developed in the middle of the tributary and riparian vegetation.

Topography

Site topography is characterized by hill and valley contours. The southern portion of the site is nearly flat-lying with only a few natural irregularities, mainly rock and boulder outcrops, while the northern portion is a broad sloping hillside. One main natural watercourse trends in a west-to-east direction through the northern portion of the site.

Rolling hills are present in the northern half of the site that is located north of the natural watercourse. The hills slope gently downward in a general north→south direction to the channel of the natural watercourse. The change in elevation is 30 feet between the site's north property line and the channel (1500→1470 feet). Numerous hillocks are scattered through this portion of the site, which is strewn with boulders and rock outcrops. A manufactured slope is present along the westernmost portion of this area. During the construction of Whitewood Road, the roadway was raised 10-15 feet above the channel of an unnamed tributary of Warm Springs Creek.

A broad rather flat-lying hill is present in the southern half of the site that is located south of the natural watercourse. It occupies the entire center of this portion of the site, and gently slopes downward in a general southwest direction to the channel of the natural watercourse. The change in elevation is 20 feet between the top of this hill and the natural watercourse (1490→1470 feet). A few hillocks are present, and are elevated 7-14 feet above the rounded hilltop. Numerous boulder and rock outcrops are scattered throughout this portion of the site. A manufactured slope is also present along the westernmost portion of this area. During the construction of Whitewood Road, the roadway was raised 10-15 feet above the channel of a small ephemeral stream.

Hydrography and Drainage

The natural watercourse present on the site is an unnamed tributary of Warm Springs Creek. It is designated as an intermittent blueline stream on the USGS Topographic Map, Murrieta, California Quadrangle. An approximately 695-foot-long reach of this stream dissects the northern portion of the site, and has a northwest→southeast direction of flow. It enters and exits the site via culverts, and is not deeply incised into the ground. The origin of this tributary can be traced for approximately 1,175 feet upstream of the site in a northwest direction. The tributary is hard to trace downstream of the site. It meanders for approximately 2,735 feet in a southeast direction before it becomes more deeply incised with a channel with banks.

It has a confluence with a small ephemeral stream near the west central portion of the site. It is not designated as an intermittent blueline stream. This ephemeral stream only meanders for approximately 335 feet through the site. The upstream portion of this tributary is now obscured by developments.

The majority of drainage on the site is by overland flow or downslope movement of storm water runoff (sheet flow) originating on higher elevated terrain located in the northern and southern portions of the site. The storm water runoff is characterized by low volume, infrequent and short duration flows that only occur during and after precipitation events. All of the onsite runoff drains directly into the unnamed tributary of Warm Springs Creek present on the site. Once the runoff drains into the tributary, the drainage regime becomes fluvial as it is carried off the site.

Soils

Review of the "Soil Survey of Western Riverside Area, California" revealed that the surficial soils mapped at the site are included in the Cajalco-Temescal-Las Posas Association (Soils of the Southern California Coastal Plain). Within this association, two soil types were mapped on the site **(Soils Map)**:

- Cac2 – Cieneba fine sandy loam, 2 to 8 percent slopes, eroded
- CbD2 – Cajalco rocky fine sandy loam, 5 to15 percent slopes, eroded

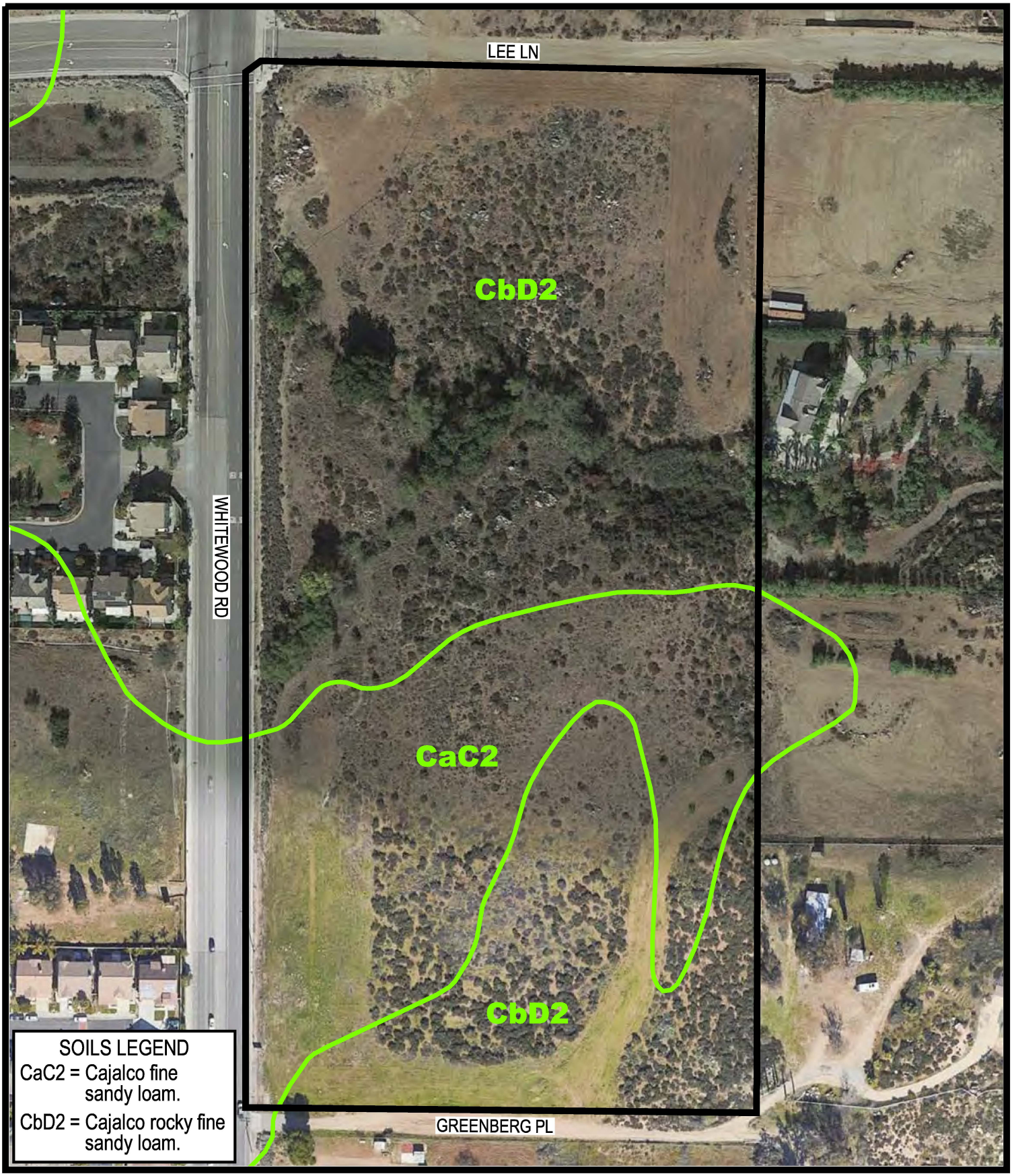
Vegetation Associations and Species Composition

Based on the Habitat Accounts described in Volume 2 of the MSHCP, the Vegetation Subassociations occurring on the site are classified as Coastal Sage-Chaparral Scrub (1.07 acres), Non-Native Grasslands (15.77 acres) and Riparian Forest (1.19 acres), and Mulefat Scrub (0.05 acres) **(Biological Resources Map)**.

The **Coastal Sage Scrub Vegetation Association** is distributed throughout Western Riverside County, occupying approximately 159,000 acres (12 percent) of the MSHCP Plan Area. It is represented by three subassociations: Diegan coastal sage, Riversidean sage scrub and undifferentiated coastal scrub. Coastal Sage Scrub in Riverside County is contained in the Riversidean Sage Scrub Mapped Subassociation. Riversidean Sage Scrub is the dominant sage scrub Mapped Subassociation in the MSHCP Plan Area, occupying approximately 10.3 percent (136,278 acres) of the Plan Area.

The **MSHCP Habitat Accounts** for **the Coastal Sage Scrub Vegetation Association** includes additional classifications made by others. Based on previous vegetation removal activities occurring at the site, it appears that the Coastal Sage Scrub extant at the site is contained in the **Coastal Sage–Chaparral Scrub** classification made by Holland (1986). Based on its level of disturbance on the site, it is considered to be a remnant. Coastal Sage–Chaparral Scrub is typically a diverse mosaic of woody sclerophyllous (hard-leaved plants) chaparral species and drought-deciduous malacophyllous (fleshy-leaved plants) sage scrub species adapted to arid climates.

The 1.07 acres of Coastal Sage–Chaparral Scrub growing on the site is confined to boulder and rock outcrops and the manufactured slope below Whitewood Road. It is no longer continuously-growing on the site, and is now basically limited to a few shrubs growing in and around areas that were not cleared, individual sage and scrub plants resprouting from damaged central growing trunks or major branches scattered around the site and individual sage, and scrub plants that took root from seeds. Native sage scrub species are mixed with landscaping materials along the slopes below Whitewood Road and Lee Lane.



Source of Aerial Photo: Google Earth 1-2020

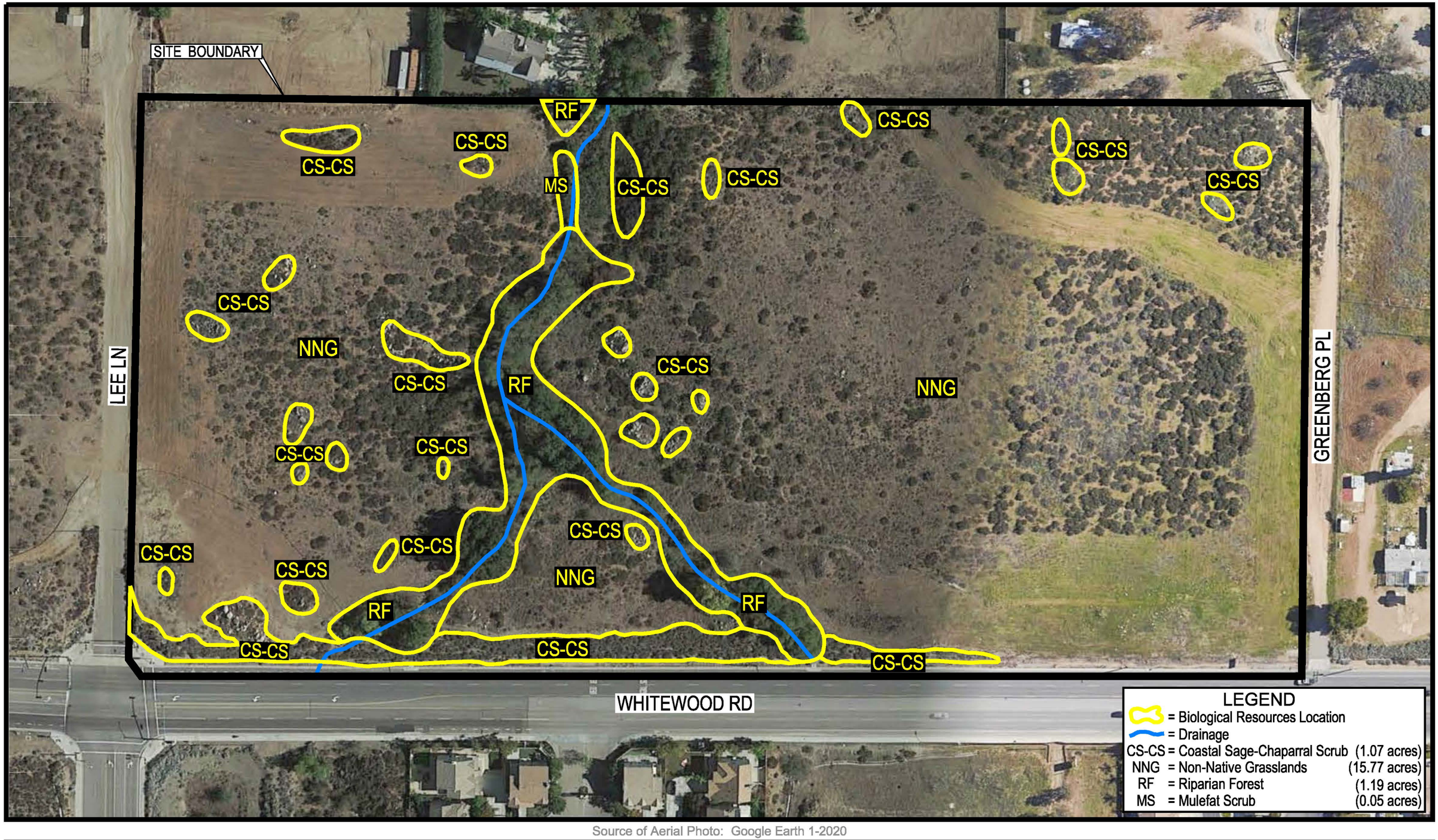
Scale: 1"= 160'

0 160 320 Feet

SOILS MAP

DP 2021-2347

PRINCIPE AND ASSOCIATES



Source of Aerial Photo: Google Earth 1-2020

Scale: 1"= 100'

0 100 200 Feet

BIOLOGICAL RESOURCES MAP

DP 2021-2347

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The Coastal Sage–Chaparral Scrub is dominated by interior California buckwheat *(Eriogonum fasciculatum* subsp. *foliolosum)*. Other abundant sage scrub species include coastal sagebrush *(Artemisia californica),* brittlebush *(Encelia farinosa),* thick-leaved lilac *(Ceanothus crassifolius* var*. crassifolius),* and chamise *(Adenostoma fasciculatum).*

See attached Checklist of Vascular Plant Species for a complete list of all the species identified at the site.

The **Grasslands Vegetation Association** occurs throughout most of Western Riverside County, and covers approximately 11.8% (154,421 acres) of the Plan Area. The **Grasslands Vegetation Subassociation** growing on the site is **Non-Native Grasslands**. Non-Native Grasslands occurs throughout the majority of the Plan Area (11.6%), usually within close proximity to urbanized or agricultural land uses.

15.77 acres of **Non-Native Grasslands** is growing on the site. It is dominated by invasive, non-native species, but also includes a suite of spring annuals and wildflowers that take root after the winter rains. Native resprouting Coastal Sage-Chaparral Scrub species scattered through the Non-Native Grasslands do not possess characteristics that would classify them in a recognized Vegetation Subassociation and are herein included as a component of Non-Native Grasslands. It is continuously-growing on both sides of the tributaries, forming a dense carpet in some areas.

The Non-Native Grasslands is dominated by *brome grasses (*Bromus diandrus, B. hordeaceus* and *B. madritensis* subsp. *rubens*)*.* Other abundant ground-covering grasslands species include *Tocalote *(Centaurea melitensis),* paniculate tarplant *(Deinandra paniculata),* common fiddleneck *(Amsinckia menziesii* var. *intermedia),* *shortpod mustard *(Brassica geniculata),* and *annual bluegrass *(Poa annua).*

Riparian Forest/Woodland/Scrub Vegetation Association subtypes are spatially distributed in drainages throughout much of Western Riverside County, and cover approximately 1.1 percent (14,545 acres) of the Plan Area. Southern Cottonwood/Willow Riparian Forest makes up the largest proportion of the riparian vegetation in the Plan Area comprising nearly one-half of the acreage (6,610 acres). Large complexes containing several of the riparian forest, woodland and scrub types are located in several portions in the Plan Area. The Temecula area supports a diversity of riparian vegetation types among urban and agricultural land uses along Temecula Creek, Sandia Canyon and portions of Wolf Valley.

Based on the description in the MSHCP, 1.19 acres of the **Riparian Forest Mapped Subassociation** is present at the site. Riparian Forest is growing along both the unnamed tributary of Warm Springs Creek and the ephemeral stream. The Riparian Forest growing along the tributary is continuously-growing with a closed canopy except

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*****Denotes non-native species

Scientific nomenclature after Roberts, Jr., Fred M., Scott D. White, Andrew C. Sanders, David E. Bramlet, and Steve Boyd. 2004.

where it is interrupted by the homeless camp. It is dominated by a mix of mature black willow *(Salix gooddingii),* red willow *(Salix laevigata),* western cottonwood *(Populus fremontii subsp. fremontii),* and coast live oak *(Quercus agrifolia* var. *agrifolia)* trees. One of the coast live oak trees has a diameter at breast height of ±65 inches.

Where the Riparian Forest opens and is no longer continuous in the eastern portion of the site, it is replaced by the **Mulefat Scrub Mapped Subassociation**. The 0.05 acres of Mulefat Scrub present on the site is dominated by mulefat *(Baccharis salicifolia)*. In fact, it is the sole riparian species except for one coast live oak tree. An opening in the Mulefat Scrub occurs near the site's east property line to allow access to the southern portion of the site. This open section of the Mulefat Scrub has been invaded by non-native grasses and weeds.

Wildlife Species Observed

Wildlife is relatively abundant and diverse at the site even at its location in a rapidly developing area. Most of the species observed are common and opportunistic species that inhabit and/or forage in developed areas. Species observed during all the plant and animal surveys conducted at the site between April 25 and June 8, 2021 include the western fence lizard *(Sceloporus occidentalis),* California quail *(Callipepla californica),* California red-tailed hawk *(Buteo jamaicensis),* killdeer (*Charadrius vociferus),* mourning dove *(Zenaida macroura),* greater roadrunner *(Geococcyx californianus),* Anna's hummingbird *(Calypte anna),* Nuttall's woodpecker *(Picoides nuttallii),* black phoebe *(Sayornis nigricans),* common raven (*Corvus corax*), California scrub jay *(Aphelocoma californica),* wrentit *(Chamaea fasciata),* bushtit *(Psaltriparus minimus),* Bewick's wren *(Thryomanes bewickii),* northern mockingbird (*Mimus polyglottos*), California thrasher *(Toxostoma redivivum),* lark sparrow *(Chondestes grammacus),* California towhee *(Pipilo crissalis),* spotted towhee *(Pipilo maculatus),* song sparrow *(Melospiza melodia),* white-crowned sparrow *(Zonotrichia leucophrys),* house finch *(Carpodacus mexicanus)*, lesser goldfinch *(Carduelis psaltria),* ground squirrel *(Spermophilus beecheyi),* desert cottontail *(Sylvilagus audubonii),* and the coyote *(Canis latrans)*.

A few diagnostic animal signs were also discovered at the site. Dirt mounds indicated the presence of Botta's pocket gophers *(Thomomys bottae)*, small burrows with 2-3.25-inch openings indicated the presence of pocket mice *(Perognathus* sp.*)* and/or deer mice *(Peromyscus* sp.*)*, and nests indicated the presence of woodrats (*Neotoma* sp.).

ASSESSMENT OF HABITAT SUITABILITY FOR BURROWING OWLS

Burrowing owl habitats can be found in shortgrass prairies, annual and perennial grasslands, lowland scrub, agricultural lands and rangelands, prairies, coastal dunes, deserts, scrublands characterized by low-growing vegetation, and some artificial areas (*e.g.,* golf courses, cemeteries, irrigation ditches, etc.). Suitable owl habitats may also include trees and shrubs if the canopy covers less than 30 percent of the ground surface, and they may also occur in forb and open stages of pinyon-juniper and

ponderosa pine habitats. They require large open expanses of sparsely vegetated areas on gentle rolling or level terrain with an abundance of active small mammal burrows. As habitat features, they require the use of rodent or other burrows for roosting and nesting. Burrows are the essential component of burrowing owl habitats. Natural burrows and manmade structures (artificial burrows) provide protection, shelter and nests for burrowing owls.

Based on the Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area, an independent assessment was made of the presence or absence of suitable burrowing owl habitats on the site and in a 150-meter buffer zone around the project boundary. The assessment determined that the majority of the site is providing suitable habitats consisting of annual grassland and lowland scrub on gentle rolling and level terrain with active small mammal burrows. Required habitat features capable of being used for roosting and/or nesting are also present, and included abandoned burrows of California ground squirrels with openings 4-inches or greater and crevices in rock outcrops. Standard survey transects were used in these areas.

The Riversidean Sage Scrub located north of the site in the buffer zone that has a canopy cover greater than 30 percent of the ground surface was not surveyed. The single-family developments located northeast, south, southeast, and east of the site in the buffer zone that are fenced-in and posted were surveyed with binoculars. The existing residential developments and the residential developments under construction located west of the site in buffer zone were not surveyed.

DATE AND TIME OF VISIT(S), INCLUDING NAME OF THE QUALIFIED BIOLOGIST CONDUCTING SURVEYS, WEATHER AND VISIBILITY CONDITIONS, AND SURVEY METHODOLOGY

Suitable burrowing owl habitats were carefully surveyed for the presence or absence of the burrowing owl. Thorough searches were conducted during morning hours in an attempt to directly observe this species or discover diagnostic sign, and followed **Step II of the Burrowing Owl Survey Instructions**.

The methodology used to prepare this Nesting Season Survey involved conducting complete visual and walk-over field surveys. Surveys were conducted by slowly walking through suitable habitats in the buffer zone. The survey transects were spaced approximately 30 meters (±100 feet) to allow 100 percent visual coverage of the ground surface.

Four complete surveys were conducted between May 2 and 28, 2021. All surveys were conducted during weather that was conducive to observing burrowing owls outside of their burrows, and detecting burrowing owl sign. Surveys were not conducted during rain, high winds (>20 mph), dense fog, or temperatures over 90°F. They were not conducted within five days of rain.

All surveys were conducted by Paul Principe. Paul Principe holds a Federal Fish and Wildlife Permit (TE 786497-8) and a California Resident Scientific Collecting Permit (Permanent ID #SC-2215), and is a Biological Consultant authorized by the Riverside County Planning Department, Environmental Programs Division. He has been conducting biological surveys in Riverside County since 1980.

Following are the number and dates of surveys, start and stop times of surveys and the weather conditions at the beginning and end of each survey (shaded temperature in degrees Fahrenheit includes the wind chill factor, and wind speed in miles per hour is given as the range measured over a few moments with a Kestrel ® 2000):

March 11, 2021: Mostly cloudy, 49°F, 1-2 mph winds (1100 hours)
Mostly cloudy, 50°F, 1-2 mph winds (1330 hours)

1. May 2, 2021: Sunrise at 0557 hours PDT
Cloudy, 54°F, 1-2 mph winds (0600 hours)
Cloudy, 55°F, 2-3 mph winds (0750 hours)

2. May 11, 2021: Sunrise at 0549 hours PDT
Cloudy, 51°F, 1-2 mph winds (0600 hours)
Cloudy, 53°F, 2-3 mph winds (0745 hours)

3. May 18, 2021: Sunrise at 0546 hours PDT
Cloudy, 57°F, 1-2 mph winds (0600 hours)
Mostly cloudy, 58°F, 3-4 mph winds (0755 hours)

4. May 28, 2021: Sunrise at 0541 hours
Mostly cloudy, 50°F, 1-2 mph winds (0555 hours)
Mostly clear, 57°F, 1-2 mph winds (0748 hours)

RESULTS OF TRANSECT SURVEYS, INCLUDING A MAP SHOWING THE LOCATION OF ALL BURROW(S) (NATURAL OR ARTIFICIAL) AND OWL(S), INCLUDING THE NUMBERS AT EACH BURROW, IF PRESENT, AND TRACKS, FEATHERS, PELLETS, OR OTHER ITEMS (PREY REMAINS, ANIMAL SCAT)

Burrowing owls or their diagnostic signs were not observed during any of the surveys.

The locations of required burrowing owl habitat capable of being used for roosting and/or nesting present on the site were mapped and overlaid onto a recent aerial photograph of the site. These included numerous natural burrows dug by California ground squirrels and crevices in rock outcrops. The location of the survey transect has also been overlaid on this base aerial photograph map **(Burrowing Owl Habitat/Survey Transect Map)**. Photographs have been taken at various locations along the survey transects **(see Site Photographs attached)**.

500-FT BUFFER ZONE

DEVELOPED OCCUPIED

SURVEYED WITH BINOCULARS

SITE BOUNDARY

DEVELOPED AND OCCUPIED

SURVEY TRANSECT

SURVEYED WITH BINOCULARS

1000 ft

DEVELOPED

DENSE COASTAL SAGE SCRUB

LEE LN

GREENBERG PL

DEVELOPED / OCCUPIED

WHITEWOOD RD

WHITEWOOD RD

WHITEWOOD RD

DENSE COASTAL SAGE SCRUB

SOMERS ROAD

DEVELOPED OCCUPIED

STEPP RD

BASIN

DEVELOPED OCCUPIED

KARA ST

CROSBY ST

BUILDING CONSTRUCTION

BREDA AVE

DEVELOPED / OCCUPIED

WARE ST

BRUNING ST

GATINEAU ST

RAVENNA ST

500-FT BUFFER ZONE

LEGEND

= Survey Transects

= Natural Burrows

= Rock Outcrops with Crevices and Burrows

Source of Aerial Photo: Google Earth 1-2020

Scale: 1"= 200'

0 200 400 Feet

BURROWING OWL HABITAT / SURVEY TRANSECT MAP

DP 2021-2347

PRINCIPE AND ASSOCIATES

BEHAVIOR OF OWLS DURING THE SURVEYS

Burrowing owls were not observed during any of the surveys.

SUMMARY OF BOTH WINTER AND NESTING SEASON SURVEYS INCLUDING ANY PRODUCTIVITY INFORMATION AND A MAP SHOWING TERRITORIAL BOUNDARIES AND HOME RANGES

A protocol Survey for Winter Residents was not completed at this site.

During the 2021 nesting season surveys, burrowing owls were not observed. Required burrowing owl habitats capable of being used for roosting or nesting were not being used (*e.g.,* natural burrows and crevices in rock outcrops). And, animal signs diagnostic of burrowing owls that are sometimes overlooked were not discovered anywhere on the site or in the buffer zone (*e.g.,* molted feathers, cast pellets, prey remains, eggshell fragments, and/or excrement at or near burrow entrances or crevices in rocks and boulders). There was no evidence of either active habitats presently being used by burrowing owls, or habitats abandoned within the last three years.

MSHCP CONSIDERATIONS

Completion of this Nesting Season Survey is consistent with Species Conservation Objective 5 of the MSHCP that was developed for the burrowing owl. To ensure direct mortality of burrowing owls is avoided in the future, a pre-construction presence/absence survey should be conducted within thirty (30) days prior to ground disturbance at the site and follow the MSHCP 30-Day Pre-Construction Burrowing Owl Survey Report Format (Revised: August 17, 2006). The proposed project would then be consistent with Species Conservation Objective 6 of the MSHCP.

ANY HISTORICAL INFORMATION (NATURAL DIVERSITY DATABASE, DEPARTMENT REGIONAL FILES, BREEDING BIRD SURVEY DATA, AMERICAN BIRDS RECORDS, AUDUBON SOCIETY, LOCAL BIRD CLUB, OTHER BIOLOGISTS, ETC.) REGARDING THE PRESENCE OF BURROWING OWLS ON THE SITE

The burrowing owl occurs within the open lowlands of the central portion of Western Riverside County. It has a scattered distribution throughout the Western Riverside County Multiple Species Habitat Conservation Plan Area outside of montane areas.

Breeding and burrow locations have not been identified within the University of California, Riverside (UCR) database, although most observations that have been recorded are probably located near a burrow due to the relatively sedentary nature of the species.

This species has been detected east of the Jurupa Mountains, along the Santa Ana River, at Lake

Lake Perris/Mystic Lake area, the Badlands, within the vicinity of Beaumont and Banning, San Jacinto, Valle Vista, between San Jacinto River and Lakeview Mountains, west of Hemet, the area around Diamond Valley Lake, east and south of Lake Skinner area, along Santa Gertrudis Creek and Tucalota Creek, in Long Canyon, and along De Portola Road as documented in the UCR database and from other sources (USFWS 1996 unpublished data; California Science and Engineering Associates 1996).

The California Natural Diversity Database (CNDDB) for the Bachelor Mountain, California Quadrangle does not include any occurrence records of the burrowing owl at the site. Occurrence records for the burrowing owl that are located 1-2 miles from the site were not found in the CNDDB:

Based on information from the University of California, Riverside database, U.S. Fish and Wildlife Service (1996 unpublished data), California Science and Engineering Associates (1996), and clusters of occurrence record locations, Burrowing Owl Core Areas may include the Santa Ana River, Lake Mathews area, Lake Perris/Mystic Lake, playas west of Hemet, Lake Skinner/Diamond Valley Lake area, and Valle Vista. The site is located approximately 5.1 miles northwest of the proposed Lake Skinner/Diamond Valley Lake Core Area.

CERTIFICATION STATEMENT

Date: June 11, 2021

I hereby certify that the statements furnished herein and in the attached exhibits present the data and information required to complete this Nesting Season Survey for the Burrowing Owl to the best of my ability, and that the facts, statements and information presented are true and correct to the best of my knowledge and belief.

Paul A. Principe

_____

PRINCIPE AND ASSOCIATES
Paul A. Principe
Principal

REFERENCES

County of Riverside, Environmental Programs Department. Revised August 17, 2006. Burrowing Owl Survey Instructions for Western Riverside Multiple Species Habitat Conservation Plan Area, March 29, 2006.

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CHECKLIST OF VASCULAR PLANT SPECIES

GROUP FAMILY	*Species*	COMMON NAME	HABITATS

ANGIOSPERMAE - DICOTS

ADOXACEAE – ELDERBERRY FAMILY

	Sambucus mexicana	MEXICAN ELDERBERRY NNG, RF

ANACARDIACEAE – SUMAC FAMILY

	Daucus pusillus	RATTLESNAKE WEED CS-CS, NNG
	Rhus trilobata	SKUNK BUSH CS-CS
	**Schinus molle*	PERUVIAN PEPPER TREE RF
	Toxicodendron diversilobum	POISON OAK CS-CS, RF

APIACEAE (UMBELLIFERAE) – CARROT FAMILY

	Apiastrum angustifolium	MOCK PARSLEY CS-CS

ASCLEPIADACEAE – MILKWEED FAMILY

	Funastrum cynanchoides	HARTWEG'S MILKVINE CS-CS

ASTERACEAE – SUNFLOWER FAMILY

	Acourtia microcephala	SACAPEPPOTE NNG
	Ambrosia psilostachya var. *californica*	WESTERN RAGWEED RF
	**Anthemis cortula*	DOG MAYWEED NNG
	Artemisia californica	COASTAL SAGEBRUSH CS-CS
	Baccharis pilularis subsp. consanguinea	COYOTE BRUSH RF
	Baccharis salicifolia	MULE FAT MS, RF
	**Carduus pycnocephalus*	ITALIAN THISTLE RF
	**Centaurea melitensis*	TOCALOTE NNG
	**Conyza canadensis*	COMMON HORSEWEED NNG
	Deinandra paniculata	PANICULATE TARPLANT NNG
	Erigeron foliosus var. foliosus	LEAFY DAISY CS-CS
	Encelia farinosa	BRITTLEBUSH CS-CS
	Eriophyllum confertiflorum var. *confertiflorum*	LONG-STEMMED GOLDEN YARROW CS-CS
	Eriophyllum multicaule	MANY-STEMMED WOOLLY DAISY CS-CS
	Filago californica	CALIFORNIA FILAGO NNG
	Gnaphalium californicum	CALIFORNIA EVERLANSTING CS-CS
	Gnaphalium luteo-album	WEEDY CUDWEED NNG
	Gnaphalium stramineum	COTTON-BATTING PLANT CS-CS
	Gutierrezia californica	CALIFORNIA MATCHWEED NNG
	Helianthus annuus	WESTERN SUNFLOWER RF
	Helianthus gracilentus	SLENDER SUNFLOWER NNG
	**Lactuca serriola*	PRICKLY LETTUCE NNG
	Microseris lindleyi	SILVER PUFFS NNG
	**Oncosiphon piluliferum*	STINK-NET NNG
	**Senecio vulgaris*	COMMON GROUNDSEL NNG

FAMILY *Species* COMMON NAME	HABITATS
**Sonchus asper* PRICKLY SOW-THISTLE	NNG
Stephanomeria virgata subsp. *virgata* VIRGATE WREATH-PLANT	CS-CS, NNG
BORAGINACEAE – BORAGE FAMILY	
Amsinckia menziesii var. *intermedia* COMMON FIDDLENECK	CS-CS, NNG
Cryptantha intermedia COMMON CRYPTANTHA	NNG
Cryptantha micromeres MINUTE-FLOWERED CRYPTANTHA	NNG
Heliotropium curassavicum ALKALI HELIOTROPE	NNG
Plagiobothrys canescens VALLEY POPCORN-FLOWER	NNG
BRASSICACEAE (CRUCIFERAE) – MUSTARD FAMILY	
**Brassica geniculata* SHORTPOD MUSTARD	CS-CS, NNG
CACTACEAE – CACTUS FAMILY	
*Cylindropuntia californi*a VALLEY CHOLLA	CS-CS
CHENOPODIACIAE – GOOSEFOOT FAMILY	
Atriplex canescens subsp. *canescens* FOURWING SALTBUSH	CS-CS
**Chenopodium album* LAMB'S QUARTERS	NNG
**Salsola tragus* RUSSIAN THISTLE	NNG
CONVOLVULACEAE – MORNING-GLORY FAMILY	
Calystegia macrostegia subsp. *tenuifolia* NARROW-LEAVED MORNING GLORY	NNG
CRASSULACEAE – STONECROP FAMILY	
Crassula connata SAND PIGMY-STONECROP	NNG
CUCURBITACEAE – GOURD FAMILY	
Marah macrocarpus var. macrocarpus WILD CUCUMBER	CS-CS, NNG
EUPHORBIACEAE – SPURGE FAMILY	
Croton setiger DOVEWEED	NNG
FABACEAE (LEGUMINOSAE) – PEA FAMILY	
Lotus hamatus GRAB LOTUS	NNG
**Lotus purshianus* SPANISH CLOVER	NNG
Lotus scoparius subsp. *scoparius* COASTAL DEERWEED	CS-CS, NNG
Lupinus bicolor subsp. *microphyllus* MINIATURE LUPINE	NNG
**Melilotus indicus* SOURCLOVER	MS, NNG, RF
FAGACEAE – OAK FAMILY	
Quercus agrifolia var. *agrifolia* COAST LIVE OAK	RF
Quercus berberidifolia CALIFORNIA SCRUB OAK	RF
GERANIACEAE – GERANIUM FAMILY	
**Erodium botrys* LONG-BEAK FILAREE	NNG
**Erodium cicutarium* RED-STEMMED FILAREE	NNG

FAMILY *Species* COMMON NAME	HABITATS
HYDROPHYLLACEAE – WATERLEAF FAMILY	
Emmenanthe penduliflora var. *penduliflora* WHISPERING BELLS	NNG
Phacelia cicutaria subsp. hispida CATERPILLAR PHACELIA	CS-CS
Phacelia minor WILD CANTERBURY-BELL	CS-CS
Phacelia ramosissima var. *latifolia* BRANCHING PHACELIA	CS-CS
LAMIACEAE – MINT FAMILY	
***Marrubium vulgar* COMMON HOREHOUND	NGG
Salvia columbariae CHIA	CS-CS, NNG
Salvia mellifera BLACK SAGE	CS-CS
MALVACEAE – MALLOW FAMILY	
**Malva parviflora* CHEESEWEED	NNG
ONAGRACEAE – EVENING PRIMROSE FAMILY	
Camissonia strigulosa STRIGULOSE EVENING PRIMROSE	NNG
POLEMONIACEAE – PHLOX FAMILY	
Gilia angelensis LOS ANGELES GILIA	NNG
Eriastrum sapphirinum SAPPHIRE WOLLY-STAR	NNG
Navarretia hamata subsp. *leptantha* SOUTHERN HOOKED SKUNKWEED	NNG
POLYGONACEAE – BUCKWHEAT FAMILY	
Chorizanthe polygonoides var. longispina LONG-SPINED SPINEFLOWER	NNG
Chorizanthe staticoides TURKISH RUGGING	NNG
Eriogonum fasciculatum subsp. *foliolosum* INTERIOR CALIFORNIA BUCKWHEAT	CS-CS, NNG
Eriogonum gracile var. *incultum* SMOOTH-STEMMED SLENDR BUCKWHEAT	NNG
Lastarriaea coriacea LASTARRIAEA	NNG
**Rumex crispus* CURLY DOCK	RF
PORTULACACEAE – PURSLANE FAMILY	
Claytonia perfoliata subsp. *perfoliata* COMMON MINER'S LETTUCE	RF
RHAMNACEAE – BUCKTHORN FAMILY	
Ceanothus crassifolius var. *crassifolius* THICK-LEAVED LILAC	CS-CS
ROSACEAE – ROSE FAMILY	
Adenostoma fasciculatum CHAMISE	CS-CS
Prunus ilicifolia HOLLY-LEAVED CHERRY	CS-CS
***RUBIACEAE – MADDER* FAMILY**	
Gallium angustifolium subsp. *angustifolium* NARROW-LEAVED BEDSTRAW	CS-CS
SALICACEAE – WILLOW FAMILY	
Populus fremontii subsp. *fremontii* WESTERN COTTONWOOD	RF
Salix exigua NARROW-LEAVED WILLOW	RF

FAMILY *Species* COMMON NAME	HABITATS
Salix gooddingii BLACK WILLOW	RF
Salix laevigata RED WILLOW	RF
Salix lasiolepis var. *lasiolepis* ARROYO WILLOW	RF
SCROPHULARIACEAE – FIGWORT FAMILY	
Mimulus guttatus SEEP MONKEY FLOWER	MS, RF
SOLANACEAE – NIGHTSHADE FAMILY	
Datura wrightii JIMSONWEED	CS-CS, NNG
**Nicotiana glauca* TREE TOBACCO	CS-CS, RF
Nicotiana quadrivalvis WALLACE'S TOBACCO	NNG
**Solanum elaeagnifolium* SILVERLEAF NIGHTSHADE	CS-CS, NNG
Solanum xanti CHAPARRAL NIGHTSHADE	CS-CS, NNG
TAMARICACEAE – TAMARISK FAMILY	
**Tamarix ramosissima* MEDITERRANEAN TAMARISK	RF
URTICLACEAE – NETTLE FAMILY	
Urtica dioica subsp. *holosericea* HOARY NETTLE	CS-CS, RF
**Urtica urens* DWARF NETTLE	CS-CS, RF

MONOCOTYLEDONES – MONOCOTS

LILIACEAE – LILY FAMILY	
Calochortus splendens SPLENDID MARIPOSA LILY	CS-CS, NNG
Calochortus weedii weedii WEED'S MARIPOSA LILY	CS-CS, NNG
POACEAE – GRASS FAMILY	
**Avena barbata* SLENDER WILD OAT	NNG
**Bromus diandrus* COMMON RIPGUT GRASS	NNG
**Bromus hordeaceus* SOFT CHESS	NNG
**Bromus madritensis* subsp. *rubens* RED BROME	NNG
**Cynodon dactylon* BERMUDA GRASS	NNG
Elymus condensatus GIANT WILDRYE	NNG
**Poa annua* ANNUAL BLUEGRASS	NNG
**Polypogon monspeliensis* ANNUAL BEARD GRASS	RF
**Schismus barbatus* MEDITERRANEAN SCHISMUS	NNG
Stipa cernua NODDING NEEDLEGRASS	CS-CS, NNG
**Vulpia myuros* var. *myuros* RATTAIL FESCUE	CS-CS, NNG
THEMIDACEAE – BRODIAEA FAMILY	
Dichelostemma pulchellum var. *pulchellum* BLUE-DICKS	CS-CS, NNG
TYPHACEAE – CAT-TAIL FAMILY	
Typha latifolia BROAD-LEAVED CAT-TAIL	MS, RF

HABITATS:

CS-CS = COASTAL SAGE-CHAPARRAL SCRUB

MS = MULEFAR SCRUB

NNG = NON-NATIVE GRASSLANDS

RS = RIPARIAN FOREST

*****Denotes non-native species throughout Checklist
Nomenclature after Roberts, Jr., Fred M., Scott D. White, Andrew C. Sanders, David E. Bramlet, and Steve Boyd. 2004.

View of the northern portion of the site located north of the unnamed tributary of Warm Springs Creek. The majority of this area is providing suitable burrowing owl habitats consisting of annual grassland and lowland scrub on gentle rolling and level terrain with active small mammal burrows. Looking in an east to west direction.

SITE PHOTOGRAPH 1

DP-2021-2347

PRINCIPE AND ASSOCIATES

View of the southern portion of the site located south of the unnamed tributary of Warm Springs Creek. The majority of this area is also providing suitable burrowing owl habitats. Note that the fourth nesting season survey was completed before the site was disced for fire prevention purposes. Looking in a southeast to northwest direction.

SITE PHOTOGRAPH 2

DP-2021-2347

PRINCIPE AND ASSOCIATES

Required habitat features capable of being used for roosting and nesting are also present on the site, and include abandoned burrows of California ground squirrels with openings 4-inches or greater and crevices in rock outcrops.

SITE PHOTOGRAPH 3

DP-2021-2347

PRINCIPE AND ASSOCIATES

View of another crevice in a rock outcrop with a burrow present on the site that is capable of being used for roosting and nesting. Natural burrows and manmade structures (artificial burrows) provide protection, shelter and nests for burrowing owls. Several of these habitat features are scattered throughout the site.

SITE PHOTOGRAPH 4

DP-2021-2347

PRINCIPE AND ASSOCIATES

View of a typical California ground squirrel burrow present on the site that is capable of being used for roosting and nesting. Burrows are the essential component of burrowing owl habitats. Several of these habitat features are also scattered throughout the site.

SITE PHOTOGRAPH 5

DP-2021-2347

PRINCIPE AND ASSOCIATES

The burrowing owl's prey base includes invertebrates and small vertebrates. View of one of the numerous active small mammal burrows present on the site. Small burrows with 2-3.25-inch openings indicate the presence of prey species such as deer mice, pocket mice and/or voles.

SITE PHOTOGRAPH 6

DP-2021-2347

PRINCIPE AND ASSOCIATES

View of the suitable burrowing owl habitats consisting of annual grassland and lowland scrub on gentle rolling and level terrain with active small mammal burrows in the buffer zone located northeast of the site. Fenced-in areas posted with No Trespassing signs were surveyed with binoculars.

SITE PHOTOGRAPH 7

DP-2021-2347

PRINCIPE AND ASSOCIATES

View of the suitable burrowing owl habitats in the buffer zone located east of the site. This area was also surveyed with binoculars.

SITE PHOTOGRAPH 8

DP-2021-2347

PRINCIPE AND ASSOCIATES

The single-family development located in the buffer zone south of the site was also providing suitable burrowing owl habitats. This fenced-in area was also surveyed with binoculars.

SITE PHOTOGRAPH 9

DP-2021-2347

PRINCIPE AND ASSOCIATES