

## Appendix E

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Nesting Season Survey Burrowing Owl

**NESTING SEASON SURVEY  
BURROWING OWL**  
*(Athene cunicularia hypugaea)*

***DPR 22-00006, SPA 22-05047  
TPM 22-05048***

**APNS 302-130-002, 302-130-008, 302-130-018, 302-130-021,  
302-130-022, 302-130-023, 302-130-024, AND 302-130-027**

LOCATION:

**Southeast corner of the intersection of North Perris Boulevard and Perry Street in the City of Perris, Riverside County, California. The site is mapped in a portion of Section 5, Township 4 South and Range 3 West of USGS Topographic Map, 7.5 Minute Series, Perris, California Quadrangle.**

OWNER/APPLICANT:

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SURVEYS CONDUCTED BY PAUL A. PRINCIPE ON:  
**March 14, April 3, 15 and May 6, 2022**

REPORT DATE:  
**May 9, 2022**

## INFORMATION SUMMARY

### REPORT DATE

May 9, 2022

### REPORT TITLE

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

### CASE NUMBERS

DPR 22-00006, TPM 22-05048 and SPA 22-05047

### ASSESSOR'S PARCEL NUMBERS

302-130-002, 302-130-008, 302-130-018, 302-130-021, 302-130-022, 302-130-023, 302-130-024, and 302-130-027

### SITE LOCATION

Southeast corner of the intersection of North Perris Boulevard and Perry Street in the City of Perris, Riverside County, California (**Site Vicinity Map**). The site is mapped in a portion of Section 5, Township 4 South and Range 3 West of USGS Topographic Map, 7.5 Minute Series, Perris, California Quadrangle (**USGS Location Map**).

### ACREAGES

48.1 acres  
±20 acres surveyed on the site and in the buffer zone

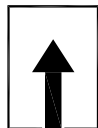
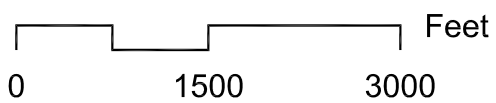
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Source of Aerial Photo: Google Earth 8/2021

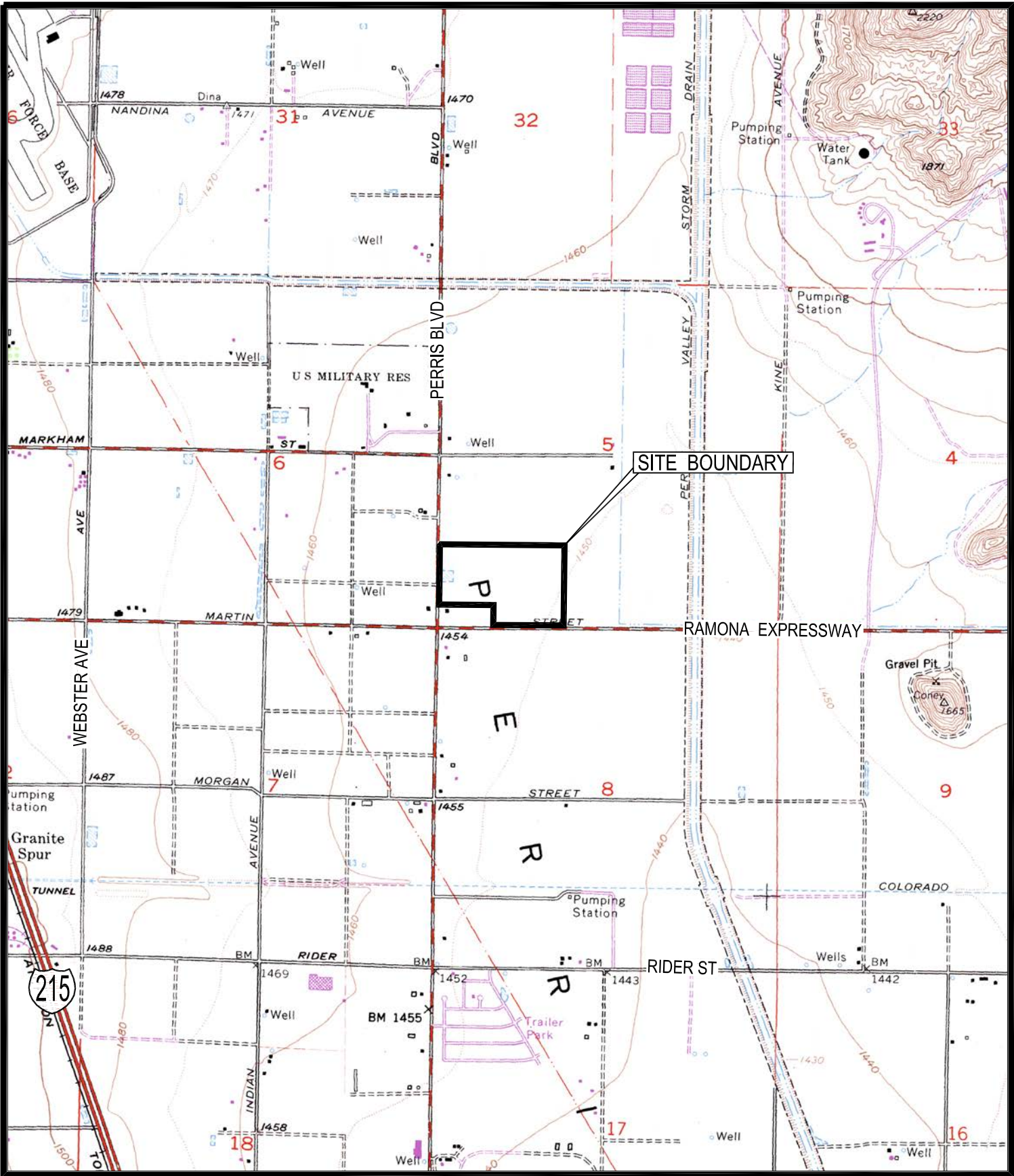
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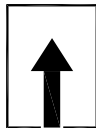
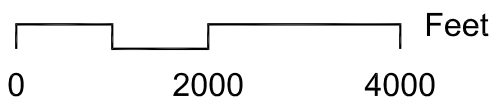
**SITE VICINITY MAP**

DPR 22-00006, SPA 22-05047, TPM 22-05048

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



**USGS LOCATION MAP**

DPR 22-00006, SPA 22-05047, TPM 22-05048

PRINCIPE AND ASSOCIATES

## **PRINCIPAL INVESTIGATOR**

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## **NESTING SEASON SURVEY SUMMARY**

The site is located within the Burrowing Owl Survey Area for Rough Step 3. 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 ( $\pm 500$  feet) buffer zone around the project boundary on February 2, 2022. The assessment determined that the majority of the site and the buffer zone located immediately east and contiguous with the site were providing suitable habitats consisting of annual grassland on level terrain. Active small mammal burrows appear to be limited to those dug by pocket gophers. Required habitat features capable of being used for roosting and/or nesting were limited on the site, but included abandoned burrows of California ground squirrels with openings 4-inches or greater.

In the buffer zone, only the habitat located south of the site across the Ramona Expressway was providing suitable burrowing owl habitats consisting of annual grassland on level terrain with active small mammal burrows and abandoned California ground squirrel burrows. The existing developed areas surrounding the site located in the buffer zone, including the area under construction located to the west, were not providing suitable burrowing owl habitats, and were not surveyed.

A Nesting Season Survey report following the survey instructions was prepared. Four surveys were conducted between March 14 and May 6, 2022. During the 2022 Nesting Season Survey, burrowing owls were not observed. Required burrowing owl habitats capable of being used for nesting and roosting were not being used. Also, 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. 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 site 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 March 14 and May 6, 2022. 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 currently vacant and undeveloped with structures. The site is primarily comprised of disturbed vegetation and habitat that is dominated by a low carpet of non-native grass and weeds. Native vegetation and habitats within site boundaries have been eliminated due to long-term disturbances associated with agricultural and weed abatement activities (*i.e.*, chain-flail mowing, disking, tilling, etc.) that have resulted in heavily disturbed and compacted surface soils. One large detention basin is present in the western portion of the site where wind-blown trash accumulates. It is also used for illegal trash dumping. An abandoned water stack likely used for previous agricultural land uses is located towards the middle of the property.

Aerial photographs were reviewed to evaluate past land use patterns at the site and in the surrounding areas. The photos were taken in the following years: 1938, 1949, 1953, 1961, 1966, 1967, 1978, 1985, 1989, 1996, 1997, 2002, 2005, 2006, 2009, 2010, 2012, 2014, 2016, 2018, and 2020. The review revealed that during the years between 1938 and 1985 the site was undeveloped, vacant and in a rural agricultural setting. The aerial photographs taken in 1949, 1953 and 1961 show agricultural land uses occurring on the majority of the site. The detention basin is first apparent on the 1966 aerial photograph, as well as the drainage ditch located along the north side of the Ramona Expressway.

From 1985 to the present, the site remained undeveloped and vacant as the surrounding area was experiencing residential, commercial and industrial development. The aerial photograph from 1997 shows that the southwest corner of the site had been cleared and was being used as a staging area for the commercial development occurring at the intersection of North Perris Boulevard and the Ramona Expressway. That cleared area has remained disturbed ever since the development was completed, and is being used for trailer truck parking on a daily basis.

## **Topography**

Site topography is flat-lying and featureless. Natural topography has been completely altered in the past by long-term disturbances associated with agricultural and weed abatement activities (*i.e.*, chain-flail-mowing, disking, tilling, etc.). There are no boulder or rock outcrops on the site.

Elevation in the northern and western portions of the site is 1456 feet, while the elevation in the eastern and southern portions is 1452 feet. There is a slight change in elevation of four feet between across the site (1456→1452 feet). A manufactured slope is present along the north property line adjacent to Perry Street. The majority of the site is located 10-15 feet below the elevation of Perry Street.

## **Hydrography and Drainage**

Natural watercourses of any kind are not present on the site (*i.e.*, perennial or intermittent blue-line streams, ephemeral drainages, historical drainages, etc.). The San Jacinto River is located approximately 4.5 miles southeast of the site. Due to the low elevation at the site, most of it is located within the 100-year flood limit.

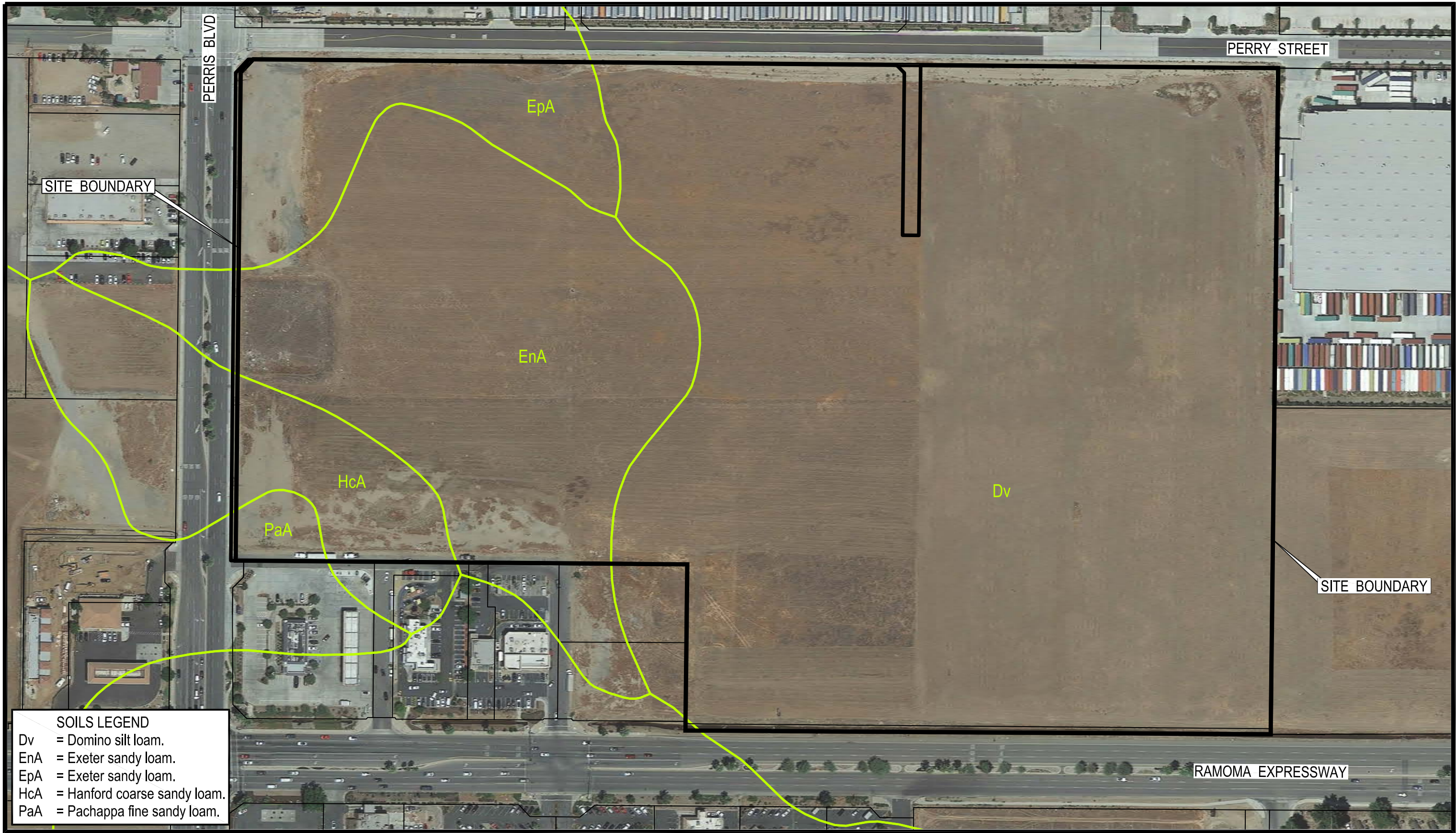
The site consists of vacant, undeveloped land that drains gradually northwest to southeast over varying terrain with a flow slope of 0.3 percent. It has been farmed and graded in the past, and shows evidence of continued disturbance and compaction. The runoff from the site is primarily overland flow or downslope movement of storm water runoff (sheet flow) originating on the slightly higher elevated terrain located in the northern and western 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. There are no flow paths through the site. The ultimate outfall is the southeast corner of the site into the existing drainage ditch constructed adjacent to the Ramona Expressway. Drainage in the westernmost portion of the site now drains into the new storm water and flood control conveyance systems constructed when North Perris Boulevard was improved (circa 2016). The site is within the Perris Valley Master Drainage Plan, with the proposed Line E regional storm drain traversing the southwest corner of the property

## **Soils**

Review of the “Soil Survey of Western Riverside Area, California” revealed that the surficial soils at the site are included in the Traver-Domino-Willows Association (Soils of the Southern California Coastal Plain). Within this association, five soil types have been mapped on the site (**Soils Map**):

- Dv – Domino silt loam, 0-2 percent slopes (saline-alkali)
- EnA – Exeter sandy loam, 0 to 2 percent slopes
- EpA - Exeter sandy loam, deep, 0 to 2 percent slopes
- HcA – Hanford coarse sandy loam, 0 to 2 percent slopes
- PaA - Pachappa fine sandy loam, 0 to 2 percent slopes





SITE BOUNDARY

PERRY STREET

PERRIS BLVD

EpA

EnA

HcA

PaA

Dv

SITE BOUNDARY

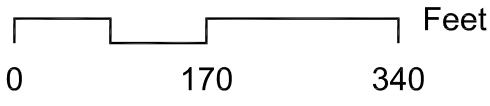
RAMOMA EXPRESSWAY

**SOILS LEGEND**

Dv	= Domino silt loam.
EnA	= Exeter sandy loam.
EpA	= Exeter sandy loam.
HcA	= Hanford coarse sandy loam.
PaA	= Pachappa fine sandy loam.

Source of Aerial Photo: Google Earth 8/2021

Scale: 1"= 170'



**SOILS MAP**

DPR 22-00006, SPA 22-05047, TPM 22-05048

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## **Vegetation Associations and Species Composition**

Based on the Habitat Accounts described in Volume 2 of the MSHCP, the Vegetation Association occurring on the site is classified as Grasslands (41.1 acres) (**Biological Resources Map**). Disturbed/Developed Lands account for the remaining surface area of the site (7.0 acres).

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

Non-native grasslands are primarily composed of annual grass species introduced from the Mediterranean basin and other Mediterranean-climate regions with variable presence of non-native and native herbaceous species. Species composition of Non-native grasslands may vary over time and place based on grazing or fire regimes, soil disturbance and annual precipitation patterns. Non-native grasslands typically produce deep layers of organic matter which is inversely related to the abundance of non-native and native species. Non-native grasslands also typically support an array of annual species from the Mediterranean-climate regions. Low abundances of native species are sometimes present within Non-native grasslands.

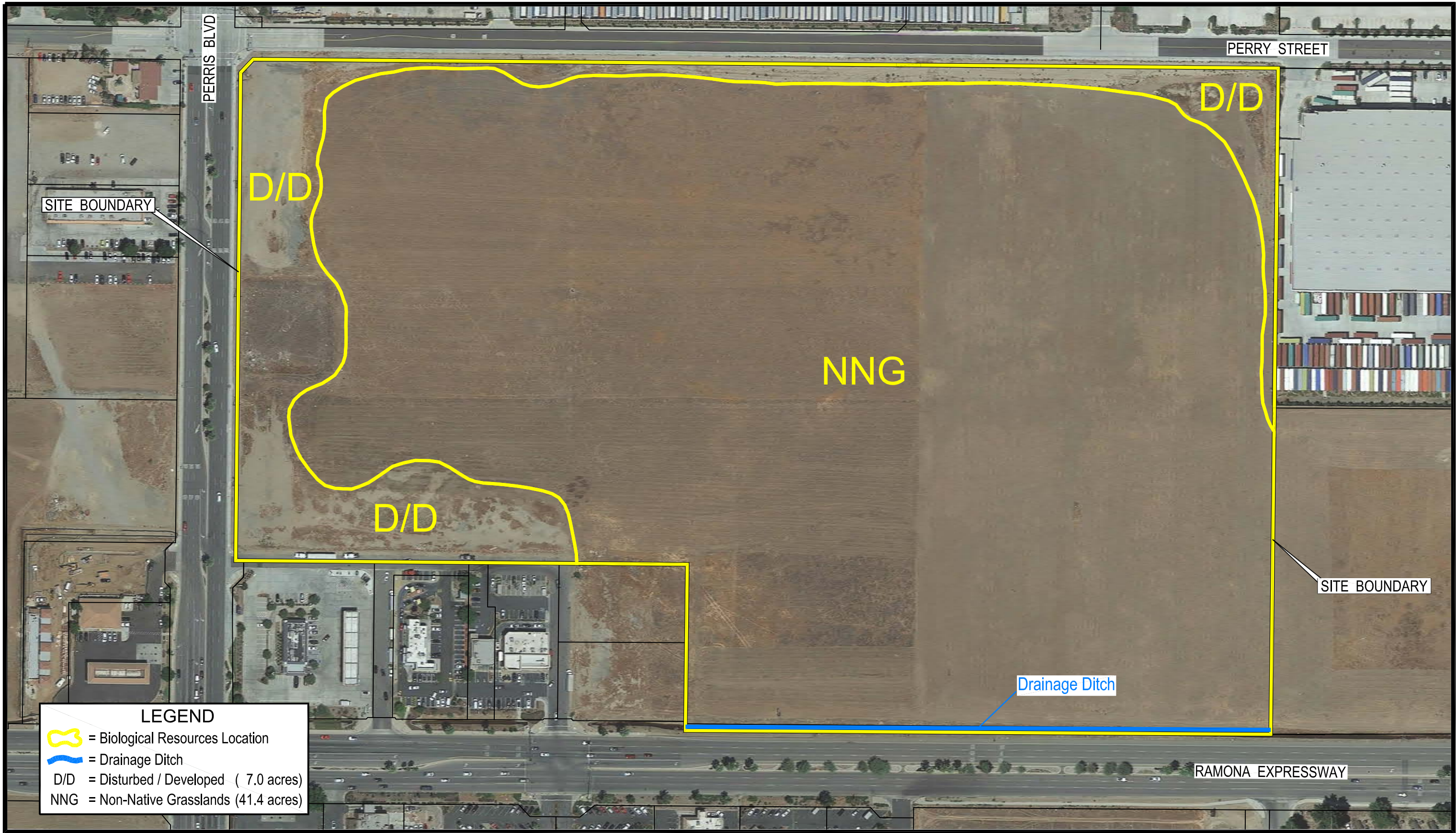
**Non-native grasslands** cover the majority of the site surface. It is growing on all previously disturbed areas that were historically disced for agricultural land uses and more recently for weed abatement to reduce fuel loads in areas where fire could threaten both human safety and property. Species composition is not diverse, but a few of the species are very abundant. The low-growing grasses and weeds form a continuous and dense cover on the surface of the site. Most of it is dominated by common and widespread non-native grass and weed species, but a few native annual species were also present. Dicot species include \*dog mayweed (*Anthemis cortula*), \*prickly lettuce (*Lactuca serriola*), \*common groundsel (*Senecio vulgaris*), \*stink-net (*Oncosiphon piluliferum*), \*shortpod mustard (*Brassica geniculata*), \*tumble mustard (*Sisymbrium altissimum*), \*London rocket (*Sisymbrium irio*), \*Russian-thistle (*Salsola tragus*), \*field bindweed (*Convolvulus arvensis*), \*long-beak filaree (*Erodium botrys*), and \*cheeseweed (*Malva parviflora*).

Monocot species include \*wild oat (*Avena sativa*), \*common ripgut grass (*Bromus diandrus*), \*red brome (*Bromus madritensis* subsp. *rubens*), \*glaucous barley (*Hordeum murinum* subsp. *glaucum*), \*hare barley (*Hordeum murinum* subsp. *leporinum*), \*annual bluegrass (*Poa annua*), and \*rattail fescue (*Vulpia myuros* var. *myuros*).

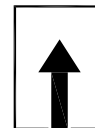
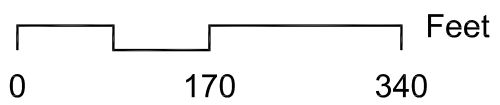
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\*Denotes non-native species throughout the text

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



Scale: 1"= 170'



**BIOLOGICAL RESOURCES MAP**

DPR 22-00006, SPA 22-05047, TPM 22-05048

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The only native species discovered in the Non-native grasslands was common fiddleneck (*Amsinckia menziesii* var. *intermedia*).

### **Disturbed/Developed Land**

Weed communities are common in urban areas, often occurring on roadsides and abandoned areas. In larger areas these weed populations may represent the early stages of natural succession. Some of these areas are known as ruderal communities. A ruderal community occupies waste areas, roadsides often on heavily compacted soils with little available oxygen

Disturbed/Developed Lands are located around the perimeter of most of the site. This disturbed habitat supports non-native grasses and weeds growing on disturbed ground, manufactured slopes, stockpiles of excavated earthen materials, gravel, and soils compacted by trailer trucks and construction equipment.

Non-native species observed include \*prostrate pigweed (*Amaranthus blitoides*), \*prickly lettuce, \*common groundsel \*stink-net, \*shortpod mustard \*Australian saltbush (*Atriplex semibaccata*), \*Russian-thistle, \*long-beak filaree, \*Bermuda grass (*Cynodon dactylon*), \*hare barley, \*Mediterranean schismus (*Schismus barbatus*), and \*rattail fescue.

One native species, southern goldfields (*Lasthenia coronaria*) was found growing in the southwest corner of the site only during the February survey. This species was confined to a patch approximately one-tenth of an acre in size located in the disturbed area previously used as a staging area for the commercial development occurring at the intersection of North Perris Boulevard and the Ramona Expressway. It usually occurs in coarse sandy upland soils which are present in this portion of the site.

Since the emergent non-native vegetation growing on the banks and in the channel of the ditch were manually removed and a herbicide was applied in March 2022, \*alfalfa (*Medicago sativa*) and \*English plantain (*Plantago lanceolata*) are the only two species growing in abundance along the channel and banks of the drainage ditch.

### **Wildlife Species Observed**

A low abundance and diversity of wildlife was observed at the site likely due to the absence of native wildlife habitats present there. All wildlife species were observed in the Non-native grasslands. The species composition consists of common and opportunistic species that are adapted to exploit available habitats or resources in close proximity to man. Species observed include the western fence lizard (*Sceloporus occidentalis*), side-blotched lizard (*Uta stansburiana*), mourning dove (*Zenaida macroura*), American crow (*Corvus brachyrhynchos*), horned lark (*Eremophila alpestris*), northern rough-winged swallow (*Stelgidopteryx serripennis*), Savannah sparrow (*Passerculus sandwichensis*), white-crowed sparrow (*Zonotrichia leucophrys*), western meadowlark (*Sturnella neglecta*), house sparrow (*Passer domesticus*), and California ground squirrel (*Spermophilus beecheyi*).

Diagnostic animal signs were limited to Botta's pocket gopher dirt mounds (*Thomomys bottae*), and a juvenile coyote carcass (*Canis latrans*).

## **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 (*i.e.*, 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.

The site is located within the Burrowing Owl Survey Area for Rough Step 3. 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 ( $\pm 500$  feet) buffer zone around the project boundary on February 2, 2022. The assessment determined that the majority of the site and the buffer zone located immediately east and contiguous with the site were providing suitable habitats consisting of annual grassland on level terrain. Active small mammal burrows appear to be limited to those dug by pocket gophers. Required habitat features capable of being used for roosting and/or nesting were limited on the site, but included abandoned burrows of California ground squirrels with openings 4-inches or greater.

In the buffer zone, only the habitat located south of the site across the Ramona Expressway was providing suitable burrowing owl habitats consisting of annual grassland on level terrain with active small mammal burrows and abandoned California ground squirrel burrows. The existing developed areas surrounding the site located in the buffer zone, including the area under construction located to the west, were not providing suitable burrowing owl habitats, and were not surveyed and 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 to discover its 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 the Non-native grasslands habitat where burrows and burrow complexes were originally discovered and mapped on February 2, 2022 on the site and in the buffer zone. The February 2, 2022 survey transects were spaced approximately 30 meters ( $\pm 100$  feet) to allow 100 percent visual coverage of the ground surface. All subsequent survey transects on the site were walked in a meandering pattern only through the areas where burrows and burrow complexes were originally discovered and mapped. Typical survey transects were conducted during the four nesting season surveys conducted in the buffer zone located south of the site across the Ramona Expressway.

Four complete surveys were conducted between March 14 and May 6, 2022. 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  $90^{\circ}\text{F}$ . 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 for over 40 years.

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  $\text{\textcircled{R}}$  2000):

1. March 14, 2022: Sunrise at 0700 hours PDT  
Mostly clear,  $45^{\circ}\text{F}$ , 1-2 mph winds (0710 hours)  
Mostly clear,  $49^{\circ}\text{F}$ , 1-2 mph winds (0850 hours)
2. April 3, 2022: Sunrise at 0647 hours PDT  
Cloudy,  $55^{\circ}\text{F}$ , 1-2 mph winds (0700 hours)  
Cloudy,  $58^{\circ}\text{F}$ , 2-3 mph winds (0840 hours)
3. April 15, 2022: Sunrise at 0618 hours PDT  
Clear,  $49^{\circ}\text{F}$ , 1-2 mph winds (0630 hours)  
Clear,  $53^{\circ}\text{F}$ , 0-1 mph winds (0805 hours)
4. May 6, 2022: Sunrise at 0555 hours PDT  
Mostly cloudy,  $56^{\circ}\text{F}$ , 0-1 mph winds (0600 hours)  
Mostly clear,  $64^{\circ}\text{F}$ , 0-1 mph winds (0745 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 and in the buffer zone were mapped and overlaid onto a recent aerial photograph of the site. These included numerous natural burrows and burrow complexes dug by California ground squirrels. The location of the survey transects have also been overlaid onto the aerial photograph map (**Burrowing Owl Habitat/Survey Transect Map**). Photographs have been taken at various locations along the survey transects (**see Site Photographs attached**).

## **BEHAVIOR OF OWLS DURING THE SURVEYS**

Burrowing owls were not observed during any of the surveys.

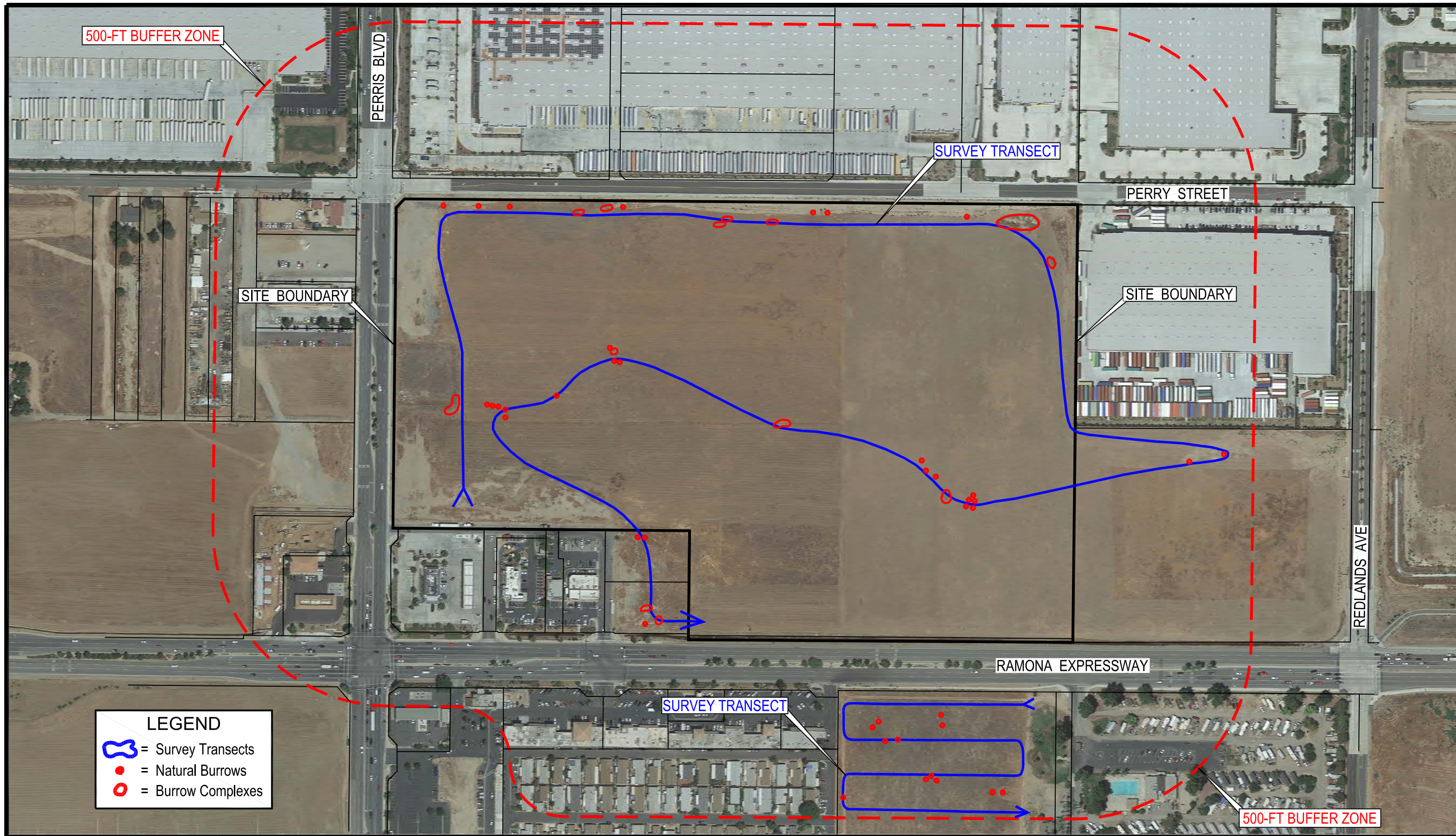
## **SUMMARY OF BOTH WINTER AND NESTING SEASON SURVEYS INCLUDING ANY PRODUCTIVITY INFORMATION AND A MAP SHOWING TERRITORIAL BOUNDARIES AND HOME RANGES**

A protocol Survey for Winter Residents (non-breeding owls) was not completed at this site.

Four surveys were conducted between March 14 and May 6, 2022. During the 2022 Nesting Season Survey, burrowing owls were not observed. Required burrowing owl habitats capable of being used for nesting and roosting were not being used. Also, animal signs diagnostic of burrowing owls that are sometimes overlooked were not discovered anywhere on the site or in the buffer zone (*i.e.*, molted feathers, cast pellets, prey remains, eggshell fragments, and/or excrement at or near burrow entrances). There was no evidence of either active habitats presently being used by burrowing owls, or habitats abandoned within the last three years. The site has undergone long-term disturbances related to agricultural and vegetation removal activities such as discing and chain flail mowing. These activities have also resulted in the reduction or extirpation of prey species at the site. The disturbed and degraded nature of the site related to those activities and other human-related activities are likely reasons that burrowing owls do not occupy this site.

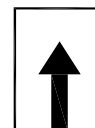
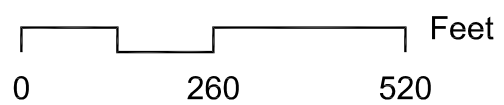
## **MSHCP CONSIDERATIONS**

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.



Source of Aerial Photo: Google Earth 8/2021

Scale: 1"= 260'



**BURROWING OWL HABITAT /  
SURVEY TRANSECT MAP**

DPR 22-00006, SPA 22-05047, TPM 22-05048

PRINCIPE AND ASSOCIATES



**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 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 Tocalota 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 (CNDDDB) for the Perris, California Quadrangle does not include any occurrence records of the burrowing owl at the site or within one mile of the site. Eight occurrence records for the burrowing owl located within 2-3 miles from the site were found in the CNDDDB:

Within 2 miles:

- Lake Perris State Recreation Area, between dam and parking lot.
- Along Oleander Storm Drain, just east of the Heacock Street (Webster Avenue) crossing, SE of the March AFB runway.
- Along Murrieta Rd N of Placentia Ave, Perris.

Within 3 miles:

- NW of the corner of Oleander Ave and Decker Rd, south of March AFB.
- Westside of Perris Valley Drain, 0.3 miles NE of the intersection of Murrieta Road and Nuevo Road, NE of Perris.
- W side of Evans Rd about 0.3 miles NNW of E Nueva Rd intersection, Perris.
- 0.22 miles SE of the corner Oleander Ave and Decker Rd, south of March AFB.
- Along Perris Valley Storm Drain, 0.3 miles SSE Murrieta Rd at Orange Ave., Perris.

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 4.8 miles west of the proposed Lake Perris/Mystic Lake Core Area.

### **CERTIFICATION STATEMENT**

Date: May 9, 2022

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*

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**PRINCIPE AND ASSOCIATES**

***Paul A. Principe***

***Principal***

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The survey transect began in the southwest corner of the site, then proceeded north. The first abandoned burrows of California ground squirrels with openings 4-inches or greater were mapped along the base of the detention basin located adjacent to North Perris Boulevard.

### **SITE PHOTOGRAPH 1**

DPR 22-00006, SPA 22-05047, TPM 22-05048

PRINCIPE AND ASSOCIATES



View of one of the ground squirrel burrows located on the survey transect where it turns to the east along the manufactured slope adjacent to Perry Street. Active and abandoned burrows and burrow complexes were most abundant along this portion of the survey transect.

## **SITE PHOTOGRAPH 2**

DPR 22-00006, SPA 22-05047, TPM 22-05048

PRINCIPE AND ASSOCIATES



View of mounds of dirt located adjacent to Perry Street that were created during the its construction. Numerous ground squirrel burrows capable of being used for roosting and/or nesting were mapped on these and other mounds located in this area of the site.

### **SITE PHOTOGRAPH 3**

DPR 22-00006, SPA 22-05047, TPM 22-05048

PRINCIPE AND ASSOCIATES



The survey transect proceeded south along the east property line then turned east into the buffer zone located east of the site. This area was providing suitable habitats consisting of annual grassland on level terrain with abandoned burrows of California ground squirrels on the mound of dirt shown in the photograph.

#### **SITE PHOTOGRAPH 4**

DPR 22-00006, SPA 22-05047, TPM 22-05048

PRINCIPE AND ASSOCIATES





The survey transect then turned in an east to west direction back onto the site. An isolated mound of dirt with numerous ground squirrel burrows was mapped in the Non-native grasslands on level terrain located in the eastern portion of the site. Animal signs diagnostic of burrowing owls were not discovered anywhere along the first half of the survey transect.

#### **SITE PHOTOGRAPH 5**

DPR 22-00006, SPA 22-05047, TPM 22-05048

PRINCIPE AND ASSOCIATES



View of the suitable Non-native grasslands habitat on level ground with ground squirrel burrows located in the western portion of the site. Required habitat features capable of being used for roosting and/or nesting were limited on the site when compared to the large amount of habitat available.

### **SITE PHOTOGRAPH 6**

DPR 22-00006, SPA 22-05047, TPM 22-05048

PRINCIPE AND ASSOCIATES



The survey transect turned in a southeast direction into the buffer zone located south and west of the site's south property line. View of one of the ground squirrel burrows located in the buffer zone near the end of the survey transect. Animal signs diagnostic of burrowing owls were not discovered anywhere along the remaining half of the survey transect.

#### **SITE PHOTOGRAPH 7**

DPR 22-00006, SPA 22-05047, TPM 22-05048

PRINCIPE AND ASSOCIATES



View of the suitable Non-native grassland habitat on level ground with ground squirrel burrows located in the buffer zone south of the Ramona Expressway. Animal signs diagnostic of burrowing owls were not discovered anywhere along this portion of the survey transect.

### **SITE PHOTOGRAPH 8**

DPR 22-00006, SPA 22-05047, TPM 22-05048

PRINCIPE AND ASSOCIATES