

# **Technical Appendix C2**

## **Burrowing Owl Survey Report**

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# **Burrowing Owl Survey Report**

## **First Nandina Logistics Center Project Riverside County, California**

**Prepared for  
First Industrial Acquisitions, Inc. and  
First Industrial Realty Trust, Inc.  
311 South Wacker Drive, Suite 3900  
Chicago, IL 60606**

**URS Project No. 29870665  
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Prepared by



2020 East First Street, Suite 400  
Santa Ana, California 92705

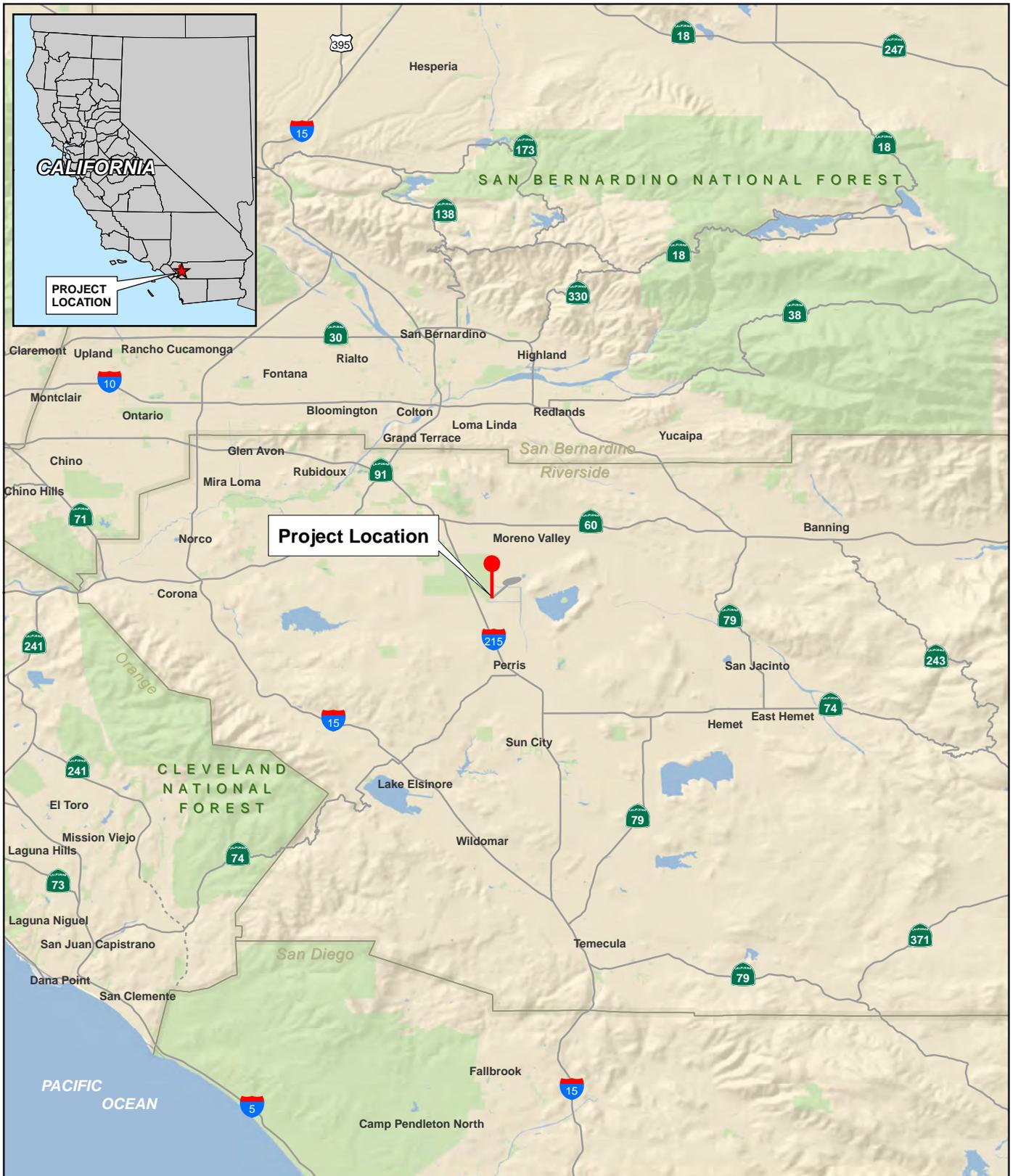


## INTRODUCTION

This report documents the findings of an evaluation of the western burrowing owl (*Athene cunicularia hypugaea*) habitat and focused surveys conducted by URS Corporation (URS) for the proposed First Nandina Logistics Center Project (Project). The proposed Project consists of an approximate 1,367,580 square foot commercial complex located south of Nandina Avenue, East of Heacock Street, and west of Indian Street in the City of Moreno Valley, CA (Figure 1). The projected Project area is located within the U.S. Geologic Service (USGS) Perris 7.5-Minute Topographic Quadrangle within Section 31, Township 3 South, Range 3 West, at an approximate elevation of 1,470 feet above sea level. The longitude and latitude coordinates near the center of the survey area are 33.872594 and -117.222836. The Project is composed of undeveloped parcels that receive frequent weed abatement (i.e., disking) and developed parcels containing residential and commercial developments. Land use surrounding the survey area includes residential and commercial development, disturbed open areas, and public infrastructure.

The Biological Survey Area (BSA) includes Accessor Parcel Numbers 316-210-002, -003, -004, -005, -006, -007, -008, -009, -010, -011, -051, and -055 plus a 500-foot buffer (Figure 2).

The Project is located within the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) burrowing owl (BUOW) survey area, and as a result, a MSHCP protocol burrowing owl habitat assessment was performed within the BSA. Potential habitat for burrowing owl was present within the BSA and MSHCP protocol burrowing owl surveys were conducted.



**Project Location**

I:\First\_Industrial\_Indian\MXD\BTR\Figure1\_regional.mxd

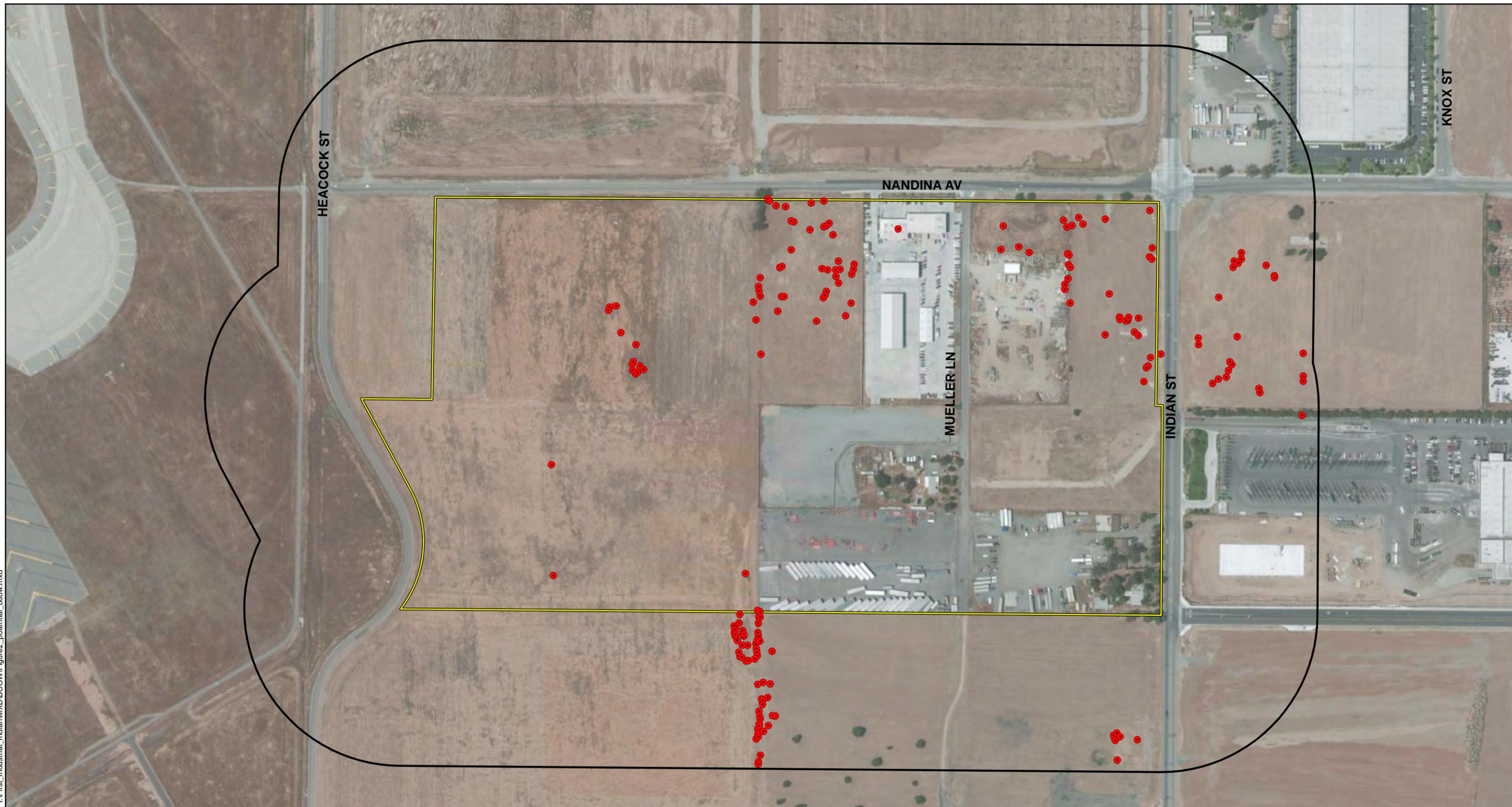
**Figure 1  
Regional Location**

**First Nandina Logistics Center**

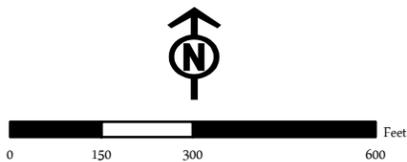


0 10 Miles

I:\First\_Industrial\_Indian\MXD\BUOW\Figure2\_potential\_buow.mxd



- Potential Burrowing Owl Burrows
- Project Site
- Biological Survey Area (500-ft Buffer)



**FIGURE 2**  
**Potential Burrowing Owl Burrows**

First Nandina Logistics Center





## METHODS

### Habitat Assessment

A BUOW habitat assessment survey was conducted in the survey area by URS Biologists Carol Thompson and Jeff Crain on March 12, 2013. Weather conditions during the survey included clear skies, temperatures ranged from 50° to 71° Fahrenheit, and calm winds. The pedestrian-based habitat assessment was performed in accordance with MSHCP burrowing owl survey requirements to locate suitable owl habitat and potential nesting substrates. The habitat assessment followed the Burrowing Owl Survey Instructions for the Western Riverside County MSHCP Area (County of Riverside 2006).

The assessment was performed by systematically searching for habitat that could potentially be utilized by burrowing owls (e.g., small mammal burrows, mounds, rubbish piles, ditches, earthen berms, unpaved fields, and fallow/ruderal fields). Pedestrian survey transects were spaced approximately 30 feet apart to allow for 100% visual coverage of the survey area during all surveys conducted (Table 1). Suitable habitat was identified by the presence of low vegetation cover, presence of potential burrows, perch sites, and/or BUOW sign such as scat, tracks, pellets, or feathers (CDFG 2012). Fully developed parcels were deemed unsuitable and excluded from further assessment.

The most recent documented BUOW within the vicinity of the Project were reported in 2008 and 2009, within the Oleander Storm Drain and the Perris Valley Storm Drain, respectively. The nearest recorded sightings, according to the CDFW's California Natural Diversity Database, are south of the project approximately 7 miles from the BSA (CNDDDB 2013).

### Focused Survey

URS Biologist Carol Thompson conducted four MSHCP BUOW protocol surveys on March 20, 21, 26, 27, 2013. Surveys 3 and 4 for additional parcel (APN 316-210-055) were conducted on March 28 and 29, 2013 (Table 1). Focused surveys were conducted in accordance with the Burrowing Owl Survey Instructions for the Western Riverside County MSHCP Area (County of Riverside 2006). Western burrowing owl surveys were conducted within areas identified as suitable during the habitat assessment. Pedestrian survey transects were spaced approximately 15 feet apart to allow for 100% visual coverage of the survey area.

**Table 1. Survey Schedule, Weather Conditions, and Personnel**

| Survey Date   | Time       | Temperature (Fahrenheit) | Sky               | Personnel | Notes                           |
|---------------|------------|--------------------------|-------------------|-----------|---------------------------------|
| 12 March 2013 | 800 – 1200 | 55 – 75                  | Overcast to Clear | CT, JC    | Habitat Assessment and Survey 1 |
| 20 March 2013 | 620 – 750  | 45 – 59                  | Overcast to Clear | CT        | -                               |
| 21 March 2013 | 620 – 750  | 48 – 56                  | Overcast to Clear | CT        | -                               |
| 26 March      | 725 – 930  | 48 – 55                  | Mostly            | CT        | Includes survey 1 of additional |

| Survey Date   | Time      | Temperature (Fahrenheit) | Sky           | Personnel | Notes                                  |
|---------------|-----------|--------------------------|---------------|-----------|--|
| 2013          |           |                          | Cloudy        |           | parcel (APN 316-210-055)               |
| 27 March 2013 | 725 – 930 | 48 – 54                  | Mostly Cloudy | CT        | Includes survey 2 of additional parcel |
| 28 March 2013 | 830 – 900 | 50 – 54                  | Mostly Cloudy | CT        | Survey 3 of additional parcel only     |
| 29 March 2013 | 730 – 800 | 50 – 52                  | Clear         | CT        | Survey 4 of additional parcel only     |

CT=Carol Thompson, JC= Jeff Crain

All potential burrows were determined by burrow size, the presence of burrowing owls, pellets, prey remains, whitewash, or decorations. The locations of all potential owl burrows and recent sign were recorded and mapped as GPS point locations (Figure 2). Surveys were conducted during weather that would not affect the ability to detect burrowing owls or their sign. The focused surveys were conducted when weather conditions were conducive to observing active burrowing owls. The survey was not performed during rain or within five days of precipitation, high winds (> 20 mph), dense fog, or temperatures over 90 °F. Surveys were conducted within one hour before sunrise to two hours after sunrise to provide the highest detection probabilities. Survey dates, personnel, and weather conditions are provided within Table 1.

Incidental observations of other avian species encountered during the surveys were also documented. The presence of each incidentally-observed species was based on direct observation or vocalization. Bird scientific nomenclature and common names follows Sibley (2001).

**RESULTS**

All potentially suitable habitats within the BSA were inspected during the habitat assessment and 186 potentially-suitable burrows were observed. Four subsequent focused surveys were conducted in all areas containing suitable burrows and habitat to support burrowing owls. However, no burrowing owls or burrowing owl sign were observed within the BSA. Incidental avian species observed during the surveys are provided within Table 1.

Although no burrowing owls were observed, the potential for owls to inhabit the survey area is high. The presence of suitable habitat and burrow sites within the BSA, and the location of the BSA within a MSHCP-designated BUOW survey area, necessitates pre-construction surveys conducted within 30 days prior to ground disturbance within the survey area (County of Riverside 2006).

**Table 1. Avian Species Observed within the BSA**

| Scientific Name        | Common Name     |
|------------------------|-----------------|
| <b>Birds</b>           |                 |
| <b>Accipitridae</b>    | <b>Hawks</b>    |
| <i>Buteo swainsoni</i> | Swainson’s hawk |

| <b>Scientific Name</b>            | <b>Common Name</b>                |
|-----------------------------------|-----------------------------------|
| <i>Buteo jamaicensis</i>          | red-tailed hawk                   |
| <i>Circus cyaneus</i>             | northern harrier                  |
| <b>Alaulidae</b>                  | <b>Larks</b>                      |
| <i>Eremophila alpestris</i>       | horned lark                       |
| <i>Sturnella neglecta</i>         | western meadowlark                |
| <b>Columbidae</b>                 | <b>Pigeons and Doves</b>          |
| <i>Zenaida macroura</i>           | mourning dove                     |
| <b>Corvidae</b>                   | <b>Jays and Crows</b>             |
| <i>Corvus brachyrhynchos</i>      | American crow                     |
| <i>Corvus corax</i>               | common raven                      |
| <b>Charadriidae</b>               | <b>Plovers</b>                    |
| <i>Charadrius Vociferous</i>      | killdeer                          |
| <b>Emberizidae</b>                | <b>Sparrows</b>                   |
| <i>Passerculus sandwichensis</i>  | savannah sparrow                  |
| <i>Zonotrichia leucophrys</i>     | white-crowned sparrow             |
| <b>Falconidae</b>                 | <b>Falcons</b>                    |
| <i>Falco sparverius</i>           | American kestrel                  |
| <b>Fringillidae</b>               | <b>True Finches</b>               |
| <i>Carpodacus mexicanus</i>       | house finch                       |
| <b>Hirundinidae</b>               | <b>Swifts and Swallows</b>        |
| <i>Stelgidopteryx serripennis</i> | northern rough-winged swallow     |
| <b>Mimidae</b>                    | <b>Mockingbirds and Thrashers</b> |
| <i>Mimus polyglottos</i>          | northern mockingbird              |
| <b>Parulida</b>                   | <b>Warblers</b>                   |
| <i>Setophaga coronata</i>         | yellow-rumped warbler             |
| <b>Passeridae</b>                 | <b>Old World Sparrows</b>         |
| <i>Passer domesticus</i>          | house sparrow                     |
| <b>Sturnidae</b>                  | <b>Starlings</b>                  |
| <i>Sturnus vulgaris</i>           | European starling                 |
| <b>Tyrannidae</b>                 | <b>Tyrant Flycatchers</b>         |
| <i>Sayornis nigricans</i>         | black phoebe                      |
| <i>Tyrannus vociferans</i>        | Cassin's kingbird                 |
| <i>Tyrannus verticalis</i>        | western kingbird                  |

## REFERENCES

County of Riverside. 2006. Burrowing Owl Survey Instructions for the Western Riverside County Multiple Species Habitat Conservation Plan Area (E.P. Department, ed), p. 4. Riverside, CA: County of Riverside.



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