August 15, 2019

Mr. Chase Keys, PE
City of Jurupa Valley
8930 Limonite Avenue
Jurupa Valley, CA 92509

**VIA EMAIL**
**ckeys@jurupavalley.org**

Subject: Results of a Burrowing Owl Survey for Limonite Avenue Widening - Bain to Homestead Project Site, City of Jurupa Valley, California

Dear Mr. Keys:

This Letter Report presents the results of a burrowing owl survey conducted for the Limonite Avenue Widening - Bain to Homestead Project (hereinafter referred to as "the project site"), located in the City of Jurupa Valley, California. The burrowing owl survey was conducted in accordance with the Burrowing Owl Survey Instructions for the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Area.

## PROJECT LOCATION AND DESCRIPTION

The approximately 9.4-acre project site is located along Limonite Avenue in the City of Jurupa Valley approximately 2.4 miles east of the I-15 Freeway and 1.0 mile west of Van Buren Avenue (Exhibit 1 and 2). The project site is split between the U.S. Geological Survey's (USGS') Corona North (to the west), and Riverside West (to the east) 7.5-minute quadrangle (Exhibit 3). The project site is located north of the Santa Ana River Public/Quasi-Public Conserved Lands. Topography on the project site is generally flat with elevations on the project ranging from approximately 650 feet above mean sea level (msl) with a slight raise in elevation at 698 msl in the east. Low density residential space, undeveloped fallow fields, and small livestock operations are located to the north of the project site. A golf course, wastewater treatment facility, and various other institutional and commercial properties are located to the south. The site is not located within an MSHCP Criteria Cell.

Vegetation and other areas on the project site consist of non-native grassland, ruderal, riparian scrub, ornamental/mulefat scrub, flood control channel, lined basin, disturbed, livestock feedyard, parks/ornamental, developed/ornamental, and developed.

## SURVEY METHODOLOGY

According to the MSHCP, surveys for burrowing owl are to be conducted as part of the environmental review process. The MSHCP Additional Surveys Needs and Procedures identify a specific burrowing owl survey area within the MSHCP Plan Area. The MSHCP also identifies species-specific objectives for burrowing owl, namely Species-Specific Objectives 5 and 6, both of which require burrowing owl surveys if suitable habitat occurs on a proposed project site.

Although the MSHCP references the California Department of Fish and Wildlife Staff Report (CDFW 2012), which is based on the Burrowing Owl Consortium Guidelines, the purpose of the burrowing owl survey protocol is to clarify the methods necessary to obtain sufficient information to address consistency with specific conservation requirements of the MSHCP as identified in Species-Specific Objective 5 and ensure direct mortality of burrowing owls is avoided through implementation of Species-Specific Objective 6 (Pre-construction surveys). Surveys conducted to address burrowing owl Species-Specific Objective 5 are necessary during the project design phase, while surveys to address Species-Specific Objective 6 are to be conducted just prior to project construction. Habitat assessments and burrowing owl surveys shall be conducted by a biologist knowledgeable in burrowing owl habitat, ecology, and field identification of the species and burrowing owl sign.

The MSHCP recommends that burrowing owl surveys are conducted during the breeding season March 1 through August 31 to describe if, when, and how the site is used by burrowing owls. Surveys shall be conducted in two parts: Part A includes focused burrow surveys and Part B includes focused burrowing owl surveys. Surveys should be conducted during weather that is conducive to observing owls outside their burrows and detecting burrowing owl sign. Surveys will not be accepted if they are conducted during rain, high winds (> 20 miles per hour [mph]), dense fog, or temperatures over 90 degrees Fahrenheit (°F). Part B surveys should be conducted in the morning one hour before sunrise to two hours after sunrise or in the early evening two hours before sunset to one hour after sunset. Focused burrowing owl surveys consist of site visits on four separate days. The first one may be conducted concurrent with the focused burrow survey. Pre-construction surveys shall be conducted within 30 days prior to ground disturbance to avoid direct take of burrowing owls, if any are present on the project site (MSHCP Species-Specific Objective 6).

As described above, the focused surveys for the burrowing owl include two components: (1) focused surveys to locate potentially utilized burrows and (2) focused surveys to locate burrowing owls. Details of both of these components follow below.

**Burrow Surveys**

Psomas Biologists Sarah Thomas conducted the focused burrow survey on April 13, 2019. The survey area included a 500-foot buffer area around the proposed development footprint (Exhibit 4). Where feasible (e.g. flat fields), the Biologist walked potentially suitable habitat in the survey area in transects spaced approximately 100 feet (30 meters) apart to achieve 100 percent visual coverage. Areas where access was not feasible were scanned with binoculars. The survey area was scanned for burrowing owl or sign of their presence (e.g., pellets, scat, prey remains, whitewash, decoration) using binoculars at the start of each transect and every 328 feet (100 meters). The weather conditions during the survey were suitable for bird activity and consisted of mild temperatures (i.e., 59 to 70°F) with wind speeds no more than 1 mph. Focused burrow survey conditions are summarized in Table 1.

Any natural or man-made cavities large enough to allow a burrowing owl to enter were inspected for evidence of occupation. Evidence of occupation may include prey remains, cast pellets, whitewash, feathers, and observations of owls adjacent to burrows. Binoculars were used to inspect burrows, crevices, and potential perches such as rocks, fence posts, and other elevated structures for the presence of this species. Any active, potentially active, or inactive burrows in the survey area were recorded in the field using handheld Global Positioning System (GPS) units. An active burrow is defined as a burrow with confirmed sign of active use (i.e., burrowing owl observed or fresh scat). A potentially active burrow is defined as a burrow that is structurally suitable for burrowing owl (with or without sign). An inactive burrow is one that appears old, is collapsing, and is structurally blocked so that an animal would need to physically modify the entrance to enter it. No burrows were altered during the burrow survey effort. The

dimensions of each burrow were recorded and are included in Attachment B, Table B-1. All wildlife observed were recorded in field notes and are also listed in Attachment B, Table B-2.

Burrows that were marked as potentially suitable during the survey underwent follow-up burrowing owl surveys to determine if the burrows were occupied (see methods below).

**TABLE 1**
**BURROW SURVEY CONDITIONS**

| Date | Personnel | Survey Type | Time Start/End | Temperature (°F) Start/End | Wind Speed (mph) Start/End | Cloud Cover (%)Start/End |
|---|---|---|---|---|---|---|
| 4/13/2019 | Sarah Thomas | Burrow Survey | 6:15 AM – 8:15 AM | 59/70 | 0–0/0–1 | 0/25 |

**Burrow Survey Results**

No active burrowing owl burrows were observed in the survey area; however, 4 potentially suitable burrows (or burrow complexes) were recorded (Exhibit 4). No burrowing owl or sign was observed at any of the potentially suitable burrows. Representative example photographs of portions of the survey area are included in Attachment A.

**Burrowing Owl Survey**

The burrowing owl survey was conducted following Part B of the survey methods in the Western Riverside County MSHCP (RCA 2004). The MSHCP recommends crepuscular surveys (i.e., occurring near dawn and dusk) to increase the potential of detecting an active burrowing owl. The purpose of this survey was to identify any active burrowing owl burrows within study area per the requirements in the MSHCP.

Psomas Biologist Sarah Thomas conducted the burrowing owl surveys on April 13 and 27; May 13; and June 20, 2019. The survey area included a 500-foot buffer area around the proposed impact area (Exhibit 4). The Biologist walked the survey area in transects spaced approximately 100 feet (30 meters) apart to achieve 100 percent visual coverage. Areas where access was restricted to the north and south of Limonite were scanned with binoculars. The survey area was scanned for burrowing owl or sign of their presence (e.g., pellets, scat, prey remains, whitewash, decoration) using binoculars at the start of each transect and every 328 feet (100 meters). The surveys were conducted between one hour before sunrise and up to two hours afterward. The weather conditions during the survey were suitable for bird activity and consisted of mild temperatures (i.e., 55 to 76°F) with wind speeds no more than 3 mph.

As stated above, any natural or man-made cavities large enough to allow a burrowing owl to enter were inspected for evidence of occupation and mapped. Evidence of occupation may include prey remains, cast pellets, whitewash, feathers, and observations of owls adjacent to burrows. Binoculars were used to inspect burrows, crevices, and potential perches such as rocks, fence posts, and other elevated structures for the presence of this species. Any active burrows with either the presence of burrowing owls or sign in the survey area would have been recorded in the field using handheld GPS units. No burrows were altered during the burrowing owl survey effort. All wildlife observed were recorded in field notes and are also listed in Attachment B (Table B-2). Survey conditions during the burrowing owl surveys are shown in Table 2.

**TABLE 2**
**BURROWING OWL SURVEY CONDITIONS**

| Date | Personnel | Survey Type | Time Start/End | Temperature °Fahrenheit Start/End | Wind Speed (miles per hour) | Start/End Cloud Cover (%) |
|---|---|---|---|---|---|---|
| 4/13/2019 | Sarah Thomas | Crepuscular BUOW (Morning) Survey 1 | 6:15 AM – 9:00 AM | 59/75 | 0–0/0–1 | 0/25 |
| 4/27/2019 | Sarah Thomas | Crepuscular BUOW (Morning) Survey 2 | 6:00 AM – 9:00 AM | 60/75 | 0–0/0–1 | 100/100 |
| 5/13/2019 | Sarah Thomas | Crepuscular BUOW (Morning) Survey 3 | 5:45 AM – 8:45 AM | 55/73 | 0–0/0–0 | 100/100 |
| 6/20/2019 | Sarah Thomas | Crepuscular BUOW (Morning) Survey 4 | 5:30 AM – 7:30 AM | 64/70 | 0–1/1–3 | 50/75 |

## Burrowing Owl Survey Results

No burrowing owls or owl sign was observed in the survey area (Exhibit 4). No special status species were observed during the survey within the survey area.

Psomas appreciates the opportunity to assist on this project. If you have any comments or questions, please contact Sarah Thomas at Sarah.Thomas@psomas.com or (626) 351–2000.

Sincerely,
PSOMAS

Ann M. Johnston
Vice President/Principal, Resource Management

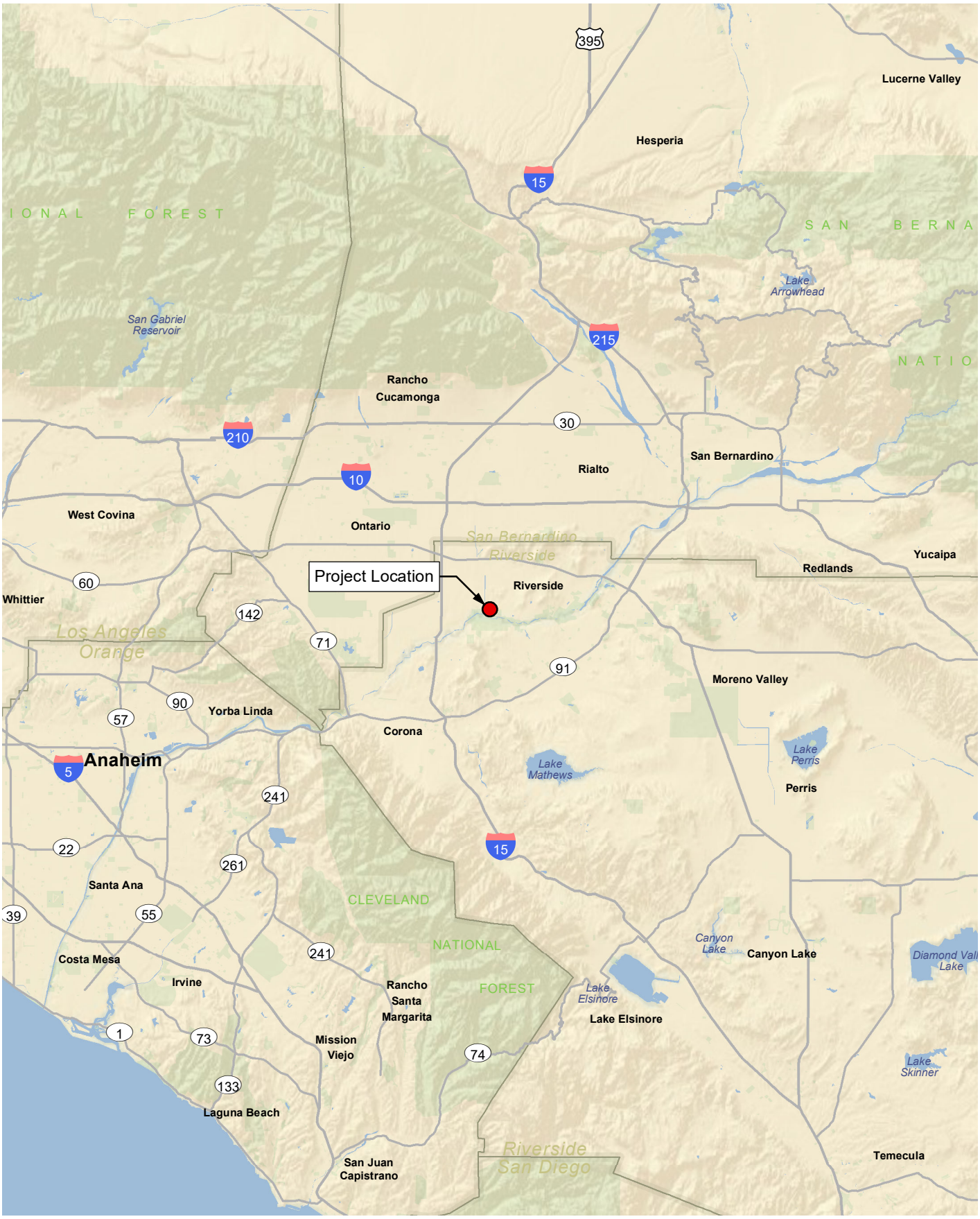
Sarah Thomas
Biologist

Enclosures: Exhibit 1 – Project Location
Exhibit 2 – Project Location
Exhibit 3 – USGS 7.5–Minute Digital Quadrangle
Exhibit 4 – Results of Burrow Survey and Burrowing Owl Survey
Attachment A – Site Photographs
Attachment B – Burrow Details and Wildlife Observed

**REFERENCES**

California Department of Fish and Wildlife (CDFW). 2012 (May 7). *Staff Report on Burrowing Owl Mitigation*. Sacramento, CA: CDFW.

Western Riverside County Regional Conservation Authority (RCA). 2004 (May 11). *Western Riverside County Multiple Species Habitat Conservation Plan*. Riverside, CA: RCA.

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# Regional Location

Exhibit 1

*Limonite Avenue Widening Project - Bain Street to Homestead Street*

N
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S

10 5 0 10

Miles

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# Local Vicinity

Exhibit 2

*Limonite Avenue Widening Project - Bain Street to Homestead Street*

N W E S

1,500 750 0 1,500 Feet

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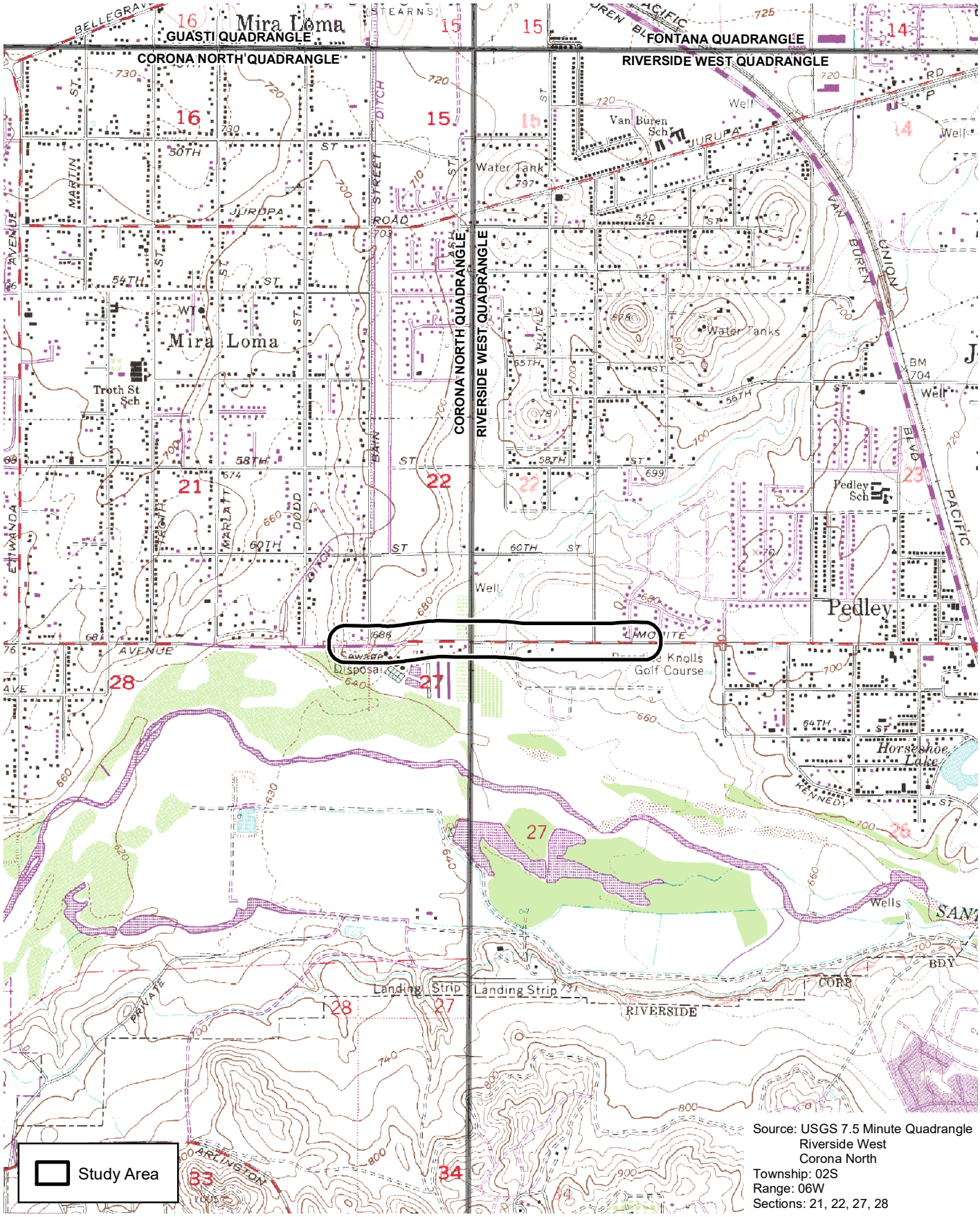


Source: USGS 7.5 Minute Quadrangle
Riverside West
Corona North
Township: 02S
Range: 06W
Sections: 21, 22, 27, 28

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# USGS 7.5-Minute Digital Quadrangle

Exhibit 3

*Limonite Avenue Widening – Bain to Homestead Project*

N W E S

2,000 1,000 0 2,000 Feet

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# Survey Area

*Limonite Avenue Widening Project - Bain Street to Homestead Street*

Exhibit 4

N W E S

300 150 0 300 Feet

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**ATTACHMENT A**

**SITE PHOTOGRAPHS**

Photo of fallow field overgrown with mustard, in the northeastern portion of the survey area, facing shouthwest.

Photo of the Project impact area near the intersection of Beach Street and Limonite Avenue showing fallow field in the foreground and the golf course in the distance, facing south.

# Representative Site Photographs

Attachment A-1

*Limonite Avenue Widening Project - Bain Street to Homestead Street*

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Photo taken from Limonite Avenue in the impact area in the western portion of the Project site showing field with tumbleweeds, facing northeast.

Photo of the impact area in the center of the Project site north of Limonite Avenue, facing northwest.

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## Representative Site Photographs

## Attachment A-2

*Limonite Avenue Widening Project - Bain Street to Homestead Street*

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Photo of the flood control facility in the southwestern portion of the Project site where potential burrowing owl burrows occur, facing southeast.

Photo of an equestrian trail within a fallow field in the southwestern portion of the Project site, facing southwest.

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# Representative Site Photographs

Attachment A-3

*Limonite Avenue Widening Project - Bain Street to Homestead Street*

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# ATTACHMENT B

# BURROW DETAILS AND WILDLIFE OBSERVED

**TABLE B-1**
**BURROW DETAILS**

| Burrow ID | No. of Entrances | Easting | Northing | Approximate Burrow Dimensions (Width [cm] Height [cm] Length [cm]) | Status | General Location | Notes |
|---|---|---|---|---|---|---|---|
| 1 | 1 | 453314 | 3759417 | 10 x 10 x 20+ | Potential Burrow | Buffer of impact area; south of Limonite at Bain St.; in edge of debris basin | Small mammal burrow |
| 2 | 1 | 453317 | 3759436 | 10 x 10 x 25 | Potential Burrow | Buffer of impact area; south of Limonite at Bain St.; in edge of debris basin | Small mammal burrow |
| 3 | 1 | 453302 | 3759614 | 6 x 15 x 18 | Potential Burrow | Buffer of impact area; north of Limonite at Bain St.; upslope of flood control channel | Small mammal burrow |
| 4 | Multiple cavities | 453315 | 3759441 | 14 x 16 x 45 (largest) | Potential Burrows | Buffer of impact area; south of Limonite at Bain St.; in edge of debris basin | Large complex of rock rip rap with multiple cavities (UTMs are center point of complex) |

## WILDLIFE OBSERVED DURING SURVEYS

| Species | |
|---|---|
| **Scientific Name** | **Common Name** |
| **BIRDS** | |
| COLUMBIDAE - PIGEON AND DOVE FAMILY | |
| *Columba livia** | rock pigeon |
| *Zenaida macroura* | mourning dove |
| TROCHILIDAE - HUMMINGBIRD FAMILY | |
| *Calypte anna* | Anna's hummingbird |
| *Selasphorus rufus* | rufous hummingbird |
| CHARADRIIDAE - PLOVER FAMILY | |
| *Charadrius vociferus* | killdeer |
| ARDEIDAE - HERON FAMILY | |
| *Ardea herodias* | great blue heron |
| *Butorides virescens* | green heron |
| ACCIPITRIDAE - HAWK FAMILY | |
| *Buteo jamaicensis* | red-tailed hawk |
| PICIDAE - WOODPECKER FAMILY | |
| *Picoides nuttallii* | Nuttall's woodpecker |
| TYRANNIDAE - TYRANT FLYCATCHER FAMILY | |
| *Sayornis saya* | Say's phoebe |
| *Tyrannus vociferans* | Cassin's kingbird |
| CORVIDAE - JAY AND CROW FAMILY | |
| *Corvus brachyrhynchos* | American crow |
| HIRUNDINIDAE - SWALLOW FAMILY | |
| *Stelgidopteryx serripennis* | northern rough-winged swallow |
| PASSERIDAE - OLD WORLD SPARROW FAMILY | |
| *Passer domesticus** | house sparrow* |
| FRINGILLIDAE - FINCH FAMILY | |
| *Haemorhous mexicanus* | house finch |
| *Spinus psaltria* | lesser goldfinch |
| PASSERELLIDAE - NEW WORLD SPARROW FAMILY | |
| *Melozone crissalis* | California towhee |
| *Melospiza melodia* | song sparrow |
| ICTERIDAE - BLACKBIRDS AND ORIOLES | |
| *Icterus cucullatus* | hooded oriole |
| CARDINALIDAE - CARDINALS AND ALLIES | |
| *Pheucticus melanocephalus* | black-headed grosbeak |
| * Non-native species | |