Appendix 5.3-2 Burrowing Owl Surveys

Appendices

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July 27, 2021

Mr. Loren Williams
Universal Health Services Inc.
367 South Gulph Road
King of Prussia, PA 19406

Reference: Western Burrowing Owl Surveys for the Inland Valley Medical Center Project
(RECON Number 9790)

Dear Mr. Williams:

This letter summarizes the results of western burrowing owl (*Athene cunicularia hypugaea*) surveys conducted for the Inland Valley Medical Center Project (project). RECON Environmental, Inc. (RECON) performed a habitat assessment and four focused survey visits as required per the Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan (MSHCP) Area (survey guidelines; Western Riverside County Regional Conservation Authority [WRCRCA] 2006). Project location, burrowing owl species and historical occurrence information, survey methods, and results are discussed in detail below. Neither burrowing owl nor suitable burrows were detected within the project survey area during the surveys.

PROJECT LOCATION AND DESCRIPTION

The project is located in the city of Wildomar, within Section 6, Township 07 South, Range 03 West of the U.S. Geological Survey (USGS) 7.5-minute topographic map, Murrieta quadrangle (Figures 1 and 2; USGS 1979). It is situated immediately northeast of Interstate 15 (I-15) and west of Inland Valley Drive (Figure 3), and includes assessor's parcel numbers 380-250-009, 380-250-026, 380-250-027, 380-260-001, 380-260-029, and 380-260-037, plus a small area of road improvements adjacent to those parcels. The site is not located inside or adjacent to any Criteria Area, Criteria Cell, or Conservation Area identified for conservation potential by the MSHCP; however, portions of the project site and surrounding areas are located within a MSHCP western burrowing owl survey area (WRCRCA 2003; see Figure 3).

The project would expand the existing Inland Valley Medical Center with a new 100-bed, 232,000-square-foot addition to the hospital that includes expansion of all services, bringing the campus total to 202 beds and 298,925 square feet. The project would include construction of a new tower and demolition and replacement of one existing medical building. A new Central Utility Plant would serve the expanded hospital operations. In addition, new surface parking lots would be installed to accommodate the increased capacity. The hospital would remain operational during construction.

WESTERN BURROWING OWL SPECIES DESCRIPTION

Burrowing owl is a California Department of Fish and Wildlife (CDFW) species of special concern. Western burrowing owl, the western subspecies, is primarily restricted to the western United States and Mexico. Studies conducted by Ruhlen et al. (2004) show that the density and abundance of this species within the Imperial Valley is exceptionally high compared to other areas in southern California.

Project Location

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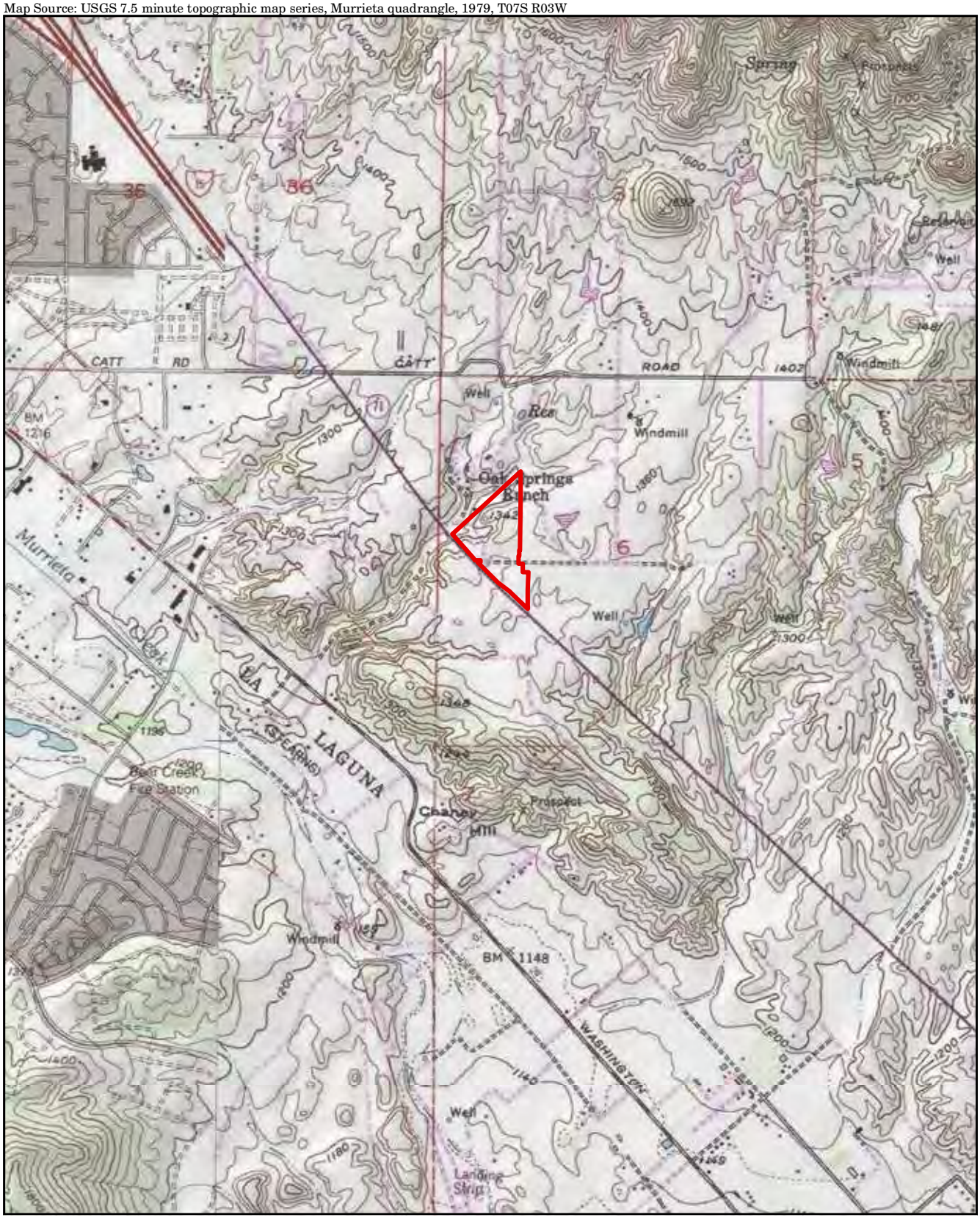
FIGURE 1
Regional Location

Map Source: USGS 7.5 minute topographic map series, Murrieta quadrangle, 1979, T07S R03W



Project Boundary

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FIGURE 2
Project Location on USGS Map

Image Source: Nearmap (flown January 2021)

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FIGURE 3

Project Location on Aerial Photograph

Habitat for the western burrowing owl includes dry, open, low-growing grasslands, deserts, and scrublands with level to gently sloping topography and well-drained soils (CDFW 2012). These areas are also often associated with burrowing mammals (Haug et al. 1993). Irrigation canals, ditches, and drains immediately adjacent to agricultural fields are also commonly used as nesting sites (Ruhlen et al. 2004). Western burrowing owl commonly occupies burrows with a diameter of at least 4.3 inches (CDFW 2012), particularly those dug by California ground squirrel (*Otospermophilus beecheyi*). In addition, western burrowing owl is known to use rubbish piles and other man-made structures with suitably sized crevices. The species is known to use multiple burrows in addition to their nesting burrows called "satellite" burrows. These non-nesting burrows are used to seek protection from predators and for roosting during the non-breeding season (CDFW 2012).

Western burrowing owl is diurnal and typically perches during daylight at the entrance to its burrow or on adjacent structures, such as low posts. Nesting typically occurs from March through August. Western burrowing owl breeding pairs form a bond for more than one year and exhibit high site fidelity, reusing the same burrow year after year (Haug et al. 1993). The female remains inside the burrow during most of the egg laying and incubation period and is fed by the male throughout brooding. Western burrowing owl is an opportunistic feeder, consuming a diet that includes arthropods, small mammals, birds, and occasionally amphibians and reptiles (Haug et al. 1993).

Urbanization has greatly reduced the amount of suitable habitat for the western burrowing owl. Other contributions to the decline of this species include the poisoning of fossorial mammals, road and ditch maintenance, and collisions with automobiles (CDFW 2012).

The western burrowing owl survey was performed in accordance with the survey guidelines (WRCRCA 2006) and included a habitat assessment (Step I) and focused burrow survey (Step II).

STEP I – HABITAT ASSESSMENT

Habitat Assessment Methods

The habitat assessment began with a review of relevant biological information to provide local and regional context, and to document known occurrences of the species in the project vicinity. This analysis included a record search of the California Natural Diversity Database (CNDDB; CDFW 2020) and eBIRD (http://ebird.org) databases, as well as USGS topographic maps (USGS 1979), soils survey maps (U.S. Department of Agriculture 1971), and online aerial satellite imagery (Google Inc. 2020).

RECON Biologist Andrew Smisek conducted a western burrowing owl habitat assessment on October 21, 2020 between 12:00 p.m. and 1:15 p.m. Weather conditions during the survey were mild and warm, with a temperature of approximately 83 degrees Fahrenheit, 1- to 3-mile-per-hour wind, and no cloud cover. The habitat assessment was conducted in accordance with Step I of the survey guidelines (WRCRCA 2006).

The area investigated in the habitat assessment included the project area plus suitable habitat within 150 meters (500 feet) and totaled approximately 95.56 acres (see Figure 3). The habitat assessment was conducted on foot, using binoculars, to inspect areas on inaccessible private property. During the assessment, Mr. Smisek analyzed vegetation types and structure; land use; presence or absence of friable soils, burrows, and/or burrow complexes; topography; hydrological features; and presence or absence of burrowing owl sign. Areas considered unsuitable included developed areas, dense Riversidean sage scrub, and woodland and riparian habitats.

Habitat Assessment Results

No western burrowing owls or evidence of owl activity (e.g., active burrows, whitewash, feathers, pellets, or bones) were detected during the habitat assessment. However, the habitat assessment identified five areas

of suitable habitat for western burrowing owl within the survey area, as discussed below and shown on Figure 4.

Survey Area 1. A 3.45-acre patch of disturbed land in the southern tip of the project site and extending northwest along the freeway edge. Representative views of the habitat conditions in this area are shown in Attachment 1, Photographs 1 and 2.

Survey Area 2. Two patches of disturbed land and mowed Riversidean sage scrub totaling 2.41 acres east of Inland Valley Drive. These areas are across the street from the developed portions of the existing hospital. They are situated a minimum of 1,000 feet north of the suitable habitat on-site in Survey Area 1. Representative views of the habitat conditions in this area are shown in Attachment 1, Photographs 3 and 4.

Survey Area 3. A 2.27-acre patch land consisting of disturbed habitat and a maintained detention basin associated with an apartment complex. This patch lies approximately 300 feet north of the northern edge of the hospital property, across the riparian canyon. In addition, this area is approximate 1,150 feet north of, and on the other side of the existing hospital from the suitable habitat on-site. A representative view of the habitat conditions in this area is provided in Attachment 1, Photograph 5.

Survey Area 4. A 7.23-acre graded pad with disturbed habitat located to the west of Inland Valley Drive. This patch is approximately 325 feet north of the northern edge of the project site and separated from the site by a canyon with tall riparian trees. In addition, this area is approximately 1,000 feet north of, and on the other side of the existing hospital from the suitable habitat on-site. This area was on private property and was not directly accessible. Therefore, it was inspected from the project site and the edge of Inland Valley Drive with the use of binoculars. Representative views of the habitat conditions in this area are shown in Attachment 1, Photographs 6 and 7.

Survey Area 5. A long stretch of disturbed habitat and totaling 6.27 acres west of I-15. This patch is approximately 300–400 feet west of the suitable habitat on-site and is separated from the site by a busy freeway. It was inaccessible due to the presence of private property and could only be viewed from the project site with the use of binoculars. A representative view of the habitat conditions in this area is provided in Attachment 1, Photograph 8.

Based on the presence of suitable habitat, surveys in accordance with Step II of the survey guidelines were determined necessary, as described below.

STEP II, PART A – FOCUSED BURROW SURVEY

Focused Burrow Survey Methods

Based on the presence of suitable habitat within the survey area, a focused burrow survey was conducted by RECON biologist Brian Parker on March 20, 2021 between 6:05 a.m. and 8:45 a.m., in accordance with Step II of the survey guidelines (WRCRCA 2006). Weather conditions during the survey were cool, with temperatures between 51 and 52 degrees Fahrenheit, wind between 2 and 4 miles per hour, and cloud cover decreasing from 100 to 90 percent.

All accessible areas of suitable habitat identified during the habitat assessment were surveyed for the presence of suitable burrows. Mr. Parker walked meandering transects through the habitat, with transects spaced between 30 and 50 feet apart. Notes were taken on avian activity, natural burrows, manufactured structures suitable for western burrowing owl, and any other information relevant to owl presence (e.g., whitewash, feathers, pellets, or bones). Areas of private property (Survey Areas 4 and 5 discussed above) were not directly accessible and could only be viewed from a distance on the project site or public rights-of-way with the use of binoculars.

Image Source: Nearmap (flown January 2021)

Project Boundary

Habitat Assessment Area

Survey Area

Photo Point

FIGURE 4

Western Burrowing Owl
Habitat Survey Results

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Photographs were taken to document habitat conditions and examples of burrows found during the survey.

Focused Burrow Survey Results

A total of 14 bird species were detected during the focused burrow survey; no western burrowing owls were detected. A list of species detected is presented below:

Scientific Name	Common Name
Corvus brachyrhynchos	American crow
Calypte anna	Anna's hummingbird
Tyrannus vociferans	Cassin's kingbird
Melospiza melodia	song sparrow
Sayornis nigricans	black phoebe
Haemorhous mexicanus	house finch
Thryomanes bewickii	Bewick's wren
Accipiter cooperii	Cooper's hawk (flyover)
Chamaea fasciata	wrentit
Spinus psaltria	lesser goldfinch
Melanerpes formicivorus	acorn woodpecker
Callipepla californica	California quail
Geothlypis trichas	common yellowthroat
Larus sp.	gull

A summary of the findings of the focused burrow survey for each survey area is presented below.

Survey Area 1. This area was characterized by a disturbed, previously graded area to the south of the hospital. Numerous small burrows with diameters of approximately 1 to 3 inches were found in this area, including a large cluster of burrows adjacent to the parking lot. Most of the burrows appeared to be from Botta's pocket gopher (*Thomomys bottae*); however, it is possible some of the burrows in this area were very small California ground squirrel burrows. No burrows in this area were suitable for western burrowing owl. Representative burrows are shown in Survey Area 1 are shown on Attachment 2, Photo Points 1 and 2 (see Figure 4).

Survey Area 2. This area consisted of two patches of disturbed habitat and mowed Riversidean sage scrub east of Inland Valley Drive. Vegetation in this area was low and open (see Attachment 1, Photographs 3 and 4) and contained a small number of 1- to 3-inch diameter burrows (Attachment 2, Photo Points 3 through 5; see Figure 5). All burrows in this area were too small to be suitable for use as owl burrows.

Survey Area 3. This area consisted of a graded, disturbed lot with a homeless encampment, and a detention basin that was landscaped, irrigated, and maintained. The detention basin was within a fenced lot associated with the adjacent Oak Springs Ranch apartment complex. Direct access to the detention basin was not possible; however, the ground was largely visible from the surrounding fence line. No burrows of any kind were found in either the disturbed lot or detention basin.

Survey Area 4. This area was on a graded lot associated with the Oak Springs Ranch apartment complex. It was not directly accessible and visibility of the lot within the 500-foot survey area was extremely limited by slopes and dense, tall trees. The nearest viewpoint of this lot was from Inland Valley Road approximately 225 feet northeast of the northern edge of the survey area. Based on this view, the habitat appeared suitable, but no burrows of any kind were observed. Habitat in this area appeared suitable; however, as noted above, it is located approximately 1,000 feet north of suitable habitat on-site (Survey Area 1) and separated from the suitable habitat by the existing hospital and a canyon with tall riparian trees.

Survey Area 5. This area was on private property with access restricted by gated roads through additional private property. The nearest viewpoint of this area was the hospital parking lot, approximately 340 feet to the east, across I-15. While the habitat in this area appeared suitable, it was not possible to detect any burrows.

As noted above, Survey Areas 1 through 3 were directly accessible and were surveyed on foot while Areas 4 and 5 were inaccessible and could only be surveyed from a distance. The two inaccessible areas are separated from suitable habitat on-site by a large canyon with a tall riparian corridor (Survey Area 4) or a busy freeway (Survey Area 5), both of which provide barriers for western burrowing owl.

Numerous small rodent burrows were found during the burrow survey, but no owl sign (e.g., active burrows, whitewash, feathers, pellets, or bones) was detected. All burrows found during the burrow survey were smaller (1 to 3 inches in diameter) than typical California ground squirrel burrows (4 inches). In addition, all the observed burrows were too small for western burrowing owl.

CONCLUSION

Suitable habitat was identified during the habitat assessment; however, no western burrowing owls, owl sign, or suitable burrows were detected during the focused burrow survey. Based on the results of these surveys, additional surveys per Step II, Part B are not required (WRCRCA 2006). However, due to the presence of suitable habitat on-site, a pre-construction survey will be required within 30 days prior to ground disturbance to ensure no burrowing owls have entered the site. The survey will include all areas of suitable habitat is present within the project site (Survey Area 1; see Figure 4).

If you have any questions concerning the contents of this letter, please contact me at bparker@reconenvironmental.com or (619) 308-9333 extension 109.

Sincerely,

Brian Parker
Associate Project Manager/Biologist

BDP:jg

REFERENCES CITED

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U.S. Geological Survey (USGS)
1979 Murrieta quadrangle 7.5-minute topographic map.

Western Riverside County Regional Conservation Authority (WRCRCA)
2006 Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area.

ATTACHMENTS

ATTACHMENT 1

Photos of Suitable Habitat

PHOTOGRAPH 1
View of Central Portion of Survey Area 1, Facing North

PHOTOGRAPH 2
View of Western Portion of Survey Area 1, Facing Southeast along I-15

PHOTOGRAPH 3
View Southern Portion of Survey Area 2, Facing Northeast

PHOTOGRAPH 4
View Northern Portion of Survey Area 2, Facing South Along Inland Valley Drive

PHOTOGRAPH 5
View of Survey Area 3, Facing North Toward Detention Basin

PHOTOGRAPH 6
View of Survey Area 4, Facing West from Inland Valley Drive

PHOTOGRAPH 7
View of Survey Area 4, Facing North Across Canyon from Northern Edge of Hospital Property

PHOTOGRAPH 8
View of Survey Area 5, Facing West Across I-15 from Survey Area 1

ATTACHMENT 2

Photos of Typical Burrows Observed During Survey

PHOTO POINT 1
Typical Burrow in Survey Area 1,
with Burrow Diameter of Approximately 2.5 Inches

PHOTO POINT 2
View of Burrow Complex in Northwestern Portion of Survey Area 1,
with Burrow Diameters Between 1 and 3 Inches

PHOTO POINT 3
View of Burrow in Southwestern Portion of Survey Area 2,
with Burrow Diameter of Approximately 1.5 Inches

PHOTO POINT 4
View of Burrow in Southeastern Portion of Survey Area 2,
with Burrow Diameter of Approximately 2.5 Inches

PHOTO POINT 5
View of Burrow in Northern Portion of Survey Area 2,
With Burrow Diameter of Approximately 2 Inches