

Appendix 2B
Focused Burrowing Owl Survey

Sunset Crossings Residential Project
Initial Study

November 2, 2022

JN 184659

HIGHPOINTE COMMUNITIES

Attn: Ross Yamaguchi
530 Technology Dr, #100
Irvine, California 92618

SUBJECT: Results of Focused Burrowing Owl (*Athene cunicularia*) Surveys for Sunset Crossing TTM 38442 – City of Moreno Valley, Riverside County, California

Dear Mr. Yamaguchi:

This report contains the findings of Michael Baker International's (Michael Baker) focused burrowing owl (*Athene cunicularia*; [BUOW]) surveys conducted during the 2022 breeding season for Sunset Crossing TTM 38442 (project) located in the City of Moreno Valley, Riverside County, California. Based on the results of Michael Baker's initial review of California Natural Diversity Database RareFind 5 (CDFW 2022) occurrence records, the project site is located within an area that is or was previously known to be occupied by BUOW and likely provides suitable nesting and foraging habitat. As such, focused BUOW surveys were conducted in accordance with the *Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area* (RCA 2006). The focused BUOW surveys were conducted on four (4) separate days during the 2022 breeding season to document the presence/absence of BUOW within the project site and areas of suitable habitat within 500 feet (survey area).

Project Location

The project site is located within the City of Moreno Valley, generally to the north of Perris Reservoir, east of Interstate 215 (I-215), south of State Route 60 (SR-60), and west of SR-79 (refer to Figure 1, *Regional and Project Vicinity*). The project site is depicted in Section 10, Township 3 South, Range 3 West, on the United States Geological Survey's (USGS) *Sunnymead, California 7.5-minute quadrangle*. Specifically, the project site is located north of Alessandro Boulevard, south of Bay Avenue, west of Marion Road, and east of Nason Street on assessor's parcel numbers (APN) 488-210-020 and 488-210-006.

Project Description

The proposed project includes the development of up to 108 residential units, a water basin, a park, and road construction on 19.10 acres.

Background

Burrowing Owl

The BUOW is a grassland specialist distributed throughout western North America, where it is known to occupy a wide variety of arid and semi-arid open areas within shrub, desert, and grassland environments. The California Department of Fish and Wildlife (CDFW) currently lists the BUOW as a California Species of Special Concern. BUOWs require large open, sparsely vegetated areas, on rolling or level terrain with an abundance of fossorial mammal burrows (> 4 inches in diameter). In addition, BUOWs require low-growing vegetation allowing line-of-sight of the surrounding habitat to forage as well as watch for predators. BUOWs are dependent upon the presence of burrowing mammals (e.g., California ground squirrel [*Otospermophilus beecheyi*], coyote [*Canis latrans*], American badger [*Taxidea taxus*]) whose burrows are used for roosting and nesting (Haug et al. 1993). The presence or absence of fossorial mammal burrows is often a major factor that limits the presence or absence of BUOW. Where mammal burrows are scarce, BUOWs have been observed digging their own burrows in soft, friable soil and have been observed utilizing man-made cavities such as buried and non-functioning drain pipes, stand-pipes, and dry culverts. Additionally, BUOWs may burrow beneath rocks and debris or large, heavy objects such as abandoned cars, concrete blocks, or concrete pads. Large, hard objects at burrow entrances stabilize the entrance from collapse and may inhibit excavation by predators.

Adult BUOWs are small owls (approximately 7.5 to 9.8 inches) with long legs and short tails that are speckled brown and white, with yellow eyes and a yellow bill. A bold white throat and eyebrows are also typical distinguishing features for BUOWs. Juvenile BUOWs are usually less mottled than adults, with buffy-yellow underparts. BUOWs have crepuscular (dawn and dusk) hunting habits but are often observed perched in or near the burrow entrance during the day. One burrow is typically selected for use as the main nest burrow, however, BUOWs also utilize satellite burrows that are often located within the immediate vicinity of the main nest burrow. BUOWs prey upon invertebrates and small vertebrates through the low growing vegetation which allows for foraging visibility (Thomsen 1971). They typically forage in short-grass, mowed, or overgrazed pasture, golf courses and airports (Thomsen 1971). Based on the *Staff Report on Burrowing Owl Mitigation* (CDFG 2012), the BUOW breeding season in California extends from February 1 through August 31. BUOWs in California may migrate southerly, but often remain in their breeding area during the non-breeding months. The BUOW was once abundant and widely distributed within southern California, but it has declined precipitously in counties such as Los Angeles, Orange, San Diego, Riverside, and San Bernardino.

Regulatory Framework

The BUOW is a resident and migratory bird species protected by international treaty under the Migratory Bird Treaty Act (MBTA) of 1918. The MBTA reflects agreements made between the U.S., England, Mexico, the former Soviet Union, and Japan to protect all of North America's migratory bird populations. The MBTA protects migratory bird nests from possession, sale, purchase, barter, transport, import and export, and collection. The other prohibitions (i.e., capture, pursue, hunt, and kill) of the MBTA are inapplicable to nests. The regulatory definition of take, as defined in Title 50 Code of Federal Regulations (C.F.R.) Part 10.12, means to pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to hunt, shoot, wound, kill, trap, capture, or collect. Only the verb "collect" applies to nests. It is illegal to collect, possess, and by any means transfer possession of any migratory bird nest. The MBTA prohibits the

destruction of a nest when it contains birds or eggs, and no possession shall occur during the destruction (U.S. Fish and Wildlife Service 2017). Certain exceptions to this prohibition are included in Title 50 C.F.R. Section 21. Pursuant to Section 3513 of the California Fish and Game Code (CFGF), CDFW enforces the MBTA consistent with rules and regulations adopted by the Secretary of the Interior under provisions of the MBTA.

Additionally, BUOW is protected under Sections 3503, 3503.3, 3511, and 3513 of the CFGF which prohibit the take, possession, or destruction of birds, their nests or eggs. Implementation of the take provisions requires that project-related disturbance at active nesting territories be reduced or eliminated during critical phases of the nesting cycle (March 1 - August 15, annually). Section 3503.5 of the CFGF protects birds in the orders Falconiformes or Strigiformes (birds of prey, such as hawks and owls, including BUOWs) which makes it unlawful to take, possess, or destroy their nest or eggs.

The *Staff Report on Burrowing Owl Mitigation* (CDFG 2012) offers long-term assurances for conservation of this species in exchange for biologically appropriate levels of incidental take and/or habitat loss as defined in the approved plan. California's Natural Community Conservation Plan (NCCP) Act (CFGF §2800 *et seq.*) governs such plans at the state level, and was designed to conserve species, natural communities, ecosystems, and ecological processes across a jurisdiction or a collection of jurisdictions. Complementary Habitat Conservation Plans (HCPs) are governed by the federal endangered Species Act (7 U.S.C. § 136, 16 U.S.C. § 1531 *et seq.*). Regional conservation plans (and certain other landscape-level conservation and management plans), may provide conservation for unlisted as well as listed species. Because the geographic scope of NCCPs and HCPs may span many hundreds of thousands of acres, these planning tools have the potential to play a significant role in conservation of BUOWs.

BUOWs have been included as one of the one hundred and forty-six (146) focal species covered by the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). The objectives for BUOWs within the MSHCP are to maintain and ensure the conservation of occupied burrows on current conserved lands, decrease harmful effects to BUOWs, and identify and implement monitoring and management to sustain the BUOW population within the MSHCP. BUOWs can be found in a variety of habitats within the MSHCP, predominantly on open land, including grassland, agriculture (e.g., dry-land farming and grazing areas), playa, and sparse coastal sage scrub and desert scrub habitats. Within the MSHCP, BUOWs are narrowly distributed at relatively few locations where suitable habitat is present.

Methodology

As documented in the Habitat Assessment and Western Riverside County Multiple Species Habitat Conservation Plan Consistency Analysis (Michael Baker 2022), the project site is located within a designated survey area for BUOW as identified in the MSHCP and also provides suitable habitat and foraging opportunities for BUOW. As such, focused BUOW surveys were conducted by qualified biologists Lauren Mapes, Ryan Winkleman, April Nakagawa, and Tom Millington on four (4) separate days during the 2022 breeding season: April 12, May 31, June 14, and June 28, 2022. Please refer to Table 1 below for a summary of the survey dates, timing, surveyors, and weather conditions for each of the surveys.

Table 1: Survey Dates, Timing, Surveyors, and Weather Conditions

Date	Time (start / finish)	Surveyors	Temperature (°F) (start / finish)	Average Wind Speed (mph)
April 12, 2022	0630 / 0750	LM, RW	57 clear skies / 63 sunny	2 – 3
May 31, 2022	0700 / 0815	LM, AN	58 clear skies / 71 sunny	2 – 4
June 14, 2022	0700 / 0800	LM, AN, TM	63 sunny / 73 sunny	0 – 2
June 28, 2022	0700 / 0800	LM, AN	74 sunny / 80 sunny	0 – 2
*RW = Ryan Winkleman, LM = Lauren Mapes, TM = Tom Millington, AN = April Nakagawa				

The BUOW focused surveys were conducted during the 2022 breeding season (February 1 through August 31) in accordance with the survey guidelines and protocols provided in the *Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area* (RCA 2006). Areas providing suitable habitat for BUOWs within the survey area were surveyed for suitable, occupied, and remnant burrows consisting of natural and non-natural substrates (refer to Figure 2, *Survey Area*, in Attachment A). Survey transects were conducted at 10-meter (approximately 33 feet) intervals to ensure 100% visual coverage of all areas in suitable habitat, as applicable based on-site topography, and access. Binoculars were used to scan areas that were inaccessible due to lack of right-of-entry to observe and identify distant birds; identify any suitable, occupied, and remnant burrows consisting of natural and non-natural substrates; and search for any activity around suitable BUOW habitat. Methods to detect the presence of BUOWs included direct observation, aural detection, and signs of presence (i.e., pellets, white wash, feathers, or prey remains). The location of all suitable habitat, potential burrows, sign, and BUOWs observed within the survey area were recorded and mapped, with a hand-held Global Positioning System (GPS) unit. Surveys were not conducted during rain, high winds, dense fog, or high temperatures. All BUOW focused surveys were conducted between morning civil twilight and 1000 hours.

Results

Existing Conditions

After a review of Google Earth historic imagery and results from the field survey, it was determined that the survey area is comprised of developed land and areas of disturbed habitat and bare ground which consist of heavily disturbed/compacted soils. Google Earth historic imagery from 1985 through 2021 also shows that the survey area has continually been exposed to disturbances due to routine weed abatement activities (i.e., disking, tilling) throughout the undeveloped portions of the survey area and that these activities have eliminated any natural vegetation communities. Vacant land is present in patches to the north, south, and east of the survey area. Residential land use is located along the west, northwest, and northeast boundary of the survey area. Additionally, commercial uses were currently being built near the northwestern boundary of the project site at the time of the surveys. Please refer to Attachment B for representative photographs taken throughout the survey area.

Regional Context

According to the CNDDDB, there are twenty-two (22) occurrence records for burrowing owl within the USGS *El Casco, Perris, Riverside East, Steele Peak, and Sunnymead, California* 7.5-minute quadrangles, which constitute the quadrangles within a 5-mile radius of the survey area. The closest extant occurrence (Occurrence Number 65) was recorded in 1980, approximately 2.25 miles south of the project site where a

colony of many owls observed at Perris Reservoir Recreation Area (CDFW 2022). Additionally, another occurrence (Occurrence Number 439) approximately 4 miles to the southwest of the project site has seen continual BUOW use was initially recorded in 1991, with the most recent update in 2007 (CDFW 2022). In addition, there are dozens of records of this species in the eBird database, within and just outside of a 5-mile radius from the project site (eBird 2022).

Focused Burrowing Owl Survey Results

No BUOWs or BUOW sign (i.e., pellets, white wash, feathers, or prey remains) were observed during any of the four (4) focused surveys. Suitable foraging habitat and line of site opportunities were observed throughout the survey area, as well as suitable burrows (> 4 inches in diameter) capable of providing roosting and nesting opportunities for BUOW. Most burrows observed were located within the eastern portion of the 500-foot buffer area and consisted of small mammal burrows < 4 inches in diameter (Refer to Figure 2, *Survey Area*, in Attachment A). The existing telephone poles, light posts, fencing, and residential and commercial land use that occur within the survey area decrease the likelihood that BUOWs would occur as these features provide perching opportunities for larger raptor species (i.e., red-tailed hawk [*Buteo jamaicensis*]) that prey on BUOWs.

Common bird species detected during the focused surveys included common raven (*Corvus corax*), house finch (*Haemorhous mexicanus*), northern mockingbird (*Mimus polyglottos*), house sparrow (*Passer domesticus*), Say's phoebe (*Sayornis saya*), western meadowlark (*Sturnella neglecta*), and white-crowned sparrow (*Zonotrichia leucophrys*). Please refer to Attachment C for a complete list of wildlife species observed during the surveys.

Conclusions and Recommendations

No BUOWs, BUOW sign, occupied BUOW burrows, or remnant BUOW burrows were observed on or within the vicinity of the survey area. Therefore, project-related activities are not expected to result in any direct or indirect impacts to BUOWs or occupied BUOW burrows on or within the vicinity of the survey area.

Although BUOWs were not observed during the focused survey, the survey area does contain suitable foraging and nesting habitat for BUOW. Due to the presence of suitable foraging habitat for BUOW and the proximity of the survey area to existing occurrence records for BUOW, in accordance with the *Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area* (RCA 2006), one (1) pre-construction clearance survey should be conducted no more than thirty (30) days prior to any ground disturbing activities to avoid direct take of BUOWs. The clearance survey shall be conducted by a qualified biologist and cover all suitable habitat within the project impact area, including adjacent suitable habitat within a 500-foot buffer (as accessible). Following completion of the clearance survey, the qualified biologist shall prepare and submit a final report documenting the methods and results of the survey. If no BUOWs or occupied burrows are detected, project activities may begin, and no additional avoidance and minimization measures would be required. If an occupied burrow is found within the project impact area during pre-construction clearance surveys, a BUOW exclusion plan shall be prepared and submitted to the RCA and Wildlife Agencies (USFWS and CDFW) for approval prior to initiating project activities that includes proposed mitigation for direct and permanent impacts to nesting, occupied, and satellite burrows and/or BUOW habitat.

Please do not hesitate to contact me at (949) 246-7004 or tommillington@mbakerintl.com or Ryan Winkleman at (949) 533-0918 or ryan.winkleman@mbakerintl.com should you have any questions or require further information.

Sincerely,



Tom Millington
Senior Biologist



Ryan Winkleman
Senior Biologist

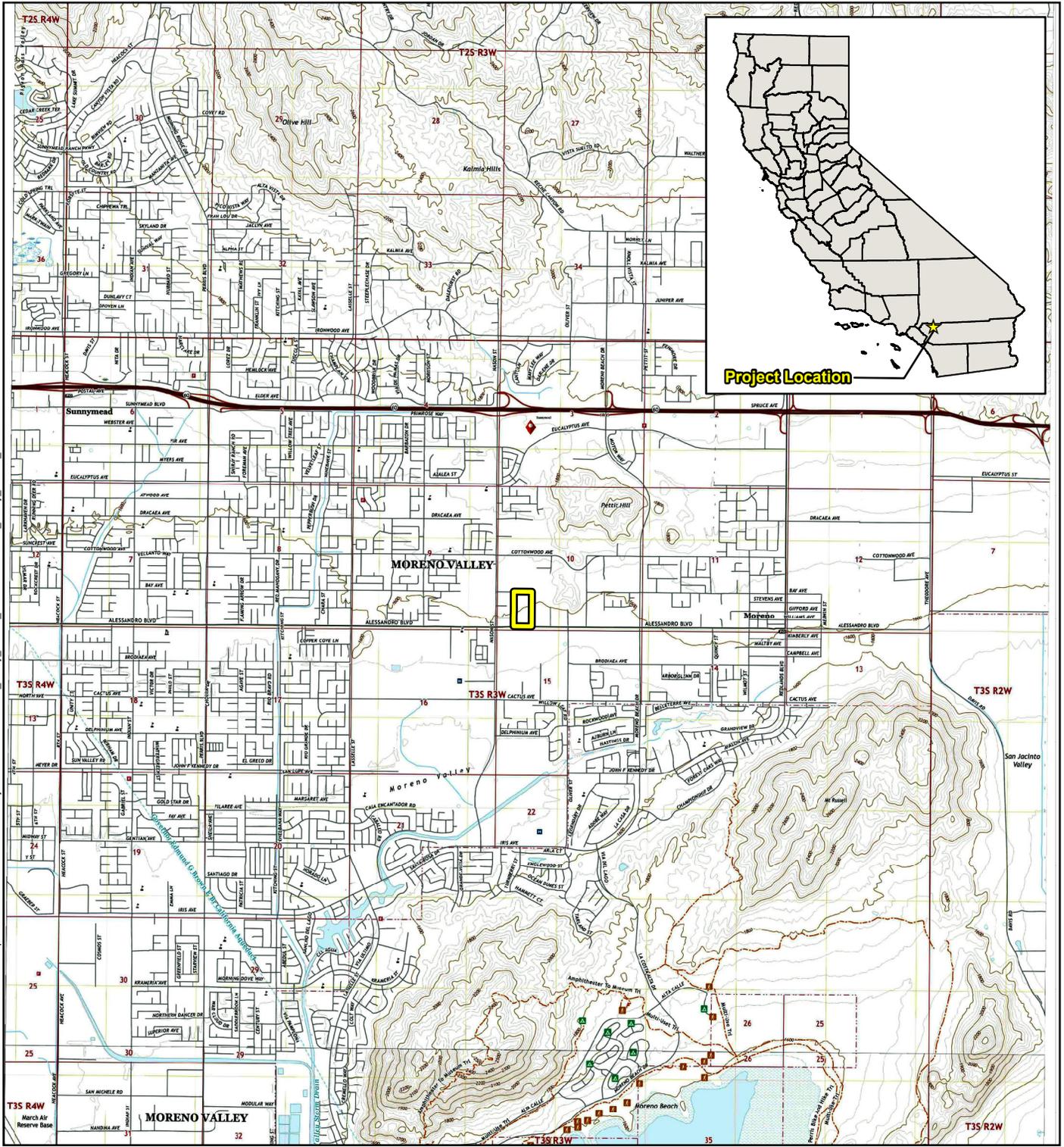
Attachments:

- A. *Project Figures*
- B. *Site Photographs*
- C. *Wildlife Species Observed List*
- D. *References*

Attachment A

Project Figures

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Legend

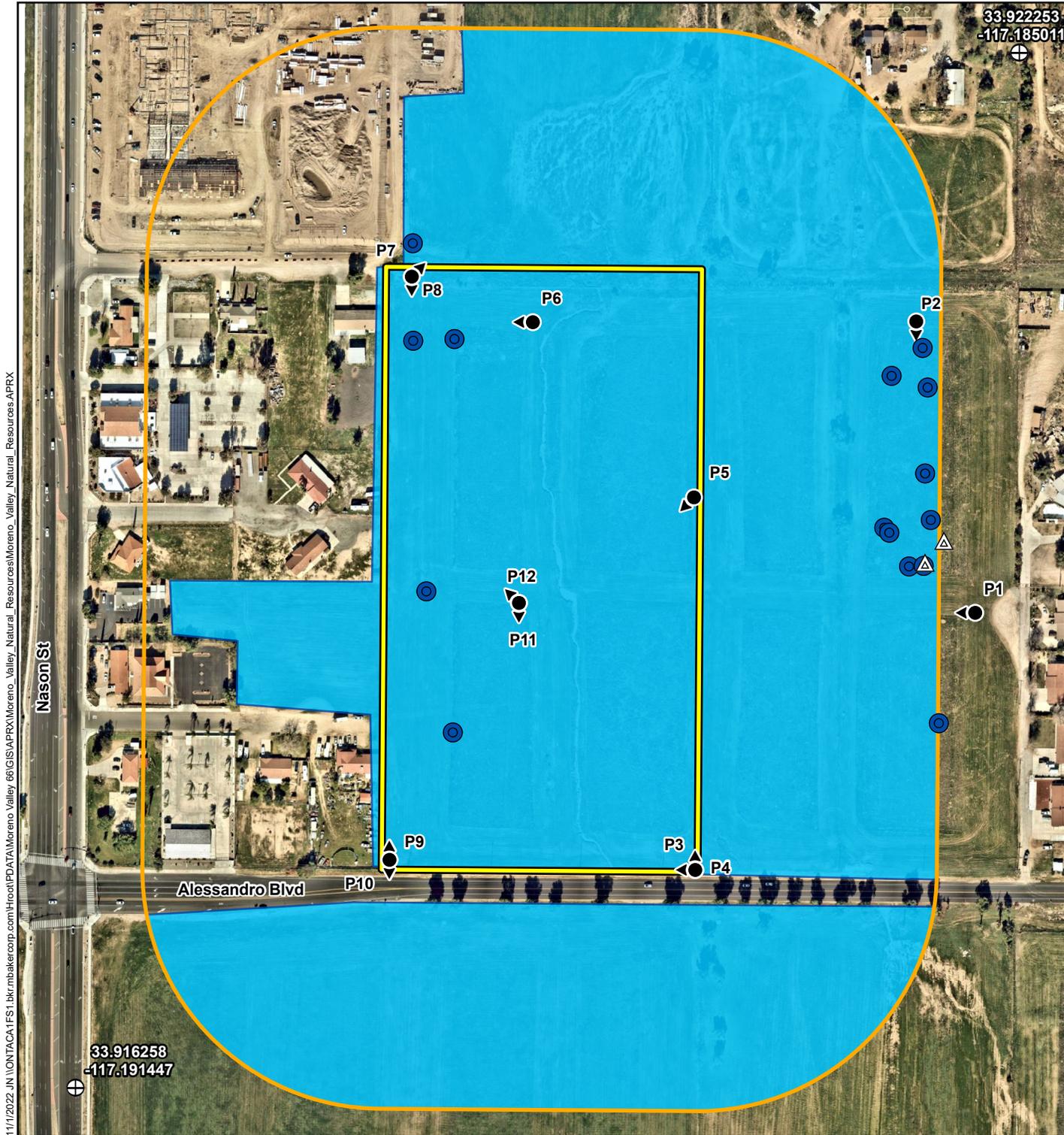
 Project Site (19.10 acres)



Source: USGS 7.5-Minute topographic quadrangle maps: Perris and Sunnymead, California (2021)

SUNSET CROSSING TTM 38442
 FOCUSED BURROWING OWL SURVEY REPORT
Regional and Project Vicinity

Figure 1



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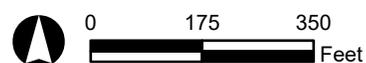
Legend

 Project Site (19.10 acres)	 Suitable Habitat (61.51 acres)	 Photograph Point and Direction
 Survey Area (81.21 acres)	 1 Burrow	
 Reference Point	 3 or More Burrows	

SUNSET CROSSING TTM 38442
 FOCUSED BURROWING OWL SURVEY REPORT

Survey Area

Figure 2



Source: Nearmap (01/2022)

Attachment B

Site Photographs



Photograph 1: Standing near the eastern boundary of the survey buffer, facing west overlooking open suitable habitat for burrowing owl (BUOW).



Photograph 2: Standing near the northern boundary of the survey buffer, facing south overlooking open suitable habitat for BUOW.



Photograph 3: Standing in the southeast corner of the project site, facing north overlooking open suitable habitat for BUOW.



Photograph 4: Standing in the southeast corner of project site, facing west overlooking open suitable habitat for BUOW.



Photograph 5: Standing near the eastern border of the project site, facing southwest overlooking open suitable habitat for BUOW.



Photograph 6: Standing near the north boundary of the project site, facing west overlooking open suitable habitat for BUOW.



Photograph 7: Standing in northwest corner of the project site, facing northeast overlooking suitable habitat for BUOW along the project's northern edge and survey buffer.



Photograph 8: Standing near the northwest corner of the project site, facing south overlooking open suitable habitat for BUOW.



Photograph 9: Standing in the southwest corner of the project site, facing north overlooking open suitable habitat for BUOW.



Photograph 10: Standing in the southwest corner of the project site, facing south overlooking the survey buffer with open suitable habitat for BUOW.



Photograph 11: Standing in the center of the project site, facing south overlooking disturbed habitat suitable for BUOW.



Photograph 12: Standing in the center of the project site, facing northwest overlooking disturbed habitat suitable for BUOW.

Attachment C

Wildlife Species Observed List

Table C-1: Wildlife Species Observed List

<i>Scientific Name*</i>	<i>Common Name</i>	<i>Special-Status Rank**</i>
Reptiles		
<i>Uta stansburiana elegans</i>	western side-blotched lizard	
Birds		
<i>Accipiter cooperii</i>	Cooper's hawk	WL
<i>Aeronautes saxatalis</i>	white throated swift	
<i>Agelaius phoeniceus</i>	red-winged blackbird	
<i>Anthus rubescens</i>	American pipit	
<i>Calypte anna</i>	Anna's hummingbird	
<i>Columba livia*</i>	rock pigeon	
<i>Corvus brachyrhynchos</i>	American crow	
<i>Spinus lawrencei</i>	Lawrence's goldfinch	
<i>Haemorhous mexicanus</i>	house finch	
<i>Icterus bullockii</i>	Bullock's oriole	
<i>Icterus cucullatus</i>	hooded oriole	
<i>Melospiza crissalis</i>	California towhee	
<i>Mimus polyglottos</i>	northern mockingbird	
<i>Passer domesticus*</i>	house sparrow	
<i>Passerculus sandwichensis</i>	savannah sparrow	
<i>Petrochelidon pyrrhonota</i>	cliff swallow	
<i>Pheucticus melanocephalus</i>	black-headed grosbeak	
<i>Psaltiriparus minimus</i>	bushtit	
<i>Sayornis nigricans</i>	black phoebe	
<i>Sayornis saya</i>	Say's phoebe	
<i>Spinus psaltria</i>	lesser goldfinch	
<i>Streptopelia decaocto*</i>	Eurasian collared-dove	
<i>Sturnella neglecta</i>	western meadowlark	
<i>Tyrannus vociferans</i>	Cassin's kingbird	
<i>Zenaidura macroura</i>	mourning dove	
<i>Zonotrichia leucophrys</i>	white-crowned sparrow	
Mammals		
<i>Canis latrans</i>	coyote	
<i>Canis lupus familiaris*</i>	domestic dog	
<i>Felis catus*</i>	domestic cat	
<i>Lepus californicus bennettii</i>	San Diego black-tailed jackrabbit	
<i>Otospermophilus beecheyi</i>	California ground squirrel	
<i>Sylvilagus audubonii</i>	desert cottontail	

* **Non-native species**** **Special-Status Rank****California Department of Fish and Wildlife (CDFW)**

WL Watch List - taxa that were previously designated as "Species of Special Concern" but no longer merit that status, or which do not yet meet SSC criteria, but for which there is concern and a need for additional information to clarify status.

Attachment D

References

- California Department of Fish and Game (CDFG). 2012. *Staff Report on Burrowing Owl Mitigation*. State of California Natural Resources Agency, Department of Fish and Game.
- California Department of Fish and Wildlife (CDFW). 2022. RareFind 5, California Natural Diversity Data Base, California. Data base report on threatened, endangered, rare or otherwise sensitive species and communities for the USGS *El Casco, Perris, Riverside East, Steele Peak, and Sunnymead, California* 7.5-minute quadrangles.
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- Google, Inc. 2022. Google Earth Pro Historical Aerial Imagery Version 7.3.8.8248. Build date 07/16/2021. Aerial imagery from 1985 to 2021.
- Haug, E.A., B.A. Millsap, and M.S. Martell. 1993. Burrowing Owl (*Speotyto cunicularia*). In: A. Poole and F. Gill, editors, *Birds of North America*, No. 61. Philadelphia: The Academy of Natural Science; Washington DC: The American Ornithologists' Union.
- Michael Baker International. 2022. *Sunset Crossing TTM 38442 Habitat Assessment and Western Riverside County Multiple Species Habitat Conservation Plan Consistency Analysis*. Report dated November 2022.
- Thomsen, L. 1971. *Behavior and Ecology of Burrowing Owls in the Oakland Municipal Airport*. Condor 73: 177-192.
- Western Riverside County Regional Conservation Authority (RCA). 2006. *Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area*.
- U.S Fish and Wildlife Service. 2017. *Migratory Bird Treaty Act of 1918*. Accessed online at: www.fws.gov/lawsdigest/migtrea.html.