Appendix B2

Burrowing Owl Survey

HARVILL TRAILER STORAGE YARD PROJECT

October 2021

BURROWING OWL SURVEY

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1.0 SUMMARY / INTRODUCTION

Lake Creek Industrial LLC (Lake Creek) is proposing to develop the Harvill Trailer Storage Yard Project (hereafter referred to as the Project) located at 24016 Orange Avenue, Perris California. This report provides the methods, assumptions, and results of focused surveys for Burrowing Owl (*Athene cunicularia*) conducted for the Project. The Project is located within Sections 13 and 24 of Township 04 South and Range 04 West, and in Sections 18 and 19 of Township 04 South and Range 03 West of the Perris United States Geological Survey 7.5-Minute Topographic Quadrangle Map (USGS 1988).

The Project occurs at an approximate elevation of 1,500 ft. above mean sea level (msl). Land use in the vicinity of the Project includes commercial, agriculture, residential and industrial endeavors. For the purposes of this report, the "study area" includes the Project's proposed ground disturbance footprint (Project Site), plus a 500 foot buffer where practical (Figures 1 and 2). The Project Site is located within the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP), Mead Valley Area Plan - Sub Unit 1 Motte-Rimrock, within Criteria Cell 2529. According to the Regional Conservation Authority (RCA) MSHCP Information Map, Project limits are within the burrowing owl survey area, but are not within a survey area for criteria area species, narrow endemic plant species, amphibians, or mammals. Livestock grazing, commercial development, agricultural and residential activities were historically operated within Project limits. There is also evidence of routine disking, and trash from illegal dumping throughout the study area.

No Burrowing Owls were detected nesting, foraging, or dispersing within the study area during the 2021 surveys. Numerous low quality potential burrows and burrow complexes were detected (Figure 3). The burrows observed lacked evidence of owl tracks, molted feathers, cast pellets, prey remains, egg shell fragments, owl white wash, and nest burrow decoration materials. The lack of Burrowing Owls within the study area is likely a result of the depauperate landscape, and the presence of owl predators within the study area. Although the Project has potential to impact lands that could be utilized by Burrowing Owls as habitat, surveys for the species are negative. Therefore, there is no presumption that the Project would result in the loss of individual Burrowing Owls, or that it would adversely affect local or regional populations of them.

Figure 1 Regional Location

Figure 2 Site Vicinity

2.0 BURROWING OWL BACKGROUND

The Burrowing Owl has been designated by the California Department of Fish and Wildlife (CDFW) as a species of special concern. "State Species of Special Concern" status applies to animals not listed for protection under the federal Endangered Species Act or the California Endangered Species Act. The designation denotes that a species is declining at a rate that could result in State listing or that a species has historically occurred in low numbers and known threats to their persistence currently exist. The designation is intended to result in "special consideration" for these animals during the environmental review and discretionary permitting processes. In addition, the designation is also intended to focus research and management attention on poorly-known, potentially at-risk species by stimulating the collection of additional information on their biology, distribution, and status.

Burrowing Owls prefer open, dry annual or perennial grasslands, agricultural and rangelands, deserts, and scrublands characterized by low-growing vegetation. Burrowing Owls also prefer areas inhabited by small mammals as they predominately depend on mammal burrows (particularly ground squirrels) for subterranean nesting. Owls can be found at elevations ranging from 200 ft. below sea level to 9,000 ft. above (CDFG 1995). Burrowing Owls commonly perch on fence posts or on mounds outside their burrows. Northern populations of Burrowing Owls are usually migratory, while more southern populations may move short distances or not at all (Haug et al. 1993, Botelho 1996). Little is known about the winter ranges of migratory populations, although migratory Burrowing Owls are believed to mix with resident populations in California during the winter months (Coulombe 1971, Haug et al. 1993).

Burrowing Owls tend to be resident where food sources are stable and available year-round (Rosenberg et al. 1998). Typically, they disperse or migrate south in areas when food becomes seasonally scarce. Burrowing Owls tend to be opportunistic feeders. Large arthropods, mainly beetles and grasshoppers, comprise a substantial portion of their diet (Rosenberg et al. 1998). Small mammals, especially mice, rats, gophers, and ground squirrels, are also important food items. Other prey animals include reptiles and amphibians, scorpions, young cottontail rabbits, bats, and birds such as sparrows and Horned Larks. Consumption of insects increases during the breeding season. Burrowing Owls hover while hunting; after catching their prey they return to perches on fence posts or the ground. Burrowing Owls are primarily active at dusk and dawn, but if necessary will hunt at any time of day (CBOC 1993, CDFG 1995; Rosenberg et al. 1998).

The breeding season for Burrowing Owls is March to late August; the season tends to last later in the northern part of the range (CBOC 1993, CDFG 1995, Klute et al. 2003). Clutch size (number of birds hatched at the same time) ranges from 1 to 12 and averages about 7 (Ehrlich 1988). The incubation period is 28–30 days (Ehrlich 1988). The female performs all the incubation and brooding (sitting on eggs to hatch them by the warmth of the body) and is believed to remain continually in the burrow while the male does all the hunting (Rosenberg et al. 1998). The young fledge (take their first flight out of the nest) at 44 days but remain near the burrow and join the adults in foraging flights at dusk (Ehrlich 1988). The maximum life span recorded for a banded bird in the wild is approximately 8.5 years (Rosenberg et al. 1998).

In resident populations, nest site fidelity is common, with many adults nesting each year in their previous year's burrow; young from the previous year often establish nest sites near (<900 ft) their natal sites (Trulio 1997,Rosenberg et al. 1998). Burrowing Owls in migratory populations also often nest in the same burrow, particularly if the previous year's breeding was successful (Belthoff and King 1997). Other birds in the same population may move to burrows near their previous year's burrow. The species

is threatened primarily by loss, degradation, and fragmentation of habitat, although they do readily inhabit anthropogenic landscapes such as agricultural fields, golf courses, and airport grasslands (Korfanta et al. 2005).

3.0 METHODS

Prior to beginning field surveys, resource specialists were consulted and available information from resource management plans and relevant documents were reviewed to determine the locations and types of resources that have the potential to exist within and adjacent to the study area. Resources were evaluated within several miles of the Project. The materials reviewed included, but were not limited to, the following:

- U.S. Fish and Wildlife Service (USFWS) Critical Habitat Mapper and File Data (USFWS 2021a);
- USFWS Carlsbad Field Office Species List for Riverside County (USFWS 2021b);
- California Natural Diversity Database maintained by the CDFW (CDFW 2021);
- California Burrowing Owl Consortium (CBOC). 1993. Burrowing Owl Survey Protocol and Mitigation Guidelines;
- California Department of Fish and Game (CDFG). 2012. Staff Report on Burrowing Owl Mitigation;
- Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP 2003); and
- Aerial Photographs (Microsoft Corporation 2021).

A burrowing owl habitat suitability assessment and burrow survey were conducted on March 18, 2021 in accordance with the March 29, 2006 Western Riverside County MSHCP burrowing owl survey instructions. In accordance with the aforesaid instructions, the habitat assessment and burrow survey can be done at any time of day. Natural and non-natural substrates were examined for potential burrow sites. All potential burrows encountered were examined for shape, size, molted feathers, whitewash, cast pellets and/or prey remains. Disturbance characteristics and all other animal sign encountered within the study area were recorded.

Where suitable habitat was detected, four (4) additional surveys between April 15 and July 15 - were performed (details are presented within *TABLE NO. 1 - SUMMARY OF SURVEY CONDITIONS FOR SURVEYS*). A hand-held, global positioning system (GPS) unit with sub meter accuracy was used to survey transects that were prepared within a Geographic Information System prior to the start of field surveys, to identify study area boundaries, and for other pertinent information. Survey transects were spaced to allow for complete visual coverage of the study area. The presence of a species was based on direct observations of individual(s), sign, and/or vocalization. Avian scientific nomenclature and common names follows Sibley (2000).

Field surveys were conducted when weather conditions were conducive to observing birds. Surveys were not performed during rain, extreme temperatures, high winds (> 25 miles per hour), or dense fog. Where access was limited, observations were made from the nearest appropriate vantage points with the use of binoculars and spotting scopes. Targeted owl surveys were conducted on 24 March and 1, 7 and 14 April of 2021 from approximately 1 hour before sunrise to 2 hours after sunrise, when weather conditions were conducive to observing owls outside of burrows.

4.0 BURROWING OWL SURVEY RESULTS

The majority of the study area consists of heavily disturbed ruderal vegetation with no substantial native stands of vegetation. Livestock grazing, commercial development, agricultural and residential activities were historically operated within Project limits. There is also evidence of routine disking, and trash from illegal dumping throughout the study area.

No Burrowing Owls were detected nesting, foraging, or dispersing within the study area during the 2021 surveys. Numerous low quality potential burrows and burrow complexes were detected (Figure 3). The burrows observed lacked evidence of owl tracks, molted feathers, cast pellets, prey remains, egg shell fragments, owl white wash, and nest burrow decoration materials. The presence of several burrows and burrow complexes >11 cm in diameter (height and width), and >150 cm in depth warranted recording and reporting, even though the aforementioned burrows lacked owl sign or owls. Survey conditions during the surveys are shown in Table No. 1.

TABLE NO. 1 - SUMMARY OF SURVEY CONDITIONS FOR SURVEYS

Survey Dates	Surveyors	Survey Type	Time[1] Start/End	Temperature °Fahrenheit Start/End	Wind Speed (MPH)	Start/End Cloud Cover (%)	Date of last precipitation prior to survey.
3/18/21	Lincoln. Hulse & Lenny Malo	Burrow Survey	0730 - 1500	46/72	0-05	Clear/Clear	3/12/21
3/24/21	Lincoln. Hulse & Ben Zamora	Crepuscular BUOW (Morning) Survey 1)	0530-1145	48/67	0-15	Clear/Clear	3/12/21
04/01/21	Lincoln. Hulse& Lenny Malo	Crepuscular BUOW (Morning) Survey 2)	0530-1215	54/79	0-05	Clear/Clear	3/12/21
04/07/21	Lincoln. Hulse& Ben Zamora	Crepuscular BUOW (Morning) Survey 3)	0530-1200	50/80	0-05	Clear/Clear	3/12/21
04/14/21	Lincoln. Hulse& Lenny Malo	Crepuscular BUOW (Morning) Survey 4)	0530-1130	46/63	0-05	60/40	3/12/21
BUOW = Burrowing Owl **MPH = Miles Per Hour**							

The lack of Burrowing Owls within the study area is likely a result of the depauperate landscape, and the presence of owl predators (e.g., coyote [*Canis latrans*], Red-Tailed Hawk [*Buteo jamaicensis*] and other raptors) within the study area. Although the Project has potential to impact lands that could be utilized by Burrowing Owls as habitat, surveys for the species are negative. Therefore, there is no presumption

[1] While targeted owl surveys were limited to approximately 1 hour before sunrise to 2 hours after sunrise; the start and end times presented within this table detail all time spent within the study area on any given day - which include setup, reporting and demobilization activities.

that the Project would result in the loss of individual Burrowing Owls, or that it would adversely affect local or regional populations of them.

Appendix A of the MSHCP Consistency Analysis includes representative photographs of the study area, and wildlife detected during the surveys are provided within Table No. 2 below.

TABLE NO. 2 – WILDLIFE DETECTED DURING FIELD SURVEYS

Scientific name	Common name
Birds	
Agelaius phoeniceus	Red-winged blackbird
Artemisiospiza belli	Bell's Sparrow
Bubulcus ibis	Cattle egret
Buteo jamaicensis	Red-Tailed Hawk
Cathartes aura	Turkey vulture
Corvus corax	Common Raven
Corvus brachyrhynchos	American crow
Sturnus vulgaris	European Starling
Carpodacus mexicanus	House Finch
Columba livia	Rock Pigeon
Euphagus cyanocephalus	Brewer's Blackbird
Falco sparverius	American kestrel
Icterus bullockii	Bullock's Oriole
Melospiza melodia	Song sparrow
Mimus polyglottos	Northern mockingbird
Passer domesticus	House Sparrow
Petrochelidon pyrrhonota	Cliff Swallow
Sayornis nigricans	Black phoebe
Quiscalus quiscula	Common Grackle
Zenaida macroura	Mourning Dove
Tyrannus vociferans	Cassin's Kingbird
Zonotrichia leucophrys	White-crowned Sparrow
Mammals	
Canis latrans	Coyote
Otospermophilus beecheyi	California ground squirrel
Sylvilagus audubonii	Audubon's cottontail
Reptiles	
Uta stansburiana	Common Side-blotched Lizard
Aspidoscelis tigris	Western Whiptail

Figure 3 Results

5.0 RECOMMENDED MEASURES TO AVOID AND MINIMIZED IMPACTS TO NESTING BIRDS

The following measures are recommended as a means of avoiding and minimizing adverse impacts to nesting birds that have the potential to occur within the Project Site and on adjacent lands:

- Due to the presence of potentially suitable habitat, a 30-day pre-construction survey for burrowing owls is required prior to initial ground-disturbing activities (including vegetation clearing, clearing and grubbing, tree removal, site watering, equipment staging, grading, etc.) to ensure that no owls have colonized the Project Site in the days or weeks preceding the ground-disturbing activities. If burrowing owls have colonized the Project Site prior to the initiation of ground-disturbing activities, the project proponent will immediately inform the Regional Conservation Authority (RCA) and the Wildlife Agencies, and will need to coordinate further with RCA and the Wildlife Agencies, including the possibility of preparing a Burrowing Owl Protection and Relocation Plan, prior to initiating ground disturbance. If ground-disturbing activities occur, but the Project Site is left undisturbed for more than 30 days, a pre-construction survey will again be necessary to ensure burrowing owl has not colonized the Project Site since it was last disturbed. If burrowing owl is found, the same coordination described above will be necessary

- In order to comply with Section 10 of the Migratory Bird Treaty Act and relevant sections of the California Fish and Game Code, any vegetation clearing within the Project Site should take place outside of the typical avian nesting season (e.g., March 15th until September 1st) – to the maximum extent practical. If work needs to take place between March 15th and September 1st, a pre-activity survey for nesting birds should be completed prior to the onset of Project activities. To the maximum extent practicable, a buffer zone from occupied nests should be maintained during physical ground disturbing activities. Once nesting has ended, the buffer may be removed.

- Limits of grading and construction activities shall be clearly delineated with temporary construction staking, flagging, or similar materials.

- The footprint of disturbance shall be minimized to the maximum extent feasible. Access to the Project shall be via preexisting access routes to the greatest extent possible.

- To avoid attracting predators and nuisance species, the Project Site shall be clear of debris, where possible. All food-related trash items shall be enclosed in sealed containers and regularly removed from the Project.

The services performed and documented in this report have been conducted in a manner consistent with the level of care and skill ordinarily exercised by other professional consultants under similar circumstances. No other representations are either expressed or implied and no warranty or guarantee is included or intended in this report. Opinions relating to presence, absence, or potential for occurrence of biological resources are based on limited data and actual conditions may vary from those encountered at the times and locations where the data were obtained despite due professional care.

I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for this biological evaluation, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief.

DATE: October 20, 2021

SIGNED: 

Lincoln Hulse

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