Appendix A3

Habitat Assessment and Burrowing Owl Focused Survey Results

June 2024

BLACKHAWK Environmental

1720 Midvale Drive
San Diego, CA, 92105
Phone: 619.972.7932
Phone: 619.972.8714
www.blackhawkenv.com

June 21, 2024

Tristan Evert
Ascent Environmental, Inc.
1230 Columbia Street, Suite 440
San Diego, CA 92101-8517

Subject: Habitat Assessment and Burrowing Owl Focused Survey Results for the Jacumba Fire Station #43 Project

Dear Mr. Evert,

This letter report details the results of the 2024 breeding season surveys for burrowing owl (*Athene cunicularia*) conducted within the new proposed location for the County of San Diego Department of General Services Fire Authority - Jacumba Fire Station #43 Project site (Project Site). The Project Site is located in the unincorporated community of Jacumba, immediately north of Old Highway 80, east of Laguna Street, and approximately 0.36 miles north of the international border fence that separates the United States from Mexico (Attachment A, Figure 1). The 5.0-acre Project Site occurs in Section 9, Township 18 South, Range 8 East, of the U.S. Geological Survey (USGS) 2021 7.5-minute topographic map, *Jacumba* quadrangle (USGS 2021).

Blackhawk Environmental, Inc. (Blackhawk) biologists conducted burrowing owl focused surveys in suitable habitat in accordance with the guidelines developed by the California Department of Fish and Wildlife (CDFW 2012). Breeding season surveys were conducted to determine the presence or absence of the species within the Project Site and a 150-meter buffer. **No burrowing owls or their sign were detected.** A discussion of the results of the conducted surveys is provided below.

Burrowing Owl

The burrowing owl is a CDFW Species of Special Concern (SSC) that primarily breeds in the western United States and northern Mexico. Additional populations exist year-round in Florida, Cuba, and some Caribbean islands. As a year-round resident in San Diego County, breeding burrowing owls remain in only five primary areas in San Diego County, including Otay Mesa, Imperial Beach, Naval Air Station North Island, Warner Valley, and Borrego Valley (Unitt 2004). The species occurs in numerous habitat types, and preferred habitats are largely open with scattered, low-lying vegetation and/or bare ground prevalent over wide areas. Unlike other owl species, the burrowing owl is diurnally active, with peaks of activity during crepuscular hours; however, it is also nocturnally active and can be active anytime over a 24-hour period. It consumes a variety of prey items, including reptiles, birds, small rodents, amphibians, and bats, but prefers large arthropods (Haug et al. 1993). Also unique to this owl species, it is a subterranean dweller. It usually does not dig its own burrows but prefers to utilize and/or modify existing openings in the ground created by other animals or humans as shelter and nesting sites.

The breeding season in California extends from the beginning of February through the end of August. Up to 10 eggs are laid in a shallow nest lined with grass, cough pellets, trash, excrement and other items inside a selected burrow, pipe, culvert, nest box or other subterranean cavity. The female incubates for 21 to 30 days, and both parents feed fledglings until they can fend for themselves. The young then disperse to available habitats with suitable burrow sites in the summer and fall months.

Survey Methods

Blackhawk biologists Hayley Milner, Seth Reimers, Desiree Johnson, and Tawni Gotbaum conducted a habitat assessment and burrowing owl focused surveys in accordance with the guidelines developed by the CDFW (CDFW 2012). Prior to conducting focused surveys, a literature review was conducted that included analysis of California Natural Diversity Database (CNDDB) records out to two miles from the Project Site. One record, from 1994, of a single burrowing owl was identified during the database query (CDFW 2024), greater than 1 mile east of the Project Site.

The current surveys for this Project included a habitat assessment and four breeding season burrowing owl surveys. For the purposes of this report, the "Survey Area" includes the Project's proposed ground disturbance footprint (Project Site) and a 150-meter buffer (Figure 2). Biologists walked a maximum of 20-meter-wide belt transects within the Survey Area to provide 100-percent visual coverage of the Survey Area. Transects were spaced as close as 10 meters, depending on vegetative density and topography. While walking the transects, biologists specifically searched for burrowing owl, suitable burrowing owl burrows, and/or burrowing owl sign (i.e., cough pellets, whitewash, feathers, tracks, nest decorations). Biologists paused at least every 100 meters, as appropriate, to scan for burrowing owls using binoculars and/or the naked eye. In addition, the biologists listened for burrowing owl calls. All burrowing owl-relevant data and wildlife species were recorded in the field notes of the biologists. All observed burrowing owl-suitable burrows and habitats are shown on Figure 2. Survey conditions for each survey pass are presented in Table 1.

Vegetation community classifications in this report follow Oberbauer et al. (2008), which is based on Holland (1986). CDFW guidelines call for the use of Sawyer et al. (2009); however, Sawyer et al. (2009) does not contain a vegetation classification equivalent for disturbed land, which occurs on-site.

Table 1: Survey Conditions							
Date	**Survey Type**	**Personnel**	**Start/End Times**	**Start/End Temperature (F°)**	**Start/End Wind Speed (mph)**	**Start/End Cloud Cover (%)**	**Start/End Precipitation**
3/13/24	Habitat Assessment and Survey #1	Seth Reimers Hayley Milner	0650-1100	48/51	3-7/4-8	80/65	0/0
4/18/24	Survey #2	Hayley Milner Desiree Johnson	0628-0814	55/58	0-1/0-1	15/55	0/0
5/24/24	Survey #3	Hayley Milner Desiree Johnson	0625-0805	54/56	0-1/0-1	90/80	0/0
6/18/24	Survey #4	Desiree Johnson Tawni Gotbaum	0630-0800	61/69	0-1/0-2	0/0	0/0

Existing Conditions

The Project Site is bounded by Old Highway 80 to the south and undeveloped land to the north, west, and east (see Figure 2). The parcel is relatively flat but contains small berms associated with previous grading running north-south throughout the entirety of the Project Site but are particularly evident within the western portion of the Project Site. Within the Survey Area, a stormwater conveyance channel runs north-south near the western boundary of the Project Site where it eventually flows south under Old Highway 80. Only one soil type occurs in the Survey Area: Reiff fine sandy loam, 0 to 2 percent slopes (U.S. Department of Agriculture 1973).

Habitat Assessment Results

A burrowing owl habitat assessment was conducted on March 13, 2024 within the Survey Area to evaluate the suitability of the habitat for this species. The Survey Area supports four land cover/habitat types: non-native grassland, urban/developed, disturbed, and four-wing saltbush scrub. The entirety of the non-native grassland and saltbush scrub habitats within the Survey Area were determined to be suitable for burrowing owls and were therefore included in the focused surveys. Developed areas associated with Old Highway 80 were determined unsuitable for burrowing owl and were therefore excluded from the focused surveys. Developed and disturbed areas associated with the trailer park to the west of Laguna Street were largely excluded as well due to the inaccessibility and unsuitability of the areas, with the exception of a single open lot consisting of non-native grassland within the northwest corner of the Survey Area that was surveyed through binoculars. Descriptions for each of the four land cover/habitat types are detailed below.

Non-native Grassland

Non-native grassland habitat was dominated by London rocket (*Sisymbrium irio*), red-stem filaree (*Erodium cicutarium*), wall barley (*Hordeum murinum*), short-pod mustard (*Hirschfeldia incana*), and wild oat (*Avena* sp.). The entirety of the Survey Area was comprised of herbaceous coverage, with the only shrub coverage consisting of a lone fourwing saltbush in the northwest corner. Herbaceous coverage was between 85 to 100 percent.

Disturbed

Disturbed habitat characterized the Old Highway 80 road shoulder and consisted of mostly bare ground with sparse non-native herbaceous species such as short-pod mustard and red-stem filaree.

Developed

Developed land consisted of the pavement of Old Highway 80 and the maintained bare ground shoulder bordering Old Highway 80 on the north and south sides. Additional developed land included other paved and dirt roads and developments associated with the trailer park west of the Project site.

Saltbush Scrub

Saltbush Scrub habitat occurs as small patches within the southwestern and southeastern corners of the Survey Area and is dominated by fourwing saltbush (*Atriplex canescens*) with an herbaceous layer dominated by London rocket, red-stem filaree, and short-pod mustard. Total shrub cover within this habitat type ranges between 10 and 50 percent with an average height of 2.5 feet.

Suitable burrows were detected throughout the Survey Area during the habitat assessment; however, no whitewash, feathers, pellets, or bones were observed within or adjacent to these burrows.

Focused Burrowing Owl Survey Results

Focused burrowing owl surveys were conducted on four separate dates: March 13, April 18, May 24, and June 18, 2024. All four surveys were conducted between morning civil twilight and 8:30 a.m. Belt transects were walked through all suitable habitat identified within the Survey Area. No burrowing owl or sign of active burrows used by burrowing owls were detected at the time the surveys were completed. Suitable burrows were found mostly concentrated within the western half of the Survey Area. The focused burrowing owl surveys resulted in 21 unoccupied suitable burrowing owl burrows and zero suitable burrowing owl burrow complexes within Survey Area; five unoccupied suitable burrowing owl burrows were found within the Project site itself. **No burrowing owls or burrowing owl signs were observed within the Project site and/or Survey Area** (Figure 2).

Burrows ranged in size from 10 to 30 centimeters in diameter and all suitable burrows appeared to be former California ground squirrel (*Otospermophilus beecheyi*) and white-tailed antelope squirrel (*Ammospermophilus leucurus*) burrows. About half of the burrows were located on flat terrain within

openings of non-native grassland, while the other half were located along the banks of the stormwater conveyance channel immediately west of the Project Site.

Conclusion and Mitigation Requirements

Although there is moderate potential for this species to occur based on one historical record, located greater than 1 mile east of the Project Site and the presence of suitable habitat and burrows on-site, no burrowing owl, active burrows, or burrowing owl signs were observed during the surveys. None-the-less, burrowing owls are known to migrate through the area at different times of the year; therefore, two pre-construction Take-Avoidance surveys are recommended to ensure potential direct impacts, such as loss of individuals, to the species are less than significant. The first survey shall be conducted no more than 14 days prior to the initiation of ground disturbing and/or vegetation clearing activities. The second survey shall be conducted within 24 hours of initial ground disturbing and/or vegetation clearing activities. These surveys will include all areas where suitable habitat is present within the Survey Area (CDFW 2012).

If you have any questions concerning this letter report, feel free to contact me anytime at hayley@blackhawkenv.com or 585-739-9864.

Sincerely,

Hayley Milner
Staff Biologist

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ATTACHMENT A

Figures

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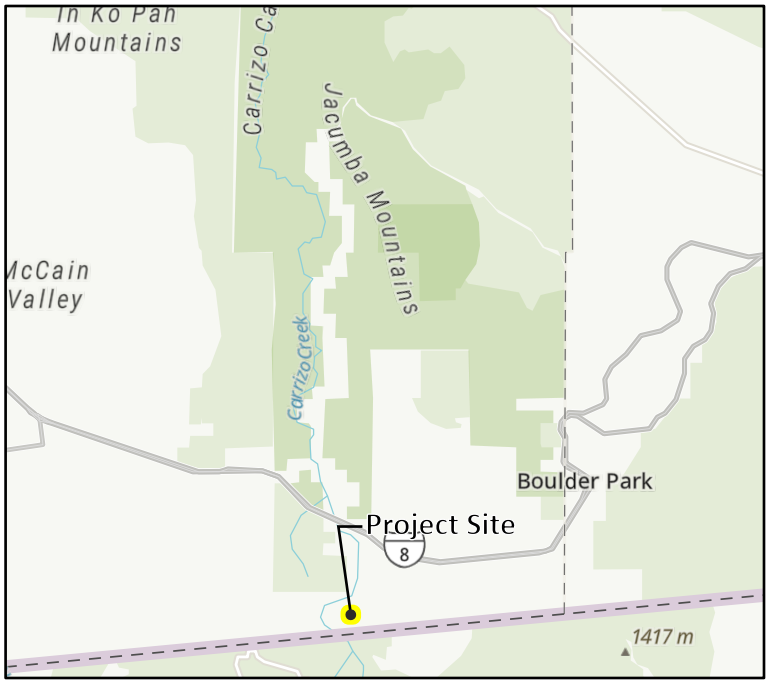

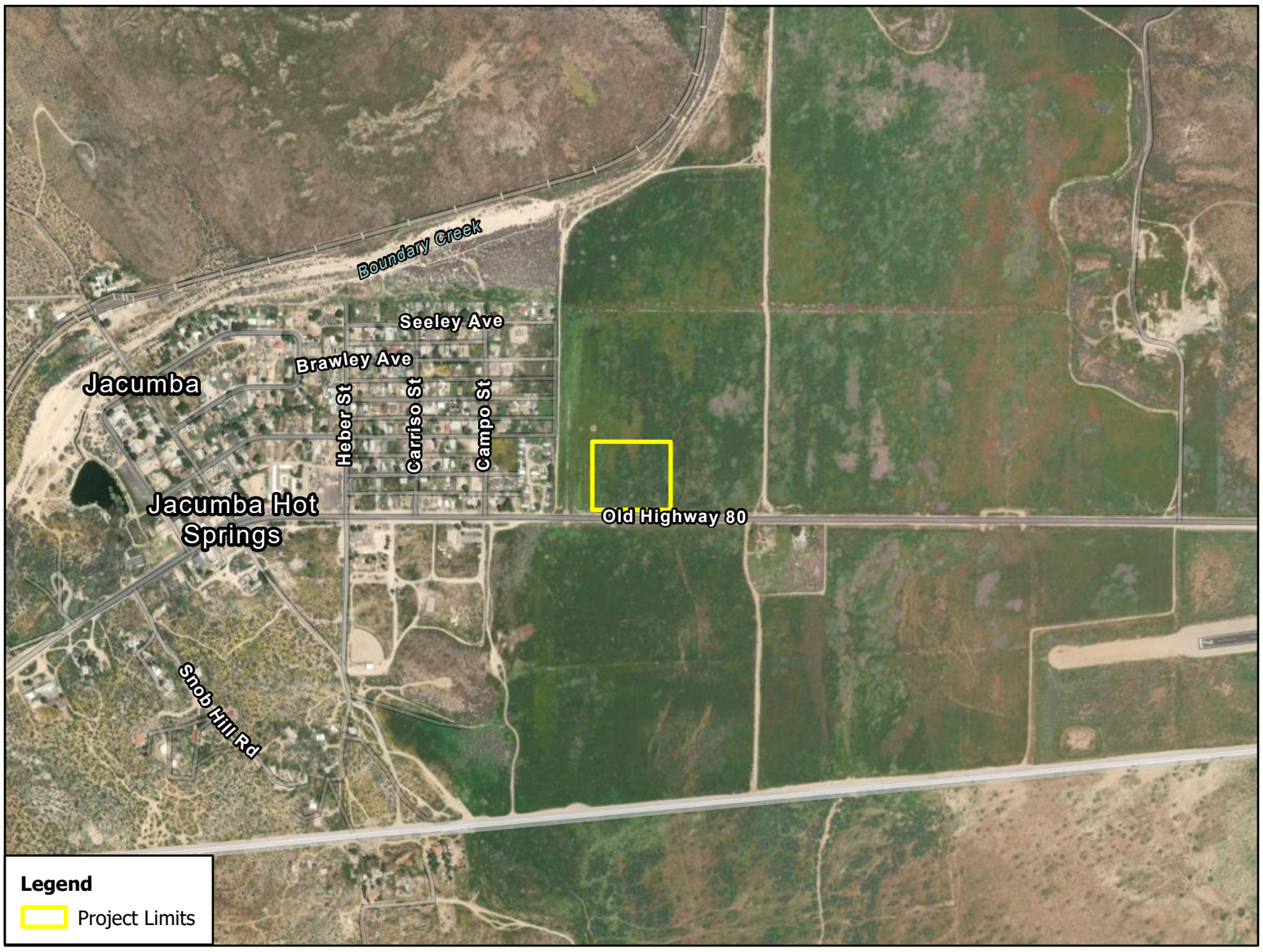

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Figure 1

Project Vicinity and Location

Jacumba Fire Station Project

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5/29/2024

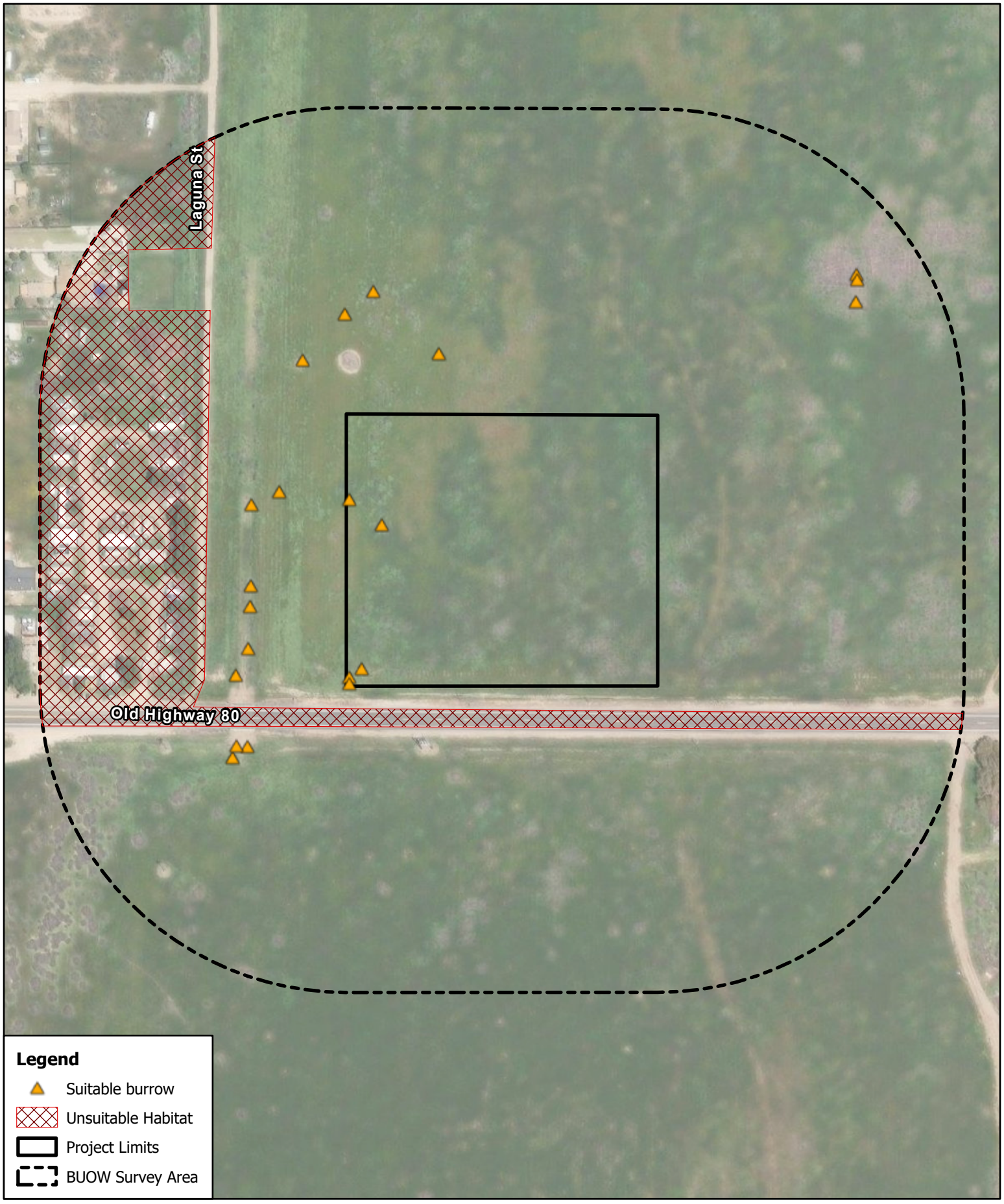

Figure 2

Burrowing Owl Survey Results

Jacumba Fire Station Project

Blackhawk Environmental

6/20/2024

ATTACHMENT B

Photo Pages

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Photograph 1: Southwest-facing view of the Survey Area consisting of non-native grassland, taken from the northeast corner of the Survey Area.

Photograph 2: Southeast-facing view of the Survey Area consisting of non-native grassland, taken from the northwest corner of the Survey Area.

Photograph 3: East-facing view of disturbed and non-native grassland habitats along the southern boundary of the Project Site north of Old Highway 80.

Photograph 4: Southeast-facing view of saltbush scrub habitat within the southwestern corner of the Survey Area.

Photograph 5: Southwest-facing view of the Survey Area consisting of non-native grassland and disturbed habitat south of Old Highway 80.

Photograph 6: North-facing view of the stormwater conveyance channel that runs north-south immediately west of the Project Site.

Photograph 7: North-facing view of a suitable burrow located within the northeast corner of the Survey Area.

Photograph 8: South-facing view of a suitable burrow located in the southwestern corner of the Project Site.

Photograph 9: South-facing view of a suitable burrow located along the bank at the southern end of the stormwater conveyance channel.

Photograph 10: Representative photograph of a potential suitable burrow with spiderwebs in front of entrance, indicating inactivity.