Attachment C

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DUDEK

March 7, 2014

7248-13

Michael Mohler
Newport Banning Ranch, LLC
1300 Quail, Suite 100
Newport Beach, California 92660

Subject: ***2014 Focused Non-Breeding Season Burrowing Owl Surveys, Newport Banning Ranch Project, Orange County, California***

Dear Mr. Mohler:

This letter report documents the results of non-breeding season surveys for burrowing owl (*Athene cunicularia*) that were conducted by Dudek for the Newport Banning Ranch Project (project site). The burrowing owl is a California State Species of Special Concern and is closely associated with open grasslands, fallow fields, agriculture areas, farmlands, golf courses, airfields, and disturbed areas (Kaufman 1996). The availability of numerous small mammal burrows (e.g., California ground squirrel, *Spermophilus beechyi*) and other burrow-like areas (e.g., debris piles and ungrouted riprap) is a primary factor in determining whether an area is potentially suitable for burrowing owl. The purpose of this survey effort was to determine the presence or absence of non-breeding (wintering) burrowing owl on the project site in 2014.

LOCATION AND EXISTING CONDITIONS

The project site is located in the City of Newport Beach and unincorporated Orange County, California, on the southwestern boundary of the City of Costa Mesa and east of the City of Huntington Beach (Figures 1 and 2). The site is bordered by commercial and residential development in the City of Costa Mesa on the east, the Pacific Coast Highway and residential properties within Newport Beach on the south, the Santa Ana River and Santa Ana River estuary on the west, and Talbert Regional Park on the north. The Pacific Ocean is 289 meters (947 feet) to the southwest of the site at its closest point. The project area is located on the U.S. Geological Survey (USGS) 7.5 minute map, Newport Beach quadrangle, in sections 20, 21, and 29 of Range 10 West and Township 6 South (Figures 1 and 2). The project site, which comprises approximately 401 acres, is situated on the western edge of a coastal terrace overlooking the Santa Ana River, with adjacent bluffs, arroyos, and lowlands that include a floodplain and tidal influence channel and associated wetlands. Currently, the entire site is occupied by an oil facility operated by West Newport Oil.

The topography within the survey area is generally flat level ground atop Newport Beach Mesa with elevations from approximately 0 feet AMSL to approximately 108 feet AMSL.

According to the U.S. Department of Agriculture (NRCS 2014), upland soils within the project site are predominantly well-drained loams of the following series: Bolsa Silt loam; Capistrano sandy loam, 9–15% slopes; Marina loamy sand, 2–9% slopes; Myford sandy loam, 0–2% slopes; Myford sandy loam, 2–9% slopes; and Myford sandy loam, 9–30% slopes, eroded.

METHODS

Literature Review

A compilation of historic and recent burrowing owl observations occurring in the project site, as well as within the surrounding area was derived from the California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB) (CDFW 2013) and CDFW's Biogeographic Information and Observation System (BIOS 2013). The information gathered was utilized to provide a local and regional context of burrowing owl occupancy in the area; and to assist in determining if burrowing owl has been previously identified within and adjacent to the subject property.

Two wintering burrowing owls were observed within Fairview Park, Costa Mesa, (approximately 1 mile north of the project site) during focused non-breeding season surveys conducted by LSA in December 2005; however, no owls were identified during focused spring breeding season surveys conducted by LSA in 2006 (LSA 2006). According to CNDDB and BIOS, a single burrowing owl was observed in 2006 within the same area. The owl was observed at the entrance to a burrow adjacent to a trail in Fairview Park, Costa Mesa on November 5, 2006 and was assumed to be a wintering burrowing owl (CDFW 2013). The next closest burrowing owl documented within 5 miles of the project site dates back to 1986 (CDFW 2013). According to CNDDB (CDFW 2013), two to four pairs of burrowing owls were observed within Upper Newport Bay Ecological Reserve in Newport Beach, approximately 4 miles east of the project site. This population is potentially extirpated due to development and dredging to create least tern (*Sternula antillarum*) habitat in the area. The next documented occurrence is over 5 miles northwest of the site in Seal Beach (CDFW 2013).

Various breeding and non-breeding survey efforts for burrowing owl have occurred on the project site between 2008 and 2012. Wintering burrowing owl was located in the southern third

of the project site in 2008, and near the central portion in 2009 and 2010. Breeding surveys conducted in 2009, 2010, and 2012 were negative.

Survey Methods

Focused surveys for burrowing owl were conducted during the winter season (January 8 – January 30) by Dudek wildlife Biologists Brock Ortega, Karen Mullen, Ph.D., and Chris Kallstrand (Table 1). The most widely followed protocol is that developed by the CDFW, *Staff Report on Burrowing Owl Mitigation* (CDFG 2012; now CDFW). A habitat assessment was initially conducted across the entire project site to determine the focused survey area in accordance with protocol standards. The habitat assessment survey consisted of walking the entire proposed project site, where suitable open (e.g., grasslands, disturbed, and ruderal areas) habitat occurred, while searching for burrowing owls, sign (i.e., owl pellets, prints, molting feathers, abundant insect remains, etc.), and burrow sites that met the protocol criteria. The survey was conducted such that 100% coverage of suitable habitat within the entire project site was covered (i.e., approximate 10-meter transects were walked across the entire site). While walking the project site, the biologist searched for owls, owl sign, and potential burrow sites. All suitably sized burrows (>11 centimeters in diameter and >150 centimeters in depth with the focus on the burrow width) were recorded, regardless of a lack of burrowing owl sign, using a Dudek mapping application (Kerata) on an iPad which allows for near real-time mapping of data locations. Buffers around the property were not surveyed as they were within different ownership and not legally accessible. In lieu of this, the biologists surveyed the perimeter from the fencline where potentially suitable habitat occurred. In nearly all cases, the burrows were active California ground squirrel burrows.

All mapped locations of suitably sized burrows were digitized by Dudek using ArcGIS and a 30-foot buffer was placed around each burrow location. Where groups of suitable burrows were located in close proximity to each other, a polygon was placed around the group of burrows which also included a 30 foot buffer around the entire polygon edge. A 200-scale (1 inch =200 feet) digital ortho quarter quad map of the project site was created and overlaid with the burrows and polygons and the associated 30-foot buffer. The resulting focal survey area for burrowing owl was identified as all land located within those 30-foot polygons.

In addition to the combined habitat assessment/focal survey, three additional non-breeding surveys for burrowing owl surveys were conducted, a minimum of a week apart. The habitat assessment survey accounted for the first of the four non-breeding surveys. The non-breeding surveys were conducted such that 100% coverage of the survey area (identified during the habitat assessment survey) within the entire project site was covered (i.e., approximate 10-meter transects were walked across all surveyed habitat). While walking all habitat, the

biologist searched for owls and owl sign. While the focus of the survey was on the areas that had ground squirrel burrows, a wider adjacent area was also surveyed and reviewed for owls while the observer was transitioning from polygon to polygon. All surveys were conducted during appropriate climatic conditions. Photographs of the survey area were taken during the time of survey and are attached to this report (Appendix B).

Table 1
Survey Conditions

Date	Time	Survey Type	Personnel	Survey Conditions
01/08/2014	0700-1405	Habitat assessment/Non-breeding Survey	KMM; BAO	56˚-68˚Fahrenheit; 0-100% cloud cover; 0-1miles per hour wind
01/09/2014	0700-1045	Habitat assessment/Non-breeding Survey	KMM; CK	56˚-62˚Fahrenheit; 100% cloud cover; 0-1 miles per hour wind
01/16/2014	0645-1110	Non-breeding Survey	KMM	55˚-70˚Fahrenheit; 0-100% cloud cover; 0-1 miles per hour wind
01/23/2014	0700-1100	Non-breeding Survey	KMM	50˚-62˚Fahrenheit; 50-100% cloud cover; 0-3 miles per hour wind
01/30/2014	0700-1100	Non-breeding Survey	KMM	56˚-59˚Fahrenheit; 100% cloud cover; 0-1 miles per hour wind

Personnel: BAO: Brock Ortega; KMM: Karen Mullen; CK: Chris Kallstrand

All wildlife species detected during the field survey by sight, calls, tracks, scat, or other signs were recorded directly into a field notebook. Scientific and common names of animals follow American Ornithologists' Union (AOU) (2014) for birds and Wilson and Reeder (2005) for mammals.

Results

Approximately 29.75 acres of appropriate survey area for burrowing owl was identified on the project site (Figure 3). Suitable survey area across the project site was predominantly identified in disturbed, annual brome grassland, wild oat grassland, salt grass flats and purple needle grass grassland, with the majority of it located in the southern portion of the project site (Figure 3). Large numbers of California ground squirrel burrows were identified across the project site with areas of debris and rubble also observed. All appropriately sized burrows were mapped on the site. One burrowing owl individual was detected during the habitat assessment survey and the same assumed individual during the non-breeding surveys. The owl was observed in an almost identical location on both occasions, perched on a mound adjacent to a burrow with sign (i.e., white-wash and pellets) on the south end of the project site (Figure 3). A total of 31 wildlife

species were observed during this survey. Species observed include 28 birds and 3 mammals. A cumulative list of wildlife species observed within the survey area is presented in Appendix A of this report.

Conclusions

The project area contains a large number of California ground squirrel burrows of suitable size (>11 centimeters in diameter and >150 centimeters in depth) which meet the CDFG (2012) criteria, with the highest density of suitable burrows located toward the southern portion of the project site (Figure 3). Burrowing owl sign was detected at one burrow; near the southern portion of the site in the general vicinity of the 2008 data. An individual burrowing owl was identified at the burrow with sign during two separate site visits (Figure 3; Appendix B). Given the individual was observed adjacent to the same burrow on both occasions detected, it is likely that this was the same owl.

It is difficult to determine residency status during the non-breeding season. However, focused breeding and non-breeding season burrowing owl surveys have been conducted within the project site and surrounding areas during previous years (GLA 2013; Bon Terra Consulting 2009; LSA 2006). Although burrowing owls and burrowing owl sign have been detected within the project site during focused burrowing owl non-breeding season surveys, burrowing owl and/or burrowing owl sign have not been observed during burrowing owl breeding season surveys (GLA 2013; Bon Terra Consulting 2009; LSA 2006). Based on the results of previous focused burrowing owl surveys it is our professional opinion that this is a wintering owl and that breeding likely does not occur on site. Please feel free to contact myself at bortega@dudek.com or 760.479.4254 with questions or if you require additional information.

Sincerely,

Brock A. Ortega

Att.: Figures 1–3
Appendix A, List of Wildlife Species Observed or Detected Within the Project Boundary
Appendix B, Representative Photograph Exhibits
Appendix C, California Native Species Field Survey Form, CNDDB

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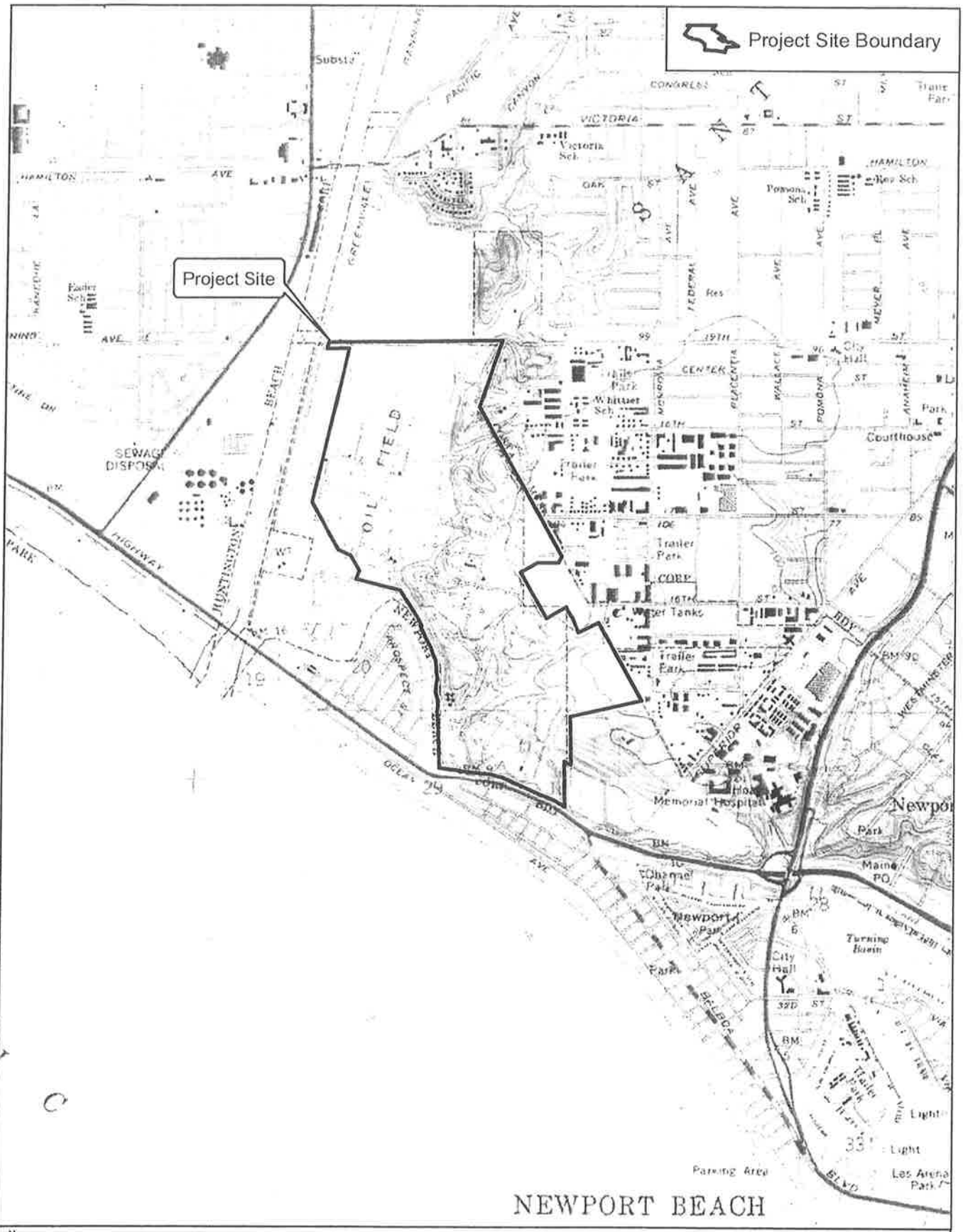

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Figure 2
Project Vicinity

Figure 1
Project Location

DUDEK | NEWPORT BANNING RANCH | Burrowing Owl Survey Report

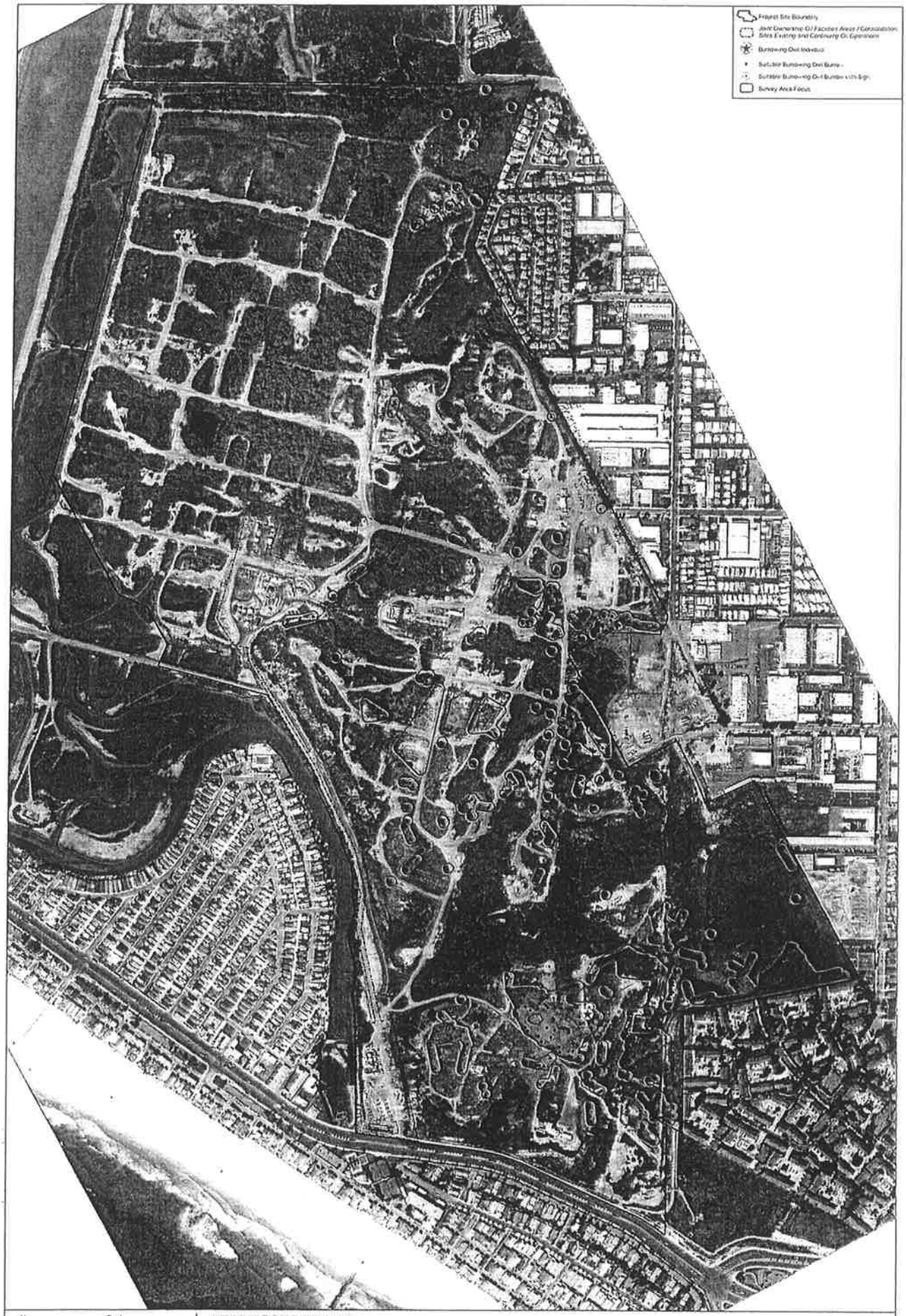

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Figure 3
Burrowing Owl Survey Area and Observations

APPENDIX A

List of Wildlife Species Observed or Detected Within the Project Boundary

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List of Wildlife Species Observed or Detected Within the Project Boundary

BIRDS

***ACCIPITRIDAE*—HAWKS, KITES, EAGLES, AND ALLIES**

Auteo jamaicensis—Red-tailed hawk
Pandion haliaetus—Osprey

***AEGITHALIDAE*—LONG-TAILED TITS AND BUSHTITS**

Psaltriparus minimus—Bushtit

***ANATIDAE*—DUCKS, GEESE, AND SWANS**

Anas platyrhynchos—Mallard

***ARDEIDAE*—HERONS, BITTERNS, AND ALLIES**

Ardea herodias—Great blue heron

***CATHARTIDAE*—CARDINALS AND ALLIES**

Cathartes aura—Turkey vulture

***CHARADRIIDAE*—LAPWINGS AND PLOVERS**

Charadrius vociferus—Killdeer

***COLUMBIDAE*—PIGEONS AND DOVES**

Zenaida macroura—Mourning dove

***CORVIDAE*—CROWS AND JAYS**

Corvus brachyrhynchos—American crow
Corvus corax—Common raven

***EMBERIZIDAE*—EMBERIZIDS**

Melozone crissalis—California towhee
Pipilo maculatus—Spotted towhee
Zonotrichia leucophrys—White-crowned sparrow

***FALCONIDAE*—CARACARAS AND FALCONS**

Falco sparverius—American kestrel

***FRINGILLIDAE*—FRINGILLINE AND CARDUELINE FINCHES AND ALLIES**

Carpodacus mexicanus—House finch
Spinus psaltria—Lesser goldfinch

***ICTERIDAE*—BLACKBIRDS AND ALLIES**

Sturnella neglecta–Western meadowlark

***LARIDAE*—GULLS AND TERNS**

Larus sp.–Gull sp.

***MIMIDAE*—MOCKINGBIRDS AND THRASHERS**

Mimus polyglottos—Northern mockingbird

***STRIGIDAE*—TRUE OWLS**

Athene cunicularia-Burrowing owl

STURNIDAE – STARLINGS

* *Sturnus vulgaris*–European starling

***SYLVIIDAE*—GNATCATCHERS**

Polioptila californica–California gnatcatcher

***TROCHILIDAE*—HUMMINGBIRDS**

Calypte anna—Anna's hummingbird

Selasphorus sasin—Allen's hummingbird

***TROGLODYTIDAE*—WRENS**

Troglodytes aedon—House wren

***TURDIDAE*—THRUSHES**

Catharus guttatus—Hermit thrush

***TYRANNIDAE*—TYRANT FLYCATCHERS**

Sayornis nigricans—Black phoebe

Myiarchus cinerascens – Ash-throated flycatcher

MAMMAL

***CANIDAE*—WOLVES AND FOXES**

Canis latrans—Coyote

***LEPORIDAE*—HARES AND RABBITS**

Sylvilagus bachmani—Brush rabbit

***SCIURIDAE*—SQUIRRELS**

Spermophilus (Otospermophilus) beecheyi—California ground squirrel

* Signifies introduced (non-native) species

APPENDIX B

Representative Photograph Exhibits

APPENDIX C

California Native Species Field Survey Form, CNDDB

Mail to:
California Natural Diversity Database
California Dept. of Fish & Wildlife
1807 13th Street, Suite 202
Sacramento, CA 95811
Fax: (916) 324-0475 email: CNDDB@wildlife.ca.gov

Date of Field Work (mm/dd/yyyy): 01/08/2014

For Office Use Only
Source Code _____ Quad Code _____
Elm Code _____ Occ. No. _____
EO Index No. _____ Map Index No. _____

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Athene cunicularia*

Common Name: burrowing owl

Species Found? ☑ Yes ☐ No _____ If not, why?

Total No. Individuals 1 Subsequent Visit? ☑ yes ☐ no

Is this an existing NDDB occurrence? _____ Yes, Occ. # ☐ no ☑ unk.

Collection? If yes: _____ Number _____ Museum / Herbarium

Reporter: Brock Ortega
Address: 605 Third Street
Encinitas, California 92024
E-mail Address: bortega@dudek.com
Phone: (760) 479-4254

Plant Information

Phenology: _____% vegetative _____% flowering _____% fruiting

Animal Information

# adults	# juveniles	# larvae	# egg masses	# unknown
1				

wintering	breeding	nesting	rookery	burrow site	other
☑	☐	☐	☐	☑	☐

Location Description ***(please attach map AND/OR fill out your choice of coordinates, below)***

Located approximately 0.20 mile north of Pacific Coast Highway 1 (PCH), 0.40 mile northeast of the Pacific Ocean, 0.85 southeast of the Santa Ana River, 0.48 mile southwest of the intersection of W. 16th Street and Monrovia Avenue in the City of Newport Beach, Orange County, California.

County: Orange County Landowner / Mgr.: Private
Quad Name: Newport Beach Elevation: 0 to 108 feet AMSL
T 6S R 10W Sec 21, ____ ¼ of _____ ¼, Meridian: H☐ M☐ S☐ Source of Coordinates (GPS, topo. map & type): map
T____ R____ Sec ____, ____ ¼ of _____ ¼, Meridian: H☐ M☐ S☐ GPS Make & Model _____
DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☐ Horizontal Accuracy _____ meters/feet
Coordinate System: UTM Zone 10 ☐ UTM Zone 11 ☐ *OR* Geographic (Latitude & Longitude) ☐
Coordinates:

Habitat Description (plants & animals) *plant communities, dominants, associates, substrates/soils, aspects/slope:*
Animal Behavior *(Describe observed behavior, such as territoriality, foraging, singing, calling, copulating, perching, roosting, etc., especially for avifauna):*

One burrowing owl individual detected perched on a mound adjacent to a burrow with sign (i.e.,white-wash and pellets). Another suitable burrow with burrowing owl sign observed approximately 0.30 mile northeast of the burrow where the burrowing owl was sighted.

Please fill out separate form for other rare taxa seen at this site.

Site Information Overall site/occurrence quality/viability (site + population): ☐ Excellent ☑ Good ☐ Fair ☐ Poor

Immediate AND surrounding land use: Site is currently occupied by an oil facility; and surrounded by commercial and residential use.

Visible disturbances: site maintenance

Threats: None

Comments:

Determination: *(check one or more, and fill in blanks)*
☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☐ Compared with photo / drawing in: _____
☐ By another person (name): _____
☑ Other: Known based on previous experience

Photographs: *(check one or more)*

	Slide	Print	Digital
Plant / animal	☐	☐	☐
Habitat	☐	☐	☑
Diagnostic feature	☐	☐	☑

May we obtain duplicates at our expense? yes ☑ no ☐