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Burrowing Owl Survey Report

Tennessee Village Project
City of Redlands, San Bernardino County, California



Prepared for:
City of Redlands
35 Cajon St. Ste. 20
P.O. Box 3005
Redlands, CA 92373

Prepared by:
MIG, Inc.
1650 Spruce Street, Suite 106
Riverside, California 92507
Contact: Todd Easley
teasley@migcom.com
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List of Abbreviated Terms

AMSL	Above Mean Sea Level
APN	Assessor Parcel Number
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFGF	California Fish and Game Code
CFR	Code of Federal Regulations
CNDDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CWA	Clean Water Act
DBH	Diameter at Breast Height
EPA	Environmental Protection Agency
FESA	Federal Endangered Species Act
GIS	Geographic Information Systems
HCP	Habitat Conservation Plan
IPaC	Information for Planning and Consultation
MBTA	Migratory Bird Treaty Act
NCCP	Natural Community Conservation Planning
NOAA	National Oceanic Atmospheric Administration
NPPA	Native Plant Protection Act
NRCS	Natural Resource Conservation Service
RWQCB	Regional Water Quality Control Board
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
USACE	United States Army Corps Engineers
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey

1.0 INTRODUCTION

This report presents the results of MIG's surveys for burrowing owl (*Athene cunicularia*) at the 13.48-acre Tennessee Village Development Project property (project site). The purpose of this report is to verify the type, location, and extent of potential sensitive burrowing owl within the project site and vicinity. This report provides a thorough description of the biological setting of the project site and surrounding area, a description of the general vegetation communities and wildlife observed at the project site, and an evaluation of the potential for burrowing owl to occur at the site. An assessment of the Project impacts and recommendations for Conditions of Approval for to avoid potential adverse impacts to burrowing owl is also included in the report. The evaluation of potential project impacts follows the checklist items from Appendix G of the California Environmental Quality Act (CEQA) guidelines and has been prepared in a format suitable to support CEQA review and to submit with any future regulatory application packages.

1.1 Project Location

The project site is located west of the 210 freeway and immediately east of Tennessee Street and south of Pennsylvania Avenue in the City of Redlands, San Bernardino County, California (Figure 1, *Regional Map*). The project is specifically located within the south half of the northeast quarter of Section 21, Township 1 South, Range 3, west of San Bernardino meridian, within the United States Geological Survey (USGS) 7.5' series Redlands quadrangle, (Figure 2, *USGS Topographic Map*), and includes portions of Assessor Parcel Numbers (APN) 0167-171-007, and 014 (Figure 3, *Project Site Map*).

The Project Site is located at just northeast of the intersection of Tennessee Street and Lugonia Avenue in a vacant lot that comprises approximately 13.48 acres. Residential properties and Texonia Park are east of the Project site, commercial properties to the south (Home Depot, 7-Eleven, and Jack in the box), the 210 freeway to the west and an additional vacant lot to the north (Figure 3).

1.2 Project Description

The City is proposing to construct a mixed-use development of 460 apartment units and approximately 18,000 square feet for commercial space. The project will require the approval of a tentative parcel map, a site plan approval, and a change of zone for a portion of the project site. The project site is primarily undeveloped; however, historically the site appeared to be disked and recently mowed. A narrow concrete channel, pipe, and small concrete pad were observed on the site. Most of the vegetation on site is non-native vegetation, generally classified as disturbed or ruderal. The project site is flat with an elevation of 1404.80 feet above mean sea level (AMSL) (Figure 2, *USGS Topographic Map*).

The Project Site comprises 4 lots and easements of approximately 13.48 acres consisting mainly of disturbed habitat just north of Tennessee Street at its intersection with Pennsylvania Avenue to the north and Lugonia Avenue to the south. In addition, the Project site and adjacent vacant lots to the north contain evidence of historical agricultural use and drainage channels (rock and concrete). The Project would result in the removal of all existing vegetation within the entire 13.48-acre site.

Access. A paved access road would be graded and maintained along the north of the site (Pennsylvania Ave). Additional public and utility access would be constructed throughout the development.

2.0 REGULATORY SETTING

The following discussion identifies federal, state, and local environmental regulations and policies that serve to protect burrowing owl relevant to the proposed project site and any subsequent CEQA review process.

2.1 Federal

2.1.1 The Migratory Bird Treaty Act

The Federal Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703 et seq.), Title 50 Code of Federal Regulations (CFR) Part 10, prohibits taking, killing, possessing, transporting, and importing of migratory birds, parts of migratory birds, and their eggs and nests, except when specifically authorized by the Department of the Interior. As used in the act, the term “take” is defined as meaning, “to pursue, hunt, capture, collect, kill or attempt to pursue, hunt, shoot, capture, collect or kill, unless the context otherwise requires.” Previously, under MBTA it was illegal to disturb a nest that is in active use, since this could result in killing a bird, destroying a nest, or destroying an egg. In 2017, the USFWS issued a memorandum stating that the MBTA does not prohibit incidental take; therefore, the MBTA is currently limited to purposeful actions, such as hunting and poaching.

2.2 State

2.2.1 California Environmental Quality Act

CEQA was enacted in 1970 to provide for full disclosure of environmental impacts to the public before issuance of a permit by state and local public agencies. CEQA (Public Resources Code Sections 21000 et. seq.) requires public agencies to review activities which may affect the quality of the environment so that consideration is given to preventing damage to the environment. When a lead agency issues a permit for development that could affect the environment, it must disclose the potential environmental effects of the project. This is done with an Initial Study and Negative Declaration (or Mitigated Negative Declaration) or with an Environmental Impact Report. Certain classes of projects are exempt from detailed analysis under CEQA. CEQA Guidelines Section 15380 defines endangered, threatened, and rare species for purposes of CEQA and clarifies that CEQA review extends to other species that are not formally listed under the CESA or FESA but that meet specified criteria.

2.2.2 Fully Protected Species and Species of Special Concern

The classification of “fully protected” was the CDFW’s initial effort to identify and provide additional protection to those animals that were rare or faced possible extinction. Lists were created for fish, amphibian and reptiles, birds, and mammals. Most of the species on these lists have subsequently been listed under CESA and/or FESA. The CFGC sections (fish at §5515, amphibian and reptiles at §5050, birds at §3511, and mammals at §4700) dealing with “fully protected” species states that these species “...may not be taken or possessed at any time and no provision of this code or any other law shall be construed to authorize the issuance of permits or licenses to take any fully protected species,” (CDFW Fish and Game Commission 1998) although take may be authorized for necessary scientific research. This language makes the “fully protected” designation the strongest and most restrictive regarding the “take” of these species. In 2003, the code sections dealing with fully protected species were amended to allow the CDFW to authorize take resulting from recovery activities for state-listed species.

Species of special concern are broadly defined as animals not listed under the FESA or CESA, but which are nonetheless of concern to the CDFW because they are declining at a rate that could result in listing or they historically occurred in low numbers and known threats to their persistence currently exist. This designation is intended to result in special consideration for these animals by the CDFW, land managers, consulting biologist, and others, and is intended to focus attention on the species to help avert the need for costly listing under FESA and CESA and cumbersome recovery efforts that might ultimately be required. This designation also is intended to stimulate collection of additional information on the biology, distribution, and status of poorly known at-risk species, and focus research and management attention on them. Although these species generally have no special legal status, they are given special consideration under the CEQA during project review.

2.2.3 California Fish and Game Code Sections 3503 and 3513

According to Section 3503 of the CFGC, it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird. Section 3503.5 specifically protects birds in the orders Falconiformes and Strigiformes (birds-of-prey). Section 3513 prohibits the take or possession of any migratory non-game bird. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered “take” by the CDFW.

2.3 Local

2.3.1 City of Redlands General Plan

The City of Redlands General Plan 2035 (adopted in 2017) contains policies for the protection and preservation of biological resources. The plan dictates several principles and actions that should be taken to preserve and protect sensitive species, wildlife habitats, and waterways. Principles specifically pertaining to burrowing owl include the following (excerpted from page 6-12 of the General Plan):

Principle 6-P.7 Protect environmentally sensitive lands, wildlife habitats, and rare, threatened, or endangered plant and animal communities, and

Principle 6-P.8 Minimize disruption of wildlife and valued habitat throughout the Planning Area and emphasize that open space is for more than just human use, but also serves as habitat for biological resources.

3.0 METHODS

3.1 Literature Review

Prior to conducting field surveys, MIG biologists reviewed available background information pertaining to the biological resources on and in the vicinity of the project. Available literature and resource mapping reviewed included the occurrence records for special-status species and sensitive natural communities and numerous other information sources listed below:

- California Natural Diversity Data Base (CNDDB) record search for State and Federally Listed Endangered, Threatened, and Wildlife and Rare Plants of California within the Redlands and surrounding eight USGS quadrangles: Yucaipa, San Bernardino South, San Bernardino North, Harrison Mtn., Keller Peak, Sunnymead, El Casco, and Riverside East (CDFW CNDDB 2023; Appendix A).
- eBird, Cornell Lab of Ornithology. Available at: <http://www.ebird.org>.
- iNaturalist. Available at: <https://www.inaturalist.org/>

3.2 Field Surveys

Surveys were conducted in accordance with the *Staff Report on Burrowing Owl* (CDFG 2012). Based on the results of the Habitat Assessment, burrows and potential burrow surrogates were located throughout or adjacent to the project site. 100% visual coverage was obtained and transects were less than 20m apart. At the start of each transect and, at least, every 100 m, the entire visible project area was scanned for burrowing owls using binoculars. The buffer area around the project site was also scanned with binoculars as part of the survey; however, due to private ownership no transects were performed outside of the project site. During the survey, the area was searched for burrowing owls, new burrows, burrow surrogates, calls, pellets, prey remains, whitewash, or decoration. Surveys were conducted under conditions that would be ideal for detecting burrowing owl or sign thereof and were consistent with the requirements of *Staff Report on Burrowing Owl* (CDFG 2012). Surveys were conducted by qualified biologists with over a decade of burrowing owl survey experience.

Survey Visit	Date	Time of Survey	Weather	Surveyor
1	May 19, 2023	7:00 AM – 10:00 AM	58-65 F, 0-8 mph, overcast 100% to 50% cloud cover, 0% rain.	Todd Easley, MA
2	June 9, 2023	7:30 AM - 10:00 AM	58-68 F, 0-5 mph, overcast 100% cloud cover, 0% rain.	Todd Easley, MA
3	July 3, 2023	7:15 AM - 7:55 AM	70-75 F, 0-5 mph, clear, 0% rain.	Elizabeth Kempton, PhD

4	July 21, 2023	7:10 AM - 8:45 AM	75-84 F, 0-5 mph, clear, 0% rain.	Todd Easley, MA
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4.0 EXISTING CONDITIONS

The following provides a description of the soils, vegetation communities, wildlife, and wildlife movement corridors present on the project site.

4.1 Physical Characteristics

The project is located within the United States Geological Survey (USGS) 7.5' series Redlands quadrangle (Figure 1, Regional Map, Figure 2, USGS Topographic Map). The project site is flat with an elevation of 1404.80 feet above mean sea level (AMSL) (Figure 2, *USGS Topographic Map*). The project area consists entirely of a vacant lot. The project area is highly disturbed due to previous disking and mowing. Remnant vegetation that was identified on the site consisted primarily of ruderal non-native plants.

4.2 Soils

Soils within the proposed project site have been mechanically disturbed (i.e., disked). The USDA Web Soil Survey reports three soil units within the boundary of the project site (USDA NRCS 2023), and none of these are classified as hydric soils (see Figure 5):

- HbA Hanford, sandy loam, 0 to 2 percent slopes
- TuB Tujunga, loamy sand, 0 to 5 percent slopes

The “Hanford sandy loam, 0 to 2 percent slopes” soil type is generally comprised of alluvium derived from granite and can be found in alluvial fans. Overall slopes associated with this soil type are 0 to 2 percent, and this soil type is rarely flooded, well drained, and would not be considered hydric soil that would typically support wetlands. Conditions present at the project site were consistent with those reported by the Web Soil Survey (USDA NRCS 2023).

The “Tujunga loamy sand, 0 to 5 percent slopes” soil type is generally comprised of alluvium derived from granite and can be found in alluvial fans. Overall slopes associated with this soil type are 0 to 5 percent, and this soil type is rarely flooded, somewhat excessively drained, and would not be considered hydric soil that would typically support wetlands. The minor component (10%) was Tujunga, gravelly loamy sand. This also would not be considered hydric soil that would typically support wetlands and does not have a hydric soil rating. Conditions present at the project site were consistent with those reported by the Web Soil Survey (USDA NRCS 2023).

4.3 General Plants and Plant Communities

Plant communities on-site and were evaluated to determine if they are considered sensitive under federal, state, or local regulations or policies. Biological communities were classified as sensitive or non-sensitive as defined by CEQA and other applicable laws and regulations. The majority of the 13.48 gross-acre project site is located within an urban area that is characterized by disturbed by land uses. The landcover type observed during the field survey is described in more detail below.

Disturbed and/or Developed (13.48 acres)

The entire Project Area has been historically altered by mowing and disking; all the landcover at the Project Area can be classified as Disturbed and/or Developed. Disturbed habitat type is composed primarily of early successional /ruderal plant species. Much of the vegetation present at the Project Area is non-native, and the site receives regular clearing to maintain compliance with fire code. Dominant plants included shortpod mustard (*Hirschfeldia incana*), London rocket (*Sisymbrium irio*), Russian thistle (*Salsola tragus*), tumbleweed (*Amaranthis albus*), redstem storksbill (*Erodium cicutarium*), puncture vine (*Tribulus terrestris*), red brome (*Bromus rubens*), and foxtail barley (*Hordeum murinum*). Note: This list of species is not intended to exhaustive or representative of a protocol survey or inventory.

4.4 General Wildlife

Wildlife species that were observed on the project site during multiple biological field surveys (May 19, 2023; June 9, 2023; July 3, 2023, and July 21 2023) include: Red-tailed Hawk (*Buteo jamaicensis*), Bushtit (*Psaltriparus minimus*), Mourning dove (*Zenaida macroura*), American Crow (*Corvus brachyrhynchos*), Common Raven (*Corvus corax*), American kestrel (*Falco sparverius*), House Finch (*Haemorhous mexicanus*), Lesser Goldfinch (*Spinus psaltria*), Cliff swallow (*Petrochelidon pyrrhonota*), Northern mockingbird (*Mimus polyglottos*), European starling (*Sturnus vulgaris*), Black Phoebe (*Sayornis nigricans*), Say's Phoebe (*Sayornis saya*), Western kingbird (*Tyrannus verticalis*), White checkered skipper (*Pyrgus albescens*), domestic dog (*Canis latrans*), Botta's pocket gopher (*Thomomys bottae*), Brush rabbit (*Sylvilagus bachmani*), Long-tailed weasel (*Mustela frenata*), and California ground squirrel (*Otospermophilus beecheyi*).

The possible burrowing owl predators present on site were dog, long-tailed weasel, raven, and red-tail hawk. There was no evidence of owl predation. (Note: This list of species is not intended to exhaustive or representative of a protocol survey or inventory). The site is located adjacent to busy streets with high levels of noise and human disturbance that may preclude high levels of wildlife activity, which is assumed to be the cause of the limited wildlife activity observed during the visits.

4.5 Burrowing Owl

Burrowing Owl

No burrowing owl or sign thereof were observed on the project site; nonetheless, the project site contains suitable habitat for burrowing owl with burrows (greater than 11cm in diameter). Burrowing owl are commonly found in disturbed sites like the project site and can also be found in a wide variety of other open habitats such as grassland or deserts with sparse vegetation. Although no burrowing owl were found during these surveys, it is possible for burrowing owls to encroach upon the project-site at anytime. The nearest occurrences (CNDDDB 2023, Occurrence Numbers 1784 and 314) are approximately 5 miles from the project site. Potential impacts and recommendations to reduce them to a less than significant level are discussed in the following sections.

5.0 ENVIRONMENTAL IMPACTS

This section describes potential impacts to burrowing owl that may occur in the project site. Each impact discussion includes recommendations that would be implemented for Conditions of Approval to avoid and/or reduce the potential for and/or level of impacts to each resource. With the implementation of the recommendations for Conditions of Approval, all impacts to biological resources are anticipated to be reduced to less than significant pursuant to CEQA.

5.1 Thresholds of Significance

This section describes potential impacts to biological resources that may occur as a result of the construction of the proposed project. CEQA Guidelines provide guidance in evaluating project impacts and determining whether impacts may be significant. CEQA defines “significant effect on the environment” as “a substantial adverse change in the physical conditions which exist in the area affected by the proposed project.” In accordance with Appendix G of the CEQA Guidelines, a project could have a significant environmental impact on biological resources if it would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS
- Have a substantial adverse effect on any sensitive natural community identified in local or regional plans, policies, or regulations, or by the CDFW or USFWS
- Have a substantial adverse effect on federally protected wetlands, as defined by Section 404 of the CWA (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrologic interruption, or other means
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance
- Conflict with the provisions of an adopted HCP, Natural Community Conservation Plant (NCCP), or other approved local, regional, or state HCP

5.2 Impacts and Recommendations for Conditions of Approval

Consistent with the requirements of CEQA and local regulations, the significance of potential impacts is evaluated through the application of the significance criteria described above. The objective of the biological resources analysis is to identify potential adverse effects and/or significant impacts on biological resources. Avoidance is often the preferred approach for the management of biological resources; however, it is not always possible to completely avoid impacts. Recommendations to avoid or minimize impacts are identified, as appropriate, including procedures to be followed if significant biological resources are identified prior to the initiation of construction.

Impact BIO-1: Nesting Birds (including burrowing owl)

Native and non-native vegetation, as well as various other substrates on the project site, have the potential to provide nesting habitat for bird species protected by the CDFGC Sections 3503 and 3513. There is potential for ground- and shrub-nesting birds to establish nests on the project site prior to any project-

related construction. Construction activities including site mobilization, vegetation clearing, grubbing, grading, and noise and vibration from the operation of heavy equipment have the potential to result in significant direct (i.e., death or physical harm) and/or indirect (i.e., nest abandonment) impacts to nesting birds. The loss of an active nest of common or special-status bird species and/or their eggs or young as a result of project construction would be considered a violation of the CDFGC, Section 3503, 3503.5, 3513 and therefore, would be considered a potentially significant impact. Implementation of Recommendation BIO-1 would be required to reduce impacts to nesting birds to a less than significant level.

Impact BIO-2: Burrowing Owl

Suitable habitat type (Disturbed and/or Developed) for burrowing owl was determined to be present on-site, and burrowing owl are known to occur in the vicinity of the site. Construction activities may impact burrowing owl in a manner like those already described under Impact-Bio-1 for nesting birds. Recommendation BIO-2 would be required to reduce impacts to burrowing owl to a less than significant level.

Recommendations for Conditions of Approval

BIO-1 Pre-construction Surveys for Nesting Birds. To the extent feasible, construction activities should be scheduled to avoid the nesting season. If construction activities are scheduled to take place outside the nesting season, all impacts to nesting birds protected under the MBTA and California Fish and Game Code would be avoided. The nesting season for most birds in San Bernardino County extends from February 1 through September 1.

If it is not possible to schedule construction activities between September 1 and January 31, then pre-construction surveys for nesting birds will be conducted by a qualified biologist to ensure that no nests would be disturbed during project implementation. These surveys will be conducted no more than 5 days prior to the initiation of any site disturbance activities and equipment mobilization, vegetation removal, fence installation, grading, etc. If project activities are delayed by more than 5 days, an additional nesting bird survey will be performed. During this survey, the biologist will inspect all vegetation and other potential nesting habitats (e.g., shrubs) in and immediately adjacent to the impact area for nests. Active nesting is present if a bird is building a nest, sitting in a nest, a nest has eggs or chicks in it, or adults are observed carrying food to the nest. The results of the surveys will be documented.

If an active nest is found sufficiently close to work areas to be disturbed by these activities, the qualified biologist will determine the extent of a construction-free buffer zone to be established around the nest (typically up to 300 feet for raptors and up to 100 feet for other species), to ensure that no nests of species protected by the MBTA and California Fish and Game Code will be disturbed during project implementation. Within the buffer zone, no site disturbance and mobilization of heavy equipment, including but not limited to equipment staging, fence installation, clearing, grubbing, vegetation removal, demolition, and grading will be permitted until the chicks have fledged.

A qualified biologist is an individual who has a degree in biological sciences or related resource management with a minimum of two seasonal years post-degree experience conducting surveys for nesting birds. During or following academic training, the qualified biologist will have achieved a

high level of professional experience and knowledge in biological sciences and special-status species identification, ecology, and habitat requirements.

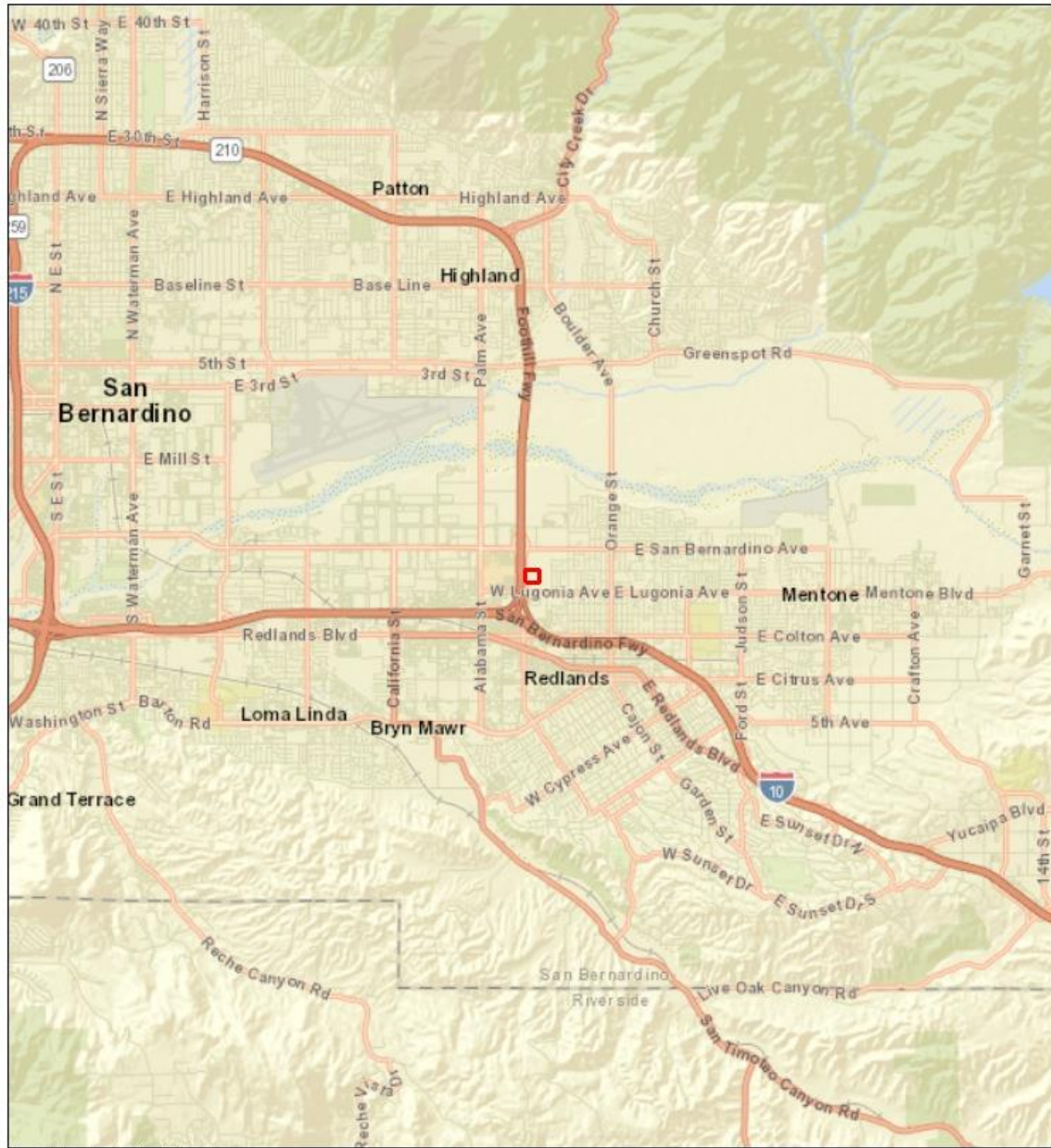
BIO-2 Pre-construction Surveys for Burrowing Owl. No more than 14 days prior to ground disturbance a focused survey for burrowing owl will be required to ensure take avoidance. Even though burrowing owls were not located as part of the general biological survey, a pre-construction survey for burrowing owl is required because burrowing owls may encroach or migrate to the property at any time, and therefore steps should be taken to ensure avoidance, including reevaluating the locations/presence of burrowing owl or burrows. Pre-construction surveys shall be conducted in accordance with the survey requirements outlined in Appendix D of the CDFW's *Staff Report on Burrowing Owl*, dated March 7, 2012. If burrowing owl are found on the project site during pre-construction surveys, the biologist conducting surveys shall immediately contact the CDFW to develop a plan for avoidance and/or translocation prior to construction crews initiating any ground disturbance on the project site.

6.0 REFERENCES

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7.0 FIGURES

Figure 1: Vicinity Map



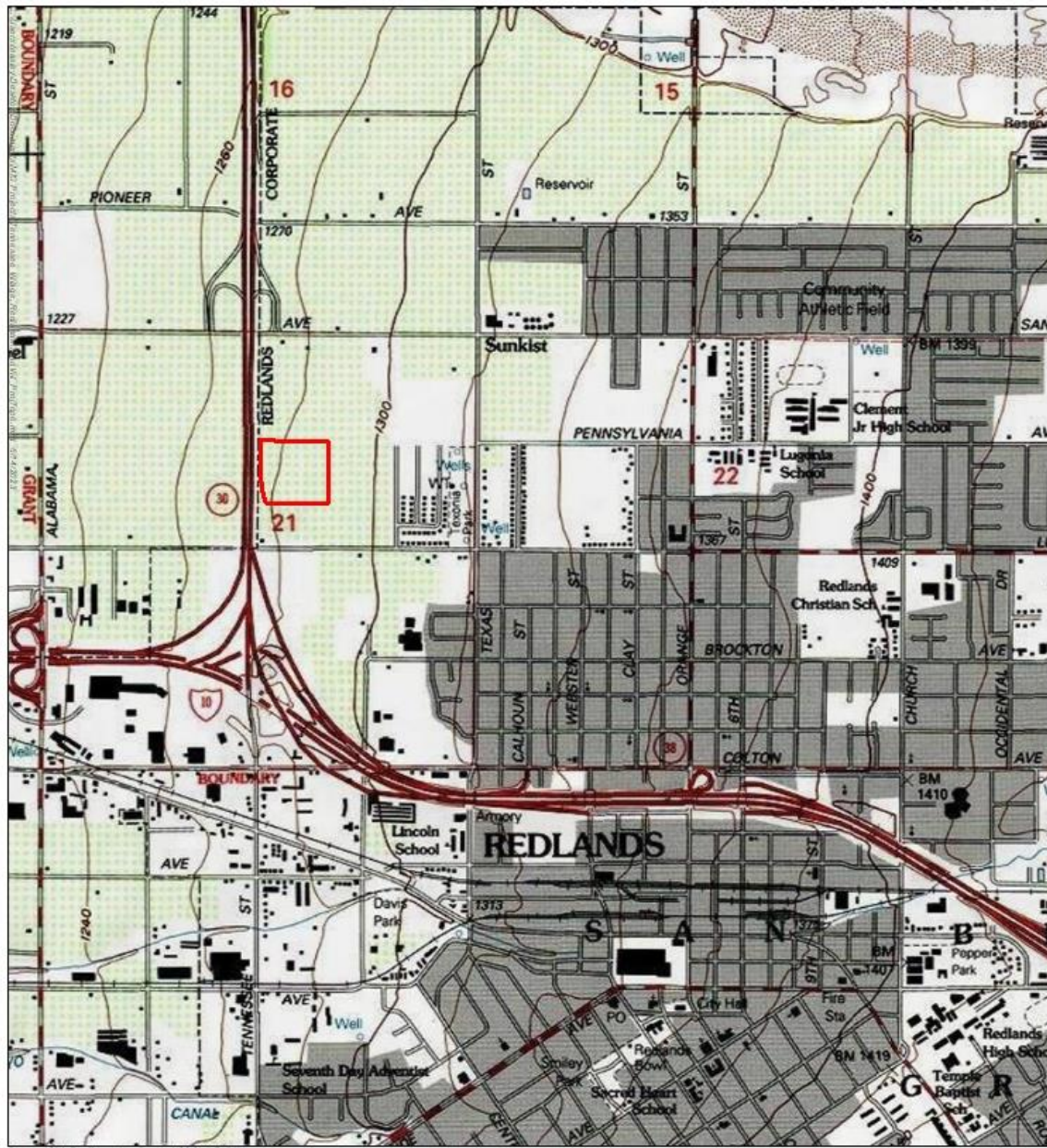
Source: P.591, San Bernardino County M96, 2023

Legend
 Project Boundary (Estimated)



Figure 1. Project Vicinity Map
Tennessee Village
 City of Redlands, CA

Figure 2: USGS Topographic Map



Legend
 Project Boundary (Estimated)

Figure 2. USGS Topographic Map
Tennessee Village
 City of Redlands, CA

Figure 3: Project Site Map



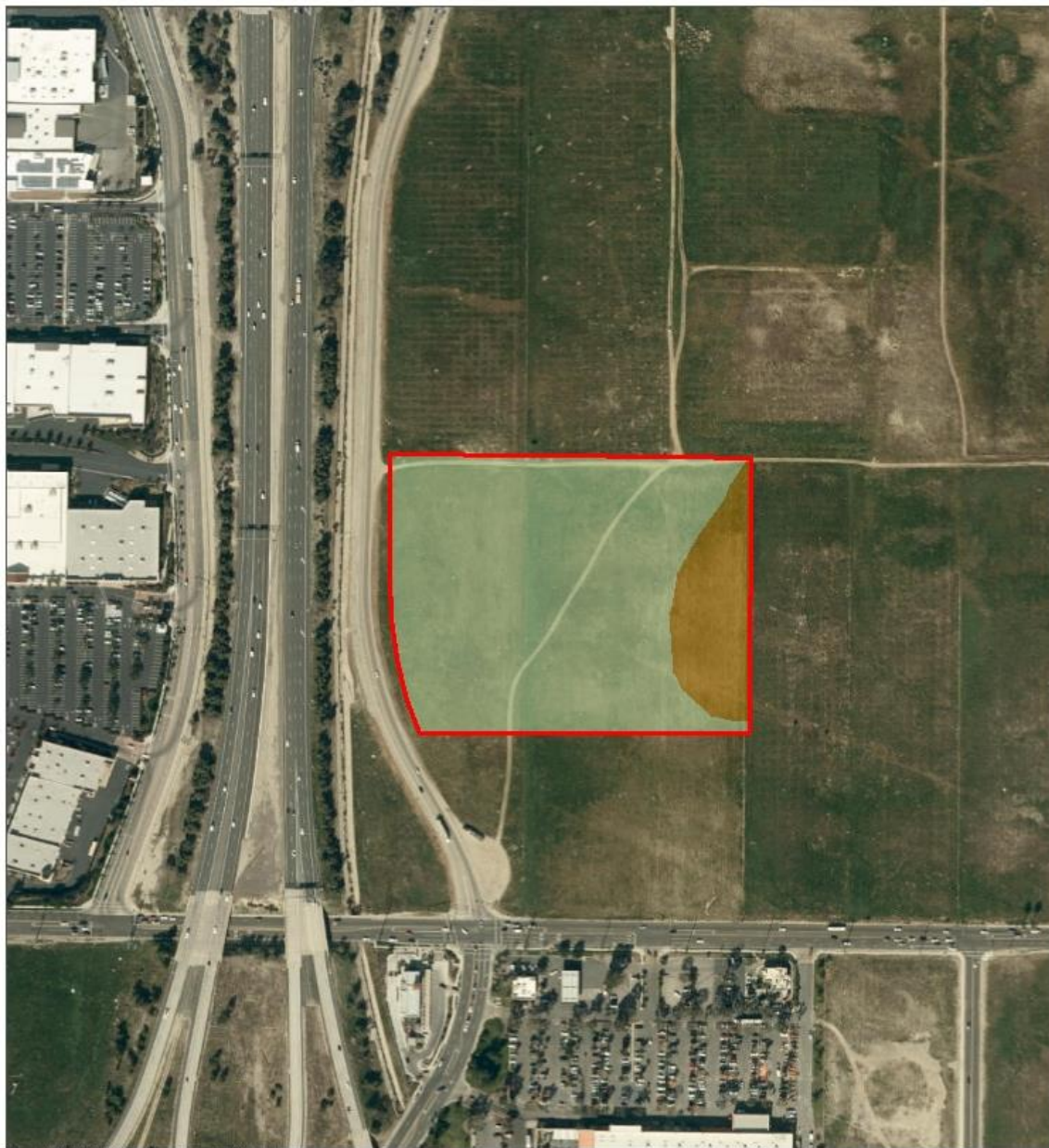
Legend

Project Boundary (Estimated)



Figure 3. Project Location
Tennessee Village
 City of Redlands

Figure 4: SSURGO Soils Map



Source: F. S. 11, USDA-NRCS, San Bernardino County, MN, 2013

Legend

- Project Boundary (Estimated)
- USDA Natural Resources Conservation Service (NRCS) Soils**
- HbA - Hanford sandy loam, 0 to 2 percent slopes
- TuB - Tujunga loamy sand, 0 to 5 percent slopes



Figure 4. Soils Map
Tennessee Village

City of Redlands, CA

Figure 5: Project Site Photographs



Photo 1. View south from the site toward the intersection of W. Lugonia Ave and Tennessee St.



Photo 2. View southeast of a rock/debris pile from the northern edge of the project site near dirt access rd.



Photo 3. Burrow observed on the project site.



Photo 4. View west from near center of project site of small concrete pad with utility wire.

Appendix A
Special Status Species Database Search Results



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Species IS (Athene cunicularia)
 AND Quad IS (Redlands (3411712))

Map Index Number: 40533	EO Index: 35540
Key Quad: Redlands (3411712)	Element Code: ABNSB10010
Occurrence Number: 314	Occurrence Last Updated: 1999-01-07

Scientific Name: <i>Athene cunicularia</i>	Common Name: burrowing owl
Listing Status:	Rare Plant Rank:
Federal: None	
State: None	Other Lists:
CNDDDB Element Ranks:	BLM_S-Sensitive
Global: G4	CDFW_SSC-Species of Special Concern
State: S3	IUCN_LC-Least Concern
	USFWS_BCC-Birds of Conservation Concern

General Habitat: OPEN, DRY ANNUAL OR PERENNIAL GRASSLANDS, DESERTS, AND SCRUBLANDS CHARACTERIZED BY LOW-GROWING VEGETATION.	Micro Habitat: SUBTERRANEAN NESTER, DEPENDENT UPON BURROWING MAMMALS, MOST NOTABLY, THE CALIFORNIA GROUND SQUIRREL.
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Last Date Observed: 1983-XX-XX	Occurrence Type: Natural/Native occurrence
Last Survey Date: 1983-XX-XX	Occurrence Rank: Good
Owner/Manager: DOD-USAF	Trend: Unknown
Presence: Presumed Extant	

Location:
EAST END OF THE MAIN RUNWAY, NORTON AIR FORCE BASE.

Detailed Location:
BURROWS WERE LOCATED EAST OF THE ROAD THAT SKIRTS THE RUNWAY.

Ecological:
HABITAT CONSISTS OF AN OPEN, SANDY FIELD.

Threats:
MAY BE THREATENED BY DEVELOPMENT DUE TO BASE CLOSURE (IN THE EARLY 1990'S).

General:
AN UNDETERMINED NUMBER OF OWLS UTILIZED THIS BURROW SITE IN 1983.

PLSS: T01S, R03W, Sec. 08 (S)	Accuracy: 1/10 mile	Area (acres): 0
UTM: Zone-11 N3773482 E480206	Latitude/Longitude: 34.10196 / -117.21459	Elevation (feet): 1,170

County Summary: San Bernardino	Quad Summary: Redlands (3411712)
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Sources:
NOS83F0001 NOSAL, T. - FIELD SURVEY FORM FOR ATHENE CUNICULARIA (BURROW SITE) 1983-XX-XX



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number: 81883

EO Index: 82856

Key Quad: Redlands (3411712)

Element Code: ABNSB10010

Occurrence Number: 1784

Occurrence Last Updated: 2011-02-28

Scientific Name: *Athene cucularia*

Common Name: burrowing owl

Listing Status: **Federal:** None

Rare Plant Rank:

State: None

Other Lists:

CNDDB Element Ranks: **Global:** G4

BLM_S-Sensitive

CDFW_SSC-Species of Special Concern

IUCN_LC-Least Concern

State: S3

USFWS_BCC-Birds of Conservation Concern

General Habitat:

OPEN, DRY ANNUAL OR PERENNIAL GRASSLANDS, DESERTS, AND SCRUBLANDS CHARACTERIZED BY LOW-GROWING VEGETATION.

Micro Habitat:

SUBTERRANEAN NESTER, DEPENDENT UPON BURROWING MAMMALS, MOST NOTABLY, THE CALIFORNIA GROUND SQUIRREL.

Last Date Observed: 2006-05-26

Occurrence Type: Natural/Native occurrence

Last Survey Date: 2006-05-26

Occurrence Rank: Unknown

Owner/Manager: UNKNOWN

Trend: Unknown

Presence: Presumed Extant

Location:

JUST E OF STERLING AVE AT E 3RD ST, N EDGE OF SAN BERNARDINO INTERNATIONAL AIRPORT.

Detailed Location:

ALONG CITY CREEK. BLOCK CODE 3770-475 - LOCATION CODE A. MAPPED TO PROVIDED COORDINATES.

Ecological:

UPLAND ELEVATION SUBREGION. GROUND SQUIRRELS DETECTED WITHIN 100 M OF BREEDING LOCATION.

Threats:

General:

6 ADULTS AND 3 JUVENILES DETECTED ON 26 MAY 2006; THE 3 PAIRS WERE LOCATED WITHIN 1/4 MI OF EACH OTHER AT THIS LOCATION.

PLSS: T01S, R03W, Sec. 06, SW (S)

Accuracy: 80 meters

Area (acres): 0

UTM: Zone-11 N3773996 E477727

Latitude/Longitude: 34.10655 / -117.24148

Elevation (feet): 1,110

County Summary:

San Bernardino

Quad Summary:

Redlands (3411712)

Sources:

WIL09D0003 WILKERSON, R. & R. SIEGEL (THE INSTITUTE FOR BIRD POPULATIONS) - DATABASE AND DATA DICTIONARY FOR IBP'S 2006-2007 STATEWIDE BURROWING OWL SURVEY 2009-09-29