

Appendix C



INFORMATION SUMMARY

- A. Report Date: June 5th, 2019
- B. Report Title: Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Focused Burrowing Owl Surveys for the 15.78-Acre Sapphire Project Site, Western Riverside County, City of Murrieta California.
- C. Case #: DP-2019-1887, TPM 2019-1886
- D. APN#s: 392-280-007
- E. Project Location: USGS 7.5' Series Murrieta Quadrangle, Riverside County, Township 6 South, Range 3 West, Section 36, 35451 McElwain Road, North of Linnel Lane and East of McElwain Road, City of Murrieta, California, as shown in Attachment A, *Project Site Map*.
- F. Applicant: Murrieta Development II, LLC
23656 Bellwood Court
Murrieta, CA 92562
Contact: Joseph Sapp (858) 228-7322
- G. MOU Principal: Cadre Environmental
701 Palomar Airport Road, Suite 300, Carlsbad, CA. 92011
Contact: Ruben S. Ramirez, Jr. (949) 300-0212
USFWS permit #TE780566-14, CDFW permit #02243
- H. Date of Surveys: November 28th 2018, March 5th, 25th, April 16th, and May 14th, 2019.
- I. Summary: The 15.78-acre property and 0.91-acre offsite assessment area (McElwain Road, Linnel Lane and Delaney Circle Right-Of-Ways) collectively referenced as (project site, 16.69 acres total) are dominated by disturbed/ruderal, California buckwheat scrub, coastal sage scrub, and ornamental trees.

The project site is not located within an MSHCP Criteria Area, Cell Group, or Linkage Area.

The MSHCP has determined that all of the sensitive species potentially occurring onsite have been adequately covered

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(MSHCP Table 2-2 Species Considered for Conservation Under the MSHCP Since 1999, 2004). However, additional surveys may be required wildlife species if suitable habitat is documented onsite and/or if the property is located within a predetermined “Survey Area” (MSHCP 2004).

The project site occurs completely within a predetermined Survey Area for the burrowing owl (*Athene cunicularia*). Suitable burrowing owl burrows potentially utilized for refugia and/or nesting were documented within the property including foraging habitat documented throughout the project site. Therefore, focused surveys were conducted by Cadre Environmental during the spring of 2019.

No burrowing owl or characteristic sign such as white-wash, feathers, tracks, or pellets were detected within or immediately adjacent to the project site during the 2019 survey effort.

At a minimum, an MSHCP 30-day preconstruction survey will be required immediately prior to the initiation of construction to ensure protection for this species and compliance with the conservation goals as outlined in the MSHCP.

SUBJECT

Western Riverside County Multiple Species Habitat Conservation Plan Focused Burrowing Owl Surveys for the 15.78-Acre Sapphire Project Site, Western Riverside County, California.

This report presents the findings of focused Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) burrowing owl surveys conducted for the 15.78-acre property and 0.91-acre offsite assessment area (McElwain Road, Linnel Lane and Delaney Circle Right-Of-Ways (ROW's)) collectively referenced as "Project Site", 16.69 acres total located within the western region of Riverside County, California.

The Project Site is located within United States Geological Survey (USGS) 7.5' Series Murrieta Quadrangle, Riverside County, Township 6 South, Range 3 West, Section 36. Specifically, the Project Site is located at 35451 McElwain Road, north of Linnel Lane and east of McElwain Road, City of Murrieta, California, as shown in Attachment A, *Project Site Map*. The offsite assessment area includes improvements and proposed sewer extension within the existing developed ROWs of McElwain Road, Linnel Lane, and Delaney Circle.

The Project Site is located within the Western Riverside County MSHCP Southwest Area Plan. The Project Site is not located within an MSHCP Criteria Area, Cell Group, or Linkage Area.

This report incorporates the findings of a literature review, compilation of existing documentation, and a field reconnaissance and focused surveys conducted on November 28th, 2018, March 5th, 25th, April 16th, and May 14th, 2019.

This documentation is consistent with accepted scientific and technical standards and the requirements of the MSHCP. When appropriate, general biological resources are described in summary form in an effort to provide the reader with adequate background information.

METHODS OF STUDY

APPROACH

Prior to visiting the Project Site, a review of all available and relevant data on the biological characteristics, sensitive habitats, and species potentially present on or adjacent to the Project Site was conducted. Additionally, aerial photography, and USGS topographic map data were examined. After reviewing the available information, Cadre Environmental conducted a physical site assessment/burrow and focused survey.

As required by the MSHCP, and during the initial property assessment process, the Project Site APN was searched using the Regional Conservation Authority (RCA) GIS

database to determine if additional surveys for wildlife not adequately covered by the MSHCP may be required. The Project Site is located completely within a predetermined Survey Area for the burrowing owl.

Plant Community/Habitat Classification and Mapping

Plant communities were preliminarily mapped with the aid of an aerial photograph using the MSHCP uncollapsed vegetation communities classification system. When a vegetation community could not be accurately characterized using this classification system, an updated community classification code was developed to more accurately represent onsite habitat types.

General Wildlife Inventory

All animals identified during the reconnaissance survey by sight, call, tracks, scat, or other characteristic sign were recorded onto a 1:200 scale orthorectified color aerial photograph or documented using a global positioning system (GPS). In addition to species actually detected, expected use of the site by other wildlife was derived from the analysis of habitats on the site, combined with known habitat preferences of regionally occurring wildlife species.

Vertebrate taxonomy followed in this report is according to the Center for North American Herpetology (2019 for amphibians and reptiles), the American Ornithologists' Union (1988 and supplemental) for birds, and Baker et al. (2003) for mammals. Both common and scientific names are used during the first mention of a species; common names only are used in the remainder of the text.

Burrowing Owl Surveys

In accordance with the MSHCP Burrowing Owl Survey Instructions (2006), survey protocol consists of two steps, Step I – Habitat Assessment and Step II – Locating Burrows and Burrowing Owls. Step II is comprised of two parts, Part A: Focused Burrow Surveys and Part B: Focused Burrowing Owl Surveys.

Each step is briefly outlined below, followed by the methodology and results of each survey conducted within the Project Site. All initial habitat assessment, burrow and focused surveys were conducted by Ruben Ramirez.

Surveys were conducted during weather that is conducive to observing owls outside their burrows and detecting burrowing owl sign. Surveys were not conducted during rain, high winds (> 20 mph), dense fog, or temperatures over 90 °F. None of the surveys were conducted within five (5) days of measurable precipitation.

In addition to the MSHCP guidelines, field notes were taken daily. These notes recorded the date, location, animal species observed, and general habitat characteristics of each area and habitat examined that day.

Step I – Habitat Assessment

Step 1 of the MSHCP habitat assessment for burrowing owl consists of a walking survey to determine if suitable habitat is present onsite. Cadre Environmental conducted the habitat assessment on November 28th, 2018. Upon arrival at the Project Site, and prior to initiating the assessment survey, Cadre Environmental used binoculars to scan all suitable habitats on and adjacent to the property, including perch locations, to ascertain owl presence.

All suitable areas of the Project Site were surveyed on foot by walking slowly and methodically while recording/mapping areas that may represent suitable owl habitat onsite. Primary indicators of suitable burrowing owl habitat in western Riverside County include, but are not limited to, native and non-native grassland, interstitial grassland within shrub lands, shrub lands with low density shrub cover, golf courses, drainage ditches, earthen berms, unpaved airfields, pastureland, dairies, fallow fields, and agricultural use areas. Burrowing owls typically use burrows made by fossorial mammals, such as ground squirrels (*Otospermophilus beecheyi*) or badgers (*Taxidea taxus*), but they often utilize man-made structures, such as earthen berms, cement culverts, cement, asphalt, rock, or wood debris piles, or openings beneath cement or asphalt pavement. Burrowing owls are often found within, under, or in close proximity to man-made structures.

According to the MSHCP guidelines, if suitable habitat is present the biologist should also walk the perimeter of the property, which consists of a 150-meter (approximately 500 feet) buffer zone around the Project Site boundary. If permission to access the buffer area cannot be obtained, the biologist shall not trespass, but visually inspect adjacent habitats with binoculars.

Results from the habitat assessment indicated that suitable burrowing owl burrows potentially utilized for refugia and/or nesting were documented within the property including foraging habitat documented throughout the Project Site. Accordingly, if suitable habitat is documented onsite, both Step II surveys and the 30-day pre-construction surveys are required in order to comply with the MSHCP guidelines.

Step II – Locating Burrows and Burrowing Owls

Concurrent with the initial habitat assessment, a detailed focused burrow survey was conducted and included documentation of appropriately sized natural burrows or suitable man-made structures that may be utilized by burrowing owl - as part of the MSHCP protocol, which is described below under Part A. Focused Burrow Survey. The MSHCP protocol indicated that no more than 100 acres should be surveyed per day/per biologist.

Part A: Focused Burrow Survey

A systematic survey for burrows, including burrowing owl sign, was conducted by walking across all suitable habitats mapped within the Project Site on November 28th,

2019. Pedestrian survey transects were spaced to allow 100% visual coverage of the ground surface. The distances between transect centerlines were no more than 20 meters (approximately 66 ft.) apart, and owing to the terrain, often much smaller. Transect routes were also adjusted to account for topography and in general ground surface visibility.

All observations of suitable burrows or dens, natural or man-made, or sightings of burrowing owl, were recorded and mapped during the survey.

Part B: Focused Burrowing Owl Surveys

Four (4) focused burrowing owl surveys (in addition to the initial focused burrow survey – Step II, Part A) were conducted on March 5th, 25th, April 16th, and May 14th, 2019 from one hour before sunrise to two hours after sunrise as outlined in Table 1, *Burrowing Owl Survey Schedule*. During visual surveys, all potentially suitable burrow or structure entrances were investigated for signs of owl occupation, such as feathers, tracks, or pellets, and carefully observed to determine if burrowing owls utilize these features, when present. All burrows are monitored at a short distance from the entrance, and at a location that would not interfere with potential owl behavior, when present. In addition to monitoring potential burrow locations, all suitable habitats in the Project Site were walked along transects averaging 20 meters (approximately 66 feet) between centerlines.

Table 1 – Burrowing Owl Survey Schedule

Survey	Dates (Conditions) 2019	Results
1	March 5 th - 62°F to 72°F, winds 2-10mph, no rain	No owls detected
2	March 25 th - 60°F to 70°F, winds 0-4mph, no rain	No owls detected
3	April 16 th - 57°F to 62°F, winds 2-8mph, no rain	No owls detected
4	May 14 th - 58°F to 68°F, winds 2-4mph, no rain	No owls detected

EXISTING CONDITIONS

The Project Site slopes slightly from north to south with elevations extending from 1,600 feet above mean sea level (AMSL) in the extreme northwest region to 1,565 AMSL along the southeast boundary. The Project Site is currently dominated by disturbed/ruderal, California buckwheat scrub, coastal sage scrub, and ornamental trees as illustrated in Attachment, B *Biological Resources Map*, and Attachments C and D, *Current Project Site Photographs*.

Disturbed/Ruderal

The majority of the Project Site is dominated by disturbed/ruderal vegetation. Common species documented within this habitat type include Russian thistle (*Salsola tragus*),

totalote (*Centaurea melitensis*), red-stemmed filaree (*Erodium cicutarium*), white-stemmed filaree (*Erodium moschatum*), black mustard (*Brassica nigra*), fascicled tarweed (*Deinandra fasciculata*), tobacco tree (*Nicotiana glauca*), and doveweed (*Croton setigerus*). Non-native grasses scattered within this vegetation community include ripgut grass (*Bromus diandrus*), foxtail chess (*Bromus madritensis* ssp. *rubens*), wild oat (*Avena fatua*), slender wild oat (*Avena barbata*), and Mediterranean schismus (*Schismus barbatus*).

California Buckwheat Scrub/Deerweed Scrub

Several large patches of California buckwheat and deerweed scrub were documented onsite. California buckwheat (*Eriogonum fasciculatum*) and deerweed (*Acmispon glaber*) were the dominant plant species within these vegetation communities. Less common species associated with the understory include California aster (*Corethrogyne filaginifolia*) and non-native grasses.

Coastal Sage Scrub

Several patches of coastal sage scrub were documented onsite. Common species documented within the vegetation community include California sagebrush (*Artemisia californica*), black sage (*Salvia mellifera*), California matchweed (*Gutierrezia californica*), valley cholla (*Opuntia parryi*), and California buckwheat.

Coast Live Oak

Two (2) mature coast live oaks (*Quercus agrifolia*) were documented adjacent to Drainage A in the southwest region of the Project Site.

Blue Elderberry

Several native blue elderberry trees (*Sambucus cerulea*) were scattered throughout the Project Site.

Chamise Chaparral

A single small patch of chamise chaparral was documented near the southern terminus of Drainage B. This vegetation community is dominated by Chamise (*Adenostoma fasciculatum*).

Ornamental Trees

Several ornamental trees were documented within the Project Site including Eucalyptus (*Eucalyptus* sp.), tamarisk (*Tamarisk* sp.) and olive trees (*Olea europaea*).

Mulefat Scrub

A single patch of mulefat scrub was documented at the southern terminus of Drainage A. This vegetation community is dominated by mulefat (*Baccharis salicifolia*).

Representative distribution and photographs of these habitat types are illustrated in Attachment B, *Biological Resources Map* and Attachments C and D, *Current Project Site Photographs*.

RESULTS

No burrowing owl or characteristic sign such as white-wash, feathers, tracks, or pellets were detected within or immediately adjacent to the Project Site during the spring 2019 MSHCP focused survey effort.

General wildlife species documented onsite or within the vicinity during the site visit include red-tailed hawk (*Buteo jamaicensis*), Anna's hummingbird (*Calypte anna*), mourning dove (*Zenaida macroura*), house wren (*Troglodytes aedon*), American crow (*Corvus brachyrhynchos*), Cassin's kingbird (*Tyrannus vociferans*), Say's phoebe (*Sayornis saya*), California towhee (*Pipilo crissalis*), western meadowlark (*Sturnella neglecta*), northern mockingbird (*Mimus polyglottos*), yellow-rumped warbler (*Setophaga coronata*), song sparrow (*Melospiza melodia*), house finch (*Carpodacus mexicanus*), and house sparrow (*Passer domesticus*).

At a minimum, a 30-day preconstruction survey will be conducted immediately prior to the initiation of construction to ensure protection for this species and compliance with the conservation goals as outlined in the MSHCP

REFERENCES

- Cadre Environmental. 2019. General MSHCP Habitat Assessment/Constraints Analysis for the 15.78-Acre Murrieta Project Site, Western Riverside County, California.
- California Department of Fish and Wildlife (CDFW). 2018. Special Animals. Natural Heritage Division, Natural Diversity Data Base.
- California Department of Fish and Wildlife (CDFW), Natural Diversity Data Base (CNDDB). 2019a. Sensitive Element Record Search for the Murrieta Quadrangle. California Department of Fish and Wildlife. Sacramento, California. Accessed May, 2019.
- California Department of Fish and Wildlife (CDFW). 2019b. State and Federally Listed Endangered and Threatened Animals of California. Natural Heritage Division, Natural Diversity Data Base.

California Department of Fish and Wildlife (CDFW). 2019c. Endangered, Threatened, and Rare Plants of California. Natural Heritage Division, Natural Diversity Data Base.

California Department of Fish and Wildlife (CDFW). 2019d. Special Vascular Plants, Bryophytes, and Lichens. Natural Heritage Division, Natural Diversity Data Base.

California Department of Fish and Wildlife (CDFW). 2019e. California Sensitive Natural Communities, www.wildlife.ca.gov/Data/VegCAMP/Naturalcommunities#sensitive natural communities. Accessed May 2019.

California Department of Fish and Wildlife. 2012. Staff Report on Burrowing Owl Mitigation, State of California Natural Resources Agency.

County of Riverside. 2006. Burrowing Owl Survey Instructions – Western Riverside Multiple Species Habitat Conservation Plan Area.

Riverside County Integrated Project (RCIP) Multiple Species Habitat Conservation Plan (MSHCP), March 2004.

ATTACHMENTS

Attachment A - Project Site Map

Attachment B - Biological Resources Map

Attachment C - Current Project Site Photographs

Attachment D - Current Project Site Photographs

Attachment E - Burrowing Owl Survey Map

Certification

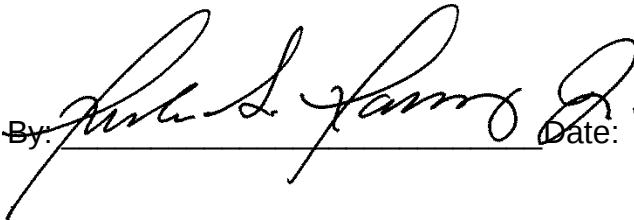
"I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for this biological evaluation, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief."

Author: _____



Date: June 5th, 2019

Fieldwork Performed By: _____



Date: June 5th, 2019



#➔ Photo Point & Direction

— Offsite Assessment Area

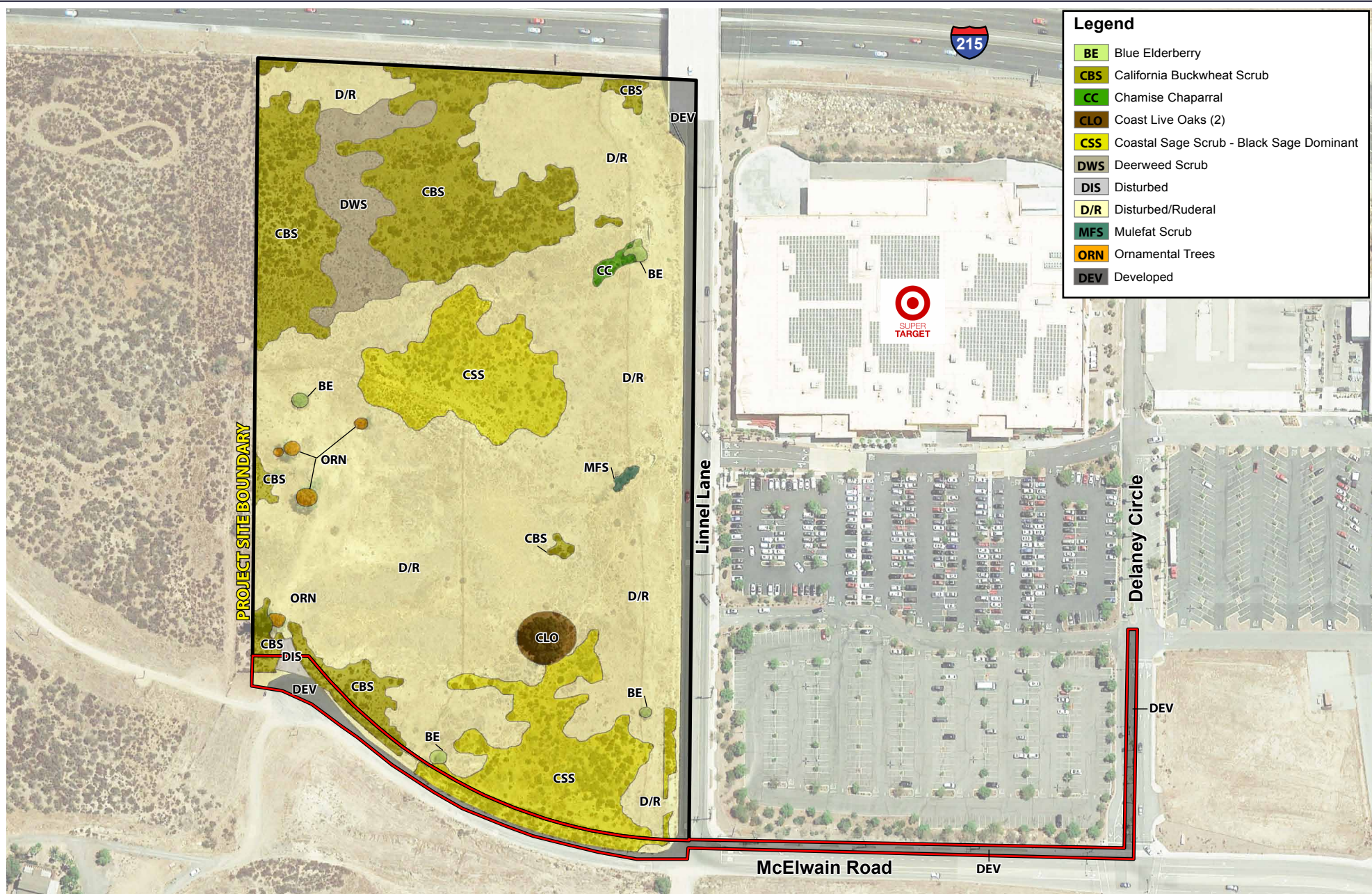
Attachment A - Project Site Map

MSHCP Burrowing Owl Surveys
Sapphire Project Site - APN 392-280-007

CADRE
Environmental



1 inch = 200 feet



 Offsite Assessment Area

Attachment B - Biological Resources Map

MSHCP Burrowing Owl Surveys

Sapphire Project Site - APN 392-280-007

CADRE
Environmental



1 inch = 200 feet



PHOTOGRAPH 1 - Northeast view of Project Site from coastal sage scrub (black sage dominant) toward two coast live oak trees documented onsite.



PHOTOGRAPH 2 - Southward view of one of two drainage features which bisect the Project Site in a southward direction and exit through culverts extending under Linnel Lane.

Refer to Attachment A for Photographic Key Map



PHOTOGRAPH 3 - Westward view of the northern region of the Project Site. California buckwheat scrub is shown in the foreground.



PHOTOGRAPH 4 - Westward view of the dominant disturbed/ruderal vegetation documented onsite.

Refer to Attachment B for Photographic Key Map

Attachment D - Current Project Site Photographs

*MSHCP Burrowing Owl Surveys
Sapphire Project Site - APN 392-280-007*



Attachment E - Burrowing Owl Survey Area Map
 MSHCP Burrowing Owl Surveys
 Sapphire Project Site - APN 392-280-007

CADRE
 Environmental



1 inch = 200 feet