Prenda Arroyo is dominated by giant reed and southern willow scrub.

Tributary to Prenda Arroyo viewing north east. The Tributaries tend to be unvegetated or vegetated with non-natives species.

INFORMATION SUMMARY

A. Report Date: May 17th, 2021 (Updated February 22nd, 2022)

B. Report Title: Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Focused Burrowing Owl Surveys for the 24.73-Acre Dauchy Avenue Project Site including 3.31-acre Offsite Impact Area, City of Riverside, Western Riverside County, California.

C. Case #: PR-2021-001030

D. APN#s: 276-040-011, 276-040-012, and 276-050-029. Offsite portions of 276-050-030, -031, 276-040-007, -008, -009, -010, and Right-of-Ways

E. Project Location: USGS 7.5' Series Riverside East Quadrangle, Township 3 South, Range 4 West, Section 18, Southwest of Dauchy Avenue and Ferrari Drive intersection as shown in Attachment A, *Project Site Map*.

F. Applicant: Signature Reality Capital Corporation
1901 Newport Boulevard, Suite 350
Costa Mesa, CA 92627
Contact: Al Cohen (949) 636-7261

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 9th, 2020, March 24th, April 20th, May 5th and 14th, 2021.

I. Summary: The 24.73-acre project site including 3.31-acre offsite impact area (28.04-acre total) is located within the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Lake Mathews/Woodcrest Plan Area. The project site is not located within an MSHCP criteria area cell, group, or linkage area. The project site is dominated by disturbed/non-native grassland, Riversidean sage scrub, and giant reed/southern willow scrub habitat as shown in Attachment, B *Biological Resources Map*, and Attachments C to F, *Current Project Site Photographs.*

The MSHCP has determined that all of the sensitive species potentially occurring onsite have been adequately covered (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 2021.

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 2021 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 24.73-acre Dauchy Road Project Site, City of Riverside, 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 24.73-acre Dauchy Avenue project site including adjacent 3.31-acre offsite impact area (28.04-acre total) located within assessor's parcel numbers (APNs) onsite 276-040-011, 276-040-012, and 276-050-029, offsite portions of 276-050-030, -031, 276-040-007, -008, -009, -010, and Right-of-Ways (Project Site).

The Project Site is located within United States Geological Survey (USGS) 7.5' Series Riverside East Quadrangle, Riverside County, Township 3 South, Range 4 West, Section 18, extending southwest of the Dauchy Avenue and Ferrari Drive intersection, as shown in Attachment A, *Project Site Map*.

The Project Site is located within the MSHCP Lake Mathews/Woodcrest Plan Area and 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 9th, 2020, March 24th, April 20th, May 5th and 14th, 2021.

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 (2021 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 9th, 2020. 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 9th, 2020. 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 24th, April 20th, May 5th and 14th, 2021 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 as shown in Attachment G, *Burrowing Owl Survey Area Map*.

An existing residence is located in the northwest corner of the Project Site. This area was adequately surveyed from the boundaries for the presence/absence of individuals within and adjacent to this region.

Table 1
Burrowing Owl Survey Schedule

Survey	Dates (Conditions) 2021 Start – End Times	Results
1	**March 24th** 52°F to 62°F, winds 4-12 mph, no rain 6:30am – 9:30am	No burrowing owls or characteristic sign detected within the Project Site.
2	**April 20th** 54°F to 68°F, winds 2-8 mph, no rain 6:30am – 9:30am	No burrowing owls or characteristic sign detected within the Project Site.
3	**May 5th** 58°F to 75°F, winds 0-4 mph, no rain 6:30am – 9:30am	No burrowing owls or characteristic sign detected within the Project Site.
4	**May 14th** 55°F to 74°F, winds 4-10 mph, no rain 6:30am – 9:30am	No burrowing owls or characteristic sign detected within the Project Site.

EXISTING CONDITIONS

The Project Site and offsite impact area are characterized as rolling hilltops at approximately 1,500 feet elevation primarily dominated by disturbed/non-native grassland, Riversidean sage scrub and a blue-line drainage (Prenda Arroyo) located within and adjacent to the southwestern Project Site boundary as outlined in Table 2, *Project Site Vegetation Community Acreages and Impacts*, and illustrated in Attachment B, *Biological Resources Map*, and Attachment D to G, *Current Project Site Photographs*.

Table 2.
Project Site Vegetation Community Acreages and Impacts

Vegetation Community	Project Site Acres	Offsite Impact Area Acres	Total Acres
Disturbed/Non-Native Grassland	20.38	2.83	23.21
Riversidean Sage Scrub	2.60	0.21	2.81
Giant Reed (Arundo donax)	0.58	--	0.58
Southern Willow Scrub	0.56	--	0.56
Developed	0.53	0.26	0.79
Blue Elderberry Scrub	0.05	--	0.05
Mule Fat Scrub	0.01	0.01	0.02
Coyote Brush Scrub	0.01	--	0.01
Ornamental	0.01	--	0.01
TOTAL	**24.73**	**3.31**	**28.04**

Source: Cadre Environmental 2021

Disturbed/Non-Native Grassland

The majority of the Project Site is characterized as disturbed/non-native grassland vegetation. Dominant species documented within this vegetation community include slender wild oat (*Avena barbata*), ripgut grass (*Bromus diandrus*), foxtail chess (*Bromus madritensis* ssp. *rubens*), wild oat grass (*Avena fatua*), prickly lettuce (*Lactuca serriola*), black mustard (*Brassica nigra*), stinknet (*Oncosiphon piluliferum*), tumbling pigweed (*Amaranthus albus*), Pomona milk vetch (*Astragalus pomonensis*), rattlesnake sandmat (*Euphorbia albomarginata*), doveweed (*Croton setigerus*), and fascicled tarweed (*Deinandra fasciculata*).

Riversidean Sage Scrub

Several patches of Riversidean sage scrub are concentrated along the western and eastern Project Site boundaries. Dominant plant species documented within this vegetation community include California buckwheat (*Eriogonum fasciculatum*), California sagebrush (*Artemisia californica*), sweetbush (*Bebbia juncea*), bush sunflower (*Encelia californica*), white sage (*Salvia apiana*), deerweed (*Acmispon glaber*), coast cholla (*Cylindropuntia prolifera*), coast goldenbush (*Isocoma menziesii*), and pinebush (*Ericameria pinifolia*).

Giant Reed (*Arundo donax*)

Several large patches of giant reed (*Arundo donax*) are located within the floodprone area of the drainage located within and adjacent to the southwestern Project Site boundary.

Southern Willow Scrub

Several patches of southern willow scrub are located within the floodprone area of the drainage located within and adjacent to the southwestern Project Site boundary. Dominant species documented within this vegetation community include arroyo willow (*Salix lasiolepis*) and mule fat (*Baccharis salicifolia*).

Developed/Ornamental

An existing residence and associated ornamental vegetation, tree of heaven (*Ailanthus altissima*) is located within the northwest region of the Project Site.

Blue Elderberry Scrub

A single patch of blue elderberry scrub (*Sambucus nigra* ssp. *caerulea*) was documented within the swale located in the eastern region of the Project Site adjacent to Dauchy Avenue.

Mule Fat Scrub

A single patch of mule fat scrub was documented within the swale located in the eastern region of the Project Site adjacent to Ferrari Drive.

Coyote Brush Scrub

A single patch of coyote brush scrub (*Baccharis pilularis*) was documented within the swale located in the eastern region of the Project Site adjacent to Dauchy Avenue.

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 2021 MSHCP focused survey effort.

General wildlife species documented onsite or within the vicinity during the site visit include turkey vulture (*Cathartes aura*), red-tailed hawk (*Buteo jamaicensis*), American kestrel (*Falco sparverius*), rock dove (*Columba livia*), mourning dove (*Zenaida macroura*), American crow (*Corvus brachyrhynchos*), Cassin's kingbird (*Tyrannus vociferans*), Say's phoebe (*Sayornis saya*), bushtit (*Psaltriparus minimus*), western meadowlark (*Sturnella neglecta*), ash-throated flycatcher (*Myiarchus cinerascens*), lark sparrow (*Chondestes grammacus*), European starling (*Sturnus vulgaris*), brown-headed cowbird (*Molothrus ater*), red-winged blackbird (*Agelaius phoeniceus*), northern mockingbird (*Mimus polyglottos*), lesser goldfinch (*Spinus psaltria*), house finch (*Carpodacus mexicanus*), and California ground squirrel (*Otospermophilus beecheyi*).

MSHCP CONSERVATION MEASURE (CONDITION OF APPROVAL)

A 30-day pre-construction survey for burrowing owls is required prior to initial ground-disturbing activities (e.g. vegetation clearing, clearing and grubbing, tree removal, site watering) to ensure that no owls have colonized the 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 Wildlife Agencies and the Regional Conservation Authority (RCA), 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 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 site since it was last disturbed. If burrow owl is found, the same coordination described above will be necessary.

REFERENCES

Cadre Environmental. 2021. Western Riverside County Multiple Species Habitat Conservation Plan Compliance Analysis for the 24.73-Acre Dauchy Avenue Project Site, City of Riverside, Western Riverside County, California.

California Department of Fish and Wildlife (CDFW), Natural Diversity Data Base (CNDDB). 2021a. Sensitive Element Record Search for the Riverside East. California Department of Fish and Wildlife. Sacramento, California. Accessed May 2021.

California Department of Fish and Wildlife (CDFW). 2021b. Special Animals. Natural Heritage Division, Natural Diversity Data Base.

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

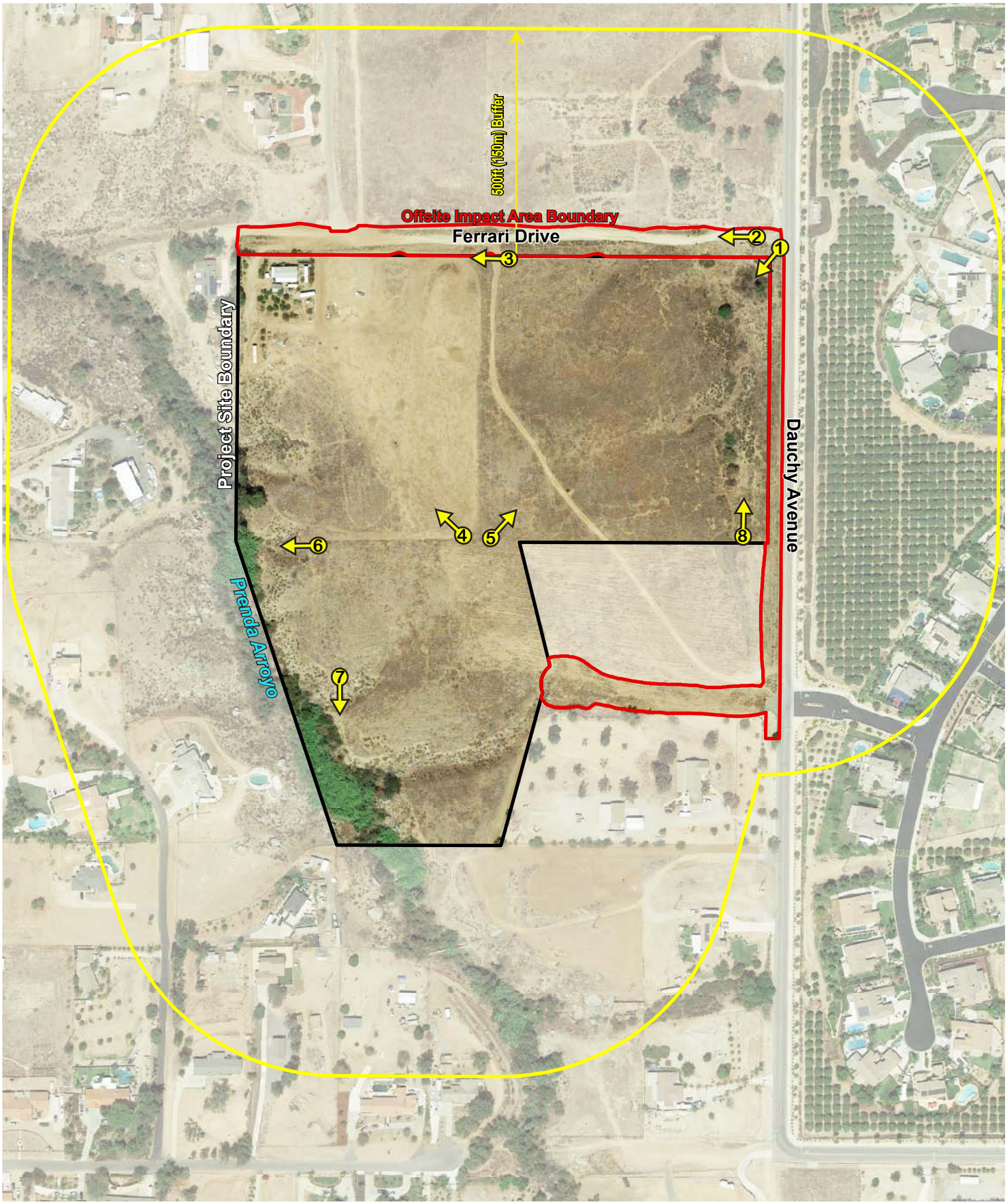
A – Project Site Map
B – Biological Resources Map
C – Current Project Site Photographs
D – Current Project Site Photographs
E – Current Project Site Photographs
F – Current Project Site Photographs
G – Burrowing Owl Survey Map

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: February 22nd, 2022

Fieldwork Performed By: _____ Date: February 22nd, 2022



Onsite APNs 276-040-011, 276-040-012, and 276-050-029
Offsite APNs Portions of 276-050-030, -031, 276-040-007,-008, -009, -010, ROW

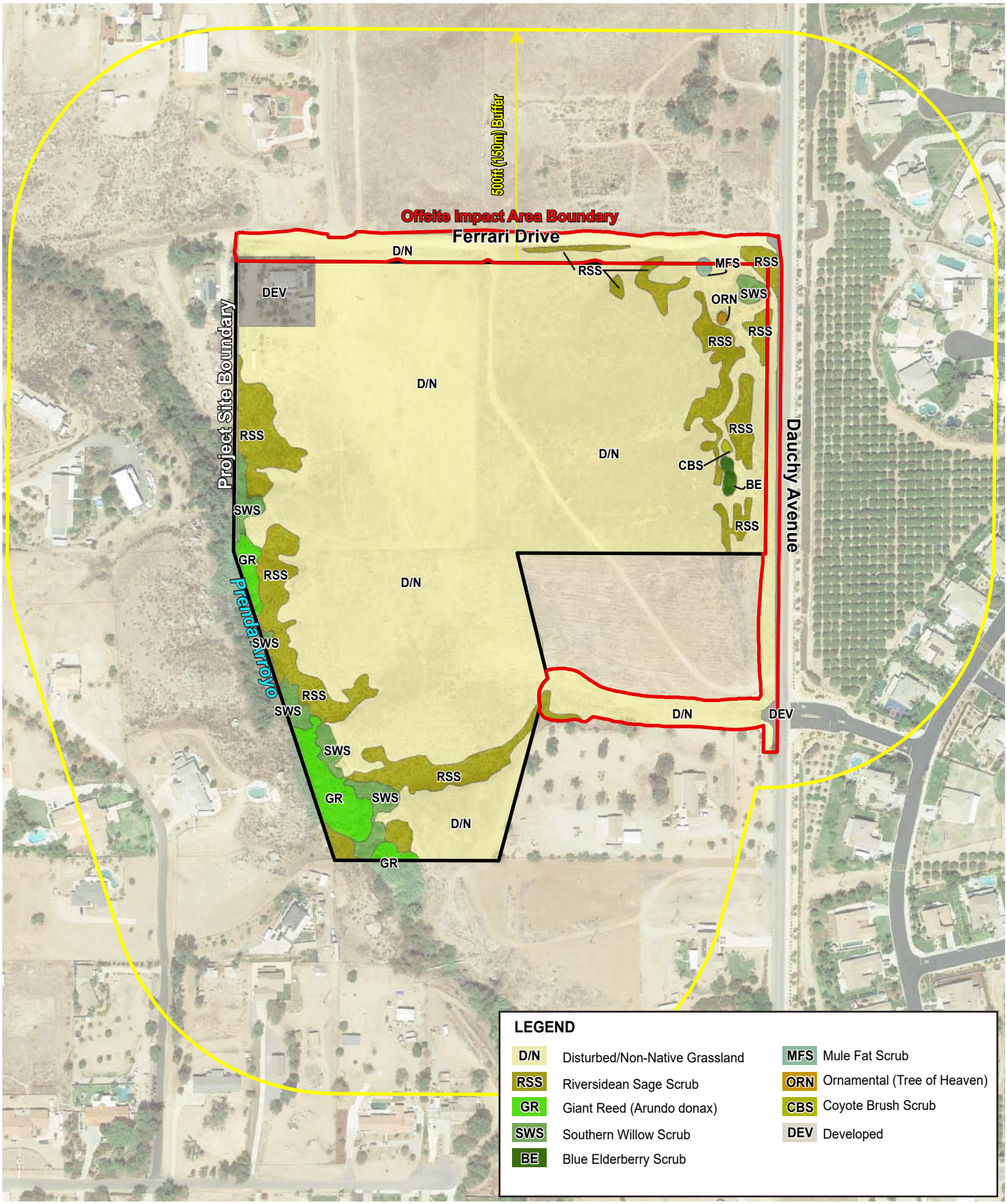
(#) Photo Point & Direction

Attachment A **Vicinity Map**
MSHCP Burrowing Owl Surveys
Dauchy Avenue Project Site

CADRE Environmental

N

1" = 280 feet



Onsite APNs 276-040-011, 276-040-012, and 276-050-029
Offsite APNs Portions of 276-050-030, -031, 276-040-007,-008, -009, -010, ROW

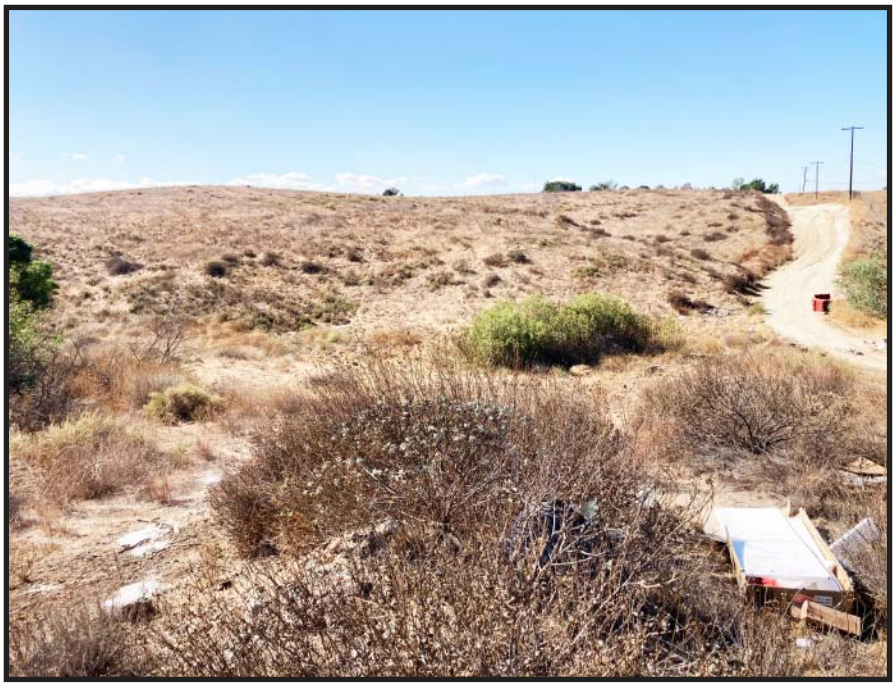
Attachment B **Biological Resources Map**
MSHCP Burrowing Owl Surveys
Dauchy Avenue Project Site

CADRE Environmental

N

1" = 280 feet

PHOTOGRAPH 1 - Southwest view of Project Site from Dauchy Avenue and Ferrari Drive intersection.



PHOTOGRAPH 2 - Westward view of Project Site from Dauchy Avenue and Ferrari Drive intersection.

Refer to Attachment A for Photo Key

PHOTOGRAPH 3 - Westward view of Project Site from north-central boundary. The Project Site is dominated by disturbed/non-native grassland.

PHOTOGRAPH 4 - Northwest view of Project Site from central region of property. The Project Site is dominated by disturbed/non-native grassland.

Refer to Attachment A for Photo Key

PHOTOGRAPH 5 - Northwest view of Project Site from central region of property. The Project Site is dominated by disturbed/non-native grassland.

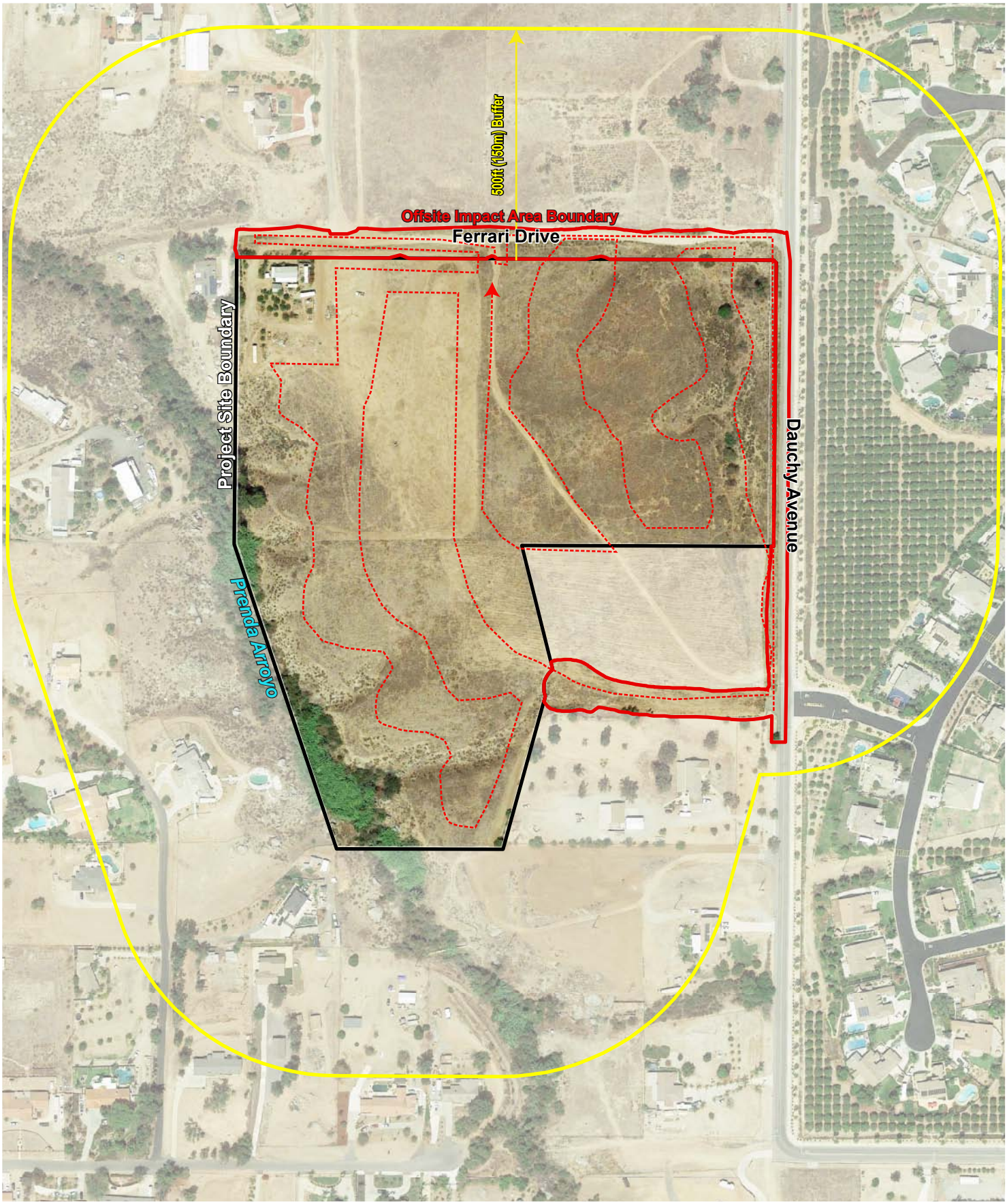
PHOTOGRAPH 6 - Westward view of blue-line drainage located along the southwestern boundary. Large patches of giant reed (*Arundo donax*) dominate the drainage.

Refer to Attachment A for Photo Key

PHOTOGRAPH 7 - Southward view of blue-line drainage located along the southwestern boundary. Patches of southern willow scrub are located within the drainage.

PHOTOGRAPH 8 - Northward view from southeastern Project Site boundary adjacent to Dauchy Avenue.

Refer to Attachment A for Photo Key



Onsite APNs 276-040-011, 276-040-012, and 276-050-029
Offsite APNs Portions of 276-050-030, -031, 276-040-007,-008, -009, -010, ROW

Survey Transects

Attachment G **Burrowing Owl Survey Area Map**
MSHCP Burrowing Owl Surveys
Dauchy Avenue Project Site

CADRE Environmental

N

1" = 280 feet

INFORMATION SUMMARY

A. Report Date: September 15th, 2021 (Updated March 28th, 2023)

B. Report Title: Western Riverside County Multiple Species Habitat Conservation Plan Compliance Analysis for the 24.73-Acre TTM 38074 Dauchy Avenue Project Site including 3.43-acre Offsite Impact Area, City of Riverside, Western Riverside County, California.

C. Case#: PR-2021-001030

D. APNs#: 276-040-011, 276-040-012, and 276-050-029. Offsite portions of 276-050-030, -031, 276-040-007, -008, -009, -010, and Right-of-Ways.

E. Project Location: USGS 7.5' Series Riverside East Quadrangle, Township 3 South, Range 4 West, Section 18, Southwest of Dauchy Avenue and Ferrari Drive intersection as shown in Attachment A, *Regional Location Map* and Attachment B, *Vicinity Map*.

F. Applicant: Signature Realty Capital Corp
1901 Newport Blvd, Suite 350
Costa Mesa, CA 92627
Contact: Al Cohen (949) 999-2000

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 Survey: November 9th, 2020.

I. Summary: The 24.73-acre project site including 3.43-acre offsite impact area (28.16-acre total) is located within the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Lake Mathews/Woodcrest Plan Area. The project site is not located within an MSHCP criteria area cell, group, or linkage area. Therefore, no Habitat Evaluation and Acquisition Negotiation Strategy (HANS) or Joint Project Review (JPR) are required.

The MSHCP has determined that all of the sensitive species potentially occurring onsite have been adequately covered (MSHCP Table 2-2 Species Considered for Conservation Under the MSHCP

Since 1999, 2004). However, additional surveys may be required for narrow endemic plants, criteria area species, and specific 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 does not occur within a predetermined Survey Area for criteria area species (RCA GIS Data Downloads 2020). No additional surveys are required.

The project site does not occur within a predetermined Survey Area for narrow endemic plant species (RCA GIS Data Downloads 2020). No additional surveys are required.

The project site does not occur within a predetermined Survey Area for amphibians (RCA GIS Data Downloads 2020). No additional surveys are required.

The project site does not occur within a predetermined Survey Area for mammals (RCA GIS Data Downloads 2020). No additional surveys are required.

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 and adjacent to the property including foraging habitat documented throughout the project site. Based on the presence of suitable habitat, focused MSHCP burrowing owl surveys were conducted during the spring of 2021 to determine the presence/absence and status of the species within and adjacent to the project site. 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 2021 survey effort (Cadre Environmental 2021). A 30-day MSHCP preconstruction survey will also 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.

The southern willow scrub/giant reed vegetation located within and adjacent to the western project site boundary represents suitable habitat for the least Bell's vireo (*Vireo bellii pusillus*), and moderate to low quality habitat for the southwestern willow flycatcher (*Empidonax traillii extimus*) and western yellow-billed cuckoo (*Coccyzus americanus*) as shown in Attachment C, *Vegetation Community Map* and Attachments D to G*, Current Project Site Photographs*. No impacts to these vegetation communities within the western blue-line drainage are proposed or will occur as a result of project initiation. No additional surveys are required.

No MSHCP Section 6.1.2 vernal pool resources were documented onsite. Based on a lack of suitable soils, sign of inundation (seasonal depression, road ruts) and/or characteristic vernal pool plant species, no suitable habitat for fairy shrimp is present onsite. The project site is dominated by sandy loam substrates as shown in Attachment H, *Soils Association Map*. Focused surveys for fairy shrimp are not warranted.

MSHCP Section 6.1.2 riparian and riverine resources are present within and adjacent to the project site as shown in Attachment I, MSHCP Section 6.1.2 Resources Map. For purposes of assessing existing conditions and impacts, all resources delineated by Carlson Strategic Land Solutions, Inc. as California Department of Fish and Wildlife (CDFW) regulated features were also characterized as MSHCP Section 6.1.2 Riverine and Riparian resources as referenced in the report titled "Jurisdictional Delineation for the Dauchy Project Site Located in the City of Riverside, Carlson Strategic Land Solutions, December 19th, 2022". The proposed project will directly impact a total of 0.096-acre of MSHCP Section 6.1.2 riverine resources also regulated by the CDFW (Page 12, Table 4. *Impacts Summary to CDFW Jurisdictional Waters*, Carlson Strategic Land Solutions, Inc. 2022). Therefore, a Determination of Biological Equivalent or Superior Preservation (DBESP) was prepared and titled "MSHCP Determination of Biologically Equivalent or Superior Preservation (DBESP) Dauchy Avenue Tentative Tract Map No. 38074, , City of Riverside, Western Riverside County, California. (Cadre Environmental. 2022)

A formal jurisdictional delineation was conducted by Carlson Strategic Land Solutions, Inc. 2022 (Carlson Strategic Land Solutions, Inc. 2022). The delineation determined the boundaries or absence of potential wetland and non-wetland waters of the United States subject to the regulatory jurisdiction of the U.S. Army Corps of Engineers (USACE) pursuant to Clean Water Act (CWA) Section 404; wetland and non-wetland waters of the State subject to the regulatory jurisdiction of the Regional Water Quality Control Board (RWQCB) pursuant to CWA Section 401 and State Porter-Cologne Water Quality Control Act (Porter-Cologne); streambed and riparian habitat subject to the regulatory jurisdiction of the CDFW pursuant Sections 1600 *et seq*. of the California Fish and Game Code (CDFG Code. The proposed project will impact a total of 0.006-acre USACE non-wetland, 0.018-acre RWQCB non-wetland, and 0.096-acre CDFW regulated resources (Carlson Strategic Land Solutions, Inc. 2022). The project applicant will be required to obtain all applicable permits and certifications.

The project site is not located within or adjacent to the City of Riverside Municipal Code 17.08.011 (Ord. 6673 § 1, 2003) regulated arroyo, tributaries. The proposed action would not conflict with the intent of the City of Riverside Municipal Code 17.08.011 (Ord. 6673 § 1, 2003). The reach of the blue-line drainage that bisects the property was not mapped as a regulated arroyo or tributary because the property was annexed to the City in 2007 and not mapped at that time.

SUBJECT

Western Riverside County Multiple Species Habitat Conservation Plan Compliance Analysis for the 24.73-acre TTM 38074 Dauchy Road Project Site including 3.43-acre Offsite Impact Area, City of Riverside, Western Riverside County, California.

This report presents the findings of an initial Multiple Species Habitat Conservation Plan (MSHCP) biological resources habitat assessment and compliance analysis for the 24.73-acre project site including adjacent 3.43-acre offsite impact area (28.16-acre total) located within assessor's parcel numbers (APNs) onsite 276-040-011, 276-040-012, and 276-050-029, offsite portions of 276-050-030, -031, 276-040-007, -008, -009, -010, and Right-of-Ways. The purpose of this study, conducted by Cadre Environmental, is to document the existing biological resources, identify general vegetation types, assess the potential regulatory respective of the proposed 53 lot planned residential development, Planning Case PR-2021-001030.

Project Location

The Project Site is located within United States Geological Survey (USGS) 7.5' Series Riverside East Quadrangle, Riverside County, Township 3 South, Range 4 West, Section 18, extending southwest of the Dauchy Avenue and Ferrari Drive intersection, as shown in Attachment A, *Regional Location Map* and Attachment B, *Vicinity Map.*

The Project Site is located within the MSHCP Lake Mathews/Woodcrest Plan Area and is not located within an MSHCP criteria area cell, group, or linkage area.

Project Description

Tentative Tract Map No. 38074 proposes a gated subdivision of 24.73 acres into 53 dwelling units. There are currently three contiguous parcels that make up the subject property that make up approximately 24.45 acres, and the remaining 0.28 acres consist of road vacations that will be added to the property. Other lots that will be created are as follows: Lots "B" and ""G" will be utilized as private recreational lots consisting of 97,510 s.f. and 10,807 s.f., respectively; Lots "C", "E", and "F" will be natural open space lots that will contain natural areas that will have 60,626, 227,246, and 79,831 square feet, respectively; Lots "I", "L", "M", "N", and "O" will be common open space that will contain manufactured slopes to be maintained by the Homeowner's Association that will have 12,628, 4,134, 9,385, 16,801, and 24,186 square feet, respectively; Lots D", and "J" are

to be water quality basins and will be 9,871, add 19,755square feet, respectively. All streets including Lot K within the subdivision are to be privately owned and maintained by the Homeowner's Association.

PR-2021-001030 includes the following entitlements for a Planned Residential Development: 1) Tentative Tract Map 38074 to subdivide 24.73-acres into 53 single-family residential lots and lettered lots for common open space, private street, and a detention basin; 2) Planned Residential Development to facilitate the establishment of 54 residential lots; and 3) Design Review of project plans. As such, the lots have been plotted with conceptual architecture for two-story homes. Three lots, 40-42, will be single story homes. Lot 53 has a current residence that will be demolished and replaced. Pedestrian trails will traverse Lot B.

This report incorporates the findings of an extensive literature review, compilation of existing documentation and field reconnaissance conducted on November 9th, 2020. This documentation is consistent with accepted scientific and technical standards, the requirements of the United States Fish and Wildlife Service (USFWS), and the California Department of Fish and Wildlife (CDFW). When appropriate, general biological resources are described in summary form in an effort to provide the reader with adequate background information. However, the report focuses on documenting those resources considered to be significant and/or sensitive as outlined by the California Environmental Quality Act (CEQA) and the Western Riverside County MSHCP.

The following report provides a summary of topographic features, soils and habitats observed onsite. Onsite resources were also analyzed to determine which if any are subject to the United States Army Corps of Engineers (USACE) jurisdiction pursuant to Section 404 of the Clean Water Act, CDFW jurisdiction pursuant to Division 2, Chapter 6, Section 1600 of the Fish and Wildlife Code, the Santa Ana Regional Water Quality Control Board (RWQCB) 401 certification/Waste Discharge Requirements (WDR's), and MSHCP jurisdiction pursuant to section 6.1.2 (MSHCP 2004).

Accordingly, this report provides an overview of potential USACE, RWQCB, CDFW, MSHCP riparian/riverine/vernal pool jurisdictional resources (Section 6.1.2), and compliance with the MSHCP respective of the proposed development within the Project Site.

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 were examined. After reviewing the available information, Cadre Environmental conducted a physical site assessment.

As required by the MSHCP, and during the initial property assessment process, all Project Site APN's were searched using the Regional Conservation Authority (RCA) Geographic Information System (GIS) database to determine if the property falls within a "Criteria Area" and if additional surveys for narrow endemic/criteria area plant species or wildlife not adequately covered by the MSHCP.

Data, which contain digital images derived from aerial photography with orthographic projection properties, were used in conjunction with Cadre Environmental's in-house GIS database as an important base layer to identify vegetation communities, drainage features, and USFWS designated critical habitat boundaries. Vegetation communities were then "ground-truthed" during field observations to obtain characteristic descriptions.

LITERATURE REVIEW

The study was initiated with a review of relevant literature on the biological resources of the Project Site and vicinity. The MSHCP list of covered species potentially occurring onsite was also examined (MSHCP Table 2-2 Species Considered for Conservation Under the MSHCP Since 1999, 2004). In addition, federal register listings, protocols, and species data provided by USFWS were reviewed in conjunction with anticipated federally listed species potentially occurring at the Project Site. The California Natural Diversity Database (CNDDB),[1] a review of the California Native Plant Society sixth inventory (Tibor 2001), and Roberts et al. (2004) were also reviewed for pertinent information regarding the location of known occurrences of sensitive species in the vicinity of the property. In addition, numerous regional floral and faunal field guides were utilized in the identification of species and suitable habitats. Documents consulted regarding potential onsite biological conditions are listed in the references section at the end of this report.

FIELD INVESTIGATION

The Project Site was surveyed on November 9th, 2020. The survey included complete coverage of the Property, with special attention focused toward sensitive species or those habitats potentially supporting sensitive flora or fauna that would be essential to efficiently implementing the terms and conditions of the Western Riverside County MSHCP including features potentially subject to MSHCP 6.1.2 jurisdiction. Aerial photography of the Property and vicinity was utilized to accurately locate and survey the property. General plant communities were preliminarily mapped directly on the aerial photo using visible landmarks in the field, which are depicted in Attachment C, *Vegetation Communities Map*. Representative photographs of the Project Site's natural resources were taken during the field survey as shown in Attachments D to G, *Current Project Site Photographs*.

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 appropriate.

[1] California Natural Diversity Data Base, Department of Fish and Wildlife. November 2020. Natural Heritage Program: RareFind, Riverside East Quadrangle.

When a vegetation community could not be accurately characterized using this information, an updated community classification code was developed to more accurately represent onsite habitat types.

General Plant Inventory

All plants observed during the survey efforts were either identified in the field or collected and later identified using taxonomic keys. Plant taxonomy and nomenclatural changes follow Baldwin et al. (2012) or the Jepson Flora Project (2020). Common names used in this report generally follow Roberts et al. (2004) or Baldwin et al. (2012). Scientific names are included only at the first mention of a species; thereafter, common names alone are used.

General Wildlife Inventory

General wildlife surveys were not conducted during the general biological habitat assessment. However, animals identified during the reconnaissance survey by sight, call, tracks, nests, scat, remains, or other signs were recorded in field notes. All wildlife was identified in the field with the aid of binoculars and taxonomic keys (if applicable). Vertebrate taxonomy followed in this report is according to the Center of North American Herpetology (2020) for amphibians and reptiles, the American Ornithologists' Union (1998 and supplemental) for birds, and Bradley et al. (2014) for mammals. Scientific names are used during the first mention of a species; common names only are used in the remainder of the text (if applicable).

MSHCP Burrowing Owl Habitat Assessment

The Project Site occurs completely within an MSHCP burrowing owl (*Athene cunicularia*) survey area and a habitat assessment and focused surveys were conducted for the species to ensure compliance with MSHCP guidelines.

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. The following section describes the approach to conducting the habitat assessment.

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 9th, 2020. Upon arrival at the Property, 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.

A systematic survey for burrows, including burrowing owl sign was conducted within all suitable areas of the Project Site on foot by walking slowly and methodically while recording/mapping areas that may represent suitable owl habitat. 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, wood debris piles, 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 property boundary. If permission to access the buffer area cannot be obtained, the biologist shall not trespass, but visually inspect adjacent habitats with binoculars. Authorization to access adjacent parcels was not provided. Therefore, all bordering natural habitats located immediately adjacent to the Project Site were assessed from the property boundary.

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 9th, 2020. 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 based on 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 24th, April 20th, May 5th and 14th, 2021 from one hour before sunrise to two hours after sunrise. 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.

Results of the burrowing owl habitat assessment and focused surveys are presented in the following report titled "*Cadre Environmental. 2022b. Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Focused Burrowing Owl Surveys for the 24.73-Acre Dauchy Avenue Project Site including 3.43-acre Offsite Impact Area, City of Riverside, Western Riverside County, California*" and summarized in the following section.

Regional Connectivity/Wildlife Movement Corridor Assessment

The analysis of wildlife movement corridors associated with the Project Site and its immediate vicinity is based on information compiled from literature, analysis of the aerial photograph, and direct observations made in the field during the site visit.

A literature review was conducted that included documents on island biogeography (studies of fragmented and isolated habitat "islands"), reports on wildlife home range sizes and migration patterns, and studies on wildlife dispersal. Wildlife movement studies conducted in southern California were also reviewed. Use of field-verified digital aerial data, in conjunction with the GIS database, allowed proper identification of vegetation communities and drainage features. This information was crucial to assessing the relationship of the property to large open space areas in the immediate vicinity and was also evaluated in terms of connectivity and habitat linkages. Relative to corridor issues, the discussions in this report are intended to focus on wildlife movement associated with the property and the immediate vicinity.

Jurisdictional Delineation

A formal jurisdictional delineation was conducted by Carlson Strategic Land Solutions, Inc. 2022 (Carlson Strategic Land Solutions, Inc. 2022), Appendix A, *Jurisdictional Delineation for the Dauchy Project Site located in the City of Riverside*. The delineation determined the boundaries or absence of potential wetland and non-wetland waters of the United States subject to the regulatory jurisdiction of the U.S. Army Corps of Engineers (USACE) pursuant to Clean Water Act (CWA) Section 404; wetland and non-wetland waters of the State subject to the regulatory jurisdiction of the Regional Water Quality Control Board (RWQCB) pursuant to CWA Section 401 and State Porter-Cologne Water Quality Control Act (Porter-Cologne); streambed and riparian habitat subject to the regulatory jurisdiction of the CDFW pursuant Sections 1600 *et seq*. of the California Fish and Game Code (CDFG Code.

EXISTING CONDITIONS

The 24.73-acre Project Site and 3.43 acre offsite impact area are characterized as rolling hilltops at approximately 1,500 feet elevation primarily dominated by disturbed/non-native grassland, Riversidean sage scrub and a blue-line drainage located within and adjacent to the southwestern Project Site boundary as outlined in Table 1, *Vegetation Community*

Acres, and illustrated in Attachment C, *Vegetation Communities Map*, and Attachment D to G, *Current Project Site Photographs*.

Table 1.
Vegetation Community Acres

Vegetation Community	Project Site Acres	Offsite Impact Area Acres	Total Acres
Disturbed/Non-Native Grassland	20.38	2.95	23.33
Riversidean Sage Scrub	2.60	0.21	2.81
Giant Reed (Arundo donax)	0.58	--	0.58
Southern Willow Scrub	0.56	--	0.56
Developed	0.53	0.26	0.79
Blue Elderberry Scrub	0.05	--	0.05
Mule Fat Scrub	0.01	0.01	0.02
Coyote Brush Scrub	0.01	--	0.01
Ornamental	0.01	--	0.01
TOTAL	**24.73**	**3.43**	**28.16**

Source: Cadre Environmental 2022

SOILS

The Soil Survey of Western Riverside Area has the following soils mapped within the boundary of the Project Site as shown on Attachment H, *Soils Association Map*:

- ChF2 Cieneba sandy loam, 15 to 50 percent slopes, eroded
- CkF2 Cieneba rocky sandy loam, 15 to 50 percent slopes, eroded
- FaD2 Fallbrook sandy loam, 8 to 15 percent slopes, eroded

Vegetation Communities

Disturbed/Non-Native Grassland

The majority of the Project Site is characterized as disturbed/non-native grassland vegetation. Dominant species documented within this vegetation community include slender wild oat (*Avena barbata*), ripgut grass (*Bromus diandrus*), foxtail chess (*Bromus madritensis* ssp. *rubens*), wild oat grass (*Avena fatua*), prickly lettuce (*Lactuca serriola*), black mustard (*Brassica nigra*), stinknet (*Oncosiphon piluliferum*), tumbling pigweed (*Amaranthus albus*), Pomona milk vetch (*Astragalus pomonensis*), rattlesnake sandmat (*Euphorbia albomarginata*), doveweed (*Croton setigerus*), and fascicled tarweed (*Deinandra fasciculata*).

Riversidean Sage Scrub

Several patches of Riversidean sage scrub are concentrated along the western and eastern Project Site boundaries. Dominant plant species documented within this vegetation community include California buckwheat (*Eriogonum fasciculatum*), California

sagebrush (*Artemisia californica*), sweetbush (*Bebbia juncea*), bush sunflower (*Encelia californica*), white sage (*Salvia apiana*), deerweed (*Acmispon glaber*), coast cholla (*Cylindropuntia prolifera*), coast goldenbush (*Isocoma menziesii*), and pinebush (*Ericameria pinifolia*).

Giant Reed (*Arundo donax*)

Several large patches of giant reed (*Arundo donax*) are located within the floodprone area of the drainage located within and adjacent to the southwestern Project Site boundary.

Southern Willow Scrub

Several patches of southern willow scrub are located within the floodprone area of the drainage located within and adjacent to the southwestern Project Site boundary. Dominant species documented within this vegetation community include arroyo willow (*Salix lasiolepis*) and mule fat (*Baccharis salicifolia*).

Developed/Ornamental

An existing residence and associated ornamental vegetation, tree of heaven (*Ailanthus altissima*) is located within the northwest region of the Project Site.

Blue Elderberry Scrub

A single patch of blue elderberry scrub (*Sambucus nigra* ssp. *caerulea*) was documented within the swale located in the eastern region of the Project Site adjacent to Dauchy Avenue.

Mule Fat Scrub

A single patch of mule fat scrub was documented within the swale located in the eastern region of the Project Site adjacent to Ferrari Drive.

Coyote Brush Scrub

A single patch of coyote brush scrub (*Baccharis pilularis*) was documented within the swale located in the eastern region of the Project Site adjacent to Dauchy Avenue.

Regional Connectivity/Wildlife Movement

Overview

Wildlife corridors link together areas of suitable habitat that are otherwise separated by rugged terrain, changes in vegetation, or human disturbance. The fragmentation of open space areas by urbanization creates isolated “islands” of wildlife habitat. In the absence of habitat linkages that allow movement to adjoining open space areas, various studies have concluded that some wildlife species, especially the larger and more mobile mammals, will not likely persist over time in fragmented or isolated habitat areas because

they prohibit the infusion of new individuals and genetic information (MacArthur and Wilson 1967, Soule 1987, Harris and Gallager 1989, Bennett 1990). Corridors effectively act as links between different populations of a species. A group of smaller populations (termed "demes") linked together via a system of corridors is termed a "metapopulation." The long-term health of each deme within the metapopulation is dependent upon its size and the frequency of interchange of individuals (immigration vs. emigration). The smaller the deme, the more important immigration becomes, because prolonged inbreeding with the same individuals can reduce genetic variability. Immigrant individuals that move into the deme from adjoining demes mate with individuals and supply that deme with new genes and gene combinations that increases overall genetic diversity. An increase in a population's genetic variability is generally associated with an increase in a population's health.

Corridors mitigate the effects of habitat fragmentation by (1) allowing animals to move between remaining habitats, which allows depleted populations to be replenished and promotes genetic diversity; (2) providing escape routes from fire, predators, and human disturbances, thus reducing the risk that catastrophic events (such as fires or disease) will result in population or local species extinction; and (3) serving as travel routes for individual animals as they move within their home ranges in search of food, water, mates, and other needs (Noss 1983, Fahrig and Merriam 1985, Simberloff and Cox 1987, Harris and Gallagher 1989). Wildlife movement activities usually fall into one of three movement categories: (1) dispersal (e.g., juvenile animals from natal areas, individuals extending range distributions); (2) seasonal migration; and (3) movements related to home range activities (foraging for food or water, defending territories, searching for mates, breeding areas, or cover). A number of terms have been used in various wildlife movement studies, such as "wildlife corridor", "travel route", "habitat linkage", and "wildlife crossing" to refer to areas in which wildlife moves from one area to another. To clarify the meaning of these terms and facilitate the discussion on wildlife movement in this study, these terms are defined as follows:

Travel Route: A landscape feature (such as a ridge line, drainage, canyon, or riparian strip) within a larger natural habitat area that is used frequently by animals to facilitate movement and provide access to necessary resources (e.g., water, food, cover, den sites). The travel route is generally preferred because it provides the least amount of topographic resistance in moving from one area to another; it contains adequate food, water, and/or cover while moving between habitat areas; and provides a relatively direct link between target habitat areas.

Wildlife Corridor: A piece of habitat, usually linear in nature, that connects two or more habitat patches that would otherwise be fragmented or isolated from one another. Wildlife corridors are usually bounded by urban land areas or other areas unsuitable for wildlife. The corridor generally contains suitable cover, food, and/or water to support species and facilitate movement while in the corridor. Larger, landscape-level corridors (often referred to as "habitat or landscape linkages") can provide both transitory and resident habitat for a variety of species.

Wildlife Crossing: A small, narrow area, relatively short in length and generally constricted in nature, that allows wildlife to pass under or through

an obstacle or barrier that otherwise hinders or prevents movement. Crossings typically are manmade and include culverts, underpasses, drainage pipes, and tunnels to provide access across or under roads, highways, pipelines, or other physical obstacles. These are often "choke points" along a movement corridor.

Wildlife Movement within the Project Site

The Project Site is not located within an MSHCP designated core, extension of existing core, non-contiguous habitat block, constrained linkage, or linkage area. However, the blue-line drainage and adjacent habitats including Riversidean sage scrub are expected to be utilized for local wildlife movement and refugia. An open space conservation easement managed by the Homeowner's Association shall also be placed on the 7.46-acres which constitute the buffer area and western blue-line drainage.

SENSITIVE BIOLOGICAL RESOURCES

OVERVIEW OF CLASSIFICATIONS

The following discussion describes the plant and wildlife species present, or potentially present within the property boundaries, that have been afforded special recognition by federal, state, or local resource conservation agencies and organizations, principally due to the species' declining or limited population sizes, usually resulting from habitat loss. Also discussed are habitats that are unique, of relatively limited distribution, or of particular value to wildlife. Protected sensitive species are classified by state and/or federal resource management agencies, or both, as threatened or endangered, under provisions of the state and federal endangered species act. Vulnerable or "at-risk" species that are proposed for listing as threatened or endangered (and thereby for protected status) are categorized administratively as "candidates" by the USFWS. CDFW uses various terminology and classifications to describe vulnerable species. There are additional sensitive species classifications applicable in California. These are described below.

Sensitive biological resources are habitats or individual species that have special recognition by federal, state, or local conservation agencies and organizations as endangered, threatened, or rare. The CDFW, USFWS, and special groups like the California Native Plant Society maintain watch lists of such resources. For the purpose of this assessment sources used to determine the sensitive status of biological resources are:

Plants: USFWS (2020), CNDDB (CDFW 2020a), CDFW (2020d, 2020e), CNPS (2020), and Skinner and Pavlik (1994),

Wildlife: California Wildlife Habitat Relationships (2008), USFWS (2020), CNDDB (CDFW 2020a), and CDFW (2020b, 2020c).

Habitats: CNDDB (CDFW 2020a, 2020f).

Federal Protection and Classifications

The Federal Endangered Species Act of 1973 (FESA) defines an endangered species as "any species that is in danger of extinction throughout all or a significant portion of its range." Threatened species are defined as "any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range." Under provisions of Section 9(a)(1)(B) of the FESA, it is unlawful to "take" any listed species. "Take" is defined as follows in Section 3(18) of the FESA: "...harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." Further, the USFWS, through regulation, has interpreted the terms "harm" and "harass" to include certain types of habitat modification as forms of a "take." These interpretations, however, are generally considered and applied on a case-by-case basis and often vary from species to species. In a case where a property owner seeks permission from a federal agency for an action that could affect a federally listed plant and animal species, the property owner and agency are required to consult with the USFWS. Section 9(a)(2)(b) of the FESA addresses the protections afforded to listed plants. Recently, the USFWS instituted changes in the listing status of former candidate species. Former C1 (candidate) species are now simply referred to as candidate species and represent the only candidates for listing. Former C2 species (for which the USFWS had insufficient evidence to warrant listing at this time) and C3 species (either extinct, no longer a valid taxon, or more abundant than was formerly believed) are no longer considered as candidate species. Therefore, these species are no longer maintained in list form by the USFWS, nor are they formally protected. However, some USFWS field offices have issued memoranda stating that former C2 species are henceforth to be considered Federal Species of Concern. This term is employed in this document, but carries no official protections. All references to federally protected species in this report (whether listed, proposed for listing, or a candidate) include the most current published status or candidate category to which each species has been assigned by the USFWS. For purposes of this assessment, the following acronyms are used for federal status species:

FE	Federal Endangered
FT	Federal Threatened
FPE	Federal Proposed Endangered
FPT	Federal Proposed Threatened
FC	Federal Candidate for Listing

State of California Protection and Classifications

The California Endangered Species Act (CESA) defines an endangered species as "...a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, or disease." The State defines a threatened species as "...a native

species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future in the absence of the special protection and management efforts required by this chapter. Any animal determined by the commission as rare on or before January 1, 1985 is a threatened species." Candidate species are defined as "...a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that the commission has formally noticed as being under review by the department for addition to either the list of endangered species or the list of threatened species, or a species for which the commission has published a notice of proposed regulation to add the species to either list." Candidate species may be afforded temporary protection as though they were already listed as threatened or endangered at the discretion of the Fish and Game Commission. Unlike the federal FESA, the CESA does not include listing provisions for invertebrate species.

Article 3, sections 2080 through 2085 of the CESA addresses the taking of threatened or endangered species by stating "no person shall import into this state, export out of this state, or take, possess, purchase, or sell within this state, any species, or any part or product thereof, that the commission determines to be an endangered species or a threatened species, or attempt any of those acts, except as otherwise provided..." Under the CESA, "take" is defined as "...hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." Exceptions authorized by the state to allow "take" require "...permits or memorandums of understanding..." and can be authorized for "...endangered species, threatened species, or candidate species for scientific, educational, or management purposes." Sections 1901 and 1913 of the California Fish and Game Code provide that notification is required prior to disturbance.

Additionally, some sensitive mammals and birds are protected by the State as Fully Protected Mammals or Fully Protected Birds, as described in the California Fish and Game Code, sections 4700 and 3511, respectively. California Species of Special Concern ("special" animals and plants) listings include special status species, including all state and federal protected and candidate taxa, Bureau of Land Management and U.S. Forest Service sensitive species, species considered to be declining or rare by the CNPS or National Audubon Society, and a selection of species that are considered to be under population stress but are not formally proposed for listing. This list is primarily a working document for the CDFW CNDDB project. Informally listed taxa are not protected per se, but warrant consideration in the preparation of biotic assessments. For some species, the CNDDB is only concerned with specific portions of the life history, such as roosts, rookeries, or nest sites. For the purposes of this assessment, the following acronyms are used for state status species:

SE	State Endangered
ST	State Threatened
SCE	State Candidate Endangered
SCT	State Candidate Threatened
SFP	State Fully Protected
SP	State Protected

SR	State Rare
CSC	California Species of Special Concern
CWL	California Watch List

Nesting birds, including raptors, are protected under California Fish and Game Code Section 3503, which reads, "It is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto." In addition, under California Fish and Game Code Section 3503.5, "it is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto". Passerines and non-passerine land birds are further protected under California Fish and Game Code 3513. As such, CDFW typically recommends surveys for nesting birds that could potentially be directly (e.g., actual removal of trees/vegetation) or indirectly (e.g., noise disturbance) impacted by project-related activities. Disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered "take" by CDFW.

California Native Plant Society

The CNPS is a private plant conservation organization dedicated to the monitoring and protection of sensitive species in the state. This organization has compiled an inventory comprised of the information focusing upon geographic distribution and qualitative characterization of rare, threatened, or endangered vascular plant species of California (Tibor 2001). The list serves as the candidate list for listing as threatened and endangered by the CDFW. The CNPS has developed five categories of rarity (California Rare Plant Rank [CRPR]):

CRPR 1A	Presumed extinct in California
CRPR 1B	Rare, threatened, or endangered in California and elsewhere
CRPR 2A	Plants presumed extirpated in California but common elsewhere
CRPR 2B	Plants rare, threatened, or endangered in California but more common elsewhere
CRPR 3	Plants about which we need more information – a review list
CRPR 4	Species of limited distribution in California (i.e., naturally rare in the wild), but whose existence does not appear to be susceptible to threat

As stated by the CNPS:

Threat Rank is an extension added onto the California Rare Plant Rank and designates the level of endangerment by a 1 to 3 ranking with 1 being the most endangered and 3 being the least endangered. A Threat Rank is present for all California Rare Plant Rank 1B, 2, 4, and the majority of California Rare Plant Rank 3. California Rare Plant Rank 4

plants are seldom assigned a Threat Rank of 0.1, as they generally have large enough populations to not have significant threats to their continued existence in California; however, certain conditions exist to make the plant a species of concern and hence be assigned a California Rare Plant Rank. In addition, all California Rare Plant Rank 1A (presumed extinct in California), and some California Rare Plant Rank 3 (need more information) plants, which lack threat information, do not have a Threat Rank extension (CNPS 2020).

0.1	Seriously threatened in California (over 80 percent of occurrences threatened/high degree and immediacy of threat)
0.2	Fairly threatened in California (20-80 percent occurrences threatened/moderate degree and immediacy of threat)
0.3	Not very threatened in California (<20 percent of occurrences threatened/low degree and immediacy of threat or no current threats known)

POTENTIALLY SENSITIVE SPECIES/RESOURCES

Determinations of MSHCP sensitive species that could potentially occur on the Project Site are based on one or both of the following: (1) a record reported in the CNDDB or CNPS inventory and; (2) the property is within the known distribution of a species and contains suitable habitat or species documented onsite.

Sensitive Plant Communities

As stated by CDFG:

> "*One purpose of the vegetation classification is to assist in determining the level of rarity and imperilment of vegetation types. Ranking of alliances according to their degree of imperilment (as measured by rarity, trends, and threats) follows NatureServe's Heritage Methodology, in which all alliances are listed with a G (global) and S (state) rank. For alliances with State ranks of S1-S3, all associations within them are also considered to be highly imperiled*" (CDFG 2012)

No sensitive plant communities were documented within the Project Site.

Sensitive Plant Species

The Project Site does not occur within an MSHCP predetermined Survey Area for criteria area plant species (RCA GIS Data Downloads 2020).

The Project Site does not occur within a predetermined Survey Area for narrow endemic plant species (RCA GIS Data Downloads 2020).

Sensitive Wildlife Species

The Project Site does not occur within a predetermined Survey Area for amphibians (RCA GIS Data Downloads 2020).

The Project Site does not occur within a predetermined Survey Area for mammals (RCA GIS Data Downloads 2020).

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 and adjacent to the property including foraging habitat documented throughout the Project Site. Based on the presence of suitable habitat, focused MSHCP burrowing owl surveys were conducted during the spring of 2021 to determine the presence/absence and status of the species within and adjacent to the Project Site. 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 2021 MSHCP focused survey effort. A 30-day MSHCP preconstruction survey will also 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.

The blue-line drainage and associated southern willow scrub/giant reed vegetation located within and adjacent to the western boundary represents suitable habitat for the least Bell's vireo (*Vireo bellii pusillus*), and moderate to low quality habitat for the southwestern willow flycatcher (*Empidonax traillii extimus*) and western yellow-billed cuckoo (*Coccyzus americanus*). No impacts to these vegetation communities within the western blue-line drainage are proposed or will occur as a result of project initiation.

MSHCP Riparian, Riverine, Vernal Pool Resources

MSHCP Section 6.1.2 riparian and riverine resources are present within and adjacent to the Project Site as shown in Attachment I, *MSHCP Section 6.1.2 Resources Map*. The proposed project will directly impact a total of 0.096 acre of MSHCP Section 6.1.2 riverine resources also regulated by the California Department of Fish and Wildlife (Carlson Strategic Land Solutions, Inc. 2022). Therefore, a Determination of Biological Equivalent or Superior Preservation (DBESP) was prepared and titled "MSHCP Determination of Biologically Equivalent or Superior Preservation (DBESP) Dauchy Avenue Tentative Tract Map No. 38074, , City of Riverside, Western Riverside County, California. (Cadre Environmental. 2022)

No evidence of vernal pools, seasonal depressions, seasonally inundated road ruts or other wetland features were recorded on the Project Site. Vernal pools are depressions in areas where a hard-underground layer prevents rainwater from draining downward into the subsoils. When rain fills the pools in the winter and spring, the water collects and remains in the depressions. In the springtime, the water gradually evaporates away, until the pools became completely dry in the summer and fall. Vernal pools tend to have an impermeable layer that results in ponded water. The soil texture (the amount of sand, silt, and clay particles) typically contains higher amounts of fine silts and clays with lower percolation rates. Pools that retain water for a sufficient length of time will develop hydric

cells. Hydric cells form when the soil is saturated from flooding for extended periods of time and anaerobic conditions (lacking oxygen or air) develop.

Consistent with conditions documented onsite and as previously stated, the Project Site is characterized as Cieneba rocky/sandy loam and Fallbrook sandy loam, all types possessing well drained substrates (drainage class). No indication of clay substrates or hydric soils were documented within the Project Site.

A review of historic aerials was conducted to determine if inundated features were present during years of high rainfall when features would certainly be documented. Historic aerials taken in 2011 represent an ideal baseline during which know (previously documented) inundated vernal pools, seasonal depressions and road ruts can easily be seen. No sign or indication of inundation was documented within the Project Site during a review of historic aerials.

In summary, none of the conditions (i.e., no inundated depressions including road ruts, hydric soils, historic inundation, etc.) were observed on documented within the Project Site. No features are present that would support fairy shrimp. No standing water or other sign of areas that pond water was recorded.

Jurisdictional Resources

A formal jurisdictional delineation was conducted by Carlson Strategic Land Solutions, Inc. 2022 (Carlson Strategic Land Solutions, Inc. 2022). The delineation determined the boundaries or absence of potential wetland and non-wetland waters of the United States subject to the regulatory jurisdiction of the USACE pursuant to CWA Section 404; wetland and non-wetland waters of the State subject to the regulatory jurisdiction of the RWQCB pursuant to CWA Section 401 and State Porter-Cologne Water Quality Control Act (Porter-Cologne); streambed and riparian habitat subject to the regulatory jurisdiction of the CDFW pursuant Sections 1600 *et seq*. of the CDFG Code. The proposed project will impact a total of 0.006-acre USACE non-wetland, 0.018-acre RWQCB non-wetland, and 0.096-acre CDFW regulated resources. The project applicant will be required to obtain all applicable permits and certifications. As stated by Carlson Strategic Land Solutions, Inc.:

> "*As discussed above, no wetlands are impacted as part of Project implementation. Furthermore, the impacted jurisdictional waters occur within unvegetated streambeds, which consists of no vegetation or scattered invasive species, While the impacts to jurisdictional features are minor in nature, impacts to jurisdictional features would be mitigated at a minimum of 2:1 ratio to the highest jurisdictional impacts.* (CDFW jurisdiction) (Carlson Strategic Land Solutions, Inc. 2022)"

City of Riverside Arroyo Municipal Code 17.08.011 (Ord. 6673 § 1, 2003)

The Project Site is not located within or adjacent to the City of Riverside Municipal Code 17.08.011 (Ord. 6673 § 1, 2003) regulated arroyo or tributaries mapped areas. However, the blue-line drainage located within and adjacent to the western boundary of the Project

Site drains into the City regulated reach of Prenda Arroyo. The proposed action will not directly impact the western blue-line drainage, as shown in Attachment J, *Biological Resources Impact Map*. The proposed action would not conflict with the intent of the City of Riverside Municipal Code 17.08.011 (Ord. 6673 § 1, 2003).

SUMMARY OF COMPLIANCE WITH MSHCP & CEQA POLICIES

The purpose of this report is to document the existing biological resources, identify general vegetation types, and assess the potential biological and regulatory constraints associated with the proposed hard and landscaping improvements within the Project Site as outlined by the MSHCP & CEQA. The following sections summarize the project's relationship to MSHCP criteria cell areas, MSHCP compliance and CEQA guidelines.

A total of 16.75 acres of vegetation communities will be directly impacted as a result of project implementation as summarized in Table 2, *Vegetation Community Impact Acreages,* and illustrated on Attachment J*, Biological Resources Impact Map*. Direct impacts to all vegetation communities will be mitigated to a level of less than significant by payment of the MSHCP Local Development Mitigation Fee.

Table 2.
Vegetation Community Impact Acreages

Vegetation Community	Project Site Acres	Offsite Impact Acres	Project Site Impact Acres	Total Impact Acres
Disturbed/Non-Native Grassland	20.38	2.95	12.58	15.53
Riversidean Sage Scrub	2.60	0.21	0.29	0.50
Giant Reed (Arundo donax)	0.58	--	--	--
Southern Willow Scrub	0.56	--	0.03	0.03
Developed	0.53	0.26	0.53	0.79
Blue Elderberry Scrub	0.05	--	--	--
Mule Fat Scrub	0.01	0.01	0.01	0.02
Coyote Brush Scrub	0.01	--	--	--
Ornamental	0.01	--	--	--
TOTAL	**24.73**	**3.43**	**13.44**	**16.87**

Source: Cadre Environmental 2022

The Project Site falls within the SKR Fee Area outlined in the Riverside County SKR HCP. The project applicant shall pay the fees pursuant to City Ordinance for the SKR HCP Fee Assessment Area as established and implemented by the County of Riverside.

CRITERIA AREAS

The Project Site is located within the MSHCP Lake Mathews/Woodcrest Plan Area and is not located within an MSHCP criteria area cell, group, or linkage area. An MSHCP consistency analysis for projects located within a criteria area cell or cell group is not

required. No Habitat Evaluation and Acquisition Negotiation Strategy (HANS) or Joint Project Review (JPR) are required.

MSHCP RIPARIAN/RIVERINE AREAS AND VERNAL POOLS

MSHCP Section 6.1.2 riparian and riverine resources are present within and adjacent to the Project Site as shown in Attachment I, *MSHCP Section 6.1.2 Resources Map*. The proposed project will directly impact a total of 0.096 acre of MSHCP Section 6.1.2 riverine resources also regulated by the California Department of Fish and Wildlife (Carlson Strategic Land Solutions, Inc. 2022). Therefore, a Determination of Biological Equivalent or Superior Preservation (DBESP) was prepared and titled "MSHCP Determination of Biologically Equivalent or Superior Preservation (DBESP) Dauchy Avenue Tentative Tract Map No. 38074, , City of Riverside, Western Riverside County, California. (Cadre Environmental. 2022) (**BIO-1 to BIO-4**)

Following submittal, review and approval of a DBESP by the City of Riverside, the project will be compliant with MSHCP Section 6.1.2.

JURISDICTIONAL RESOURCES

The proposed project will impact a total of 0.018-acre USACE non-wetland, 0.018-acre RWQCB non-wetland, and 0.096-acre CDFW regulated resources (Page 12, Table 3, *Impacts Summary to Corps and RWQCB Jurisdictional Waters*, and Table 4*, Impacts Summary to CDFW Jurisdictional Waters*, Jurisdictional Delineation for the Dauchy Project Site Located in the City of Riverside, Carlson Strategic Land Solutions, December 19th, 2022). The project applicant will be required to obtain all applicable permits which may include, 404 Nationwide Permit from the USACE, 1602 Streambed Alteration Agreement from CDFW, and a 401 Certification issued by the pursuant to the California Water Code Section 13260 **(BIO-5)**.

CRITERIA AREA SPECIES SURVEY AREA

The Project Site does not occur within the Criteria Area Species Survey Area; therefore, no surveys are required (RCA GIS Data Downloads 2020).

The project is compliant with MSHCP Section 6.3.2.

NARROW ENDEMIC PLANT SPECIES SURVEY AREA

The Project Site does not occur within a predetermined Survey Area for narrow endemic plant species (RCA GIS Data Downloads 2020).

The project is compliant with MSHCP Section 6.1.3

AMPHIBIAN SPECIES SURVEY AREA

The Project Site does not occur within the Amphibian Species Survey Area; therefore, no surveys are required (RCA GIS Data Downloads 2020).

The project is compliant with MSHCP Section 6.3.2.

MAMMAL SPECIES SURVEY AREA

The Project Site does not occur within the Mammal Species Survey Area; therefore, no surveys are required (RCA GIS Data Downloads 2020).

The project is compliant with MSHCP Section 6.3.2.

BURROWING OWL SURVEY AREA

The Project Site occurs completely within a predetermined Survey Area for the burrowing owl. Suitable burrowing owl burrows potentially utilized for refugia and/or nesting were documented within the property including foraging habitat documented throughout the Project Site. Based on the presence of suitable habitat, focused MSHCP burrowing owl surveys were conducted during the spring of 2021 to determine the presence/absence and status of the species within and adjacent to the Project Site. 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 2021 MSHCP focused survey effort. A 30-day MSHCP preconstruction survey will also 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.

Following submittal, review and approval of the 30-day preconstruction survey report by the City of Riverside and compliance with all species-specific conservation goals, if detected within or adjacent to the Project Site, the project will be compliant with MSHCP Section 6.3.2 (Condition of Approval **(COA)-1**).

NESTING BIRD & RAPTORS

The Project Site possesses vegetation including trees and shrubs expected to potentially provide nesting habitat for raptors and migratory birds protected under the CDFG Codes. Measures for potential direct/indirect impacts to common and sensitive bird and raptor species will require compliance with the CDFG Code Section 3503. Construction outside the nesting season (between September 1st and February 15th) does not require preconstruction nesting bird surveys. However, if construction is proposed between February 16th and August 31st, a qualified biologist will conduct a preconstruction nesting bird survey(s) no more than three (3) days prior to initiation of grading to document the presence or absence of nesting birds or raptors within or directly adjacent (100 feet) to the Project Site. Loss of an active nest would be considered a potentially significant impact. Impacts to raptor foraging and potential nesting habitat would be reduced to less than significant with the implementation of Biological Mitigation and Avoidance Measure (**COA-2**).

URBAN/WILDLANDS INTERFACE

The MSHCP Urban/Wildlands Interface guidelines presented in Section 6.1.4 are intended to address indirect effects associated with locating commercial, mixed uses and

residential developments in proximity to an MSHCP Conservation Area. The Project Site is not located adjacent to an existing or proposed MSHCP Conservation Area. However, as stated by the City of Riverside "*The non-graded area shall be retained as natural open space and an open space easement shall be recorded over this area*" (City of Riverside 2020). An open space conservation easement managed by the Homeowner's Association shall also be placed on the 7.46-acres which constitute the buffer area and western blue-line drainage.

The following project specific MSHCP Urban/Wildlands Interface guidelines represent project design features.

Water Quality/Hydrology

The project will comply with all applicable water quality regulations to ensure adequate long-term treatment and direction of water away from the proposed open space area.

Toxics

Toxic sources within the Project Site would be limited to those commonly associated with residential activities such as pesticides, insecticides, herbicides, fertilizers, and vehicle emissions. The project will comply with all applicable water quality regulations to ensure adequate long-term treatment and direction of water away from the proposed open space area.

Lighting

Night lighting associated with the proposed Project Site improvements that are adjacent to the proposed open space area would be directed away to reduce potential indirect impacts to wildlife species.

Noise

Because the proposed Project Site improvements will not result in noise levels that exceed residential standards established for City of Riverside, wildlife within adjacent proposed open space area habitats will not be subject to noise that exceeds these established standards. Short-term construction-related noise impacts will be reduced by the implementation of the following:

- During all Project Site excavation and construction on-site, the construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturers' standards. The construction contractor shall place all stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the Project Site.

- The construction contractor shall locate equipment staging in areas that will create the greatest distance between construction-related noise sources and noise sensitive receptors nearest the Project Site during all project construction.

- The construction contractor shall limit all construction-related activities that would result in high noise levels according to the construction hours to be determined by City of Riverside staff.

Invasive Species

The landscape plans for the residential improvements shall avoid the use of invasive species for the portions of the proposed action area located adjacent to the proposed open space area. Invasive plants that should be avoided are included in Table 6-2 of the MSHCP, *Plants That Should Be Avoided Adjacent to the MSHCP Conservation Area*.

Barriers

No barriers within the western blue-line drainage are proposed.

Implementation of all Urban/Wildlands Interface project design feature guidelines will minimize adverse project indirect impacts and is consistent with MSHCP Section 6.1.4.

FUELS MANAGEMENT

The fuels management guidelines presented in Section 6.4 of the MSHCP are intended to address brush management activities around new development within or adjacent to MSHCP Conservation Areas. The Project Site is not located adjacent to an existing or proposed MSHCP Conservation Area. However, as stated by the City of Riverside "*The non-graded area shall be retained as natural open space and an open space easement shall be recorded over this area*" (City of Riverside 2020). An open space conservation easement managed by the Homeowner's Association shall also be placed on the 7.46-acres which constitute the buffer area and western blue-line drainage.

The final project design will ensure that no fuel modification will extend into the adjacent designated open space.

The project is compliant with MSHCP Section 6.4.

SUMMARY OF MITIGATION & CONDITIONS OF APPROVAL REQUIREMENTS

The following section summarizes potential constraints, survey requirements and conditions of approval and mitigation which will need to be implemented to ensure development of the Project Site remains in compliance with CEQA and MSHCP guidelines.

BIO-1: Permanent impacts to 0.096-acres of jurisdictional features will be mitigated at a 2:1 ratio through the purchase of 0.192 acres of re-establishment credits at the Riverpark Mitigation Bank. An agreement for sale of credits from the Riverpark Mitigation Bank will be submitted to the City of Riverside prior to grading permit issuance.

BIO-2: An open space conservation easement managed by the Homeowner's Association shall be placed on a minimum of 7.46-acres onsite including all regions of the western blue-line drainage and adjacent upland habitats.

BIO-3: Prior to the initiation of construction, the construction contractor shall install temporary erosion control measures around avoided drainages and conservation areas to reduce impacts to onsite drainages and open space habitat from the excess sedimentation, siltation and erosion. These measures shall consist of the installation of silt fencing, coirs, berms, or dikes to protect storm drain inlets and drainages.

BIO-4: During construction of the Project, the construction contractor shall implement the following measures during construction to avoid impacts to Unnamed Drainage A and its single tributary, and western blue-line drainage and its associated tributaries:

- No changing of oil or other fluids, or discarding of any trash or other construction waste materials shall occur on the Project Site.
- Any equipment or vehicles driven and/or operated within or adjacent to onsite drains shall be checked and maintained daily, to prevent leaks of materials into onsite drainages. No equipment maintenance shall be conducted near onsite drains.

BIO-5: Prior to grading permit issuance, no impacts shall occur to onsite drainages until appropriate permits have been obtained from the US Army Corps of Engineers (Corps) Section 404 Nation Wide Permit, Regional Water Quality Control Board (RWQCB) Section 401 Water Quality Certificate, and/or California Department of Fish and Wildlife (CDFW) Section 1602 Streambed Alteration Agreement. Specifically, the following permits or certifications will be required:

- USACE Section 404 Nation Wide Permit
- RWQCB 401 Water Quality Certificate
- CDFW Section 1602 Streambed Alteration Agreement

COA-1: A 30-day burrowing owl preconstruction survey shall be required to ensure protection for this species and compliance with the conservation goals as outlined in the MSHCP. The survey shall be conducted in compliance with both MSHCP and CDFW guidelines (MSHCP 2006, CDFW 2012). A report of the findings prepared by a qualified biologist shall be submitted to the City of Riverside for review and approval prior to any permit or ground disturbing activities.

If burrowing owls are detected onsite during the 30-day preconstruction survey, during the breeding season (February 1st to August 31st) then construction activities shall be limited to beyond 300 feet of the active burrows until a qualified biologist has confirmed that nesting efforts are competed or not initiated. In addition to monitoring breeding activity, if construction is proposed to be initiated during the breeding season or active relocation is proposed, a burrowing owl mitigation plan will be developed CDFW and USFWS requirements for the relocation of individuals to the Lake Mathews Preserve.

COA-2: Construction outside the nesting season (between September 1st and February 15th) does not require preconstruction nesting bird surveys. However, if construction is proposed between February 16th and August 31st, a qualified biologist must conduct a nesting bird survey(s) no more than three (3) days prior to initiation of grading to document the presence or absence of nesting birds within or directly adjacent (100 feet) to the Project Site.

The survey(s) would focus on identifying any bird or raptor nests that would be directly or indirectly affected by construction activities. If active nests are documented, species-specific measures shall be prepared by a qualified biologist and implemented to prevent abandonment of the active nest. At a minimum, grading in the vicinity of a nest shall be deterred until the young birds have fledged. A minimum exclusion buffer of 100 feet shall be maintained during construction, depending on the species and location. The perimeter of the nest setback zone shall be fenced or adequately demarcated with stakes and flagging at 20-foot intervals, and construction personnel and activities restricted from the area. A survey report by a qualified biologist verifying that no active nests are present, or that the young have fledged, shall be submitted to the City of Riverside for review and approval prior to initiation of grading in the nest-setback zone. The qualified biologist shall serve as a construction monitor during those periods when construction activities occur near active nest areas to ensure that no inadvertent impacts on these nests occur

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ATTACHMENTS

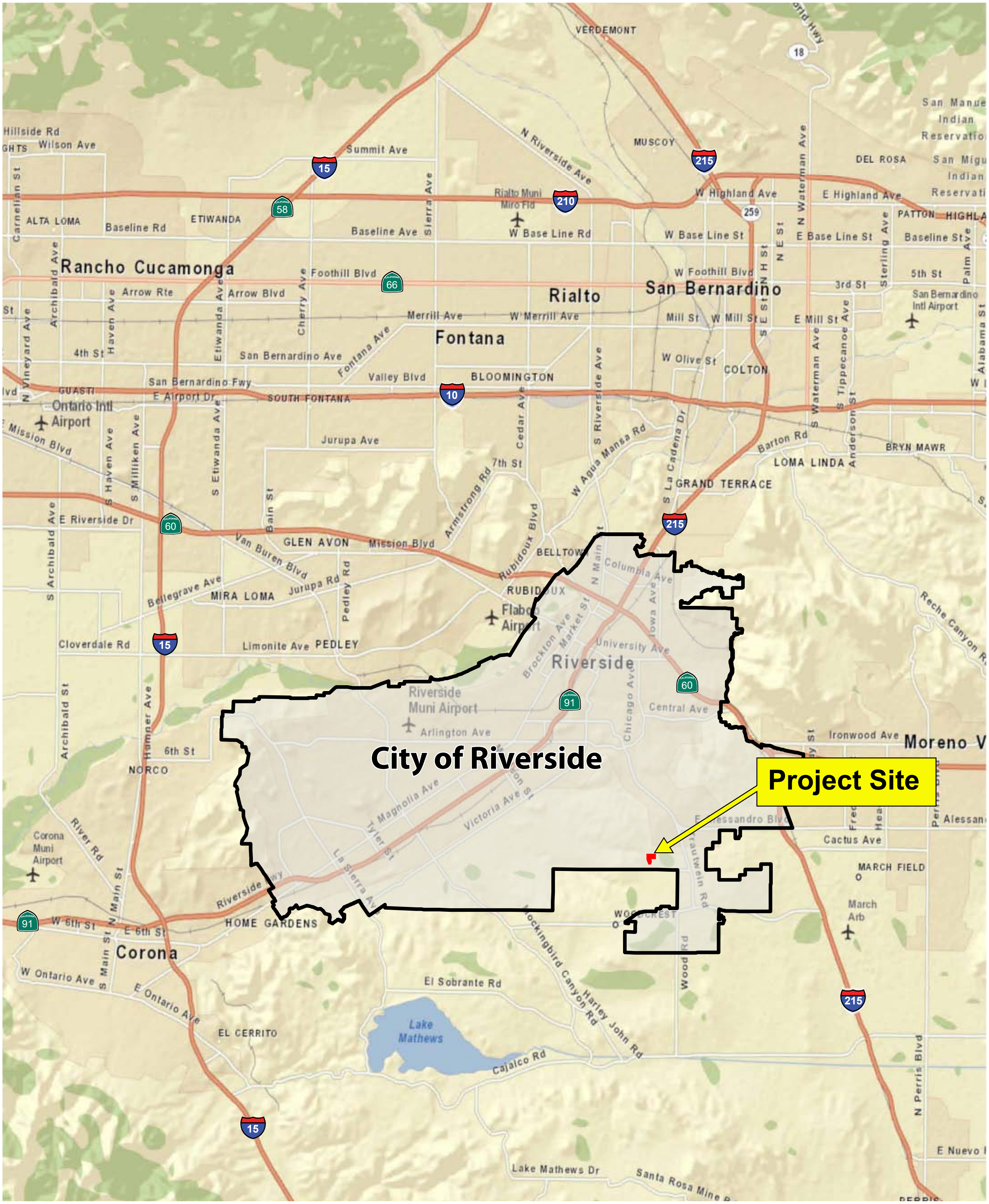
A – Regional Location Map
B – Vicinity Map
C – Vegetation Communities Map
D – Current Project Site Photographs
E – Current Project Site Photographs
F – Current Project Site Photographs
G – Current Project Site Photographs
H – Soils Association Map
I – MSHCP Section 6.1.2 Resources Map
J – Biological Resources Impact Map

Certification

"*I hereby certify that the statements furnished above and in the attachments 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"*

Author:_____ Date: March 28th, 2023

Fieldwork Performed by:_____ Date: March 28th, 2023



Onsite APNs 276-040-011, 276-040-012, and 276-050-029

Offsite APNs Portions of 276-050-030, -031, 276-040-007,-008, -009, -010, ROW

Attachment A **Regional Location Map**

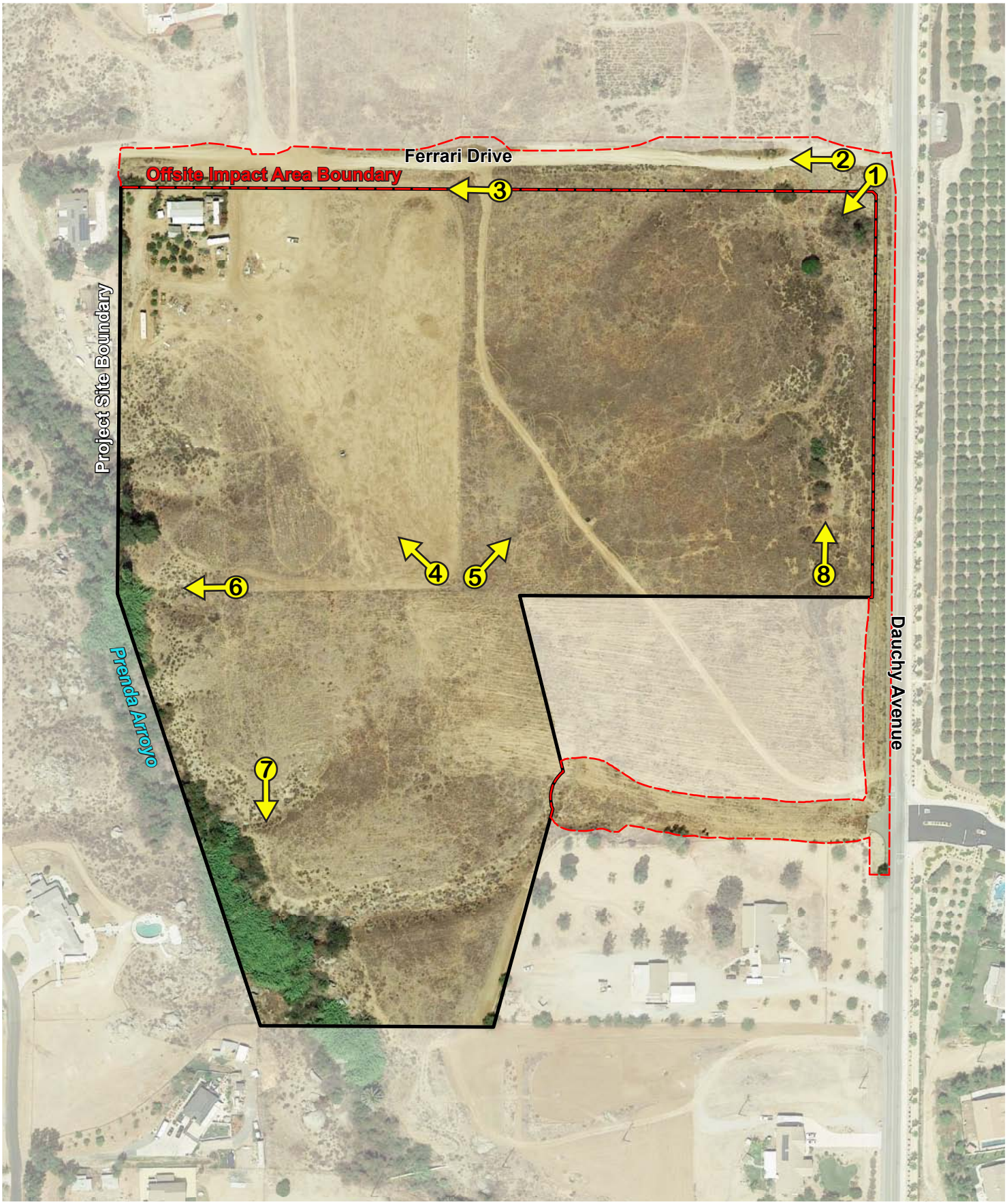
Dauchy Avenue Project Site

City of Riverside, California

CADRE Environmental

N

not to scale



Onsite APNs 276-040-011, 276-040-012, and 276-050-029
Offsite APNs Portions of 276-050-030, -031, 276-040-007,-008, -009, -010, ROW

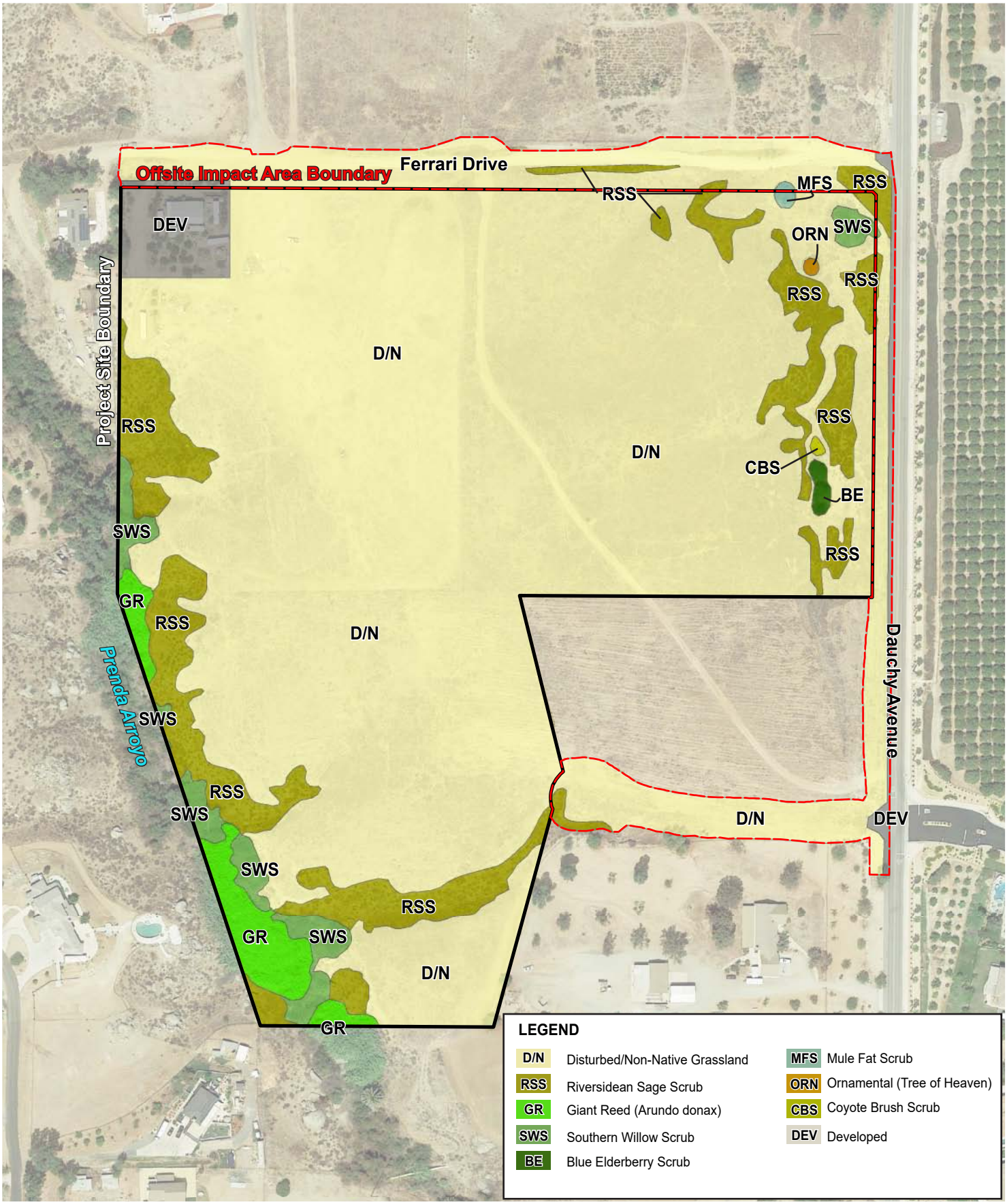
(#) Photo Point & Direction

Attachment B **Vicinity Map**
Dauchy Avenue Project Site
City of Riverside, California

CADRE Environmental

N

1" = 200 feet



Onsite APNs 276-040-011, 276-040-012, and 276-050-029
Offsite APNs Portions of 276-050-030, -031, 276-040-007,-008, -009, -010, ROW

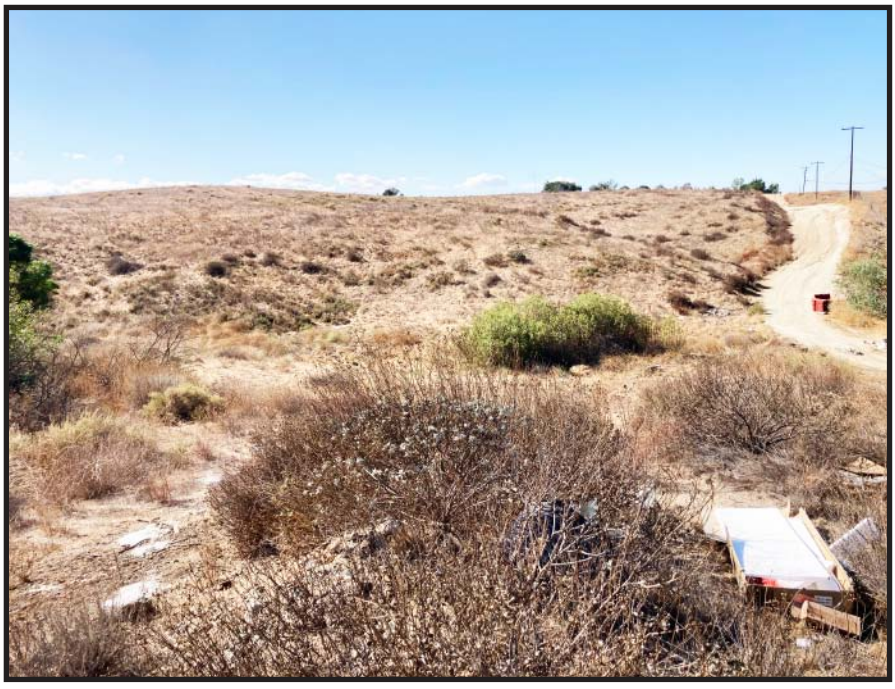
Attachment C **Vegetation Communities Map**
Dauchy Avenue Project Site
City of Riverside, California

CADRE Environmental

N

1" = 200 feet

PHOTOGRAPH 1 - Southwest view of Project Site from Dauchy Avenue and Ferrari Drive intersection.



PHOTOGRAPH 2 - Westward view of Project Site from Dauchy Avenue and Ferrari Drive intersection.

Refer to Attachment B for Photo Key

Attachment D **Current Project Site Photographs**
Dauchy Avenue Project Site
City of Riverside, California

CADRE Environmental

PHOTOGRAPH 3 - Westward view of Project Site from north-central boundary. The Project Site is dominated by disturbed/non-native grassland.

PHOTOGRAPH 4 - Northwest view of Project Site from central region of property. The Project Site is dominated by disturbed/non-native grassland.

Refer to Attachment B for Photo Key

PHOTOGRAPH 5 - Northwest view of Project Site from central region of property. The Project Site is dominated by disturbed/non-native grassland.

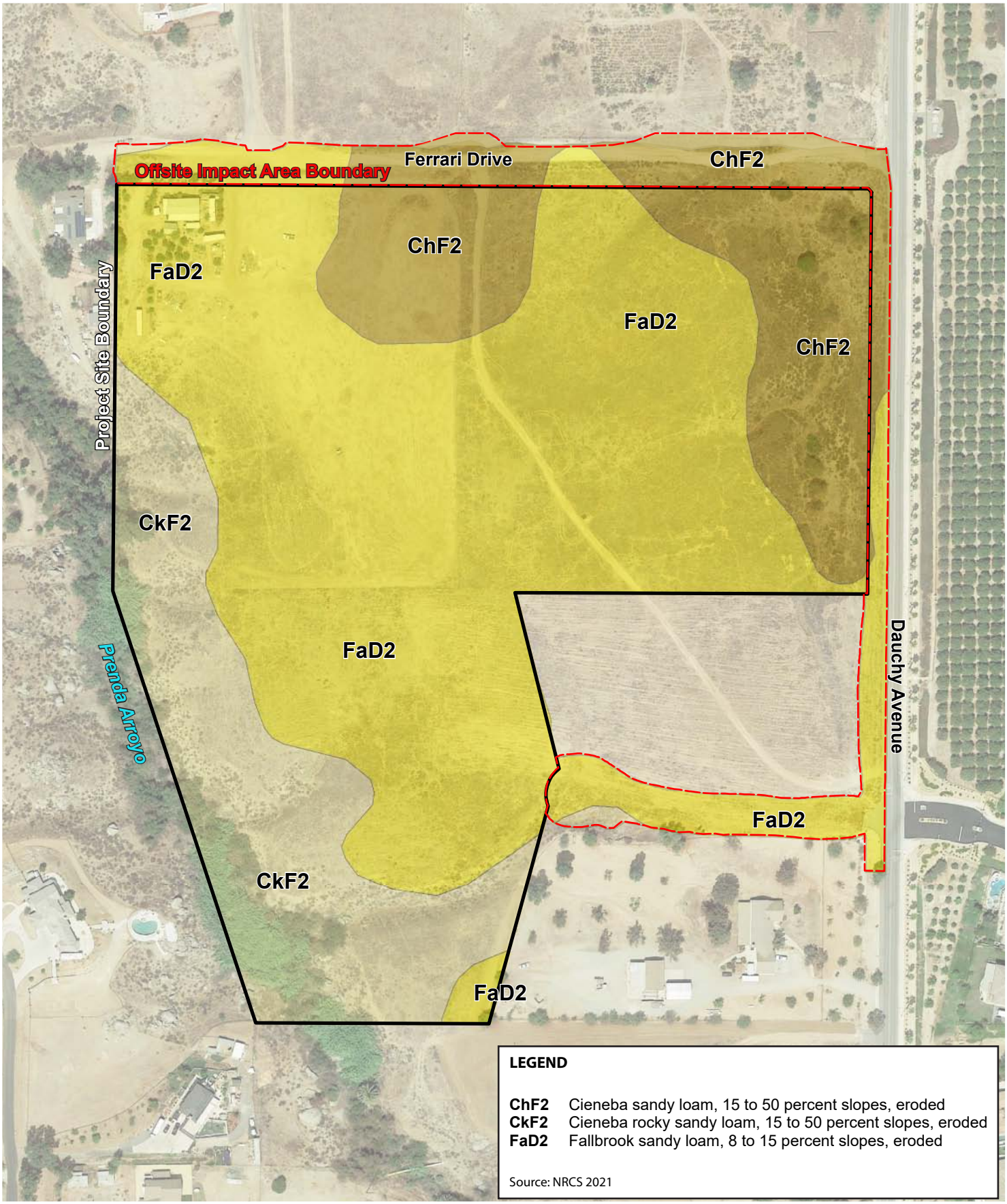
PHOTOGRAPH 6 - Westward view of blue-line drainage located along the southwestern boundary. Large patches of giant reed (*Arundo donax*) dominate the drainage.

Refer to Attachment B for Photo Key

PHOTOGRAPH 7 - Southward view of blue-line drainage located along the southwestern boundary. Patches of southern willow scrub are located within the drainage.

PHOTOGRAPH 8 - Northward view from southeastern Project Site boundary adjacent to Dauchy Avenue.

Refer to Attachment B for Photo Key



Onsite APNs 276-040-011, 276-040-012, and 276-050-029
Offsite APNs Portions of 276-050-030, -031, 276-040-007,-008, -009, -010, ROW

Attachment H **Soils Association Map**
Dauchy Avenue Project Site
City of Riverside, California

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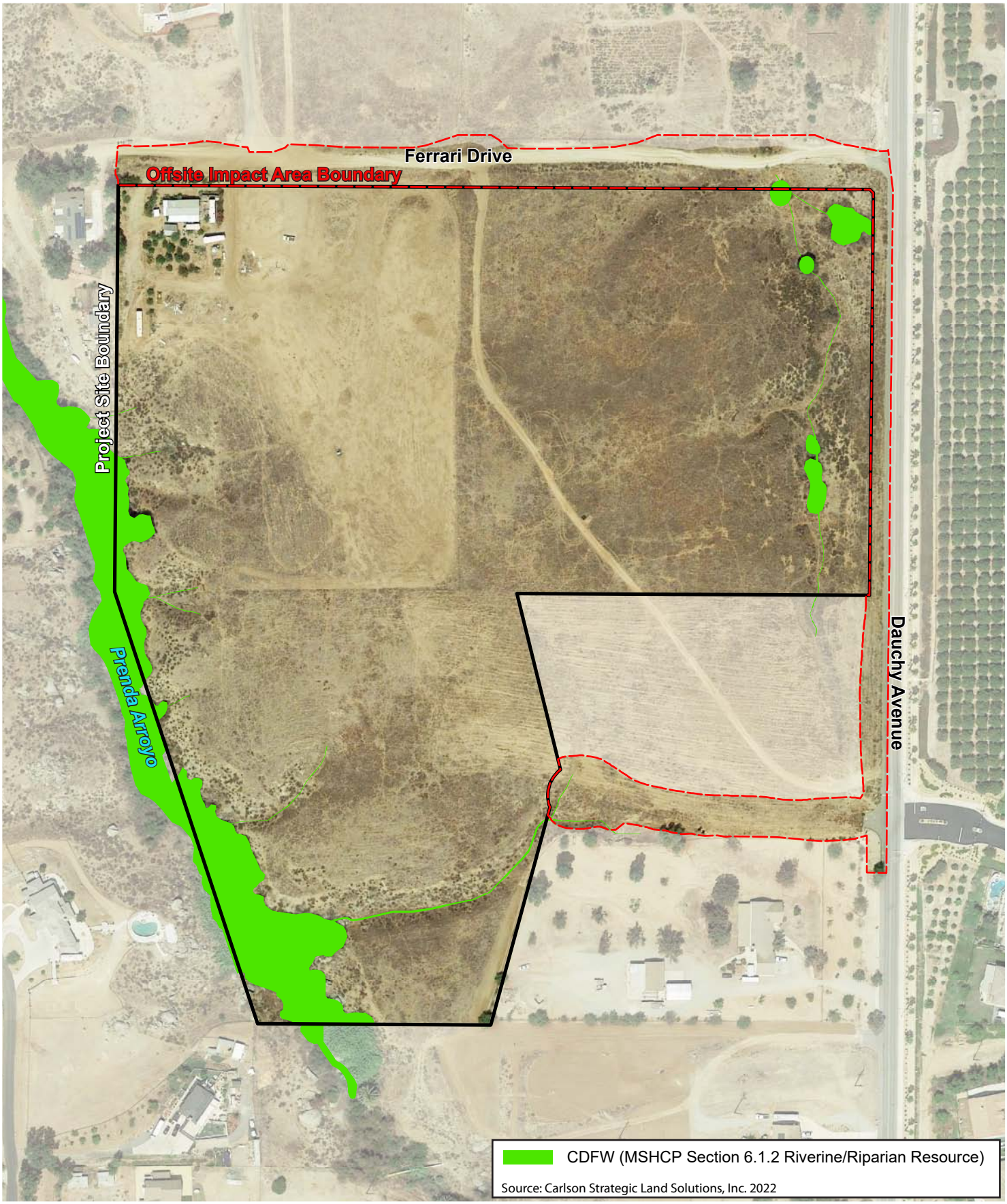
N

1" = 200 feet



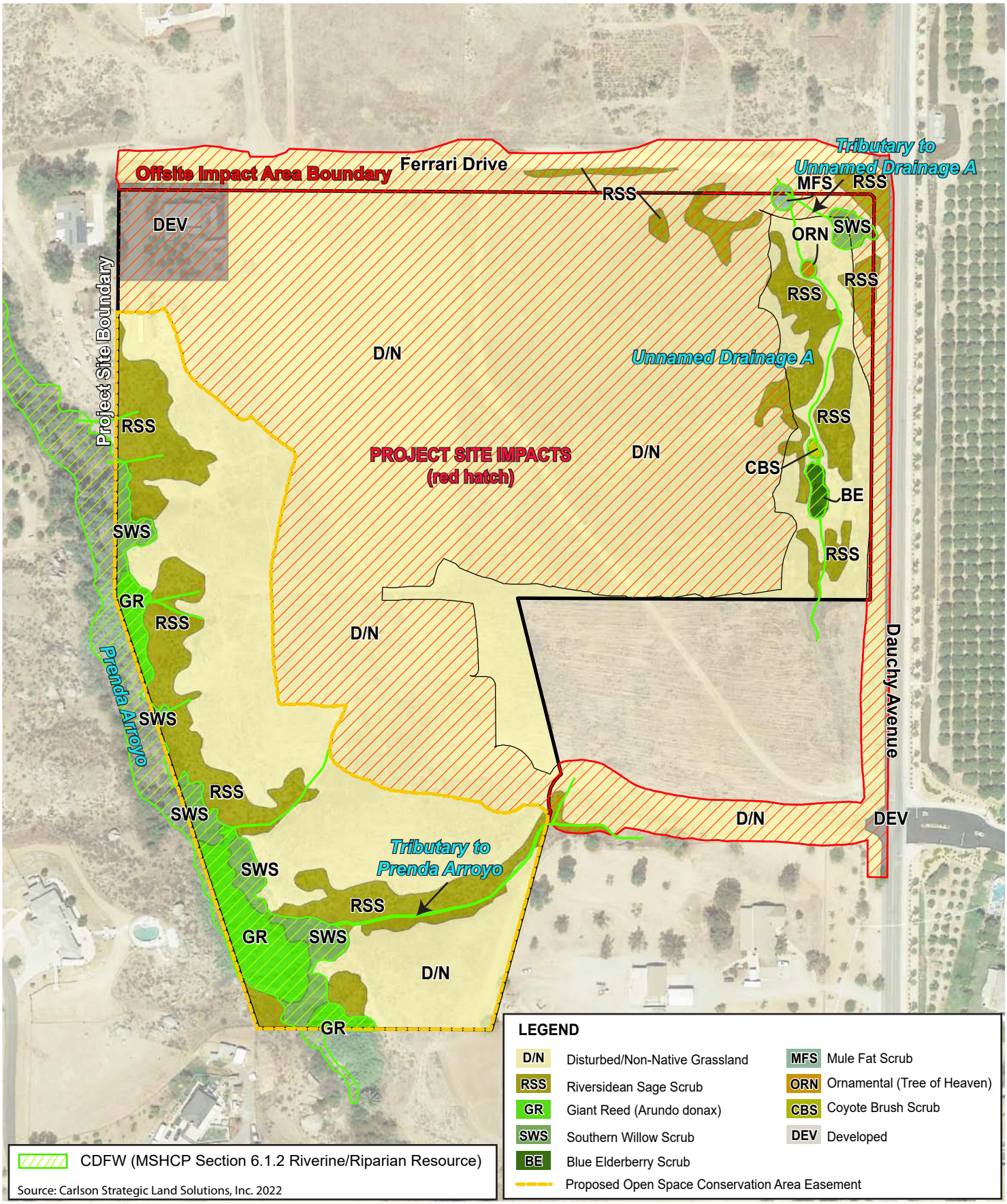
Onsite APNs 276-040-011, 276-040-012, and 276-050-029
Offsite APNs Portions of 276-050-030, -031, 276-040-007,-008, -009, -010, ROW

Attachment I **MSHCP Section 6.1.2 Resources Map**
Dauchy Avenue Project Site
City of Riverside, California

CADRE Environmental

N

1" = 200 feet



Onsite APNs 276-040-011, 276-040-012, and 276-050-029
Offsite APNs Portions of 276-050-030, -031, 276-040-007,-008, -009, -010, ROW

Attachment J **Biological Resources Impact Map**
Dauchy Avenue Project Site
City of Riverside, California

CADRE Environmental

N

1" = 200 feet

MSHCP Determination of Biologically Equivalent or Superior Preservation (DBESP)

Dauchy Avenue Tentative Tract Map No. 38074

City of Riverside, Western Riverside County, California

FINAL REPORT

Case #: PR-2021-001030

Prepared for:

Signature Realty Capital Corp
1901 Newport Blvd, Suite 350
Costa Mesa, CA 92627
Contact: Al Cohen (949) 999-2000

Prepared by:

Cadre Environmental
701 Palomar Airport Road, Suite 300
Carlsbad, CA 92011
Contact: Ruben Ramirez, (949) 300-0212

CADRE Environmental

June 2023

MSHCP Determination of Biologically Equivalent or Superior Preservation (DBESP)

Dauchy Avenue Tentative Tract Map No. 38074
City of Riverside, Western Riverside County
(APNs) 276-040-011, 276-040-012, and 276-050-029, offsite portions of 276-050-030, -031, 276-040-007, -008, -009, -010, and Right-of-Ways

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1. EXECUTIVE SUMMARY

The 24.73-acre project site (Tentative Tract Map No. 38074, Case PR-2021-001030) including 3.43-acre offsite impact area (28.16-acre total) is located within the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Lake Mathews/Woodcrest Plan Area. The project site is not located within an MSHCP criteria area cell, group, or linkage area. The action area possesses 2.38-acre of "MSHCP" Section 6.1.2 Riverine and Riparian resources.

For purposes of assessing existing conditions and impacts, all resources delineated as California Department of Fish and Wildlife (CDFW) regulated features were also characterized as MSHCP Section 6.1.2 Riverine and Riparian resources. Permanent impacts to 0.096-acre of MSHCP Section 6.1.2 Riverine and Riparian resources will occur as a result of project implementation (Carlson Strategic Land Solutions, Inc. 2023) as outlined in Table 1, *MSHCP Section 6.1.2 Riverine Resources Impacts*. No temporary impacts to MSHCP 6.1.2 Riverine or Riparian resources will result from project implementation.

Table 1. MSHCP Section 6.1.2 Resources Impacts

Section 6.1.2 Resources	Total Acres	Permanent Impacts Acres	Avoided Acres
Riverine			
Unnamed Drainage A	0.11	0.02	0.09
Unnamed Drainage A Tributary	0.02	0.02	0.00
Western Blue-line Drainage – Prenda Arroyo [1]	1.04	--	1.04
Western Blue-line Drainage Prenda Arroyo Tributaries[2]	0.05	0.006[2]	0.044
Riparian			
Unnamed Drainage A Tributary *Southern Willow Scrub* *Mule Fat Scrub*	0.05	0.05	0.00
Western Blue-line Drainage – Prenda Arroyo [1] *Giant Reed* *Southern Willow Scrub*	1.11	--	1.11
TOTALS	**2.38**	**0.096**	**2.284**

1 - No impacts are expected to occur to the western blue-line drainage
2 - The 0.006 acre of impacts to the southern-most western blue-line drainage Tributary occur due to the construction of Victor Hugo Drive.

Source: Carlson Strategic Land Solutions, Inc. 2023, Cadre Environmental 2022a

As summarized from Carlson Strategic Land Solutions, Inc. 2023, to meet the criteria of a biologically equivalent or superior alternative, the applicant will offset permanent impacts to 0.096-acre of MSHCP Section 6.1.2 Riverine and Riparian resources by:

BIO-1: Permanent impacts to 0.096-acres of jurisdictional features will be mitigated at a 2:1 ratio through the purchase of 0.192 acres of re-establishment credits at the Riverpark Mitigation Bank. An agreement for sale of credits from the Riverpark Mitigation Bank will be submitted to the City of Riverside prior to grading permit issuance.

BIO-2: Prior to grading permit issuance, a conservation easement in favor of a conservation-mission third party (for oversight and compliance verification) shall be placed over all onsite "avoidance areas," including riparian/riverine resources within the western blue-line drainage, unnamed drainage A, and adjacent upland habitats.

BIO-3: Prior to the initiation of construction, the construction contractor shall install temporary erosion control measures around avoided drainages and conservation areas to reduce impacts to onsite drainages and open space habitat from the excess sedimentation, siltation and erosion. These measures shall consist of the installation of silt fencing, coirs, berms, or dikes to protect storm drain inlets and drainages.

BIO-4: During construction of the Project, the construction contractor shall implement the following measures during construction to avoid impacts to Unnamed Drainage A and its single tributary, and western blue-line drainage and its associated tributaries:

- No changing of oil or other fluids, or discarding of any trash or other construction waste materials shall occur on the Project Site.

- Any equipment or vehicles driven and/or operated within or adjacent to onsite drains shall be checked and maintained daily, to prevent leaks of materials into onsite drainages. No equipment maintenance shall be conducted near onsite drains.

BIO-5: Prior to grading permit issuance no impacts shall occur to onsite drainages until appropriate permits have been obtained from the US Army Corps of Engineers (Corps) Section 404 Nation Wide Permit, Regional Water Quality Control Board (RWQCB) Section 401 Water Quality Certificate, and/or California Department of Fish and Wildlife (CDFW) Section 1602 Streambed Alteration Agreement. Specifically, the following permits or certifications will be required:

- USACE Section 404 Nation Wide Permit
- RWQCB 401 Water Quality Certificate
- CDFW Section 1602 Streambed Alteration Agreement

The River Park Mitigation Bank proposes to re-establish (recreate former but no longer existing) alkali plain wetland system habitat and rehabilitate (repair existing but degraded) alkali plain wetland system habitat for a grand total of 583 acres of restoration of various types of alkali plain wetland system plant communities. As stated by the United States Army Corps of Engineers (USACE):

> "*The Riverpark Mitigation Bank is a proposed 619-acre mitigation bank located along the San Jacinto River (SJR) in western Riverside County (Figures 1 and 2). The Bank property is specifically located just downstream of the Ramona Expressway and immediately upstream of Nuevo Road. The site is depicted on the U.S. Geological Survey (USGS) Perris and Romoland Quadrangle Rancho San Jacinto Nuevo y Potrero Land Grant (Figure 3) in unincorporated Riverside County, California (33° 49' 8.4"N, -117° 9' 18"W).*" (USACE 2015)

"*The primary objective of the proposed mitigation bank would be to replace functions and services of aquatic resources and associated habitats that have been degraded or destroyed as a result of activities conducted in compliance or in violation of Section 404 of the CWA. The proposed mitigation bank would provide mitigation for both permanent and temporary impacts to waters of the U.S. In addition, the proposed mitigation bank may be used to offset environmental losses resulting from unavoidable impacts related to regulated activities by the California Department of Fish and Wildlife and the San Diego and Santa Ana Regional Water Quality Control Boards. Specific objectives include: • Restoration of fluvial processes on site within the San Jacinto River floodplain. • Restoration of alkali playa and vernal pool habitat. • Expansion of existing sensitive plant populations across the site. • Removal of ongoing agricultural activities on the site. • Removal of existing berms and the low flow channel. • Permanent protection of the site through transfer of fee title to the Western Riverside Regional Conservation Authority (RCA). • Permanent management of the site through funding of a non-wasting endowment*." (USACE 2015)

"*Due to its location along the San Jacinto River and its high potential for successful restoration upon elimination of the artificial low flow channel and berms created by historic agricultural activities, the proposed mitigation bank location has been identified by several state and Federal agencies as a high-priority restoration site.*" (USACE 2015)

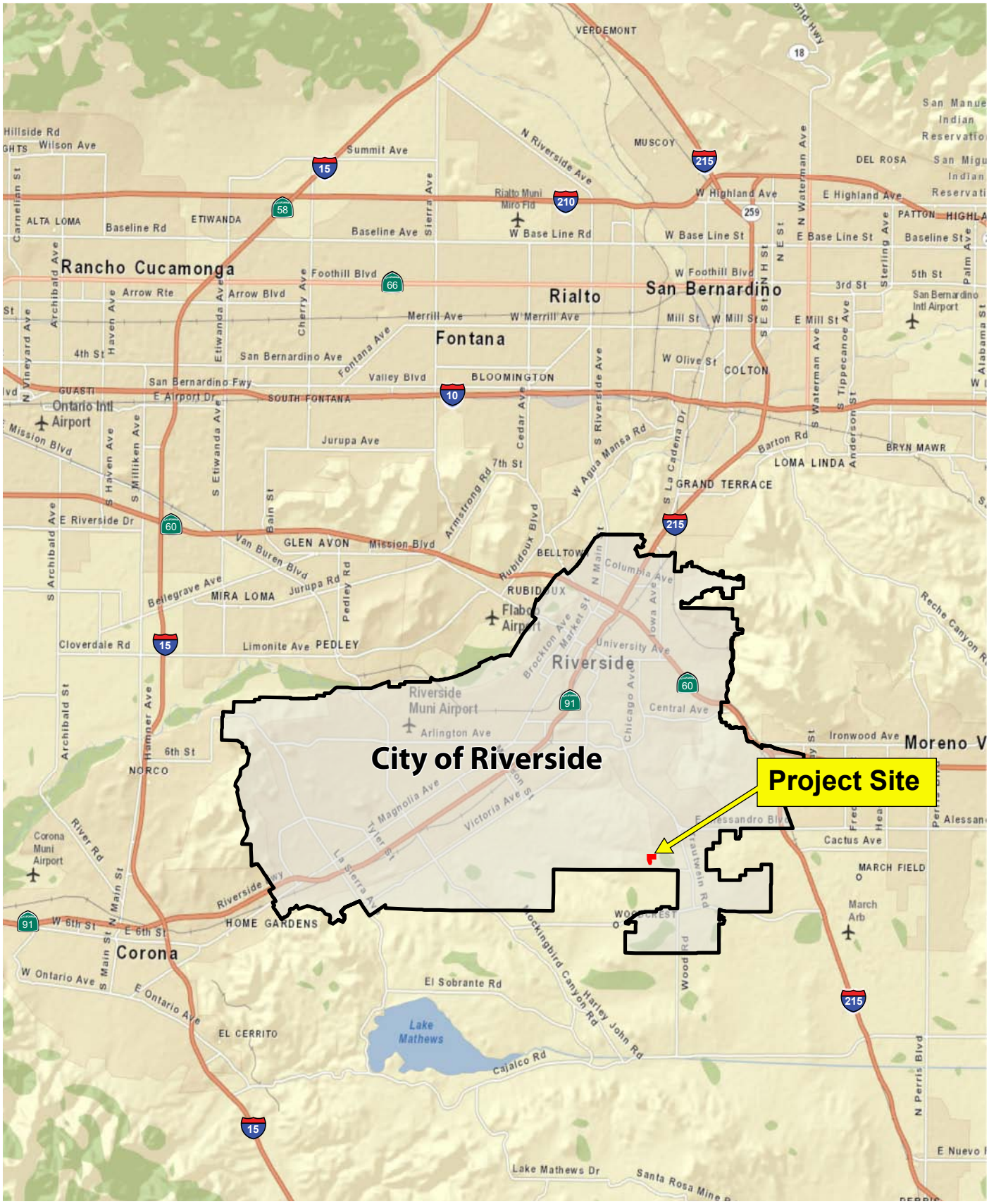
2. INTRODUCTION

This document presents the results of a Determination of Biologically Equivalent or Superior Preservation (DBESP) analysis conducted by Cadre Environmental for the Dauchy Avenue residential development project as required under Section 6.1.2, *Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools*, of the Western Riverside County MSHCP (MSHCP 2004).

2.1 Project Site

The 24.73-acre project site including adjacent 3.43-acre offsite impact area (28.16-acre total) within which the impacts will occur is comprised of Assessor's Parcel Numbers (APNs) 276-040-011, 276-040-012, and 276-050-029, offsite portions of 276-050-030, -031, 276-040-007, -008, -009, -010, and Right-of-Ways (Project Site). The Project Site is located within United States Geological Survey (USGS) 7.5' Series Riverside East Quadrangle, Riverside County, Township 3 South, Range 4 West, Section 18, extending southwest of the Dauchy Avenue and Ferrari Drive intersection, as shown in Figure 1, *Regional Location Map* and Figure 2, *Vicinity Map.* The Project Site is located within the MSHCP Lake Mathews/Woodcrest Plan Area and is not located within an MSHCP criteria area cell, group, or linkage area.

The Project Site is not located within or adjacent to Public/Quasi-Public (PQP) or Regional Conservation Authority (RCA) conserved land.



Onsite APNs 276-040-011, 276-040-012, and 276-050-029
Offsite APNs portions of 276-050-030, -031, 276-040-007, -008, -009, -010, and Right-of-Ways

Figure 1 Regional Location Map
Determination of Biologically Equivalent or Superior Preservation
Dauchy Avenue Project Site

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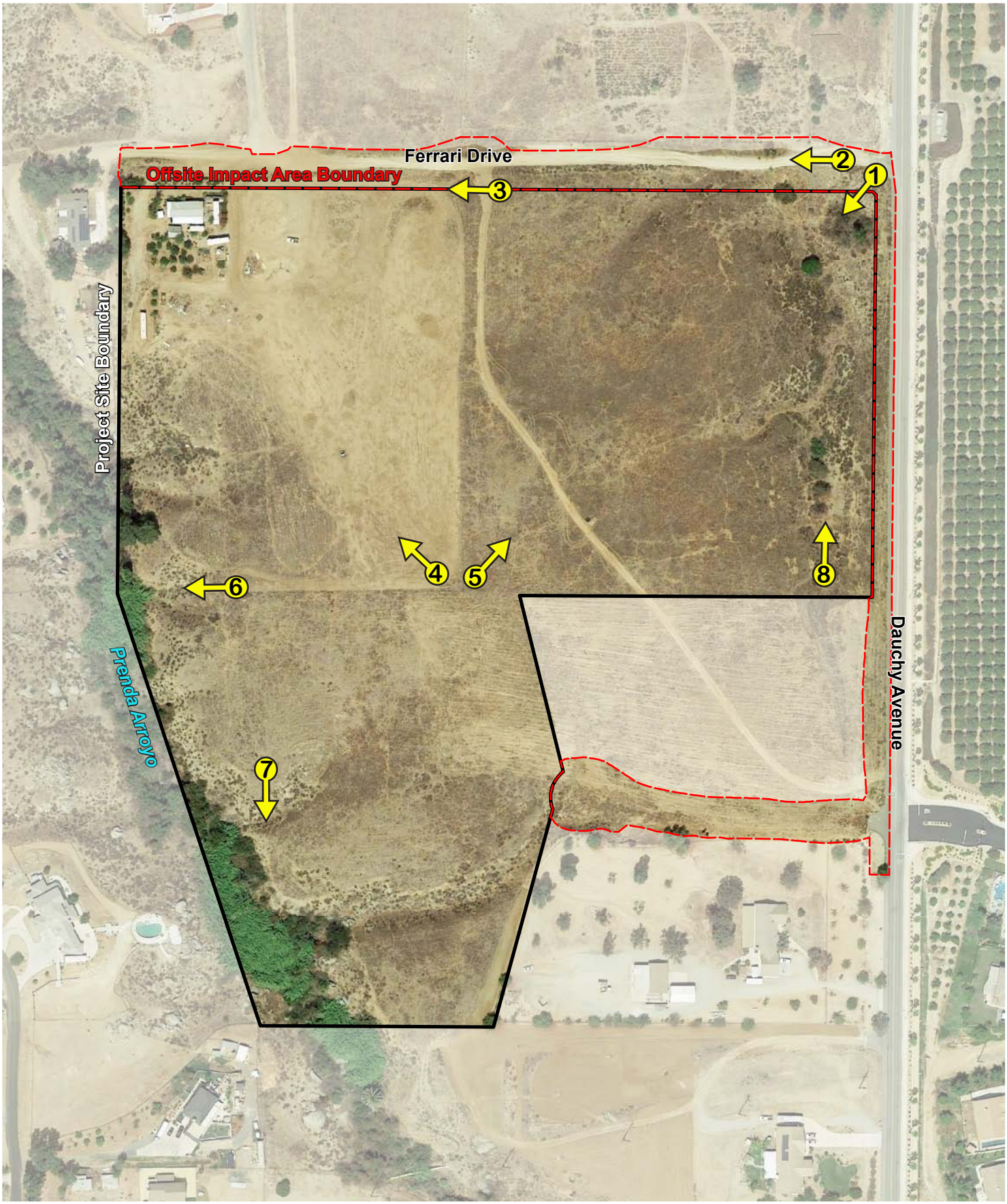
N
not to scale



Onsite APNs 276-040-011, 276-040-012, and 276-050-029
Offsite APNs Portions of 276-050-030, -031, 276-040-007,-008, -009, -010, ROW

(#) Photo Point & Direction

Figure 2 Project Site Map
Determination of Biologically Equivalent or Superior Preservation
Dauchy Avenue Project Site

CADRE Environmental

N

1" = 200 feet

The Project Site is not located within a predetermined survey area for MSHCP narrow endemic or criteria area plant species (RCA GIS Data Downloads 2022).

The Project Site is not located within a predetermined survey area for criteria area, mammal or amphibian species (RCA GIS Data Downloads 2022).

2.2 Project Description

Tentative Tract Map No. 38074 proposes a gated subdivision of 24.73 acres into 53 dwelling units. There are currently three contiguous parcels that make up the subject property that make up approximately 24.45 acres, and the remaining 0.28 acres consist of road vacations that will be added to the property. Other lots that will be created are as follows: Lots "B" and ""G" will be utilized as private recreational lots consisting of 97,510 s.f. and 10,807 s.f., respectively; Lots "C", "E", and "F" will be natural open space lots that will contain natural areas that will have 60,626, 227,246, and 79,831 square feet, respectively; Lots "I", "L", "M", "N", and "O" will be common open space that will contain manufactured slopes to be maintained by the Homeowner's Association that will have 12,628, 4,134, 9,385, 16,801, and 24,186 square feet, respectively; Lots D", and "J" are to be water quality basins and will be 9,871, add 19,755square feet, respectively. All streets including Lot K within the subdivision are to be privately owned and maintained by the Homeowner's Association.

PR-2021-001030 includes the following entitlements for a Planned Residential Development: 1) Tentative Tract Map 38074 to subdivide 24.73-acres into 53 single-family residential lots and lettered lots for common open space, private street, and a detention basin; 2) Planned Residential Development to facilitate the establishment of 54 residential lots; and 3) Design Review of project plans. As such, the lots have been plotted with conceptual architecture for two-story homes. Three lots, 40-42, will be single story homes. Lot 53 has a current residence that will be demolished and replaced. Pedestrian trails will traverse Lot B.

2.3 Existing Conditions

The Project Site and offsite impact area are characterized as rolling hilltops at approximately 1,500 feet elevation primarily dominated by disturbed/non-native grassland, Riversidean sage scrub and a blue-line drainage located within and adjacent to the southwestern Project Site boundary as outlined in Table 2, *Project Site Vegetation Community Acreages and Impacts*, and illustrated in Figure 3, *Vegetation Communities Map*, and Figures 4 to 7, *Current Project Site Photographs*.

The Soil Survey of Western Riverside Area has the following soils mapped within the boundary of the Project Site as shown on Figure 8, *Soils Association Map*:

- ChF2 Cieneba sandy loam, 15 to 50 percent slopes, eroded
- CkF2 Cieneba rocky sandy loam, 15 to 50 percent slopes, eroded
- FaD2 Fallbrook sandy loam, 8 to 15 percent slopes, eroded

Table 2.
Project Site Vegetation Community Acreages and Impacts

Vegetation Community	Project Site Acres	Offsite Impact Acres	Project Site Impact Acres	Total Impact Acres
Disturbed/Non-Native Grassland	20.38	2.95	12.58	15.53
Riversidean Sage Scrub	2.60	0.21	0.29	0.50
Giant Reed (Arundo donax)	0.58	--	--	--
Southern Willow Scrub	0.56	--	0.03	0.03
Developed	0.53	0.26	0.53	0.79
Blue Elderberry Scrub	0.05	--	--	--
Mule Fat Scrub	0.01	0.01	0.01	0.02
Coyote Brush Scrub	0.01	--	--	--
Ornamental	0.01	--	--	--
TOTAL	24.73	**3.43**	**13.44**	**16.87**

Source: Cadre Environmental 2022a

Disturbed/Non-Native Grassland

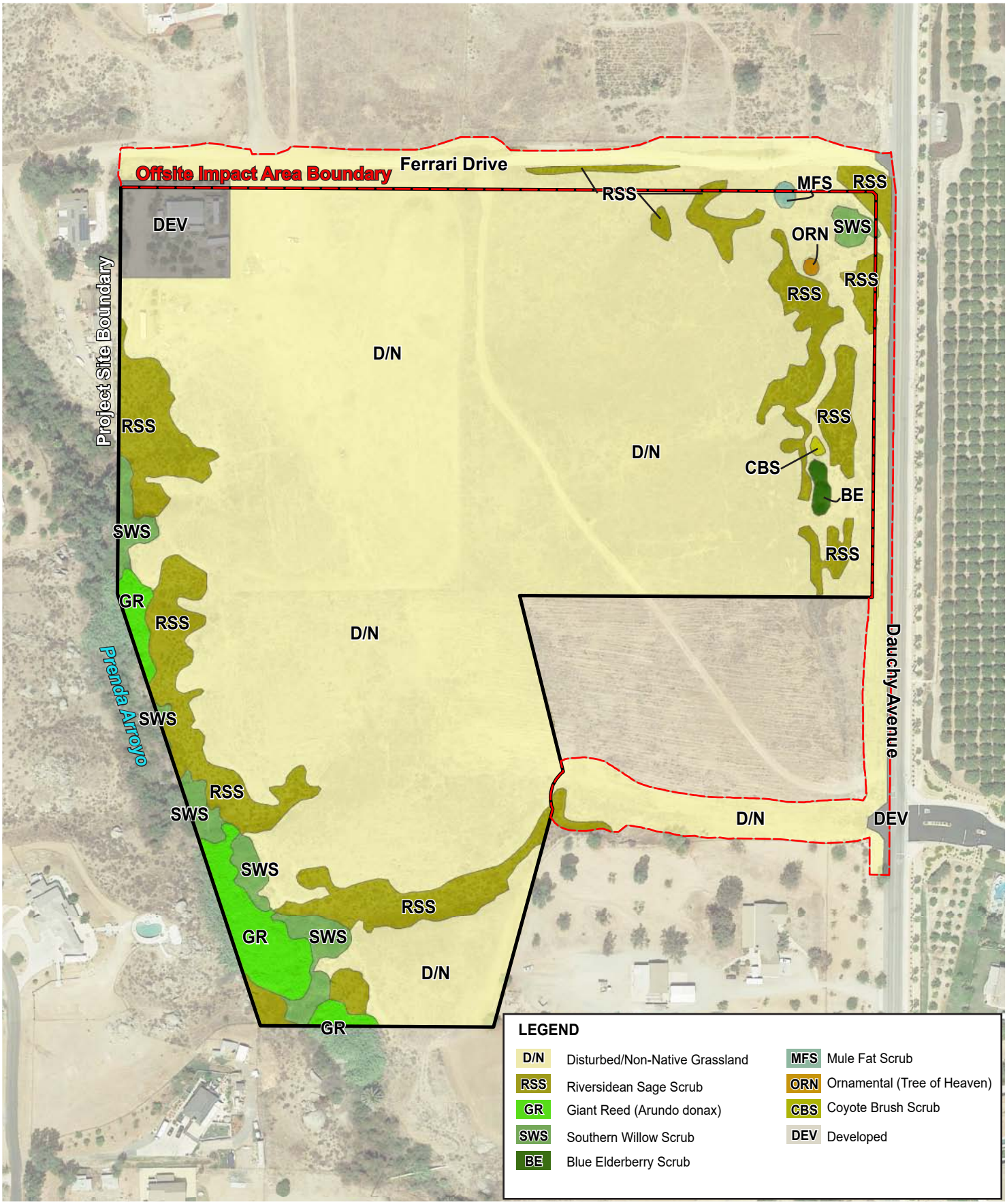
The majority of the Project Site is characterized as disturbed/non-native grassland vegetation. Dominant species documented within this vegetation community include slender wild oat (*Avena barbata*), ripgut grass (*Bromus diandrus*), foxtail chess (*Bromus madritensis* ssp. *rubens*), wild oat grass (*Avena fatua*), prickly lettuce (*Lactuca serriola*), black mustard (*Brassica nigra*), stinknet (*Oncosiphon piluliferum*), tumbling pigweed (*Amaranthus albus*), Pomona milk vetch (*Astragalus pomonensis*), rattlesnake sandmat (*Euphorbia albomarginata*), doveweed (*Croton setigerus*), and fascicled tarweed (*Deinandra fasciculata*).

Riversidean Sage Scrub

Several patches of Riversidean sage scrub are concentrated along the western and eastern Project Site boundaries. Dominant plant species documented within this vegetation community include California buckwheat (*Eriogonum fasciculatum*), California sagebrush (*Artemisia californica*), sweetbush (*Bebbia juncea*), bush sunflower (*Encelia californica*), white sage (*Salvia apiana*), deerweed (*Acmispon glaber*), coast cholla (*Cylindropuntia prolifera*), coast goldenbush (*Isocoma menziesii*), and pinebush (*Ericameria pinifolia*).

Giant Reed (*Arundo donax*)

Several large patches of giant reed (*Arundo donax*) are located within the floodprone area of the drainage located within and adjacent to the southwestern Project Site boundary.



Onsite APNs 276-040-011, 276-040-012, and 276-050-029
Offsite APNs Portions of 276-050-030, -031, 276-040-007,-008, -009, -010, ROW

Figure 3 - Vegetation Communities Map
Determination of Biologically Equivalent or Superior Preservation
Dauchy Avenue Project Site

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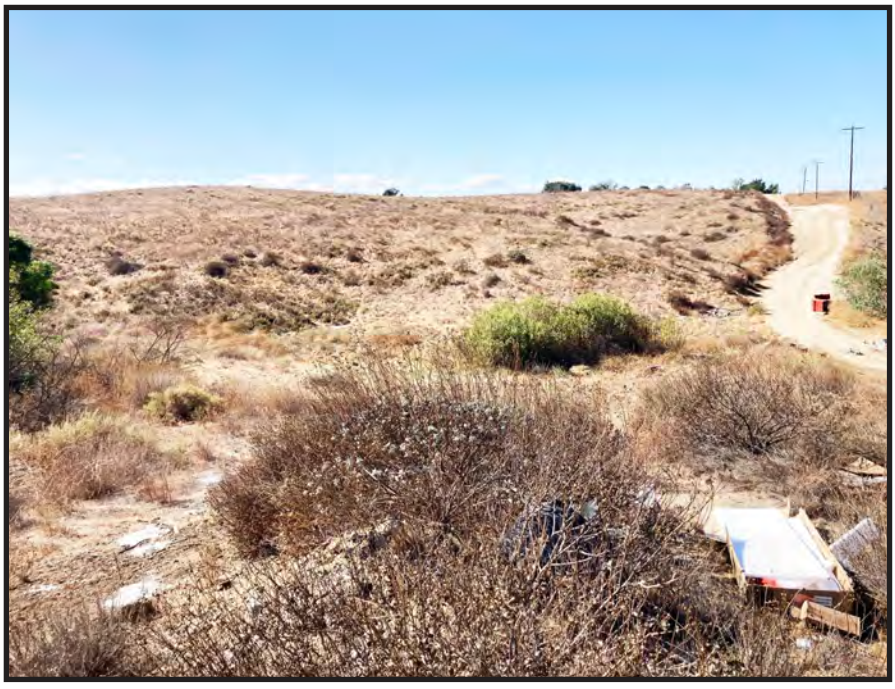
N
1" = 200 feet

PHOTOGRAPH 1 - Southwest view of Project Site from Dauchy Avenue and Ferrari Drive intersection.



PHOTOGRAPH 2 - Westward view of Project Site from Dauchy Avenue and Ferrari Drive intersection.

Refer to Figure 2 for Photo Key

Figure 4 - Current Project Site Photographs
Determination of Biologically Equivalent or Superior Preservation
Dauchy Avenue Project Site

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PHOTOGRAPH 3 - Westward view of Project Site from north-central boundary. The Project Site is dominated by disturbed/non-native grassland.

PHOTOGRAPH 4 - Northwest view of Project Site from central region of property. The Project Site is dominated by disturbed/non-native grassland.

Refer to Figure 2 for Photo Key

Figure 5 - Current Project Site Photographs
Determination of Biologically Equivalent or Superior Preservation
Dauchy Avenue Project Site

CADRE Environmental

PHOTOGRAPH 5 - Northwest view of Project Site from central region of property. The Project Site is dominated by disturbed/non-native grassland.

PHOTOGRAPH 6 - Westward view of blue-line drainage located along the southwestern boundary. Large patches of giant reed (*Arundo donax*) dominate the drainage.

Refer to Figure 2 for Photo Key

Figure 6 - Current Project Site Photographs
Determination of Biologically Equivalent or Superior Preservation
Dauchy Avenue Project Site

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PHOTOGRAPH 7 - Southward view of blue-line drainage located along the southwestern boundary. Patches of southern willow scrub are located within the drainage.

PHOTOGRAPH 8 - Northward view from southeastern Project Site boundary adjacent to Dauchy Avenue.

Refer to Figure 2 for Photo Key

Figure 7 - Current Project Site Photographs
Determination of Biologically Equivalent or Superior Preservation
Dauchy Avenue Project Site

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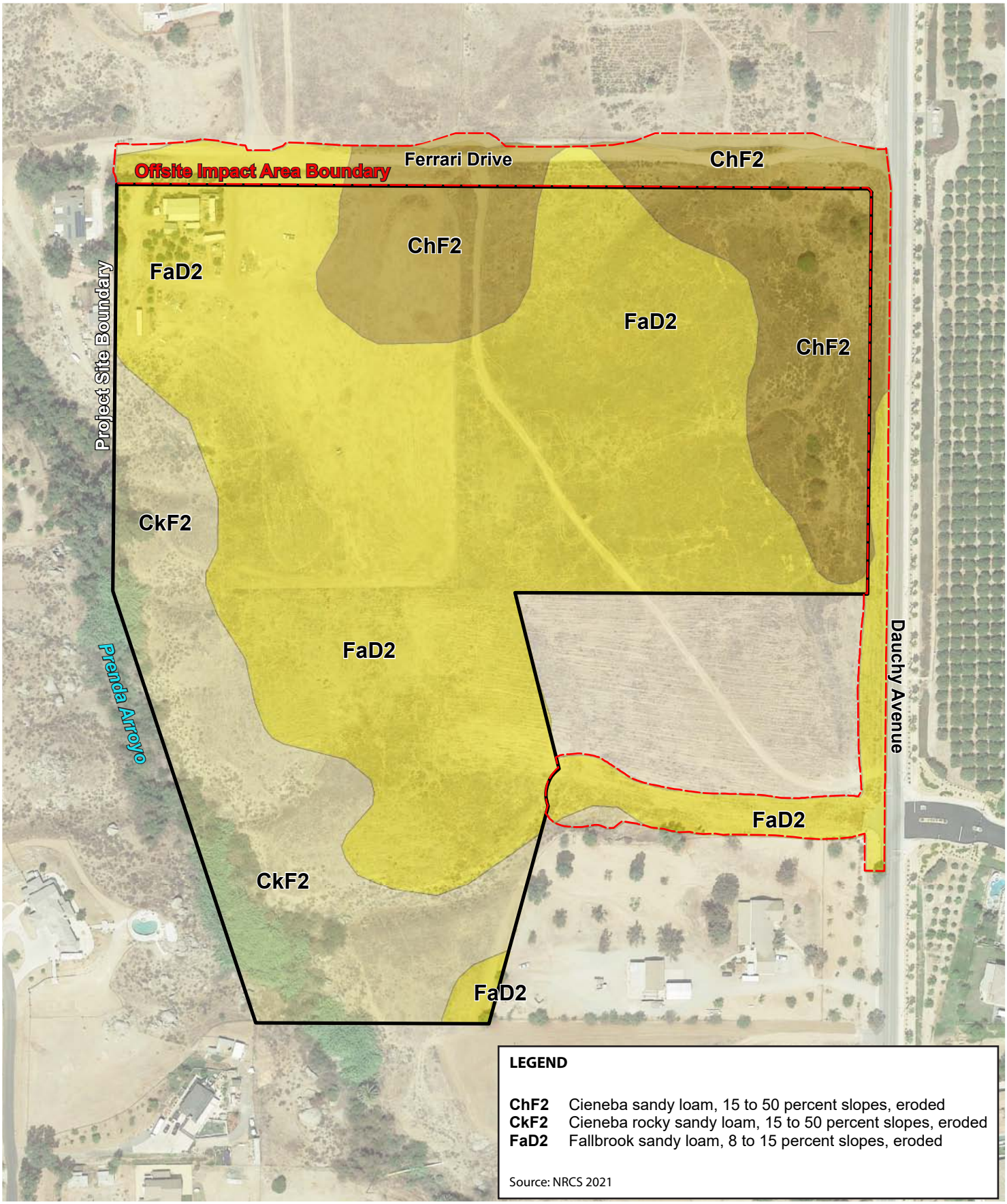

Onsite APNs 276-040-011, 276-040-012, and 276-050-029
Offsite APNs Portions of 276-050-030, -031, 276-040-007,-008, -009, -010, ROW

Figure 8 Soils Association Map
Determination of Biologically Equivalent or Superior Preservation
Dauchy Avenue Project Site

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N

1" = 200 feet

Dominant species documented within this vegetation community include arroyo willow (*Salix lasiolepis*) and mule fat (*Baccharis salicifolia*).

Developed/Ornamental

An existing residence and associated ornamental vegetation, tree of heaven (*Ailanthus altissima*) is located within the northwest region of the Project Site.

Blue Elderberry Scrub

A single patch of blue elderberry scrub (*Sambucus nigra* ssp. *caerulea*) was documented within the swale located in the eastern region of the Project Site adjacent to Dauchy Avenue.

Mule Fat Scrub

A single patch of mule fat scrub was documented within the swale located in the eastern region of the Project Site adjacent to Ferrari Drive.

Coyote Brush Scrub

A single patch of coyote brush scrub (*Baccharis pilularis*) was documented within the swale located in the eastern region of the Project Site adjacent to Dauchy Avenue.

General Wildlife

General wildlife species documented onsite or within the vicinity during the site visit include turkey vulture (*Cathartes aura*), red-tailed hawk (*Buteo jamaicensis*), American kestrel (*Falco sparverius*), rock dove (*Columba livia*), mourning dove (*Zenaida macroura*), American crow (*Corvus brachyrhynchos*), Cassin's kingbird (*Tyrannus vociferans*), Say's phoebe (*Sayornis saya*), bushtit (*Psaltriparus minimus*), western meadowlark (*Sturnella neglecta*), ash-throated flycatcher (*Myiarchus cinerascens*), lark sparrow (*Chondestes grammacus*), European starling (*Sturnus vulgaris*), brown-headed cowbird (*Molothrus ater*), red-winged blackbird (*Agelaius phoeniceus*), northern mockingbird (*Mimus polyglottos*), lesser goldfinch (*Spinus psaltria*), house finch (*Carpodacus mexicanus*), and California ground squirrel (*Otospermophilus beecheyi*).

3. RIPARIAN, RIVERINE, VERNAL POOL MITIGATION (SECTION 6.1.2)

3.1 Methods

A formal jurisdictional delineation was conducted by Carlson Strategic Land Solutions, Inc. 2023 (Carlson Strategic Land Solutions, Inc. 2023). The delineation determined the boundaries or absence of potential wetland and non-wetland waters of the United States subject to the regulatory jurisdiction of the U.S. Army Corps of Engineers pursuant to Clean Water Act (CWA) Section 404; wetland and non-wetland waters of the State subject to the regulatory jurisdiction of the Regional Water Quality Control Board pursuant to CWA Section 401 and State Porter-Cologne Water Quality Control Act (Porter-Cologne);

streambed and riparian habitat subject to the regulatory jurisdiction of the CDFW pursuant Sections 1600 *et seq*. of the California Fish and Game Code (CDFG Code).

All resources delineated as CDFW jurisdictional features were also defined as Western Riverside County MSHCP Section 6.1.2 Riverine and Riparian resources.

3.2 Results/Impacts

Regulated activities within inland streams, wetlands and riparian areas in Western Riverside County California fall under the jurisdiction of the MSHCP 6.1.2. The MSHCP requires, among other things, assessments for riparian/riverine and vernal pool resources. As projects are proposed within the MSHCP Plan Area, an assessment of the potentially significant effects of those projects on riparian/riverine areas, and vernal pools are required, as currently mandated by CEQA, using available information augmented by project-specific mapping provided to and reviewed by the permittee's biologist(s). Riparian/riverine areas and vernal pools are defined for this section as follows in accordance with Section 6.1.2, Vol. I, of the Final MSHCP Plan:

> "*Riparian/Riverine Areas are lands which contain habitat dominated by trees, shrubs, persistent emergents, or emergent mosses and lichens, which occur close to or which depend upon soil moisture from a nearby fresh water source; or areas with fresh water flow during all or a portion of the year*." (MSHCP 2004)

It is assumed the first part of the definition defines riparian habitat, and the second part defines riverine areas. Vernal pools are defined as:

> "…*seasonal wetlands that occur in depression areas that have wetlands indicators of all three parameters (soils, vegetation and hydrology) during the wetter portion of the growing season but normally lack wetlands indicators of hydrology and/or vegetation during the drier portion of the growing season. Obligate hydrophytes and facultative wetlands plant species are normally dominant during the wetter portion of the growing season, while upland species (annuals) may be dominant during the drier portion of the growing season*". (MSHCP 2004)

Vernal Pool Resources

No evidence of vernal pools, seasonal depressions or seasonally inundated road ruts were documented within the Project Site. Vernal pools are depressions in areas where a hard-underground layer prevents rainwater from draining downward into the subsoils. When rain fills the pools in the winter and spring, the water collects and remains in the depressions. In the springtime, the water gradually evaporates away, until the pools became completely dry in the summer and fall. Vernal pools tend to have an impermeable layer that results in ponded water. The soil texture (the amount of sand, silt, and clay particles) typically contains higher amounts of fine silts and clays with lower percolation rates. Pools that retain water for a sufficient length of time will develop hydric cells. Hydric cells form when the soil is saturated from flooding for extended periods of time and anaerobic conditions (lacking oxygen or air) develop.

Consistent with conditions documented onsite and as previously stated, the Project Site is characterized as Cieneba sandy loam, Cieneba rocky sandy loam, and Fallbrook sandy loam, all types possessing well drained substrates (drainage class). No indication of clay substrates or hydric soils were documented within the Project Site.

A review of historic aerials was conducted to determine if inundated features were present during years of high rainfall when features would certainly be documented. Historic aerials taken in 2011 represent an ideal baseline during which know (previously documented) inundated vernal pools, seasonal depressions and road ruts can easily be seen. No sign or indication of inundation was documented within the Project Site during a review of historic aerials.

In summary, none of the conditions (i.e., no inundated depressions including road ruts, historic inundation, etc.) were observed or documented within the Project Site permanent impact area. No features are present that would support fairy shrimp.

As previously stated, for purposes of assessing existing conditions and impacts, all resources delineated as CDFW regulated features were also characterized as MSHCP Section 6.1.2 Riverine and Riparian resources.

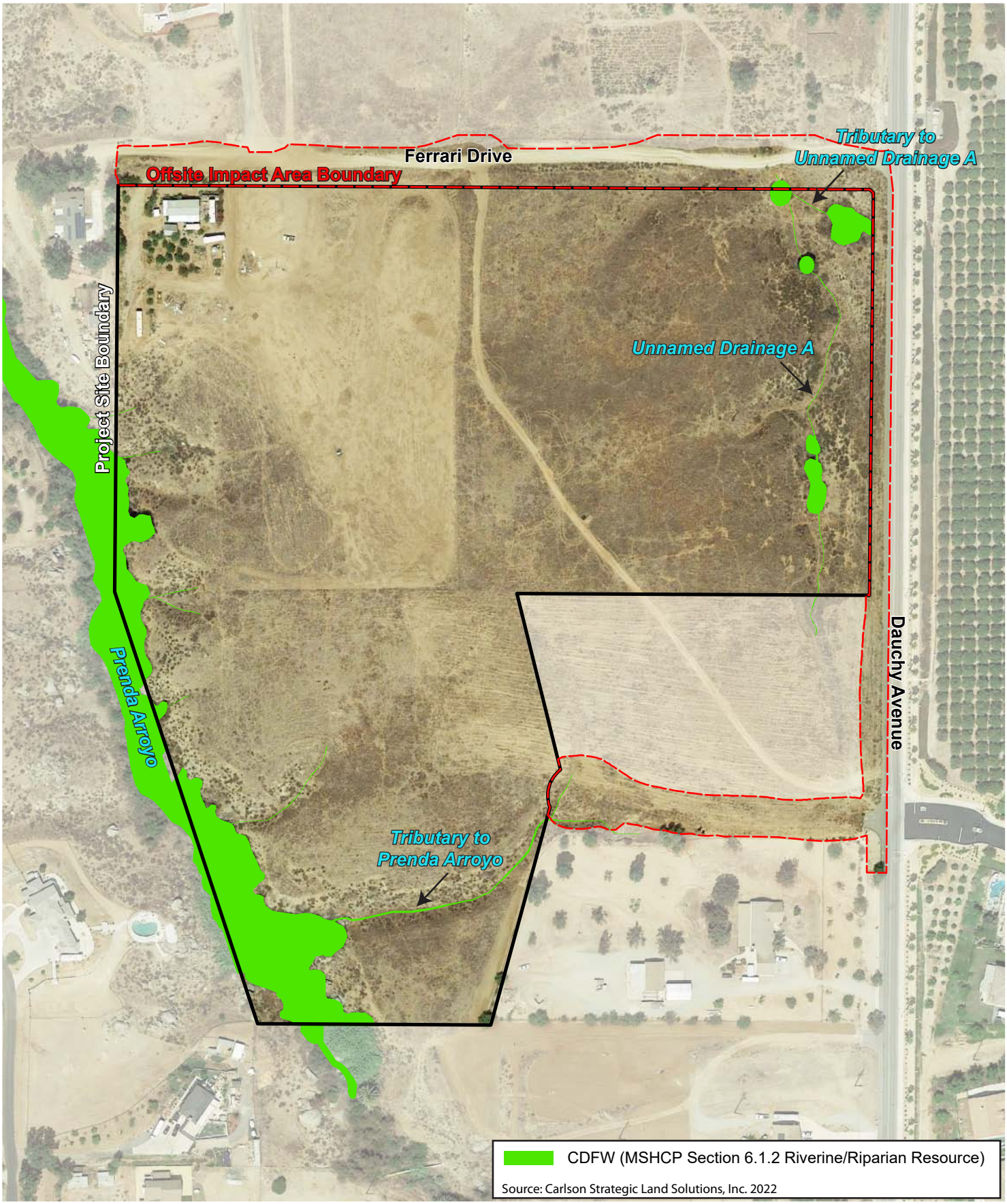
A total of 2.38-acres of MSHCP Section 6.1.2 resources (1.16-acres Riparian, 1.22-acres Riverine) occur within the Project Site as outlined in Table 3, *MSHCP Section 6.1.2 Resources Impacts*, and shown in Figure 9, *MSHCP Section 6.1.2 Resources Map*.

PQP Impacts

The Project Site is not located within or adjacent to PQP or RCA conserved land.

Riverine and Riverine Resources

Permanent impacts to 0.096-acre of MSHCP Section 6.1.2 Riverine and Riparian resources will occur as a result of project implementation (Carlson Strategic Land Solutions, Inc. 2023) as outlined in Table 3, *MSHCP Section 6.1.2 Resources Impacts*, and shown in Figure 10, *MSHCP Section 6.1.2 Resources Impact Map*. No temporary impacts to MSHCP 6.1.2 Riverine or Riparian resources will result from project implementation.



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Offsite APNs Portions of 276-050-030, -031, 276-040-007,-008, -009, -010, ROW

Figure 9 MSHCP Section 6.1.2 Resources Map
Determination of Biologically Equivalent or Superior Preservation
Dauchy Avenue Project Site

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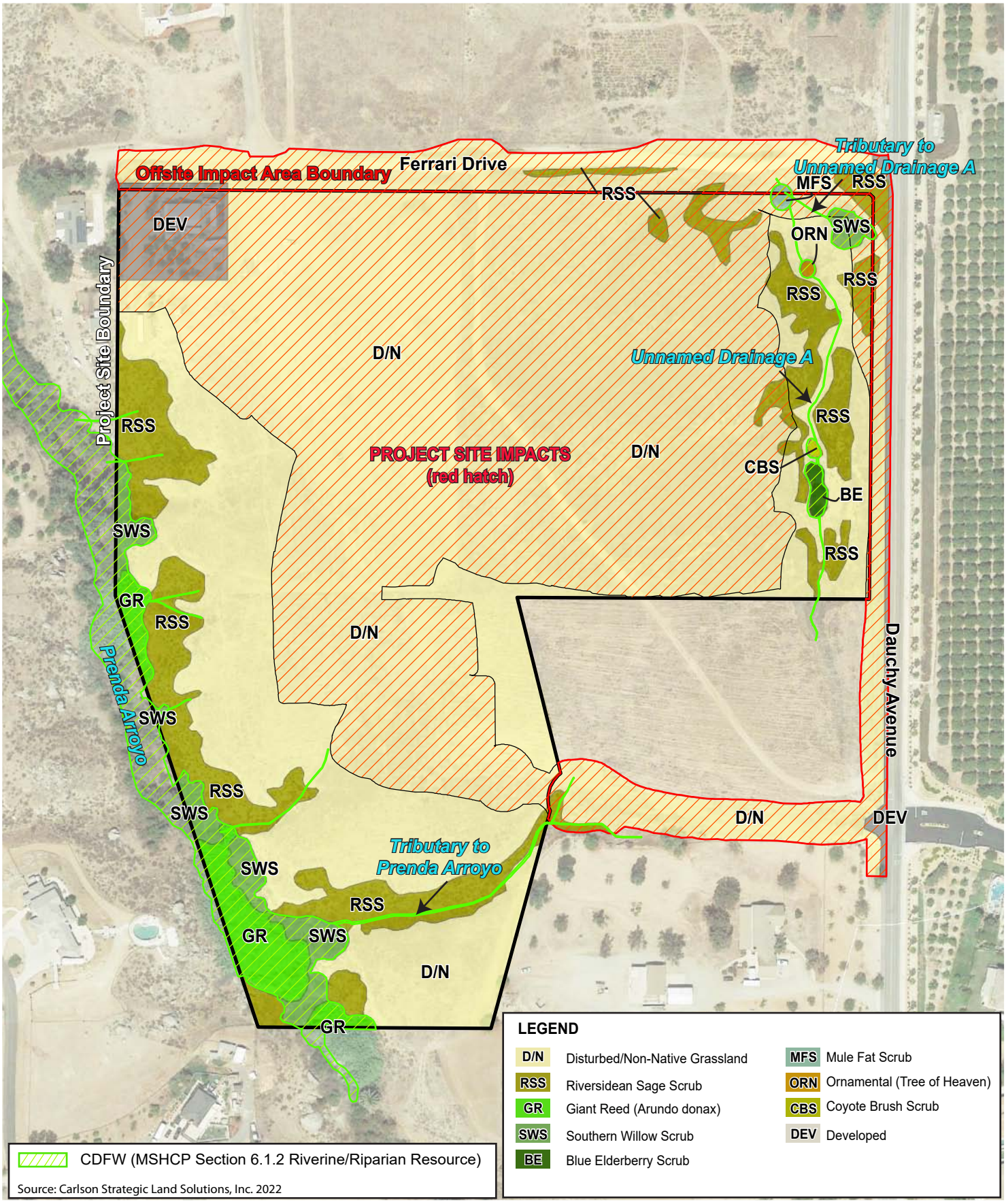
N

1" = 200 feet



Onsite APNs 276-040-011, 276-040-012, and 276-050-029
Offsite APNs Portions of 276-050-030, -031, 276-040-007,-008, -009, -010, ROW

Figure 10 MSHCP Section 6.1.2 Resources Impact Map
Determination of Biologically Equivalent or Superior Preservation
Dauchy Avenue Project Site

CADRE Environmental

N
1" = 200 feet

Table 3.
MSHCP Section 6.1.2 Resources Impacts

Section 6.1.2 Resources	Total Acres	Permanent Impacts Acres	Avoided Acres
Riverine			
Unnamed Drainage A	0.11	0.02	0.09
Unnamed Drainage A Tributary	0.02	0.02	0.00
Western Blue-line Drainage [1]	1.04	--	1.04
Western Blue-line Drainage Tributaries[2]	0.05	0.006[2]	0.044
Riparian			
Unnamed Drainage A Tributary *Southern Willow Scrub* *Mule Fat Scrub*	0.05	0.05	0.00
Western Blue-line Drainage [1] *Giant Reed* *Southern Willow Scrub*	1.11	--	1.11
TOTALS	**2.38**	**0.096**	**2.284**

1 - No impacts are expected to occur to the western blue-line drainage
2 - The 0.006 acres of impacts to the southern-most western blue-line drainage Tributary occur due to the construction of Victor Hugo Drive.

Source: Carlson Strategic Land Solutions, Inc. 2023, Cadre Environmental 2022a

3.3 Mitigation and Equivalency

A Pre-Application meeting was held on April 13th 2022 with the RCA, USFWS, CDFW, RWQCB, USACE, City of Riverside, and project applicant team to review the project impacts to both jurisdictional and MSHCP Section 6.1.2 resources. The following proposed mitigation strategy for impacts to MSHCP Section 6.1.2 resources received informal approval during the meeting from the wildlife and regulatory agencies. As summarized from Carlson Strategic Land Solutions, Inc. 2023, to meet the criteria of a biologically equivalent or superior alternative, the applicant will offset permanent impacts to 0.096-acre of MSHCP Section 6.1.2 Riverine and Riparian resources by implementing the following, as presented in the report titled Western Riverside County Multiple Species Habitat Conservation Plan Compliance Analysis for the 24.73-Acre TTM 38074 Dauchy Avenue Project Site including 3.43-acre Offsite Impact Area, City of Riverside, Western Riverside County, California (Cadre Environmental December 19th, 2022a) - BIO-3 MSHCP Riverine Resources Section 6.1.2 Compliance:

BIO-1: Permanent impacts to 0.096-acres of jurisdictional features will be mitigated at a 2:1 ratio through the purchase of 0.192 acres of re-establishment credits at the Riverpark Mitigation Bank. An agreement for sale of credits from the Riverpark Mitigation Bank will be submitted to the City of Riverside prior to grading permit issuance.

BIO-2: Prior to grading permit issuance, a conservation easement in favor of a conservation-mission third party (for oversight and compliance verification) shall be placed over all onsite “avoidance areas,” including riparian/riverine resources within the western blue-line drainage, unnamed drainage A, and adjacent upland habitats.

BIO-3: Prior to the initiation of construction, the construction contractor shall install temporary erosion control measures around avoided drainages and conservation areas to reduce impacts to onsite drainages and open space habitat from the excess sedimentation, siltation and erosion. These measures shall consist of the installation of silt fencing, coirs, berms, or dikes to protect storm drain inlets and drainages.

BIO-4: During construction of the Project, the construction contractor shall implement the following measures during construction to avoid impacts to Unnamed Drainage A and its single tributary, and western blue-line drainage and its associated tributaries:

- No changing of oil or other fluids, or discarding of any trash or other construction waste materials shall occur on the Project Site.
- Any equipment or vehicles driven and/or operated within or adjacent to onsite drains shall be checked and maintained daily, to prevent leaks of materials into onsite drainages. No equipment maintenance shall be conducted near onsite drains.

BIO-5: Prior to grading permit issuance, no impacts shall occur to onsite drainages until appropriate permits have been obtained from the US Army Corps of Engineers (Corps) Section 404 Nation Wide Permit, Regional Water Quality Control Board (RWQCB) Section 401 Water Quality Certificate, and/or California Department of Fish and Wildlife (CDFW) Section 1602 Streambed Alteration Agreement. Specifically, the following permits or certifications will be required:

- USACE Section 404 Nation Wide Permit
- RWQCB 401 Water Quality Certificate
- CDFW Section 1602 Streambed Alteration Agreement

The River Park Mitigation Bank proposes to re-establish (recreate former but no longer existing) alkali plain wetland system habitat and rehabilitate (repair existing but degraded) alkali plain wetland system habitat for a grand total of 583 acres of restoration of various types of alkali plain wetland system plant communities. As stated by the United States Army Corps of Engineers (USACE):

> "*The Riverpark Mitigation Bank is a proposed 619-acre mitigation bank located along the San Jacinto River (SJR) in western Riverside County (Figures 1 and 2). The Bank property is specifically located just downstream of the Ramona Expressway and immediately upstream of Nuevo Road. The site is depicted on the U.S. Geological Survey (USGS) Perris and Romoland Quadrangle Rancho San Jacinto Nuevo y Potrero Land Grant (Figure 3) in unincorporated Riverside County, California (33° 49' 8.4"N, -117° 9' 18"W).*" (USACE 2015)

> "*The primary objective of the proposed mitigation bank would be to replace functions and services of aquatic resources and associated habitats that have been degraded or destroyed as a result of activities conducted in compliance or in violation of Section 404 of the CWA. The proposed mitigation bank would provide mitigation for both permanent and temporary impacts to waters of the U.S. In addition, the proposed mitigation bank may be used to offset*

environmental losses resulting from unavoidable impacts related to regulated activities by the California Department of Fish and Wildlife and the San Diego and Santa Ana Regional Water Quality Control Boards. Specific objectives include: • Restoration of fluvial processes on site within the San Jacinto River floodplain. • Restoration of alkali playa and vernal pool habitat. • Expansion of existing sensitive plant populations across the site. • Removal of ongoing agricultural activities on the site. • Removal of existing berms and the low flow channel. • Permanent protection of the site through transfer of fee title to the Western Riverside Regional Conservation Authority (RCA). • Permanent management of the site through funding of a non-wasting endowment." (USACE 2015)

"*Due to its location along the San Jacinto River and its high potential for successful restoration upon elimination of the artificial low flow channel and berms created by historic agricultural activities, the proposed mitigation bank location has been identified by several state and Federal agencies as a high-priority restoration site.*" (USACE 2015)

3.3.1 Direct Effects

Direct impacts are considered to be those that involve the loss, modification, or disturbance of natural resources or habitats (i.e., vegetative communities or substrate) that in turn, directly affect plant and wildlife species dependent on that habitat. Direct impacts include the destruction of individual plants or wildlife of low mobility (i.e., plants, amphibians, reptiles, and small mammals). The collective loss of individuals may also directly affect area-wide population numbers or result in the physical isolation of populations thereby reducing genetic diversity and population stability.

Permanent impacts to 0.096-acre of MSHCP Section 6.1.2 Riverine and Riparian resources will occur as a result of project implementation (Carlson Strategic Land Solutions, Inc. 2023) as outlined in Table 3, *MSHCP Section 6.1.2 Resources Impacts*, and shown in Figure 10, *MSHCP Section 6.1.2 Resources Impact Map*. No temporary impacts to MSHCP 6.1.2 Riverine or Riparian resources will result from project implementation.

3.3.2 Indirect Effects

Indirect impacts are considered to be those impacts associated with the project that involve the effects of alteration of the existing habitat and an increase in human population and or landuse within the Project Site. These impacts are commonly referred to as "edge effects" and may result in changes in the behavioral patterns of wildlife and reduced wildlife diversity and abundance in habitats adjacent to the Project Site.

Indirect impacts also include the effects of increases in ambient levels of sensory stimuli (e.g., noise and light), unnatural predators (e.g., domestic cats and other non-native animals), competitors (e.g., exotic plants and non-native animals), and trampling and unauthorized recreational use due to the increase in human population. Other permanent indirect effects may occur that are related to water quality and storm water management, including trash/debris, toxic materials, and dust.

The MSHCP Urban/Wildlands Interface guidelines presented in Section 6.1.4 are intended to address indirect effects associated with locating commercial, mixed uses and residential developments in proximity to an MSHCP Conservation Area.

The Project Site is not located adjacent to an existing or proposed MSHCP Conservation Area. No mitigation proposed or required. The project is consistent with MSHCP Section 6.1.4. However, the proposed action will implement the following best management practices (BMP's) to ensure no indirect impacts occur to the adjacent western blue-line drainage.

The following project specific MSHCP Urban/Wildlands Interface guidelines represent project design features.

Water Quality/Hydrology

The project will comply with all applicable water quality regulations, including obtaining and complying with those conditions established in (WDRs) and a National Pollutant Discharge Elimination System (NPDES) permits. Both of these permits include the treatment of all surface runoff from paved and developed areas, the implementation of applicable BMPs during construction activities and the installation and proper maintenance of structural BMPs to ensure adequate long-term treatment of water before entering into any stream course.

Toxics

Storm water treatment systems (infiltration basins) will be designed to prevent the release of toxins, chemicals, petroleum products, exotic plant material, or other elements that could degrade or harm downstream biological or aquatic resources. Toxic sources within the Project Site would be limited to those commonly associated with residential development, such as pesticides, insecticides, herbicides, fertilizers, and vehicle emissions. In order to mitigate the potential effects of these toxics, the project will incorporate structural BMPs, as required in association with compliance with WDRs and the NPDES permit system, in order to reduce or prevent the level of toxins introduced into western blue-line drainage.

Lighting

Night lighting associated with the proposed development will be directed away from western blue-line drainage. This will represent a project design measure and should be noted on final plans.

Noise

Pending the results and approval of the noise study, the proposed project will not result in noise levels that exceed residential, noise standards established for the City of Riverside, wildlife within open space habitats within the Project Site will not be subject to noise that exceeds these established standards. Short-term construction-related noise will be addressed by the implementation of the following best management practices:

- Construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturers' standards, as applicable.

- The construction contractor shall limit all construction-related activities that would result in high noise levels according to the construction hours to be determined by City of Riverside staff.

- The construction contractor shall limit haul truck deliveries to the same hours specified for construction equipment. To the extent feasible, haul routes shall not pass sensitive land uses or residential dwellings.

Invasive Species

Although the Project Site is not located adjacent to an existing or proposed conservation area, a landscape plan will be prepared and will avoid to the extent possible the use of invasive species for the portions of the development areas adjacent to the western blue-line drainage (Prenda Arroyo). A list of Invasive plants that will be avoided are included in Table 6-2 of the MSHCP.

Barriers

No barriers within the western blue-line drainage are proposed.

Implementation of all Urban/Wildlands Interface project design feature guidelines will minimize adverse project indirect impacts and is consistent with MSHCP Section 6.1.4.

4. NARROW ENDEMIC PLANT SPECIES MITIGATION (SECTION 6.1.3)

The MSHCP has determined that all of the sensitive species potentially occurring onsite or within the offsite Project Site have been adequately covered (MSHCP Table 2-2 Species Considered for Conservation Under the MSHCP Since 1999, 2004). However, additional surveys may be required for narrow endemic plants if suitable habitat is documented and the assessment area is located within a predetermined "Survey Area" (MSHCP 2004).

The Project Site does not occur within a predetermined Survey Area for MSHCP narrow endemic plant species; therefore, no surveys are required (RCA GIS Data Downloads 2022). The project will be consistent with MSHCP Section 6.1.3

4.1 Methods

The Project Site does not occur within a predetermined Survey Area for MSHCP narrow endemic plant species; therefore, no surveys are required (RCA GIS Data Downloads 2022). The project will be consistent with MSHCP Section 6.1.3

4.2 Results/Impacts

Compliance with Section 6.1.3 respective of MSHCP narrow endemic plants is not applicable to the proposed Project Site.

4.3 Mitigation and Equivalency

Compliance with Section 6.1.3 respective of MSHCP narrow endemic plants is not applicable to the proposed Project Site.

4.3.1 Direct Effects

Compliance with Section 6.1.3 respective of MSHCP narrow endemic plants is not applicable to the proposed Project Site.

4.3.2 Indirect Effects

Compliance with Section 6.1.3 respective of MSHCP narrow endemic plants is not applicable to the proposed Project Site.

5. CRITERIA AREA SPECIES MITIGATION (SECTION 6.3.2)

The MSHCP has determined that all of the sensitive species potentially occurring onsite or within the offsite Project Site have been adequately covered (MSHCP Table 2-2 Species Considered for Conservation Under the MSHCP Since 1999, 2004). However, additional surveys may be required for criteria area species if suitable habitat is documented onsite and the assessment areas are located within a predetermined "Survey Area" (MSHCP 2004).

5.1 Criteria Area Species Survey Area – Plants

The Project Site does not occur within a predetermined Survey Area for MSHCP criteria area plant species; therefore, no surveys are required (RCA GIS Data Downloads 2022). The project is consistent with MSHCP Section 6.3.2.

5.1.1 Methods

The Project Site does not occur within a predetermined Survey Area for MSHCP criteria area plant species; therefore, no surveys are required (RCA GIS Data Downloads 2022). The project is consistent with MSHCP Section 6.3.2.

5.1.2 Results/Impacts

Compliance with Section 6.3.2 respective of MSHCP criteria area plants is not applicable to the proposed Project Site.

5.1.3 Mitigation and Equivalency

Compliance with Section 6.3.2 respective of MSHCP criteria area plants is not applicable to the proposed Project Site.

5.2 Criteria Area Species Survey Area – Burrowing Owl

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

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 2021 (Cadre Environmental 2022b).

5.2.1 Methods

Burrowing Owl Habitat Assessment and Focused 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 9th, 2020. 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 9th, 2020. 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 24th, April 20th, May 5th and 14th, 2021 from one hour before sunrise to two hours after sunrise as outlined in Table 4, *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.

An existing residence is located in the northwest corner of the Project Site. This area was adequately surveyed from the boundaries for the presence/absence of individuals within and adjacent to this region.

Table 4.
Burrowing Owl Survey Schedule

Survey	Dates (Conditions) 2021 Start – End Times	Results
1	**March 24th** 52°F to 62°F, winds 4-12 mph, no rain 6:30am – 9:30am	No burrowing owls or characteristic sign detected within the Project Site.
2	**April 20th** 54°F to 68°F, winds 2-8 mph, no rain 6:30am – 9:30am	No burrowing owls or characteristic sign detected within the Project Site.
3	**May 5th** 58°F to 75°F, winds 0-4 mph, no rain 6:30am – 9:30am	No burrowing owls or characteristic sign detected within the Project Site.
4	**May 14th** 55°F to 74°F, winds 4-10 mph, no rain 6:30am – 9:30am	No burrowing owls or characteristic sign detected within the Project Site.

5.2.2 Results/Impacts

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 2021 MSHCP focused survey effort (Cadre Environmental 2022b).

5.2.3 Mitigation and Equivalency

A 30-day MSHCP preconstruction survey will also be required immediately prior to the initiation of construction to ensure protection for this species and compliance with the conservation goals as outlined in MSHCP Section 6.3.2. This requirement has been included as a condition of approval in the report "Western Riverside County Multiple Species Habitat Conservation Plan Compliance Analysis for the 24.73-Acre TTM 38074 Dauchy Avenue Project Site including 3.43-acre Offsite Impact Area, City of Riverside, Western Riverside County, California. (Cadre Environmental 2022a).

Following submittal, review and approval of the 30-day burrowing owl preconstruction survey report by the City of Riverside and compliance with all species-specific

conservation goals, if detected within or adjacent to the Project Site, the project will be consistent with MSHCP Section 6.3.2.

If burrowing owls are detected onsite during the 30-day preconstruction survey, during the breeding season (February 1st to August 31st) then construction activities shall be limited to beyond 300 feet of the active burrows until a qualified biologist has confirmed that nesting efforts are competed or not initiated. In addition to monitoring breeding activity, if construction is proposed to be initiated during the breeding season or active relocation is proposed, a burrowing owl mitigation plan will be developed based on the City of Riverside, CDFW and USFWS requirements for the relocation of individuals to predetermined preserves.

Following submittal, review and approval of the 30-day burrowing owl preconstruction survey report by the City of Riverside and compliance with all species-specific conservation goals, if detected within or adjacent to the Project Site, the project will be consistent with MSHCP Section 6.3.2.

5.3 Criteria Area Species Survey Area – Mammals

The MSHCP has determined that all of the sensitive species potentially occurring onsite or within the offsite Project Site have been adequately covered (MSHCP Table 2-2 Species Considered for Conservation Under the MSHCP Since 1999, 2004). However, additional surveys may be required if suitable habitat for mammals is documented onsite and the property is located within a predetermined "Survey Area" (MSHCP 2004).

The Project Site does not occur within a predetermined Survey Area for mammal species. Compliance with Section 6.1.3 respective of MSHCP mammals is not applicable to the proposed Project Site.

5.3.1 Methods

Compliance with Section 6.1.3 respective of MSHCP mammals is not applicable to the proposed Project Site.

5.3.2 Results/Impacts

Compliance with Section 6.1.3 respective of MSHCP mammals is not applicable to the proposed Project Site.

5.3.3 Mitigation and Equivalency

Compliance with Section 6.1.3 respective of MSHCP mammals is not applicable to the proposed Project Site.

5.4 Criteria Area Species Survey Area – Amphibians

The MSHCP has determined that all of the sensitive species potentially occurring onsite or within the offsite Project Site have been adequately covered (MSHCP Table 2-2 Species Considered for Conservation Under the MSHCP Since 1999, 2004). However,

additional surveys may be required if suitable habitat for amphibian species is documented onsite and the property is located within a predetermined “Survey Area” (MSHCP 2004).

The Project Site does not occur within a predetermined Survey Area for amphibian species. Compliance with Section 6.1.3 respective of MSHCP amphibians is not applicable to the proposed Project Site.

5.4.1 Methods

Compliance with Section 6.1.3 respective of MSHCP amphibians is not applicable to the proposed Project Site.

5.4.2 Results/Impacts

Compliance with Section 6.1.3 respective of MSHCP amphibians is not applicable to the proposed Project Site.

6. REFERENCES

Cadre Environmental. 2022a. Western Riverside County Multiple Species Habitat Conservation Plan Compliance Analysis for the 24.73-Acre TTM 38074 Dauchy Avenue Project Site including 3.43-acre Offsite Impact Area, City of Riverside, Western Riverside County, California.

Cadre Environmental. 2022b. Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Focused Burrowing Owl Surveys for the 24.73-Acre Dauchy Avenue Project Site including 3.43-acre Offsite Impact Area, City of Riverside, Western Riverside County, California.

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

Carlson Strategic Land Solutions, Inc. 2023. Jurisdictional Delineation for the Dauchy Project Site located in the City of Riverside.

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

Regional Conservation Authority. 2022. Online GIS Database - https://www.wrc-rca.org/

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

U.S. Department of Agriculture. 2022. Custom Soil Resources Report for Western Riverside Area, California. Natural Resources Conservation Service.

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."*

Author:_____ Date:__June 15, 2023___

Contact: Ruben S. Ramirez, Jr. 949-300-0212, r.ramirez@cadreenvironmental.com

PALEONTOLOGICAL ASSESSMENT FOR THE DAUCHY AVENUE PROJECT

CITY OF RIVERSIDE
RIVERSIDE COUNTY, CALIFORNIA

Planning Case P20-0398
APNs 276-040-011 and -012 and 276-050-029

Prepared on Behalf of:

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December 1, 2020

Paleontological Database Information

Author:	Todd A. Wirths, M.S., Senior Paleontologist, California Professional Geologist No. 7588
Consulting Firm:	Brian F. Smith and Associates, Inc. 14010 Poway Road, Suite A Poway, California 92064 (858) 484-0915
Report Date:	December 1, 2020
Report Title:	Paleontological Assessment for the Dauchy Avenue Project, City of Riverside, Riverside County, California (Planning Case P20-0398; APNs 276-040-011 and -012 and 276-050-029)
Prepared on Behalf of:	Signature Realty Capital Corporation 1901 Newport Boulevard, Suite 350 Costa Mesa, California 92627
Prepared for:	City of Riverside Planning Division Community Development Department 3900 Main Street Riverside, California 92522
Prepared by:	Brian F. Smith and Associates, Inc. 14010 Poway Road, Suite A Poway, California 92064
USGS Quadrangle:	*Riverside East, California* (7.5 minute)
Study Area:	24.43 acres
Key Words*:*	Paleontological assessment; tonalite; Low sensitivity; city of Riverside; Riverside County; no paleontological monitoring.

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Appendices

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I. INTRODUCTION AND LOCATION

A paleontological resource assessment has been completed for the Dauchy Avenue Project (Assessor's Parcel Numbers [APNs] 276-040-011 and -012 and 276-050-029), which is located in the Woodcrest neighborhood of the city of Riverside in Riverside County, California (Figures 1 and 2). The project is bounded by Ferrari Drive to the north, Dauchy Avenue to the east, and a seasonal drainage on the west. On the U.S. Geological Survey, 7.5-minute, 1:24,000-scale *Riverside East, California* topographic quadrangle map, the project is located in the northeast corner of Section 18, Township 3 South, Range 4 West, San Bernardino Base and Meridian (see Figure 2). The 24.43-acre project proposes grading of the project for a residential development with associated landscaping and infrastructure.

II. REGULATORY SETTING

The California Environmental Quality Act (CEQA), which is patterned after the National Environmental Policy Act, is the overriding environmental document that sets the requirement for protecting California's cultural and paleontological resources. The document does not establish specific rules that must be followed but mandates that governing permitting agencies (lead agencies) set their own guidelines for the protection of nonrenewable paleontological resources under their jurisdiction.

State of California

Under Guidelines for the Implementation of CEQA, as amended in December 2018 (California Code of Regulations [CCR] Title 14, Division 6, Chapter 3, Sections 15000 et seq.), procedures define the types of activities, persons, and public agencies required to comply with CEQA. Section 15063 of the CCR provides a process by which a lead agency may review a project's potential impact to the environment, whether the impacts are significant, and provide recommendations, if necessary. In the Environmental Checklist, one of the questions to answer is, "Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?" (Appendix G, Section V, Part c). California Public Resources Code Section 5097.5 states:

> a) No person shall knowingly and willfully excavate upon, or remove, destroy, injure or deface any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, rock art, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands. Violation of this section is a misdemeanor.

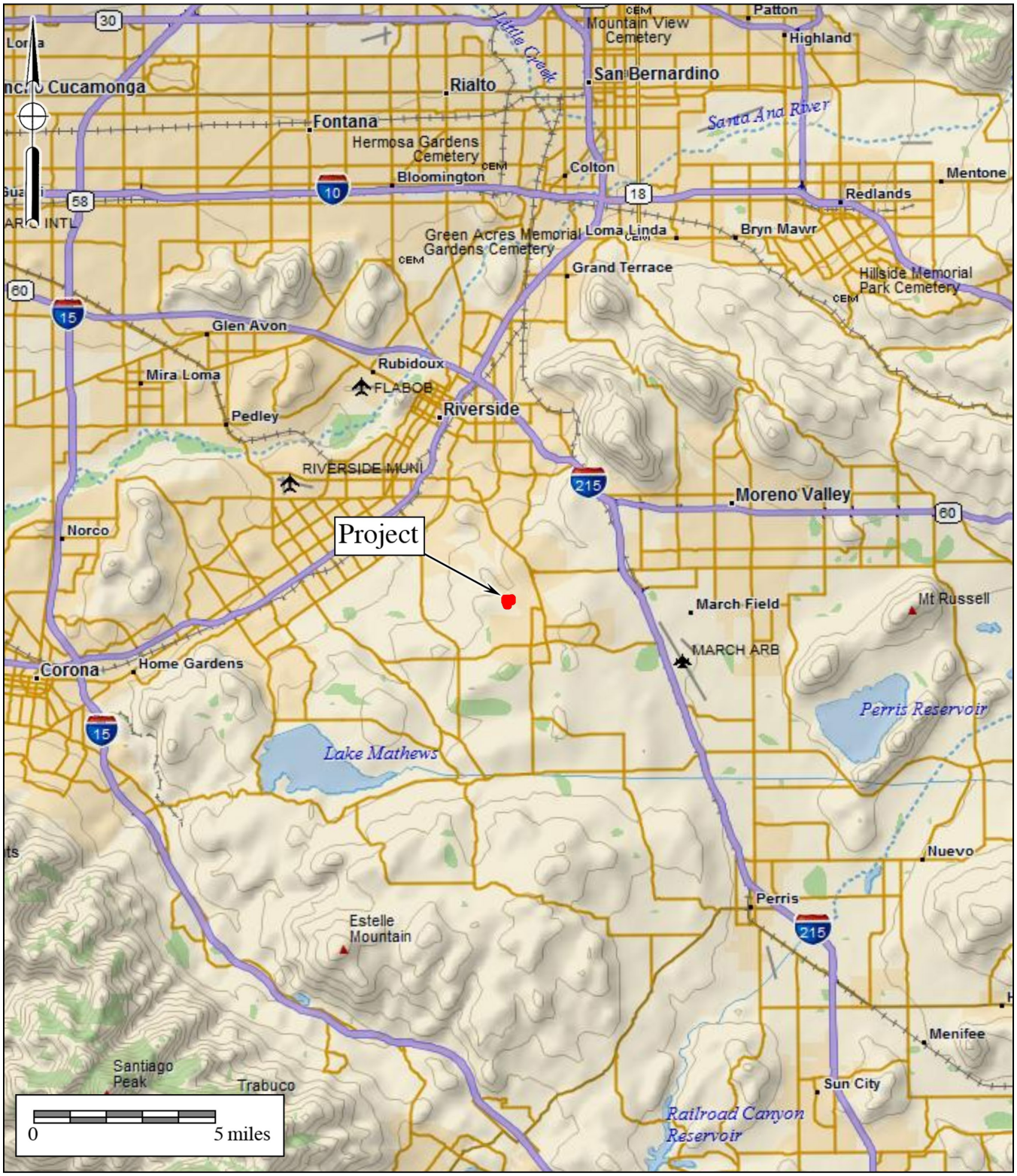

Figure 1

General Location Map

The Dauchy Avenue Project

DeLorme (1:250,000)

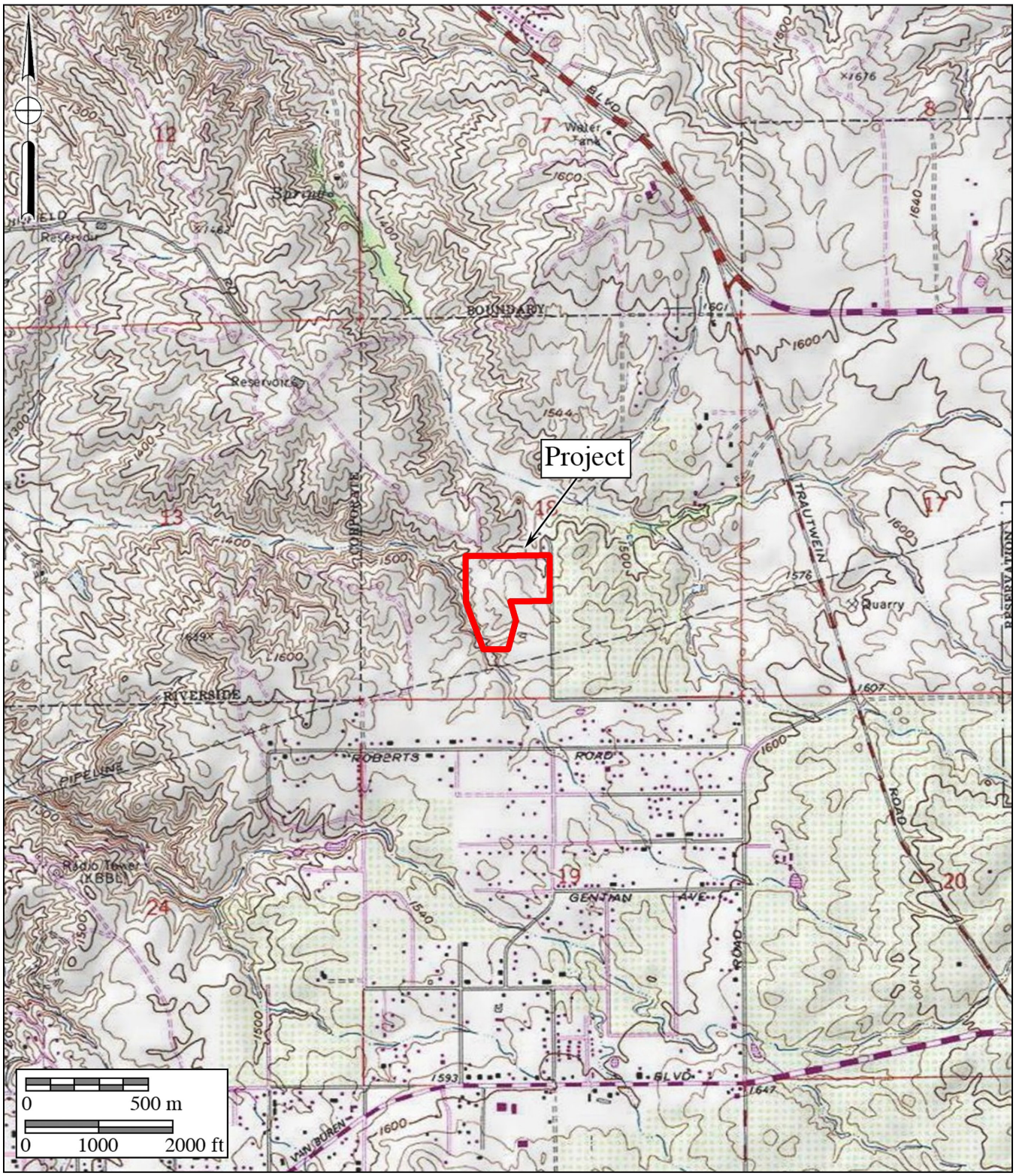

Figure 2

Project Location Map

The Dauchy Avenue Project

USGS *Riverside East* Quadrangle (7.5-minute series)

b) As used in this section, "public lands" means lands owned by, or under the jurisdiction of, the state, or any city, county, district, authority, or public corporation, or any agency thereof.

County of Riverside

An online, interactive, paleontological sensitivity mapping database is maintained by the County of Riverside as a research tool to access the County's assignment of levels of paleontological sensitivity to the various geologic formations within the county (County of Riverside 2020). This is specifically addressed in Section V of this report.

Paleontological resources are addressed under the 2008 Multipurpose Open Space Element of the Riverside County General Plan, Policy OS 19.9, as follows:

> This policy requires that when existing information indicates that a site proposed for development may contain paleontological resources, a paleontologist shall monitor site grading activities, with the authority to halt grading to collect uncovered paleontological resources, curate any resources collected with an appropriate repository, and file a report with the Planning Department documenting any paleontological resources that are found during the course of site grading. (County of Riverside 2008)

The "SABER Policy" (Safeguard Artifacts Being Excavated in Riverside County), enacted in October 2011 by the Riverside County Board of Supervisors, requires that any paleontological resources found or unearthed in the county of Riverside be curated at the Western Science Center on Searl Parkway in the city of Hemet.

City of Riverside

Chapter 5 of the Final Program Environmental Impact Report in the City of Riverside's General Plan provides guidelines and procedures for several environmental Mitigation Monitoring and Reporting Programs (City of Riverside 2007). However, it does not address paleontological resources. Nevertheless, Policy HP-1.3 in the Historic Preservation Element from the General Plan states:

> The City shall protect sites of archaeological and paleontological significance and ensure compliance with all applicable State and federal cultural resources protection and management laws in its planning and project review process. (City of Riverside 2012)

III. GEOLOGY

Geologically, the project is indicated as being underlain by Cretaceous-aged Val Verde tonalite, a plutonic crystalline rock related to granite (pale gray area labeled "Kvt" on Figure 3) (Morton and Cox 2001).

IV. PALEONTOLOGICAL RESOURCES

Definition

Paleontological resources are the remains of prehistoric life that have been preserved in geologic strata. These remains are called fossils and include bones, shells, teeth, and plant remains (including their impressions, casts, and molds) in the sedimentary matrix, as well as trace fossils such as footprints and burrows. Fossils are considered older than 5,000 years of age (Society of Vertebrate Paleontology 2010) but may include younger remains (subfossils), for example, when viewed in the context of local extinction of the organism or habitat. Fossils are considered a nonrenewable resource under state, county, and city policies (see Section II of this report). Fossils are not found in plutonic rocks such as those mapped at the project.

Paleontological Resource Records Search

An in-house paleontological literature review and collections and records search was conducted using sources from the Los Angeles County Natural History Museum the San Bernardino County Museum, the University of California Museum of Paleontology in Berkeley, the Western Science Center in Hemet, and primary literature. The nearest known fossil locality is located approximately nine to 10 miles east of the project in Moreno Valley, consisting of the fossil bones of a horse (*Equus* sp.), a giant ground sloth (*Megalonyx jeffersonii*), and a llama (*Hemiauchenia* sp.), which all became extinct in North America at or soon after the end of the Pleistocene epoch, about 11,700 years ago. These fossils were recovered from late Pleistocene sediments and are presently housed at the Western Science Center.

V. PALEONTOLOGICAL SENSITIVITY

Overview

The degree of paleontological sensitivity of any particular area is based on a number of factors, including the documented presence of fossiliferous resources on a site or in nearby areas, the presence of documented fossils within a particular geologic formation or lithostratigraphic unit, and whether or not the original depositional environment of the sediments is one that might have been conducive to the accumulation of organic remains that might have become fossilized over time.