



**DETERMINATION OF BIOLOGICALLY EQUIVALENT OR SUPERIOR
PRESERVATION**

**PARCEL MAP NO. 36950
PLOT PLAN NO. PP25838
(GPA 01151, EA 42802, CFG 06184, CZ 07872)**

**ASSESSORS PARCEL NUMBERS:
314-040-001, 314-040-002, 314-040-003, and 314-040-008
COUNTY OF RIVERSIDE, CALIFORNIA**

Prepared for:

**Trammell Crow Southern California Development, Inc.
3501 Jamboree Road, Suite 230
Newport Beach, CA 92660**

Prepared by:

**Hernandez Environmental Services
29376 North Lake Drive
Lake Elsinore, CA 92530**

**December 2015
(Revised July 2016)**

Table of Contents

1.0 INTRODUCTION 2

 1.1 Purpose of this DBESP Document 2

 1.2 Project Location 2

 1.3 Project Description..... 3

2.0 METHODS 3

 2.1 Literature Review 3

 2.2 Field Reconnaissance 3

 2.3 Habitat Mapping 4

 2.4 Riparian/Riverine/Vernal Pools and Fairy Shrimp Habitat Methods 4

3.0 EXISTING CONDITIONS 5

 3.1 Environmental Setting 5

 3.2 Soils 6

 3.3 Riparian/Riverine Resources 6

 3.4 Wildlife Species 7

 3.5 MSHCP Conservation Area 7

 3.6 Additional Survey Needs and Procedures..... 7

4.0 UNAVOIDABLE IMPACTS 8

5.0 PROJECT DESIGN FEATURES/MITIGATION MEASURES 8

 5.1 Determination of Biologically Equivalent or Superior Preservation 9

6.0 CERTIFICATION 10

7.0 REFERENCES 11

List of Figures

- Figure 1 - Location Map
- Figure 2 - Vicinity Map
- Figure 3 - Project Plans
- Figure 4 - Biological Resources Map
- Figure 5 - Drainage Map
- Figure 6 - MSHCP Map

Appendices

- Appendix A - Site Photographs

1.0 INTRODUCTION

Hernandez Environmental Services (HES) was contracted to prepare a Western Riverside County Determination of Biologically Equivalent or Superior Preservation (DBESP) for an approximately 34.4-acre project site located in Riverside County, California. The project site consists of Assessors Parcel Numbers: 314-040-001, 314-040-002, 314-040-003, and 314-040-008. The proposed project consists of the construction of a 717,430-square-foot warehouse with associated offices and parking stalls. The project will also include a water quality detention basin.

1.1 Purpose of this DBESP Document

The proposed project is subject to compliance with the avoidance and minimization requirements identified for riparian/riverine areas pursuant to Section 6.1.2 of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP, 2003). Since the proposed project will impact a riparian/riverine area, a DBESP analysis is required pursuant to the MSHCP. All projects within the MSHCP area are required to prepare a DBESP when project alternatives that would avoid sensitive riparian/riverine resources are not feasible. The goal of the DBESP is to demonstrate that, with the implementation of the proposed project's design features and mitigation measures, the proposed project will result in an alternative that is biologically equivalent or superior to the impacted riparian/riverine resources, and to ensure that any lost functions and values of habitat for species covered by the MSHCP are replaced.

1.2 Project Location

The project site is located immediately southeast of the intersection of Decker Road and Old Oleander Avenue in Riverside County, California (Figures 1 and 2). Specifically, the project site is located within Township 4 South, Range 4 West, in the northeastern portion of Section 2 of the *Steele Peak* United States Geological Survey (USGS) 7.5' topographic quadrangle. The center point latitude and longitude coordinates for the project site are 33° 51' 25.92" North and 117° 16' 04.03" West.

1.3 Project Description

The proposed project consists of the construction of a 717,430-square-foot warehouse with associated offices and parking stalls (Figure 3). The project will also include a water quality detention basin. All 34.4 acres of the project site will be impacted.

2.0 METHODS

An extensive literature review and field survey were conducted for the 34.4-acre property. Existing information was gathered to obtain data on existing conditions and the potential for sensitive species to occur.

2.1 Literature Review

HES conducted a literature review of aerial photographs and topographic maps of the project location and surrounding areas. A three-mile radius to identify sensitive species with the California Natural Diversity Database (CNDDDB), the United States Fish and Wildlife Service (USFWS) Endangered Species Lists, and the California Native Plant Society (CNPS) rare plant lists. The CNDDDB and USFWS critical habitat databases were utilized, together with Geographic Information System (GIS) software, to locate the previously recorded locations of sensitive plant and wildlife occurrences and designated critical habitat and to determine the distance from the project site. Additionally, the Western Riverside County MSHCP was reviewed for information on known occurrences of sensitive species within Riverside County.

Riparian/Riverine Habitat

Aerial maps were reviewed prior to conducting general surveys in order to locate and inspect any potential natural drainage features and water bodies that may be considered riparian/riverine habitat. Under the MSHCP, riparian/riverine habitat is defined as lands that contain habitat dominated by trees, shrubs, persistent emergents, or emergent mosses and lichens that occur close to, or which depend upon, soil moisture from a nearby fresh water source, or that have fresh water flow during all or a portion of the year.

2.2 Field Reconnaissance

The project site was surveyed by CADRE Environmental on August 21 and 25, 2014. The surveys included complete coverage of the project site, 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, and drainage features potentially subject to USACE, California Department of Fish and Wildlife (CDFW), Regional Water Quality Control Board (RWCQB) and MSHCP jurisdiction. Aerial photography of the project site and vicinity was utilized to accurately locate and survey the property. General plant communities were preliminarily mapped directly on the aerial photos using visible landmarks in the field.

On October 3, 2014, HES conducted an additional field survey of the approximately 34.4-acre project site. The field survey was conducted to delineate jurisdictional drainages and wetland resources associated with jurisdictional drainages.

The entire project site was surveyed. Linear transects spaced approximately 50 feet apart were walked for 100 percent coverage. All species observed were recorded. Global Positioning System (GPS) waypoints were taken to delineate specific habitat types, species locations, and any other information that would be useful for the assessment of the property.

2.3 Habitat Mapping

Plant communities were preliminarily mapped with the aid of an aerial photograph using the MSHCP uncollapsed vegetation communities classification system and Holland (1986)/CDFW (2003) vegetation community classification systems, when appropriate. When a vegetation community could not be accurately characterized using this information, an updated community classification code was developed to more accurately represent on-site habitat types.

2.4 Riparian/Riverine/Vernal Pools and Fairy Shrimp Habitat Methods

Although the site is not located within any Criteria Cells, Narrow Endemic Plant Species Survey Areas, or proposed Conservation Areas, and is not subject to the focused species surveys associated with those areas, all projects within the MSHCP area require an evaluation of potential impacts on riparian/riverine areas and vernal pools, and the protected species associated with those habitats. Riparian/riverine areas and vernal pools are defined in the MSHCP as follows:

- Riparian/riverine areas include lands that 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.
- Vernal pools are seasonal wetlands that occur in depression areas that have wetland indicators of all three parameters (soils, vegetation, and hydrology) during the wetter portion of the growing season, but normally lack wetland indicators of hydrology and/or vegetation during the drier portion of the growing season. Obligate hydrophytes and facultative wetland 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.

When a site supports suitable riparian/riverine areas and/or vernal pool habitats for the wildlife species covered by the MSHCP listed below, focused surveys are required to determine their presence or absence from the site.

Riparian Birds

- least Bell's vireo (*Vireo bellii pusillus*)

- southwestern willow flycatcher (*Empidonax traillii extimus*)
- western yellow-billed cuckoo (*Coccyzus americanus occidentalis*)

Vernal Pool Invertebrates

- Santa Rosa Plateau fairy shrimp (*Linderiella santarosae*)
- Riverside fairy shrimp (*Streptocephalus woottoni*)
- vernal pool fairy shrimp (*Branchinecta lynchi*)

3.0 EXISTING CONDITIONS

3.1 Environmental Setting

The majority of the project site is flat; however, some low, gently rolling topography is present with the highest point at 1,610 feet above mean sea level (AMSL) in the southwest corner of the project site and the lowest point at 1,557 feet AMSL in the northeast corner. One unnamed drainage feature traverses the northwest portion of the project site and dissipates within the project site.

The project site is bound by residential development to the south, industrial areas to the northeast, and open space to the east, west, and north. Interstate 215 is located approximately 2,300 feet to the east of the project site. (Figure 4).

The 34.4-acre project site is dominated by disturbed habitats, gravel road/splays, non-native trees, and structures (Figure 5).

Disturbed

Disturbed habitats include those regions of the project site generally devoid of vegetation and/or dominated by ruderal and other disturbance-adapted species. The project site (primarily APN 314-040-001) appears to have been disked for agricultural purposes in the recent past. Species found within these habitats include a large diversity of non-native species, including red brome (*Bromus madritensis ssp. rubens*), Russian thistle (*Salsola tragus*), summer mustard (*Hirschfeldia incana*), tree tobacco (*Nicotiana glauca*), and tocalote (*Centaurea melitensis*). Native species are also common throughout and include telegraph weed (*Heterotheca grandiflora*), vinegar weed (*Trichostema lanceolatum*), dove weed (*Croton setigerus*), spurge (*Chamaesyce* sp.) common sand aster (*Corethrogyne filaginifolia*), Palmer's goldenbush (*Ericameria palmeri*), and coyote gourd (*Cucurbita palmate*). A CNPS List 4.2 species, paniculate tarplant (*Deinandra paniculata*), was also found within the disturbed regions of the project site.

Rock outcrops are also common throughout these disturbed habitats and provide refugia for native species such as valley cholla (*Opuntia parryi*) and California buckwheat (*Erigonum fasciculatum*).

Gravel Road/Splays

A substantial gravel splay is present in the northeast region of the project site (within APN 314-040-001). Disturbance-adapted species, which are listed above, are colonizing these areas, but they remain largely

unvegetated. Gravel roads are also found in APNs 314-040-002 and 314-040-008, and are associated with the on-site residence.

Structures

A single residence and several outbuildings are present on the project site, primarily in and around APNs 314-040-002 and 314-040-008. A water control structure is also present in the northeast corner of APN 314-040-001, but no surface drainage features currently drain into this structure.

Olive Trees

Two stands of non-native olive trees (*Olea europaea*) are present on-site in the north-central portion of APN 314-040-008.

Peruvian Pepper Trees

Peruvian pepper trees (*Schinus molle*) are common on the project site, primarily in and around APNs 314-040-002 and 314-040-008.

Mexican Palo Verdes

Mexican palo verde trees (*Parkinsonia aculeata*) are present in the extreme southeast corner of the project site in APN 314-040-003.

3.2 Soils

The U.S. Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) Web Soil Survey shows the following soils within the boundary of the project (USDA 2014):

- AnC Arlington fine sandy loam, 2 to 8 percent slopes (4.4%)
- FbC2 Fallbrook sandy loam, shallow, 5 to 8 percent slopes, eroded (1.2%)
- FcD2 Fallbrook rocky sandy loam, shallow, 8 to 15 percent slopes, eroded (31.8%)
- FfC2 Fallbrook fine sandy loam, 2 to 8 percent slopes, eroded (17.0%)
- HcC Hanford coarse sandy loam, 2 to 8 percent slopes (1.8%)
- VsC Vista coarse sandy loam, 2 to 8 percent slopes (43.7%)

3.3 Riparian/Riverine Resources

The project site contains one ephemeral drainage feature that meets the MSHCP definition of a riparian/riverine feature only because it receives fresh water flow during all or a portion of the year. The drainage feature lacks any semblance of riparian vegetation structure typically provided by riparian tree

species such as cottonwood (*Populus* sp.), valley oak (*Quercus lobata*), sycamore (*Platanus racemosa*), and willows (*Salix* spp.). No additional riparian/riverine areas or vernal pools were identified on the site during the field surveys.

The 34.4-acre project site contains one ephemeral drainage feature (Figure 5), encompassing a total area of 0.09 acre (approximately 677 feet in length). The drainage feature appears to be the remnants of a historical feature that previously conveyed water. The upstream terminus of this drainage was created by a man-made berm and Decker Road impeding downstream flows from upstream hydrologic sources. Flows from any hydrologic features upstream of the drainage now flow north on Decker Road and east on Oleander Avenue. A large stormwater inlet is located on the northeast corner of the project site; however, no defined bed, bank, or channel connects to the inlet. It is assumed that this stormwater inlet collects flood waters from upland sheet flow during large storm events.

During the field surveys, a habitat assessment was conducted for the required MSHCP riparian/riverine wildlife species. As mentioned above, the drainage feature lacks a riparian vegetation component and does not support suitable habitat for least Bell's vireo, southwestern willow flycatcher, or western yellow-billed cuckoo. Due to the absence of suitable habitat, no focused surveys were required for these avian species. Additionally, the site does not support vernal pool or other seasonal wetland habitats. Therefore, focused surveys for Riverside fairy shrimp, Santa Rosa Plateau fairy shrimp, and vernal pool fairy shrimp were also not required.

3.4 Wildlife Species

General wildlife species documented on-site or within the vicinity during the site visit includes, but is not limited to, side-blotched lizard (*Uta stansburiana*), western fence lizard (*Sceloporus occidentalis*), turkey vulture (*Cathartes aura*), mourning dove (*Zenaida macroura*), American crow (*Corvus brachyrhynchos*), common raven (*Corvus corax*), northern mockingbird (*Mimus polyglottos*), house finch (*Carpodacus mexicanus*), song sparrow (*Melospiza melodia*), desert cottontail (*Sylvilagus audubonii*), San Diego black-tailed jackrabbit (*Lepus californicus bennettii*; California Species of Special Concern [CSC]), domestic dog (*Canis lupus familiaris*), and coyote (*Canis latrans*).

3.5 MSHCP Conservation Area

The proposed project site is located within an unincorporated portion of Riverside County and the Mead Valley Area Plan. The site is not located within a MSHCP Criteria Cell or Area Plan Sub-unit (Figure 6).

3.6 Additional Survey Needs and Procedures

The proposed project site is within the Additional Survey Needs and Procedures area for the burrowing owl (BUOW). Focused BUOW surveys were conducted on the site in August 2014. Suitable BUOW foraging habitat was documented throughout the project site. Although BUOW were documented onsite in 2006 (CNDDDB 2014), no BUOW or characteristic sign were documented within or immediately adjacent to the project site during the focused surveys. As outlined in the MSHCP, regardless if BUOW are detected onsite during focused survey efforts, a 30-day preconstruction survey (condition of approval) will be

conducted prior to the initiation of construction to ensure protection for this species and compliance with the conservation goals as outlined in the MSHCP.

4.0 UNAVOIDABLE IMPACTS

The proposed project will permanently impact the entire 0.09 acre (677 linear foot) on-site ephemeral drainage (Figure 6). While the drainage feature meets the definition of a riparian/riverine area according to the MSHCP, the channel lacks a riparian vegetation component, and does not support suitable habitat for least Bell's vireo, southwestern willow flycatcher, or western yellow-billed cuckoo. Additionally, the site does not support vernal pool or other seasonal wetland habitats. Therefore, the proposed project will not result in impacts to Riverside fairy shrimp, Santa Rosa Plateau fairy shrimp, and vernal pool fairy shrimp.

5.0 PROJECT DESIGN FEATURES/MITIGATION MEASURES

In order to meet the goal and purpose of the proposed project, the entire 0.09-acre (677 linear foot) on-site ephemeral drainage will be removed. Therefore, complete avoidance of the riparian/riverine resource is not feasible. Since there are no feasible avoidance alternatives available, the MSHCP requires the project to provide compensatory mitigation to ensure the replacement of any lost functions and values of habitat as it relates to the plant and wildlife species covered by the MSHCP.

To mitigate for permanent impacts to the 0.09-acre (677 linear feet) ephemeral drainage feature, the project proponent proposes to pay into the Riverside Corona Resource Conservation District in-lieu fee program at a 2:1 ratio, totaling 0.18 acre. In general, in-lieu fee programs provide funding for future programs or projects designed to enhance, restore, establish, and/or preserve aquatic habitats. Unlike the on-site isolated ephemeral drainage feature, these aquatic resource projects typically include large areas of land with contiguous wetland habitats and natural upland buffers that provide many of the habitat components required by the MSHCP. Although the project is unable to avoid impacts to the on-site ephemeral drainage feature, the project's proposed mitigation would represent a biologically equivalent or superior preservation alternative to avoidance since the in-lieu mitigation fee would be expected to result in the restoration and preservation of an equivalent acreage of habitat with higher values in comparison to the drainage feature impacted by the project.

Further, a pre-construction survey for BUOW shall be conducted within 30 days prior to ground disturbance to ensure no BUOW have established territories on site between the initial surveys and receipt of all project approvals, and to avoid direct take of BUOW (MSHCP Species Specific Objective 6). If BUOWs are identified on site, avoidance measures will be developed in compliance with the MSHCP and in coordination with the CDFW and/or Western Riverside County Regional Conservation Authority (RCA). These measures would include the following as well as any others developed in coordination with CDFW and/or RCA:

- A biologist with knowledge of BUOW and its habitat will be retained to function as a biological monitor.
- The biological monitor will develop and implement a contractor education program with regard to the BUOW to be provided to all personnel (including temporary contractors and subcontractors) before beginning work on the project.
- The biological monitor will be present during vegetation clearing, grading, and construction, to monitor occupied BUOW burrows and any construction-related impacts.
- Prior to any ground disturbance, all limits of project construction will be delineated and marked so as to be clearly visible to personnel on foot and in heavy equipment. All construction-related activities (e.g., vegetation removal, grading, equipment lay-down and storage, and contractor parking) will occur inside the limits of construction and designated staging areas. Construction staging and equipment storage will be located outside of any occupied BUOW burrow locations. All movement of contractors, subcontractors, or their agents and equipment will be restricted to the limits of construction and staging areas.
- A qualified biologist will conduct any necessary BUOW passive relocation that may be required to avoid project effects to BUOW.
 - If BUOW must be moved away from the disturbance area, passive relocation techniques would be used rather than actual avian trapping. At least one or more weeks would be necessary to accomplish this and allow the birds to acclimate to alternate burrows.
 - The project would provide funding for long-term management and monitoring of the protected lands acquired for BUOW impacts. This monitoring would include an annual report submittal to the CDFW.

5.1 Determination of Biologically Equivalent or Superior Preservation

Based on the analysis provided in this report, the proposed mitigation consisting of the off-site purchase of 0.18 acre of rehabilitation credits at the Riverside Corona Resource Conservation District in-lieu fee program would result in superior preservation and an increase in habitat function and value compared with pre-project conditions.

6.0 CERTIFICATION

“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.”



DATE 12-17-15 SIGNED _____

PROJECT MANAGER

Fieldwork Performed By:

Juan J. Hernandez

PRINCIPAL BIOLOGIST

7.0 REFERENCES

Burt, W. H., 1986. A Field Guide to the Mammals in North American North of Mexico. Houghton Mifflin Company, Boston, Massachusetts.

Cadre Environmental August 26, 2014. *General MSHCP Habitat Assessment, Regulatory Constraints Analysis, and Consistency Analysis for the 37.50 Acre Decker Parcels Project Site, Unincorporated Western Riverside County, California.*

California Department of Fish and Wildlife (CDFW), Natural Diversity Database (CNDDDB). Accessed December 2014. Sensitive Element Record Search for the Steele Peak Quadrangle. California Department of Fish and Wildlife, Sacramento, California.

Garrett, K. and J. Dunn, 1981. Birds of Southern California. Los Angeles Audubon Society. The Artisan Press, Los Angeles, California.

Grenfell, W. E., M. D. Parisi, and D. McGriff, 2003. A Check-list of the Amphibians, Reptiles, Birds and Mammals of California. California Wildlife Habitat Relationship System, California Department of Fish and Game, Sacramento, California.

Grinnell, J., 1933. Review of the Recent Mammal Fauna of California. University of California Publications in Zoology, 40:71-234.

Hall, E. R., 1981. The Mammals of North America, Volumes I and II. John Wiley and Sons, New York, New York.

Hernandez Environmental Services, October 2014. *Jurisdictional Delineation Parcel Map No. 36950 Planning Case No. 36950.*

Hickman, J. C., ed. 1993. The Jepson Manual: Higher Plants of California. University of California Press.

Ingles, L. G., 1965. Mammals of the Pacific States. Stanford University Press, Stanford, California.

Jameson, jr., E. W. and H. J. Peters. California Mammals. University of California Press, Berkeley, Los Angeles, London. 403 pp.

Lackey, J. 1996. *Chaetodipus fallax*. Mammalian Species No. 517. American Society of Mammalogists.

List of Vegetation Alliances and Associations. Vegetation Classification and Mapping Program, California Department of Fish and Game. Sacramento, CA. September 2010.

McKernan, R. L., 1997. The Status and Known Distribution of the San Bernardino Kangaroo Rat (*Dipodomys merriami parvus*): Field surveys conducted between 1987 and 1996. Report prepared for the U.S. Fish and Wildlife Service, Carlsbad Field Office.

FIGURES

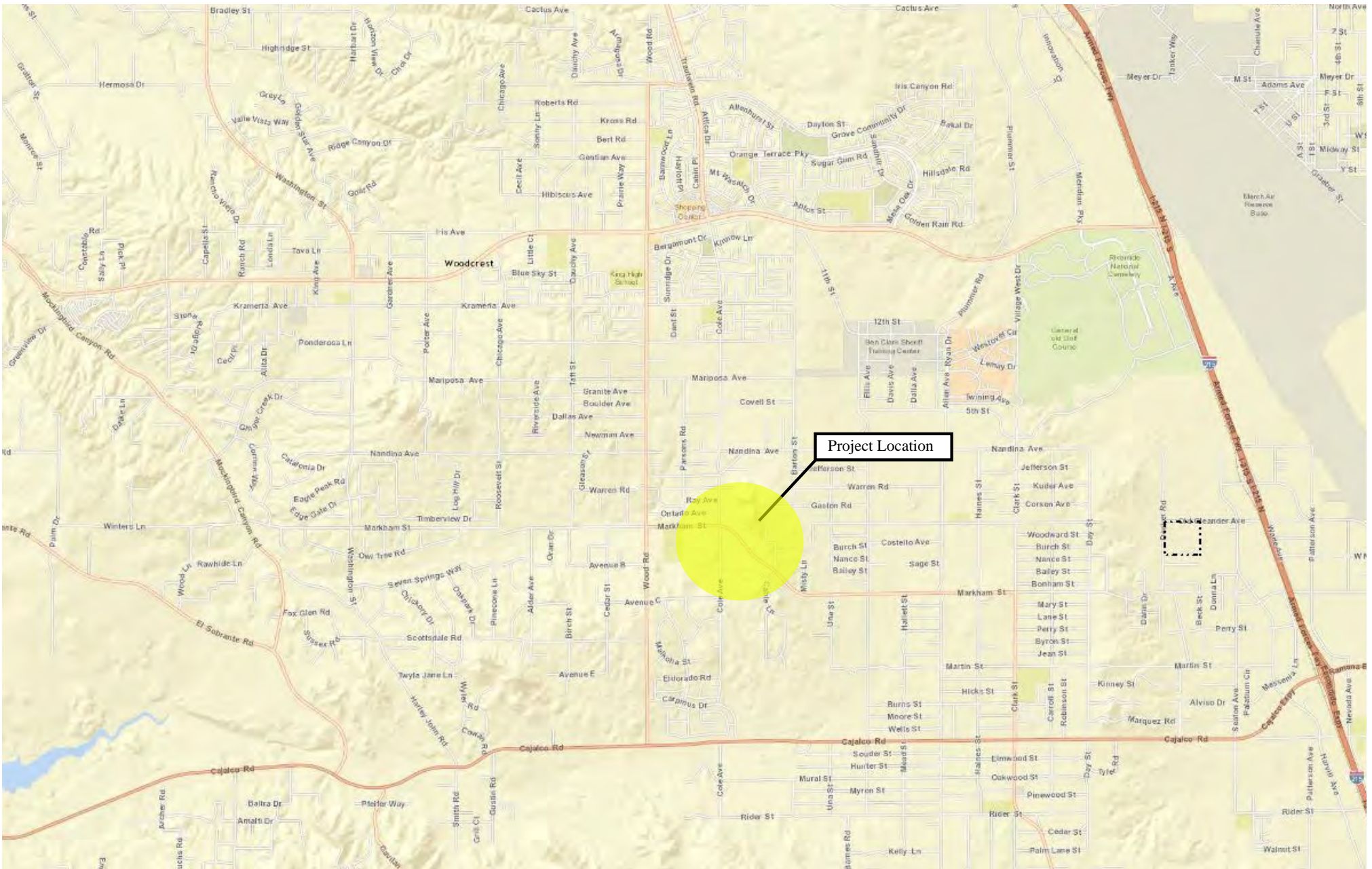
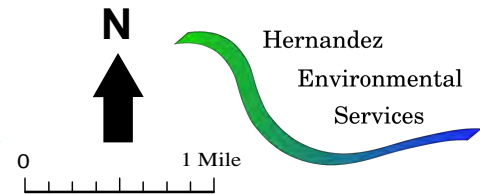


Figure 1
 Location Map
 Planning Case No. 36950
 Riverside County, California



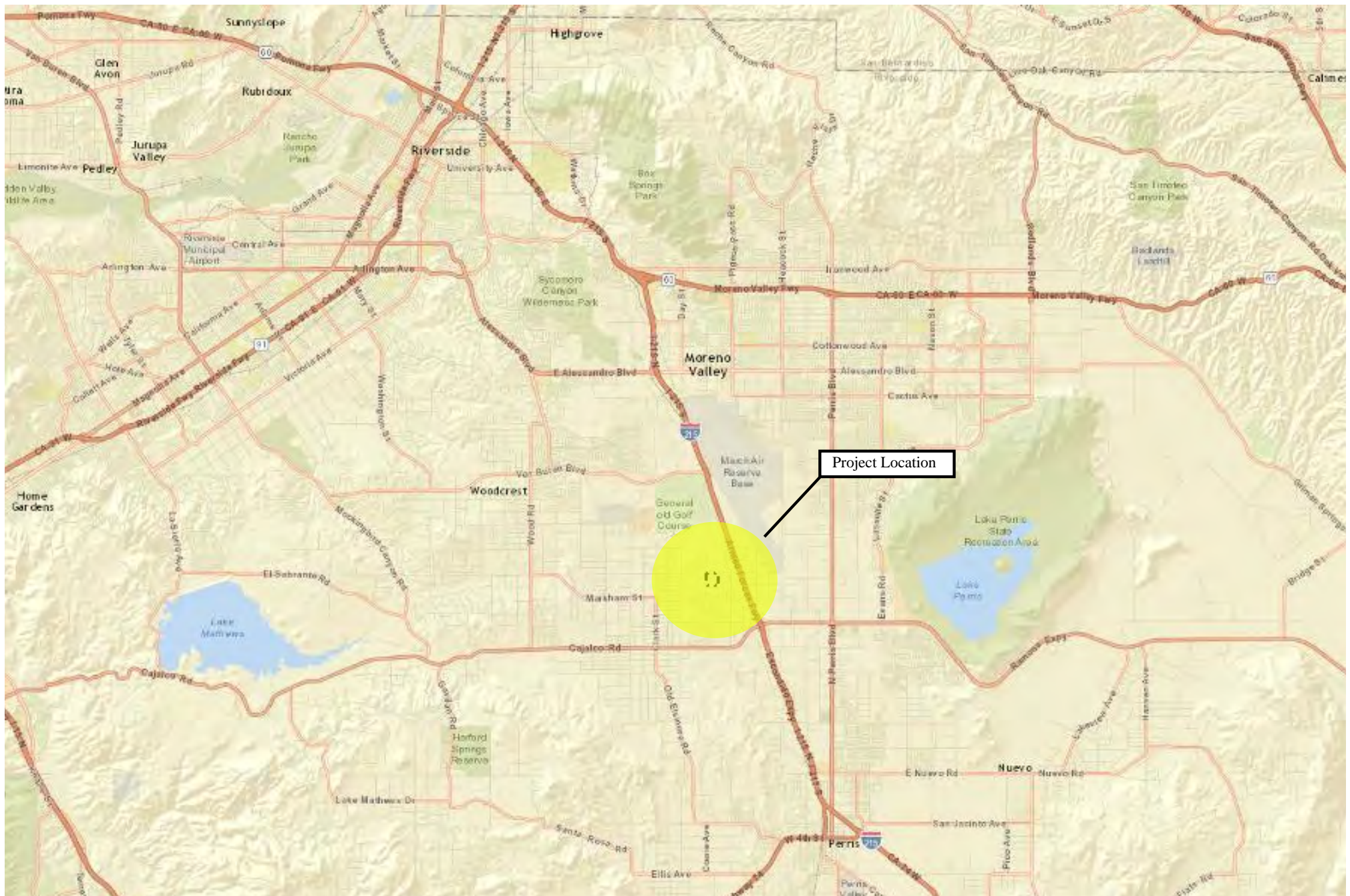


Figure 2
 Vicinity Map
 Planning Case No. 36950
 Riverside County, California

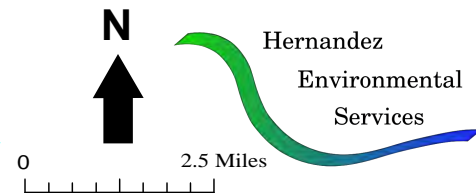
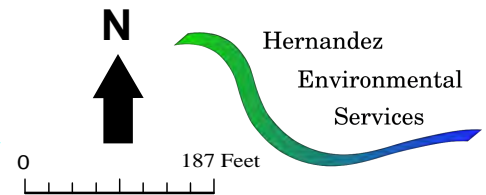
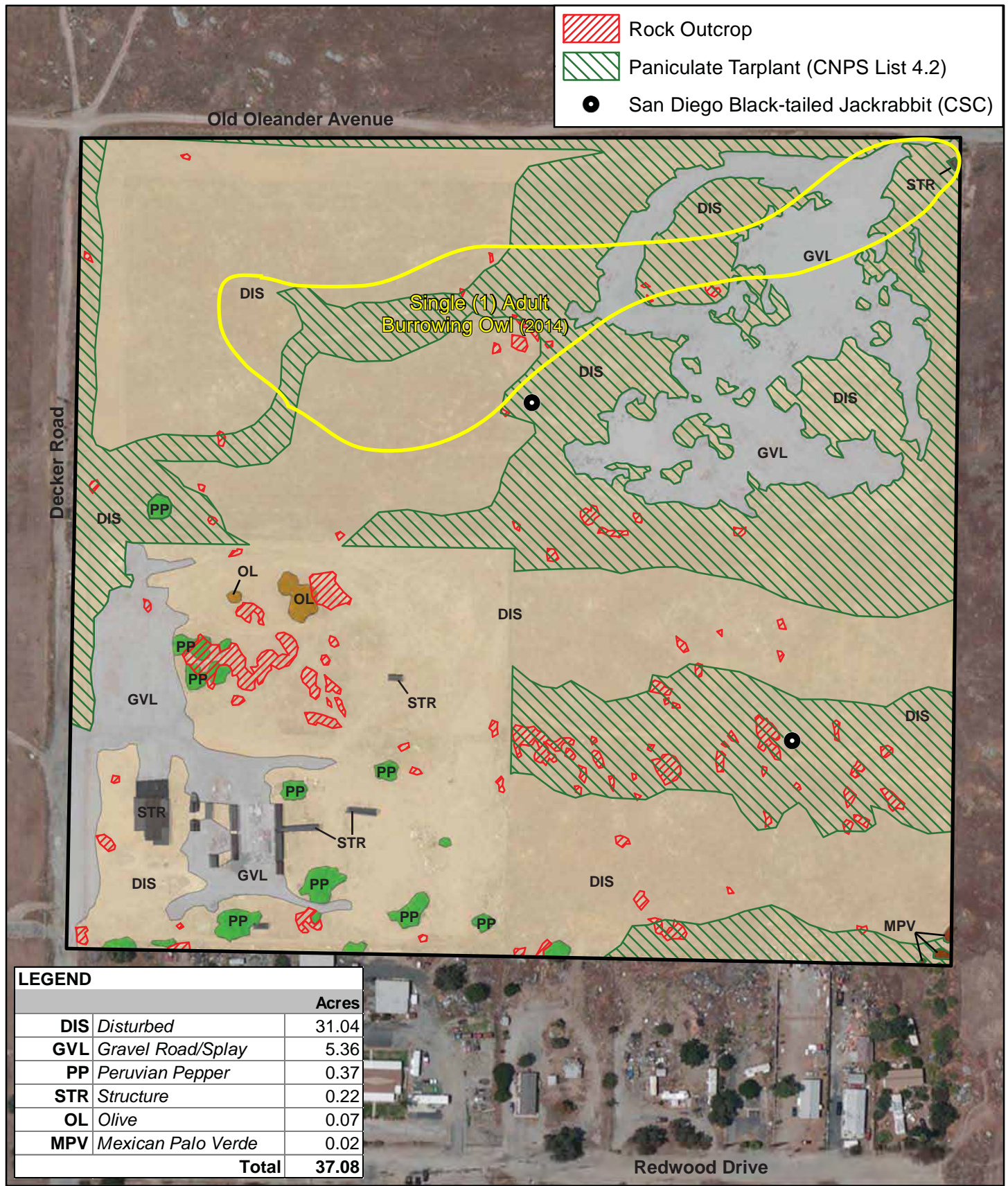




Figure 3
Project Plans
Planning Case No. 36950
Riverside County, California





LEGEND

	Acres
DIS <i>Disturbed</i>	31.04
GVL <i>Gravel Road/Splay</i>	5.36
PP <i>Peruvian Pepper</i>	0.37
STR <i>Structure</i>	0.22
OL <i>Olive</i>	0.07
MPV <i>Mexican Palo Verde</i>	0.02
Total	37.08

APNs: 314-040-001, 314-040-002, 314-040-003, and 314-040-008

Figure 4 Biological Resources Map
*General MSHCP Habitat Assessment
 Decker Parcels*

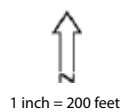
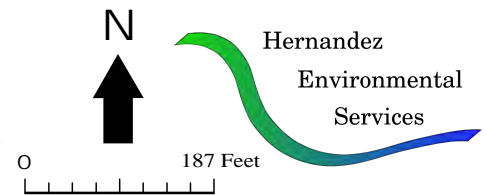




Figure 5
 Drainage Map
 Planning Case No. 36950
 Riverside County, California



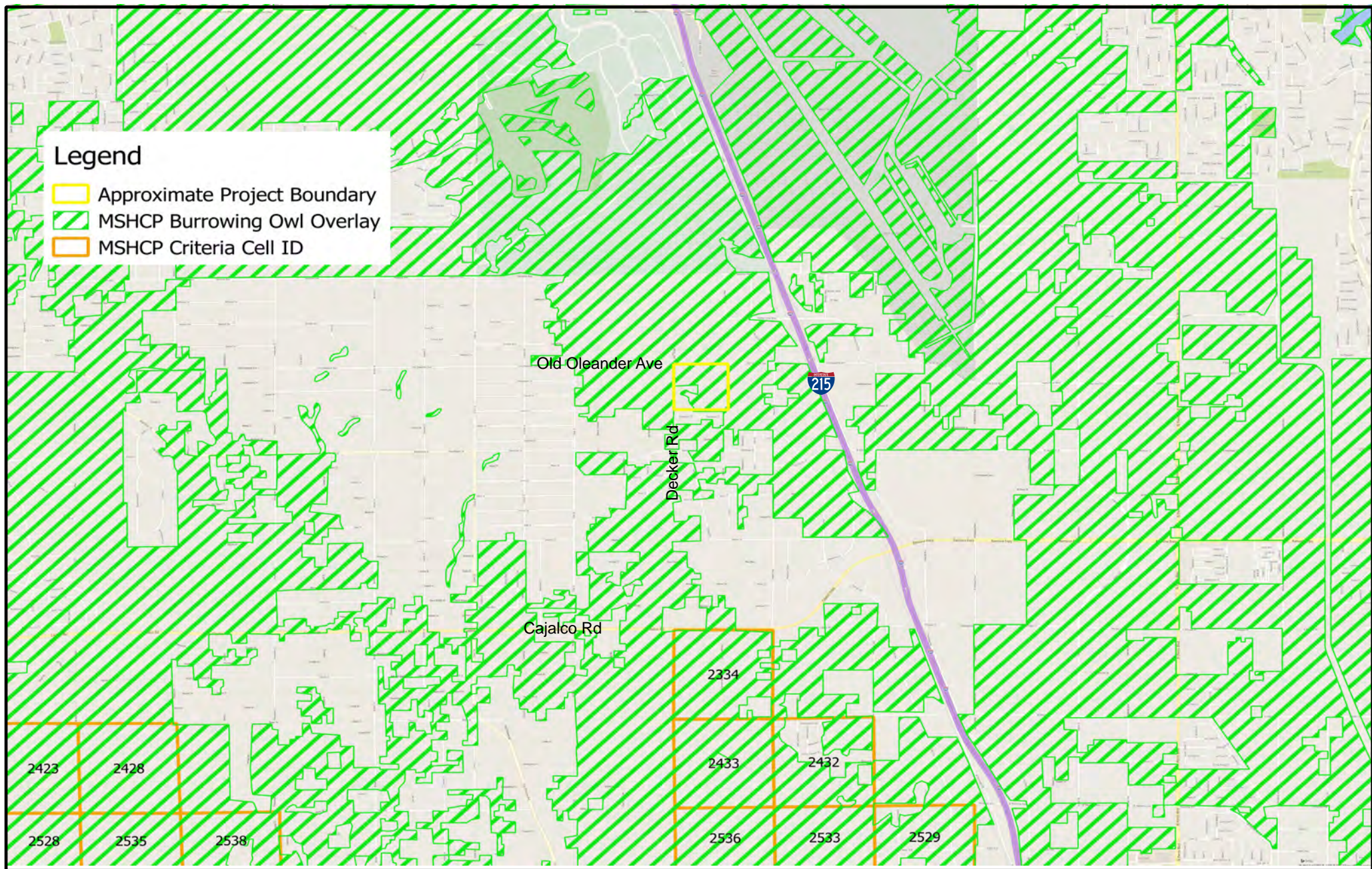


Figure 6

MSHCP Map
 Planning Case No. 36950
 Riverside County, California

APPENDIX A

**Site Photographs
Planning Case No. 36950
Riverside County,
California**



Westernmost portion of swale, facing est. Picture shows dominance of upland plant species and poorly defined channel.



Middle portion of swale facing west. Poorly defined channel and lack of hydrology are present.

**Site Photographs
Planning Case No. 36950
Riverside County,
California**



Berm located on the east side of Decker Road. This structure has completely isolated the swale from receiving upstream hydrology.



Easternmost section of the swale where it ends and disappears.