



BIOLOGICAL & CULTURAL INVESTIGATIONS & MONITORING

REVISED
WESTERN RIVERSIDE COUNTY MULTIPLE SPECIES HABITAT CONSERVATION PLAN
DETERMINATION OF BIOLOGICALLY EQUIVALENT
OR SUPERIOR PRESERVATION
OAK VALLEY NORTH COMMERCE CENTER PROJECT
9950 AND 10300 CALIMESA BOULEVARD,
CALIMESA, RIVERSIDE COUNTY, CALIFORNIA

±109.52 Acre Property, ±8.13 Acre Offsites, ±117.65+ Acres Surveyed

APNs 413-260-018, 413-280-016, 413-280-018, 413-280-021, 413-280-030, 413-280-036, 413-280-037, and 413-280-043, plus offsite areas on portions of 413-260-014, 413-260-017, 413-260-019, 413-260-020, and 413-260-052, Calimesa, Sections 24 and 25, Township 2 South, Range 2 West, USGS El Casco 7.5' Topographic Quadrangle

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1.0) EXECUTIVE SUMMARY

Birtcher Development proposes the Oak Valley North Commerce Center Project (Project). On behalf of Birtcher Development L&L Environmental, Inc. (L&L) conducted general and focused biological surveys between 2022 and 2024. The Study area is ±109.52 Acre Property, ±8.13 Acre Offsites, for a total of ±117.65+ Acres Surveyed.

This Determination of Biological Equivalent or Superior Preservation (DBESP) has been prepared to address Riparian/Riverine habitat and Vernal Pool resources only, as these are the only resources which require mitigation. All other issues have been addressed in the Biological Resources Assessment (L&L 2023) and the MSHCP Consistency Determination (L&L 2023) published separately. The goal of the DBESP is to demonstrate that the proposed mitigation is biologically equivalent or superior to the No Project Alternative using a functions and values test.

The proposed Project is identified as the Oak Valley North Commerce Center and consists of a ±95.6-acre business park and light industrial area with four (4) large warehouses and parking and a high-density residential or church land use area of ±11.2 acres (up to 223 dwelling units). The balance of the acreage (3.4 acres) would be designated as roadway. The offsite impact areas consist of road improvements along Calimesa Boulevard and Beckwith Avenue adjacent to the southwest and northeast Project site boundaries, respectively.

No naturally occurring vernal pools were observed on the site. Seasonal ponding water is present along Calimesa Boulevard and Beckwith Avenue. Dry season fairy shrimp surveys completed in the fall of 2023 found the common, not listed versatile fairy shrimp (*Branchinecta lindahli*). Wet Season Survey results, completed in the winter of 2023 through late spring 2024 are consistent with the Dry Season Surveys finding only versatile fairy shrimp (Hoffman, 2024¹) and mitigation for impacts is not required.

USFWS and CDFW have taken jurisdiction of 1.14² acres of unvegetated riverine resources within the project boundaries and require 1.14 acres of re-establishment and 1.14 acres of rehabilitation mitigation credits within the Riverpark Mitigation Bank if credits become available for purchase prior to the start of construction for a total of 2.28 acres of mitigation credits or (1) the purchase of credits of equal or greater value as approved by the city of Calimesa and the USFWS and CDFW (Wildlife Agencies) prior to the start of construction or (2) a permittee responsible mitigation providing an equal or greater functional value to the avoidance of 1.14 acres of onsite riverine habitat in its current condition.

¹ Wet season fairy shrimp studies were completed after the original publication of this report and have negative findings for listed species, Hoffman 2024, wet and dry season fairy shrimp final report.

² FWS/CDFW-WRIV-24-0108074, Dated Aug. 9, 2024, ltr to Kelly Lucia, PD, City of Calimesa, Re: Oak Valley North, DBESP

MSHCP narrow endemic plant species Marvin's (Yucaipa) onion (*Allium marvinii*) and Many-stemmed Dudleya (*Dudleya multicaulis*) were not observed during focused surveys and these species are considered absent from the site. There would be no direct effects to these MSHCP narrow endemic plant species, and no mitigation is proposed.

Based on review of the MSHCP Information Map (RCA 2022) for the parcel, the Project site is not within a mapped survey area for Criteria Area plant species and surveys for Criteria Area plant species are not required. No burrowing owls, owl sign (pellets, scat, feathers, tracks, etc.), or occupied burrows were observed onsite during the 2022 protocol breeding season survey and no mitigation is proposed. The Project site is not within a mapped survey area for mammal species and surveys for mammal species are not required. The Project site is not within a mapped survey area for amphibian species and surveys for amphibian species are not required. There are no Delhi soils mapped onsite and there is no habitat present for Delhi sands flower-loving fly. Surveys for Delhi sands flower-loving fly are not required.

2.0) INTRODUCTION

The following report was prepared by L&L Environmental, Inc. (L&L) for Birtcher Development. It describes the proposed Project and its potential impacts on riparian/riverine habitat and vernal pool species.

DBESP Goals: The goal of the DBESP Report is to demonstrate that the proposed mitigation is biologically equivalent or superior to the existing conditions on the Project site if left undisturbed. This is completed by describing the functions and values of the resource pre- and post-project development relative to mitigation implementation.

DBESP Process: RCA has 14 calendar days following receipt of a complete application, including the DBESP (electronic copies of all documents) and full deposit, to issue comments requesting additional information or to issue JPR Findings to the U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW), collectively referred to as the “Wildlife Agencies”. The Wildlife Agencies, following receipt of the DBESP, have 60 working days to issue comments requesting additional information or provide concurrence. If comments are issued, it is not acceptable to provide a Response to Comments in lieu of fully revised supporting documentation. A Response to Comments may be provided in addition to a fully revised DBESP Report. Once a complete, revised submittal is received by either the RCA or the Wildlife Agencies, the 14-day or 60-day clock, respectively, may start over.

2.1) Project Area

The Project site consists of Assessor’s Parcel Numbers (APNs) 413-260-018, 413-280-016, 413-280-018, 413-280-021, 413-280-030, 413-280-036, 413-280-037, and 413-280-043, totaling ±109.52 acres. In addition, offsite road improvements will impact portions of APNs 413-260-014, 413-260-017, 413-260-019, 413-260-020, and 413-260-052, totaling ±8.13 acres. The combined total acreage is ±117.65.

The site is located in the City of Calimesa in Riverside County, California (Figure 1). Specifically, the site is located just northeast of Interstate 10 on the northeast side of Calimesa Boulevard about 500 feet southeast of Singleton Road. The Project site is in the USGS *El Casco, CA* (1979) quadrangle, interpolated Sections 24 and 25 of Township 2 South, Range 2 West (Figure 2). The survey area can be accessed by taking Interstate 10 to Calimesa and using the Singleton exit, continue south on Calimesa Boulevard to reach the northernmost boundary of the Project site.

The Project site is generally bounded as follows: to the southwest by Calimesa Boulevard and the I-10 freeway, with vacant lands, residential developments, and San Timoteo Canyon, the Norton Younglove Reserve, and the Badlands beyond; to the northwest by vacant lands and Singleton Road, with scattered commercial/industrial, mobile home community, and residential development beyond; to the northeast by Beckwith Avenue, vacant lands, and residential development, with

MSHCP conserved lands beyond; to the southeast by Ranch Calimesa mobile home community, vacant and agricultural lands and Cherry Valley Boulevard beyond (Figure 3).

2.2) Project Description

The proposed Project is identified as the Oak Valley North Commerce Center and consists of a ±95.6-acre business park and light industrial area with four (4) large warehouses and parking, and a high-density residential or church land use area of ±11.2 acres (up to 223 dwelling units). The balance of the acreage (3.4 acres) would be designated as roadway. The entire site will be impacted, and all impacts will be permanent. An existing abandoned residence and other remnant structures and equipment present on the site will be removed. No staging areas are planned outside of the Project's development footprint.

The offsite impact areas consist of road improvements along Calimesa Boulevard and Beckwith Avenue adjacent to the southwest and northeast Project site boundaries, respectively. A portion of the western corner of the site and adjacent offsite areas along Calimesa Boulevard will be impacted by City road improvements that will be implemented prior to the construction of the Project (referred to in this report at the City Road Project Overlap Area).

Fuel Modification and construction staging will occur within the Project boundary and no additional lands will be impacted as a result.

Table 1. Project Impacts

Permanent Impacts		
Onsite	Offsite	Total
109.52	8.13	117.65

2.3) Existing Conditions

The site has been historically disturbed by rural residential uses. Two (2) unpaved driveways enter the site from Calimesa Boulevard. The northernmost driveway (identified as Roberts Road) leads to a vacant residence on a small hilltop, along with remnant foundations of other structures. The southernmost driveway (unnamed) leads to an area that previously had a number of structures (visible on 2006 aerial images) that are no longer present. Piles of old pipes and other debris are present, as well as remnants of old agricultural equipment and small structures. Fencing (mainly barbed wire) is present along portions of the site boundaries. Review of historic aerial images (Google Earth 2023, NETRonline 2023) shows that the site has been disturbed since at least 1959 and is regularly disked for weed abatement.

Topographically, the site is a mixture of relatively flat areas and low relief rolling hills, with elevations ranging from approximately 2,278 feet (694 meters) above mean sea level (amsl) to approximately 2,413 feet (735 meters) amsl.

Soils onsite are mapped as Hanford, Ramona, Gorgonio, and Tujunga series, with Terrace Escarpments (Figure 4). All soils mapped on the property have a hydric rating of zero, with the exception of Tujunga loamy sand (TvC) that has a rating of 10 (Table 2).

Table 2. Mapped Soils.

Map unit symbol	Map unit name	Hydric Rating
GmD	Gorgonio gravelly loamy fine sand, 2 to 15 percent slopes	0
HcC	Hanford coarse sandy loam, 2 to 8 percent slopes	0
HcD2	Hanford coarse sandy loam, 8 to 15 percent slopes	0
RaD3	Ramona sandy loam, 8 to 15 percent slopes, severely eroded	0
RaC3	Ramona sandy loam, 5 to 8 percent slopes, severely eroded	0
TeG	Terrace escarpments	0
TvC	Tujunga loamy sand, channeled (0-8% slopes)	10

Vegetation onsite consists of non-native grasslands and wildflower fields, disturbed/developed areas and ornamental plants, with pockets of native coastal sage – chaparral scrub. Vegetation communities and impacts onsite are summarized in Table 3. Implementation of the Project will result in the permanent loss of ±4.13 acres of coastal sage – chaparral scrub and ±100.18 acres of non-native grasslands and wildflower fields (Table 3). No riparian or other sensitive vegetation communities are present, and none will be impacted.

Table 3. Vegetation Communities Present.

Vegetation Community	Area Present (acres)					
	Project Site			City Road Project Overlap Area		
	Onsite	Offsite	Total	Onsite	Offsite	Total
Non-native Grasslands and Fields	100.18	0	100.18	0.70	0.21	0.91
Coastal Sage – Chaparral Scrub	3.91	0.22	4.13	0	0	0
Disturbed/Developed/Ornamental	5.43	7.91	13.34	0	0.47	0.47
Total	109.52	8.13	117.65	0.70	0.68	1.38

Project Within The MSHCP

The Project site is within Subunit 2: Badlands/San Bernardino National Forest of the MSHCP Pass Area Plan (Dudek 2003). The site is not located within an MSHCP Criteria Cell. MSHCP Proposed Constrained Linkage 23 is located about 0.25 mile north of the Project site. Surveys required by the MSHCP are habitat assessments to address riparian/riverine and vernal pool habitats and associated species, burrowing owl (*Athene cunicularia*), and narrow endemic plant species, including Marvin’s onion (*Allium marvinii*) and many-stemmed Dudleya (*Dudleya multicaulis*).

3.0) RIPARIAN/RIVERINE MITIGATION (SECTION 6.1.2)

3.1) Methods

3.1.1) Pre-Survey Research Methods and Purpose

Section 6.1.2 of the MSHCP requires the evaluation of sites for riparian and/or riverine areas, vernal pools and suitable habitat for listed fairy shrimp and riparian birds (least Bell's vireo, southwestern willow flycatcher and western yellow-billed cuckoo).

The MSHCP defines Riparian/Riverine Areas as "lands which contain habitat dominated by trees, shrubs, persistent emergent, or emergent mosses and lichens, which occur close to or which depend upon soil moisture from a nearby fresh water source, or areas with freshwater flow during all or a portion of the year." Regarding artificially created features, the MSHCP states "with the exception of wetlands created for the purpose of providing wetland habitat or resulting from human actions to create open waters or from the alteration of natural stream courses, areas demonstrating characteristics as described above, which are artificially created are not included.

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 wetland 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." The determination that an area exhibits vernal pool characteristics, and the definition of the watershed supporting vernal pool hydrology, must be made on a case-by-case basis. Such determinations should consider the length of the time the area exhibits upland and wetland characteristics and the way the area fits into the overall ecological system as a wetland. Evidence concerning the persistence of an area's wetness can be obtained from its history, vegetation, soils, and drainage characteristics, uses to which it has been subjected, and weather and hydrologic records.

3.1.2) Riparian/Riverine Field Survey Methods and Purpose

Project boundaries were investigated to identify areas where water is received onto the property or transmitted offsite to downstream resources. These areas were then walked, measured, and assessed via three (3) criteria to determine presence or absence of evidence of flow, hydrophilic vegetation, or hydric soil conditions. During our analysis, L&L personnel used indicators of riparian vegetation as shown in Table 4.

Table 4. Summary of Wetlands Vegetation Criteria.

Category	Probability
Obligate Wetland (OBL)	Almost always occur in wetlands (estimated probability >99%)
Facultative Wetland (FACW)	Usually occur in wetlands (Estimated probability 67%-99%)
Facultative (FAC)	Equally likely to occur in wetlands and non-wetlands (est. probability 34%-66%)
Facultative Upland (FACU)	Usually occur in non-wetlands (estimated probability 67%-99%)
Obligate Upland (UPL)	Almost always occur in non-wetlands (estimated probability >99%)

During our investigation, the property was also searched for vernal pools. To meet the definition of a vernal pool three (3) factors must be addressed: (1) suitable soil and soil conditions, (2) proper hydrology, and (3) one or more indicator species. Soils were examined both as mapped and in the field during transect surveys. The site was also examined for vernal pool plant species during biological surveys conducted in 2022.

Hydrology was examined and documented during the jurisdictional delineation conducted in 2022 and surveyors looked for evidence of ponding water and persistent wetness (Figure 7). Dry season seasonal depressions were examined for potential to retain water for periods of time long enough to become habitat for fairy shrimp (Figure 7). Aerial photos were examined for potential ponding areas and where ponding was identified dry season sampling occurred.

3.1.3) Focused Fairy Shrimp Survey Methods

Habitat Assessment

Biologist Garrett Huffman (TE-20186A-3.2) of Huffman Environmental assessed the Project site in 2023-2024 to determine habitat suitability for supporting fairy shrimp (Appendix C).

Dry Season Focused Survey for Fairy Shrimp

Dry season soil samples were collected from the Project site on October 13, 2023, in accordance with the USFWS Survey Guidelines for Listed Large Branchiopods (USFWS 2017). Dry sample collections were conducted by Garrett Huffman.

Soil samples were collected when the soil (substrate) was dry. A hand spade was used to collect the sample at each feature taking from the top 1 to 3 centimeters of pool sediment. The USFWS Survey Guidelines provide a formula recommending the number of samples collected per feature based on the approximate size of the feature in square meters. Six ponding features were estimated to be between 2.5 and 24 square meters (0.005 acres), requiring a minimum of 10 collected soil samples for each. Four features were estimated to be between 25 and 235 square meters (0.05 acres), requiring a minimum of 25 collected soil samples. Regardless of feature size,

all samples were collected in volumes of 50 to 100 milliliters each. Each sample was collected from the lowest topographic areas within the pool to maximize the potential detection of cysts.

Biologist Charles Black (TE-835549-8) of Ecological Restoration Service conducted dry sample processing and cyst hatching. Soils were processed and examined for cyst presence. Project samples were hydrated for approximately 1-2 hours in tap water and then washed through a set of sieves. The material was passed through a Number 45 (.0139") USA Standard Testing Sieve, A.S.T.M.E.-11 specification, and caught on a Number 70 (.0083") sieve. The filtered material was then rinsed into a container with approximately 50 millimeters of a saturated brine solution to float organic material, including fairy shrimp cysts. The material floating on the brine was decanted onto a paper filter on a filter funnel, and water was removed through the filter paper by vacuum suction. A 6.3-570x power Olympus SZX9 Zoom Stereo Microscope was used to examine the remaining material. Distinctive fairy shrimp cysts, if present, were individually counted (if less than approximately 50) or estimated (for larger numbers) by examining $\frac{1}{4}$ or $\frac{1}{2}$ subsections of the filter and multiplying the subset by the appropriate factor. The presence and number of ostracod shells and cladoceran ephippia (if any) were also noted in samples.

Cysts were then cultured for identification. Individual Project samples were combined by pool number and hydrated in approximately 500 ml of Arrowhead Mountain Spring water. Plastic culture tubs were placed in a shady location in a San Diego outdoor location (night low temperatures in the low to mid-60s, daily highs in the low 70s to high 80s). Two days after hydration, cultures were fed with several ml of a yeast culture produced by dissolving a gram of table sugar and a gram of instant dry yeast in 50 ml 95 F degree filtered water. Water was added daily to tubs to replace water lost to evaporation. Mature shrimp were removed periodically from each culture as they became large enough to identify and examined under an Olympus Zoom dissecting microscope.

Wet Season Focused Survey for Fairy Shrimp

Wet season protocol surveys for fairy shrimp was conducted January through May 2024 by Garrett Huffman in accordance with the USFWS Survey Guidelines for Listed Large Branchiopods (USFWS 2017).

Per the USFWS (2017) Guidelines, the wet season generally occurs in California between October and June. Wet season surveys commence once appropriate habitat has become inundated. Appropriate habitat is considered to be inundated when it holds greater than 3 centimeters of standing water 24 hours after a rain event.

All potential habitats must be adequately sampled at 7-day intervals after initial inundation of habitat. Sampling will continue within each potential habitat until it dries or a minimum of 120 consecutive days of inundation has occurred. Sampling will be reinitiated within 7 days of an individual habitat drying and inundating during the same wet season.

Beginning on January 11, 2024 each wet season visit, representative portions of the bottom, edges, and vertical water column of the feature was sampled using a seine, dip net or aquarium net appropriate for the size of the feature until all features were dry which occurred by May 4, 2024 marking the end of the survey season. Data collected for the feature includes average and maximum water depth, water and air temperature, length, width, degree and form of disturbance, presence of fairy shrimp, and observations of any other benthic macroinvertebrates. Vouchering of the species collected will be conducted and delivered to the LA History Museum per USFWS Protocol Guidelines. Survey visits will be discontinued after the features go dry for the season.

3.2) Results/Impacts

Dry samples were collected from 10 features and underwent a process to filter out fairy shrimp cysts. Two of the features (OV-03 and OV-05) were positive for *Branchinecta* fairy shrimp cysts. These cysts were introduced to a simulated environment by submerging in water to hatch and then raised to maturity for identification. All fairy shrimp individuals that reach maturity were identified as Lindahl's fairy shrimp.

Wet samples were conducted on 11 features between Feb to April when ponding occurred. Mature fairy shrimp were identified in feature OV-3 and identified as Lindahl's fairy shrimp. OV-05, positive for fairy shrimp during the dry season sampling did not receive enough precipitation to sustain fairy shrimp life cycles. All other features were negative for the presence of fairy shrimp.

Four (4) drainages (no blue-line streams) are present onsite (Figure 5). Ponding is present within depressions along the shoulder of Calimesa Blvd and within the driving lanes of Beckwith Avenue (Figure 7).

Soil Survey Geographic (SSURGO) Database shapefiles and Web-Soils identify soils onsite as sandy loams, with a few small areas of terrace escarpments (see Figure 4). All soils mapped on the property have a hydric rating of zero, with the exception of Tujunga loamy sand (TvC) that has a rating of 10 (see Table 2).

3.2.1) Riparian/Riverine Habitat

The Wildlife agencies have identified 1.14 acres of permanent impacts to riparian/riverine resources within drainages one (1), two (2) and four (4) as subject to MSHCP Section 6.1.2, which are connected to natural upstream drainages (Table 5). D3 is an unconnected manmade feature.

Table 5. MSHCP Riverine Features.

Name	Acres	Type of Waters	Lat/Long	HGM Code
D1	0.59	Riverine Streambed	33°58'41.96"N 117° 2'28.59"W	Riverine
D2	0.14	Riverine Streambed	33°58'41.02"N 117° 2'25.47"W	Riverine
D3	0.0	Manmade	33°58'19.85"N 117° 2'23.74"W	Manmade
D4	0.41	Riverine Streambed	33°58'32.81"N 117° 2'5.52"W	Riverine
Total	1.14			

All areas of the property as shown in Table 5 will be impacted by planned development.

Riparian

There is no native or MSHCP riparian habitat located onsite consequently no impact will occur to riparian habitat.

Riverine Features

Drainage 1/Riverine 1

Drainage 1 (D1)(R1) enters the Project at Beckwith Avenue via an excavated ditch and extends southward towards Calimesa Blvd where during peak flows and frequent rain events (i.e.: 5 out of 28 years) water may leave the property at Calimesa Blvd and enter the storm drain system to travel under Calimesa Blvd and the I-10 freeway. (D1)(R1) is primarily unvegetated or contains isolated upland vegetation and is regularly disturbed. It is poorly defined away from the northernmost portion onsite. Portions are compacted or recently tilled. Dominant vegetation is non-native grasses, mustard, and *Amsinckia*. Water was not present on the days of surveys. (D1)(R1) qualifies as a state streambed and MSHCP riverine habitat. The area as mapped by the Wildlife Agencies is 0.59 acres.

Drainage 2/Riverine 2

Drainage 2 (D2)(R2) enters the Project at Beckwith Avenue via a swale and extends southward for a short distance, where it during periods of high rain may connect with Drainage 1. (D2)(R2) is unvegetated or contains upland vegetation. It is poorly defined away from the northern origins. (D2)(R2) is regularly disturbed by discing or tilling of the soils. Dominant vegetation includes mustard, *Amsinckia*, ornamental and non-native trees (almond and tree of heaven). Water was

not present on the day of the surveys. (D2)(R2) is a state streambed and MSHCP riverine habitat. The area as mapped by the Wildlife Agencies is 0.14 acres.

Drainage 4/Riverine 4

Drainage 4 (D4)(R4) enters the Project south of the terminus of Beckwith originating at the northeast corner of the property, running in a westward direction parallel to Beckwith Avenue before curving south towards Calimesa Blvd.. (D4)(R4) is unvegetated or contains upland species with compacted soils and poorly defined beds and banks. It is regularly disturbed by offroad vehicles, discing, or tilling and development of the adjacent mobile home park. Dominant vegetation is non-native grasses, *Amsinckia* sp., and *Artemisia californica-Erigonum fasciculatum*. Water was not present on the day of the surveys. (D4)(R4) qualifies as a state streambed and MSHCP riparian habitat. The area as mapped by the Wildlife Agencies is 0.41 acres.

Non-Riverine Feature

Drainage 3

Drainage 3 (D3) is an excavated/manmade roadside ditch parallel to Calimesa Boulevard near the southeast corner of the Project and adjacent to a row of ornamental trees. No water was present on the survey days. D3 qualifies as a state Streambed but is not considered MSHCP riparian/riverine, as it is manmade in an otherwise upland area. A detailed analysis of this feature can be found in the Jurisdictional Delineation and the Biological Resources Assessment (L&L 2023).

3.2.2) Riparian/Riverine Species

Riparian Birds

The Project will not impact riparian birds. The Project is consistent with MSHCP Section 6.1.2. with regard to these species and their habitat. No mitigation is proposed. Details are included in the Biological Resources Assessment in Appendix A.

Fairy Shrimp

Soil types mapped on the site are not consistent with an alkali playa or vernal pool complex (Bauder et al 2011). A habitat assessment found features within the Project site with evidence of ponding water suitable to support fairy shrimp. These features consist of tire ruts and tracks, low-lying areas within dirt roads, and drainage ditches (Figure 7). Wet and Dry season protocol survey was conducted between October 2023 and May 2024. Examination of the dry season samples found fairy shrimp cysts in samples from two of the features (OV-4 and OV-5) (Figure 8). The cysts were cultured and the resulting nauplii (larval fairy shrimp) were raised to the point where

they had matured sufficiently to be identified as a species. Only the common versatile fairy shrimp was found in the dry season samples. Wet season sampling had similar results as OV-04 found Lindahl's fairy shrimp were present however, OV-05 found no species of fairy shrimp were present.

No MSHCP species listed for protection associated with riparian/riverine areas and vernal pools were observed.

3.2.3) Functional Analysis

Flood Storage and Flood Flow Modification

In its current condition, flood storage and flood flow modification can occur as flows enter the Project site and encounter tilled soils (D1, D2 and D4). This soil reduces the volume and velocity of flows to the point where in the current condition received waters are not transported all the way across and off the site.

In the post-project developed condition, the Project site will utilize a combination of best management practices (BMPs) (see Section 3.3.4) to provide water quality control measures and to transmit clean water to downstream habitat. To prevent erosion, peak flows will be regulated to the pre-project condition. Low flows generated by the proposed development will be processed and released to downstream habitat. Episodic high flow events will be received from upstream open space habitat and transmitted to downstream habitat. To develop a better understanding of the current and historic condition of the ephemeral drainages we examined available aerial photos spanning 26 years between 1996 and 2022, including 25 photos.

While determining flows from an aerial photo can be difficult and somewhat misleading due to timing of the photos, it can be helpful to inform flood storage and flood flow modification rates. We then averaged rainfall rates from the two (2) nearest data points (Beaumont and Cranston) and matched photos to try to better understand transmission rates. During our analysis of the project via available aerial photos (Google and Historicareials.com) we found 20 photos where there was no evidence of flows leaving the site and five (5) photos where at least some evidence of flows leaving the property is present in the form of changes in soils texture and color. Flows may have been transported off the property in 1996, 2002, 2003, 2011, and 2012, but no evidence was found of flows leaving the site in the last decade.

Nutrient Retention

Flows received into the Project site are both runoff from natural open spaces and low flows and urban runoff from developments to the north and east. The existing riverine features contain annual vegetation and soils that would be expected to perform biogeochemical cycling functions and improve water quality, particularly with regard to nitrogen, sulfur, and phosphorous content.

These substances will likely settle out of the water when the velocity is reduced by obstruction, but annual grasses and forbs are also expected to absorb and utilize nutrient content naturally during growth processes and thereby reduce these substance levels in the water.

In the post-project condition, after construction and development, the Project will utilize a combination of BMPs (see Section 3.3.4) for flows and the removal of increased nutrient content. Onsite drainage features will allow for improved water quality naturally by intercepting surface runoff and removing or retaining received sediments. These sediments are then available for soil development. In high flow, short-term high-energy events sediments and soil are available for transport to downstream habitat.

Sediment Transport

In the current condition, water is exposed to tilled and loosened soils that quickly absorb low-flow, short-term low energy events. There is no evidence that water is crossing the Project in drought conditions.

After construction, the Project will utilize a combination of BMPs (see Section 3.3.4) that will allow most sediments in received low flows to settle out, though high flow events could continue to transport sediments to downstream habitats to aid in soil development and support wetland vegetation.

Toxicant Trapping

In the current condition, water that comes into the site might be exposed to hazardous materials associated with normal residential use, including cleaning products, solvents, herbicides, and insecticides as well as those associated with rural residential use, such as tractors and other small scale agricultural equipment.

The Project has been designed to utilize Water Quality Best Management Practices (BMPs), including education, storm drain stenciling, and street sweeping in compliance with City of Calimesa requirements. The Project would result in the additional use of hazardous materials in limited quantities associated with normal residential use. However, compliance with label instructions will reduce potential risk of hazardous materials released to downstream waters. An information pamphlet will be prepared for each tenant and property management group and include information on safe application of industrial and landscape chemicals and avoiding discharge to downstream waters. In addition, the proposed Project will utilize a combination of extended detention basins, infiltration basins, and sand filter basins to collect low flows and first flush storm runoff to trap toxicants.

Public Use

Currently, onsite riverine habitat provides no public use. Although wetlands and riverine habitat can provide many aesthetic and cultural functions and contain native species that have value, vegetation onsite is sparse and there is no public access.

Wildlife Habitat

Currently, the Project site supports no riparian bird habitat. Habitat to support common versatile fairy shrimp is present onsite and focused wet and dry season surveys were conducted on site between October 2023 and May 2024 found only Lindahl present. No listed fairy shrimp have been identified within the Project and mitigation for listed fairy shrimp is not required.

3.2.4) Project Alternatives

Full Avoidance Alternative

The Project is proposed on a developed residential parcel, therefore the full avoidance alternative to the Project would allow continued use and resulting disturbances related to residential or agricultural land uses. This would continue to reduce habitat value onsite and continue to have the potential to impact downstream resources. Table 6 lists the functions and values of the current condition of the Project site.

Full avoidance of these impacted resources is not consistent with the conservation goals of the MSHCP which allows for development within lands that are currently disturbed and surrounded by other development as a priority over the development of more remote less disturbed habitat with long term conservation value. The reuse of this land for development is therefore an appropriate use and the full Avoidance Alternative is not consistent with the spirit and the purpose of the MSHCP.

Table 6. Functions and values assessment.

Resource Functions	Long Term Conservation Value / Resource Value Impacted Riverine Habitat	Long Term Conservation Value / Resource Value Bank Riverine Habitat
Flood Storage and Flow Mod.	Low/moderate	Moderate
Toxicant Trapping	Low/Moderate	Moderate
Nutrient Retention & Trans	Low/Moderate	Moderate
Public Use	Nil	Nil
Wildlife Habitat	Low	Moderate

3.3) Mitigation and Equivalency

3.3.1) Direct Effects

Construction and Grading Operation

Grading would commence with grubbing and vegetation clearing, followed by rough grading. Excavators, dozers, tractors/loaders/backhoes, scrapers, graders, compactors, dump trucks, cranes, water trucks, concrete mixers, pavers and paving equipment, water trucks, forklifts, and miscellaneous other equipment will be used.

The Project will impact as much as 1.14 acre of non-riparian, riverine resources but will mitigate impacts through either (1) the use of credits at an approved mitigation bank or (2) will conduct permittee responsible mitigation at equal or greater function and value to avoiding the resources in their current condition.

Summary of Effects on Conserved Habitats

- The Project will impact up to 1.14 acres of non-riparian riverine resources.
- After mitigation, the Project will not result in a net loss of non-riparian, riverine habitat.

Summary of Effects on Linkages and Functions of the MSHCP Conservation Area

- The Project is not in an MSHCP Criteria Cell.
- The Project will not impact MSHCP designated linkage(s).
- The Project will have a beneficial impact on transmitted water and water quality on downstream ESA and Conserved Lands. Runoff from the development and offsite flows will be treated in a series of water quality basins, detention basins, or other BMPs as approved by the City of Calimesa. The BMPs shall remove common pollutants and reduce peak flows and runoff before discharging offsite into the existing drainage system under the I-10 freeway.
- After completion of the Project water flows would continue to the same drainage system at similar levels and downstream connectivity would not be impacted.

3.3.2) Indirect Effects

Indirect impacts to habitat in the immediate Project vicinity could potentially occur as a result of erosion and runoff, fugitive dust, and invasive species during construction. Development of the site will reduce pervious surfaces and as a result reduce absorption of rain events and increase runoff. Use of heavy equipment and maintenance of those vehicles and use of other toxic substances in construction could result in accidental spills, leaks, or other release into the surrounding and downstream environment. Similarly, after development an increased presence

of vehicles, landscaping chemicals, household cleaners, and other toxins could result in accidental spills, leaks, or otherwise be released into the environment.

Fugitive dust generated by construction activities can affect the health of local wildlife and plants. Dust particles settling directly on adjacent vegetation can cause physical shading, thus reducing photosynthesis, blocking leaf stomata, and/or uptake into leaf tissues (Farmer 1993). These impacts can most notably reduce vegetation growth and reproduction rates.

Post-project fugitive dust long-term impacts are expected to be similar or less than the current levels due to current regular tilling of the soils.

A potential increase in non-native species, which may impact surrounding or downstream native plant species, may occur along Project margins where newly exposed soils not developed or landscaped could provide fertile ground. Invasive species occurring within the impact area could disperse seed to surrounding or downstream areas and newly turned and exposed soils within the Project site. Invasive and noxious weed species seeds could be spread or introduced into the area by vehicles or machinery.

With the incorporation of the Mitigation Measures outlined in Section 3.3.4, indirect impacts will be minimized to a level that is considered less than significant.

3.3.3) Urban Wildlands Interface

This section is intended to identify actions that can minimize edge effects where the development interacts with an MSHCP Conservation Area. The Project site is not located within or immediately adjacent to an MSHCP Conservation Area.

Urban Wildland Interface Guidelines require that projects address indirect effects associated with locating development in proximity to MSHCP Conservation Areas, where applicable. These effects are drainage, toxics, lighting, noise, invasives, barriers, and grading/land development. Due to the distance and existing development between the Project site and PQP or other conserved lands, there would be no substantial indirect effects associated with lighting, noise, barriers, or grading/land development and these effects are not addressed further.

Drainage and Toxics

Flows leaving the site connect hydrologically to downstream drainages and toxics have the potential to impact habitat and water quality. The potential indirect effects associated with drainage and toxics will be mitigated through implementation of a Water Quality Management Plan (WQMP). Additionally, the Project would be required to comply with all applicable water quality regulations, including obtaining and complying with those conditions established in a Regional Water Quality Control Board Waste Discharge Requirements and a National Pollutant Discharge Elimination System (NPDES) permit. Both of these permits include the treatment of all surface runoff from

paved and developed areas, the implementation of applicable Best Management Practices (BMPs) during construction activities, and the installation and proper maintenance of structural BMPs to ensure adequate long-term treatment of water before it enters into any stream course.

Invasives

Under MSHCP Section 6.1.4, when approving landscape plans for development that is proposed adjacent to MSHCP Conservation Area, Permittees shall consider the invasive, non-native plant species listed in MSHCP Table 6-2 (included below) and shall require revisions to landscape plans (subject to the limitations of their jurisdiction) to avoid the use of invasive species for the portions of development that are adjacent to MSHCP Conservation Area. Landscape plans for the Project shall avoid use of all invasive, non-native plant species listed in MSHCP Table 6-2.

Table 7. MSHCP Avoided Plants List

MSHCP Table 6-2. Plants That Should Be Avoided Adjacent to MSHCP Conservation Area (Taken Directly from MSHCP Section 6.1.4)

BOTANICAL NAME	COMMON NAME
<i>Acacia</i> spp. (all species)	acacia
<i>Achillea millefolium</i> var. <i>millefolium</i>	common yarrow
<i>Ailanthus altissima</i>	tree of heaven
<i>Aptenia cordifolia</i>	red apple
<i>Arctotheca calendula</i>	cape weed
<i>Arctotis</i> spp. (all species & hybrids)	African daisy
<i>Arundo donax</i>	giant reed or arundo grass
<i>Asphodelus fistulosus</i>	asphodel
<i>Atriplex glauca</i>	white saltbush
<i>Atriplex semibaccata</i>	Australian saltbush
<i>Carex</i> spp. (all species*)	sedge
<i>Carpobrotus chilensis</i>	ice plant
<i>Carpobrotus edulis</i>	sea fig
<i>Centranthus ruber</i>	red valerian
<i>Chrysanthemum coronarium</i>	annual chrysanthemum
<i>Cistus ladanifer</i> (incl. hybrids/varieties)	gum rockrose
<i>Cortaderia jubata</i> [syn. <i>C. Atacamensis</i>]	jubata grass, pampas grass
<i>Cortaderia dioica</i> [syn. <i>C. sellowana</i>]	pampas grass
<i>Cotoneaster</i> spp. (all species)	cotoneaster
<i>Cynodon dactylon</i> (incl. hybrids varieties)	Bermuda grass
<i>Cyperus</i> spp. (all species*)	nutsedge, umbrella plant
<i>Cytisus</i> spp. (all species)	broom
<i>Delosperma 'Alba'</i>	white trailing ice plant
<i>Dimorphotheca</i> spp. (all species)	African daisy, Cape marigold
<i>Drosanthemum floribundum</i>	rosea ice plant
<i>Drosanthemum hispidum</i>	purple ice plant
<i>Eichhornia crassipes</i>	water hyacinth
<i>Elaeagnus angustifolia</i>	Russian olive
<i>Eucalyptus</i> spp. (all species)	eucalyptus or gum tree
<i>Eupatorium coelestinum</i> [syn. <i>Ageratina</i> sp.]	mist flower
<i>Festuca arundinacea</i>	tall fescue
<i>Festuca rubra</i>	creeping red fescue
<i>Foeniculum vulgare</i>	sweet fennel

<i>Fraxinus uhdei</i> (and cultivars)	evergreen ash, shamel ash
<i>Gaura</i> (spp.) (all species)	gaura
<i>Gazania</i> spp. (all species & hybrids)	gazania
<i>Genista</i> spp. (all species)	broom
<i>Hedera canariensis</i>	Algerian ivy
<i>Hedera helix</i>	English ivy
<i>Hypericum</i> spp. (all species)	St. John's Wort
<i>Ipomoea acuminata</i>	Mexican morning glory
<i>Lampranthus spectabilis</i>	trailing ice plant
<i>Lantana camara</i>	common garden lantana
<i>Lantana montevidensis</i> [syn. <i>L. sellowiana</i>]	lantana
<i>Limonium perezii</i>	sea lavender
<i>Linaria bipartita</i>	toadflax
<i>Lolium multiflorum</i>	Italian ryegrass
<i>Lolium perenne</i>	perennial ryegrass
<i>Lonicera japonica</i> (incl. 'Halliana')	Japanese honeysuckle
<i>Lotus corniculatus</i>	birdsfoot trefoil
<i>Lupinus arboreus</i>	yellow bush lupine
<i>Lupinus texanus</i>	Texas blue bonnets
<i>Malephora crocea</i>	ice plant
<i>Malephora luteola</i>	ice plant
<i>Mesembryanthemum nodiflorum</i>	little ice plant
<i>Myoporum laetum</i>	myoporum
<i>Myoporum pacificum</i>	shiny myoproum
<i>Myoporum parvifolium</i> (incl. 'Prostratum')	ground cover myoporum
<i>Oenothera berlandieri</i>	Mexican evening primrose
<i>Olea europea</i>	European olive tree
<i>Opuntia ficus-indica</i>	Indian fig
<i>Osteospermum</i> spp. (all species)	trailing African daisy, African daisy,
<i>Oxalis pes-caprae</i>	Bermuda buttercup
<i>Parkinsonia aculeata</i>	Mexican palo verde
<i>Pennisetum clandestinum</i>	Kikuyu grass
<i>Pennisetum setaceum</i>	fountain grass
<i>Phoenix canariensis</i>	Canary Island date palm
<i>Phoenix dactylifera</i>	date palm
<i>Plumbago auriculata</i>	cape plumbago
<i>Polygonum</i> spp. (all species)	knotweed
<i>Populus nigra</i> 'italica'	Lombardy poplar
<i>Prosopis</i> spp. (all species*)	mesquite
<i>Ricinus communis</i>	castorbean
<i>Robinia pseudoacacia</i>	black locust
<i>Rubus procerus</i>	Himalayan blackberry
<i>Sapium sebiferum</i>	Chinese tallow tree
<i>Saponaria officinalis</i>	bouncing bet, soapwart
<i>Schinus molle</i>	Peruvian pepper tree, California pepper
<i>Schinus terebinthifolius</i>	Brazilian pepper tree
<i>Spartium junceum</i>	Spanish broom
<i>Tamarix</i> spp. (all species)	tamarisk, salt cedar
<i>Trifolium tragiferum</i>	strawberry clover
<i>Tropaelolum majus</i>	garden nasturtium
<i>Ulex europaeus</i>	prickly broom
<i>Vinca major</i>	periwinkle
<i>Yucca gloriosa</i>	Spanish dagger

An asterisk (*) indicates some native species of the genera exist that may be appropriate. **Sources:** California Exotic Pest Plant Council, United States Department of Agriculture-Division of Plant Health and Pest Prevention Services, California Native Plant Society, *Fremontia* Vol. 26 No. 4, October 1998, *The Jepson Manual: Higher Plants of California*, and County of San Diego Department of Agriculture.

3.3.4) Avoidance and Minimization

The Project is adjacent (for the most part) to areas that are already developed. Impact to wildlife species will be minimized by grading and clearing land outside of the breeding season (January 1 to September 15). If any vegetation removal is to occur during the breeding season, a qualified biologist will conduct preconstruction nesting bird clearance surveys and establish buffer zones (300 to 500 feet or as the Project biologist directs) around any nesting or other reproducing animal in order to minimize impact. The Project incorporates standard water quality BMPs into Project implementation. BMPs reduce potential for indirect impacts to adjacent and downstream habitats.

Post-project BMPs

Post-construction BMPs include water quality treatment, minimizing the release of untreated urban runoff to downstream habitat, minimizing impervious footprint to the greatest extent feasible, conserving natural areas via offsite purchase of habitat credits, and minimizing Directly Connected Impervious Areas (DCIAs) to the greatest extent feasible. Post-construction peak flow reduction BMPs will reduce downstream erosion while allowing increased delivery of cleaned water to downstream ESA and wetland habitats.

A combination of post-construction BMPs facilities will be designed in accordance with published standards from the Riverside County Flood Control and Water Conservation District. The Project proponent will construct the facility according to local standards, requirements, and specifications, and will maintain the facility until turned over to the post-project maintenance group. Post-project maintenance responsibilities will be funded by monthly contributions of the lessors of the building space(s) via the collection of a common area fee spelled out in the lease agreement and conducted under contract to maintenance firms supervised by the Property Management Company retained by the property ownership.

Construction BMPs

During construction, all contractors and subcontractors will use Best Management Practices (BMPs) to manage, capture, control, eliminate, and prevent sediment, debris, and pollutants from being discharged into streambeds and drainages. A Storm Water Pollution Prevention Plan (SWPPP) will be prepared for the Project. Construction BMPs address sediment and erosion control, non-sediment pollutants, and non-storm water BMPs.

- BMPs will be implemented to maintain water quality. All runoff will be treated prior to exiting the site to reduce pollutants of concern. There will be no peak flow increase in water flow from the Project site.
- If grading occurs when the ephemeral streambed is wetted, a bypass will be required. A Bypass Plan will be developed by the SWPPP consultant prior to initiation of grading unless all grading can occur when the ephemeral streams are dry.

- During construction, all contractors and subcontractors will use standard BMPs to reduce fugitive dust, subject to local water restrictions.
- Construction equipment storage, fueling, and staging areas shall be located within the Project footprint.
- The Project will reduce potential for spread of noxious and non-native species by not utilizing any prohibited species within the Project design. No plants included on the California Exotic Pest Plant Council's list of invasive species or in Table 6-2 of the MSHCP (see Section 3.3.3) will be used in any Project landscape anywhere on the site, and only native species will be planted adjacent to open space areas.
- During construction, all contractors and subcontractors will wash equipment prior to arriving onsite and limit staging of equipment to areas not occupied by noxious weeds.

Other applicable BMPs include:

- Trash and debris will be contained in covered containers and removed from the Project site in regular waste removal cycles.
- Construction employee parking and lunchtime eating activities will occur within the development footprint.
- Feeding of wildlife will not occur and food or food remains will be placed in sealed containers and transported from the Project in regular waste removal cycles.
- Construction personnel will not bring guns, dogs, loud music, or bright lights to the Project before, during, or after regular work hours.

3.3.5) Compensation

The Project's impacts to MSHCP riverine habitat will be mitigated through offsite compensation within the Santa Ana River Watershed via the purchase of 1.14 acres of re-establishment and 1.14 acres of rehabilitation mitigation credits within the Riverpark Mitigation Bank if credits become available for purchase prior to the start of construction for a total of 2.28 acres of mitigation credits or (1) the purchase of credits of equal or greater value as approved by the city of Calimesa and the USFWS and CDFW (Wildlife Agencies) prior to the start of construction or (2) a permittee responsible mitigation providing an equal or greater functional value to the avoidance of 1.14 acres of onsite riverine habitat in its current condition.

Offsite mitigation through purchase of credits at an approved mitigation bank or permittee responsible mitigation with a biologically equivalent or superior habitat compensation is a suitable alternative to avoidance because it compensates for impacted riverine habitat through offsite preservation of habitat with equal or greater function and value. Proof of the purchase of credits (receipt provided to RCA) at least 30 days prior to the initiation of Project activities, which includes staging and site preparation is required unless security is provided via a Letter of Credit.

Or

A Habitat Mitigation Plan providing for permittee responsible mitigation with a biologically equivalent or superior habitat compensation for riverine habitat will be approved by the city of Calimesa and the Wildlife Agencies, prior to the start of construction.

These alternatives are suitable because they compensate for impacted riverine habitat through offsite preservation of habitat with greater functions and values.

Implementation of this mitigation is expected to reduce impacts to riparian/riverine resources to a level that is less than significant and is consistent with Section 6.1.2 of the MSHCP.

4.0) NARROW ENDEMIC PLANT SPECIES MITIGATION (SECTION 6.1.3)

The MSHCP Information Map (RCA 2022) indicates that a habitat assessment is required for narrow endemic plant species Marvin's onion (*Allium marvinii*) and the many-stemmed Dudleya (*Dudleya multicaulis*). If suitable habitat is present, focused surveys are required.

MSHCP narrow endemic plant species Marvin's (Yucaipa) onion (*Allium marvinii*) and Many-stemmed Dudleya (*Dudleya multicaulis*) were not observed during focused surveys and these species are considered absent from the site. There would be no direct effects to these MSHCP narrow endemic plant species and no mitigation is proposed.

See the Biological Resources Assessment report provided in Appendix A.

5.0) ADDITIONAL SURVEY NEEDS (SECTION 6.3.2)

5.1) Criteria Area Species Survey Area - Plants

Based on review of the MSHCP Information Map (RCA 2022) for the parcel, the Project site is not within a mapped survey area for Criteria Area plant species and surveys for Criteria Area plant species are not required.

5.2) Burrowing Owl

Based on review of the MSHCP Information Map (RCA 2022) for the parcel, the Project site is within a mapped survey area for burrowing owl and a habitat assessment for burrowing owl is required. If potentially suitable habitat is present, focused burrowing owl surveys are required in accordance with the *MSHCP Burrowing Owl Survey Instructions* (RCA 2006).

5.2.1) Results/Impacts

No burrowing owls, owl sign (pellets, scat, feathers, tracks, etc.), or occupied burrows were observed onsite during the 2022 protocol breeding season survey and no mitigation is proposed. The MSHCP requires pre-construction presence/absence surveys for burrowing owl within the survey area where suitable habitat is present within 30 days prior to disturbance.

See the Biological Resources Assessment report provided in Appendix A.

5.3) Mammals

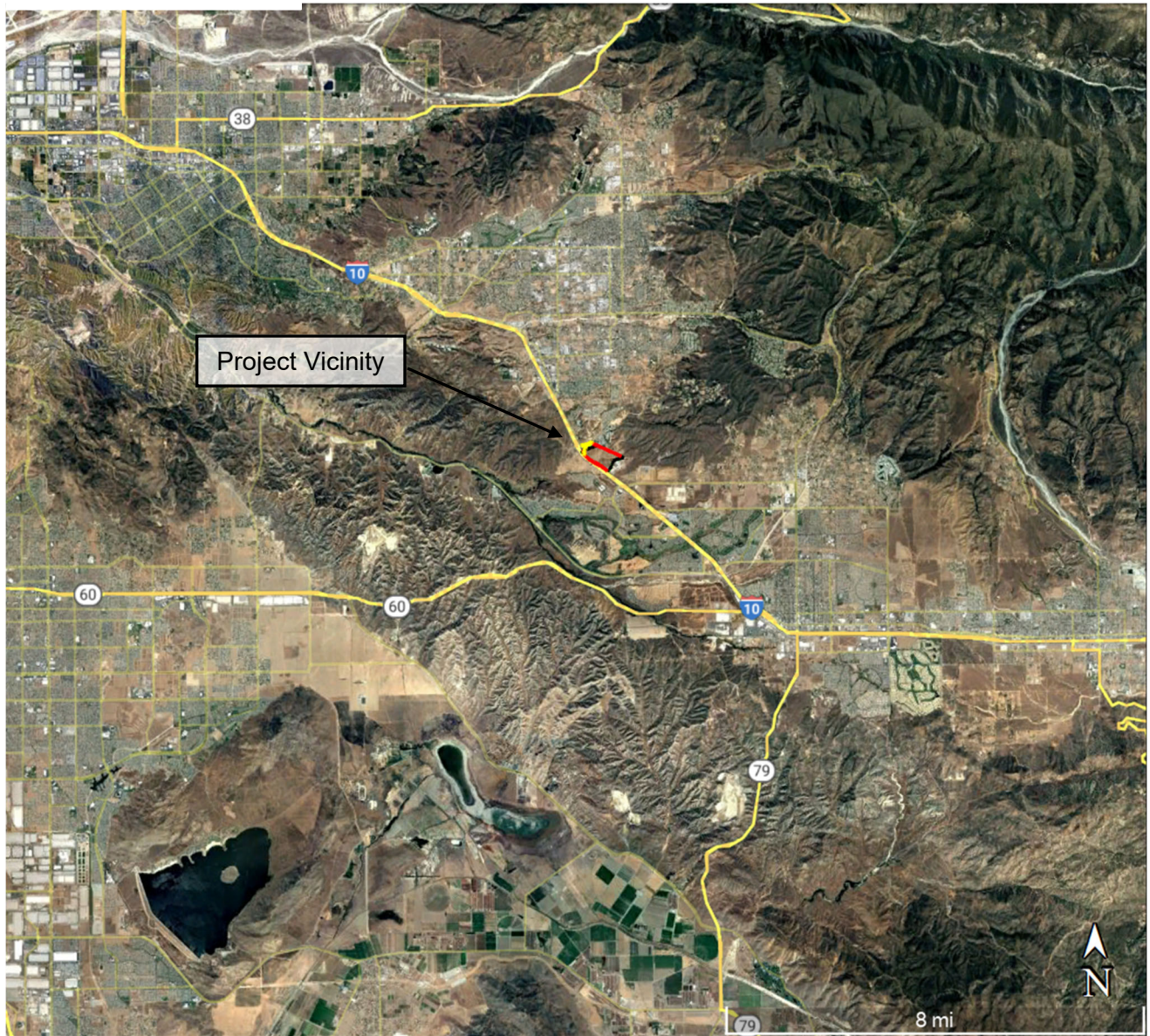
Based on review of the MSHCP Information Map (RCA 2022) for the parcel, the Project site is not within a mapped survey area for mammal species and surveys for mammal species are not required.

5.4) Amphibians

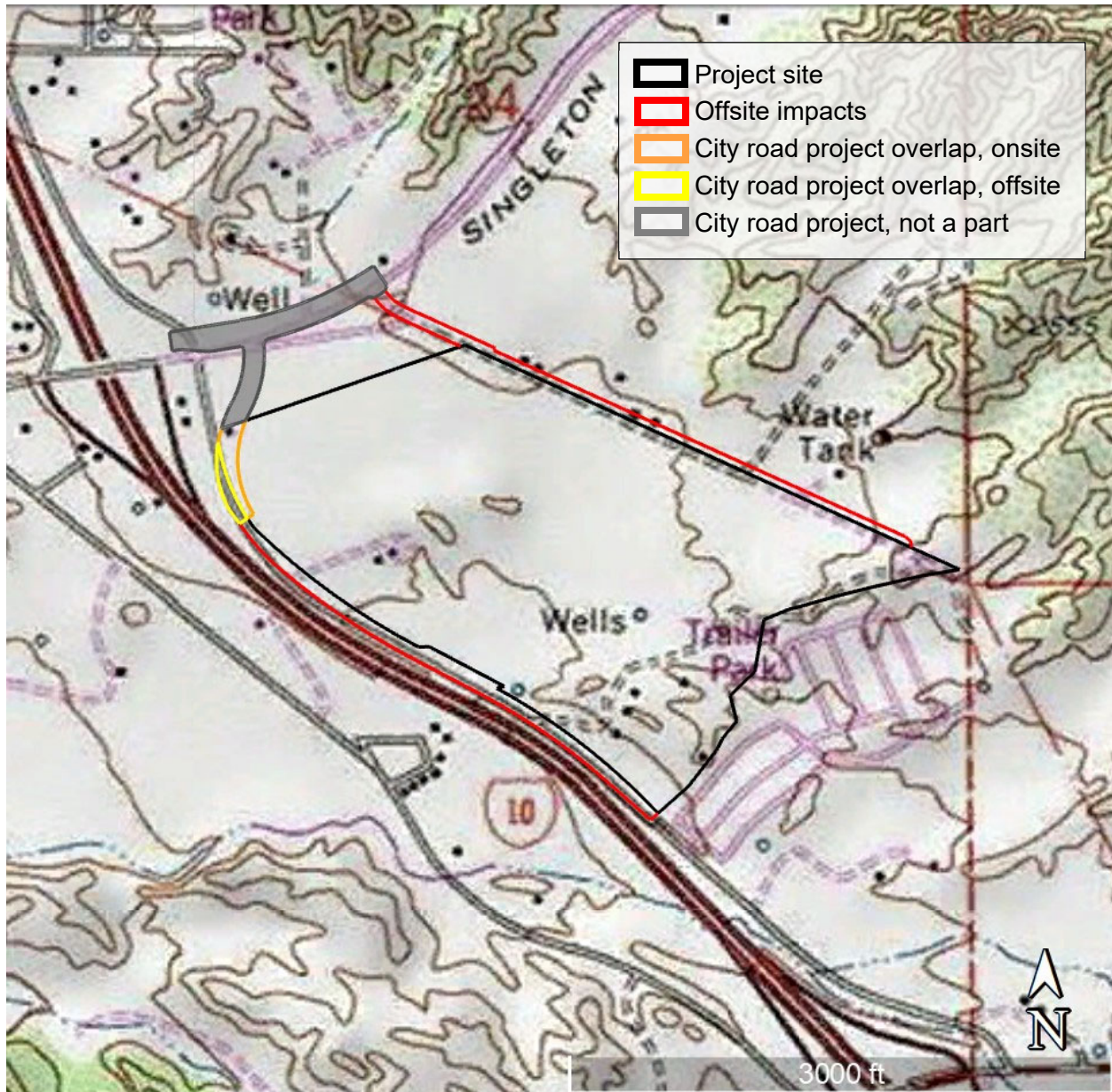
Based on review of the MSHCP Information Map (RCA 2022) for the parcel, the Project site is not within a mapped survey area for amphibian species and surveys for amphibian species are not required.

5.5) Delhi Sands Flower-Loving Fly

There are no Delhi soils mapped onsite and there is no habitat present for Delhi sands flower-loving fly. The proposed Project is not within an area with Delhi soils mapped within the MSHCP baseline data and no surveys for Delhi sands flower-loving fly are required.



Oak Valley North Commerce Center
City of Calimesa, Riverside County, California
Project Vicinity
Figure 1



Oak Valley North Commerce Center
City of Calimesa, Riverside County, California
Project Location

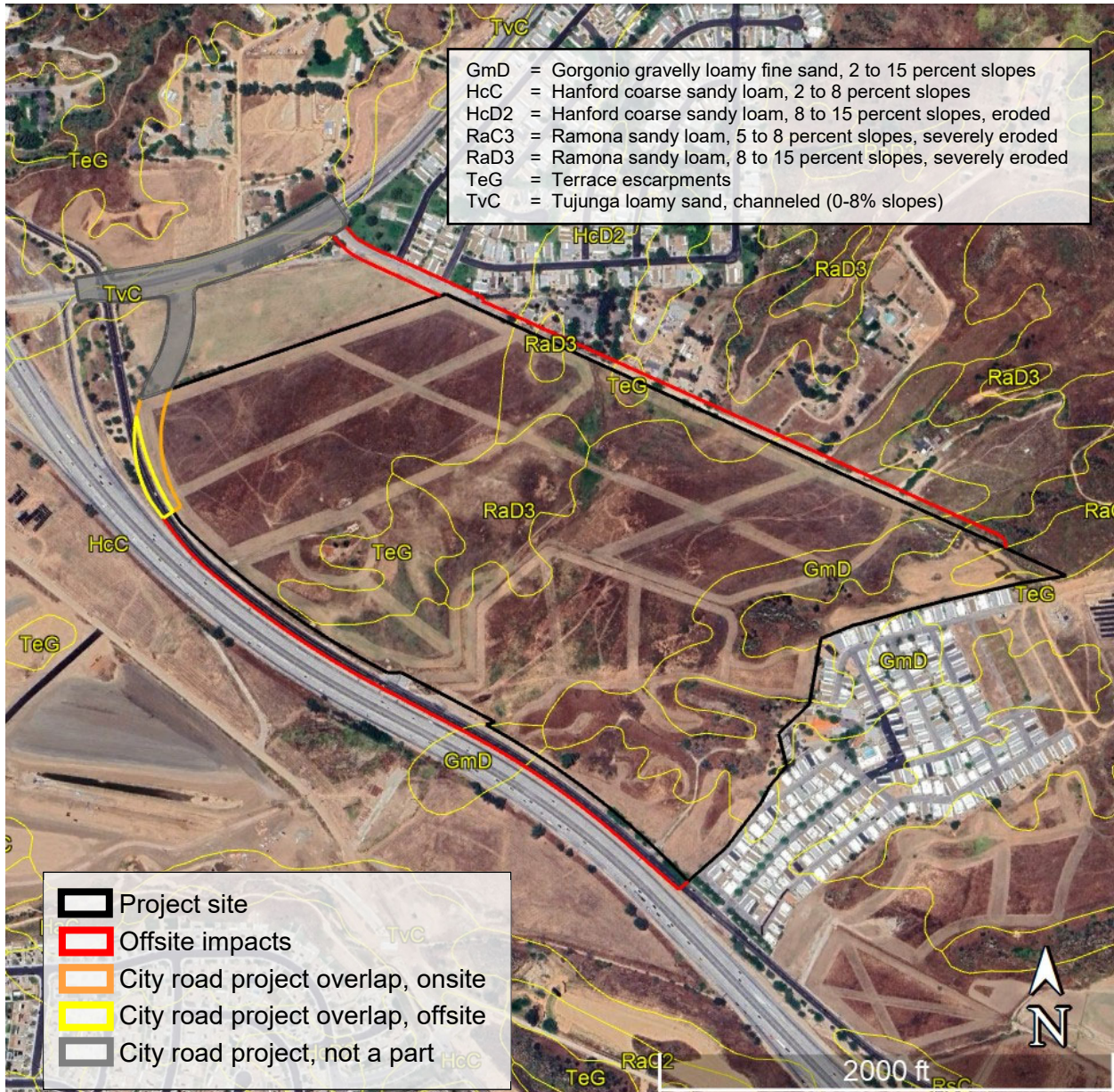
Figure 2

(USGS El Casco [2022] Quadrangle,
Township 2 South, Range 2 West, Sections 24 and 25)

(Aerial obtained from Google Earth, May 2023)
(Aerial obtained from Google Earth, May 2023)

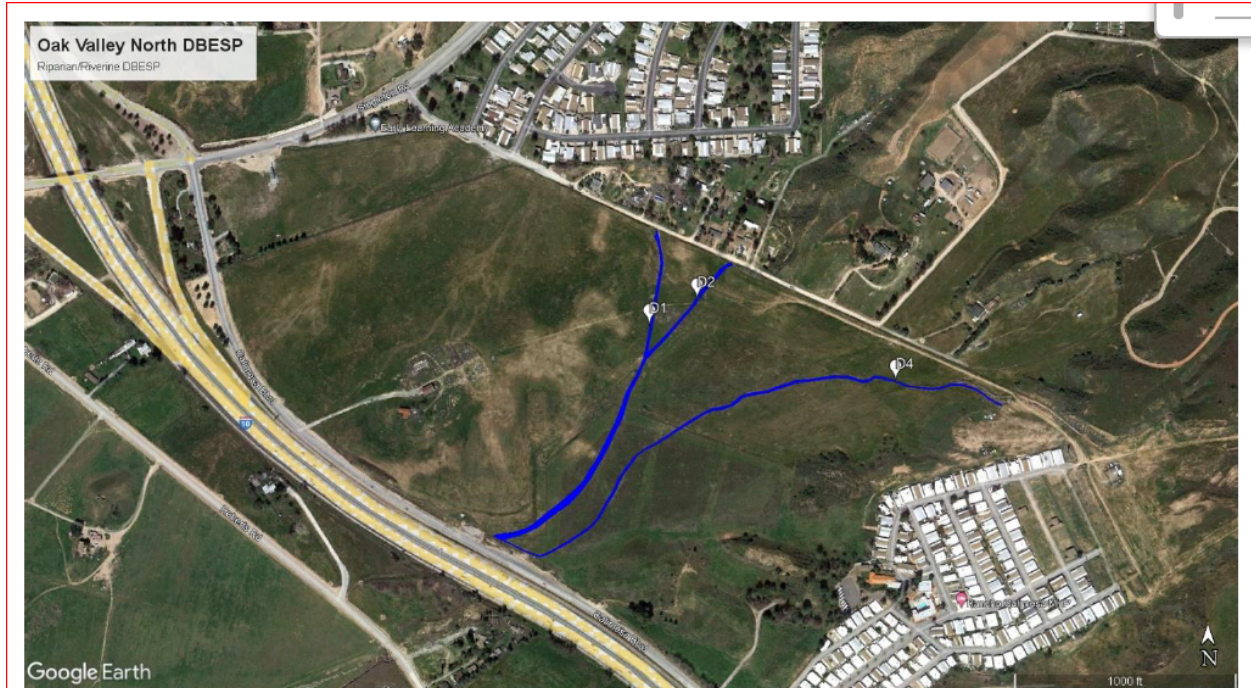


Oak Valley North Commerce Center
City of Calimesa, Riverside County, California
Aerial Image
Figure 3
(Aerial obtained from Google Earth, May 2023)

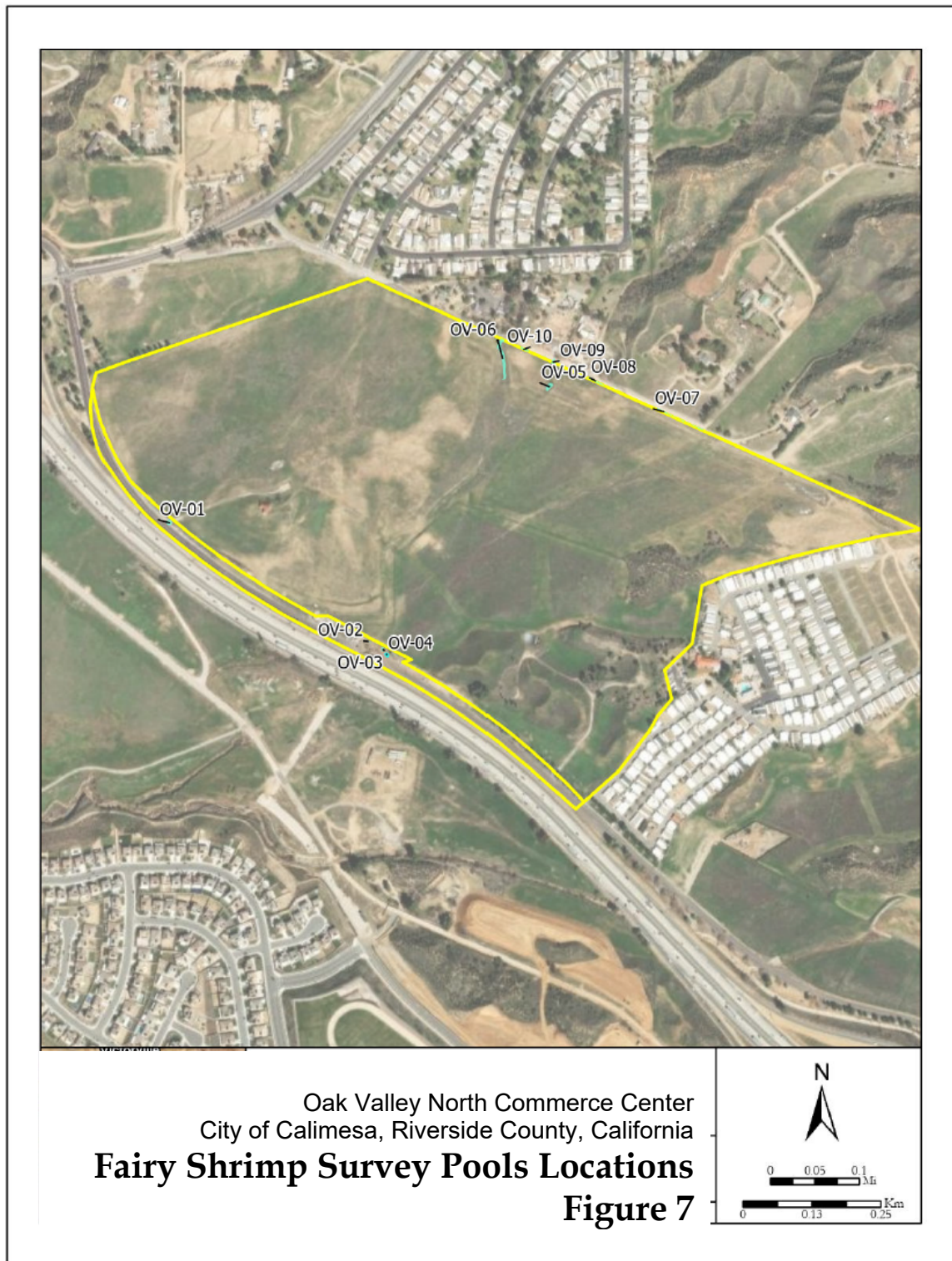


Oak Valley North Commerce Center
 City of Calimesa, Riverside County, California
Soils Map
Figure 4

(Aerial obtained from Google Earth, May 2023; data from NRCS [2023])



Oak Valley North Commerce Center
City of Calimesa, Riverside County, California
MSHCP Riverine Resources
as Mapped by the Wildlife Agencies
Figure 5





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APPENDIX A: 2024 REVISED BIOLOGICAL RESOURCES ASSESSMENT REPORT

APPENDIX B: 2022 JURISDICTIONAL DELINEATION

APPENDIX C: 2024 FOCUSED PROTOCOL WET AND DRY FAIRY SHRIMP SURVEY