L&L ENVIRONMENTAL, INC.
REGULATORY SERVICES
BIOLOGICAL & CULTURAL INVESTIGATIONS & MONITORING

HABITAT ASSESSMENT FOR NARROW ENDEMIC PLANTS, FOCUSED BREEDING SEASON SURVEY FOR BURROWING OWL, FAIRY SHRIMP SURVEY, AND URBAN WILDLANDS INTERFACE ANALYSIS 30075 GRAND AVENUE, PPT 190038, PORTION OF APN 461-140-050, WINCHESTER AREA, RIVERSIDE COUNTY, CALIFORNIA

±21.38 Acre Property, ±21.38 Acres Surveyed

Portion of APN 461-140-050, PPT 190038, Winchester Area, Section 30 of Township 5 South, Range 2 West, USGS *Romoland, CA* 7.5' Topographic Quadrangle Map

Prepared For:

Bruno Buigues
SoCal Mulch, Inc.
30141 Antelope Road, Suite 116
Menifee, CA 92584

% Rich Soltysiak
RDS and Associates
30519 Wailea Court
Temecula, CA 92592
951-691-7706
rds11@dslextreme.com

Prepared By:

Leslie Irish, Principal — lirish@llenviroinc.com
Guy Bruyea, Field Biologist — gbruyea@llenviroinc.com
Carla Wakeman, Senior Biologist — cwakeman@llenviroinc.com
Jeffrey Sonnentag, Technical Editor — jsonnentag@llenviroinc.com

Report Summary:

The site is entirely disturbed or developed and there is no habitat for narrow endemic plants or riparian birds. No listed or special status plants observed. Four special status wildlife species observed: Cooper's hawk, great egret, Nuttall's woodpecker, and San Diego black-tailed jackrabbit. No natural vernal pools present, but evidence of ponding and potential fairy shrimp habitat. A protocol survey found the common versatile fairy shrimp but no listed fairy shrimp. Potentially suitable habitat for burrowing owl, but no owls or owl sign observed. A pre-construction survey for burrowing owl required. Suitable habitat for nesting birds and a pre-construction survey recommended during nesting season. Suitable habitat for roosting bats and avoidance measures recommended. A concrete v-ditch runs along the site and appears to empty into Salt Creek Channel (PQP conserved land). Measures should be put in place to avoid discharge of untreated surface runoff into Salt Creek via this v-ditch. Use of landscaping plants on MSHCP Table 6-2 shall be avoided.

Surveys By: Guy Bruyea (habitat assessment, burrowing owl), Garrett Huffman (fairy shrimp)

Surveys On: June, July, August 2020 (habitat assessment, burrowing owl), September 2020 through March 2021 (fairy shrimp)

Report Date: October 2020, Revised (RTC) December 2020, updated May 2021

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MANAGEMENT SUMMARY

L&L Environmental, Inc. conducted a biological survey for SoCal Mulch, Inc. on a portion of Assessor's Parcel Number (APN) 461-140-050, a ±21.38-acre proposed development site in the Winchester area of Riverside County, California. The purpose of this study was to examine the subject property for the presence/absence of biological resources and habitat for special status species.

The proposed project (Project) will construct a recreational vehicle (RV) storage yard with 135 RV stalls on ±2.9 acres in the northwest corner of the property. Site work will consist of spreading base material at grade to provide for a pervious parking surface. The base material will come from existing onsite stockpiles. There are no proposed structures or utility improvements.

The site is within the area covered by the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) but is not within an MSHCP Criteria Cell. MSHCP conserved lands within one mile of the site consist of Salt Creek Channel, which is owned by Riverside County Flood Control and designated as public/quasi-public (PQP) conserved land. The MSHCP requires a habitat assessment to address riparian/riverine and vernal pool habitats (along with those species associated with such habitat), burrowing owl, and six (6) narrow endemic plant species (Munz's onion, San Diego ambrosia, many-stemmed dudleya, spreading navarretia, California Orcutt grass, and Wright's trichocoronis).

The site is located about three (3) miles east of I-215, at the southeast corner of the intersection of Briggs Road and Grand Avenue. Grand Avenue is currently a dirt road that is partially graveled. Briggs Road is a major paved road. The general area surrounding the site includes a mix of disturbed open space, active and fallow agricultural lands, low-density rural residential developments, and high-density residential subdivisions.

The parcel consists of two distinct areas separated by fencing. The Project site includes the western approximately two-thirds of the parcel, which is highly disturbed and contains several structures and large piles of rock and other material. The vegetation in this area appears to have been recent disked or mowed. The eastern approximately one-third of the parcel is not a part of the Project and is addressed in a separate report (CUP 200009).

The site has been disturbed for agricultural and other uses since at least 1967. The site is entirely disturbed and/or developed and vegetation present is mainly ruderal (weedy) or

ornamental. There is no native habitat present and no habitat for narrow endemic plants. No federal or state-listed or special status plant species were observed.

No federal or state-listed endangered or threatened wildlife species were observed. Four special status wildlife species were observed: Cooper's hawk, great egret (fly over), Nuttall's woodpecker, and San Diego black-tailed jackrabbit. Cooper's hawk and San Diego black-tailed jackrabbit are covered species under the MSHCP and considered adequately conserved. Great egret is not a covered species under the MSHCP but was not observed utilizing the site. Nuttall's woodpecker is also not a covered species under the MSHCP.

Pools or depressions characteristic of natural vernal pool habitat were not observed onsite. However, evidence of ponding was observed in several areas of the site (e.g., cracked soils in shallow depressions). Potential habitat for fairy shrimp is present and a protocol fairy shrimp survey found the common versatile fairy shrimp in two ponding areas. No listed fairy shrimp were found.

Potentially suitable habitat for burrowing owl is present, but no burrowing owls, occupied burrows, or owl sign were observed. A preconstruction clearance survey will be required within 30 days prior to the start of site disturbance.

There is suitable habitat for nesting birds, including raptors, on and adjacent to the site. A nesting bird clearance survey is recommended within three (3) days prior to the start of Project activities within the nesting season (February 1 to September 15). If nesting birds are present, avoidance of nest sites is required and a buffer of 300 to 500 feet (or as determined by a biologist) is recommended while the nest is active.

No riparian vegetation communities are present on the site and there is no habitat for least Bell's vireo, southwestern willow flycatcher, or western yellow-billed cuckoo.

The Project site includes structures and trees/palm trees that may provide suitable roosting habitat for bats, including special status bats. If any structures will be demolished or trees removed/trimmed, preconstruction bat surveys and measures to protect roosting bats, maternity colonies, and hibernacula (if present) are recommended.

The site is entirely surrounded by roadways, residential development, active agricultural land, and other development and does not function as part of a wildlife corridor.

There are no USGS mapped blue-line streams or natural drainages on the site. A concrete v-ditch is present along the site's western boundary and appears to empty into Salt Creek Channel, designated as public/quasi-public (PQP) conserved land. Measures should be put in place to avoid discharge of untreated surface runoff into Salt Creek Channel via the concrete v-ditch. Stormwater systems for the Project should be designed to prevent the release of toxins, chemicals, petroleum products, exotic plant materials, or other elements that might degrade Salt Creek Channel. Installation of landscaping plants on MSHCP Table 6-2 shall be avoided.

1.0) INTRODUCTION

The following report was prepared by L&L Environmental, Inc. (L&L) for SoCal Mulch, Inc. It describes the results of biological surveys, including habitat assessments for narrow endemic plants and burrowing owl, a focused survey for burrowing owl, and a protocol survey for fairy shrimp on a proposed site for a recreational vehicle (RV) storage yard in the Winchester area of Riverside County, California. The Project site consists of the western portion of Assessor's Parcel Number (APN) 461-140-050, totaling ±21.38 acres.

The assessment consisted of (1) a records search and literature review, conducted to determine the species of concern in the project area and proximity to documented special status species occurrences, (2) field reconnaissance, intended to identify plants and animals on the property and presence/absence of habitat for species of concern, including burrowing owl and narrow endemic plants, (3) a focused breeding season survey for burrowing owl, and (4) a habitat assessment for fairy shrimp and consecutive wet and dry season protocol surveys for fairy shrimp.

1.1) Project Description

The proposed project (Project) will construct an RV storage yard with 135 RV stalls on ±2.9 acres in the northwest corner of the property (PPT 190038). Site work will consist of spreading Class 2 base material at grade to provide for a pervious parking surface. The base material will come from existing onsite stockpiles. There are no proposed structures or utility improvements. See the Site Plan in Figure 5 and Appendix E. The eastern portion of the parcel is not a part of the Project and is addressed in a separate report (CUP 200009).

1.2) Location

The site is located in the Winchester area of Riverside County, California (Figure 1). Specifically, the site is located at 30075 Grand Avenue, which is approximately three (3) miles east of I-215 at the southeast corner of the intersection of Briggs Road and Grand Avenue. The parcel is located in Section 30 of Township 5 South, Range 2 West, on the U.S. Geological Survey (USGS) *Romoland, CA* topographic quadrangle (Figure 2).

The site is generally bounded as follows: to the west by Briggs Road, with high-density residential housing developments beyond; to the east by disturbed vacant land, scattered rural residential housing, and dog kennels, with water storage/treatment ponds and vacant land

beyond; to the north by Grand Avenue and agricultural land, with vacant land beyond; and to the south by agricultural land (Figure 3).

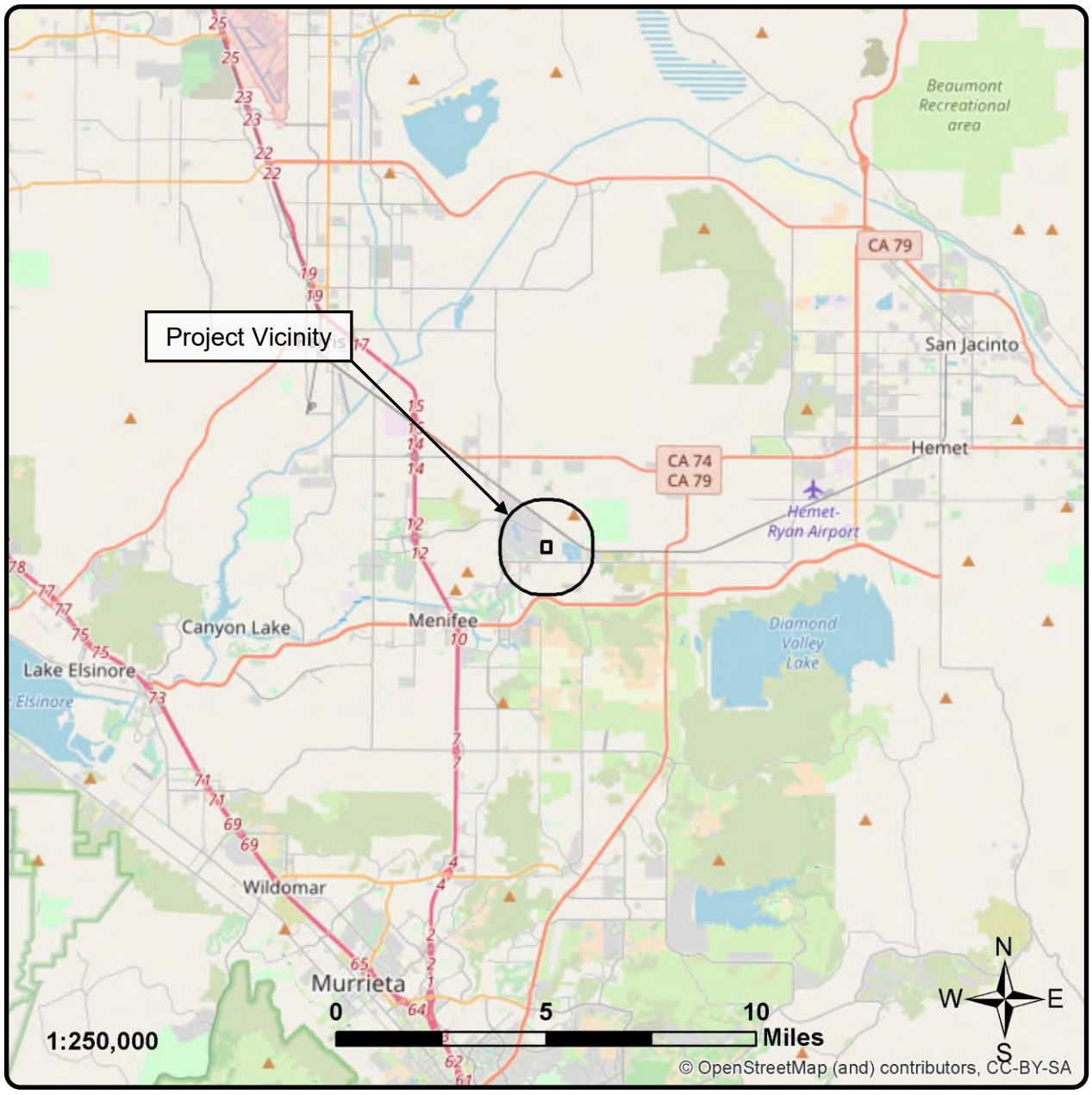

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Figure 1

Project Vicinity Map

RV Storage Yard, Winchester Area
County of Riverside, California

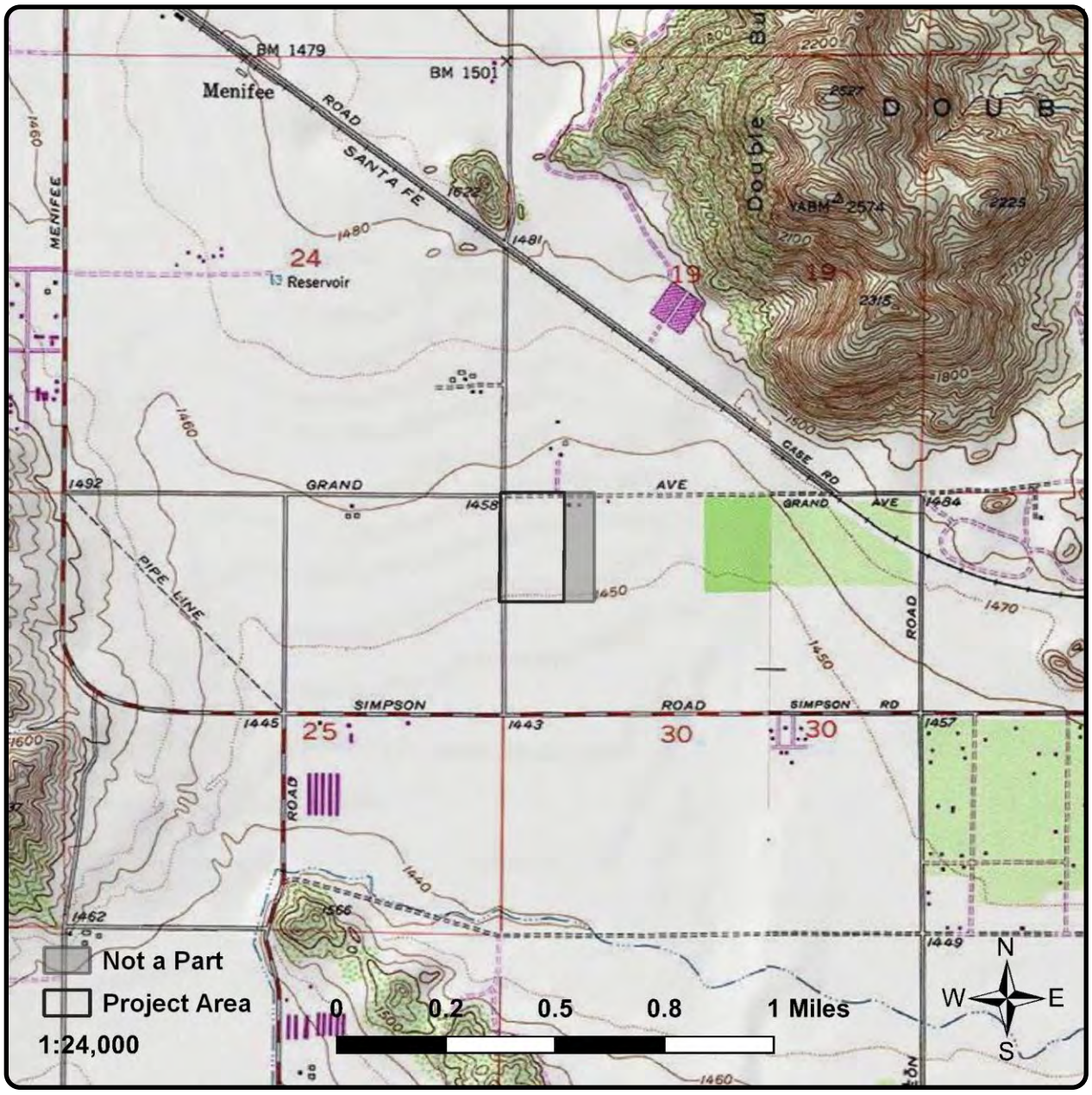

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Figure 2

Project Location Map
(USGS Romoland [1979] quadrangle,
Section 30, Township 5 South, Range 2 West)

Menifee RV, Winchester Area
County of Riverside, California

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Figure 3

Aerial Photograph
(Aerial obtained from Google Earth, December 2018)

Menifee RV, Winchester Area
County of Riverside, California

1.3) Vegetation and Setting

A review of aerial images (Google Earth 2020, NETR 2020) shows that the site has been disturbed for agricultural and other uses since at least 1967. The site is entirely disturbed and/or developed and vegetation present is mainly ruderal (weedy) or ornamental.

The perimeter of the site is fenced and the parcel is separated into two distinct areas by a combination of chain link and barbed wire fence. The Project site consists of the western approximately two-thirds of the parcel, which is highly disturbed and contains several structures near its northern boundary. Several large rock, base material, concrete debris, and/or sand piles (no mulch piles) are present on the central portion of the Project site, and there is evidence of recent disking or mowing, especially along the western edge. There are remains of concrete pavement on the ground in some areas.

A concrete v-ditch is present along the site's western boundary (between the site and Briggs Road) that runs from north to south.

The eastern approximately one-third of the parcel is not a part of the Project and is addressed in a separate report (CUP 200009).

1.4) Soils and Topography

The site topography is generally flat, except for the piles of materials, with elevation decreasing gradually from north to south. Elevation onsite ranges from 1,453 feet above mean sea level (AMSL) at the southeast corner to 1,462 feet AMSL at the northwest corner. Soils onsite are mapped as Exeter sandy loam, deep (0-2% slopes), Greenfield sandy loam (0-2% slopes), and Hanford coarse sandy loam (0-2% slopes) (NRCS 2021) (Figure 4).

No USGS mapped blue-line streams or natural drainages are present on the site. A concrete v-ditch is present along the western site boundary between the Project site and Briggs Road. There are small berms and many piles of gravel and other materials on the site. Several areas have evidence of temporary ponding (shallow depressions with cracked soils).

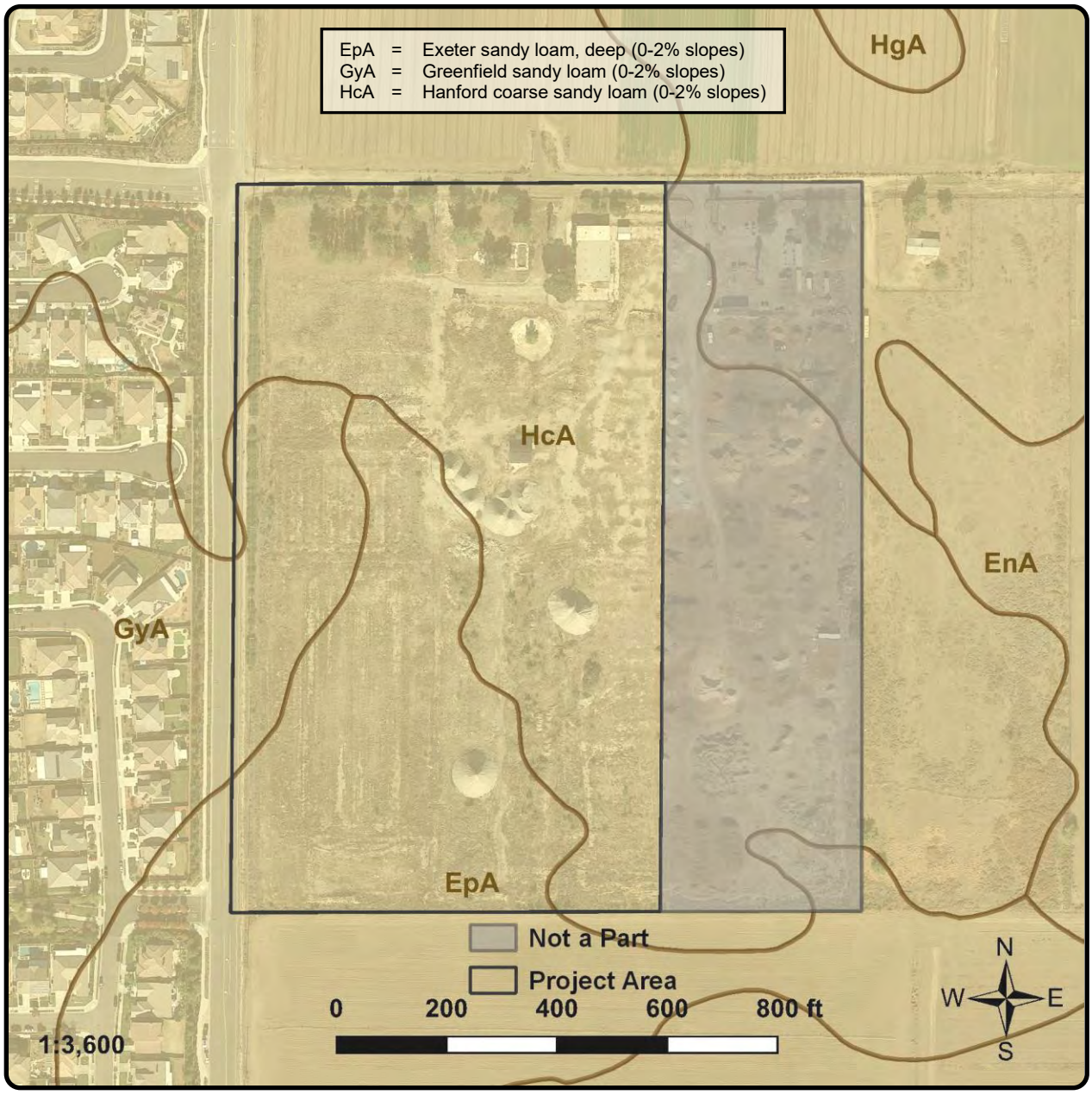

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Figure 4

Soils Map

(Aerial obtained from Google Earth, December 2018, USDA Nat. Res. Cons. Serv. SSURGO Data)

Menifee RV, Winchester Area
County of Riverside, California

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Figure 5
Site Plan
(Full size site plan in Appendix E)
(Aerial obtained from Google Earth, December 2018, USDA Nat. Res. Cons. Serv. SSURGO Data)

RV Storage Yard, Winchester Area
County of Riverside, California

2.0) METHODS AND PERSONNEL

2.1) Literature Review

Certain plants and animals have been listed as threatened or endangered under state or federal Endangered Species Acts. Other species have not been formally listed, but declining populations or habitat availability are reasons for concern regarding their long-term viability. These species are included in lists compiled by resource management agencies or private conservation organizations. In this report, the term "listed species" refers to all species listed as threatened or endangered or a candidate for listing as threatened or endangered under the Federal Endangered Species Act (FESA) or the California Endangered Species Act (CESA). A "special status species" refers to all species included in one or more compendia of rare species, but not listed under FESA or CESA.

In this report, the "Project" or "Project site" refers to the western portion of the parcel only (±21.38 acres) plus any buffers required by protocol. No offsite areas impact areas have been defined and none are included. The eastern portion of the parcel is not a part of the Project and is addressed in a separate report (CUP 200009).

Pertinent literature was reviewed to identify local occurrences and habitat requirements of special status species and communities occurring in the region. Literature reviewed included compendia provided by resource agencies (CDFW 2021a, 2021b), the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP; Dudek 2003), and a search of the California Natural Diversity Database (CNDDB; CDFW 2021c) for the *Romoland, CA* topographic quadrangle and adjacent quadrangles.

Scientific names of plants follow Baldwin et al. (2012) with updates from the online Jepson eFlora (Jepson 2021). Scientific names of animals follow Stebbins (1985), Jameson and Peeters (1988), Cornell Laboratory of Ornithology (2021), and Arnett (2000), with updates from academic sources. Current conservation status of plant and wildlife species determined from CDFW (2021a, 2021b). Vegetation community classifications follow Sawyer et al. (2009) with updates from CDFW (2018). State ranks (S ranks) for vegetation communities are from CDFW (2020). MSHCP conservation status from Dudek (2003) and RCA (2020). Documented occurrences are from the CNDDB (CDFW 2021c) unless otherwise indicated.

2.2) Biological Surveys

L&L biologist Guy Bruyea visited the project area on June 8, 2020 to describe vegetation and habitat and evaluate the site for the presence of suitable habitat for special status wildlife and

plant species, including burrowing owl and narrow endemic plants. Mr. Bruyea also conducted a focused breeding season burrowing owl survey in July and August 2020 (Table 1, Figure 6).

Table 1. Survey dates, times, and weather conditions.

Date	Time	Sunrise*	Weather	Wind (mph)	Purpose
06.08.2020	0700-1030	0536	Sunny/Clear, 55-69ºF	1-8	Habitat Assessment
07.07.2020	0700-0845	0544	Sunny/Clear, 65-75ºF	1-3	Focused Survey
07.16.2020	0700-0830	0549	Marine Layer/Clear, 65-75ºF	0-2	Focused Survey
07.27.2020	0700-0845	0556	Sunny/Clear, 63-72ºF	0-2	Focused Survey
08.11.2020	0700-0830	0607	Sunny/Clear, 61-73ºF	0-1	Focused Survey

*Sunrise times from www.timeanddate.com

A total of about 10 person-hours were spent onsite. All habitat types onsite were visited on foot. The site was surveyed by conducting a series of meandering transects across the subject property where possible, stopping periodically for observations and notations. A general habitat map and field notes were completed at the time of the survey. All field surveys were conducted during daylight hours. Digital photographs were taken to record condition of the site during the survey.

The site was examined for suitable burrow sites and for signs of occupation by burrowing owl, including pellets, feathers, whitewash (excrement), prey remains, and eggshell fragments, as well as individual owls. A search for potentially suitable burrows within any dirt, wood, and rock debris piles, artificially created berms, and other locations was conducted during the surveys.

Focused surveys were conducted in all areas identified during the habitat assessment survey as potential burrowing owl habitat, including open areas onsite and areas where California ground squirrel (*Spermophilus beechyi*) activity was observed or expected (i.e., potentially suitable burrows). An additional 150-meter (500-foot) buffer area surrounding the site was visually inspected, where possible, in areas identified as potential burrowing owl habitat (Figure 6). Any developed areas were visually surveyed with binoculars due to trespassing concerns on private property.

Transects were walked throughout the property where suitable habitat is present. Coupled with binocular surveys of any restricted offsite areas, this allowed for complete visual ground coverage of the survey area. Distance between transects was approximately 15 to 20 meters (Figure 6).

The MSHCP protocol requires burrowing owl surveys to be conducted during the breeding season from March 1 to August 31 and the current survey was conducted during this timeframe. Per the MSHCP protocol for burrowing owl surveys (RCA 2006), surveys should be conducted during weather that is conducive to observing owls outside their burrows and detecting burrowing owl sign. Surveys are not acceptable if they are conducted during rain, high winds (>20 mph), dense fog, or temperatures over 90°F. Surveys should be conducted in the morning one hour before sunrise to two hours after sunrise or in the early evening two hours before sunset to one hour after sunset. The surveys were conducted during appropriate weather conditions (Table 1). Due to locked gates, access to the site was not available before 7:00 am.

Any plants of uncertain identity were collected and subsequently identified from keys, descriptions, and illustrations in Abrams (1923, 1944, and 1951), Abrams and Ferris (1960), Munz (1974), and Parker (1999).

2.2.1) Fairy Shrimp Survey

Biologist Garrett Huffman of Huffman Environmental conducted a habitat assessment and protocol survey for fairy shrimp on the site in accordance with U.S. Fish and Wildlife Service (USFWS) Survey Guidelines for Listed Large Branchiopods (USFWS 2017). Mr. Huffman is permitted to survey for federally listed fairy shrimp under Section 10(a)(1)(A) of the Federal Endangered Species Act (Permit TE20186A-2.1).

The habitat assessment was conducted on September 28, 2020. Wet season surveys were conducted from November 14, 2020 to May 9, 2021. Dry season samples were collected by Mr. Huffman in September 2020 and processed by permitted biologist Chuck Black (Permit TE835549-7) of Ecological Restoration Service. A fairy shrimp survey report is included in Appendix F and includes details on the survey methodology, as well as signed certifications from Mr. Huffman and Mr. Black.

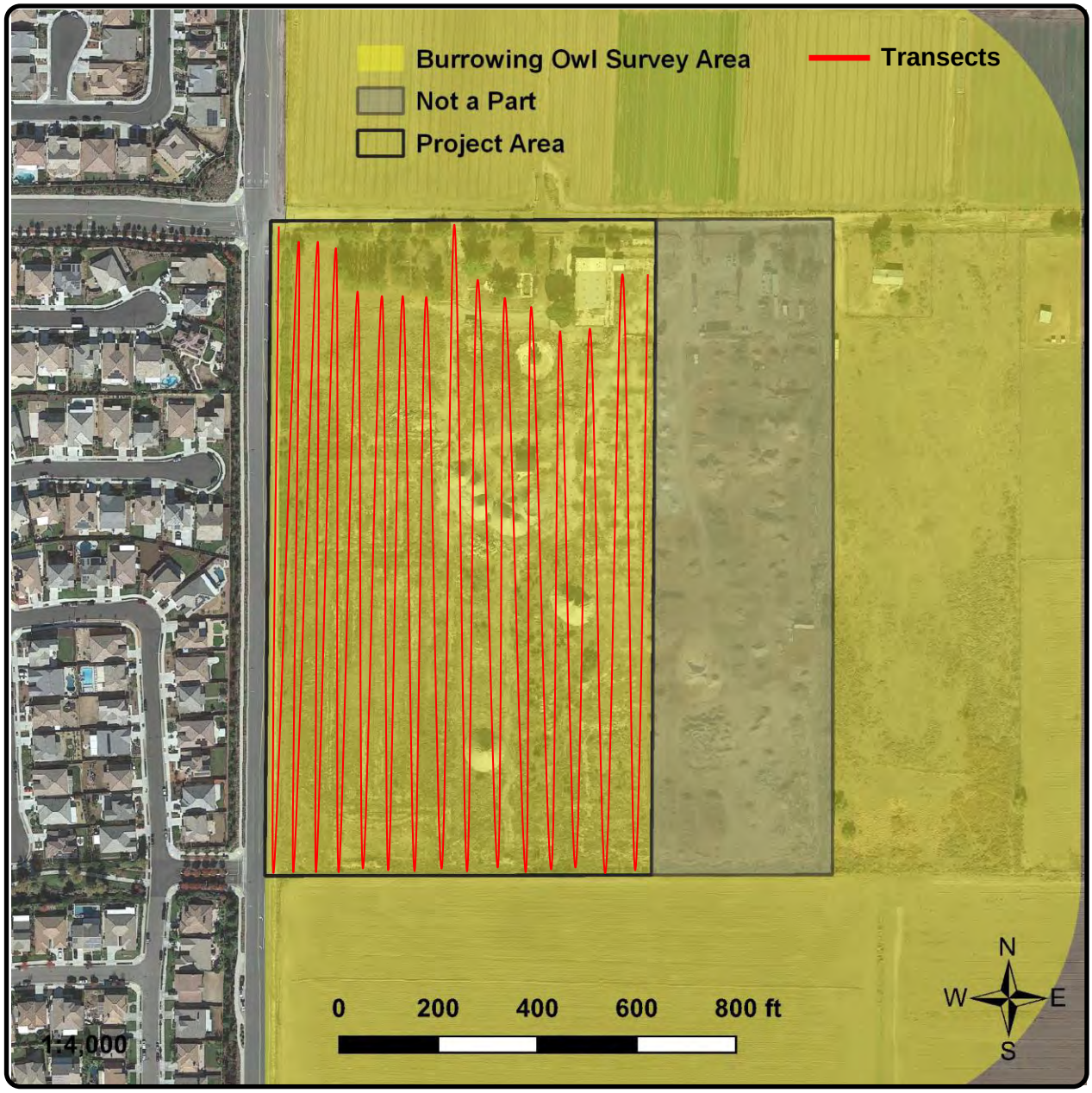

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Figure 6

Burrowing Owl Survey Area
(Aerial obtained from Google Earth, December 2018)

Menifee RV, Winchester Area
County of Riverside, California

3.0) RESULTS

3.1) Literature Review Results

The site is not located within the MSHCP Criteria Area. Surveys required by the MSHCP are a habitat assessment to address riparian/riverine and vernal pool habitats, fairy shrimp, burrowing owl, and narrow endemic plant species. The narrow endemic plant species are Munz's onion (*Allium munzii*), San Diego ambrosia (*Ambrosia pumila*), many-stemmed dudleya (*Dudleya multicaulis*), spreading navarretia (*Navarretia fossalis*), California Orcutt grass (*Orcuttia californica*), and Wright's trichocoronis (*Trichocoronis wrightii* var. *wrightii*).

MSHCP conserved lands within one mile of the site consist of Salt Creek Channel, which is owned by Riverside County Flood Control and designated as public/quasi-public (PQP) conserved land. The Channel is about 0.66 miles south of the Project site. There are no other MSHCP conserved lands within one mile of the site.

Briggs Road is a major paved road included in the MSHCP mapped road rights-of-way. Grand Avenue is a dirt road that has been partially graveled. The section of Grand Avenue adjacent to the Project site is not included in the MSHCP mapped road rights-of-way.

3.1.1) Precipitation Data

Precipitation data was obtained from the Riverside County Flood Control Perris weather station for January 2015 through April 2021 (RCFC 2021) (Table 2). The station is located approximately 7.4 miles northwest of the Project site at an elevation of about 1,470 feet. Average annual precipitation for the region is 10 to 15 inches (WRCC 2018). Average annual rainfall at this weather station over the past 64 years is 12.28 inches (RCFC 2021).

Table 2. Precipitation data (inches)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2015	0.53	1.04	0.31	0.54	0.80	0	2.43	0	1.24	0.92	0.46	1.03	9.30
2016	3.03	0.51	1.27	1.10	0.11	0	0	0	0	0.79	1.35	3.94	12.10
2017	6.80	2.63	0.16	0.02	0.27	0	0	0.17	0.07	0	0.09	0	10.21
2018	3.26	0.54	2.43	0	0.52	0	0.07	0.06	0	0.93	1.27	1.27	10.35
2019	3.19	7.18	2.74	0.06	1.73	0.02	0.01	0	0.02	0	2.52	3.14	20.61
2020	0.43	0.45	4.81	4.35	0	0.11	0	0.02	0	0	0.10	0.85	11.12
2021	1.71	0.04	1.86	0.04	--	--	--	--	--	--	--	--	--

3.2) Vegetation Communities

A review of aerial images (Google Earth 2020, NETR 2020) shows that the site has been disturbed for agricultural and other uses since at least 1967. A number of structures are evident throughout the site in aerial images from the late 1990s and early 2000s. Per a conversation with the proponent's representative, these structures were associated with a fish farming operation that previously occupied the site. The site is entirely disturbed or developed and vegetation present is primarily ruderal or ornamental. There is no native habitat present (Table 3). Representative photos are included in Appendix B.

The parcel is separated into two distinct areas by fencing. The Project site consists of the western approximately two-thirds of the parcel, which is highly disturbed and contains several structures near its northern boundary. Several conspicuous rock, base material, and/or sand piles (no mulch piles) are present on the central portion of this area, and there is evidence of recent disking or mowing, especially along the western edge.

The eastern approximately one-third of the parcel is not a part of the Project and is addressed in a separate report (CUP 200009).

No riparian or wetland vegetation communities are present. One black willow tree (*Salix gooddingii*) is present on the western portion of the site but is growing in the center of a concrete slab and is not part of any naturally occurring riparian habitat. Several areas with cracked soils in shallow depressions indicate that temporary ponding occurs on the site, but no vernal pool or wetland vegetation is present.

Table 3. Vegetation communities within the survey area

Vegetation Community	**Area (acres)**
Disturbed/developed/ornamental	21.38
Total	**21.38**

3.2.1) Disturbed/Developed/Ornamental

The Project site contains a mixture of ornamental, native, and mostly non-native weedy plant species. Non-native grasses commonly observed throughout this area include ripgut brome (*Bromus diandrus*), red brome (*Bromus madritensis* ssp. *rubens*), wild oats (*Avena fatua*), and Mediterranean grass (*Schismus barbatus*). Additional non-native plants commonly observed

include (but are not limited to) flax-leaved horseweed (*Erigeron bonariensis*), common sow thistle (*Sonchus oleraceus*), prickly lettuce (*Lactuca serriola*), tree tobacco (*Nicotiana glauca*), Russian thistle (*Salsola tragus*), short-pod mustard (*Hirschfeldia incana*), London rocket (*Sisymbrium irio*), perennial pepperweed (*Lepidium latifolium*), redstem filaree (*Erodium cicutarium*), stinknet (*Oncosiphon pilulifer*), and tocalote (*Centaurea melitensis*).

Native annuals that are tolerant of disturbed or waste places observed on the site include common fiddleneck (*Amsinckia menziesii*), western sunflower (*Helianthus annuus*), doveweed (*Croton setiger*), jimsonweed (*Datura wrightii*), telegraph weed (*Heterotheca grandiflora*), horseweed (*Erigeron canadensis*), Deane's wreath plant (*Stephanomeria exigua* ssp. *deanei*), and annual bur-sage (*Ambrosia acanthicarpa*).

Ornamental trees and shrubs on the site include gumtree (*Eucalyptus* species), pine (*Pinus* species), Sydney golden wattle (*Acacia longifolia*), Chilean mesquite (*Prosopis chilensis*), Chilean pepper tree (*Schinus polygama*), Peruvian pepper tree (*Schinus molle*), tamarisk (*Tamarix* species), oleander (*Nerium oleander*), and Mexican fan palm (*Washingtonia robusta*).

3.3) Plant Species

A total of 47 plant species were identified during the survey. Of the 47 species, 34 (72 percent) are non-native or ornamental. Additional annual plant species may occur but were not detected due to timing of the survey. No federal or state-listed or special status plant species were observed and the site is not within USFWS designated critical habitat for any listed plant species. A list of observed plant species is included in Appendix A.

3.3.1) Narrow Endemic Plants

Based on habitat and soils present, non-native plant growth, and long-term and ongoing disturbances associated with current and past land use, native habitat to support narrow endemic plants is absent from the site.

Munz's Onion

Munz's onion (*Allium munzii*) is a perennial bulb-forming herb in the Alliaceae (Onion) family. It flowers from March to May and is found on mesic clay soils in chaparral, cismontane woodland, coastal scrub, pinyon juniper woodland, and valley and foothill grassland at elevations from 975 to 3,500 feet. It is endemic to southwestern Riverside County (CNPS 2020).

This species is associated with clay and cobbly clay soils in the Altamont, Auld, Bosanko, Claypit, and Porterville series. This species is restricted to heavy clay soils that are scattered in a band several miles wide and extending some 40 miles southeast from Corona through Temescal Canyon and along the Elsinore Fault Zone to the southwestern foothills of the San Jacinto Mountains (Dudek 2003).

The species is state listed as threatened, federally listed as endangered, and has a California Rare Plant Rank (CRPR) of 1B.1 (rare, threatened, or endangered in California and elsewhere; seriously threatened in California). Under the MSHCP, Munz's onion is considered adequately conserved, but surveys are required in certain areas and mitigation is required if the species is present.

There is one CNDDB documented occurrence of Munz's onion within 5 miles of the Project site (CDFW 2020b). This is Element Occurrence (EO) #21 from 1897 and the exact location is unknown. The next nearest documented locations in the CNDDB are mapped about 6.0 miles west-southwest, about 6.1 miles east, and about 5.5 miles south of the site.

Munz's onion was not observed during surveys, but the surveys were conducted outside of the species flowering period. Suitable clay soils have not been mapped onsite and were not detected during the survey. Munz' onion plants are most frequently found in areas that are minimally disturbed and where there is little competition and overcrowding from non-native plants (USFWS 2012). There is no native habitat remaining on the site and substantial growth of non-native plants. Based on soils, disturbances associated with current and past land use, and the growth of non-native plants onsite, suitable habitat to support Munz's onion is absent from the Project site.

San Diego Ambrosia

San Diego ambrosia (*Ambrosia pumila*) is a perennial herb in the Asteraceae (Aster) family. It flowers from April through October and spreads mainly through underground stems (rhizomes). It is found in sandy loam or clay soils, sometimes in alkaline soils, and often in disturbed areas

within chaparral, coastal scrub, valley and foothill grassland, and vernal pools. Its elevation range is from 65 to 1,360 feet. The U.S. Fish and Wildlife Service (USFWS) considers the elevation range to extend to 1,600 feet (USFWS 2010). It is distributed from western Riverside County and western San Diego County south to Baja California, Mexico (CNPS 2020).

In western Riverside County, this species is found in the vicinity of Alberhill and Skunk Hollow. It occurs in a variety of associations that are dominated by sparse non-native grasslands or ruderal habitat in association with river terraces, vernal pools, and alkali playas (Dudek 2003). The species can be found in disturbed or ruderal habitat (disturbed communities containing a mixture of native and nonnative grasses and forbs), although thick growth of non-native plants can outcompete it. This species may require periodic flooding for some segment of its life cycle. Of the 16 known occurrences of San Diego ambrosia, five (5) are found in Riverside County (USFWS 2010).

The species is not state listed; it is federally listed as endangered and has a CRPR of 1B.1 (rare, threatened, or endangered in California and elsewhere; seriously threatened in California). Under the MSHCP, San Diego ambrosia is considered adequately conserved, but surveys are required in certain areas and mitigation is required if the species is present.

There are no CNDDB documented occurrences of San Diego ambrosia within five (5) miles of the site. The nearest occurrence is about 10.5 miles to the south at the Skunk Hollow vernal pool.

San Diego ambrosia is found primarily on the upper terraces of rivers and drainages and is also found in the watershed of a large vernal pool (Skunk Hollow). However, the species may also be found in ruderal habitats such as fire fuel breaks and edges of dirt roadways (USFWS 2010).

San Diego ambrosia was not observed on the site during surveys. Although this species may be found in disturbed or ruderal habitat, the site has been subject to long-term and ongoing disturbance. Where disturbance has not removed all or nearly all vegetation, there is thick growth of non-natives. Based on this information, habitat to support San Diego ambrosia is absent from the Project site.

Many-stemmed Dudleya

Many-stemmed dudleya (*Dudleya multicaulis*) is a perennial herb in the Crassulaceae (Stonecrop) family. It flowers from April through July and is found in chaparral, coastal scrub,

and valley and foothill grassland, often on clay soils. Its elevation range is 50 to 2,600 feet. It is found in coastal southern California (CNPS 2020).

Many-stemmed dudleya is associated with openings and thinly vegetated areas in chaparral, coastal sage scrub, and grasslands underlain by clay and cobbly clay soils of the Altamont, Auld, Bosanko, Claypit, and Porterville series. In western Riverside County, the majority of the known populations are from the Temescal Canyon, Gavilan Hills, and Alberhill areas and the Santa Ana Mountains (Dudek 2003).

Many-stemmed dudleya is typically associated with clay soils in barrens, rocky places, and ridgelines as well as thinly vegetated openings in chaparral, coastal sage scrub, and southern needlegrass grasslands on clay soils. Most populations are associated with coastal sage scrub (Dudek 2003).

The species is not state or federally listed; it has a CRPR of 1B.2 (rare, threatened, or endangered in California and elsewhere; moderately threatened in California). Under the MSHCP, many-stemmed dudleya is considered adequately conserved, but surveys are required in certain areas and mitigation is required if the species is present.

There are no CNDDB documented occurrences of many-stemmed dudleya within five (5) miles of the site. The nearest occurrence is about 13.4 miles to the west on the south side of Alberhill Mountain, adjacent to open pit clay mines.

Many-stemmed dudleya was not observed during surveys. Suitable clay soils have not been mapped onsite and were not detected during the survey. There is no native habitat remaining on the site and substantial growth of non-native plants. Based on soils, disturbances associated with current and past land use, and the thick growth of non-native plants onsite, suitable habitat to support many-stemmed dudleya is absent from the Project site.

Spreading Navarretia

Spreading navarretia (*Navarretia fossalis*) is an annual herb in the Polemoniaceae (Phlox) family. It flowers from April through June and is found in chenopod scrub, shallow freshwater marshes, playas, and vernal pools at elevations from 100 to 2,150 feet. It is found in coastal southern California north to San Luis Obispo County and south to Baja California, Mexico (CNPS 2020).

In western Riverside County, this species is primarily found on the alkali floodplains of the San Jacinto River, Mystic Lake, and Salt Creek in association with Willows, Domino, and Traver soils. It has also been reported on the Santa Rosa Plateau and at Skunk Hollow. Spreading navarretia is usually associated with vernal pools and depressions and ditches in areas that once supported vernal pools (Dudek 2003).

The species is not state listed; it is federally listed as threatened and has a CRPR of 1B.1 (rare, threatened, or endangered in California and elsewhere; seriously threatened in California). Under the MSHCP, spreading navarretia is considered adequately conserved, but surveys are required in certain areas and mitigation is required if the species is present.

There are four CNDDB documented occurrences of spreading navarretia within five (5) miles of the site. These are EO #24 about 4.7 miles east of the site at the Stowe vernal pool (last reported in 2006), EO #46 about 3.4 miles southwest of the site (last reported in 2005), EO #72 about 4.3 miles south of the site (last reported in 2015), and EO #85 about 4.2 miles east of the site (last reported in 2006). All of these EOs documented spreading navarretia found in association with other vernal pool indicator plants.

Spreading navarretia was not observed during surveys. Although several depressions that pond water were observed at the site, no native vernal pool vegetation was found in any of them. These depressions were sparsely vegetated with non-natives and/or common native species such as horseweed (*Erigeron canadensis*) and wild heliotrope (*Heliotropium curassavicum*). Based on survey results, disturbances associated with current and past land use, the thick growth of non-native plants onsite, and the lack of any native vernal pool vegetation in the depressions, suitable habitat to support spreading navarretia is absent from the Project site.

California Orcutt Grass

California Orcutt grass (*Orcuttia californica*) is an annual herb in the Poaceae (Grass) family. It flowers from April through August and is found in vernal pool habitat at elevations from 50 to 2,165 feet. It is found in coastal southern California and Baja California, Mexico (CNPS 2020).

In western Riverside County, this species is primarily restricted to the southern basaltic claypan vernal pools at the Santa Rosa Plateau, and alkaline vernal pools at Skunk Hollow and Salt Creek west of Hemet (Dudek 2003).

The species is state listed as endangered, federally listed as endangered, and has a CRPR of 1B.1 (rare, threatened, or endangered in California and elsewhere; seriously threatened in California). Under the MSHCP, California Orcutt grass is considered adequately conserved, but surveys are required in certain areas and mitigation is required if the species is present.

There are three CNDDB documented occurrences of California Orcutt grass within five (5) miles of the site. These are EO #2 about 1.9 miles southwest of the site (last reported in 1941, exact location unknown), EO #27 about 4.7 miles east of the site at the Stowe vernal pool (last reported in 2006), and EO #40 about 4.3 miles south of the site (last reported in 2015). EOs #27 and #40 documented California Orcutt grass found in association with other vernal pool indicator plants, including spreading navarretia.

California Orcutt grass was not observed during surveys. Although several depressions that pond water were observed at the site, no native vernal pool vegetation was found in any of them. These depressions were sparsely vegetated with non-natives and/or common native species such as horseweed and wild heliotrope. Based on survey results, disturbances associated with current and past land use, the growth of non-native plants onsite, and the lack of any native vernal pool vegetation in the depressions, suitable habitat to support California Orcutt grass is absent from the Project site.

Wright's Trichocoronis

Wright's trichocoronis (*Trichocoronis wrightii* var. *wrightii*) is an annual herb in the Asteraceae (Aster) family. It flowers from May through September and is found on highly alkaline, silty-clay soils (Traver, Domino, and Willows) within wet meadows and seeps, marshes, mesic riparian forest, playa, and vernal pools. Its elevation range is from 15 to 1,425 feet. It is found in the Central Valley and western Riverside County, and also in Texas and Baja California, Mexico (CNPS 2020, Dudek 2003).

In Riverside County, this species is known only from locations along the San Jacinto River and along the northern shore of Mystic Lake. This species may have once occurred at Salt Creek and possibly in the alkali wetlands in the vicinity of Lake Elsinore (Dudek 2003).

The species is not state or federal listed; it has a CRPR of 2B.1 (rare or endangered in California, common elsewhere; seriously endangered in California). Under the MSHCP, Wright's trichocoronis is considered adequately conserved, but surveys are required in certain areas and mitigation is required if the species is present.

No CNDDB documented occurrences of Wright's trichocoronis are found within five (5) miles of the project site. The nearest CNDDB documented occurrence is located approximately eight (8) miles north.

Wright's trichocoronis was not observed during surveys. Suitable silty-clay soils have not been mapped onsite and were not detected during the survey. Although several depressions that pond water were observed at the site, no native vernal pool vegetation was found in any of them. These depressions were sparsely vegetated with non-natives and/or common native species such as horseweed and wild heliotrope. Based on survey results, disturbances associated with current and past land use, the growth of non-native plants onsite, and the lack of any native vernal pool vegetation in the depressions, suitable habitat to support Wright's trichocoronis is absent from the Project site.

3.3.2) Listed and Special Status Plants

No listed or special status plant species were identified during the survey. The site has long-term and ongoing anthropogenic disturbance and undisturbed natural habitat capable of supporting most special status plants is absent.

Smooth tarplant (*Centromadia pungens* ssp. *laevis*) is an annual herb in the Asteraceae (Aster) family. It flowers from April to September and is found in alkaline soils in meadows and seeps, valley and foothill grassland, playas, riparian woodland, chenopod scrub, and disturbed places from sea level to 2,100 feet elevation. It is not state or federally listed and has a CRPR of 1B.1. Smooth tarplant is a covered species under the MSHCP and considered adequately conserved. Surveys for this species are required in the MSHCP Criteria Area, but the Project is not within the Criteria Area.

Smooth tarplant was not found during surveys of the site. It was observed to be flowering and identifiable at the time of the surveys at another site in the region approximately 10.3 miles southwest of the Project site at an elevation of about 1,270 feet. This species may be found in disturbed areas and there are multiple CNDDB occurrences within five (5) miles of the site. There is potentially suitable habitat on the site and smooth tarplant has a low to moderate potential for occurrence. If present, any Project-related impacts to this species would be covered under the MSHCP.

3.4) Wildlife Species

A total of 39 vertebrate wildlife species, mostly birds, were detected during the survey. A list of all observed vertebrate wildlife species is included in Appendix A.

No federal or state-listed endangered or threatened wildlife species were observed and the site is not within USFWS designated critical habitat for any listed wildlife species.

Four special status wildlife species were observed: Cooper's hawk (*Accipiter cooperii*; CDFW Watch List), great egret (fly over) (*Ardea alba*; CDFW Special Animal), Nuttall's woodpecker (*Dryobates nuttallii*; USFWS Bird of Conservation Concern), and San Diego black-tailed jackrabbit (*Lepus californicus bennettii*; CDFW Species of Special Concern).

3.4.1) Fairy Shrimp

Soil types mapped onsite are sandy loam and are not consistent with an alkali playa or vernal pool complex (Bauder et al. 2011). Pools or depressions characteristic of natural vernal pool habitat were not observed onsite. However, evidence of ponding was observed in eight (8) areas of the site (e.g., cracked soils in shallow depressions).

No MSHCP species listed for protection associated with riparian/riverine areas or vernal pools, including fairy shrimp, were observed during the survey. However, potential habitat for fairy shrimp is present and a protocol fairy shrimp survey (consecutive wet season and dry season surveys) was conducted.

The survey found the common versatile fairy shrimp (*Branchinecta lindahli*) in two of the ponding areas on the site (Figure 7). Live shrimp were found in Pool M-03 and cysts were found in Pool M-07. Pool M-07 did not pond long enough during the survey to allow hatching of cysts. No listed fairy shrimp species were found. The fairy shrimp survey report is provided in Appendix F and provides additional details.

L&L Environmental, Inc.

BIOLOGICAL AND CULTURAL INVESTIGATIONS AND MONITORING

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Figure 7
Ponding Areas and Fairy Shrimp Survey Results
(Aerial obtained from Google Earth, December 2018)

Menifee RV, Winchester Area
County of Riverside, California

3.4.2) Burrowing Owl

Burrowing owl (*Athene cunicularia*) is protected under the California Fish and Game Code and is a CDFW Species of Special Concern. It is a small, ground-dwelling owl found in open dry grassland, desert, or shrubland areas and in uncultivated agricultural areas, rangelands, and other open areas with low-growing vegetation.

Burrows are an essential element of burrowing owl habitat. Although burrowing owl is capable of excavating its own burrows in soft soils, it typically modifies and inhabits abandoned burrows of small burrowing mammals, such as ground squirrels and pocket gophers. Burrowing owl has also been known to use man-made structures such as cement culverts, debris piles, and other artificial burrows.

Occupancy of burrowing owl habitat can be verified at a site by observation of at least one (1) owl or owl sign (molted feathers, cast pellets, prey remains, eggshell fragments, or excrement) at or near a burrow entrance. A site is considered occupied if at least one (1) owl has been identified onsite in the past three (3) years, because (if undisturbed) burrowing owls exhibit high site fidelity (CDFG 2012, CBOC 1993).

There are many CNDDB documented occurrences of burrowing owl, as well as multiple eBird records, within five (5) miles of the site.

Potentially suitable habitat and small mammal burrows are present on the site and within the buffer area to the north, east, and south. California ground squirrels and their active burrows were observed on portions of the site, especially in association with material piles. No burrowing owls, occupied burrows, or owl sign was observed on the site or in the buffer area during the survey.

Because potentially suitable habitat for burrowing owl is present, a preconstruction clearance survey will be required within 30 days prior to the start of site disturbance.

3.4.3) Nesting Birds

Nesting birds are protected under the California Fish and Game Code. There is suitable habitat for nesting birds on and adjacent to the site. Nesting birds may utilize trees and other vegetation, structures, idle vehicles/equipment, and open ground. However, given the level of ongoing disturbance on and adjacent to the site, nesting is likely to be limited to more common species that are tolerant of human presence.

Ornamental trees are present along the northern, western, and parts of the southern boundaries of the parcel. Some of the trees are of adequate size for nesting raptors, but no active raptor nests were observed during this survey. A large nest is present in one of the pine trees near the northwest corner of the site, but no raptor activity was observed at this nest during the survey.

A nesting bird clearance survey is recommended within three (3) days prior to the start of vegetation clearing, tree removal/trimming, ground disturbance, building demolition, and/or clearing/removal of materials and debris if any of these activities will begin within the nesting season (February 1 to September 15). If nesting birds are present, avoidance of nest sites is required and a buffer of 300 to 500 feet (or as determined by a biologist) is recommended until juvenile birds have fledged and are no longer dependent on the nest and/or a biologist has verified that the nest is inactive.

3.4.4) Riparian Birds

The site is entirely disturbed or developed and vegetation present is primarily ruderal or ornamental. No riparian or wetland vegetation communities are present. One black willow tree is present, but is growing in the center of a concrete slab and is not part of any naturally occurring riparian habitat.

Least Bell's vireo (*Vireo bellii pusillus*) is state and federally listed as endangered. It is a covered species under the MSHCP and considered adequately conserved, but surveys are required in suitable habitat as described in MSHCP Section 6.1.2. This species is migratory and breeds in California, arriving in March and departing by September or October. Males establish and defend territories in riparian woodlands and riparian scrub. Dense shrub cover is required for nesting.

Southwestern willow flycatcher (*Empidonax traillii extimus*) is state and federally listed as endangered. It is a covered species under the MSHCP and considered adequately conserved, but surveys are required in suitable habitat as described in MSHCP Section 6.1.2. This species inhabits dense riparian forests with ample numbers of willows and other associated trees and shrubs.

Western yellow-billed cuckoo (*Coccyzus americanus occidentalis*) is federally listed as threatened and state listed as endangered. It is a covered species under the MSHCP and considered adequately conserved, but surveys are required in suitable habitat as described in MSHCP Section 6.1.2. This species inhabits extensive riparian thickets or forests with dense,

low-level or understory foliage and abutting on slow-moving watercourses, backwaters, or seeps.

There is no riparian habitat on or adjacent to the site. The single willow present is isolated and does not provide the dense riparian habitat required by least Bell's vireo, southwestern willow flycatcher, or western yellow-billed cuckoo. Therefore, there is no suitable habitat for these species on or adjacent to the site and they are considered absent.

3.4.5) Other Special Status Wildlife

No federal or state-listed endangered or threatened wildlife species were observed during the survey. Four special status wildlife species were observed: Cooper's hawk, great egret (fly over), Nuttall's woodpecker, and San Diego black-tailed jackrabbit.

Cooper's hawk and San Diego black-tailed jackrabbit are covered species under the MSHCP and considered adequately conserved. Great egret is not a covered species under the MSHCP but was not observed utilizing the site. Nuttall's woodpecker is also not a covered species under the MSHCP. However, potential impacts to this species (injury/mortality) would be addressed by a nesting bird clearance survey, discussed above.

The Project site includes structures and trees/palm trees that may provide suitable roosting habitat for bats, including special status bats. The CNDDB documents the presence of western yellow bat (*Lasiurus xanthinus*; CDFW Species of Special Concern) and western mastiff bat (*Eumops perotis californicus*; CDFW Species of Special Concern) within five (5) miles of the Project site. Other special status bats may also be present in the Project vicinity. If any structures will be demolished or trees removed/trimmed, preconstruction bat surveys and measures to protect roosting bats, maternity colonies, and hibernacula (if present) are recommended.

3.4.6) Wildlife Corridors

Wildlife corridors link together areas of suitable wildlife 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 larger and more mobile mammals, will not likely persist over time in fragmented or isolated habitat areas, because movement barriers prohibit the infusion of new individuals and genetic information.

Wildlife movement activities usually fall into one of three movement categories: dispersal (e.g., juvenile animals dispersing from natal areas or individuals extending their range), seasonal migration, and movements related to home range activities (e.g., foraging for food or water, defending territories, or searching for mates, breeding areas, or cover).

The site is entirely surrounded by roadways, residential development, active agricultural land, and other development and does not function as part of a wildlife corridor.

3.5) MSHCP Riparian/Riverine and Vernal Pool Habitat

Under MSHCP Volume 1 Section 6.1.2 areas associated with wetland and streambed systems must be evaluated for consideration as riparian/riverine or vernal pool habitat. Riparian/riverine areas are defined within the MSHCP as:

> ". . . 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 Vol. 1, Section 6.1.2.

Vernal pools are defined within the MSHCP 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 Vol. 1, Section 6.1.2.

Soil types mapped onsite are sandy loam and are not consistent with an alkali playa or vernal pool complex (Bauder et al. 2011). Pools or depressions characteristic of natural vernal pool habitat were not observed onsite. However, evidence of ponding was observed on the site (areas of cracked soils in shallow depressions) and the fairy shrimp habitat assessment identified eight (8) ponding areas on the Project site (Figure 7).

No native vernal pool or wetland vegetation was observed. Most of the depressions were sparsely vegetated, and the few plants present were generally non-natives. Two native plants

were observed within some of the depressions: horseweed and wild heliotrope. These species are both considered facultative upland plants (USACE 2018).

No MSHCP species listed for protection associated with riparian/riverine areas or vernal pools were observed. However, potential habitat for fairy shrimp is present and a focused protocol survey (consisting of consecutive wet and dry season surveys) was conducted. The survey found the common versatile fairy shrimp in two of the ponding areas (See Section 3.4.1). No listed shrimp species were found.

A large concrete tank is present in the north-central portion of the site. Per a conversation with the proponent's representative, this tank was part of a fish farming operation that previously occupied the site. The tank is not currently in use and no riparian or wetland vegetation was observed in the tank. No other tanks or artificial ponds were observed on the site.

There are no USGS mapped blue-line streams or natural drainages on the site. A concrete v-ditch is present along the Project site's western boundary (between the site and Briggs Road) and trends from north to south. No ponding water or evidence of flow was observed in the v-ditch at the time of the survey. No native riparian or wetland vegetation is present in or adjacent to the ditch. Non-native grasses, mustards, and other weedy plants are present. Ornamental oleander shrubs are present adjacent to the ditch along the northern half of the western site boundary.

The ditch is assumed to be part of stormwater control measures. It arises at the southeast corner of Briggs Road and Grand Avenue and continues south until it reaches Simpson Road, where it enters a culvert and appears to go underneath Simpson Road. South of Simpson Road, the flow appears to continue south in an excavated channel until it reaches and apparently enters Salt Creek Channel. Salt Creek Channel is owned by Riverside County Flood Control and designated as public/quasi-public (PQP) conserved land. It is about 0.66 miles south of the Project site.

3.6) Urban/Wildlands Interface Guidelines (MSHCP Section 6.1.4)

The guidelines in Section 6.1.4 of the MSHCP are intended to address indirect effects associated with development near MSHCP Conserved Areas. The proposed Project is not adjacent to any MSHCP Conservation Area. However, a concrete v-ditch is present along the site's western boundary (between the site and Briggs Road) and trends from north to south. The ditch is assumed to be part of stormwater control measures. It arises at the southeast corner of Briggs Road and Grand Avenue and continues south until it reaches Simpson Road,

where it enters a culvert and appears to go underneath Simpson Road. South of Simpson Road, the flow appears to continue south in an excavated channel until it reaches and apparently enters Salt Creek Channel. Salt Creek Channel is owned by Riverside County Flood Control and designated as public/quasi-public (PQP) conserved land. It is about 0.66 miles south of the Project site. There are no other MSHCP conserved lands within one mile of the site.

Site work will consist of spreading existing onsite stockpiles of base material at grade to provide for a pervious parking surface. There are no proposed structures or utility improvements.

Developments in proximity to MSHCP Conserved Areas may result in "edge effects" that might adversely affect biological resources within MSHCP Conserved Areas. To minimize such "edge effects," the following guidelines will be implemented for this project.

Drainage: We recommend that the proposed project incorporate measures, including measures required through the National Pollutant Discharge Elimination System (NPDES) requirements, to ensure that the quantity and quality of runoff discharged from the site is not altered in an adverse way when compared with existing conditions. Measures should be put in place to avoid discharge of untreated surface runoff from developed and graveled areas into Salt Creek via the concrete v-ditch along Briggs Road. Stormwater systems should be designed to prevent the release of toxins, chemicals, petroleum products, exotic plant materials, or other elements that might degrade or harm biological resources or ecosystem processes within any MSHCP Conserved Area or state or federal jurisdictional areas downstream. A detention basin, grass swale, or mechanical trapping device(s) are recommended. Regular maintenance should occur to ensure effective operation of runoff control systems.

Toxics: Land use in proximity to MSHCP Conserved Area that uses chemicals or generates bioproducts that are potentially toxic or may adversely affect wildlife species, habitat, or water quality will incorporate measures to ensure that application of such chemicals does not result in discharge into MSHCP Conserved Area or any state or federal jurisdictional areas downstream. Measures such as those employed to address drainage issues (see above) should be implemented.

Lighting: The Salt Creek Channel PQP land is 0.66 miles away from the site. Night lighting within the project development area, if any, is not expected to result in a substantial increase over existing conditions and will not have a significant effect on the PQP land.

Noise: The Salt Creek Channel PQP land is 0.66 miles away from the site. Noise associated with the proposed Project is not expected to result in a substantial increase over existing conditions in the area and will not have a significant effect on the PQP land.

Invasives: When approving landscape plans for Development that is proposed adjacent to the MSHCP Conservation Area, Permittees shall consider the invasive, non-native plant species (see MSHCP Table 6-2) 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 the MSHCP Conservation Area. Considerations in reviewing the applicability of this list shall include proximity of planting areas to the MSHCP Conservation Areas, species considered in the planting plans, resources being protected within the MSHCP Conservation Area and their relative sensitivity to invasion, and barriers to plant and seed dispersal, such as walls, topography and other features.

Propagules of invasive plants could potentially wash down the concrete v-ditch into the PQP land. The site plan for the proposed Project does not include any landscaping. Should landscaping be introduced into the plan, plants listed on MSHCP Table 6.2 (see Appendix D) shall be excluded from landscape plans. Therefore, the project is consistent with the invasives requirements of Section 6.1.4 of the MSHCP.

Barriers: Proposed land uses adjacent to the MSHCP Conservation Area shall incorporate barriers, where appropriate in individual project designs to minimize unauthorized public access, domestic animal predation, illegal trespass or dumping in the MSHCP Conservation Area. Such barriers may include native landscaping, rocks/boulders, fencing, walls, signage, and/or other appropriate mechanisms.

There will be security fencing around the perimeter of the project. However, Salt Creek Channel is 0.66 miles away from the site. Since the proposed Project is not adjacent to any MSHCP Conserved Areas, the barrier requirements of Section 6.1.4 of the MSHCP do not apply.

Grading/Land Development: The proposed Project does not include manufactured slopes and is not adjacent to any MSHCP Conserved Areas. Therefore, this requirement does not apply.

4.0) SUMMARY AND RECOMMENDATIONS

The purpose of this study was to identify biological resources present or potentially present onsite. The MSHCP requires a habitat assessment to address riparian/riverine and vernal pool habitats, fairy shrimp, narrow endemic plants, and burrowing owl. The following recommendations are based on the literature review, L&L's knowledge of species and habitats in the region, and the biological field survey.

Vegetation Communities

The site is entirely disturbed or developed and vegetation present is primarily ruderal or ornamental. There is no native habitat or sensitive vegetation communities present on or adjacent to the site and no measures to protect sensitive vegetation communities are required.

Narrow Endemic and Special Status Plants

Narrow endemic plant species (Munz's onion, San Diego ambrosia, many-stemmed dudleya, spreading navarretia, California Orcutt grass, and Wright's trichocoronis) were not observed and habitat to support these species is absent from the site. Therefore, these species are considered absent from the site. No federal or state-listed or special status plant species were observed. Smooth tarplant has a low to moderate potential for occurrence but is a covered species adequately conserved under the MSHCP. If this species is present, any Project-related impacts would be covered under the MSHCP. No additional botanical surveys are recommended.

Listed and Special Status Wildlife

No federal or state-listed endangered or threatened wildlife species were observed and the site is not within USFWS designated critical habitat for any listed wildlife species. Four special status wildlife species were observed: Cooper's hawk, great egret (fly over), Nuttall's woodpecker, and San Diego black-tailed jackrabbit. Cooper's hawk and San Diego black-tailed jackrabbit are covered species under the MSHCP and considered adequately conserved. Great egret is not a covered species under the MSHCP but was not observed utilizing the site. Nuttall's woodpecker is also not a covered species under the MSHCP. However, potential impacts to this species (injury/mortality) would be addressed by a nesting bird clearance survey, discussed below, and no additional measures are recommended.

The Project site includes structures and trees/palm trees that may provide suitable roosting habitat for bats, including special status bats. If any structures will be demolished or trees trimmed/removed, preconstruction bat surveys and measures to protect roosting bats, maternity colonies, and hibernacula (if present) are recommended.

Riparian/Riverine and Vernal Pools

There are no USGS mapped blue-line streams or natural drainages on the site. Pools or depressions characteristic of natural vernal pool habitat were not observed onsite. However, evidence of ponding was observed in several areas (e.g., cracked soils in shallow depressions) and eight (8) ponding areas were identified on the Project site. No MSHCP species listed for protection associated with riparian/riverine areas or vernal pools were observed during the survey. No additional surveys or avoidance/mitigation measures are recommended.

A concrete v-ditch is present along the site's western boundary and appears to empty into Salt Creek Channel, discussed below.

Fairy Shrimp

A protocol fairy shrimp survey (consisting of consecutive wet and dry season surveys) was conducted and found the common versatile fairy shrimp in two of the ponding areas on the site. No listed fairy shrimp species were found and no additional surveys or avoidance/mitigation measures are recommended.

Burrowing Owl

Potentially suitable habitat and small mammal burrows are present onsite, but no burrowing owls or owl sign were observed. A preconstruction clearance survey for burrowing owl is required within 30 days prior to the start of site disturbance. If burrowing owls are found during the preconstruction survey, additional mitigation will be required in accordance with the requirements of the MSHCP.

Nesting Birds

There is suitable habitat for nesting birds, including raptors, on and adjacent to the site. A nesting bird clearance survey is recommended within three (3) days prior to the start of vegetation clearing, tree removal/trimming, ground disturbance, building demolition, and/or clearing/removal of materials and debris if it will begin within the nesting season (February 1 to September 15). If nesting birds are present, avoidance of nest sites is required and a buffer of

300 to 500 feet (or as determined by a biologist) is recommended until juvenile birds are no longer dependent on the nest and/or a biologist has verified that the nest is inactive.

Riparian Birds

There is no riparian habitat on the site. The single willow present is isolated and does not provide the dense riparian habitat required by least Bell's vireo, southwestern willow flycatcher, or western yellow-billed cuckoo. Therefore, there is no suitable habitat for these species on or adjacent to the site and they are considered absent. No additional surveys or avoidance/mitigation measures are recommended.

Wildlife Corridors

The site is entirely surrounded by roadways, residential development, active agricultural land, and other development and does not function as part of a wildlife corridor. No avoidance/mitigation measures are recommended.

Urban/Wildlands Interface

A concrete v-ditch is present along the site's western boundary and appears to empty into Salt Creek Channel. Salt Creek Channel is owned by Riverside County Flood Control and designated as PQP conserved land. Measures should be put in place to avoid discharge of untreated surface runoff and toxics from developed and graveled areas into Salt Creek via the concrete v-ditch. If landscaping plants are installed on the site, the plants listed on MSHCP Table 6-2 (see Appendix D) shall be excluded from landscape plans.

5.0) REGULATORY ENVIRONMENT

5.1) Federal Endangered Species Act

By law, it is a requirement of the federal Endangered Species Act (FESA), 1973 (as amended) at Section 7(a)(2) that federal agencies ensure that any action authorized, funded, or carried out by a federal agency is not likely to jeopardize the continued existence of any endangered species or threatened species, or result in the destruction or adverse modification of critical habitat. In order to comply with this requirement, the federal agency must conduct a Biological Assessment (BA), in which effects to listed species are analyzed and disclosed in the form of an "effects determination."

Section 7 requires federal agencies to consult with the U. S. Fish and Wildlife Service (USFWS) should it be determined that their actions may affect federally listed threatened or endangered species. Section 9 of FESA prohibits "take" (e.g., harm, harassment, pursuit, injury, kill) of federally listed wildlife. "Harm" is further defined to include habitat modification or degradation where it kills or injures wildlife by impairing essential behavioral patterns such including breeding, feeding, or sheltering. Take that is incidental to otherwise lawful activities can be authorized under Section 7 of FESA.

Procedures for obtaining a permit for incidental take are identified under Section 7 of FESA for federal properties or where federal actions are involved and are identified under Section 10 of FESA for non-federal actions. During the Section 7 process, measures to avoid and minimize project effects to listed species and their habitat will be identified and incorporated into a Biological Opinion (prepared by the USFWS) that includes an incidental take by the federal agency and applicant.

The County of Riverside has been issued a Section 10(a) permit for the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). This project falls within the area covered by the MSHCP.

5.2) Jurisdictional Waters and Wetlands

Three (3) agencies generally regulate activities within streams, wetlands, and riparian areas in California: (1) the U. S. Army Corps of Engineers (USACE) regulates activities under Section 404 of the federal Clean Water Act; (2) the Regional Water Quality Control Board (RWQCB) regulates activities under Section 401 of the federal Clean Water Act and the State Porter-

Cologne Water Quality Control Act; and (3) the California Department of Fish and Wildlife (CDFW) regulates activities under California Fish and Game Code Sections 1600-1616.

5.2.1) Federal Clean Water Act, Section 404

Section 404 of the federal Clean Water Act applies to "Waters of the United States" (WoUS). By definition these include waterways that could be used for interstate commerce and their tributaries, including any waters with a nexus with (ultimately flow into) traditional navigable waters. In non-tidal waters, the limits of jurisdiction are "ordinary high water marks" (OHWM) such as stream banks. Where wetlands occur above high water marks, they are considered "adjacent wetlands" and are included within USACE jurisdiction. USACE jurisdiction has often been extended to wetlands not adjacent to WoUS ("isolated wetlands"), such as vernal pools.

There have been recent changes to the definition of USACE jurisdictional waters. The final rule published on April 21, 2020 and effective on June 22, 2020 (85 FR 22250) defined the scope of waters federally regulated under the Clean Water Act; however, litigation could affect implementation of this rule and changes may occur under the current administration. The 2020 rule defined Waters of the U.S. as:

- Territorial seas and traditional navigable waters;
- Tributaries of jurisdictional waters;
- Lakes, ponds, and impoundments that contribute surface water flow to a jurisdictional water in a typical year; and
- Wetlands adjacent to non-wetland jurisdictional waters.

Under the rule, a wetland is considered “adjacent” if it:

- Abuts (i.e., touches a side or corner of) another non-wetland jurisdictional water;
- Is inundated by flooding from another non-wetland jurisdictional water at least once in a typical year;
- Is physically separated from a non-wetland jurisdictional water by a natural berm, bank, dune, or similar natural feature without regard to whether there is a specific hydrological surface connection in a typical year; or
- Is physically separated from a non-wetland jurisdictional water by an artificial structure like a road, dike, or barrier as long as the structure allows for a direct hydrologic surface connection between the wetland and the other jurisdictional water at least once in a typical year. This connection can be through a gate or culvert or even by water overtopping a road.

Waters specifically excluded from the definition of Waters of the U.S. are:

- All waters not covered by the four categories of Waters of the U.S. listed above;
- Groundwater;
- Ephemeral features;
- Storm water runoff and overland sheet flow;
- All ditches not considered "tributaries;"
- Prior converted cropland;
- Artificially irrigated areas;
- Certain artificial lakes and ponds;
- Water-filled depressions or pits excavated in connection with mining or construction or to obtain fill, sand, or gravel;
- Certain storm water control features;
- Groundwater recharge, water reuse, and wastewater recycling structures; and
- Wastewater treatment systems.

Final determination and delineation of federal jurisdiction is made by the USACE and not by the project biologists. Therefore, fieldwork and documentation of the site conditions are done as a preliminary delineation until the USACE reviews and concurs with the results.

5.2.2) Federal Clean Water Act, Section 401

The RWQCB has jurisdiction over wetlands, WoUS, and Waters of the State under Section 401 of the CWA and the Porter-Cologne Water Quality Control Act (Porter-Cologne) under the California Water Code (§ 13000, et seq.) Permitting is required for activities that will result in a discharge of soils, nutrients, chemicals, detrital materials, or other pollutants into WoUS, Waters of the State, or adjacent wetlands that will affect the water quality of those bodies and the watershed.

5.2.3) California Fish and Game Code, Section 1600

The CDFW, through provisions of the California Fish and Game Code (Sections 1600-1616), is empowered to issue agreements ("Lake and Streambed Alteration Agreements") for projects that will adversely affect wildlife habitat associated with any river, stream, or lake edges. The Lake and Streambed Alteration Agreement will typically include required measures to mitigate impacts.

5.3) California Endangered Species Act

California Endangered Species Act (CESA) definitions of endangered and threatened species parallel those defined in the FESA. The 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." Endangered species are in serious danger of becoming extinct and threatened species are likely to become endangered species in the foreseeable future (according to Sections 2062 and 2067, respectively, of the California Fish and Game Code). Candidate species are those under formal review by the CDFW for listing as endangered or threatened (Section 2067). Prior to being considered for protected status, the CDFW designates a species as being of special concern. Species of Special Concern are wildlife species for which the CDFW has information indicating population decline.

5.4) California Environmental Quality Act

The California Environmental Quality Act (CEQA) and CEQA Guidelines (§ 15000 et seq.) require identification of environmental effects from discretionary projects. Significant effects are to be mitigated by avoidance, minimization, rectification, or compensation whenever possible.

Effects to all state and federal listed species are considered significant under CEQA. In addition to formally listed species, CEQA considers effects to species that are demonstrably endangered or rare as important or significant. These definitions can include state designated species of special concern, federal candidate and proposed species, CNDDB tracked species, and CRPR list 1B and list 2 plants.

Appendix G of the CEQA Guidelines specifically addresses biological resources and encompasses a broad range of resources to be considered.

5.5) California Natural Diversity Database

The California Natural Diversity Database (CNDDB) includes documented occurrences of special status species that have been reported to the CDFW. It also includes ranks of overall condition of sensitive species and vegetation communities on global (throughout its range) and state (within California) levels. State ranking is numerical, ranging from one to five (S1 to S5), with one indicating very few remaining individuals or little remaining habitat and five indicating a demonstrably secure to ineradicable population condition.

5.6) California Rare Plant Rank

The California Native Plant Society (CNPS) Inventory of Rare and Endangered Species includes documented occurrences of special status plant species that are available through the Consortium of California Herbaria and other sources. The CNPS, in coordination with CDFW, has cataloged California's rare and endangered plants into lists according to population distributions and viability. These lists are numbered and indicate the following California Rare Plant Ranks (CRPR): (1A) presumed extinct in California; (1B) rare, threatened, or endangered throughout their range; (2A) presumed extirpated in California, but more common in other states; (2B) threatened or endangered in California, but more common in other states; (3) more information is needed to establish rarity; and (4) plants of limited distribution in California (i.e., naturally rare in the wild), but whose populations do not appear to be susceptible to threat. A CRPR may also have an extension (e.g., 1B.x) that indicates current level of threat: seriously threatened (x.1), moderately threatened (x.2), or not very threatened (x.3).

5.7) Migratory Bird Treaty Act

The federal Migratory Bird Treaty Act (MBTA) of 1918 (16 USC 703-711) is an international treaty that made it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in 50 CFR Part 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21). Executive Order 13186 ensures that environmental analyses of federal actions required by the National Environmental Policy Act (NEPA) or other established environmental review processes evaluate the effects of actions on migratory birds, with emphasis on species of concern. Disturbance that causes nest abandonment and/or loss of reproductive effort (e.g., killing or abandonment of eggs or young) or loss of habitat upon which the birds depend could be considered “take.”

On January 7, 2021, the USFWS published a final rule (86 FR 1134) codifying the 2017 Department of the Interior Solicitor’s Office Opinion M-37050 that states that the scope of the MBTA applies only to intentional injuring or killing of birds and incidental take is not prohibited. This rule took effect on March 8, 2021; however, litigation may affect implementation of this rule and changes may occur under the current administration.

5.8) California Fish and Game Code, Sections 3503 and 3513

California Fish and Game Code Section 3503 prohibits take, possession, or needless destruction of bird nests or eggs except as otherwise provided by the Code; Section 3503.5 prohibits take or possession of birds of prey or their eggs except as otherwise provided by the

Code; and Section 3513 provides for the adoption of the provisions of the federal Migratory Bird Treaty Act, described above.

5.9) Western Riverside County Multiple Species Habitat Conservation Plan

The County of Riverside, including eight (8) additional land jurisdictions and 14 cities, have prepared a Multiple Species Habitat Conservation Plan (MSHCP) for western Riverside County. The MSHCP will build upon existing preserves and provide connectivity and wildlife corridors throughout the region. The MSHCP proposes to conserve approximately 500,000 acres and 146 different species.

The MSHCP was approved by the county on June 17, 2003 and an Implementation Agreement (IA) between the USFWS, the CDFW, and the County was executed and an associated USFWS Section 10(a)(1)(B) Permit (No. TE-088609) was issued on June 22, 2004. The permit grants take authorization for certain species identified in the permit as "Covered Species Adequately Conserved."

The MSHCP establishes seven (7) core reserve areas and associated linkages between proposed and existing core areas. The MSHCP divides areas into Cells using USGS coordinates. Conservation efforts for the project site will be evaluated with regard to sensitive species identified as not adequately conserved and observed onsite, riverine/riparian or vernal pool habitat and their associated sensitive species (if located onsite), fairy shrimp, jurisdictional areas, and sage scrub.

Focused surveys are required for species identified as not adequately conserved under the MSHCP if suitable habitat is present onsite. If focused surveys are determined necessary and species identified as not adequately conserved under the MSHCP occur onsite, the proponent may be required to undergo a Habitat Acquisition and Negotiation Strategy (HANS) determination with the County of Riverside. If a single-family home or mobile home is to be placed on an existing legal lot, permitting will be reviewed according to the procedures outlined in MSHCP Section 6.1.1, *Expedited Review Process for Single-Family Homes or Mobile Homes to Be Located on an Existing Lot within the Criteria Area*.

<u>MSHCP Section 6.1.2 (Riparian/Riverine Habitat)</u>

Section 6.1.2 of the MSHCP requires an assessment of the potentially significant effects of the proposed project on riparian/riverine areas, and vernal pools as currently required by CEQA

using available information augmented by project-specific mapping. Riparian/Riverine areas and vernal pools are defined as follows:

- Riparian/Riverine areas are lands that have flow for all or a portion of the year and 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.

- Vernal pools are 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. 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 manner in which 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.

With the exception of wetlands created for the purpose of providing wetlands habitat or resulting from human actions to create open waters or from the alteration of natural stream courses, areas demonstrating characteristics as described above that are artificially created are not included in these definitions.

If suitable habitat is present for riparian birds (least Bell's vireo, southwestern willow flycatcher, and western yellow-billed cuckoo) or listed fairy shrimp (Riverside fairy shrimp, Santa Rosa Plateau fairy shrimp, and vernal pool fairy shrimp), and the proposed project design does not incorporate avoidance of the habitat, focused surveys for those species shall be conducted, and avoidance and minimization measures implemented in accordance with the species-specific objectives for those species.

<u>Fairy Shrimp</u>

Species-specific objectives for the Riverside fairy shrimp are:

Objective 1

> Include within the MSHCP Conservation Area at least five Core Areas of occupied vernal pools (or vernal pool complex) and their watersheds. Core Areas include the Santa Rosa Plateau Ecological Reserve (17,188 acres), Skunk

Hollow (156 acres), Murrieta (1,292 acres) and Lake Elsinore back basin (3,180 acres).

Objective 2

Include within the MSHCP Conservation Area at least 11,942 acres of landscape habitat area which might contain suitable vernal pool habitat for Riverside fairy shrimp (playa, basalt flows, and clay soils). These areas may support other non-mapped pools and depressions which may be suitable for Riverside fairy shrimp.

Objective 3

Include within the MSHCP Conservation Area additional areas within the Criteria Area identified as important for the Riverside fairy shrimp. This objective shall be met through implementation of the Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools policy presented in Section 6.1.2 of the MSHCP, Volume I. Wetland mapping assembled as part of that policy shall be reviewed as part of the project review process and, if suitable Riverside fairy shrimp habitat, defined as vernal pools, stock ponds, ephemeral ponds, or other human-modified depressions, is identified on the wetland maps and cannot be avoided, a single-season dry or wet season survey for this species shall be conducted by a qualified biologist in accordance with accepted protocol. If survey results are positive, 90 percent of the occupied portions of the property that provide for long-term Conservation value for the fairy shrimp shall be conserved.

Species-specific objectives for the Santa Rosa Plateau fairy shrimp are:

Objective 1

Include within the MSHCP Conservation Area at least 32 acres of basalt flow vernal pools and a majority of their watersheds within the Santa Rosa Plateau Ecological Reserve.

Objective 2

Include within the MSHCP Conservation Area at least 2,134 acres of area on the basalt flow that may contain unmapped vernal pool Habitat which might support Santa Rosa Plateau fairy shrimp.

Objective 3

Include within the MSHCP Conservation Area additional areas within the Criteria Area identified as important for the Santa Rosa Plateau fairy shrimp. This objective shall be met through implementation of the Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools policy presented in Section 6.1.2 of the MSHCP, Volume I. Wetland mapping assembled as part of that policy shall be reviewed as part of the project review process and, if suitable Santa Rosa Plateau fairy shrimp Habitat, defined as vernal pools, stock ponds, ephemeral ponds, or other human-modified depressions over Basaltic soils, is identified on the wetland maps and cannot be avoided, a single-season dry or wet season survey for this species shall be conducted by a qualified biologist in

accordance with accepted protocols. If survey results are positive, 90 percent of the occupied portions of the property that provide for long-term Conservation value for the fairy shrimp shall be conserved.

Species-specific objectives for the vernal pool fairy shrimp are:

Objective 1

Objective 1: Include within the MSHCP Conservation Area at least 476 acres of suitable Habitat by conserving vernal pool and playa Habitat (does not include watershed acreages) within the West Hemet portion of Salt Creek, Santa Rosa Plateau Ecological Reserve, and Skunk Hollow.

Objective 2

Include within the MSHCP Conservation Area at least 2,647 acres of alkali playa (Willow, Traver and Domino soils) in the floodplain of the San Jacinto River and west Hemet portion of Salt Creek which contains suitable Habitat for this species.

Objective 3

Include within the MSHCP Conservation Area at least three Core Areas, which include the three known occupied vernal pools (or vernal pool complexes) and their watersheds in the West Hemet portion of Salt Creek (4,043 acres), Santa Rosa Plateau Ecological Reserve (17,188 acres), and Skunk Hollow (156 acres).

Objective 4

Include within the MSHCP Conservation Area additional areas within the Criteria Area identified as important for the vernal pool fairy shrimp. This objective shall be met through implementation of the Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools policy presented in Section 6.1.2 of the MSHCP, Volume I. Wetland mapping assembled as part of that policy shall be reviewed as part of the project review process and, if suitable vernal pool fairy shrimp Habitat, defined as vernal pools, stock ponds, ephemeral ponds, or other human-modified depressions over willow soils, is identified on the wetland maps and cannot be avoided, a single-season dry or wet season survey for this species shall be conducted by a qualified biologist in accordance with accepted protocol. If survey results are positive, 90 percent of the occupied portions of the property that provide for long-term Conservation value for the fairy shrimp shall be conserved.

<u>Burrowing Owl</u>

Section B (Species Accounts) of Volume 2 of the MSHCP lists the following objectives for burrowing owl conservation/protection:

Objective 1

Include within the MSHCP Conservation Area at least 27,470 acres of suitable primary habitat for the burrowing owl including grasslands.

Objective 2

Include within the MSHCP Conservation Area at least 5 Core Areas and interconnecting linkages. Core areas may include the following: (1) Lake Skinner/Diamond Valley Lake area (Existing Core C plus Proposed Extension of Existing Cores 5, 6, 7; 29,060 acres); (2) playa west of Hemet (Proposed Noncontiguous Habitat Block 7; 1,250 acres); (3) San Jacinto Wildlife Area/Mystic Lake area including Lake Perris area (Existing Core H; 17,470 acres); (4) Lake Mathews (Existing Core C plus Proposed Extension of Existing Cores 2; 23,710 acres); and (5) along the Santa Ana River (9,670 acres). The Core Areas should support a combined total breeding population of approximately 120 burrowing owls with no fewer than five pairs in any one Core area.

Objective 3

Include within the MSHCP Conservation Area at least 22,120 acres of suitable secondary habitat for the burrowing owl including playas and vernal pools, and agriculture outside of the Core Areas identified above. Areas where additional suitable habitat could be conserved include west of the Jurupa Mountains, near Temescal Wash (i.e., vicinity of Alberhill), near Temecula Creek, within the Lakeview Mountains, Banning, the Badlands, Gavilan Hills, and Quail Valley.

Objective 4

Include within the MSHCP Conservation Area the known nesting locations of the burrowing owl at Lake Perris, Mystic Lake/San Jacinto Wildlife area, Lake Skinner area, the area around Diamond Valley Lake, playa west of Hemet, Lakeview Mountains, Lake Mathews/Estelle Mountain Reserve and Sycamore Canyon Regional Park.

Objective 5

Surveys for burrowing owl will be conducted as part of the project review process for public and private projects within the burrowing owl survey area where suitable habitat is present (see Burrowing Owl Survey Area Map, Figure 6-4 of the MSHCP, Volume I). The locations of this species determined as a result of survey efforts shall be conserved in accordance with procedures described within Section 6.3.2, MSHCP, Volume I and the guidance provided below:

Burrowing owl surveys shall be conducted utilizing accepted protocols as follows. If burrowing owls are detected on the project site then the action(s) taken will be as follows:

If the site is within the Criteria Area, then at least 90 percent of the area with long-term conservation value will be included in the MSHCP Conservation Area. Otherwise:

1) If the site contains, or is part of an area supporting less than 35 acres of suitable habitat or the survey reveals that the site and the surrounding area supports fewer than 3 pairs of burrowing owls, then the on-site burrowing owls will be passively or actively relocated following accepted protocols.

2) If the site (including adjacent areas) supports three or more pairs of burrowing owls, supports greater than 35 acres of suitable habitat and is non-contiguous with MSHCP Conservation Area lands, at least 90 percent of the area with long-term conservation value and burrowing owl pairs will be conserved onsite.

The survey and conservation requirements stated in this objective will be eliminated when it is demonstrated that Objectives 1 – 4 have been met.

Objective 6

Pre-construction presence/absence surveys for burrowing owl within the survey area where suitable habitat is present will be conducted for all Covered Activities through the life of the permit. Surveys will be conducted within 30 days prior to disturbance. Take of active nests will be avoided. Passive relocation (use of one way doors and collapse of burrows) will occur when owls are present outside the nesting season.

Objective 7

Translocation sites for the burrowing owl will be created in the MSHCP Conservation Area for the establishment of new colonies. Translocation sites will be identified, taking into consideration unoccupied habitat areas, presence of burrowing mammals to provide suitable burrow sites, existing colonies and effects to other Covered Species. Reserve Managers will consult with the Wildlife Agencies regarding site selection prior to translocation site development.

MSHCP Section 6.1.3 (Narrow Endemic Plants)

Per Section 6.1.3 of the MSHCP, surveys are required for narrow endemic plants within the identified survey areas. If suitable habitat and appropriate soils are present, site-specific focused surveys are required. Focused surveys must be conducted during the appropriate season in accordance with established protocols. If the survey finds that narrow endemic plants are present, any projects with the potential to impact narrow endemic plants is subject to avoidance, minimization, and mitigation requirements.

Prior to conducting surveys for narrow endemic plant species within the project area, a habitat suitability assessment may be undertaken by a biologist/botanist with expertise in the plant species of concern to determine whether focused surveys for individual species are required and to focus the species-specific survey efforts. In general, habitat suitability assessments may

be undertaken year-round, with the exception of vernal pool species for which habitat suitability assessments must be conducted during the rainy season.

Munz's Onion

Objective 1

> Include within the MSHCP Conservation Area at least 21,260 acres of suitable habitat (grassland, coastal sage scrub, chaparral and peninsular juniper woodland between 300 and 1,000 m in the Riverside Lowlands and Santa Ana Mountains Bioregions). This will include at least 2,070 acres of clay soils: Altamont (190 acres), Auld (250 acres), Bosanko (600 acres), Claypit (100 acres) and Porterville (930 acres) soils underlying the suitable habitat.

Objective 2

> Include within the MSHCP Conservation Area at least 13 localities within Temescal Valley and the southwestern portion of Plan Area, including the following Core Areas: Harford Springs Park, privately owned EO 5 population in Temescal Valley, Alberhill, DiPalma Rd, Estelle Mountain, Domenigoni Hills, Lake Skinner, Bachelor Mountain, Elsinore Peak, Scott Road, North Peak, and northeast of Alberhill (EO 16).

Objective 3

> Surveys for the Munz's onion will be conducted as part of the project review process for public and private projects within the Narrow Endemic Plant Species survey area where suitable habitat is present (see Narrow Endemic Plant Species Survey Area Map, Figure 6-1 of the MSHCP, Volume I). Munz's onion located as a result of survey efforts shall be conserved in accordance with procedures described within Section 6.1.3 of the MSHCP, Volume I.

San Diego Ambrosia

Objective 1

> Include within the MSHCP Conservation Area at least 21,800 acres of suitable habitat (grassland and playa/vernal pools between 200 and 500 m within the Riverside Lowlands Bioregion).

Objective 2

> Include within the MSHCP Conservation Area at least two of the three known locations of this species: Alberhill Creek at Nichols Road and Skunk Hollow.

Objective 3

Surveys for the San Diego ambrosia will be conducted as part of the project review process for public and private projects within the Narrow Endemic Plant Species survey area where suitable habitat is present (see Narrow Endemic Plant Species Survey Area Map, Figure 6-1 of the MSHCP,Volume I). San Diego ambrosia located as a result of survey efforts shall be conserved in accordance with procedures described within Section 6.1.3 of the MSHCP, Volume 1.

Many-stemmed Dudleya

Objective 1

Include within the MSHCP Conservation Area at least 142,680 acres of suitable habitat (chaparral, coastal sage scrub and grassland below 700 m in the Riverside Lowlands and Santa Ana Mountain Bioregions) in the Plan Area, including 1,575 acres of clay soils: 190 acres of Altamont, 210 acres of Auld, 490 acres of Bosanko, 100 acres of Claypit soils and 585 acres of Porterville soils.

Objective 2

Include within the MSHCP Conservation Area at least 26 of the known occurrences of many-stemmed dudleya, including the occurrences at Estelle Mountain, Temescal Canyon, the Santa Ana Mountains, Gavilan Hills, Alberhill Creek, and Prado Basin.

Objective 3

Surveys for many-stemmed dudleya will be conducted as part of the project review process for public and private projects within the Narrow Endemic Plant Species survey area where suitable habitat is present (see Narrow Endemic Plant Species Survey Area Map, Figure 6-1 of the MSHCP, Volume I). Many-stemmed dudleya located as a result of survey efforts shall be conserved in accordance with procedures described within Section 6.1.3, MSHCP, Volume I.

Spreading Navarretia

Objective 1

Include within the MSHCP Conservation Area at least 6,900 acres of suitable habitat (grassland and playas and vernal pools within the San Jacinto River, Mystic Lake and Salt Creek portions of the MSHCP Conservation Area).

Objective 2

Include within the MSHCP Conservation Area at least 13 of the known locations of spreading navarretia at the Skunk Hollow, the Santa Rosa Plateau and core locations: the San Jacinto Wildlife Area, floodplains of the San Jacinto River from the Ramona Expressway south to Railroad Canyon, and upper Salt Creek west of Hemet.

Objective 3

Surveys for the spreading navarretia will be conducted as part of the project review process for public and private projects within the Narrow Endemic Plant Species survey area where suitable habitat is present (see Narrow Endemic Plant Species Survey Area Map, Figure 6-1 of the MSHCP, Volume I). Spreading navarretia located as a result of survey efforts shall be conserved in accordance with procedures described within Section 6.1.3 of the MSHCP, Volume I.

Objective 4

Include within the MSHCP Conservation Area the floodplain along the San Jacinto River consistent with Objective 1. Floodplain processes will be maintained along the river in order to provide for the distribution of the species to shift over time as hydrologic conditions and seed bank sources change. A potential future flood control project along the San Jacinto River designed and constructed consistent with the criteria for the San Jacinto River project presented in Section 7.0 of the MSHCP, Volume I and with the Area Plan Subunit guidelines for Subunit 1 of the Lakeview/Nuevo Area Plan and Subunit 4 of the Mead Valley Area Plan will be considered to be consistent with this objective.

Objective 5

Include within the MSHCP Conservation Area the floodplain along Salt Creek generally in its existing condition from Warren Road to Newport Road and the vernal pools in Upper Salt Creek west of Hemet. Floodplain processes will be maintained in order to provide for the distribution of the species to shift over time as hydrologic conditions and seed bank sources change.

<u>California Orcutt Grass</u>

Objective 1

Include within the MSHCP Conservation Area at least 6,680 acres of suitable habitat (playas and vernal pools within the Riverside Lowlands Bioregion of the MSHCP Conservation Area).

Objective 2

Include within the MSHCP Conservation Area at least three of the known locations of California Orcutt grass at the Santa Rosa Plateau, at Skunk Hollow and in the upper Salt Creek drainage west of Hemet.

Objective 3

Surveys for the California Orcutt grass will be conducted as part of the project review process for public and private projects within the Narrow Endemic Plant

Species survey area where suitable habitat is present (see Narrow Endemic Plant Species Survey Area Map, Figure 6-1, of the MSHCP, Volume I). California Orcutt grass located as a result of survey efforts shall be conserved in accordance with procedures described within Section 6.1.3 of the MSHCP, Volume I.

Objective 4

Include within the MSHCP Conservation Area the watershed of the vernal pool complex on the Santa Rosa Plateau and the vernal pool occurrences at Skunk Hollow and Upper Salt Creek in order to maintain hydrologic conditions.

Wright's Trichocoronis

Objective 1

Include within the MSHCP Conservation Area at least 6,900 acres of suitable habitat (grassland and playas and vernal pools including Willow, Domino and Traver soils, along the San Jacinto River, at Mystic Lake, and Salt Creek).

Objective 2

Include within the MSHCP Conservation Area at least four of the known locations along the San Jacinto River from the vicinity of the Ramona Expressway and San Jacinto Wildlife Area and along the northern shore of Mystic Lake.

Objective 3

Surveys for Wright's trichocoronis will be conducted as part of the project review process for public and private projects within the Narrow Endemic Plant Species survey area where suitable habitat is present (see Narrow Endemic Plant Species Survey Area Map, Figure 6-1 of the MSHCP, Volume I). Wright's trichocoronis located as a result of survey efforts shall be conserved in accordance with procedures described within Section 6.1.3, MSHCP, Volume I.

Objective 4

> Include within the MSHCP Conservation Area the floodplain along the San Jacinto River consistent with Objective 1. Floodplain processes will be maintained along the river in order to provide for the distribution of the species to shift over time as hydrologic conditions and seed bank sources change. A potential future flood control project along the San Jacinto River designed and constructed consistent with the criteria for the San Jacinto River project presented in Section 7.0 of the MSHCP, Volume I and with the Area Plan Subunit guidelines for Subunit 1 of the Lakeview/Nuevo Area Plan and Subunit 4 of the Mead Valley Area Plan will be considered to be consistent with this objective.

Objective 5

> Include within the MSHCP Conservation Area the floodplain along Salt Creek generally in its existing condition from Warren Road to Newport Road and the vernal pools in Upper Salt Creek west of Hemet. Floodplain processes will be maintained within the linkage in order to provide for the distribution of the species to shift over time as hydrologic conditions and seed bank sources change.

5.10) Riverside County General Plan

The Riverside County General Plan - Harvest Valley/Winchester Area Plan includes policies to preserve and enhance open space, habitat, and natural resources. The potentially applicable policies are:

HVWAP 19.1. Conserve existing intact areas of upland scrub to provide good foraging habitat for raptors and open grassland areas for the burrowing owl.

HVWAP 19.2. Conserve Domino-Traver-Willow soils within the vernal pool habitat areas. Maintain the existing hydrologic regime in order to preserve the habitat for the Riverside fairy shrimp.

HVWAP 19.7. Conserve and maintain vernal pool complexes and hydrology that supports Riverside fairy shrimp and other rare, threatened and endangered species known to exist within the Harvest Valley/Winchester planning area to promote genetic diversity through wildlife movement.

6.0) REFERENCES

Abrams, L. 1923, 1944, 1951. *Illustrated Flora of the Pacific States, Volumes I-III*. Stanford University Press, Stanford, California.

Abrams, L. and R. Ferris. 1960. *Illustrated Flora of the Pacific States, Volume IV*. Stanford University Press, Stanford, California.

Arnett, Ross H. Jr. 2000. *American Insects: A Handbook of the Insects of America North of Mexico*. CRC Press, New York, New York. 1003 pp.

Baldwin, B. G., D. H. Goldman, D. J., Keil, R. Patterson, T. J. Rosatti, and D. H. Wilken, editors. 2012. *The Jepson Manual: Vascular Plants of California, Second Edition*. University of California Press, Berkeley.

Bauder, E. T., A. J. Bohonak, B. Hecht, M. A. Simovich, D. Shaw, D. G. Jenkins, and M. Rains. 2011. A Draft Regional Guidebook for Applying the Hydrogeomorphic Approach to Assessing Wetland Functions of Vernal Pool Depressional Wetlands in Southern California. San Diego State University. San Diego, California.

CBOC (California Burrowing Owl Consortium). 1993. Burrowing Owl Survey Protocol and Mitigation Guidelines. April.

CDFG (California Department of Wildlife, formerly the California Department of Fish and Game). 2012. Staff Report on Burrowing Owl Mitigation. March 7.

CDFW (California Department of Fish and Wildlife). 2021a. *Special Vascular Plants, Bryophytes, and Lichens List*. Quarterly publication. January.

_____. 2021b. Special Animals List. Periodic publication. August.

_____. 2021c. California Natural Diversity Database (CNDDB). RareFind 5.

_____. 2020. California Natural Community List. October. https://www.wildlife.ca.gov/Data/VegCAMP/Natural-Communities

Cornell Laboratory of Ornithology (2021). Birds of the World Online. www.birdsoftheworld.org.

Dudek & Associates, Inc. 2003. Western Riverside County MSHCP, Vol. I. The Plan and Vol. II-A through E, The MSHCP Reference Document.

eBird (Cornell Laboratory of Ornithology and National Audubon Society). 2021. Online data. www.ebird.org

Jameson, E. W. and H. J. Peeters. 1988. *California Mammals*. University of California Press, Berkeley.

Jepson eFlora. 2021. Jepson Flora Project. http://ucjeps.berkeley.edu/eflora/

Munz, Philip A. 1974. *A Flora of Southern California*. University of California Press, Berkeley, California.

NRCS (USDA Natural Resources Conservation Service). 2021. SoilWeb online application. https://casoilresource.lawr.ucdavis.edu/gmap/

Parker, Robert et al. 1999. *Weeds of the West*. The Western Society of Weed Science. Newark, California. 630 pp.

RCA (Western Riverside County Regional Conservation Authority). 2020. Status of Covered Species Not Adequately Conserved. July 29. http://www.wrc-rca.org/about-rca/annual-reports/

_____. 2006. Burrowing Owl Survey Instructions for the Western Riverside County Multiple Species Habitat Conservation Plan Area. http://www.wrc-rca.org/mshcp-species-survey-protocols/

RCFC (Riverside County Flood Control). 2021. Precipitation data. http://content.rcflood.org/RainfallMap/

Sawyer, J. O., T. Keeler-Wolf, and J. M. Evens. 2009. *A Manual of California Vegetation, 2nd Edition*. California Native Plant Society, Sacramento, California. 1,300 pp.

Sibley, David Allen. 2000. *The Sibley Guide to Birds*. Alfred A. Knopf, Inc., New York, New York. 545 pp.

Stebbins, R. C. 1985. *Western Reptiles and Amphibians*. Houghton Mifflin Company, Boston Mass.

USACE (U.S. Army Corps of Engineers). 2018. National Wetland Plant List for the Arid West.

USGS (U.S. Geological Survey). 1979. *Romoland*, *California* 7.5-Minute topographic map. USGS, Denver, Colorado.

APPENDIX A: PLANT AND WILDLIFE SPECIES

List of plant and vertebrate animal species identified on the site during the survey. One asterisk (*) indicates a non-native species; two asterisks (**) indicates a special status species.

	Scientific Name	**Common Name**
	VASCULAR PLANTS	
	DICOTYLEDONS	
	Gymnosperms	
	CUPRESSACEAE	CYPRESS FAMILY
*	*Juniperus sp.*	Unid. ornamental juniper
	PINACEAE	PINE FAMILY
*	*Pinus species*	Unid. ornamental pine
	Angiosperms	
	ADOXACEAE	MUSKROOT FAMILY
	Sambucus nigra ssp. cerulea (S. mexicana)	Mexican elderberry, blue elderberry
	AIZOACEAE	FIG-MARIGOLD or ICEPLANT FAMILY
*	*Mesembryanthemum nodiflorum (Gasoul nodiflorum)*	Slender-leaved iceplant
	AMARANTHACEAE	AMARANTH FAMILY
	Amaranthus palmeri	Palmer's amaranth, Palmer's pigweed
	ANACARDIACEAE	SUMAC or CASHEW FAMILY
*	*Schinus molle*	Peruvian pepper tree
*	*Schinus polygamus*	Chilean pepper tree
	APOCYNACEAE	DOGBANE FAMILY
*	*Nerium oleander*	Common ornamental oleander
	ASTERACEAE	ASTER FAMILY
	Ambrosia acanthicarpa	Annual bur-sage, annual sandbur
*	*Centaurea melitensis*	Tocalote
	Corethrogyne filaginifolia var. filaginifolia (Lessingia filaginifolia)	California-aster, sand-aster
*	*Erigeron bonariensis (Conyza bonariensis)*	Flax-leaved horseweed
	Erigeron canadensis (Conyza canadensis)	Horseweed, mare's tail
	Helianthus annuus	Western sunflower
	Heterotheca grandiflora	Telegraph weed
*	*Lactuca serriola*	Prickly lettuce

	Scientific Name	**Common Name**
	Matricaria discoidea (Chamomilla suaveolens, M. matricarioides)	Pineapple weed
*	*Oncosiphon pilulifer (Matricaria globosa)*	Stinknet
*	*Sonchus asper*	Prickly sow thistle
*	*Sonchus oleraceus*	Common sow thistle
	Stephanomeria exigua ssp. deanei	Deane's wreath plant
	BORAGINACEAE	BORAGE OR WATERLEAF FAMILY
	Amsinckia menziesii (incl. A. m. var. menziesii)	Common fiddleneck, rancher's fiddleneck
	Heliotropium curassavicum	Wild heliotrope
	BRASSICACEAE	MUSTARD FAMILY
*	*Hirschfeldia incana (Brassica geniculata)*	Shortpod mustard
*	*Lepidium latifolium*	Perennial pepperweed, broad-leaved peppergrass
*	*Sisymbrium irio*	London rocket
*	*Sisymbrium officinale*	Hedge mustard
	CHENOPODIACEAE	GOOSEFOOT FAMILY
*	*Salsola tragus*	Russian thistle
	EUPHORBIACEAE	SPURGE FAMILY
	Croton setiger (C. setigerus, Eremocarpus setiger, E. setigerus)	Turkey-mullein, doveweed
	FABACEAE	LEGUME FAMILY, PEA FAMILY
*	*Acacia longifolia*	Sydney golden wattle
*	*Melilotus albus*	White sweetclover
*	*Prosopis chilensis*	Chilean mesquite
	GERANIACEAE	GERANIUM FAMILY
*	*Erodium cicutarium*	Redstem filaree
	MYRTACEAE	MYRTLE FAMILY, EUCALYPTUS FAMILY
*	*Eucalyptus species*	Ornamental eucalyptus, gumtree
*	*Eucalyptus cinerea*	Silver dollar tree
	SALICACEAE	WILLOW FAMILY
	Salix gooddingii	Goodding's black willow
	SOLANACEAE	NIGHTSHADE FAMILY
	Datura wrightii (D. meteloides)	Jimsonweed, tolguacha
*	*Nicotiana glauca*	Tree tobacco

Scientific Name	**Common Name**
TAMARICACEAE	TAMARISK FAMILY
* *Tamarix species*	Unid. tamarisk
ULMACEAE	ELM FAMILY
* *Ulmus species*	Ornamental elm
MONOCOTYLEDONS	
ARECACEAE	PALM FAMILY
* *Washingtonia robusta*	Mexican fan palm, ornamental fan palm
POACEAE	GRASS FAMILY
* *Avena fatua*	Wild oat
* *Bromus diandrus (B. rigidus)*	Ripgut brome
* *Bromus madritensis ssp. rubens (B. rubens)*	Red brome
* *Lamarckia aurea*	Goldentop grass
* *Schismus barbatus*	Mediterranean grass
* *Triticum aestivum*	Wheat

Scientific Name	**Common Name**
VERTEBRATES	
Reptiles	
Iguanidae	Iguanid Lizards
Sceloporus occidentalis	Western fence lizard
Uta stansburiana	Side-blotched lizard
Birds	
Accipitridae	Hawks, Eagles, and Harriers
** *Accipiter cooperii*	Cooper's hawk
Buteo jamaicensis	Red-tailed hawk
Aegithalidae	Long-tailed Tits
Psaltriparus minimus	Bushtit
Anatidae	Ducks, Geese, Swans
Anas platyrhynchos	Mallard (fly over)
Ardeidae	Herons
** *Ardea alba*	Great egret (fly over)
Charadriidae	Plovers
Charadrius vociferus	Killdeer
Columbidae	Pigeons and Doves
* *Columba livia*	Rock dove, common pigeon
Patagioenas (Columba) fasciata	Band-tailed pigeon
Zenaida macroura	Mourning dove
Corvidae	Crows and Jays
Corvus brachyrhynchos	American crow
Corvus corax	Common raven
Cuculidae	Cuckoos
Geococcyx californianus	Greater roadrunner
Falconidae	Falcons
Falco sparverius	American kestrel
Fringillidae	Finches
Spinus (Carduelis) psaltria	Lesser goldfinch
Haemorhous (Carpodacus) mexicanus	House finch
Hirundinidae	Swallows
Hirundo rustica	Barn swallow
Stelgidopteryx serripennis	Northern rough-winged swallow

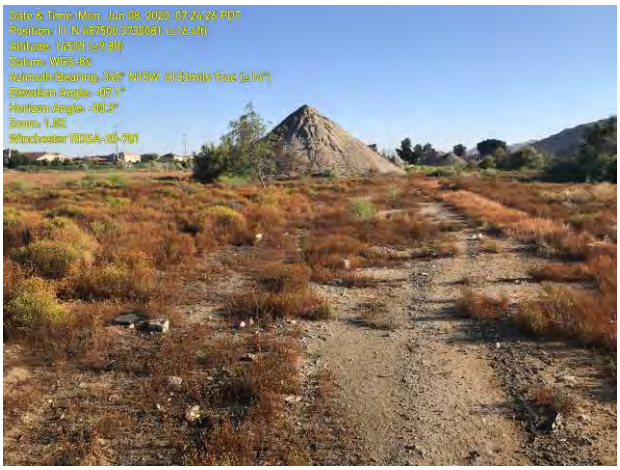
Scientific Name	**Common Name**
Icteridae	Blackbirds
Agelaius phoeniceus	Red-winged blackbird (fly over)
Euphagus cyanocephalus	Brewer's blackbird
Icterus cucullatus	Hooded oriole
Sturnella neglecta	Western meadowlark
Mimidae	Mockingbirds
Mimus polyglottos polyglottos	Northern mockingbird
Passerellidae	New World Sparrows
Chondestes grammacus	Lark sparrow
Melospiza melodia	Song sparrow
Melozone crissalis	California towhee
Passeridae	Old World Sparrows
* *Passer domesticus*	House sparrow
Picidae	Woodpeckers
** *Dryobates (Picoides) nuttallii*	Nuttall's woodpecker
Sturnidae	Starlings
* *Sturnus vulgaris*	European starling
Trochilidae	Hummingbirds
Calypte anna	Anna's hummingbird
Troglodytidae	Wrens
Thryomanes bewickii	Bewick's wren
Tyrannidae	Tyrant Flycatchers
Sayornis nigricans	Black phoebe
Sayornis saya	Say's phoebe
Tyrannus verticalis	Western kingbird
Mammals	
Geomyidae	Pocket Gophers
Thomomys bottae	Botta's pocket gopher (sign)
Leporidae	Rabbits
** *Lepus californicus bennettii*	San Diego black-tailed jackrabbit
Sylvilagus audubonii	Audubon's cottontail
Sciuridae	Squirrels
Spermophilus beecheyi	California ground squirrel

APPENDIX B: SITE PHOTOGRAPHS

Low concrete tank on the north-central area of the site, facing north (Pool M-01). Large trees on the site are visible in the background (06.08.2020).

Cracked soils showing evidence of ponding, northeast-central area of site (Pool M-03), facing north-northwest (06.08.2020).

Piles of material and a structure in the west-central area of the site, facing south-southeast (06.08.2020).



Ruderal vegetation and a pile of material on the south-central area of the site, facing north (06.08.2020).

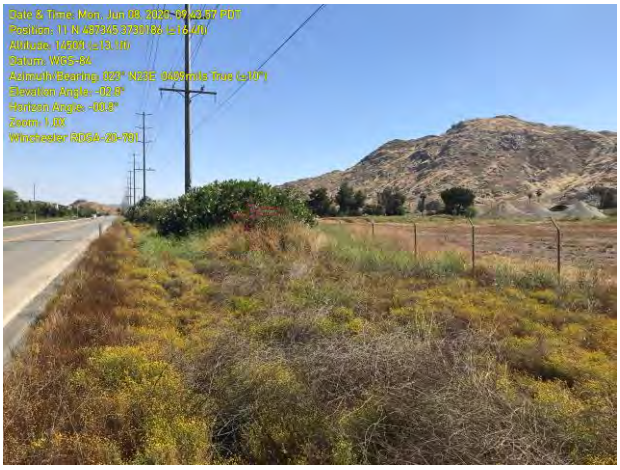
Ruderal vegetation on the west side of site, facing south. Utility poles on the right are along Briggs Road (06.08.2020).

Eastern boundary of the site, from the south end looking north (06.08.2020).

Willow growing in a concrete slab on north-central area of site, facing west. Adjacent residential development visible in background (06.08.2020).

Ornamental trees in the north-central area of the site, facing west (06.08.2020).

Concrete v-ditch along the west side of the project site, near northwest corner of site, facing south. Briggs Road is on the right (06.08.2020).



Concrete v-ditch largely obscured by weedy growth, along southwest area of site, facing north. Briggs Road is on the left (06.08.2020).

Typical ground squirrel burrow on site (06.08.2020).

Typical ground squirrel burrow on site (06.08.2020).

APPENDIX C: RIVERSIDE COUNTY DOCUMENTATION

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: May 5, 2021 SIGNED: 

Leslie Irish, Principal, L&L Environmental, Inc.
909-335-9897

1) Fieldwork Performed By:

Guy Bruyea
Name

2) Fieldwork Performed By:

Garrett Huffman
Name

3) Fieldwork Performed By:

_____
Name

4) Fieldwork Performed By:

_____
Name

5) Fieldwork Performed By:

_____
Name

6) Fieldwork Performed By:

_____
Name

Check here __ if adding any additional names/signatures below or on other side of page.

BIOLOGICAL REPORT SUMMARY SHEET

Applicant Name: RDS and Associates
Assessor's Parcel Number(s): 461-140-050
Section, Township and Range: Section 30 of Township 5 South, Range 2 West
Building and Safety Log Number:
Case Number: PPT 190038 Lot/Parcel EA Number

MARK ITEM(S) SURVEYED FOR	SPECIES or ENVIRONMENTAL ISSUE of CONCERN	*(Mark Yes, No, or N/A regarding species findings on the referenced site)*		
		Yes	No	n/a
	Arroyo Southwestern Toad			x
X	Blue-line Stream(s)		x	
X	Burrowing Owl		x	
	Coachella Valley Fringed-toed Lizard			x
	Coastal California Gnatcatcher			x
X	Coastal Sage Scrub		x	
	Delhi Sands Flower-loving Fly			x
	Desert Pupfish			x
	Desert Slender Salamander			x
	Desert Tortoise			x
	Flat-tailed Horned Lizard			x
	Least Bell's Vireo			x
X	Oak Woodlands		x	
	Quino Checkerspot Butterfly			x
X	Riverside Fairy Shrimp		x	
	Santa Ana River Woolystar			x
	San Bernardino Kangaroo Rat			x
	Slender-horned Spineflower			x
	Stephens' Kangaroo Rat			x
X	Vernal Pools		x	
X	Wetlands (MSHCP Riparian/Riverine)		x	
X	Munz's Onion		x	
X	San Diego Ambrosia		x	
X	Many-stemmed Dudleya		x	
X	Spreading Navarretia		x	
X	California Orcutt Grass		x	
X	Wright's Trichocoronis		x	

Species of concern shall be any unique, rare, endangered, or threatened species. It shall include species used to delineate wetlands and riparian corridors. It shall also include any hosts, perching, or food plants used by any animals listed as rare, endangered, threatened, or candidate species by either state, or federal regulations, or for Riverside County as listed by the California Department of Fish and Wildlife Natural Diversity Data Base (CNDDB).

I declare under penalty of perjury that the information provided on this summary sheet is in accordance with the information provided in the biological report or habitat assessment.

L & L Environmental, Inc.	**May 5, 2021**
Signature and Company Name	Date
10(a) Permit Number (if applicable)	Permit Expiration Date

County Use Only

Received By: _____ Date: _____

PD-B# _____

Attachment E-4

LEVEL OF SIGNIFICANCE CHECKLIST
For Biological Resources

Case Number: PPT 190038 Lot/Parcel No. _____ EA Number _____

Assessor's Parcel Number(s): 461-140-050

Date: May 5, 2021

Biological Resources: (Check the level of impact that applies to the following questions.)

Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact

a) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state conservation plan?

☐ ■ ☐ ☐

b) Have a substantial adverse effect, either directly or through habitat modifications, on any endangered, or threatened species, as listed in Title 14 of the California Code of Regulations (Sections 670.2 or 670.5) or in Title 50, Code of Federal Regulations (Sections 17.11 or 17.12)?

☐ ☐ ☐ ■

c) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife, or U. S. Wildlife Service?

☐ ■ ☐ ☐

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species, or with established native resident migratory wildlife corridors, or impede the use of native wildlife nursery sites?

☐ ☐ ☐ ■

e) Have a substantial adverse effect on any riparian habitat, or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game, or the U. S. Fish and Wildlife Service?

☐ ☐ ☐ ■

LEVEL OF SIGNIFICANCE CHECKLIST
For Biological Resources

f) Have a substantial adverse effect on federally protected wetlands, as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pools, coastal, etc.) through direct removal, filling, hydrological interruption)

☐ ☐ ☐ ■

g) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

☐ ☐ ☐ ■

Findings of Fact:

No habitat for narrow endemic plants and no listed or special status plants observed.
No state or federally listed wildlife species observed. Four special status wildlife species observed: Cooper's hawk, great egret (fly over), Nuttall's woodpecker, and San Diego black-tailed jackrabbit.
Evidence of ponding and potential fairy shrimp habitat is present. No listed fairy shrimp found.
No habitat for riparian birds.
Potentially suitable habitat for burrowing owl present, but no owls or owl sign observed.
Suitable habitat for nesting birds.
Salt Creek Channel (PQP conserved land) is approximately 0.66 mile south of the site. No other MSHCP conserved lands are located within one mile of the site.
A concrete v-ditch along the site appears to empty into Salt Creek Channel.

Proposed Mitigation:

Preconstruction nesting bird survey during nesting season and avoidance buffers for active nests.
Preconstruction burrowing owl survey.
Preconstruction bat survey if structures will be demolished or trees removed/trimmed.
Measures to avoid discharge of untreated surface runoff into Salt Creek.
Avoid the use of landscaping plants listed on MSHCP Table 6.2.

Monitoring Recommended:

None

Source: CGP Fig. VI.36-VI.40
Revised October 1999
CEQA checklist update December 2018

APPENDIX D: MSHCP TABLE 6-2

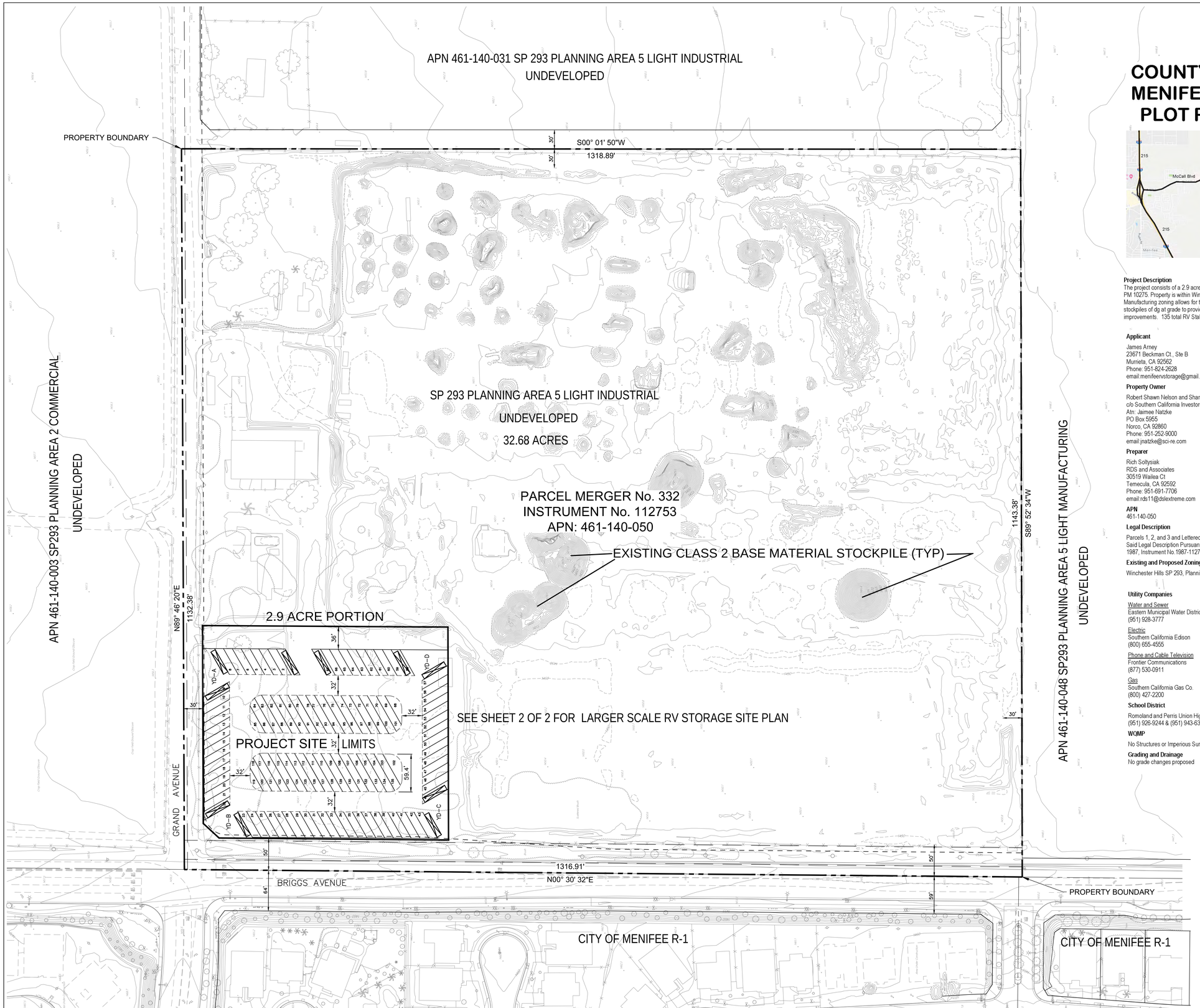
TABLE 6-2. PLANTS THAT SHOULD BE AVOIDED ADJACENT TO THE MSHCP CONSERVATION AREA

BOTANICAL NAME	COMMON NAME
Acacia spp. (all species)	acacia
Achillea millefolium var. *millefolium*	common yarrow
Ailanthus altissima	tree of heaven
Aptenia cordifolia	red apple
Arctotheca calendula	cape weed
Arctotis spp. (all species & hybrids)	African daisy
Arundo donax	giant reed or arundo grass
Asphodelus fistulosus	asphodel
Atriplex glauca	white saltbush
Atriplex semibaccata	Australian saltbush
Carex spp. (all species*)	sedge
Carpobrotus chilensis	ice plant
Carpobrotus edulis	sea fig
Centranthus ruber	red valerian
Chrysanthemum coronarium	annual chrysanthemum
Cistus ladanifer (incl. hybrids/varieties)	gum rockrose
Cortaderia jubata [*syn.C. Atacamensis*]	jubata grass, pampas grass
Cortaderia dioica [syn. *C. sellowana*]	pampas grass
Cotoneaster spp. (all species)	cotoneaster
Cynodon dactylon (incl. hybrids varieties)	Bermuda grass
Cyperus spp. (all species*)	nutsedge, umbrella plant
Cytisus spp. (all species)	broom
Delosperma 'Alba'	white trailing ice plant
Dimorphotheca spp. (all species)	African daisy, Cape marigold
Drosanthemum floribundum rosea	ice plant
Drosanthemum hispidum	purple ice plant
Eichhornia crassipes	water hyacinth
Elaegnus angustifolia	Russian olive
Eucalyptus spp. (all species)	eucalyptus or gum tree
Eupatorium coelestinum [syn. *Ageratina* sp.]	mist flower
Festuca arundinacea	tall fescue
Festuca rubra	creeping red fescue
Foeniculum vulgare	sweet fennel
Fraxinus uhdei (and cultivars)	evergreen ash, shamel ash
Gaura (spp.) (all species)	gaura
Gazania spp. (all species & hybrids)	gazania
Genista spp. (all species)	broom
Hedera canariensis	Algerian ivy
Hedera helix	English ivy
Hypericum spp. (all species)	St. John's Wort
Ipomoea acuminata	Mexican morning glory
Lampranthus spectabilis	trailing ice plant
Lantana camara	common garden lantana
Lantana montevidensis [syn. *L. sellowiana*]	lantana
Limonium perezii	sea lavender
Linaria bipartita	toadflax
Lolium multiflorum	Italian ryegrass
Lolium perenne	perennial ryegrass
Lonicera japonica (incl. 'Halliana')	Japanese honeysuckle
Lotus corniculatus	birdsfoot trefoil
Lupinus arboreus	yellow bush lupine

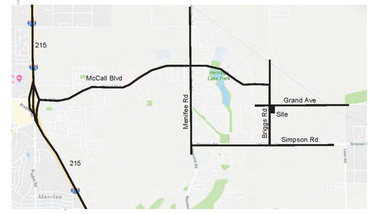
Lupinus texanus	Texas blue bonnets
Malephora crocea	ice plant
Malephora luteola	ice plant
Mesembryanthemum nodiflorum	little ice plant
Myoporum laetum	myoporum
Myoporum pacificum	shiny myoproum
Myoporum parvifolium (incl. 'Prostratum')	ground cover myoporum
Oenothera berlandieri	Mexican evening primrose
Olea europea	European olive tree
Opuntia ficus-indica	Indian fig
Osteospermum spp. (all species)	trailing African daisy, African daisy,
Oxalis pes-caprae	Bermuda buttercup
Parkinsonia aculeata	Mexican palo verde
Pennisetum clandestinum	Kikuyu grass
Pennisetum setaceum	fountain grass
Phoenix canariensis	Canary Island date palm
Phoenix dactylifera	date palm
Plumbago auriculata	cape plumbago
Polygonum spp. (all species)	knotweed
Populus nigra 'italica'	Lombardy poplar
Prosopis spp. (all species*)	mesquite
Ricinus communis	castorbean
Robinia pseudoacacia	black locust
Rubus procerus	Himalayan blackberry
Sapium sebiferum	Chinese tallow tree
Saponaria officinalis	bouncing bet, soapwart
Schinus molle	Peruvian pepper tree, California pepper
Schinus terebinthifolius	Brazilian pepper tree
Spartium junceum	Spanish broom
Tamarix spp. (all species)	tamarisk, salt cedar
Trifolium tragiferum	strawberry clover
Tropaelolum majus	garden nasturtium
Ulex europaeus	prickly broom
Vinca major	periwinkle
Yucca gloriosa	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.

APPENDIX E: SITE PLAN



COUNTY OF RIVERSIDE
MENIFEE RV STORAGE
PLOT PLAN # 190038



Project Description
The project consists of a 2.9 acre RV Storage yard on a portion of an 32.68 net acre Parcel 1 of PM 10275. Property is within Winchester Hills SP 293, Planning Area 5. The existing Light Manufacturing zoning allows for this use. Site work will only consist of spreading existing onsite stockpiles of dg at grade to provide for a pervious parking surface. No proposed structures or utility improvements. 135 total RV Stalls.

Applicant

James Arney
23671 Beckman Ct., Ste B
Murrieta, CA 92562
Phone: 951-824-2628
email:menifeervstorage@gmail.com

Property Owner

Robert Shawn Nelson and Sharon Nelson
c/o Southern California Investors, Inc.
Attn: Jaimee Natzke
PO Box 5955
Norco, CA 92860
Phone: 951-252-9000
email:jnatzke@sci-re.com

Preparer

Rich Soltysiak
RDS and Associates
30519 Wailea Ct
Temecula, CA 92592
Phone: 951-691-7706
email:rds11@dslextreme.com

APN
461-140-050

Legal Description

Parcels 1, 2, and 3 and Lettered Lots B, C, D, G, H, I, J, K, and L of Amended Parcel Map 10275
Said Legal Description Pursuant to Certificate of Parcel Merger No. 332 Recorded on April 23, 1987, Instrument No.1987-112753 of Official Records.

Existing and Proposed Zoning

Winchester Hills SP 293, Planning Area 5, Light Manufacturing

Utility Companies

Water and Sewer
Eastern Municipal Water District
(951) 928-3777

Electric
Southern California Edison
(800) 655-4555

Phone and Cable Television
Frontier Communications
(877) 530-0911

Gas
Southern California Gas Co.
(800) 427-2200

School District

Romoland and Perris Union High
(951) 926-9244 & (951) 943-6369

WQMP

No Structures or Imperious Surfaces Proposed.

Grading and Drainage
No grade changes proposed

Underground Service Alert
811
TWO WORKING DAYS BEFORE YOU DIG

60 0 30 60 120
SCALE: 1"= 60'

NOTE:

The private engineer signing these plans is responsible for assuring the accuracy and acceptability of the design hereon. In the event of discrepancies arising after county approval or during construction, the private engineer shall be responsible for determining an acceptable solution and revising the plans for approval by the county.

MARK	BY	DATE	REVISIONS	APPR.	DATE

ENGINEER — COUNTY

SEAL-ENGINEER
REGISTERED PROFESSIONAL ENGINEER
RICHARD D. SOLTYSIAK
No. 37233
EXP. 06-30-20
STATE OF CALIFORNIA

ENGINEERING COMPANY

RDS & ASSOCIATES
30519 Wailea Court
Temecula, CA 92592
Phone: (951) 691-7706

PREPARED BY: Richard D. Soltysiak, P.E.
R.C.E. NO. 37233
DATE

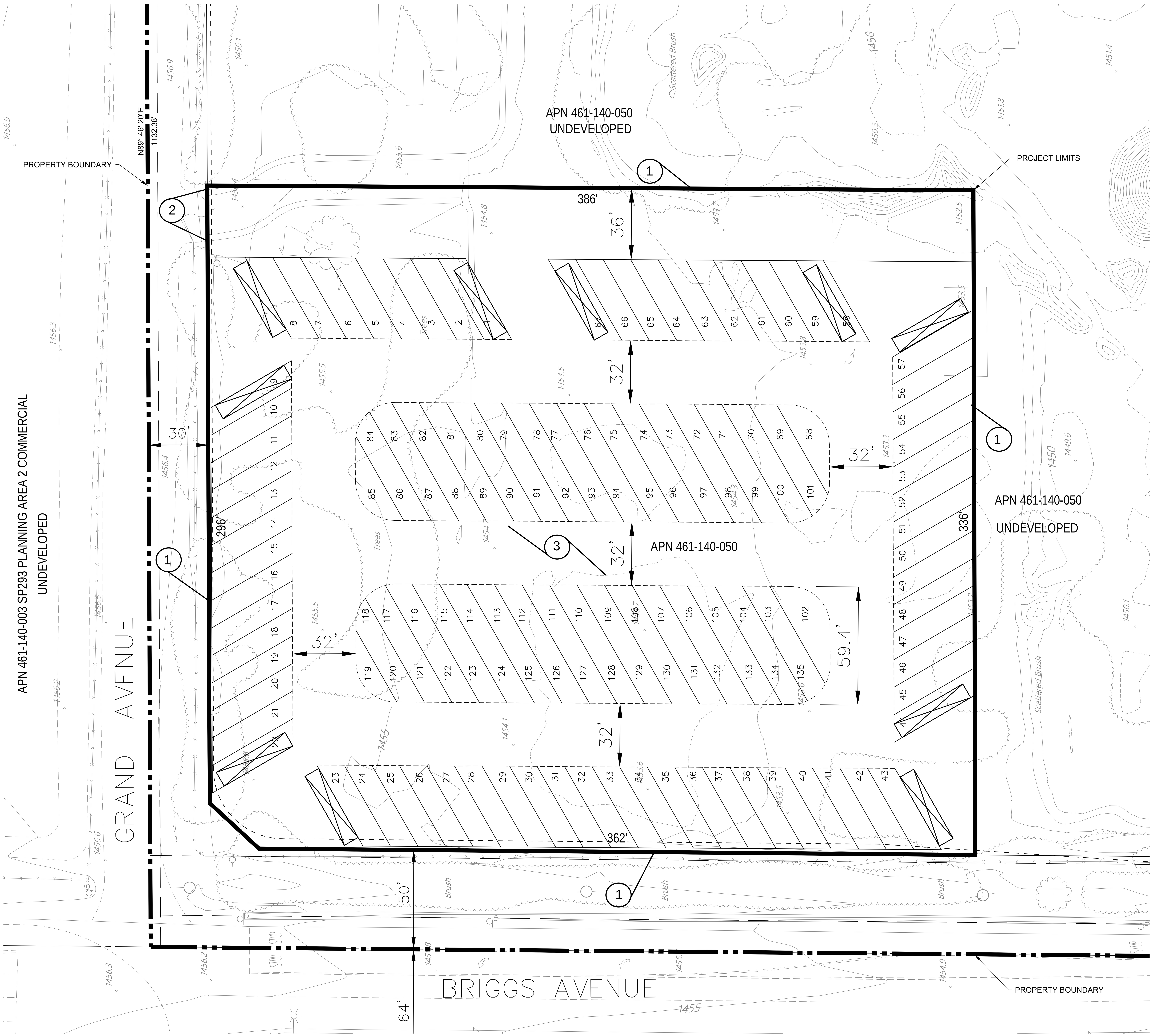
BENCHMARK:

SCALE: H: 1" = 60' V: As Shown

COUNTY OF RIVERSIDE
MENIFEE RV STORAGE
PLOT PLAN # 190038 EXHIBIT A

FOR: | W.O. | COUNTY FILE NO.

SHEET NO. PP-1
1 OF 2 SHTS



NOTES

1. SECURITY FENCING ALONG SITE PERIMETER
2. ENTRY GATE WITH KNOX BOX
3. CLASS 2 BASE MATERIAL SURFACING PLACED FROM ONSITE STOCKPILES

Underground Service Alert
811
TWO WORKING DAYS BEFORE YOU DIG

CITY OF MENIFEE R-1

SCALE: 1"= 20'

NOTE:

The private engineer signing these plans is responsible for assuring the accuracy and acceptability of the design hereon. In the event of discrepancies arising after county approval or during construction, the private engineer shall be responsible for determining an acceptable solution and revising the plans for approval by the county.

MARK	BY	DATE	REVISIONS	APPR.	DATE
ENGINEER				COUNTY	

SEAL-ENGINEER: REGISTERED PROFESSIONAL ENGINEER, RICHARD D. SOLTYSIAK, No. 37233, EXP. 06-30-20, STATE OF CALIFORNIA

ENGINEERING COMPANY

RDS & ASSOCIATES
30519 Wailea Court
Temecula, CA 92592
Phone: (951) 691-7706

PREPARED BY: Richard D. Soltysiak, P.E.
R.C.E. NO. 37233
DATE

BENCHMARK:

SCALE: H: 1" = 20' V: As Shown

COUNTY OF RIVERSIDE
MENIFEE RV STORAGE
PLOT PLAN #190038 EXHIBIT B

FOR:
W.O.
COUNTY FILE NO.

SHEET NO. PP-2
2 OF 2 SHTS

APPENDIX F: FAIRY SHRIMP SURVEY REPORT

MENIFEE RV

90-DAY WET AND DRY SEASON VERNAL POOL BRANCHIOPOD SURVEY REPORT 2020-2021

PREPARED FOR
L&L ENVIRONMENTAL
721 NEVADA ST. SUITE 307
REDLANDS, CA 92373

PREPARED BY
HUFFMAN ENVIRONMENTAL
PO BOX 2024
JULIAN, CA 92036

Table of Contents

Tables

Figures

1. Summary

Huffman Environmental, LLC. (Huffman Environmental) and L&L Environmental were contracted to conduct United States Fish and Wildlife (USFWS) Protocol 2020-2021 dry and wet season, vernal pool branchiopod (herein fairy shrimp) surveys for the Menifee RV Project (herein Project) in Riverside County, California. This project site supports eight identified ponding locations capable of supporting branchiopods. Approximately 155 dry season samples were also collected from eight features and processed for the presence of branchiopod cysts. During dry season sampling, one feature (M-07) came back positive for cysts and cultures confirmed the presence of Lindahl's fairy shrimp (*Branchinecta lindahli*). During wet season sampling, one feature (M-03) contained fairy shrimp and vouchered the species, *B. lindahli*. No federally-listed, Endangered or Threatened, species were detected in the processing of dry samples.

2. Introduction

2.1 *Project Location*

L&L Environmental was contracted during 2020 to provide environmental services for the Project, including dry and wet season fairy shrimp sampling in any features that pond long enough to support their life cycle. The Project is a 21.38-acre site located in Riverside County, California. The site is located within the city of Menifee, southeast of the Grand Ave and Briggs Road junction. The site falls within the Romoland, United States Geological Survey (USGS) 7.5-minute series quadrangle map (Figure 1).

2.2 *Historical Occurrences*

There are currently no recorded sensitive fairy shrimp within the Project boundaries per the California Natural Native Database (CNDDB) and United States Fish and Wildlife Services (USFWS) National GIS Database. The nearest recorded observation identified Riverside fairy shrimp (*Streptocephalus woottoni*) occurred within the city of Menifee's boundaries on a residential community development, approximately 1.67 miles south of the project site (CDFG 2020).

2.3 *Natural History*

USFWS currently has listed six branchiopod species as Endangered or Threatened: Conservancy fairy shrimp (*Branchinecta conservatio*), longhorn fairy shrimp (*Branchinecta longiantenna*), vernal pool tadpole shrimp (*Lepidurus packardi*), vernal pool fairy shrimp (*Branchinecta lynchi*), Riverside fairy shrimp (*Streptocephalus woottoni*), and the San Diego fairy shrimp (*Branchinecta sandiegonensis*). These species collectively are commonly referred to as the "Listed Large Brachiopods" These species have all been listed by USFWS primarily due to the acceleration of human expansion and urban construction in vernal pool habitat. Additionally, vernal pool hydrology has been impacted through the alteration of water flow by a variety of infrastructure development, such as roads, trails, canals and so forth (USFWS Oregon 2020).

Vernal pools are formed from restrictive substrate layers that occur just under the ground surface, reducing water percolation. Once these layers within the subsoil become inundated, the basin will begin to fill. This allows for ponding to occur, creating habitat for fairy shrimp (CDFW 1998). Specific plant species have become endemic to these features and can be used to aid in the identification of vernal pools.

Habitat for fairy shrimp can naturally form or be created by other artificial, topographic features mimicking the aquatic habitat of the natural vernal pools (Sutter 1998). These vernal pool mimics may include such anthropogenic features as tire ruts, agricultural and construction ditches, cement culverts and so forth.

All of the above mentioned brachiopods have limited life spans for no longer than 150 days and can be completed in as little as 20 days with a relatively quick reproduction rate between 20 to 60 days (USFWS 1994). These species will deposit their embryos, enveloped by a protective shell known as cysts, into the substrate. These cysts protect the embryos during the dry seasons and are exposed to a variety of elements. Cysts have known to be viable for up to 15 years (Eriksen and Belk 1999). These cysts will break dormancy after environmental stimuli, such as precipitation, and restart the life cycle given the appropriate conditions.

3. Methods

3.1 *Habitat Assessment*

Huffman Environmental conducted a project wide assessment to determine habitat suitability for supporting fairy shrimp in September, 2020. The site consists of a combination of ornamental, disturbed and non-native grass habitat from previous

construction impacts via dozer ripping and grading. In addition to visual evidence from historical, aerial imagery, physical survey results identified eight features throughout the site with evidence of periodic ponding to support fairy shrimp habitat.

3.2 Wet Season Survey Methodology

Survey methodology was conducted in accordance with the USFWS *Survey Guidelines for Listed Large Branchiopods*, revised November 13, 2017, for wet season vernal pool branchiopod surveys. Per the Guidelines, the wet season generally occurs in California between October and June. Surveys were conducted November 14 2020 to March 9, 2021. Beginning on November 14, 2020, each feature was sampled at seven-day intervals until dry, and sampling was reinitiated within seven days of the feature becoming inundated again. Survey visits discontinued after the features went dry for the season.

Huffman Environmental biologist, Garrett Huffman (TE-20186A-3.1), conducted all wet season vernal pool sampling on the project site. Data collected for the feature included 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. The feature was sampled using a standard 50-micron hand-held net to sweep through the water and examine invertebrates. Within Menifee RV project boundaries, 8 locations (referred to collectively as "M" pools 1 through 8) were identified to be capable of ponding throughout the site. Common species, Lindahl's fairy shrimp (*Branchinecta lindahli*), was observed during one visit of sampling at pool M-3 on February 2nd, 2021. Vouchering of the species was conducted and delivered the LA History Museum per USFWS Protocol Guidelines.

3.3 Dry Season Survey Methodology

Dry season soil samples were collected in September, 2020 from the Menifee RV Project basins. Quantity of sample collections is determined by applying USFWS *Survey Guidelines for Listed Large Branchiopods* (USFWS 2017) formula by calculating approximate feature size in square meters. Five Project features were estimated to be in between 25 - 235 square meters (0.05 acres) requiring a minimum of 25 collected soil samples at a volume of 50 - 100 milliliters each. Three Project features were estimated to be in between 2.5 - 24 square meters (0.005 acres) requiring a minimum of 10 collected soil samples at a volume of 50 - 100 milliliters each. Each sample was

collected from the lowest topographic areas within the pool to maximize the detection of cysts, if present.

Dry sample collections were conducted by biologist Garrett Huffman and dry sample processing conducted by biologist, Chuck Black (TE-835549-7). All data compiled during dry sample processing can be reviewed at Appendix B.

3.4 Soil Processing for Cyst Presence

Samples were hydrated for approximately 1-12 hours in tap water, then washed through a set of sieves. 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. 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 ¼ or ½ subsections of the filter and multiplying the subset by the appropriate factor. The presence and numbers of ostracod shells and cladoceran ephippia were also noted in samples.

3.5 Cyst Culturing

Individual 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 60's, daily highs in the low 70's 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.

4. Results

During the 2020-2021 wet season, only one feature, M-03, of the previously identified eight features were indundated adequately with water for a duration to support the hatching and maturity of fairy shrimp. Per USFWS Protocol, pond checks were conducted on all features 24 hours after recording precipitation events suitable enough to create pooling. Features dried within the first week on all visits with the exception of pool "M-03," which ponded for a two week period before becoming dry. Pool M-03 contained the common, Lindahl's fairy shrimp (*Branchinecta lindahli*). Cysts were not detected in pool M-03 during dry season collections. Cysts were detected in feature M-07 for *B. lindahli*, but the feature did not at any time pool for a duration that allowed the hatching of cysts during the wet season.

During the 2020 dry season, 155 soil samples from the Project features were processed with 44 *Branchinecta* cysts detected within one of the eight features, M-07. Ostracod shells and cladoceran ephippia were found in low to moderate numbers within feature M-08. *Branchinecta* cyst culturing produced nauplii in outside tub two days after hydration. Five fairy shrimp were counted during maturation producing three male and two female individuals. All were identified as Lindahl's fairy shrimp (*Branchinecta lindahli*).

Table 1: Wet Sample Processing Results

Wet FS Sampling (x = pool inundated)								
	M-01	M-02	M-03	M-04	M-05	M-06	M-07	M-08
14-Nov	dry	dry	dry	dry	dry	dry	dry	dry
4-Jan	dry	dry	dry	dry	dry	dry	dry	dry
11-Jan	dry	dry	dry	dry	dry	dry	dry	dry
18-Jan	dry	dry	dry	dry	dry	dry	dry	dry
26-Jan	dry	dry	x	dry	dry	dry	dry	dry
2-Feb	dry	dry	x	dry	dry	dry	dry	dry
9-Feb	dry	dry	dry	dry	dry	dry	dry	dry

9-Mar	dry	dry	dry	dry	dry	dry	dry	dry

Table 2: Dry Sample Processing Results

		Numbers per sample		Numbers per liter		*Branchinecta lindahli* identified males:females
Pool	Numbers of 50 ml samples	Branchinecta cysts	Ostrocods	Branchinecta cysts	Ostrocods	
M-01	25	*				
M-02	10					
M-03	25					
M-04	25					
M-05	10					
M-06	25					
M-07	10	2,4,3,1,1,4,3,2,2		44.0		3:2
M-08	25		5,4,6,5,1,5,3,10, 2,3,1		37.6	

5. Conclusion

2020/2021 wet and dry season sampling detected the presence of the common, Lindahl's fairy shrimp (*Branchinecta lindahli*). This was verified through the culturing of cysts during the dry season and vouchering of fairy shrimp during the wet season. No federally-listed, Endangered or Threatened, species were observed during either the wet and dry season surveying. These survey results fulfill both wet and dry season requirements to meet USFWS criteria for a complete survey.

6. Certification

All biologists working under Huffman Environmental for the 2020 fairy shrimp, wet and dry season Menifee RV Project were permitted to survey for this species under Section 10(a)(1)(A) of the ESA.

I certify that the information in this report and attached figures completely and accurately represent the work of the individual permittee.

Please feel free to contact me at (623) 238-1545 or garrett@huffmanenvironmental.com if you have any questions regarding the contents of this report.

Cordially,

Garrett Huffman

Garrett Huffman
Principal Biologist
Huffman Environmental, LLC
(623) 238-1545
garrett@huffmanenvironmental.com

7. Citations

California Department of Fish and Game (CDFG). California Natural Diversity DataBase (CNDDB). 2020a. RareFind Database Program, Commercial Version July 14.

2020b. Biogeographic Information and Observation System. Information located at http://bios.dfg.ca.gov/whatis.asp.

C. W. Witham, E.T. Bauder, D. Belk, W.R. Ferren Jr., and R. Ornduff (Editors). *Ecology,Conservation, Management of Vernal Pool Ecosystems* – Proceedings from a 1996 Conference. California Native Plant Society, Sacramento, CA, 1998

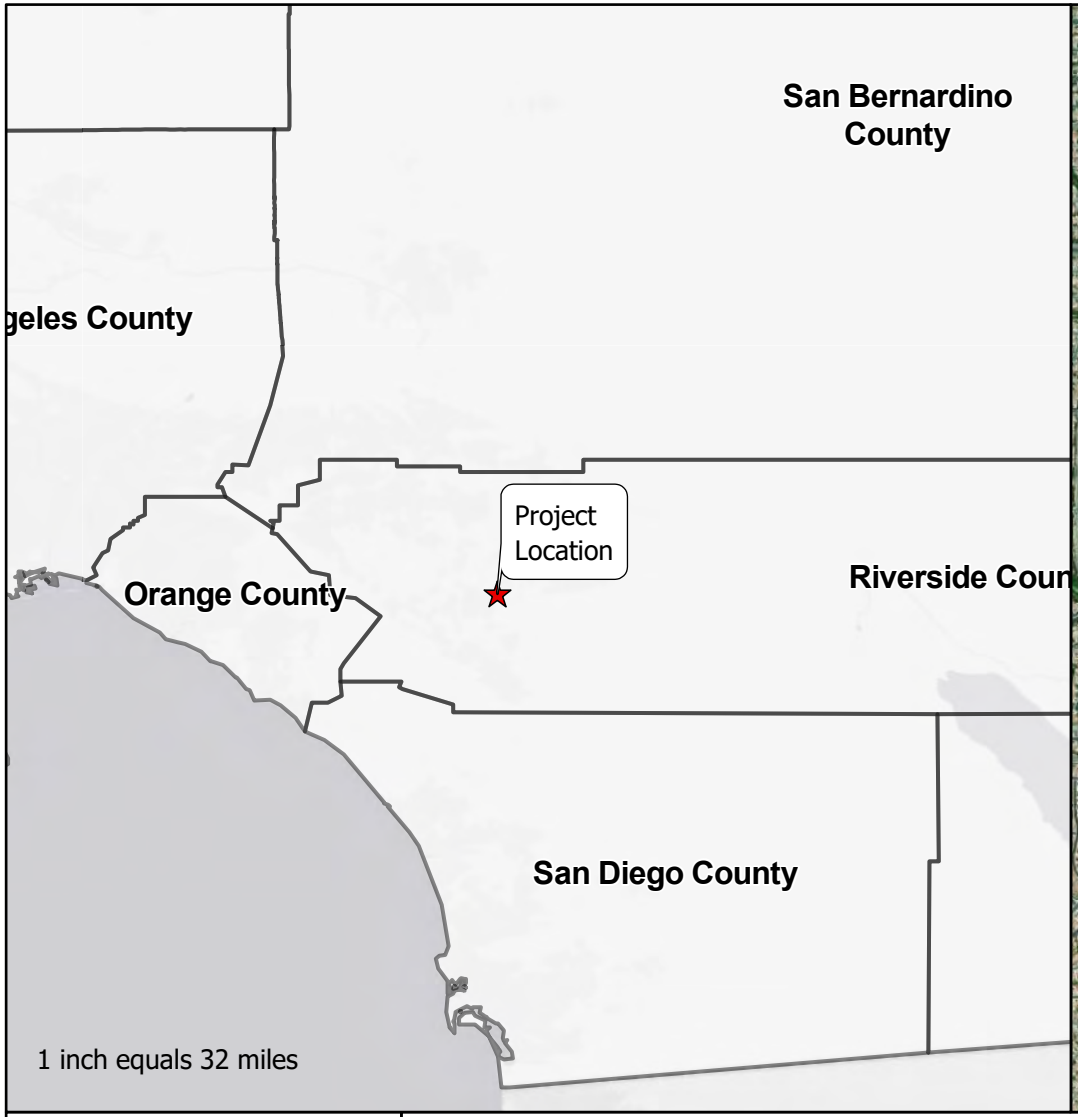
Eriksen, C. H. and D. Belk. 1999. *Fairy Shrimps of California's Puddles, Pools, and Playas*. Mad River Press, Inc., Eureka, CA.

Keeley, J.E. and P.H. Zedler. *Characterization and Global Distribution of Vernal Pools*. Pp 1-14

U.S. Fish and Wildlife Service. 2017. *Survey Guidelines for Listed Large Branchiopods*. November 13, 2017.

Oregon Fish and Wildlife. *Vernal Pool Fairy Shrimp.* December2019. https://www.fws.gov/oregonfwo/articles.cfm?id=149489448

U.S. Fish and Wildlife Service. 1994. *Endangered and Threatened Wildlife and Plants;Determination of Endangered Status for the Conservancy Fairy Shrimp, Longhorn Fairy Shrimp, and the Vernal Pool Tadpole Shrimp; and Threatened Status for the Vernal Pool Fairy Shrimp*. Federal Register 59 (180): 48136-48152.



Huffman ENVIRONMENTAL

Figure 1: Project Location
Fairy Shrimp Wet & Dry Season Surveys

Menifee RV Project

2021

Coordinate System: NAD 1983 StatePlane California VI FIPS 0406 Feet

N

0 0.25 0.5 Mi

0 0.47 0.95 Km

Figure 2: Pool Locations
Fairy Shrimp Wet and Dry Season Surveys

Menifee RV Project

2021

Attachment A

Site Photos

Photo 1: Northwest view of basin feature M-01 bordered by block walls.

Photo 2: Gradual sloping feature M-02 with tamarisk in the center

Photo 3: Western view of M-03 feature that contained *B. lindahli*

Photo 4: Disturbed feature M-04 with evidence of tire tracks

Photo 5: View of M-05 feature and tire tracks.

Photo 6: Southeastern view of M-07 and debris scattered. This basin is positive for fairy shrimp cysts.

Photo 7: Wide, southeastern view of basin M-08

Attachment B
Dry Season Data and Notes

Processing of Dry Samples for the Presence of Fairy Shrimp Cysts and Culturing of Cysts for Species Determination at Menifee RV Project Site

18 October 2020

Chuck Black
Ecological Restoration Service
San Diego, CA 92103
(619) 944-1964

10(a)(1)(A) permit
TE835549-7
Good through April, 2021

Introduction

Ecological Restoration Service was contracted in September, 2020 by Garrett Huffman of Huffman Environmental, Julian, CA, for processing of dry samples for the determination of the presence of fairy shrimp cysts, and for culturing of *Branchinecta* cysts for identification to the species level of any cysts found for dry samples from project site Menifee RV.

Soil Processing for Cyst Presence

Methods

Samples were processed by Charles Black of Ecological Restoration Service, who is authorized by the U.S. fish and Wildlife Service to process dry samples for the presence of fairy shrimp cysts and to culture cysts to identify to species level as special conditions of his 10(a)(1)(A) permit. Samples were hydrated for approximately 1-12 hours in tap water, then washed through a set of sieves. Material passing through a Number 45 (.0139") USA Standard Testing Sieve, A.S.T.M.E.-11 specification and caught on a Number 70 (.0083") Sieve was rinsed into a container with approximately 50 ml 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. The material left on the paper was examined under a 6.3-57x power Olympus SZX9 Zoom Stereo Microscope. Distinctive fairy shrimp cysts, if present, were individually counted (if less than approximately 50) or estimated (for larger numbers) by examining ¼ or ½ subsections of the filter and multiplying the subset by the appropriate factor. The presences and numbers of ostracod shells were also noted in samples.

Results

Branchinecta cysts were found in low to moderate numbers in one basin at the Menifee project. Ostracod shells were found in low numbers in one of the basins' samples. No cladoceran ephippi were found in any of the basins.

Cyst Culturing

Methods

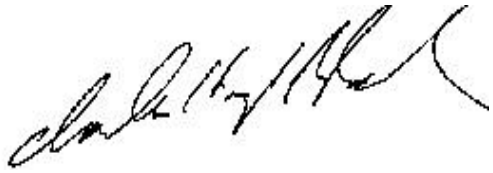
Individual samples were combined by pool number and hydrated in approximately 500 ml of Arrowhead Mountain Spring water. Plastic culture tubs were placed in a shady location in a San Diego outdoor location (night low temperatures in the low to mid 60's, daily highs in the low 70's to high 80s). Two days 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. Fairy shrimp were removed as they became mature and identified to species.

Results

Fairy shrimp nauplii were observed 2 days after hydration. Hatching of cysts at minimum temperatures in the mid-60s indicates that the species present on this site is *Branchinecta lindahli*, Lindahl's fair shrimp, since the alternate possibility species*, Branchinecta sandiegonensis*, San Diego fairy shrimp, does not hatch well at temperatures above 55 degrees F.

Fairy shrimp hatched and survived to maturity in one basin from the Menifee site. All of the fairy shrimp identified were Lindahl's fairy shrimp, *Branchinecta lindahli.*

I certify that the information in this survey report and attached exhibits fully and accurately represent my work.



Chuck Black