DETERMINATION OF BIOLOGICALLY EQUIVALENT OR SUPERIOR PRESERVATION REPORT

RAMONA LAND DEVELOPMENT PROJECT

CITY OF SAN JACINTO

RIVERSIDE COUNTY, CALIFORNIA

Permittee:

City of San Jacinto
595 South San Jacinto Avenue
San Jacinto, California 92583

Applicant:

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Consultant:

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LSA Project No. FVP2201

LSA

September 2024

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LIST OF ABBREVIATIONS AND ACRONYMS

APN	Assessor's Parcel Number
BRA	Biological Resources Assessment
BSA	Biological Study Area
CASSA	Criteria Area Species Survey Area
CDFW	California Department of Fish and Wildlife
City	City of San Jacinto
CNDDB	California Natural Diversity Data Base
COB	Cannabis Oriented Business
County	County of Riverside
DBESP	Determination of Biologically Equivalent or Superior Preservation
ft	foot/feet
HMMP	Habitat Mitigation and Monitoring Plan
HSA	Habitat Suitability Assessment
JSA	Jurisdictional Study Area
MSHCP	Western Riverside County Multiple Species Habitat Conservation Plan
NEPSSA	Narrow Endemic Plant Species Survey Area
NRCS	Natural Resource Conservation Service
OHWM	ordinary high water mark
project	Ramona Land Development Project
sq ft	square foot/feet
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
WOTS	Waters of the State
WOTUS	Water of the United States

1.0 EXECUTIVE SUMMARY

Five Points Inc. retained LSA to conduct a Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) consistency analysis and general biological study of the approximately 58-acre Ramona Land Development Project (project) site in San Jacinto, Riverside County, California. The Biological Study Area (BSA) includes the proposed 58-acre project footprint and an approximately 500-foot (ft) buffer to include all areas of potential project impacts. This report documents the project's findings, as required under the MSHCP, that the project design (including mitigation) is biologically equivalent or would have superior preservation to what would have occurred without the project.

The analysis provided in this document originates from a variety of biological resources surveys conducted for the project including a jurisdictional delineation and focused surveys for special-status species MSHCP Narrow Endemic Plant Species Survey Area (NEPSSA) species [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 wri*ghtii var. *wrightii*)], burrowing owl (*Athene cunicularia*), and listed fairy shrimp species [Santa Rosa Plateau fairy shrimp (*Linderiella santarosae*), Riverside fairy shrimp (*Streptocephalus woottoni*), and vernal pool fairy shrimp (*Branchinecta lynchi*)].

The BSA contains three unnamed MSHCP riparian/riverine features, Features 1, 2, and 6. Although the project would have no temporary or permanent impacts to Features 1 or 2, the project previously impacted Feature 6 during installation of the original project. Since these previous project elements will be removed from the feature, they are considered temporary and total 2.52 acres of temporary impacts to a MSHCP riparian/riverine feature. No permanent impacts to MSHCP riparian/riverine features occurred during activities associated with the original project or are proposed as part of the current project. Temporary impacts to the riparian/riverine feature will be mitigated through on-site habitat enhancement and preservation. See Table A below.

Table A: Impacts to MSHCP Riparian/Riverine Areas and Proposed Mitigation

Feature	Vegetation Community	Temporary Impacts (acre)	Permanent Impacts (acre)	Temporal Impacts (acre)
Feature 6	Developed	2.52	0	0.252
TOTAL	**N/A**	**2.52**	**0**	**0.252**
Mitigation Ratio (Mitigation Acreage)	**N/A**	**1:1 (2.52 acres on site)**	**N/A**	**0.1:1 (0.252 acre on site)**

Source: LSA (2023).
MSHCP = Multiple Species Habitat Conservation Plan
N/A = not applicable

The project is located within the MSHCP survey area for NEPSSA species. Focused surveys were conducted and determined the absence of NEPSSA species on the project site (LSA 2022a). Therefore, NEPSSA species will not be impacted and no protective measures are required.

The project is located within the MSHCP survey area for burrowing owl. Focused surveys were conducted and determined the presence of suitable habitat suitability (County of Riverside 2006). However, no burrowing owl or their sign was observed during the surveys. Three burrows suitable for burrowing owl occupation were observed within the BSA but showed no sign of burrowing owl use (LSA 2022c). Due to the presence of suitable burrowing owl habitat on the BSA, a pre-construction survey is required within 30 days prior to ground disturbance.

Focused surveys for fairy shrimp determined that listed fairy species are absent from the BSA at this time, will not be impacted by the project, and therefore, no protective measures are required.

The project is not located within the MSHCP Criteria Area or within or adjacent to Public/Quasi-Public lands. Therefore, no cell or criteria analysis, assessment of Criteria Area Species Survey Area (CASSA) species, or additional public/quasi-public lands analysis is required.

The Biological Resources Assessment (BRA)/MSHCP consistency analysis was completed in 2024 and is included as Appendix B of this Determination of Biologically Equivalent or Superior Preservation Report (DBESP) (LSA 2024). The BRA/MSHCP consistency analysis contains all focused surveys as appendices as noted throughout this report.

2.0 INTRODUCTION

2.1 PROJECT AREA

The project site is located in the City of San Jacinto (City), Riverside County (County), California, in Section 18 of Township 4 South, Range 1 West, as depicted on the United States Geological Survey (USGS) *Lakeview*, California 7.5-minute topographic quadrangle map (see Figure 1, Regional and Project Location; all figures are provided in Appendix A).

The project site consists of Assessor's Parcel Numbers (APN) 430-100-013 and 430-100-002 and is approximately 58 acres. The off-site work area consists of right-of-way associated with Ramona Expressway and is approximately 6.25 acres. The "project site" refers to the approximately 64 acres that make up the on- and off-site areas where all direct, physical construction-related disturbance would occur. The project proposes to develop a majority of the project site and only a fraction of the off-site work area to accommodate entry roads that connect the project site and Ramona Expressway.

The Biological Study Areas (BSA) is the proposed project footprint that includes the direct project disturbance limits plus a 500 ft buffer to account for indirect project-related impacts such as noise and vibration.

2.2 PROJECT DESCRIPTION

The proposed BSA land use is currently a mix of developed and undeveloped features. Hoop structures to accommodate previous agricultural uses are present within the project site, primarily located in the central portion of the BSA. Additional hoop structures are planned throughout the remaining undeveloped portions of the project site. Two driveways that connect the project site to Ramona Expressway are planned as part of the project and include one on the western half and one on the eastern half of the project site (see Figure 2, Proposed Project).

The proposed project involves the operation of an outdoor mixed light cultivation facility (see Figure 2). The site is divided into two sub-areas divided by a drainage ditch: an "East site," and a "West site," (collectively, the "project").

Both the East (37.29 acres) and West (14.65 acres) sites propose several sub-areas within the project boundaries intended for future individual flower cultivation leases.

The East site is comprised of a total 1,252,683-square-foot (sq ft) outdoor commercial cultivation facility on 37.29 acres divided among four License Areas. The East site License Area breakdown includes the following:

- 218,300 sq ft (5.01 acres) of cultivation area within License Area 1;
- 843,110 sq ft (19.35 acres) of cultivation area within License Area 2;
- 56,600 sq ft (1.30 acres) of cultivation area within License Area 3; and
- 254,600 sq ft (5.84 acres) of cultivation area within License Area 4.

The East site Cannabis Oriented Business (COB) land use permit (P20-090) was approved by the City on August 26, 2021, and only License Area 1 and License Area 4 have completed installing hoop-houses. License Area 3 has installed 1 hoop-house (30 ft x 60 ft) prior to stopping construction. The remainder of the site is empty. Access to the East site is provided by a 20 ft x 6 ft automatic sliding entrance/exit gate from Ramona Expressway.

The West site has not yet received its COB Land Use Permit from the City, which proposes the construction and operation of an approximately 638,436 sq ft outdoor commercial cultivation facility on a 14.65-acre area on a portion of APN 430-100-002. The West site portion of the project includes the following:

- 137,068 sq ft (3.15 acres) of cultivation area within License Area 5;
- 90,766 sq ft (2.08 acres) of cultivation area within License Area 6;
- 236,162 sq ft (5.42 acres) of cultivation area within License Area 7;
- 87,220 sq ft (2.0 acres) of cultivation area within License Area 8; and
- 87,220 sq ft (2.0 acres) of cultivation area within License Area 9.

Access to the West site would be provided by a 30 ft x 6 ft automatic sliding entrance/exit gate from Ramona Expressway, located west of the driveway that provides access to the East site (see Figure 2).

The operation of the project would involve the cultivation of adult-use plant products. The cultivation sites in both the East and West sites would import seedlings from licensed nurseries or utilize a nursery on site to propagate seedings. The seedlings would be cultivated at the project site through their vegging and flowering stages under permeable shad cloth covered 30 ft x 60 ft hoop-houses in above-ground planters or sacks. Any pesticides used for cultivation would be safely stored at designated areas on site. Once the plants reach maturity, they would be cut down, cured, trimmed, and packaged into wholesale or retail units that would be tested on site before being exported to a licensed distributor. Packaging and processing would occur at a designated location on site. The plants would be harvested 2–3 times per year. The harvest process involves cutting down the flowers from the plants and packaging the flowers for distribution. Plant waste after harvest would be composted on site in a designated compost and waste area. The project would be used for storage, loading, and unloading, and distribution would be screened from view from the right-of-way with a 6 ft high vinyl privacy screen.

The applicant has an existing permit to construct two wells on the project site. One well is proposed on the East site of the project site to supply water for firefighting and agricultural uses. An additional well is proposed on the West site to supply water to the project for agricultural and firefighting uses as well. Please refer to Figure 2 for the existing and proposed well locations.

A 6 ft tall security chain-link fence would surround the project area with a 30 ft x 6 ft entry/exit gate that would be controlled via a remote control and keypad. Security lighting would be installed at the project site. Lights shall be mounted on poles, directed down towards the ground and shielded to prevent glare or light spilling into neighboring properties. There would be a 10 ft x 20 ft mobile

office with a ductless air conditioner for site administrative functions. There would also be portable restrooms at six areas around the project site to serve all employees.

Within the off-site work area, two driveways would be installed to connect Ramona Expressway to the project site. The western driveway would be a new 30 ft x 100 ft paved driveway. The eastern driveway would convert an existing dirt access road to a 26 ft x 103 ft paved driveway.

2.3 EXISTING CONDITIONS

The site elevation ranges from 1,448 to 1,470 ft above mean sea level. Mapped soils in the BSA consist of the following (NRCS 2022; see Figure 3 of the BRA/MSHCP, Appendix B):

- Chino silt loam, drained, saline-alkali (Cf)
- Chino silt loam, drained, strongly saline-alkali (Cg)
- Grangeville fine sandy loam, drained, 0 to 2 percent slopes (GtA)
- Grangeville fine sandy loam, loamy substratum, drained, saline-alkali, 0 to 2 percent slopes (GxA)
- Grangeville fine sandy loam, saline-alkali, 0 to 5 percent slopes (GvB)
- Traver fine sandy loam, saline-alkali (Ts)
- Traver fine sandy loam, strongly saline-alkali, eroded (Tt2)
- Traver loamy fine sand, saline-alkali, eroded (Tr2)
- Waukena fine sandy loam, strongly saline-alkali (Wc)

Soil observed throughout the site appears to be consistent with these designations.

Adjacent lands to the west, east, and south are mostly undeveloped, although lands to the west contain a single residence. Ramona Expressway is located to the north. Undeveloped adjacent areas are regularly disced/mowed for fire suppression, although the area to the east has also been historically used for agricultural uses. Agricultural lands and undeveloped lands occur in the surrounding areas to the north, agricultural lands occur to the east, commercial and agricultural lands occur to the south, and agricultural lands occur to the west.

The project area is approximately 58 acres and contains multiple hoop structures previously used for agricultural purposes and installed starting in March 2020. The off-site work area is approximately 6.25 acres and contains one dirt access road into the project site, which was also begun in March 2020. Prior to that, no structures were present in the BSA besides distribution power lines located in the off-site work area, and the area where the hoop structures currently occur was in a similar condition as the surrounding areas on the project site as observed on historical aerial imagery. In addition, a prominent drainage feature is located in the center of the BSA, and small drainage features are present south of Ramona Expressway in the northern BSA.

2.3.1 Vegetation

LSA mapped and classified the vegetation/land cover within the 500 ft BSA buffer in March 2022.

The identification and characterizations of vegetation communities generally follow the plant community descriptions in *A Manual of California Vegetation* (Sawyer et al. 2009), although some land cover types that do not conform to those classifications are described and defined below.

2.3.1.1 Vegetation within the BSA

The BSA is moderately disturbed due to discing that occurred as part of historical agricultural uses on the project site. Based on historical aerial imagery, the project site consisted of agricultural uses from 1985 through at least August 2018. Multiple hoop structures used for agricultural purposes were installed starting in March 2020 and are still present on site. The off-site work area has generally been in the same condition since 2009 when the roadside drainage within the western portion of the BSA was channelized and riprap was installed. As a result of regular discing and location along a major roadway, the vegetation in the BSA consists primarily of non-native grasslands and disturbed and developed areas. Other vegetation present within the project boundary includes mulefat (*Baccharis salicifolia*) scrub and Goodding's willow (*Salix gooddingii*) woodland. Other vegetation present outside the project boundary but within the BSA includes crops, grazing lands, and open water. A complete list of plant species observed on the site is included in Appendix B, Plant and Animals Species Observed, of the BRA/MSHCP (provided as Appendix B of this DBESP).

Figure 3, Vegetation and Land Use, shows the vegetation communities present within the BSA. Refer to Table B for vegetation acreage within the BSA. Detailed descriptions of each land cover type identified in the BSA are provided below.

Table B: Vegetation and Other Land Cover Types Mapped within the BSA

Vegetation Community	Total Area within BSA (acres)
Crops	18.95
Developed	43.08
Disturbed	28.09
Goodding's Willow Woodland	0.35
Grazing Lands	3.47
Mulefat Scrub	0.05
Non-Native Grassland	76.17
Open Water	3.65
Total	**173.81**

Sources: LSA (March 2022), calculated using GIS software.
BSA = Biological Study Area
GIS = geographic information systems

- **Non-Native Grassland.** Dominant species within non-native grassland areas include a mix of mouse barley (*Hordeum murinum*), rescue grass (*Bromus catharticus*), red brome (*Bromus rubens*), wheat (*Triticum aestivum*), slender wild oat (*Avena barbata*), and smooth tarplant (*Centromadia pungens* ssp. *laevis*). Non-native grassland is the most abundant vegetation community throughout the site.

- **Mulefat Scrub.** Mulefat scrub consists almost entirely of mulefat, although understory species may contain minimal amounts of non-native grasses as described above. One small patch of mulefat scrub is located in the northwestern portion of the off-site work area just south of Ramona Expressway.

- **Goodding's Willow Woodland.** Goodding's willow woodland consists almost entirely of Goodding's willow although understory species contain a variety of annual plants including non-native grasses and pepperweed (*Lepidium* sp.). Goodding's willow woodland also overlaps with mulefat thicket along portions of its northern extent within the off-site work area. One patch of Goodding's willow woodland is located in the northwestern portion of the off-site work area just south of Ramona Expressway.

- **Crops.** Areas mapped as "crops" consist of active croplands used for the purpose for the establishment of vegetation. This land cover was present east and northeast of the site.

- **Disturbed.** Dominant species within disturbed areas are primarily non-native and include redstem filaree (*Erodium cicutarium*), summer cypress (*Bassia scoparia*), seaside barley (*Hordeum marinum*), Russian thistle (*Salsola tragus*), London rocket (*Sisymbrium irio*), and smooth tarplant. Burning bush (*Kochia scoparia*) also forms a monotypic stand within the drainage that bisects the survey area in the central portion of the survey area. Disturbed areas are located within the central portion of the site and south of Ramona Expressway.

- **Developed.** Areas mapped as "developed" in Figure 3 consist of hoop structures, concrete roads and other paved areas, dairies, and well-traveled dirt roads that generally do not allow for the establishment of vegetation. This land cover was present on the central portion of the site.

- **Grazing Lands.** Areas mapped as "grazing lands" consist of irrigated lands used for the purpose of livestock grazing that generally do not allow for the establishment of vegetation beyond grasses. This land cover was present north of the site.

- **Open Water.** Areas mapped as "open water" consist of basins excavated for and associated with an active dairy that generally do not allow for the establishment of vegetation. This land cover was present south of the site.

3.0 RIPARIAN/RIVERINE MITIGATION (SECTION 6.1.2)

3.1 METHODS

3.1.1 Riparian and Riverine

LSA assessed the BSA for riparian/riverine areas at the time of the March 16, 2022, jurisdictional delineation (see Appendix C, Jurisdictional Delineation Report, of the BRA/MSHCP, provided here as Appendix B) (LSA 2022b). Vegetation on the site was mapped as described previously in Section 2.3.1. Information from the jurisdictional delineation was used to determine areas qualifying as riparian/riverine based on MSHCP criteria. The jurisdictional delineation was conducted in accordance with approved methods outlined in the U.S. Army Corps of Engineers (USACE) *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (Version 2.0) (Regional Supplement) (2008) and the *USACE 1987 Wetland Delineation Manual* (1987 Manual) (USACE 1987; USACE 2008). The assessment included identification and mapping of plant communities within the Jurisdictional Study Area (JSA) and any riparian/riverine features. Impacts to riparian/riverine areas are based on the results of the LSA jurisdictional delineation as shown within the JSA (see Figure 4, Riparian/Riverine Impacts and Restoration). All areas of potential jurisdiction were delineated according to the current USACE and California Department of Fish and Wildlife (CDFW) criteria. The boundaries of the potential jurisdictional areas were observed in the field and mapped on aerial photographs. The limits of federal and State jurisdictional areas mapped were determined by a combination of direct measurements taken in the field and measurements taken from aerial photographs. Areas supporting species of plant life potentially indicative of wetlands were evaluated according to routine wetland delineation procedures.

CDFW identified a pond feature within the limits of their jurisdiction in the central portion of the project site (email dated September 14, 2023) (CDFW 2023). CDFW displayed the limits of the pond feature on six different aerial images (May 2023, March 2011, February 2016, October 2016, February 2018, and August 2018). LSA reviewed historic aerial images in December 2023 to quantify the CDFW-identified pond feature.

3.1.2 Riparian Birds (Least Bell's Vireo and Southwestern Willow Flycatcher)

Habitat suitability for riparian birds, including the least Bell's vireo (*Vireo bellii pusillus*), southwestern willow flycatcher (*Empidonax traillii extimus*), and yellow-billed cuckoo (*Coccyzus americanus*), was assessed in conjunction with the assessment for riverine/riparian areas.

3.1.3 Vernal Pool and Fairy Shrimp

The BSA was assessed for the presence of potential vernal pools at the time of the March 16, 2022, site visit. The assessment included a search for depressions that may provide sufficient ponding of water to sustain hydrophytic vegetation and create hydric soil conditions during the growing season. The assessment also included a review of seasonally appropriate aerial photographs from Google Earth (Google Earth 2022). Follow-up wet and dry season fairy shrimp surveys were conducted in 2022 as described below.

The MSHCP calls for habitat assessments for three sensitive species of fairy shrimp: Santa Rosa Plateau fairy shrimp (*Linderiella santarosae*), Riverside fairy shrimp (*Streptocephalus woottoni*), and vernal pool fairy shrimp (*Branchinecta lynchi*). The Santa Rosa Plateau fairy shrimp occurs only on the Santa Rosa Plateau of extreme southwestern Riverside County. A fourth sensitive species of Southern California, the San Diego fairy shrimp (*Branchinecta sandiegonensis*), is found primarily in coastal areas of Orange and San Diego Counties. It has been found as far inland as the Wildomar area of southwest Riverside County but is not expected in the BSA. These sensitive fairy shrimp species inhabit vernal pools as well as stock ponds, large road ruts, or other similar habitats that pond water long enough to allow growth and reproduction. To provide fairy shrimp habitat, a feature must regularly pond water for at least 18 days for vernal pool fairy shrimp (Eriksen and Belk 1999) and two months for Riverside fairy shrimp (USFWS 2012).

The vernal pool branchiopod (fairy shrimp) survey was conducted in accordance with the November 13, 2017, Survey Guidelines for the Listed Large Branchiopods by LSA permitted biologists Dr. Stan Spencer (wet and dry seasons, TE-777965) and David Muth (dry season, TE-839213) (USFWS 2017) (LSA 2022d). The wet season survey was conducted from January 5 to April 11, 2022, to determine whether water was present in ponding features following storm events (LSA 2022d). Ponded features were sampled at required intervals until they had dried and remained dry. The dry season survey was conducted on July 20, 2022, and the samples were processed on August 2 and 6, 2022 (LSA 2022e).

3.2 RESULTS

3.2.1 Riparian and Riverine

Five features were delineated during the March 2022 jurisdictional delineation. An additional feature was identified by CDFW in September 2023 and later revised by LSA in December 2023. Three of the features delineated are considered to be an MSHCP Section 6.1.2 riparian/riverine resource and include Features 1, 2, and 6. The remaining three features were not considered to be MSHCP riparian/riverine resources. For the purposes of this report, MSHCP riparian/riverine areas are consistent with the limits of CDFW jurisdiction on each of the respective features considered to be MSHCP riparian/riverine and the limits of the JSA were used to determine the size of such features. A description of all delineated features is provided below.

Feature 1, as shown in Figure 4, is an unnamed ephemeral drainage that bisects the JSA. This feature flows in a south-to-north direction into a detention basin (Feature 2) and then continues to flow off site through a culvert underneath Ramona Expressway into another unnamed ephemeral drainage, which then flows into the San Jacinto River. Therefore, this unnamed ephemeral drainage is a tributary to the San Jacinto River. The San Jacinto River is considered a Water of the United States (WOTUS) as it flows into Canyon Lake and further downstream into Lake Elsinore, both of which are considered traditional navigable waterways regulated by the USACE. Feature 1 carries ephemeral stormwater flows and urban runoff from the adjacent properties and contains a defined bed/bank with a width varying from 4 to 8 ft that exhibits indicators of an ordinary high water mark (OHWM) that includes sediment and debris deposits. Feature 1 is considered a riverine feature under the MSHCP.

Feature 2 is an excavated, ephemeral earthen stormwater detention basin that is used to control stormwater runoff and is located just south of Ramona Expressway. This basin is fed by Feature 1, as described above, and a roadside drainage that is located to the west of the basin, and Feature 4, as described below. An OHWM was present within the basin as well as a bed and bank. Portions of the basin contained riparian habitat in the form of Goodding's willow woodland and mulefat thicket. Feature 2 is considered a riparian/riverine feature under the MSHCP.

Feature 3 is an unnamed, manmade ephemeral roadside swale located to the south of and along Ramona Expressway. The feature flows in an east-to-west direction terminating at Feature 1. Although the feature is very flat, an OHWM was present as well as a bed and bank. Eastern portions of the drainage did not contain an OHWM or bed and bank and were therefore excluded from Figure 4. No riparian habitat or hydrophytic vegetation was present within the drainage feature. Feature 3 is not considered a riparian/riverine feature under the MSHCP as it is manmade, lacked riparian/hydrophytic vegetation, and is ephemeral.

Feature 4 is an unnamed, excavated ephemeral roadside ditch located to the south of and along Ramona Expressway. The feature is lined with riprap within its western extent and flows in a west-to-east direction terminating at Feature 2. An OHWM was present as well as a bed and bank. No riparian habitat or hydrophytic vegetation was present within the drainage feature. Feature 4 is not considered a riparian/riverine feature under the MSHCP as it is manmade, lacked riparian/hydrophytic vegetation, and is ephemeral.

Feature 5 is an isolated, ephemeral, depressional feature that is located in the south-central portion of the JSA just west of Feature 1. This feature sits in a low spot in the landscape and is fed by direct rainfall and sheet flows originating from areas to the west. No riparian habitat or hydrophytic vegetation was present within the feature, as it lacked vegetation. As such, it does not meet the definition of a vernal pool. Feature 5 is not considered a riparian/riverine feature under the MSHCP as it lacked vegetation, does not contain flows as it is isolated, and is ephemeral.

Feature 6 is an isolated, ephemeral pond feature that is located in the north-central portion of the JSA just east of Feature 1. This feature sits in a low spot in the landscape and is fed by direct rainfall and sheet flows originating from areas to the east and south. No riparian habitat or hydrophytic vegetation was present within the feature, as it was covered by existing hoop houses previously installed. Those portions of the feature located outside of the developed areas contained non-native grasslands. Feature 6 is considered a riverine feature under the MSHCP.

The dominant plant communities within riparian/riverine areas are developed areas, disturbed habitat, and Goodding's willow woodland.

As required in MSHCP Section 6.1.2, the following is a qualitative discussion of the functions and values (hydrologic regime, flood storage and flood flow modification, sediment trapping and transport, nutrient retention and transformation, toxicant trapping, public use, wildlife habitat, and aquatic habitat) for the MSHCP riparian/riverine areas within the JSA.

3.2.1.1 Functions and Values of Riparian/Riverine Features

Hydrologic Regime. This function is the ability of a wetland or stream to absorb and store water below ground. The rate of absorption is dependent on the soil composition and is affected by prior flooding events. For example, clay soils possess more pore space than sandy soils. However, the smaller pore size slows the rate water is absorbed and released; therefore, clay soil has a lower capacity to store water than sandy soil. The storage of water below ground allows for the fluctuation between anaerobic and aerobic conditions that benefit environmental conditions necessary for microbial cycling.

Feature 1 contains an open channel composed of silty clay loam soils with almost exclusively disturbed non-native vegetation. Feature 1 has limited capacity to store water below ground due to soil composition. Therefore, Feature 1 has a low hydrologic regime value.

Feature 2 contains an excavated stormwater detention basin composed of silty clay loam soils with a mix of Goodding's willow woodland, mulefat scrub, and non-native grassland. Feature 2 has a high capacity to store water below ground due to the feature being excavated and allowing water to pond and percolate for extended periods of time. Therefore, Feature 2 has a high hydrologic regime value.

Feature 6 contains a topographic low point composed of silty clay loam soils within a primarily developed area. However, prior to the development of a portion of Feature 6, vegetation was likely non-native grassland consistent with adjacent undeveloped areas. Feature 6 has limited capacity to store water below ground due to soil composition. Therefore, Feature 6 has a low hydrologic regime value.

Flood Storage and Flood Flow Modification. This function is determined based on the ability of a wetland or stream at which the peak flow in a watershed can be attenuated during major storm events and during peak domestic flows to take in surface water that may otherwise cause flooding. This is dependent on the size of the wetland or stream, the amount of water it can hold, and the location in the watershed. For instance, larger wetlands or streams that have a greater capacity to receive waters have a greater ability to reduce flooding. In addition, areas high in the watershed may have more ability to reduce flooding in downstream areas, but areas lower in the watershed may have greater benefits to a specific area. Vegetation, shape, and the configuration of the wetland or stream may also affect flood storage by dissipating the energy of flows during flood events.

Goodding's willow woodland, mulefat scrub, non-native grassland, and disturbed herbaceous vegetation are found within the project site. These vegetation types may slow flows during periods of flooding, absorb wave energy to reduce erosion, and assist in the process of sediment deposition.

Flood storage and flood flow modification is considered moderate value for Feature 1 because of the persistent disturbed herbaceous vegetation present within its channel.

Flood storage and flood flow modification is considered high value for Feature 2 because of the presence of riparian vegetation communities and elevated berms to help capture and/or slow flows.

Feature 6 follows a low point in the topography. It was dominated with non-native grassland prior to its development and does not have riparian or wetland vegetation. Because Feature 6 is thought to contain only non-native grassland prior to development, this feature has a low flood storage and flood flow modification value.

Sediment Trapping and Transport. Sediment trapping is the process that keeps sediment from migrating downstream. This is accomplished through the natural process of sediment retention and entrapment. This function is dependent on the sediment load being delivered by runoff into the watershed. Similar to the above, the vegetation, shape, and configuration of a wetland will also affect sediment retention if water is detained for long durations, as would be the case with dense vegetation, a bowl-shaped watershed, or slow-moving water. This function would be demonstrated (i.e., high) if the turbidity of the incoming water is greater than that of the outgoing water.

Because Feature 1 contains herbaceous vegetation in a disturbed area and is relatively flat, it has a moderate sediment trapping and transport function.

Because Feature 2 contains riparian vegetation (i.e., Goodding's willow scrub and mulefat scrub) and is an excavated feature, it has a high sediment trapping and transport function.

Because Feature 6 previously contained non-native grassland, is a low point, and is feed by sheet flows from adjacent areas, it has a low sediment trapping and transport function.

Nutrient Retention and Transformation. Nutrient cycling consists of two variables: uptake of nutrients by plants and detritus turnover, in which nutrients are released for uptake by plants downstream. Wetland systems in general are much more productive with regard to nutrients than upland habitats. The regular availability of water associated with the wetland or stream may cause the growth of plants (nutrient uptake) and associated detritivores and generate nutrients that may be used by a variety of aquatic and terrestrial wildlife downstream.

Feature 1 has a low function for nutrient retention and transformation due to lack of perennial water and substantial riparian vegetation.

Feature 2 has a high function for nutrient retention and transformation due to the presence of ephemeral surface waters on multiple years of historic aerial photographs and substantial riparian vegetation.

Feature 6 has a low function for nutrient retention and transformation due to lack of perennial water and riparian vegetation.

Toxicant Trapping. The major processes by which wetlands remove nutrients and toxicants are as follows: (1) by trapping sediments rich in nutrients and toxicants, (2) by absorption to soils high in clay content or organic matter, and (3) through nitrification and denitrification in alternating toxic and anoxic conditions. Removal of nutrients and toxicants is closely tied to the processes that provide for sediment removal.

Feature 1 provides a low value for toxicant trapping due to the absence of riparian habitat, and presence of disturbed herbaceous vegetation. This vegetation does not increase the ability to physically trap and retain inorganic sediments.

Feature 2 provides a moderate value for toxicant trapping due to the presence of Goodding's willow woodland and mulefat thickets. This vegetation increases the ability to physically trap and retain inorganic sediments.

Feature 6 provides a low value for toxicant trapping due to the absence of riparian habitat, and prior presence of non-native grassland. This vegetation does not increase the ability to physically trap and retain inorganic sediments.

Public Use. This is a measure of the probability that a wetland or stream will be used by the public because of its natural features, economic value, official status, and/or location. This includes use by the public for recreational purposes, such as boating, fishing, birding, walking, and other passive recreational activities. In addition, a wetland or stream that is used as an outdoor classroom, is a location for scientific study, or is near a nature center would have a higher social significance and standing.

Features 1, 2, and 6 are located adjacent to a major road, and previous agricultural developments with no identified access to the public. There are no designated recreation trails or other access points identified for public use within or adjacent to any of the three features. Therefore, all three features are considered to have a low public use value.

Wildlife Habitat. General habitat suitability is the ability of a wetland to provide habitat for a wide range of wildlife. Vegetation is a large component of wildlife habitat. As plant community diversity increases along with connectivity with other habitats, so does potential wildlife diversity. In addition, a variety of open water, intermittent ponding, and perennial ponding is also an important habitat element for wildlife.

Feature 1 is considered to have a low wildlife habitat rating due to the land cover being limited to disturbed areas dominated by non-native plant species. Feature 1 also contains ephemeral flows and lacks riparian vegetation, open water, and ponding.

Feature 2 is considered to have a moderate wildlife habitat rating due to it containing Goodding's willow woodland and mulefat thickets. Feature 2 lacks open water and ponding for most of the year but does contain ephemeral ponding after heavy rain events.

Feature 6 is considered to have a low wildlife habitat rating due to the presence of non-native grassland. Feature 6 is also fed by ephemeral sheet flows and lacks riparian vegetation and open water.

Aquatic Habitat. The ability of a wetland or stream to support aquatic species requires that there be ample food supply, pool and riffle complexes, and sufficient soil substrate. Food supply is typically in the form of aquatic invertebrates and detrital matter from nearby vegetation. Pool and

riffle complexes provide a variety of habitats for species diversity as well as habitat for breeding and rearing activities. Species diversity is directly related to the complexity of the habitat structure.

There is no aquatic habitat present within Features 1, 2, and 6 due to the lack of perennial water sources in all three features.

3.2.1.2 Conclusion

Based on the functions and values analysis, Features 1 and 6 have a low functions and values rating, whereas Feature 2 has a moderate functions and values rating. Feature 1 contains disturbed areas vegetated by non-native species and conveys ephemeral stormwater flows that do not support wetland or riparian vegetation. Feature 2 conveys ephemeral flows and ponding, is vegetated by riparian vegetation consisting of Goodding's willow woodland and mulefat, and provides some habitat for wildlife. Feature 6 is vegetated by non-native grassland and conveys ephemeral stormwater flows that do not support wetland or riparian vegetation. With the removal of developed areas from Feature 6, restoration of Feature 6 and development of the JSA with construction of stormwater improvements and through the implementation of avoidance, minimization, and mitigation measures described in the following section, the functions and values of Features 1 and 2 will not be substantially improved. The functions and values of Feature 6 will be improved as restoration will occur within the currently developed portions of the feature as well as adjacent areas totaling 2.772 acres.

3.2.2 Riparian Birds (Least Bell's Vireo, Southwestern Willow Flycatcher and Western Yellow-Billed Cuckoo)

Least Bell's vireo, southwestern willow flycatcher, and western yellow-billed cuckoo are covered species under the MSHCP for which take of habitat is covered. Approximately 0.40 acre of riparian habitat in the form of Goodding's willow woodland and mulefat scrub are present within the BSA as shown on Figure 3. This riparian habitat is associated with a manmade basin (Feature 2) that occurs just south of Ramona Expressway. Although riparian habitat is present, it is small in size and spread out in distribution with very little overlap between the two vegetation communities.

The 2022 habitat assessment determined that least Bell's vireo and southwestern willow flycatcher have a low potential to occur within the riparian habitat present within the BSA while western yellow-billed cuckoo is considered absent from the BSA. Project activities would avoid all riparian habitats, and indirect impacts are not anticipated to occur. Therefore, impacts to least Bell's vireo and southwestern willow flycatcher are not anticipated.

Nevertheless, the following measure will be implemented as a means of avoiding or minimizing adverse impacts to least Bell's vireo, southwestern willow flycatcher, and other nesting birds on the low probability they occur or have the potential to occur in close proximity to the project footprint.

- If vegetation is to be removed during the nesting season (February 1 through August 31), a pre-construction nesting bird survey shall be conducted, and avoidance measures shall be taken to ensure that no take of birds or their nests would occur.

3.2.3 Vernal Pool and Fairy Shrimp

Per Section 6.1.2 of the MSHCP, vernal pools include seasonal wetlands (having indicators of hydric soil, hydrophytic vegetation, and wetland hydrology) in natural depressions or in artificial depressions created to provide wetland habitat. Artificially created features (e.g., borrow pits, grading scrapes) do not meet the definition of a vernal pool feature in the MSHCP.

There are no vernal pools within the BSA. However, there were six low-lying areas that provided suitable habitat for fairy shrimp in the BSA (see Appendix D, 2020–2021 Wet Season Fairy Shrimp Survey Report, Figure 7, of the BRA/MSHCP, provided here as Appendix B). Versatile fairy shrimp (*Branchinecta lindahli*) was the only fairy shrimp species observed within the low-lying areas and was observed in two of the sampled features during the wet season survey. Branchinecta eggs were found in four of the six sampled features during the dry season survey. No MSHCP-covered fairy shrimp were identified during the focused surveys. Therefore, the project is not anticipated to impact vernal pools or MSHCP-covered fairy shrimp. The wet and dry season fairy shrimp survey reports are included as Appendices D and E of the BRA/MSHCP, provided here as Appendix B.

3.3 IMPACTS

This impact analysis is based on the most recent site plans, dated August 21, 2022, as shown in Figure 2.

The project would only impact Features 3, 4, and 5 due to project activities and has been designed to avoid Features 1 and 2, including all riparian habitat associated with Feature 2. In addition, Feature 6 was impacted as part of the previous project activities. Therefore, Feature 6 was or will be the only riparian/riverine feature that would be impacted as Features 3–5 are not considered riparian/riverine. Nevertheless, all impacts to jurisdictional waters are noted below in Table C.

Table C: Potential Impacts to Jurisdictional Areas by Feature Number

Feature No.	USACE		RWQCB		CDFW	
	Non-Wetland WOTUS Permanent Impacts (acres) [1]	Non-Wetland WOTUS Temporary Impacts (acres) [1]	Non-Wetland WOTS Permanent Impacts (acres) [1]	Non-Wetland WOTS Temporary Impacts (acres) [1]	Streams/Rivers/ Riparian Habitat Permanent Impacts (acres)	Streams/Rivers/ Riparian Habitat Temporary Impacts (acres)
1		-	-	-	-	
2		-	-	-	-	
3[2]	-	0.001	-	0.001	-	0.001
4	0.016	0.005	0.016	0.005	0.016	0.005
5	-	-	0.220	-	-	-
6	--	--	--	--	--	2.52
TOTAL	**0.016**	**0.006**	**0.236**	**0.006**	**0.016**	**2.58**

Source: LSA (2022).
Note: Totals may appear inaccurate due to rounding.
[1] Wetland WOTUS/WOTS do not occur within the JDSA.
[2] An additional estimated 0.004 acre of permanent impacts to Feature 3 occurred as a result of previous project activities.
CDFW = California Department of Fish and Wildlife
JDSA = Jurisdictional Delineation Survey Area
RWQCB = Regional Water Quality Control Board
USACE = United States Army Corps of Engineers
WOTS = Waters of the State
WOTUS = Waters of the United States

The original project temporarily impacted approximately 2.52 acres of Feature 6 with the installation of hoop houses. Impacts are considered temporary as the applicant is set to relocate all structures outside the limits of the CDFW-identified pond feature (see Section 3.4). As a result, the project would have 2.52 acres of temporary impacts to a riparian/riverine feature. Table D lists the temporary and permanent impacts to riparian/riverine areas.

Table D: Riparian and Riverine Impacts by Vegetation Community

Vegetation Community	Total Vegetation within BSA (acres)	Impacts (acres)[1]	
		Temporary (Feature 6)	Permanent (Feature 6)
Crops	18.95	--	--
Developed	43.08	--	--
Disturbed	28.09	--	--
Goodding's Willow Woodland	0.35	--	--
Grazing Lands	3.47	--	--
Mulefat Scrub	0.05		--
Non-Native Grassland	76.17	2.52	--
Open Water	3.65	--	--
Total	**173.81**	**2.52**	**--**

Source: Compiled by LSA (January 2022).
[1] All acreages were calculated using geographic information system (GIS) measurements and are considered approximate.
BSA = Biological Study Area

3.4 MITIGATION AND EQUIVALENCY

3.4.1 Direct Effects

The project resulted in direct effects as a result of the temporary loss of 2.52 acres of riparian/ riverine resources associated with Feature 6 as shown in Table D and Figure 4. The project will compensate for impacts to Feature 6 through a combination of on-site restoration and off-site conservation. The following tasks are proposed to complete the required compensation:

- A Habitat Management and Monitoring Plan (HMMP) will be prepared for Feature 6. The HMMP will identify methods for site rehabilitation and maintenance as well as goals/success criteria to restore Feature 6. Measures in the HMMP will include:
    - Relocation of all structures and roads currently located within the limits of Feature 6 to areas outside the limits of Feature 6.
    - Placement of an additional 25 ft buffer to prevent inadvertent intrusion into Feature 6.
    - Recontouring of Feature 6 to re-establish the natural contour of the area to a condition similar to that prior to the installation of roads and structures.
    - Trash removal.

- Reseeding of Feature 6 with smooth tarplant and Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*), which are the predominant native species in ponding habitat areas on the site.
- Weed control efforts and performance criteria focused on the most problematic non-native species.
- Biological monitoring and reporting.
- Access control (fencing and signage placement, replacement, and repair).
- Law enforcement measures.

- To compensate for temporal losses of 2.52 acres of riparian/riverine area, the project will mitigate for these impacts at a minimum of a 0.1:1 ratio (0.252 acre) using either or a combination of the options listed below.
  - Option #1: Restore an additional area on site consistent with and included in the HMMP as discussed above.
  - Options #2: The applicant will purchase credits at an off-site and agency-approved mitigation bank such as the Soquel Canyon Mitigation Bank or other agency-approved mitigation bank.

3.4.2 Indirect Effects

The following project design features and mitigation measures will prevent/reduce indirect effects:

- Prior to clearing or construction, highly visible exclusionary barriers (e.g., orange construction fencing) will be installed along the boundaries of the project footprint. All construction equipment should be operated in a manner to prevent accidental damage to areas outside the project footprint. No structure of any kind, or incidental storage of equipment or supplies, will be allowed within these protected zones. Silt fence barriers will be installed at the project boundary to prevent accidental deposition of fill material in areas where vegetation is adjacent to planned grading activities. A biological monitor will be present during the fence installation to oversee proper installation.

- All equipment maintenance, staging, and dispensing of fuel, oil, or any other such activities will occur in developed or designated non-sensitive upland habitat areas. The designated upland areas will be located in such a manner as to prevent any spill runoff into riverine areas.

- Prior to the completion of construction, the applicant shall ensure that the work areas are returned to their original contours and condition to the greatest extent possible. In addition, the alteration of Feature 6 shall be minimized to the maximum extent possible.

- A weed abatement program will be developed to minimize the importation of non-native plant material during and after construction. Eradication strategies would be employed should an invasion occur.

- To ensure invasive plant material is not spread from the project area to other areas by tracking seed on equipment, clothing, and shoes, equipment/material imported from an area of invasive plants must be identified and measures implemented to prevent importation and spreading of non-native plant material within the project area. All construction equipment accessing unpaved areas would be cleaned with water to remove dirt, seeds, vegetative material, or other debris that could contain or hold seeds of noxious weeds before arriving to and leaving the project area. Only certified weed-free straw, mulch, and/or fiber rolls would be used for erosion control.

3.4.3 Equivalency Determination

The project will be consistent with MSHCP Section 6.1.2, Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools, through the implementation of the avoidance, minimization, and mitigation measures identified in Sections 3.4.1 and 3.4.2 above.

Based on the mitigation approach described in these sections, the on-site mitigation provided by the project would be biologically equivalent or superior to that anticipated to be impacted on site (2.52 acres temporarily impacted vs. 2.772 acres restored or 2.52 acres restored and mitigation credits of 0.252 acre at an approved mitigation bank). The on-site implementation of the HMMP would increase the overall ecological value of the project site since it previously consisted of non-native grassland vegetation and currently consists of developed and disturbed areas.

4.0 NARROW ENDEMIC PLANT SPECIES (SECTION 6.1.3)

4.1 METHODS

The project study area is located within the Narrow Endemic Plant Species Survey Area (NEPSSA) 3 for 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*) but is not within a Criteria Area Species Survey Area (CASSA) for plant species. A habitat suitability analysis for these target species was conducted concurrently with a wet season fairy shrimp survey and a burrowing owl habitat assessment on January 5, 2022, by LSA Senior Biologist Stan Spencer. Habitat requirements for NEPSSA 3 species were reviewed prior to the site visits.

Soil conditions and plants were noted during the field survey in January 5, 2022, on the 58-acre study area and on the off-site work area of 6.25 acres. During the visit, the site was analyzed for the presence of suitable habitats and/or soils to support these species. The survey was conducted by walking approximately 50-foot-wide transects throughout the project site. Areas of dense ruderal vegetation did not provide suitable habitat for the target species and were not surveyed with transects due to the difficulty of traversing these areas. It should be noted that all low-lying areas were also inspected for NEPSSA plant species during the wet and dry season fairy shrimp surveys and the jurisdictional delineation, and the entire study area was also inspected for NEPSSA plant species during the burrowing owl surveys (see Table E).

Table E: Summary of Surveys Conducted

Survey Date	Survey Type	Surveyor
January 5, 2022	NEPSSA Habitat Suitability Analysis, Fairy Shrimp Survey (Wet Season), Burrowing Owl Habitat Assessment	SS
January 8, 2022	Fairy Shrimp Survey (Wet Season)	SS
January 12, 2022	Fairy Shrimp Survey (Wet Season)	SS
January 18, 2022	Fairy Shrimp Survey (Wet Season)	SS
January 26, 2022	Fairy Shrimp Survey (Wet Season)	SS
February 1, 2022	Fairy Shrimp Survey (Wet Season)	SS
February 25, 2022	Fairy Shrimp Survey (Wet Season)	SS
March 16, 2022	Jurisdictional Delineation	DW, RV, SS
April 4, 2022	Fairy Shrimp Survey (Wet Season), NEPSSA Survey	SS
April 11, 2022	Fairy Shrimp Survey (Wet Season)	SS
April 18, 2022	NEPSSA Survey	SS
May 4, 2022	Burrowing Owl Survey	SS
June 6, 2022	Burrowing Owl Survey	CC
June 16, 2022	NEPSSA Survey	SS
July 15, 2022	Burrowing Owl Survey	CC
July 20, 2022	Fairy Shrimp Survey (Dry Season)	SS
August 29, 2022	Burrowing Owl Survey	CC

Source: LSA (September 2024).
CC = Carla Cervantes
DW = Denise Woodward
RV = Ryan Villanueva
SS = Stan Spencer

4.2 RESULTS AND IMPACTS

Potentially suitable habitat exists within the study area for the mentioned species; however, no NEPSSA 3 species were observed during focused plant surveys conducted on April 4 and 18 and June 16, 2022. While no target species were found during focused surveys, two CASSA species, smooth tarplant (*Centromadia pungens* ssp. *laevis*) and Coulter's goldfields (*Lasthenia glabrata* ssp*. coulteri*), were observed on the site. As noted above, the project is not within a mapped survey area for CASSA plant species; therefore, no surveys for Criteria Area plant species and no evaluation of effects to these species are required. NEPSSA 3 species are considered absent from the site and are not expected to be impacted by project activities.

5.0 ADDITIONAL SURVEYS NEEDED (SECTION 6.1.3)

5.1 BURROWING OWL

5.1.1 Methods

The project study area is located within the MSHCP survey area for burrowing owl (*Athene cunicularia*). A Habitat Suitability Assessment (HSA) for burrowing owl was conducted on January 5, 2022, in accordance with Step I of the Burrowing Owl Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area (Appendix B). The assessment included an evaluation of soil texture, vegetative cover, topography, and the presence of mammal burrows, rock piles, or other areas suitable for nest construction. The site was found to contain low vegetative cover, mostly devoid of trees, and contained ground squirrel burrows, indicative of suitable habitat for BUOW requiring focused burrowing owl surveys.

Four focused burrowing owl surveys were conducted from May to August 2022, and were consistent with Step II of the Burrowing Owl Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area (Appendix B). The focused burrow surveys were conducted concurrently with the focused burrowing owl surveys. All suitable habitat areas on the project site were walked at transects spaced at no more than 30 meters (100 feet), which allowed for 100 percent visual coverage of suitable habitat. Suitable habitat and burrows were surveyed for the presence of burrowing owls and their sign (e.g., whitewash, pellets, scat, tracks, and/or feathers). Burrows with presence of burrowing owl sign and/or burrowing owls were recorded using a handheld GPS unit and mapped onto an aerial photograph. Burrows with burrowing owl sign that did not have burrowing owls present at the time of the initial survey were revisited during other biological resources surveys to determine burrowing owl occupancy.

5.1.2 Results

No burrowing owls, active burrows, or burrowing owl sign were observed in 2022 within the project site. Three suitable burrows were observed within the survey area but showed no sign of burrowing owl use. The proposed project does not provide any long-term conservation value for burrowing owl, and no direct or indirect impacts are anticipated as owls were found to be absent during focused surveys. Since the project site is suitable for burrowing owl and burrowing owl could occupy the site prior to construction, the MSHCP requires a pre-construction burrowing owl survey 30 days prior to ground disturbance.

6.0 REFERENCES

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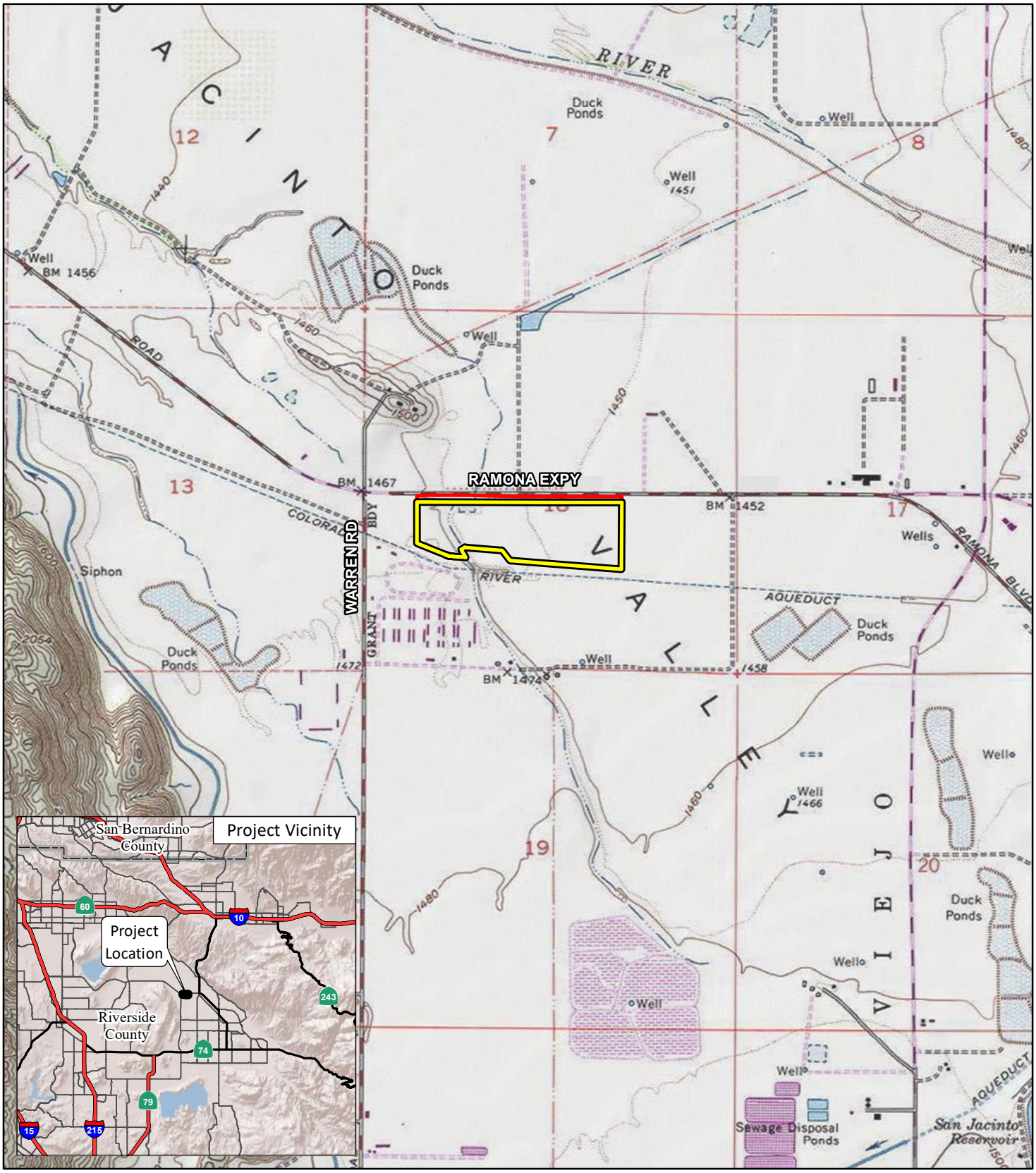
APPENDIX A

FIGURES



LSA

LEGEND

Project Location

Off-Site Work Area

FIGURE 1

N

0 1000 2000

FEET

SOURCE: USGS 7.5' Quad - *Lakeview, CA* (1979)

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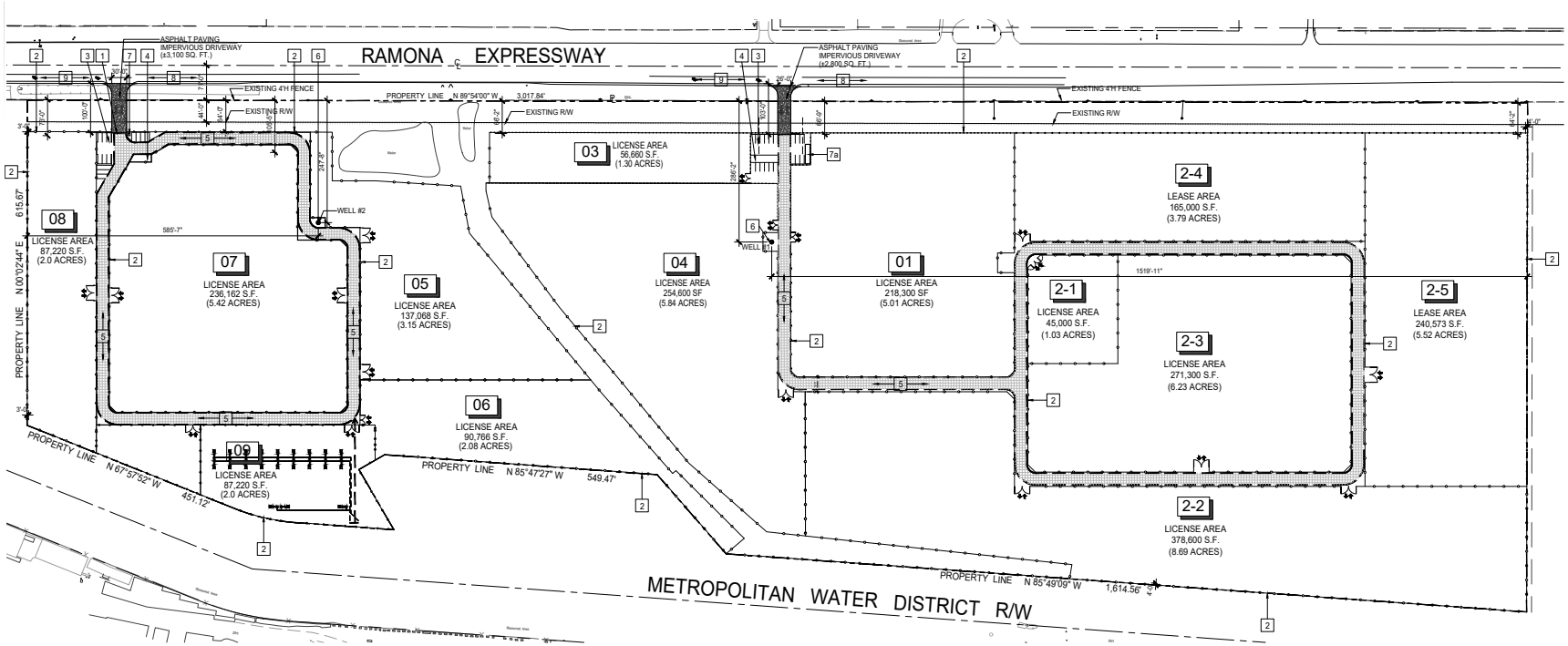
Ramona Land Development Project

Regional and Project Location



LSA

FIGURE 2

0 50 100
FEET

SOURCE: ACRC Design

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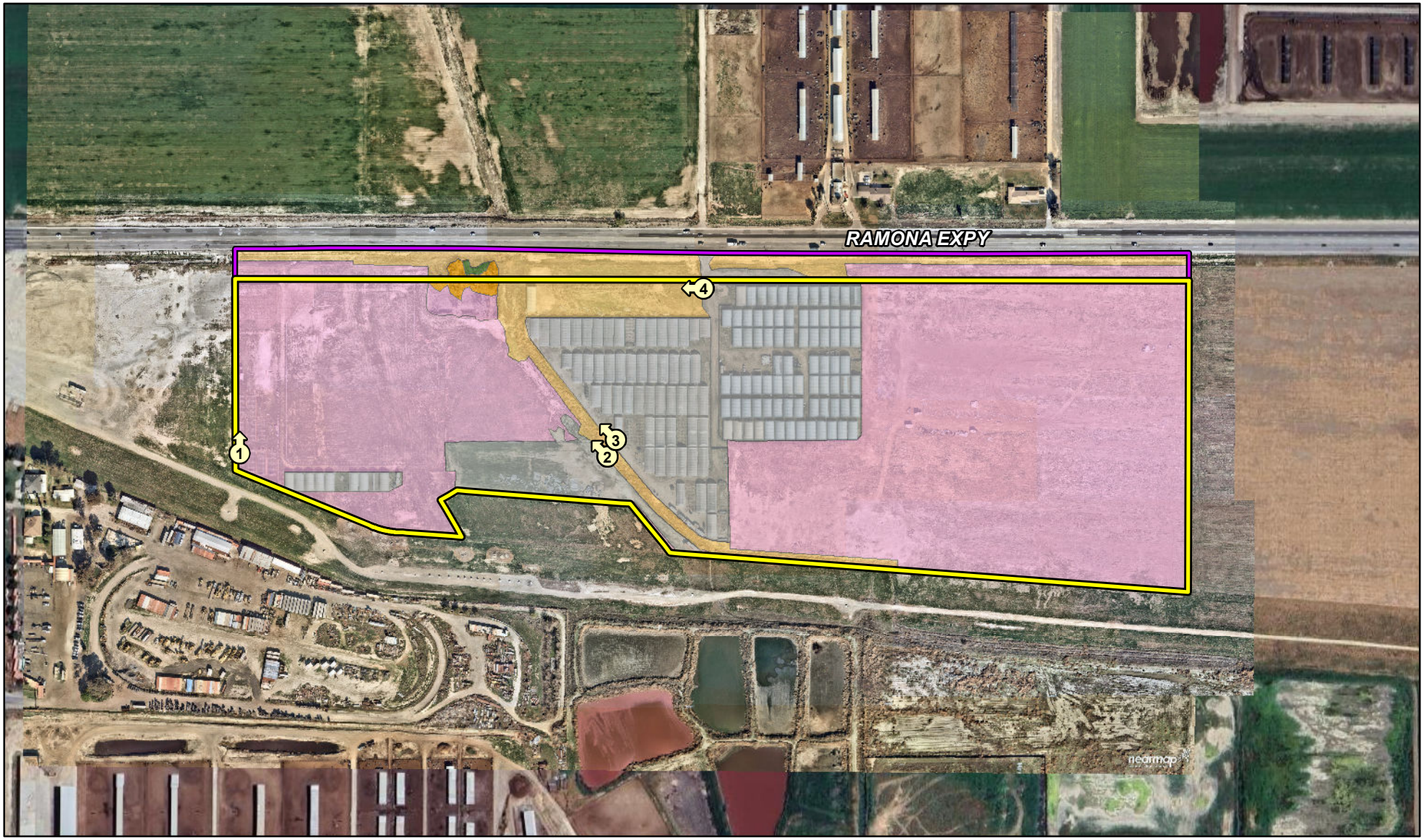
Ramona Land Development Project

Proposed Project



LSA

FIGURE 3

LEGEND

Project Location

Off-Site Work Area

Photograph Locations

Vegetation

Developed

Disturbed

Goodding's Willow Woodland

Mulefat Thickets

Non-native Grassland

N

0 220 440

FEET

SOURCE: Nearmap (1/14/2022)

Ramona Land Development Project

Vegetation and Land Use

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LSA

Jurisdictional Delineation Study Area (JDSA)
Project Location
Off-Site Work Area
Potential Pond Area

Sampling Point
Culvert

Restoration
Restoration Area (2.52 ac)
Additional Restoration Area (0.252 ac)
25-ft Buffer

Potential USACE/RWQCB Non-Wetland Jurisdiction
Potential USACE/RWQCB Non-Wetland Jurisdiction/CDFW Jurisdiction
Potential RWQCB Non-Wetland Jurisdiction
Potential CDFW Jurisdiction - Bed and Bank
Potential CDFW Jurisdiction - Riparian

FIGURE 4

0 175 350
FEET

SOURCE: Nearmap (1/14/2022)

Ramona Land Development Project

Riparian/Riverine Impacts and Restoration

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APPENDIX B

WESTERN RIVERSIDE COUNTY MULTIPLE SPECIES HABITAT CONSERVATION PLAN CONSISTENCY ANALYSIS AND BIOLOGY REPORT

WESTERN RIVERSIDE COUNTY MULTIPLE SPECIES HABITAT CONSERVATION PLAN CONSISTENCY ANALYSIS AND BIOLOGY REPORT

RAMONA LAND DEVELOPMENT PROJECT

SAN JACINTO, RIVERSIDE COUNTY, CALIFORNIA

MSHCP PERMITTEE:

SAN JACINTO

LSA

July 2024

WESTERN RIVERSIDE COUNTY MULTIPLE SPECIES HABITAT CONSERVATION PLAN CONSISTENCY ANALYSIS AND BIOLOGY REPORT

RAMONA LAND DEVELOPMENT PROJECT

SAN JACINTO, RIVERSIDE COUNTY, CALIFORNIA

MSHCP PERMITTEE:

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LSA Project No. FVP2201

LSA

July 2024

EXECUTIVE SUMMARY

Five Points Inc. retained LSA to conduct a Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) consistency analysis and general biological study of the approximately 58-acre Ramona Land Development Project (Project) in San Jacinto, Riverside County, within Assessor's Parcel Numbers (APNs) 430-100-013 and 430-100-002 south of Ramona Expressway between Warren Road and Record Road. In addition, the portion of the Project Site along Ramona Expressway would require improvements and is considered an off-site work area. The study focuses on both the main Project Site and the off-site work area, also referred to as the study area. LSA conducted the study to address compliance with the MSHCP and the California Environmental Quality Act (CEQA) and for the identification of potential jurisdictional waters. Results of the MSHCP consistency analysis and general biological study are summarized below.

- Six features (Features 1–6) located on the central, northern and southern portions of the study area contain aquatic resources potentially subject to the jurisdiction by the United States Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), and/or California Department of Fish and Wildlife (CDFW) within the study area. Riparian habitat, in the form of Goodding's willow thicket and mulefat scrub, associated with Feature 2 was found within the study area.
- The study area is not within an MSHCP designated Criteria Area.
- The site contains riverine/riparian areas as defined in the MSHCP (Features 1, 2, and 6). The site contains fairy shrimp habitat in the form of low-lying pools but lacks potential vernal pools. Focused fairy shrimp surveys were conducted and resulted in the presence of the common versatile fairy shrimp (*Branchinecta lindahli*). Surveys for sensitive riparian bird species were not conducted since the Project would be avoiding all suitable riparian habitat, and indirect impacts are not anticipated.
- The study area is within the MSHCP survey area for burrowing owl (BUOW) (*Athene cunicularia*); therefore, focused BUOW breeding season surveys were conducted from May 4 to August 29, 2022. Suitable habitat was present in the study area in the form of non-native grassland and disturbed areas. Three suitable burrows were observed on site but no owls or their sign were observed during the survey. A pre-construction survey would be required.
- The study area is located within an MSHCP Narrow Endemic Plant Species Survey Area (NEPSSA). NEPSSA surveys were conducted on April 18 and June 16, 2022. Although no NEPSSA plants were observed, two rare plant species, smooth tarplant (*Centromadia pungens* ssp. *laevis*) and Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*), were observed within the study area.
- The study area is not within an MSHCP designated survey area for any other species and does not contain Delhi series soils. Therefore, no surveys for other species would be required.
- The Project would not be subject to MSHCP Urban/Wildlands interface requirements because the site is not within or adjacent to an identified Conservation Area.
- The Project is within the Stephens' Kangaroo Rat Habitat Conservation Plan area, and payment of the appropriate fees would be required.

TABLE OF CONTENTS

TABLES

APPENDICES

LIST OF ABBREVIATIONS AND ACRONYMS

APN	Assessor's Parcel Number
BIOS	Biogeographic Information and Observation System
BUOW	burrowing owl
CASSA	Criteria Area Species Survey Area
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CNPS	California Native Plant Society
COB	Cannabis Oriented Business
CRPR	California Rare Plant Rank
DBESP	Determination of Biologically Equivalent or Superior Preservation
GPS	global positioning system
HCP	Habitat Conservation Plan
JDSA	Jurisdictional Delineation Survey Area
MSHCP	Western Riverside County Multiple Species Habitat Conservation Plan
NEPSSA	Narrow Endemic Plant Species Survey Area
NRCS	Natural Resource Conservation Service
OHWM	ordinary high water mark
Project	Ramona Land Development Project
RCA	Western Riverside County Regional Conservation Authority
ROW	right-of-way
RWQCB	Regional Water Quality Control Board
SKR	Stephens' kangaroo rat
SKR HCP	Stephens' Kangaroo Rat Habitat Conservation Plan
sq ft	square foot/feet

USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
WOTS	waters of the States
WOTUS	waters of the United States

1.0 INTRODUCTION

Five Points Inc. retained LSA to conduct a Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) consistency analysis and general biological study of the approximately 58-acre Ramona Land Development Project (Project) in San Jacinto within Assessor's Parcel Number (APN) 430-100-013 and 430-100-002 south of Ramona Expressway between Warren Road and Record Road, Riverside County, California (Figure 1; all figures are provided in Appendix A). In addition, the area between the Project Site and Ramona Expressway would require improvements and is considered an off-site work area. The study focuses on both the main Project Site and the off-site work area, which when combined are referred to as the study area. LSA conducted the study to address compliance with the MSHCP and the California Environmental Quality Act (CEQA) and for the identification of potential jurisdictional waters. A number of general and focused studies were conducted throughout 2022 by LSA biologists.

1.1 PROJECT AREA

The Project Site consists of APNs 430-100-013 and 430-100-002 and is approximately 58 acres. The off-site work area consists of right-of-way (ROW) associated with Ramona Expressway and is approximately 6.25 acres. The Project proposes to develop a majority of the Project Site and only a fraction of the off-site work area to accommodate entry roads that connect the Project Site and Ramona Expressway.

1.2 PROJECT DESCRIPTION

The proposed study area land use is currently a mix of developed and undeveloped features. Hoop structures to accommodate previous agricultural uses are present within the Project Site, primarily located in the central portion of the study area. Additional hoop structures are planned throughout the remaining undeveloped portions of the Project Site. Two driveways that connect the Project Site to Ramona Expressway are planned as part of the Project and include one on the western half and one on the eastern half of the Project Site (Figure 2).

The proposed Five Points Project involves the operation of an outdoor mixed light cultivation facility (see Figure 2). The site is divided into two sub areas divided by a drainage ditch: an "East Site," and a "West Site," the Project Site (and collectively, the "Project").

Both the East (37.29 acres) and West (14.65 acres) Sites propose several sub-areas within the Project boundaries intended for future individual flower cultivation leases.

The East Site is comprised of a total 1,252,683-square-foot (sq ft) outdoor commercial cultivation facility on 37.29 acres divided among four License Areas. The East Site License Area breakdown includes the following:

- 218,300 sq ft (5.01 acres) of cultivation area within License Area 1;
- 843,110 sq ft (19.35 acres) of cultivation area within License Area 2;
- 56,600 sq ft (1.30 acres) of cultivation area within License Area 3; and
- 254,600 sq ft (5.84 acres) of cultivation area within License Area 4.

The East Site Cannabis Oriented Business (COB) land use permit (P20-090) was approved by the City of San Jacinto on August 26, 2021, and only License Area 1 and License Area 4 have completed installing hoop-houses. License Area 3 has installed 1 hoop-house (30 feet [ft] x 60 ft) prior to stopping construction. The remainder of the site is empty. Access to the East Site is provided by a 20 ft x 6 ft automatic sliding entrance/exit gate from Ramona Expressway.

The West Site has not yet received its COB Land Use Permit from the City of San Jacinto, which proposes the construction and operation an approximately 638,436 sq ft outdoor commercial cultivation facility on a 14.65-acre area on a portion of APN 430-100-002. The West Site portion of the Project includes the following:

- 137,068 sq ft (3.15 acres) of cultivation area within License Area 5;
- 90,766 sq ft (2.08 acres) of cultivation area within License Area 6;
- 236,162 sq ft (5.42 acres) of cultivation area within License Area 7;
- 87,220 sq ft (2.0 acres) of cultivation area within License Area 8; and
- 87,220 sq ft (2.0 acres) of cultivation area within License Area 9.

Access to the West Site would be provided by a 30 ft x 6 ft automatic sliding entrance/exit gate from Ramona Expressway, located west of the driveway that provides access to the East Site (see Figure 2, Site Plan).

The operation of the Project would involve the cultivation of adult-use plant products. The cultivation sites in both the East and West Sites would import seedlings from licensed nurseries or utilize a nursery on site to propagate seedings. The seedlings would be cultivated at the Project Site through their vegging and flowering stages under permeable shad cloth covered 30 ft x 60 ft hoop-houses in above-ground planters or sacks. Any pesticides used for cultivation would be safely stored at designated areas on site. Once the plants reach maturity, they would be cut down, cured, trimmed, and packaged into wholesale or retail units that would be tested on site before being exported to a licensed distributor. Packaging and processing would occur at a designated location on site. The plants would be harvested 2–3 times per year. The harvest process involves cutting down the flowers from the plants and packaging the flowers for distribution. Plant waste after harvest would be composted on site in a designated compost and waste area. The Project would be used for storage, loading and unloading, and distribution would be screened from view from the ROW with a 6 ft high vinyl privacy screen.

The applicant has an existing permit to construct two wells on the Project Site. One well is proposed on the East Site of the Project Site to supply water for firefighting and agricultural uses. An additional well is proposed on the West Site to supply water to the Project for agricultural and firefighting uses as well. Please refer to Figure 2, Site Plan, for the existing and proposed well locations.

A 6 ft tall security chain-link fence would surround the Project area with a 30 ft x 6 ft entry/exit gate that would be controlled via a remote control and keypad. Security lighting would be installed at the Project Site. Lights shall be mounted on poles, directed down towards the ground and shielded to prevent glare or light spilling into neighboring properties. There would be a 10 ft x 20 ft mobile

office with a ductless air conditioner for site administrative functions. There would also be portable restrooms at six areas around the Project Site to serve all employees.

Within the off-site work area, two driveways would be installed to connect Ramona Expressway to the Project Site. The western driveway would be a new 30 ft x 100 ft paved driveway. The eastern driveway would convert an existing dirt access road to a 26 ft x 103 ft paved driveway.

1.3 GENERAL SETTING

The study area is within APNs 430-100-013 and 430-100-002 and the Ramona Expressway ROW, which is located between these two parcels and Ramona Expressway. The study area is depicted on the United States Geological Survey (USGS) *Lakeview, California* topographic quadrangle map in Section 18 of Township 4 South, Range 1 West, San Bernardino Baseline and Meridian (USGS 2021) (Figure 1). The Project area is approximately 58 acres and contains multiple hoop structures previously used for agricultural purposes and installed starting in March 2020. The off-site work area is approximately 6.25 acres and contains one dirt access road into the Project Site, which was also started in March 2020. Prior to that, no structures were present in the study area besides distribution power lines located in the off-site work area, and the area where hoop structures currently occur were in similar condition as surrounding areas on the Project Site as observed on historical aerial imagery. In addition, a prominent drainage feature is located in the center of the study area, and small drainage features are present south of Ramona Expressway in the northern study area. The site elevation ranges from 1,448 to 1,470 ft above mean sea level.

Adjacent lands to the west, east, and south are mostly undeveloped, although lands to the west contain a single residence. Ramona Expressway is located to the north. Undeveloped adjacent areas are regularly disked/mowed for fire suppression, although the area to the east has also been historically used for agricultural uses. Agricultural lands and undeveloped lands occur in the surrounding areas to the north, agricultural lands occur to the east, commercial and agricultural lands occur to the south, and agricultural lands occur to the west.

Mapped soils in the study area consist of the following (NRCS 2022) (Figure 3):

- Chino silt loam, drained, saline-alkali (Cf)
- Chino silt loam, drained, strongly saline-alkali (Cg)
- Grangeville fine sandy loam, drained, 0 to 2 percent slopes (GtA)
- Grangeville fine sandy loam, loamy substratum, drained, saline-alkali, 0 to 2 percent slopes (GxA)
- Grangeville fine sandy loam, saline-alkali, 0 to 5 percent slopes (GvB)
- Traver fine sandy loam, saline-alkali (Ts)
- Traver fine sandy loam, strongly saline-alkali, eroded (Tt2)
- Traver loamy fine sand, saline-alkali, eroded (Tr2)
- Waukena fine sandy loam, strongly saline-alkali (Wc)

Soil observed throughout the site appears to be consistent with these designations.

2.0 RESERVE ASSEMBLY ANALYSIS

2.1 CELL AND CRITERIA ANALYSIS

The MSHCP provides for the assembly of a Conservation Area consisting of Core Areas and Linkages for the conservation of covered species. The Conservation Area is to be assembled from portions of the MSHCP Criteria Area, which consist of quarter-section (i.e., approximately 160 acre) Criteria Cells, each with specific criteria for the species conservation within that cell.

The study area is not within the MSHCP Criteria Area; therefore, no cell or criteria analysis is required.

2.2 PUBLIC/QUASI-PUBLIC LANDS ANALYSIS

The study area is not within or adjacent to public/quasi-public lands; therefore, no additional public/quasi-public lands analysis is required.

3.0 VEGETATION

The study area is moderately disturbed due to discing that occurred as part of historical agricultural uses on the Project Site. Based on historical aerial imagery, the Project Site consisted of agricultural uses from 1985 through at least August 2018. Multiple hoop structures used for agricultural purposes were installed starting in March 2020 and are still present on site. The off-site work area has generally been in the same condition since 2009 when the roadside drainage within the western portion of the study area was channelized and riprap was installed. As a result of regular discing and location along a major roadway, the vegetation in the study area consists primarily of non-native grasslands but also contain mulefat scrub, Goodding's willow woodland, disturbed areas, and developed areas. A complete list of plant species observed on the site is included in Appendix B. Figure 4 shows vegetation communities/land cover and photograph locations, and site photographs are provided in Figure 5.

Dominant species within non-native grassland areas include a mix of mouse barley (*Hordeum murinum*), rescue grass (*Bromus catharticus*), red brome (*Bromus rubens*), wheat (*Triticum aestivum*), slender wild oat (*Avena barbata*), and smooth tarplant (*Centromadia pungens* ssp. *laevis*). Non-native grassland is the most abundant vegetation community throughout the site.

Mulefat scrub consists almost entirely of mulefat (*Baccharis salicifolia*), although understory species may contain minimal amounts of non-native grasses as described above. One small patch of mulefat scrub is located in the northwestern portion of the off-site work area just south of Ramona Expressway.

Goodding's willow woodland consists almost entirely of Goodding's willow (*Salix gooddingii*) although understory species contain a variety of annual plants including non-native grasses and pepperweed (*Lepidium* sp.). Goodding's willow woodland also overlaps with mulefat thicket along portions of its northern extent within the off-site work area. One patch of Goodding's willow woodland is located in the northwestern portion of the off-site work area just south of Ramona Expressway.

Dominant species within disturbed areas are primarily non-native and include redstem filaree (*Erodium cicutarium*), summer cypress (*Bassia scoparia*), seaside barley (*Hordeum marinum*), Russian thistle (*Salsola tragus*), London rocket (*Sisymbrium irio*), and smooth tarplant. Burning bush (*Kochia scoparia*) also forms a monotypic stand within the drainage that bisects the survey area in the central portion of the survey area. Disturbed areas are located within the central portion of the site and south of Ramona Expressway.

Areas mapped as "developed" in Figure 4 consist of hoop structures, concrete roads and other paved areas, dairies, and well-traveled dirt roads that generally do not allow for the establishment of vegetation. This land cover was present on the central portion of the site.

One native tree species, Goodding's willow, was observed during the biological resources survey within the study area where it is limited to the drainage basin within the north-central portion of the study area.

4.0 PROTECTION OF SPECIES ASSOCIATED WITH RIPARIAN/RIVERINE AREAS AND VERNAL POOLS (MSHCP SECTION 6.1.2)

Section 6.1.2 of the MSHCP requires assessment of impacts to riparian habitats, riverine areas, and vernal pools, including focused surveys for sensitive riparian bird and fairy shrimp species when suitable habitat is present. The intent of the assessment requirement is to provide for the protection of resources used by MSHCP covered species, as well as existing and future downstream conservation areas. Riverine/riparian areas and vernal pools are defined in Section 6.1.2 of the MSHCP as follows:

> **Riparian/Riverine Areas** are lands which contain Habitat dominated by trees, shrubs, persistent emergents, or emergent mosses and lichens, which occur close to or which depend upon soil moisture from a nearby fresh water source; or areas with fresh water flow during all or a portion of the year.
>
> **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.
>
> **Fairy Shrimp.** For Riverside, vernal pool, and Santa Rosa fairy shrimp, mapping of stock ponds, ephemeral pools and other features shall also be undertaken as determined appropriate by a qualified biologist.
>
> With the exception of wetlands created for the purpose of providing wetland habitat or resulting from human actions to create open waters or from the alteration of natural stream courses, areas demonstrating characteristics as described above which are artificially created are not included in these definitions.

4.1 RIPARIAN/RIVERINE AREAS

4.1.1 Methods

The study area was assessed for riparian/riverine areas at the time of the March 16, 2022, site visit. The assessment included identification and mapping of plant communities on the site as well as any

drainage features. The assessment also included a review of seasonally appropriate aerial photographs from Google Earth. (The photos covered these dates: December 1985, September 1996, May 2002, June 2003, October 2003, October 2005, December 2005, January 2006, August 2006, December 2006, June 2009, November 2009, March 2011, June 2012, January 2013, November 2013, April 2014, February 2016, October 2016, February 2018, August 2018, December 2018, August 2019, and August 2021). The survey was conducted within the Jurisdictional Delineation Survey Area (JDSA), which constitutes the entire study area. A jurisdictional delineation report is included as Appendix C.

CDFW identified a pond feature within the limits of their jurisdiction in the central portion of the project site (email dated September 14, 2023) (CDFW 2023). CDFW displayed the limits of the pond feature on six different aerial images (May 2023, March 2011, February 2016, October 2016, February 2018, and August 2018). LSA reviewed historic aerial images in December 2023 to quantify the CDFW-identified pond feature.

4.1.2 Existing Conditions and Results

Feature 1, as shown in Figure 6, is an unnamed ephemeral drainage that bisects the study area. This feature flows in a south-to-north direction into a detention basin (Feature 2) and then continues to flow off site through a culvert underneath Ramona Expressway into another unnamed ephemeral drainage which then flows into the San Jacinto River. Therefore, this unnamed ephemeral drainage is a tributary to the San Jacinto River. The San Jacinto River is considered a Water of the United States (WOTUS) as it flows into Canyon Lake and further downstream into Lake Elsinore, both of which are considered traditional navigable waterways regulated by the United States Army Corps of Engineers (USACE). Feature 1 carries ephemeral stormwater flows and urban runoff from the adjacent properties and contains a defined bed/bank with a width varying from 4 to 8 ft that exhibits indicators of ordinary high water mark (OHWM) that include sediment and debris deposits. Feature 1 is considered a riverine feature under the MSHCP.

Feature 2 is an excavated, ephemeral earthen stormwater detention basin that is used to control stormwater runoff and is located just south of Ramona Expressway. This basin is fed by Feature 1, as described above, and a roadside drainage that is located to the west of the basin, and Feature 4, as described below. An OHWM was present within the basin as well as a bed and bank. Portions of the basin contained riparian habitat in the form of Goodding's willow woodland and mule fat thicket. Feature 2 is considered a riparian/riverine feature under the MSHCP.

Feature 3 is an unnamed, manmade ephemeral roadside swale located to the south of and along Ramona Expressway. The feature flows in an east-to-west direction terminating at Feature 1. Although the feature is very flat, an OHWM was present as well as a bed and bank. Eastern portions of the drainage did not contain an OHWM or bed and bank and were therefore excluded from Figure 6. No riparian habitat or hydrophytic vegetation was present within the drainage feature. Feature 3 is not considered a riparian/riverine feature under the MSHCP as it is manmade, lacked riparian/hydrophytic vegetation, and is ephemeral.

Feature 4 is an unnamed, excavated ephemeral roadside ditch located to the south of and along Ramona Expressway. The feature is lined with riprap within its western extent and flows in a west-

to-east direction terminating at Feature 2. An OHWM was present as well as a bed and bank. No riparian habitat or hydrophytic vegetation was present within the drainage feature. Feature 4 is not considered a riparian/riverine feature under the MSHCP as it is manmade, lacked riparian/hydrophytic vegetation, and is ephemeral.

Feature 5 is an isolated, ephemeral, depressional feature that is located in the south-central portion of the study area just west of Feature 1. This feature sits in a low spot in the landscape and is fed by direct rainfall and sheet flows originating from areas to the west. No riparian habitat or hydrophytic vegetation was present within the feature, as it lacked vegetation. As such, it does not meet the definition of a vernal pool. Feature 5 is not considered a riparian/riverine feature under the MSHCP as it lacked vegetation, does not contain flows as it is isolated, and is ephemeral.

Feature 6 is an isolated, ephemeral pond feature that is located in the north-central portion of the JSA just east of Feature 1. This feature sits in a low spot in the landscape and is fed by direct rainfall and sheet flows originating from areas to the east and south. No riparian habitat or hydrophytic vegetation was present within the feature, as it was covered by existing hoop houses previously installed. Those portions of the feature located outside of the developed areas contained non-native grasslands. Feature 6 is considered a riverine feature under the MSHCP.

4.1.3 Prior Site Conditions

The JDSA has been regularly tilled/mowed since 1985, which sometimes included Features 1 and 2. In 2009 and 2019, Feature 1 appears to have been channelized. Feature 4 was channelized and riprap was installed throughout much of its length starting in 2009. Overall, the site had been disturbed for many years prior to the development of the hoop houses. An approximately 42 ft wide portion of Feature 3 was permanently impacted to accommodate a dirt access road from Ramona Expressway into the Project Site, as well as the installation of a culvert at the crossing. This accounted for an estimated 0.004 acre of permanent impacts.

The original project temporarily impacted approximately 2.52 acres of Feature 6 with the installation of hoop houses. Impacts are considered temporary as the applicant is set to relocate all structures outside the limits of the CDFW-identified pond feature. As a result, the project would have 2.52 acres of temporary impacts to a riparian/riverine feature. Therefore, a Determination of Biologically Equivalent or Superior Preservation (DBESP) is required under the MSHCP (see Figure 6).

4.1.4 Impacts and Mitigation

The Project would only impact Features 3, 4, 5, and 6 due to Project activities and has been designed to avoid Features 1 and 2, including all riparian habitat associated with Feature 2. Therefore, riparian/riverine features would be impacted and a Determination of Biologically Equivalent or Superior Preservation (DBESP) is required under the MSHCP (see Figure 6). Impacts and mitigation to Features 3–5 are discussed in Section 9.0 as they are considered jurisdictional waters and streambeds.

The project resulted in direct effects as a result of the temporary loss of 2.52 acres of riparian/ riverine resources associated with Feature 6. To compensate for temporal losses of 2.52 acres of riparian/riverine area, the project will mitigate for these impacts at an additional minimum of a

0.1:1 ratio (0.252 acre) for a total of 2.772 acres. The project will compensate for impacts to Feature 6 through a combination of on-site restoration and off-site conservation that will be described in detail in the DBESP.

4.2 VERNAL POOLS

4.2.1 Methods

The study area was assessed for the presence of potential vernal pools at the time of the March 16, 2022, site visit. The assessment included a search for depressions that may provide sufficient ponding of water to sustain hydrophytic vegetation and create hydric soil conditions during the growing season. The assessment also included a review of seasonally appropriate aerial photographs from Google Earth.

4.2.2 Existing Conditions and Results

Although jurisdictional features were delineated with the survey area, no vernal pools were observed on the site. Low-lying areas that occurred on site either did not show signs of ponding or surface water and/or lacked hydrophytic vegetation. The soils mapped and observed on site are silty and sandy loams, which are unlikely to support ponding sufficient for vernal pool formation. Besides the features described in Section 4.1.2, no other areas containing surface water were observed on historical aerial imagery.

4.2.3 Prior Site Conditions

Overall, the site has been disturbed for many years prior to the development of the hoop houses. There were no discernable potential vernal pools within areas currently developed within the JDSA based on a review of historical aerial imagery.

4.3 FAIRY SHRIMP

4.3.1 Methods

The study area was assessed for fairy shrimp habitat at the same time and using the same methods as the assessment for vernal pools. Follow-up wet and dry season fairy shrimp surveys were conducted in 2022 as described below.

The MSHCP calls for habitat assessments for three sensitive species of fairy shrimp: Santa Rosa Plateau fairy shrimp (*Linderiella santarosae*), Riverside fairy shrimp (*Streptocephalus woottoni*), and vernal pool fairy shrimp (*Branchinecta lynchi*). The Santa Rosa Plateau fairy shrimp occurs only on the Santa Rosa Plateau of extreme southwestern Riverside County. A fourth sensitive species of Southern California, the San Diego fairy shrimp (*Branchinecta sandiegonensis*), is found primarily in coastal areas of Orange and San Diego Counties. It has been found as far inland as the Wildomar area of southwest Riverside County but is not expected in the Project area. These sensitive fairy shrimp species inhabit vernal pools as well as stock ponds, large road ruts, or other similar habitats that pond water long enough to allow growth and reproduction. To provide fairy shrimp habitat, a feature must regularly pond water for at least 18 days for vernal pool fairy shrimp (Eriksen and Belk 1999) and two months for Riverside fairy shrimp (USFWS 2012).

The vernal pool branchiopod (fairy shrimp) survey was conducted in accordance with the November 13, 2017, Survey Guidelines for the Listed Large Branchiopods by LSA permitted biologists Dr. Stan Spencer (wet and dry seasons, TE-777965) and David Muth (dry season, TE-839213) (USFWS 2017). The wet season survey was conducted from January 5 to April 11, 2022, to determine whether water was present in ponding features following storm events. Ponded features were sampled at required intervals until they had dried and remained dry. The dry season survey was conducted on July 20, 2022, and the samples were processed on August 2 and 6, 2022.

4.3.2 Existing Conditions and Results

As noted above, there are no vernal pools within the survey area. However, there were six low-lying areas that provided suitable habitat for fairy shrimp in the study area (Appendix A, Figure 7). Versatile fairy shrimp (*Branchinecta lindahli*) was the only fairy shrimp species observed within the low-lying areas and was observed in two of the sampled features during the wet season survey. Branchinecta eggs were found in four of the six sampled features during the dry season survey. No MSHCP-covered fairy shrimp were identified during the focused surveys. Therefore, the Project is not anticipated to impact MSHCP-covered fairy shrimp (see Table A, below). The wet and dry season fairy shrimp survey reports are included as Appendices D and E.

Table A: MSHCP and Other Special-Status Fairy Shrimp Species

Species	Status	MSHCP Habitat	Activity Period	Occurrence Probability
Vernal pool fairy shrimp *Branchinecta lynchi*	US: FT CA: SA MSHCP: S	Vernal pools and similar features in unplowed grassland areas. Pools must contain water continuously for at least 18 days in all but the driest years to allow for reproduction. Known from the Central Valley and adjacent foothill areas, the central coast and south coast ranges, from the transverse ranges near Santa Clarita, from the Santa Rosa Plateau, Skunk Hollow, and the Stowe Road vernal pool west of Hemet in Riverside County, and from northwest San Diego County. May also occur in Orange County. Occurs at up to about 2,300 feet elevation in areas north of Kern County and at up to 5,600 feet elevation in areas to the south.	Seasonally following rains; typically January through April	**Absent.** Not identified during wet or dry season focused surveys.
San Diego fairy shrimp *Branchinecta sandiegonensis*	US: FE CA: SA	Small, shallow (usually less than 30 centimeters deep), relatively clear but unpredictable vernal pools on coastal terraces. Pools must retain water for a minimum of 13 days for this species to reproduce (3 to 8 days for hatching, and 10 to 20 days to reach reproductive maturity). Known from Orange and San Diego Counties, and Baja California.	Seasonally following rains in late fall, winter and spring	**Absent.** Study area occurs outside the current range of the species. Not identified during wet or dry season focused surveys.

Table A: MSHCP and Other Special-Status Fairy Shrimp Species

Species	Status	MSHCP Habitat	Activity Period	Occurrence Probability
Santa Rosa Plateau fairy shrimp *Linderiella santarosae*	US: - CA: SA MSHCP: S	Southern basalt flow vernal pools with cool clear to milky waters that are moderately predictable and remain filled for extended periods of time. Known only from the Santa Rosa Plateau of western Riverside County.	Seasonally following rains; typically January through April	**Absent.** Study area occurs outside the current range of the species. Not identified during wet or dry season focused surveys.
Riverside fairy shrimp *Streptocephalus woottoni*	US: FE CA: SA MSHCP: S	Warm-water vernal pools (i.e., large, deep pools that retain water into the warm season) with low to moderate dissolved solids, in annual grassland areas interspersed through chaparral or coastal sage scrub vegetation. Suitable habitat includes some artificially created or enhanced pools, such as some stock ponds, which have vernal pool like hydrology and vegetation. Known from areas within about 50 miles of the coast from Ventura County south to San Diego County and Baja California.	Seasonally following rains; typically January through April	**Absent.** Not identified during wet or dry season focused surveys.

LEGEND
US: Federal Classifications

FE Listed as endangered.
FT Listed as threatened.
CA: State Classifications
SA Special Animal. Refers to any other animal monitored by the Natural Diversity Data Base, regardless of its legal or rarity status.
MSHCP: Western Riverside County MSHCP Status
S Species is covered and adequately conserved under the MSHCP, but surveys are required within indicated habitats and/or survey areas.

4.4 RIPARIAN BIRDS

4.4.1 Methods

Habitat suitability for riparian birds, including the least Bell's vireo (*Vireo bellii pusillus*), southwestern willow flycatcher (*Empidonax traillii extimus*), and yellow-billed cuckoo (*Coccyzus americanus*), was assessed in conjunction with the assessment for riverine/riparian areas.

4.4.2 Existing Conditions and Results

Riparian habitat is present within a portion of the northern study area. This riparian habitat is associated with a manmade basin (Feature 2) that occurs just south of Ramona Expressway. Although riparian habitat is present, it is small in size and spread out in distribution. Riparian habitat present consists of a mix of Goodding's willow woodland and mulefat scrub with very little overlap between the two vegetation communities. Surveys for riparian birds were not conducted since the Project activities would avoid all riparian habitats, and indirect impacts are not anticipated to occur. In addition, pre-construction nesting bird surveys would be conducted should Project activities occur within the nesting bird season (see Section 10.0).

None of the listed federal and/or State-listed species covered by the MSHCP have been reported within 3 miles of the study area according to California Natural Diversity Database records: least Bell's vireo, southwestern willow flycatcher, and yellow-billed cuckoo. Table B describes the habitat requirements for all three species, along with an assessment of habitat and the likelihood of the species occurring on the site.

Table B: MSHCP Riparian Bird Species

Species	Status	MSHCP Habitat	Activity Period	Occurrence Probability
Vireo bellii pusillus **Least Bell's vireo**	US: FE CA: SE MSHCP: S	Riparian forests and willow thickets. The most critical structural component of Least Bell's Vireo habitat in California is a dense shrub layer 2 to 10 feet (0.6–3.0 meters) above ground. Willows usually dominant. Nests from central California to northern Baja California. Winters in southern Baja California.	April through September	**Low Potential (nesting).** Suitable habitat is present associated with the manmade basin immediately south of Ramona Expressway. Dense shrubs within this area exists in a small portion of the mulefat scrub present.
Empidonax traillii extimus **Southwestern willow flycatcher**	US: FE CA: SE MSHCP: S	Rare and local breeder in extensive riparian areas of dense willows or (rarely) tamarisk, usually with standing water, in the southwestern U.S. and possibly extreme northwestern Mexico. Winters in Central and South America. Below 6,000 feet elevation.	May through September	**Low Potential (nesting).** Suitable habitat is present associated with the manmade basin immediately south of Ramona Expressway. Dense shrubs within this area exists in a small portion of the mulefat scrub present.
Coccyzus americanus occidentalis (nesting) **Western yellow-billed cuckoo**	US: FT CA: SE MSHCP: S	Breeds and nests in extensive stands of dense cottonwood/willow riparian forest along broad, lower flood bottoms of larger river systems at scattered locales in western North America; winters in South America.	June through September	**Absent (nesting).** Although suitable habitat is present within the manmade basin immediately south of Ramona Expressway, it lacks the size, density and proximity to larger river system required for the species.

LEGEND

US: Federal Classifications
FE Listed as endangered.
FT Listed as threatened.

CA: State Classifications
SA Special Animal. Refers to any other animal monitored by the Natural Diversity Data Base, regardless of its legal or rarity status.

MSHCP: Western Riverside County MSHCP Status
S Species is covered and adequately conserved under the MSHCP, but surveys are required within indicated habitats and/or survey areas.

4.4.3 Prior Site Conditions

Overall, the site had been disturbed for many years prior to the development of the hoop houses. There was no discernable riparian habitat within areas currently developed within the JDSA based on a review of historical aerial imagery.

5.0 PROTECTION OF NARROW ENDEMIC PLANT SPECIES (MSHCP SECTION 6.1.3)

Section 6.1.3 of the MSHCP requires focused surveys for specified sensitive plant species if the Project is within an NEPSSA and suitable habitat is present. The Project is located within NEPSSA 3, which indicates the need for habitat assessment for the following plant species:

- 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*).

5.1 METHODS

The study area was assessed for suitable habitat for these species during the January 2022 wet season surveys for fairy shrimp. The assessment included evaluation of soils, identification of plant species and communities, and investigation of landforms and evidence of past hydrologic conditions in the study area relative to the habitat requirements summarized for each of the targeted narrow endemic plant species. The assessment also included a review of aerial photographs to look at historical vegetation patterns and for areas of ponding that could provide habitat for vernal pool plants.

Based on the presence of potentially suitable habitat on site during the January 2022 assessment, focused NEPSSA surveys were conducted on April 4 and 18 and June 16, 2022, by LSA Biologist Dr. Spencer to coincide with the blooming periods of NEPSSA 3 species. Surveys were conducted by walking meandering transects throughout the study area including inspecting all low-lying areas on-site. It should be noted that all low-lying areas were also inspected for NEPSSA plant species during the wet and dry season fairy shrimp surveys and the jurisdictional delineation, and the entire study area was also inspected for NEPSSA plant species during the burrowing owl surveys.

5.2 EXISTING CONDITIONS AND RESULTS

Table C, below, describes habitat requirements for each species, along with an assessment of habitat and the likelihood that the species is present on the site.

As noted in Table C, potentially suitable habitat exists for these species; however, no NEPSSA 3 species were observed during focused plant surveys conducted during the appropriate season. Therefore, all NEPSSA 3 species are considered absent from the site and are not anticipated to be impacted by Project activities. The MSHCP plant survey report is included as Appendix F.

Table C: MSHCP Narrow Endemic Plant Survey Species

Species	Status	MSHCP Habitat	Growth Form and Blooming Period	Occurrence Probability
Munz's onion *Allium munzii*	US: FE CA: ST/1B MSHCP: S	Seasonally moist sites on clay soils (generally) or within rocky outcrops (pyroxenite) on rocky-sandy loams (such as Cajalco, Las Posas, and Vallecitos) with clay subsoils, in openings within coastal sage scrub, pinyon juniper woodland, and grassland, at 300 to 1,070 meters (1,000 to 3,500 feet) elevation. Known only from western Riverside County in the greater Perris Basin (Temescal Canyon-Gavilan Hills/Plateau, and Murrieta-Hot Springs areas) and within the Elsinore Peak (Santa Ana Mountains) and Domenigoni Hills regions.	Blooms April through May	**Absent.** Non-native grassland and seasonally wet areas occur on the eastern portion of the site, but clay soils are absent. Not observed during focused surveys.
San Diego Ambrosia *Ambrosia pumila*	US: FE CA: 1B MSHCP: S	Open, seasonally wet, generally low areas in floodplains or at edges of vernal pools or playas, usually in sandy loam or on clay (including upland clay slopes), at 20 to 487 meters (70 to 1,600 feet) elevation. Known from western Riverside and western San Diego Counties. Also occurs in Mexico.	Generally non-flowering (perennial herb)	**Absent.** Seasonal wet areas occur on site, although these areas are highly disturbed. Not observed during focused surveys.
Many-stemmed dudleya *Dudleya multicaulis*	US: – CA: 1B MSHCP: S	Heavy, often clay soils or around granitic outcrops in chaparral, coastal sage scrub, and grassland below 790 meters (2,600 feet) elevation. Known only from Los Angeles, Orange, Riverside, San Bernardino, and San Diego Counties.	Blooms April through July (perennial herb)	**Absent.** Non-native grasslands occur on the site, but clay soils are absent. Not observed during focused surveys.
spreading navarretia *Navarretia fossalis*	US: FT CA: 1B MSHCP: S	In vernal pools, playas, shallow freshwater marshes, and similar sites at 15 to 820 meters (50 to 2,700 feet) elevation. In California, known only from Los Angeles, San Luis Obispo, Riverside, and San Diego Counties. Also occurs in Mexico.	Blooms April through June (annual herb)	**Absent.** Seasonal wet areas occur on site, but these areas are highly disturbed. Not observed during focused surveys.
California Orcutt grass *Orcuttia californica*	US: FE CA: SE/1B MSHCP: S	Vernal pools from 15 to 660 meters (50 to 2,200 feet) elevation. In California, known from Los Angeles, Ventura, Riverside, and San Diego Counties. Also occurs in Mexico.	Blooms April through August (annual grass)	**Absent.** Seasonal wet areas occur on site, but these areas are highly disturbed. Not observed during focused surveys.

Table C: MSHCP Narrow Endemic Plant Survey Species

Species	Status	MSHCP Habitat	Growth Form and Blooming Period	Occurrence Probability
Wright's trichocoronis *Trichocoronis wrightii* var. *wrightii*	US: - CA: 2B MSHCP: S	Alkali soils in meadows, riverbeds, vernal pools, and lakes at 5 to 435 meters (20 to 1,430 feet) elevation. In California, known from the Central Valley and Riverside County. Also occurs in Texas and Baja California.	Blooms May through September (annual or perennial herb)	**Absent.** Seasonal wet areas occur on site, but these areas are highly disturbed. Not observed during focused surveys.

LEGEND

US: Federal Classifications

FE Listed as endangered.
FT Listed as threatened.

CA: State Classifications

ST State-listed as Threatened.
1B California Rare Plant Rank 1B – rare, threatened or endangered in California and elsewhere.
2B California Rare Plant Rank 2B – rare, threatened or endangered in California, but more common elsewhere.

MSHCP: Western Riverside County MSHCP Status

S Species is covered and adequately conserved under the MSHCP, but surveys are required within indicated habitats and/or survey areas.

5.3 PRIOR SITE CONDITIONS

Overall, the site had been disturbed for many years prior to the development of the hoop houses. Due to the disturbed nature of the study area prior to the installation of the hoop houses and absence of all NEPSSA 3 species during focused surveys in 2022, NEPSSA 3 species were not likely to be present within areas currently developed.

6.0 ADDITIONAL SURVEY NEEDS AND PROCEDURES (MSHCP SECTION 6.3.2)

MSHCP Section 6.3.2 requires surveys for additional plants, amphibians, small mammals, and BUOW for projects within mapped survey areas.

6.1 CRITERIA AREA PLANT SPECIES

The Project is not within a mapped survey area for Criteria Area Species Survey Area (CASSA) plant species; therefore, no surveys for Criteria Area plant species are required.

Smooth tarplant (*Centromadia pungens* ssp. *laevis*) and Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*), both CASSA species, were observed on the site (Appendix A, Figure 8). These species are considered adequately conserved under the MSHCP. Since the site is not within a CASSA survey area and focused rare plant surveys were completed, neither additional surveys nor mitigation for these species is required.

6.2 AMPHIBIANS

The Project is not within a mapped survey area for amphibian species.

6.3 BURROWING OWL

The study area is within the MSHCP BUOW survey area. BUOW is found in open, dry grasslands, agricultural and rangelands, and desert habitats often associated with burrowing animals. It can also inhabit grass, forb, and shrub stages of pinyon and ponderosa pine habitats. It nests in abandoned burrows of ground squirrels or other animals, in pipes, under piles of rock or debris, and in other similar features.

6.3.1 Methods

Habitat suitability for burrowing owl (BUOW) was assessed during the January 2022 wet season fairy shrimp surveys. The assessment included an evaluation of soil texture, vegetative cover, topography, and the presence of mammal burrows, rock piles, or other areas suitable for nest construction. The site was found to contain low vegetative cover, mostly devoid of trees, and contained ground squirrel burrows, indicative of suitable habitat for BUOW requiring a focused burrowing owl survey as described below.

The surveys were conducted by LSA biologists Carla Cervantes and Dr. Spencer according to the *County of Riverside Guidelines for Burrowing Owl Surveys* (revised March 29, 2006) (County of Riverside 2006). A total of four surveys were conducted from May 4 through August 29, 2022. The surveys were conducted by walking approximately 30-meter transects throughout areas of suitable habitat to look for burrowing owls, potential burrows (burrows greater than 11 centimeters in diameter and 150 centimeters deep), and burrowing owl sign. Burrows encountered during the survey were examined for owl sign (e.g., feathers, pellets, whitewash, and prey remnants). Burrows with presence of burrowing owl sign and/or burrowing owls were to be recorded using a handheld global positioning system (GPS) unit and mapped onto an aerial photograph. Potential habitat within

500 ft and visible from the site was surveyed using binoculars. A burrowing owl survey report documenting the results of the focused burrowing owl surveys is included as Appendix G.

6.3.2 Existing Conditions and Results

No burrowing owls or burrowing owl sign were found to be present within the survey area. Three burrows suitable for burrowing owl occupation were observed within the survey area but showed no sign of burrowing owl use (Appendix A, Figure 9). Suitable habitat is present throughout the study area consisting of non-native grassland and disturbed areas as both vegetation communities contain low-growing plant species. Some areas within the northern portion of the study area lack suitability for burrowing owl due to the presence of trees and/or thick cover, which either prevent owls from entering or provide habitat to aerial predators of BUOW, such as larger raptors. Developed areas on site generally lack suitable habitat for burrowing owl as they consist of well-traveled dirt roads that have been maintained in their current location and condition since at least 2021 and are subject to vehicular and pedestrian travel. Hoop structures present generally do not provide suitable habitat as they are covered and provide barriers to entry.

Areas within 500 ft of the study area generally provide suitable habitat for burrowing owl as they consist of undeveloped lands consisting of non-native grassland or other low-growing ground cover suitable for BUOW. Developed areas to the south and north of the study area as well as open water areas south of the study area do not provide suitable habitat for BUOW.

A pre-construction survey for BUOW would be required within 30 days prior to any ground-disturbing activities.

6.3.3 Prior Site Conditions

Overall, the site had been disturbed for many years prior to the development of the hoop houses. Suitable non-native grassland or other low-growing ground cover was present within the areas where development currently occurs based on a review of historical aerial imagery. Only three suitable burrows were observed during the focused burrowing owl surveys in 2022. It is not feasible to determine if the current developed area contained suitable burrows or burrowing owl based on historical aerial imagery or other publicly available data sources. However, due to the absence of burrowing owl and their sign from the study area based on the results of the 2022 focused survey, it is unlikely that burrowing occurred in those areas with similar on-site conditions.

6.3.4 Impacts and Mitigation

Since BUOW was not detected during the focused survey, a DBESP would not be required under the MSHCP for this species.

If BUOW is found during the pre-construction survey, the Project proponent would need to inform the California Department of Fish and Wildlife (CDFW) and United States Fish and Wildlife Service (USFWS) and prepare a Burrowing Owl Protection and Relocation Plan for approval by these agencies prior to initiating ground disturbance.

6.4 MAMMALS

The Project is not within a mapped survey area for mammals. Therefore, no survey or additional analysis is required for mammal species.

7.0 INFORMATION ON OTHER SPECIES

7.1 DELHI SANDS FLOWER-LOVING FLY

The MSHCP requires surveys for the Delhi sands flower-loving fly (*Rhaphiomidas terminatus abdominalis*) in most areas of mapped Delhi series soils where suitable habitat exists (MSHCP Section 9).

The study area is not within an area of mapped Delhi soils, and (as noted in Section 1.3, above) the soil mapped and observed throughout the site is sandy and silt loams, which is inconsistent with Delhi soils; therefore, no survey or additional analysis is required for this species.

7.2 SPECIES NOT ADEQUATELY CONSERVED

Some species that would eventually have full coverage under the MSHCP are not considered adequately conserved until the requirements indicated in Table 9-3 of MSHCP Section 9 are met.

7.2.1 Methods

A literature review was conducted to investigate the potential occurrence of special-status species in the study area or in the vicinity. Database records for a 3-mile radius of the study area were searched on September 22, 2022, using RareFind 5, and location information was provided using GIS and/or CDFW's Biogeographic Information and Observation System (BIOS) (CDFW 2022a, CDFW 2022b).

7.2.2 Existing Results

Two species listed in MSHCP Table 9-3 have been reported within 3 miles of the study area , Parry's spineflower (*Chorizanthe parryi* var. *parryi*) and Plummer's mariposa lily (*Calochortus plummerae*). Both species are not adequately conserved under the MSHCP according to a Table 9-3 status update (Western Riverside County RCA 2022) and are analyzed in Table D below. Neither species were observed during the biological resources surveys conducted. Given habitat suitability, occurrences of this species reported within 3 miles of the study area and focused rare plant surveys conducted, Parry's spineflower and Plummer's mariposa lily are considered absent, as described below in Table D.

7.2.3 Prior Site Conditions

Overall, the site had been disturbed for many years prior to the development of the hoop houses. Parry's spineflower and Plummer's mariposa lily were not likely to occur in the areas currently noted as developed due to the continuous disturbance regime and lack of both species during the 2022 rare plant survey.

Table D: MSHCP Species Not Adequately Conserved

Species	Status	MSHCP Habitat	Blooming Period/ Activity Period	Occurrence Probability
Chorizanthe parryi var. *parryi* **Parry's spineflower**	US: – CA: 1B.1 MSHCP: P	Annual herb. Sandy or rocky soils in chaparral, coastal scrub, oak woodlands, and grassland at 40 to 1,705 meters (100 to 5,600 feet) above mean sea level. Known only from Los Angeles, Riverside, and San Bernardino counties.	Blooms April through June	**Absent.** Suitable grasslands occur on site. This species was observed within 3 miles to the west, north and northeast of the study area in 2012, 1969, and 1990/2008, respectively. Not observed during focused surveys. Not observed during focused surveys.
Plummer's mariposa lily **Calochortus plummerae**	US: – CA: 4 MSHCP: C (P)	Rocky sites of granitic or alluvial material in valley and foothill grassland, coastal scrub, chaparral, cismontane woodland, and lower montane coniferous forest, at 100 to 1,700 meters (300 to 5,600 feet) elevation. Known from Riverside, San Bernardino, Orange, Los Angeles, and Ventura Counties, California. In the western Riverside County area, this species is known from the foothills of the San Bernardino Mountains, northeastern Santa Ana Mountains, Box Springs Mountains, and from the Lake Skinner area (*The Vascular Plants of Western Riverside County*, California. F.M. Roberts et al., 2004). Appears to intergrade with *Calochortus weedii* var. *intermedius,* which is mostly from Santa Ana Mountains eastward.	Blooms May through July (perennial herb)	**Absent.** Non-native grassland occurs on the site, but granitic and alluvial soils are absent. This species was observed within 3 miles to the northeast of the study area in 2008. Not observed during focused surveys.

Sources: California Natural Diversity Database (CDFW 2022a); Biogeographic Information and Observation System (CDFW n.d.); and Information for Planning and Consultation (IPaC) database (USFWS 2022)

CA: State Classifications
1B.1 = Rare threatened, or endangered in California and elsewhere; seriously threatened in California

Table notes continued:

Western Riverside County MSHCP Status
C = Species is covered and adequately conserved under the MSHCP.
P = Species is covered and would be adequately conserved when MSHCP specified requirements are met.

CA = California
CDFW = California Department of Fish and Wildlife
MSHCP = Multiple Species Habitat Conservation Plan
US = United States
USFWS = United States Fish and Wildlife Service

8.0 GUIDELINES PERTAINING TO THE URBAN/WILDLANDS INTERFACE (MSHCP SECTION 6.1.4)

To preserve the integrity of areas described as existing or future MSHCP Conservation Areas, the guidelines contained in MSHCP Section 6.1.4 (Urban Wildlands Interface Guidelines) are to be implemented for projects adjacent to either existing conservation or land described for conservation in the MSHCP Criteria Area.

The study area is not adjacent to conserved lands or lands in a Criteria Area described for conservation. Therefore, the Urban Wildlands Interface Guidelines do not apply to this Project.

9.0 POTENTIAL JURISDICTIONAL WATERS AND STREAMBEDS

9.1 UNITED STATES ARMY CORPS OF ENGINEERS JURISDICTION

9.1.1 Jurisdictional 404 Waters of the United States

Features 1–4, as shown in Figure 6, are potentially considered waters of the United States (WOTUS) under current regulatory definitions, as they exhibit slight OHWM indicators, which include bed, banks, and natural lines impressed on the banks, and they contribute flow to the San Jacinto River, which flows into Canyon Lake and Lake Elsinore, both traditional navigable waters. There are no jurisdictional wetlands within or adjacent to Features 1–4. Because Features 1–4 have slight OHWM indicators, are ephemeral, and a significant nexus is defined, the features should be considered non-wetland WOTUS subject to regulation under Section 404 of the Clean Water Act. Although Feature 5 contains a slight OHWM, it is isolated and does not connect to any other features within the JDSA. Therefore, Feature 5 does not have a nexus to a traditional navigable water and is not considered a WOTUS. In total, approximately 1.228 acres of non-wetland WOTUS occur within the JDSA.

Feature 3 would be temporarily impacted to upgrade an existing dirt driveway originating from Ramona Expressway and entering the eastern portion of the site to an asphalt driveway. As part of this upgrade, the existing culvert would need to be replaced with a new culvert. Approximately 0.001 acre of temporary impacts to Feature 3 are anticipated as a result. See Table E for a summary of all jurisdictional impacts. Feature 3 is located within the off-site work area.

Table E: Potential Impacts to Jurisdictional Areas by Feature Number

Feature No.	USACE		RWQCB		CDFW	
	Nonwetland WOTUS Permanent Impacts (acres) [1]	Nonwetland WOTUS Temporary Impacts (acres) [1]	Nonwetland WOTS Permanent Impacts (acres) [1]	Nonwetland WOTS Temporary Impacts (acres) [1]	Streams/Rivers/ Riparian Habitat Permanent Impacts (acres)	Streams/Rivers/ Riparian Habitat Temporary Impacts (acres)
1		-	-	-	-	
2		-	-	-	-	
3[2]	-	0.001	-	0.001	-	0.001
4	0.016	0.005	0.016	0.005	0.016	0.005
5	-	-	0.220	-	-	-
6	--	--	--	--	--	2.52
TOTAL	**0.016**	**0.006**	**0.236**	**0.006**	**0.016**	**2.58**

Source: LSA (2022).
Note: Totals may appear inaccurate due to rounding.
[1] Wetland WOTUS/WOTS do not occur within the JDSA.
[2] An additional estimated 0.004 acre of permanent impacts to Feature 3 occurred as a result of previous Project activities.
CDFW = California Department of Fish and Wildlife
JDSA = Jurisdictional Delineation Survey Area
RWQCB = Regional Water Quality Control Board
USACE = United States Army Corps of Engineers
WOTS = Waters of the State
WOTUS = Waters of the United States

Feature 4 would be temporarily and permanently impacted to install a new 30 ft wide asphalt entry driveway from Ramona Expressway into the western portion of the Project Site. This would include the installation of a culvert to convey flows from west to east within Feature 4. Approximately 0.005 acre of temporary impacts and 0.016 acre of permanent impacts to Feature 4 are anticipated as a result. Feature 4 is located within the off-site work area.

Although not considered an MSHCP riparian/riverine feature, Feature 5 would be permanently impacted to develop License Areas 5 and 6. In total, approximately 0.220 acre of permanent impacts would occur to the feature. Feature 5 is located within the Project Site.

Compensatory mitigation for permanent impacts is anticipated to be no less than a 1:1 ratio but would be finalized through the permitting process with the USACE, the Regional Water Quality Control Board (RWQCB), and the CDFW. Temporary impacts are not anticipated to require compensatory mitigation but would require returning the features back to their natural state post-impact, including contours. Revegetation of temporarily impacted areas may also be required and would be determined through the permitting process.

9.2 CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE JURISDICTION

9.2.1 Jurisdictional 1602 Streambeds and Associated Riparian Habitat

In accordance with Section 1602 of the California Fish and Game Code, CDFW asserts jurisdiction over rivers, streams, and lakes, as well as any riparian vegetation associated with those features. There are no rivers or lakes within or immediately adjacent to the Project limits, but four ephemeral features (Features 1–4) are present as shown in Figure 6. Only Feature 2 contains riparian habitat in the form of Goodding's willow woodland and mule fat thicket, as previously discussed. The remaining features lack any associated riparian habitat. Therefore, CDFW jurisdiction extends to the top of the banks in Features 1–4. Feature 5 is not a lake or river and does not contain bed or banks and is therefore not considered a CDFW jurisdictional area. In total, approximately 2.375 acres of CDFW Streambeds/Riparian jurisdiction occur within the JDSA.

The original project temporarily impacted approximately 2.52 acres of Feature 6 with the installation of hoop houses. Impacts are considered temporary as the applicant is set to relocate all structures outside the limits of the CDFW-identified pond feature. As a result, the project would have 2.52 acres of temporary impacts to Feature 6.

A total of approximately 0.016 acre of permanent impacts and 0.006 acre of temporary impacts to CDFW jurisdictional areas are anticipated as part of Project activities (see Table E). No riparian habitat would be impacted. In addition, an estimated 0.004 acre of permanent impacts to Feature 3 occurred as result of activities associated with the entryway to the original hoop houses and 2.52 acres of temporary impacts occurred as a result of the installation of the original hoop houses.

9.3 REGIONAL WATER QUALITY CONTROL BOARD JURISDICTION

9.3.1 Jurisdictional 401 Waters of the State

All the areas on site determined to be WOTUS under both current and historic USACE definitions and guidelines are also considered to be waters of the State (WOTS). However, in many cases,

RWQCB jurisdiction extends beyond the limits of USACE jurisdiction and may also include areas not identified as subject to USACE jurisdiction. This applies to Features 1–4.

Feature 5 is potentially considered jurisdictional under the Porter-Cologne Water Quality Control Act, as it contains ephemeral surface waters but lacks connection to other features within the JDSA and does not contain a nexus to a traditional navigable water. There are no jurisdictional wetland WOTS within the JDSA. In total, approximately 1.450 acres of WOTS jurisdiction occur within the JDSA.

A total of approximately 0.236 acre of permanent impacts and 0.006 acre of temporary impacts to non-wetland WOTS are anticipated as part of Project activities (see Table E). No riparian habitat would be impacted. In addition, an estimated 0.004 acre of permanent impacts to Feature 3 occurred as result of activities associated with the entryway to the original hoop houses.

The findings and conclusions presented in this report, including the location and extent of wetlands and other waters subject to regulatory jurisdiction, represent the professional opinion of LSA. These findings and conclusions should be considered preliminary until verified by the USACE, RWQCB, and CDFW.

10.0 NESTING BIRDS

During the bird breeding season (typically February 1 through August 31), electrical distribution poles and large trees on or adjacent to the study area may be used by hawks, ravens, or other large birds for nesting. Trees, shrubs, and other vegetation may provide nest sites for smaller birds, and burrowing owls may nest in ground squirrel burrows, pipes, or similar features. Most birds and their active nests are protected from "take" (meaning destruction, pursuit, possession, etc.) under the Migratory Bird Treaty Act and/or Sections 3503 through 3801 of the California Fish and Game Code. Activities that cause the destruction of active nests, or that cause nest abandonment and subsequent death of eggs or young, may constitute violations of one or both of these laws.

If vegetation is to be removed during the nesting season (February 1 through August 31), a pre-construction nesting bird survey shall be conducted, and avoidance measures shall be taken to ensure that no take of birds or their nests would occur.

11.0 CEQA COMPLIANCE

Although the following sections were prepared based on the current site conditions, they are also applicable to the prior site conditions when hoop houses were not present.

11.1 ADOPTED HABITAT CONSERVATION PLANS

Section 10(a)(2)(A) of the 1973 Federal Endangered Species Act requires the preparation of a Habitat Conservation Plan (HCP) for incidental take of threatened or endangered species when there is no federal agency involvement in a project. Continuing land development may cause incidental take of listed species; therefore, HCPs have been prepared for areas within western Riverside County. The MSHCP and the Stephens' Kangaroo Rat Habitat Conservation Plan (SKR HCP) are the principal habitat conservation plans in western Riverside County. The USFWS regional office maintains a current list of habitat conservation plans for the Southern California region.

The study area is within the MSHCP area and within the SKR HCP fee area. The Project's consistency with the MSHCP is discussed in Sections 2.0 through 8.0 above. Because the study area is within the SKR HCP, focused surveys for SKR (*Dipodomys stephensi*) are not required, but a fee associated with the SKR HCP would be required. The study area is not subject to any other adopted HCP.

11.2 THREATENED AND ENDANGERED SPECIES

The USFWS and CDFW may list species as threatened or endangered under the federal and California Endangered Species acts (USFWS 2022; CDFW 2022c, 2022d). The USFWS can designate critical habitat that identifies specific areas, either occupied or unoccupied, that are essential to the conservation of a listed species. Critical habitat areas may require special management considerations or protections. The USFWS and CDFW have issued permits for the take of most threatened and endangered species within the MSHCP area. The MSHCP covers impacts to these species. However, if a project has the involvement of a federal agency, that agency is required to address impacts to listed species and critical habitat by consulting with the USFWS. The USFWS has indicated in the permit issued for the MSHCP that, in such cases, the consultation would be expedited and no restrictions would be imposed on the Project beyond those specified in the MSHCP.

No critical habitat occurs in the study area. Four federal and/or State-listed species have been reported within 3 miles of the study area according to California Natural Diversity Database records: tricolored blackbird (*Agelaius tricolor*), coastal California gnatcatcher (*Polioptila californica californica*), San Bernardino kangaroo rat (*Dipodomys merriami parvus*), and SKR. Table F describes the habitat requirements for all four species, along with an assessment of habitat and the likelihood of the species occurring on the site.

As noted in Section 11.1, the study area is within the SKR HCP fee area and a fee associated with the SKR HCP would be required.

Table F: Threatened and Endangered Species

Species	Status	MSHCP Habitat	Activity Period	Occurrence Probability
Birds				
Agelaius tricolor (nesting colony) **Tricolored blackbird**	US: – CA: ST/SSC (breeding) MSHCP: C	Open country. Forages in grassland and cropland habitats. Nests in large groups near fresh water, preferably in emergent wetland with tall, dense cattails or tules, but also in thickets of willow, blackberry, wild rose, or tall herbs. Seeks cover for roosting in emergent wetland vegetation, especially cattails and tules, and also in trees and shrubs. Occurs in western Oregon, California, and northwestern Baja California.	Year-round	**Not Expected (nesting).** Suitable habitat not present within study area.
Polioptila californica **Coastal California gnatcatcher**	US: FT CA: SSC MSHCP: C	Inhabits coastal sage scrub in low-lying foothills and valleys up to about 500 meters (1,640 feet) in elevation in cismontane southwestern California and Baja California.	Year-round	**Not Expected.** Suitable habitat not present within study area.
Mammals				
Dipodomys stephensi **Stephens' kangaroo rat**	US: FE CA: ST MSHCP: C	Found in plant communities transitional between grassland and coastal sage scrub, with perennial vegetation cover of less than 50%. Most commonly associated with *Artemisia tridentata, Eriogonum fasciculatum,* and *Erodium.* Requires well-drained soils with compaction characteristics suitable for burrow construction (neither sandy nor too hard). Not found in soils that are highly rocky or sandy, less than 20 inches deep, or heavily alkaline or clay, or in areas exceeding 25% slope. Occurs only in western Riverside County, northern San Diego County, and extreme southern San Bernardino County, below 915 meters (3,000 feet) in elevation. In northwestern Riverside County, known only from east of Interstate 15. Reaches its northwest limit in south Norco, southeastern Riverside, and in the Reche Canyon area of Riverside and extreme southern San Bernardino Counties.	Year-round, nocturnal	**Not expected.** The study area is within the Stephens' Kangaroo Rat Habitat Conservation Plan. Suitable habitat is not present within the study area. Numerous species accounts have been recorded within 1 mile of the study area (CNDDB).
Dipodomys merriami parvus **San Bernardino kangaroo rat**	US: FE CA: SSC MSHCP: S	Gravelly and sandy soils of alluvial fans, braided river channels, active channels and terraces; San Bernardino Valley (San Bernardino County) and San Jacinto Valley (Riverside County). In San Bernardino County, this species occurs primarily in the Santa Ana River and its tributaries north of Interstate 10, with small remnant populations in the Etiwanda alluvial fan, the northern portion of the Jurupa Mountains in the south Bloomington area, and in Reche Canyon. In	Nocturnal, active year-round	**Not Expected.** Suitable habitat not present within study area.

Table F: Threatened and Endangered Species

Species	Status	MSHCP Habitat	Activity Period	Occurrence Probability
		Riverside County, this species occurs along the San Jacinto River east of approximately Sanderson Avenue, and along Bautista Creek. Remnant populations may also occur within Riverside County in Reche Canyon, San Timoteo Canyon, Laborde Canyon, the Jurupa Mountains, and the Santa Ana River Wash north of State Route 60.		

Sources: CNDDB (CDFW 2022a); Biogeographic Information and Observation System (CDFW n.d.); and Information for Planning and Consultation (IPaC) database (USFWS 2022)

US: Federal Classifications
FT = Listed as threatened
FE = Listed as endangered.

CA: State Classifications
SA = Special Animal. Refers to any other animal monitored by the Natural Diversity Database, regardless of its legal or rarity status.
SSC = Species of Special Concern. Refers to animals with vulnerable or seriously declining populations.
ST = Listed as threatened

CNPS Designations
1B.1 = Rare threatened, or endangered in California and elsewhere

Western Riverside County MSHCP Status
S = Species is covered and adequately conserved under the MSHCP, but surveys are required within indicated habitats and/or survey areas.

CA = California
CDFW = California Department of Fish and Wildlife
CNDDB = California Natural Diversity Database
MSHCP = Multiple Species Habitat Conservation Plan
US = United States
USFWS = United States Fish and Wildlife Service

11.3 OTHER SPECIAL-STATUS SPECIES

Other special-status species may occur in the study area. The CDFW; the USFWS; local agencies; and special interest groups, such as the California Native Plant Society (CNPS) (CNPS 2022), maintain lists of species they consider to need monitoring. Legal protection for special-status species varies widely.

The special-status species listed in Table G may be expected to occur in the general project vicinity as they have been reported within 3 miles of the study area but are not covered under the MSHCP. None of the species listed in Table G have been reported from the study area , and none were observed during the site visit.

California screw moss (*Tortula californica*) is not expected to occur given the absence of rock outcrops, vertical rock walls, and soil banks within the study area. Chaparral sand-verbena (*Abronia villosa* var. *aurita*) is not expected to occur given the absence of chaparral and coastal sage scrub within the study area . Salt Spring checkerbloom (*Sidalcea neomexicana*) is not expected to occur given the absence of springs and brackish marshes within the study area. Southern California legless lizard (*Anniella stebbinsi*) is not expected to occur given the absence of sandy or loose loamy soils with high moisture within the study area.

Table G: Special-Status Species Recorded within 3 Miles of the Study Area (Not Covered by MSHCP)

Species	Status	Habitat and Distribution	Blooming Period/ Activity Period	Occurrence Probability
Plants				
Tortula californica **California screw moss**	US: – CA: 1B	Rock outcrops, vertical rock walls and soil banks with appropriate moisture conditions, at 10 to 1,460 meters (30 to 4,800 feet) elevation. Known only from Modoc, Kern, Los Angeles, Modoc, Monterey, Riverside, San Diego, Santa Barbara, and Ventura Counties, California.	Capsules mature in spring	**Not Expected.** Suitable habitat not present within study area. Not observed during focused surveys.
Abronia villosa var. *aurita* **Chaparral sand-verbena**	US: – CA: 1B.1	Annual or perennial herb. Sandy areas (generally flats and benches along washes) in chaparral and coastal sage scrub, and improbably in desert dunes or other sandy areas, below 1,600 meters (5,300 feet) above mean sea level. In California, reported from Riverside, San Diego, Imperial, Los Angeles, and Ventura counties. Believed extirpated from Orange County. Also reported from Arizona and Mexico (Baja California). Plants reported from desert communities are likely misidentified.	Blooms mostly March through August	**Not Expected.** Suitable habitat not present within study area. Not observed during focused surveys.
Sidalcea neomexicana **Salt Spring checkerbloom**	US: – CA: 2B	Alkaline springs and brackish marshes below 1,530 meters (5,000 feet) elevation. In California, known only from Kern, Orange, Riverside, San Bernardino, San Diego, and Ventura Counties. Believed extirpated from Los Angeles County. Also known from Arizona, New Mexico, Nevada, Utah, and Mexico.	Blooms March through June (perennial herb)	**Not Expected.** Suitable habitat not present within study area. Not observed during focused surveys.
Reptiles				
Anniella stebbinsi **Southern California legless lizard**	US: – CA: SSC	Inhabits sandy or loose loamy soils with high moisture content under sparse vegetation in Southern California.	Nearly year-round, at least in southern areas	**Not Expected.** Suitable habitat not present within study area.

Table G: Special-Status Species Recorded within 3 Miles of the Study Area (Not Covered by MSHCP)

Species	Status	Habitat and Distribution	Blooming Period/ Activity Period	Occurrence Probability

Sources: California Natural Diversity Database (CDFW 2022a): Biogeographic Information and Observation System (CDFW n.d.); and Information for Planning and Consultation (IPaC) database (USFWS 2022).

US: Federal Classifications
FE = Listed as endangered.

CA: State Classifications
SA = Special Animal. Refers to any other animal monitored by the Natural Diversity Database, regardless of its legal or rarity status.
SSC = Species of Special Concern. Refers to animals with vulnerable or seriously declining populations.

CNPS Designations
1B.1 = Rare threatened, or endangered in California and elsewhere
1B.2 = Plants rare, threatened, or endangered in California and elsewhere; fairly threatened in California
2B.2 = Plants rare, threatened, or endangered in California, but more common elsewhere; fairly threatened in California
3 = Plants about which we need more information
CA = California
CDFW = California Department of Fish and Wildlife
MSHCP = Multiple Species Habitat Conservation Plan
US = United States
USFWS = United States Fish and Wildlife Service

11.4 WILDLIFE MOVEMENT, CORRIDORS, AND NURSERY SITES

Wildlife movement includes seasonal migration along corridors and daily movements for foraging. Migration corridors may include areas of unobstructed movement of larger mammals such as mule deer (*Odocoileus hemionus*), riparian corridors providing cover for migrating birds, routes between breeding waters and upland habitat for amphibians, and areas between roosting and feeding areas for birds.

The study area is bordered by Ramona Expressway to the north, which is a well-traveled four-lane paved road. Developed areas, including expansive agricultural lands and dairies, occur in the areas surrounding the study area. Due to the amount of developed area and agricultural lands existing on and surrounding the study area, wildlife movement is generally restricted in the Project vicinity. The closest undeveloped areas occur approximately 0.8 mile to the southwest of the study area. The San Jacinto River, which is the primary waterway in the vicinity, is considered an area for wildlife movement and occurs more than 1.0 mile to the northeast of the study area.

The survey area does not contain any essential connectivity areas, natural landscape blocks, or potential riparian connections but does contain a portion of natural areas small within its south-central portion, as documented in the California Essential Habitat Connectivity Project report (Spencer et al. 2010). Therefore, the study area is not considered a wildlife movement corridor under the California Essential Habitat Connectivity Project.

The majority of wildlife movement within the study area is anticipated to be limited to wildlife present on site or within the non-native grasslands and agricultural areas to the east of the study area. The Project would not substantially limit wildlife movement.

11.5 NATURAL COMMUNITIES OF INTEREST

Riparian habitats, oak woodlands, and vernal pools are among the natural communities of interest to the CDFW as well as natural communities that rank as S1, S2, or S3.

Plant communities and land covers present on site are limited to non-native grasslands mulefat scrub, Goodding's willow woodland, disturbed areas, and developed areas. Only mulefat scrub and Goodding's willow woodland are considered natural communities of interest. Although present, these two natural communities of interest would be avoided by Project activities. Therefore, impacts to natural communities of interest would not occur on site.

11.6 WETLANDS

Wetland areas are not present on site. Additional focused surveys are not required.

11.7 LOCAL POLICIES AND ORDINANCES PROTECTING BIOLOGICAL RESOURCES

The Riverside County General Plan and development ordinances may include regulations or policies governing biological resources. For example, policies may include tree preservation, locally designated species survey areas, local species of interest, and significant ecological areas.

The Project would not conflict with local policies or ordinances applicable to biological resources.

11.8 INDIRECT EFFECTS

Indirect impacts to surrounding areas as a result of the Project may include but are not limited to, increased dust, noise, lighting, traffic, and stormwater runoff. Because of the small scale of the Project and its location within a landscape that is already highly disturbed or developed, substantial indirect impacts to sensitive biological resources are not anticipated.

11.9 CUMULATIVE EFFECTS

Project construction would contribute to the incremental loss of non-native grassland in the region, including potential habitat for some special-status species. Cumulative impacts potentially include habitat fragmentation, increased edge effects, reduced habitat quality, and increased wildlife mortality. The MSHCP provides a comprehensive approach to the regional conservation of these habitats and, as a regional plan, serves to provide mitigation for cumulative impacts to covered species. Project compliance and consistency with the MSHCP ensure that any cumulative impacts to covered species are effectively mitigated. Special-status species that are not covered by the MSHCP also benefit from the surveys, conservation, and other measures of the MSHCP because they occupy many of the same habitats.

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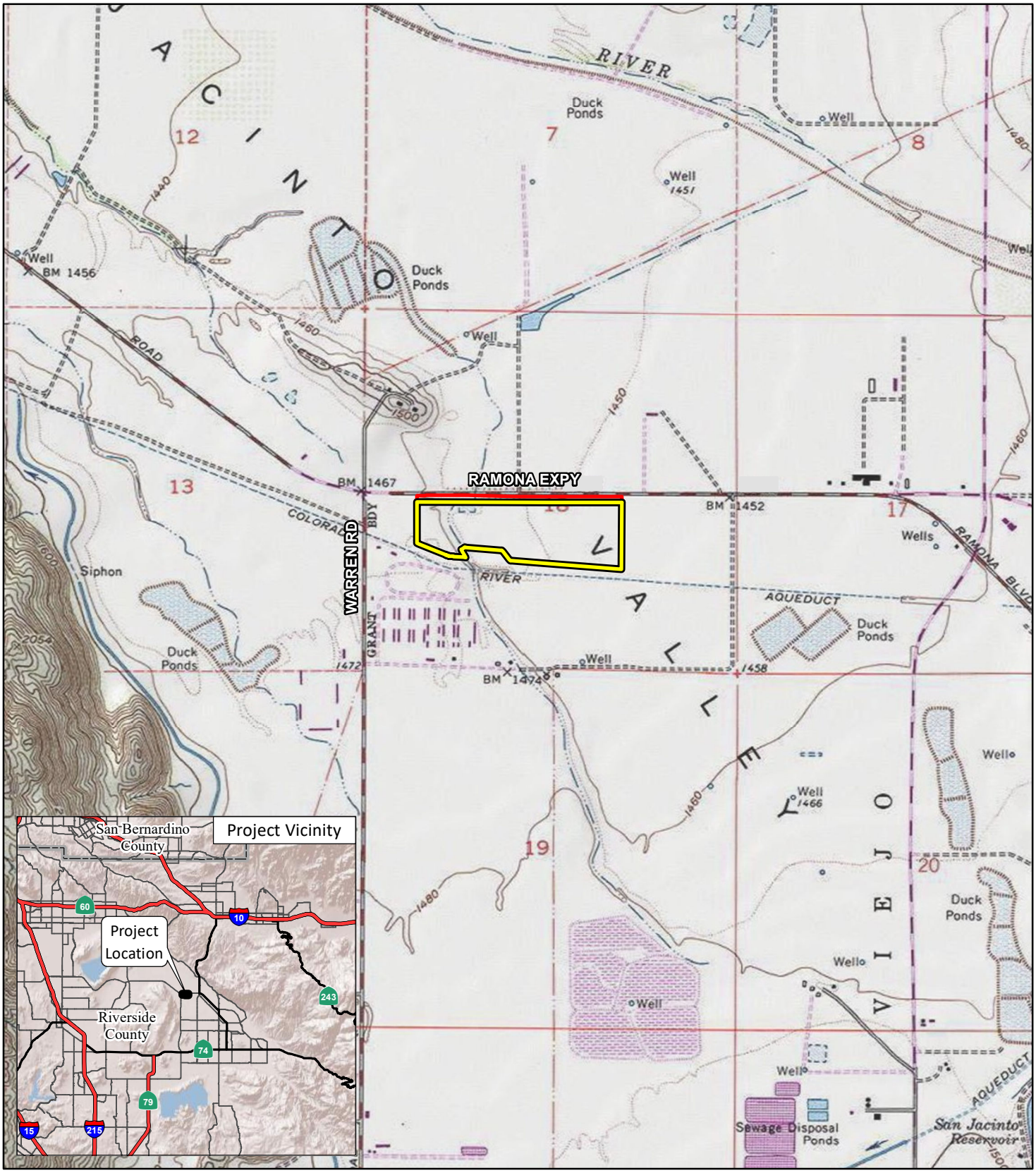
13.0 CERTIFICATION STATEMENT

I hereby certify that the statements furnished in this report 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: July 15, 2024 Signature: 

APPENDIX A

FIGURES 1–9



LSA

LEGEND

Project Location

Off-Site Work Area

FIGURE 1

N

0 1000 2000

FEET

SOURCE: USGS 7.5' Quad - *Lakeview, CA* (1979)

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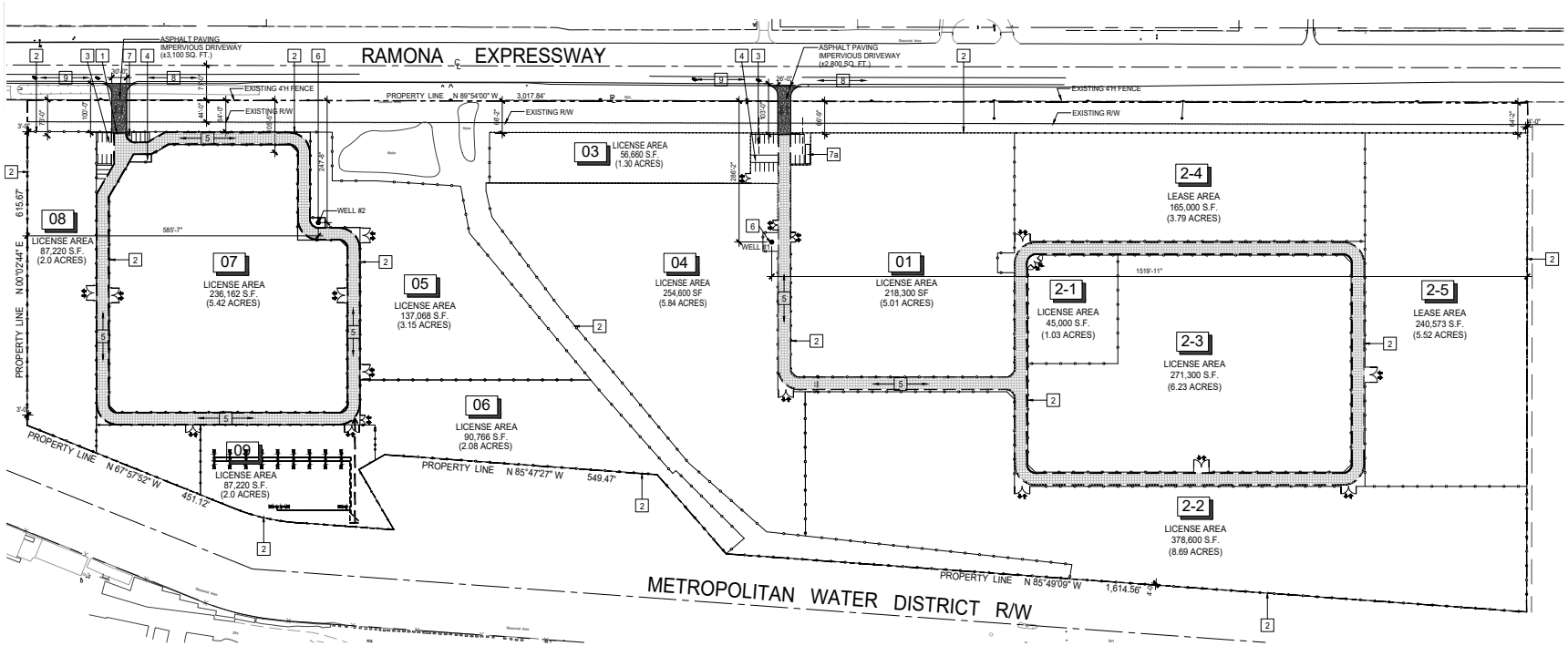
Ramona Land Development Project

Regional and Project Location



LSA

FIGURE 2

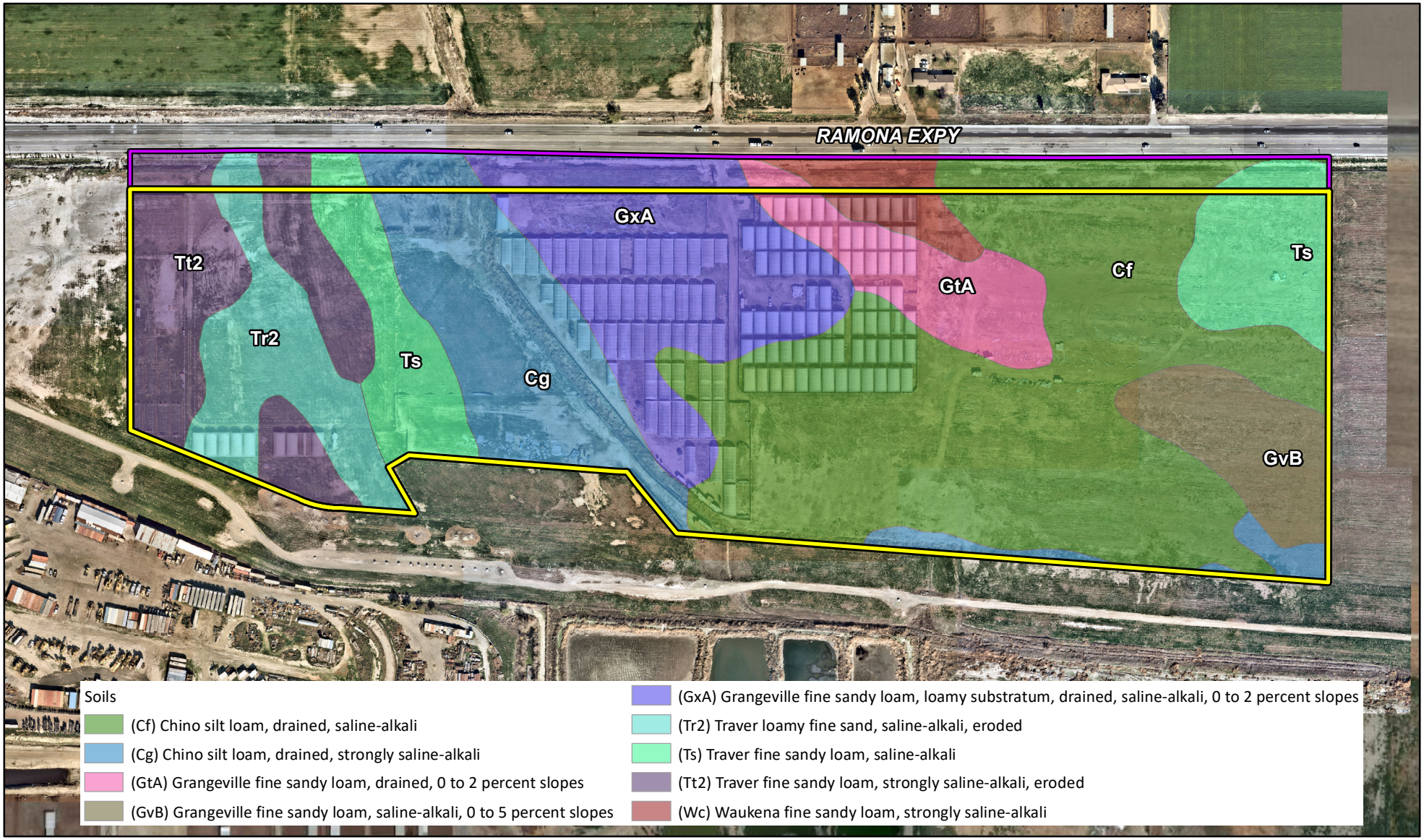
0 50 100
FEET

SOURCE: ACRC Design

I:\FVP2201\G\Site_Plan.ai (9/23/2022)

Ramona Land Development Project

Site Plan



LSA

LEGEND

Project Location

Off-Site Work Area

FIGURE 3

N

0 175 350

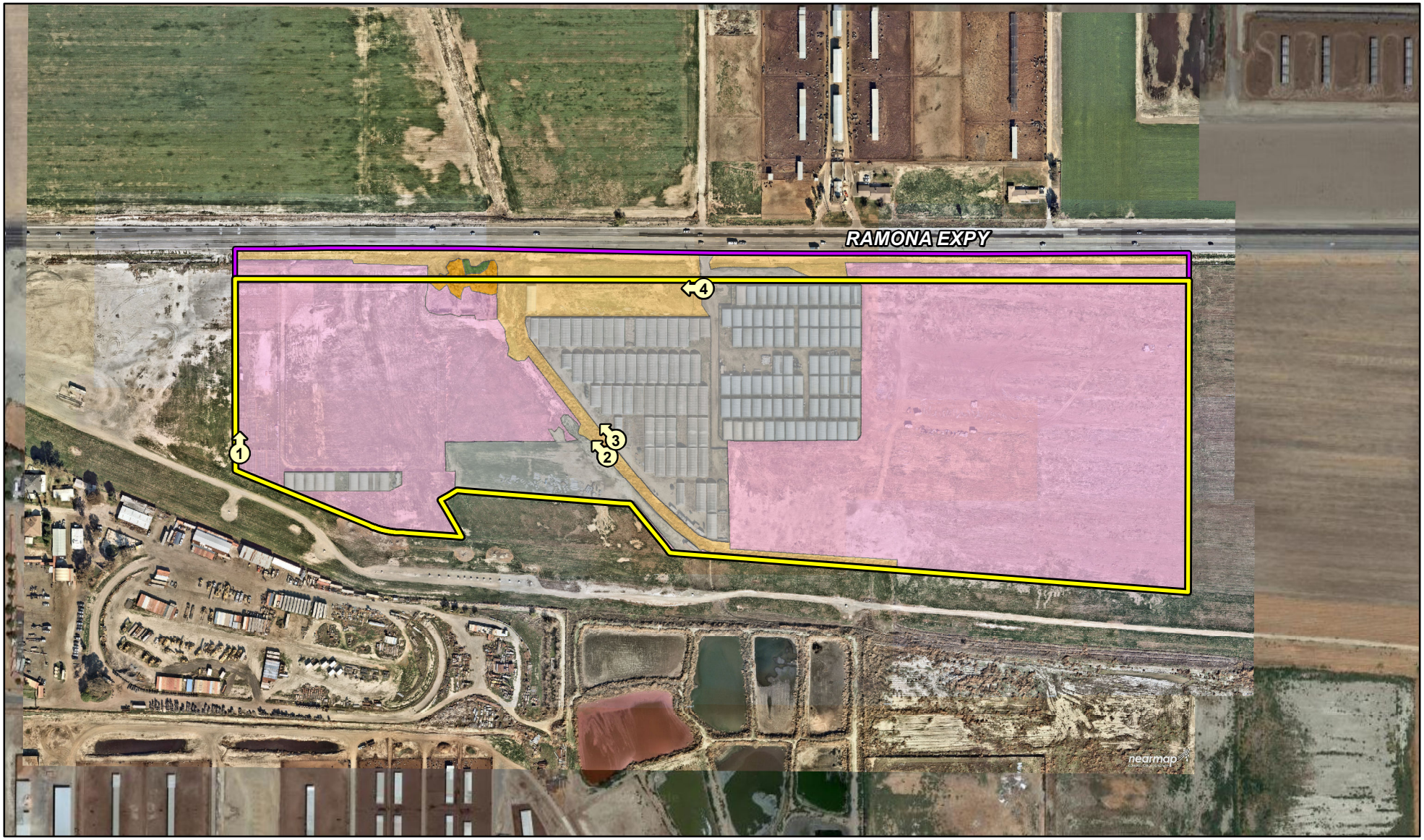
FEET

SOURCE: Nearmap (1/14/2022); Esri SSURGO (2021)

I:\FVP2201_SOP2101\GIS\MXD\BRA\Soils.mxd (9/23/2022)

Ramona Land Development Project

Soils



LSA

LEGEND

Project Location

Off-Site Work Area

Photograph Locations

Vegetation

Developed

Disturbed

Goodding's Willow Woodland

Mulefat Thickets

Non-native Grassland

N

0 220 440

FEET

SOURCE: Nearmap (1/14/2022)

I:\FVP2201_SOP2101\GIS\MXD\BRA\Vegetation.mxd (9/22/2022)

FIGURE 4

Ramona Land Development Project

Vegetation, Land Use, and Photo Locations

Photograph 1: Southwestern portion of the project site, facing north. Taken on August 29, 2022.

Photograph 2: Central portion of the project site, facing northwest. Taken on August 29, 2022.

Photograph 3: Central portion of the project site, facing northwest. Taken on August 29, 2022.

Photograph 4: Northeastern portion of the project site, facing west. Taken on August 29, 2022.

LSA

FIGURE 5

Ramona Land Development Project

Representative Site Photos

I:\FVP2201_SOP2101\G\PhotoPageBRA.cdr (9/23/22)

LSA

FIGURE 6

LEGEND

Jurisdictional Delineation Study Area (JDSA)

Project Location

Off-Site Work Area

Potential USACE/RWQCB Non-Wetland Jurisdiction

Potential USACE/RWQCB Non-Wetland Jurisdiction/CDFW Jurisdiction

Potential RWQCB Non-Wetland Jurisdiction

Potential CDFW Jurisdiction - Bed and Bank

Potential CDFW Jurisdiction - Riparian

Sampling Point

Culvert

N

0 175 350

FEET

SOURCE: Nearmap (1/14/2022)

Ramona Land Development Project

Jurisdictional Delineation Map

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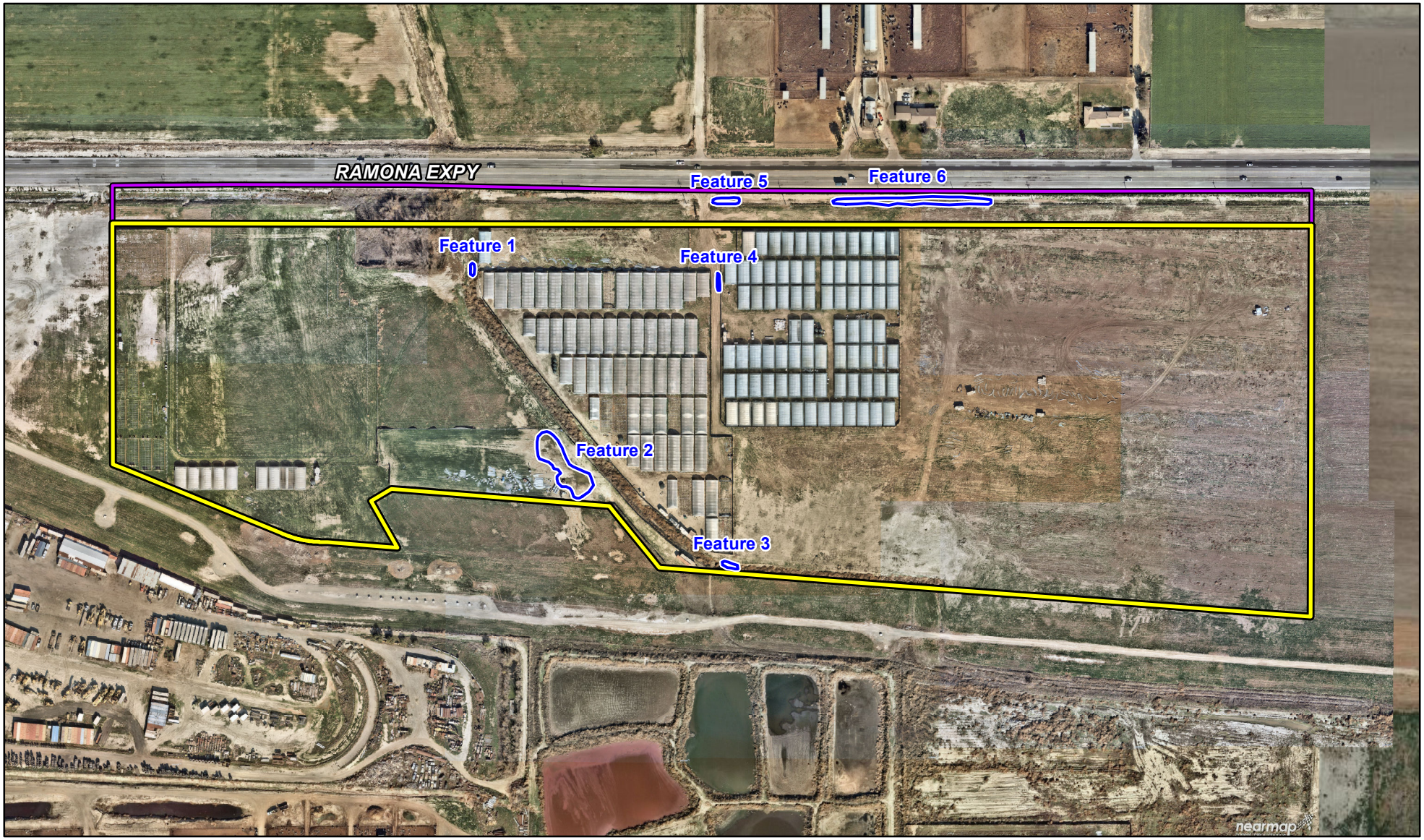


LSA

LEGEND

- Project Location
- Off-Site Work Area
- Feature

0 175 350
FEET

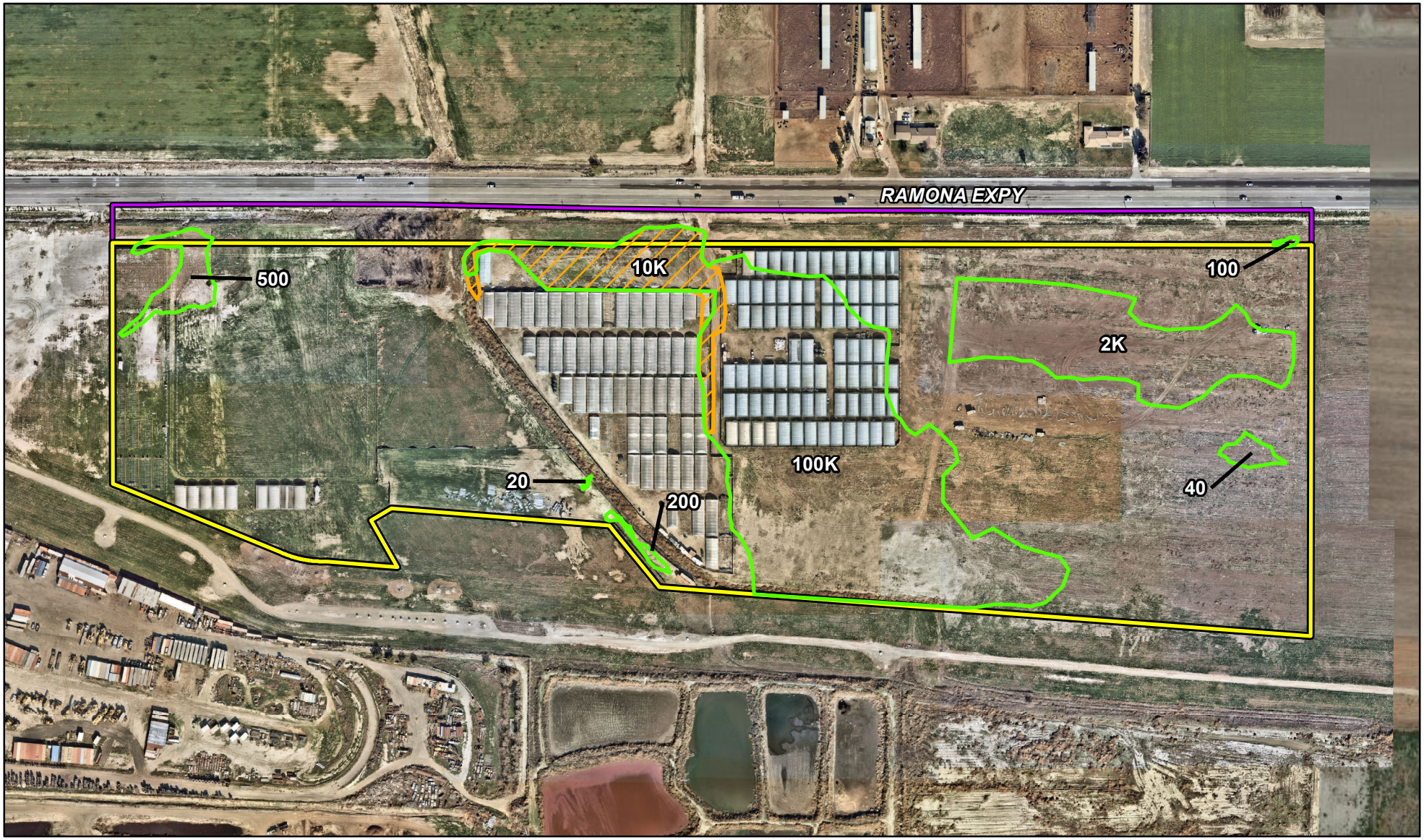
SOURCE: Nearmap (1/14/2022)

I:\FVP2201_SOP2101\GIS\MXD\BRA\FeaturesSampled.mxd (9/22/2022)

FIGURE 7

Ramona Land Development Project

Fairy Shrimp Survey - Features Sampled



LSA

LEGEND

Project Location

Off-Site Work Area

Plant Survey Results (with # of indiviuals)

Coulter's Goldfields

Smooth Tarplant

0 175 350

FEET

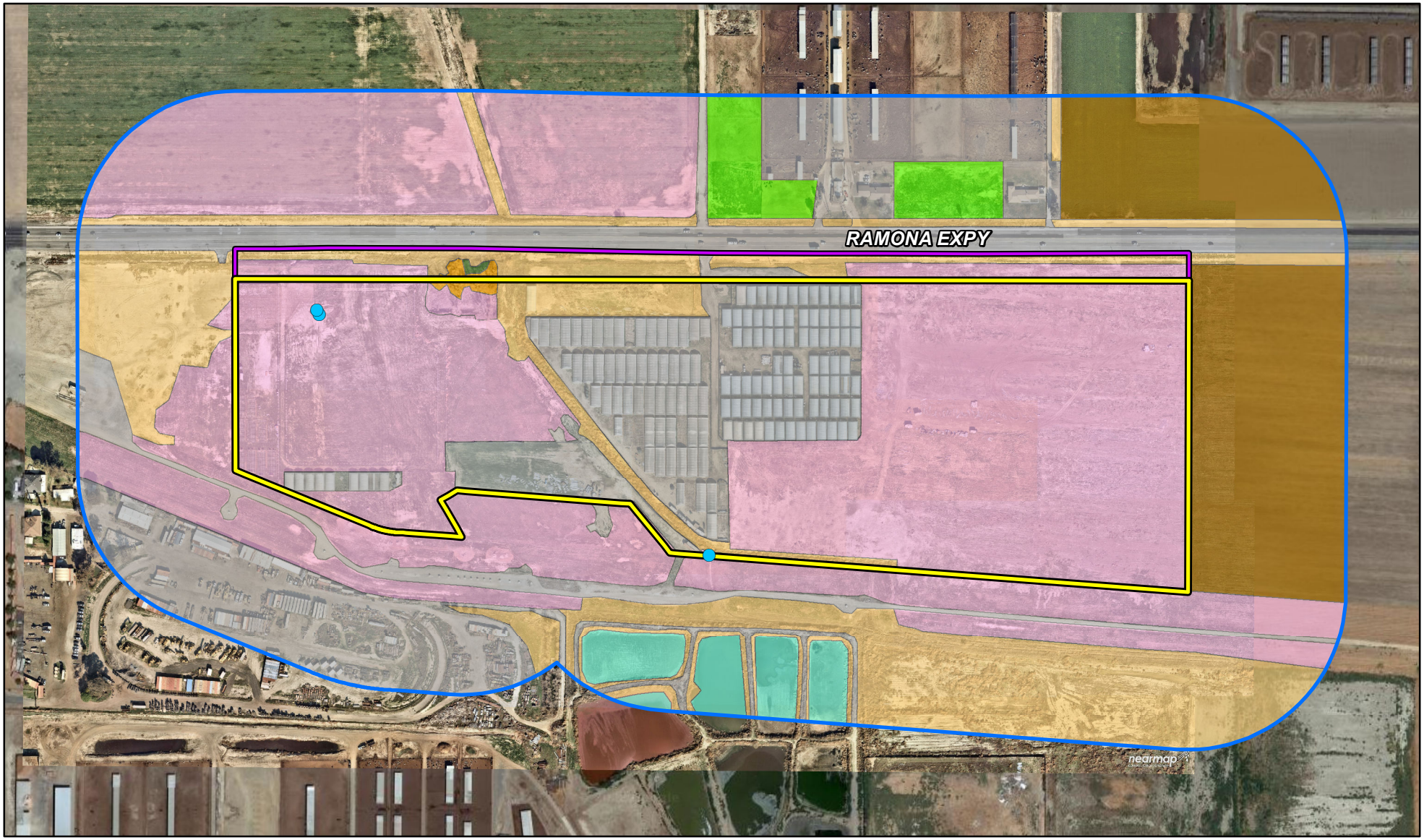
SOURCE: Nearmap (1/14/2022)

I:\FVP2201_SOP2101\GIS\MXD\BRA\PlantSurveyResults.mxd (9/22/2022)

FIGURE 8

Ramona Land Development Project

Plant Survey Results



LSA

FIGURE 9

LEGEND

- Project Location
- Off-Site Work Area
- Biological Study Area
- Burrowing Owl Survey Results

Vegetation

- Crops
- Developed
- Disturbed
- Goodding's Willow Woodland
- Grazing Lands
- Mulefat Scrub
- Non-native Grassland
- Open Water

N

0 220 440
FEET

SOURCE: Nearmap (1/14/2022)

I:\FVP2201_SOP2101\GIS\MXD\BRA\BUOW_SurveyResults.mxd (12/15/2022)

Ramona Land Development Project

Burrowing Owl Survey Results

APPENDIX B

PLANT AND ANIMAL SPECIES OBSERVED

LSA biologists observed the following species in the specified study area.

* Introduced species that are not native to California

A.1 EUDICOTS

Amaranthaceae	**Amaranth family**
Amaranthus albus*	Tumble pigweed
Asteraceae	**Sunflower Family**
Baccharis salicifolia	Mule fat
Centromadia pungens ssp. laevis	Smooth tarplant
Erigeron canadensis	Canadian horseweed
Helianthus annuus	Common sunflower
*Lactuca serriola**	Prickly lettuce
Lasthenia glabrata ssp. coulteri	Coulter's goldfields
*Oncosiphon pilulifer**	Stinknet
*Sonchus oleraceus**	Common sow thistle
Xanthium strumarium	*Rough cocklebur*
Boraginaceae	**Borage Family**
Amsinckia intermedia	*Common fiddleneck*
Amsinckia retrorsa	*Rigid fiddleneck*
Heliotropium curassavicum	Salt heliotrope
Brassicaceae	**Mustard Family**
*Hirschfeldia incana**	Shortpod mustard
*Lepidium latifolium**	Broad-leaved peppergrass
*Sisymbrium irio**	London rocket
Caryophyllaceae	**Pink family**
Spergularia sp.	Sandspurry
Chenopodiaceae	**Saltbush Family**
*Atriplex semibaccata**	Australian saltbush
Atriplex serenana var. serenana	Bractscale
*Atriplex suberecta**	Peregrine saltbush
*Bassia hyssopifolia**	Fivehorn smotherweed
*Chenopodium murale**	Nettleleaf goosefoot
Chenopodium sp.	Goosefoot

*Kochia scoparia**	Burningbush
*Salsola tragus**	Russian thistle
Suaeda nigra	Bush seepweed
Geraniaceae	**Geranium family**
*Erodium cicutarium**	Redstem stork's bill
Malvaceae	**Mallow Family**
*Malva parviflora**	Cheeseweed mallow
Malvella leprosa	Alkali mallow
Polygonaceae	**Buckwheat Family**
*Polygonum aviculare**	*Common knotweed*
*Rumex crispus**	*Curly dock*
Salicaceae	**Willow family**
Salix gooddingii	Goodding's willow
Urticaceae	**Nettle Family**
Urtica urens*	Dwarf nettle

A.2 MONOCOTS

Poaceae	**Grass Family**
*Avena barbata**	Slender wild oat
*Avena sativa**	Cultivated oats
*Bromus catharticus**	Rescue grass
*Bromus rubens**	Red brome
*Cynodon dactylon**	Bermuda grass
Distichlis spicata	Saltgrass
*Hordeum murinum**	Mouse barley
*Phalaris minor**	Littleseed canarygrass
*Triticum aestivum**	Wheat

A.3 BIRDS

Anatidae	**Swans, Geese, and Ducks**
Anas platyrhynchos	Mallard
Phalacrocoracidae	**Cormorant**
Phalacrocorax auritus	Double-crested cormorant
Accipitridae	**Hawks, Kites, Eagles, and Allies**
Accipiter cooperii	Cooper's hawk
Strigidae	**Typical Owls**
Bubo virginianus	Great horned owl

Columbidae	**Pigeons and Doves**
Zenaida macroura	Mourning dove
Icteridae	**Blackbirds**
Euphagus cyanocephalus	Brewer's blackbird
Sturnella neglecta	Western meadowlark
Tyrannidae	**Tyrant Flycatchers**
Sayornis nigricans	*black phoebe*
Sayornis saya	*Say's phoebe*
Tyrannus vociferans	Cassin's kingbird
Corvidae	**Crows and Jays**
Corvus brachyrhynchos	American crow
Corvus corax	Common raven
Alaudidae	**Larks**
Eremophila alpestris actia	California horned lark
Sturnidae	**Starlings**
*Sturnus vulgaris**	European starling
Passeridae	**Old World Sparrows**
*Passer domesticus**	House sparrow
Fringillidae	**Finches**
Haemorhous mexicanus	House finch
Spinus psaltria	Lesser goldfinch
Passerellidae	**New World Sparrows**
Melospiza melodia	Song sparrow
Passerculus sandwichensis	Savannah sparrow
Zonotrichia leucophrys	White-crowned sparrow
Parulidae	**Wood Warblers**
Geothlypis trichas	Common yellowthroat
Setophaga coronata	Yellow-rumped warbler

A.4 REPTILES

Phrynosomatidae	**Phrynosomatid Lizards**
Uta stansburiana	*Common side-blotched lizard*

A.5 MAMMALS

Sciuridae
Otospermophilus beecheyi

Squirrels, Chipmunks, and Marmots
California ground squirrel

Leporidae
Sylvilagus audubonii

Rabbits and Hares
Desert cottontail

APPENDIX C

JURISDICTIONAL DELINEATION REPORT

DRAFT

JURISDICTIONAL DELINEATION REPORT

RAMONA LAND DEVELOPMENT PROJECT

CITY OF SAN JACINTO

RIVERSIDE COUNTY, CALIFORNIA

Prepared for:

Andrew Kotyuk
SoCal Propane LLC/3 Peaks Energy LLC
220 N. San Jacinto Street
Hemet, California 92543

Prepared by:

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Riverside, California 92507
(951) 781-9310

LSA Project No. FVP2201

LSA

December 2022

TABLE OF CONTENTS

TABLES

APPENDICES

LIST OF ABBREVIATIONS AND ACRONYMS

°F	degrees Fahrenheit
1987 Manual	*Corps of Engineers 1987 Wetland Delineation Manual*
amsl	above mean sea level
APN	Assessor's Parcel Number
CDFW	California Department of Fish and Wildlife
CFR	Code of Federal Regulations
City	City of San Jacinto
CWA	Clean Water Act
EPA	United States Environmental Protection Agency
FAC	Facultative
FACU	Facultative Upland
FACW	Facultative Wetland
ft	foot/feet
JDSA	Jurisdictional Delineation Study Area
N/L	Not listed
NRCS	Natural Resources Conservation Service
NWI	National Wetlands Inventory
OBL	Obligate Wetland
OHWM	ordinary high water mark
PEM1A	Palustrine Emergent Persistent Temporary Flooded
Procedures	*State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State*
Project	Ramona Land Development Project
R4SBC	Riverine Intermittent Streambed Seasonally Flooded

R5UBF	Riverine Unknown Perennial Unconsolidated Bottom Semipermanently Flooded
Rapanos	2006 United States Supreme Court decision in the consolidated cases *Rapanos v. United States* and *Carabell v. United States*
Regional Supplement	Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region
RWQCB	Regional Water Quality Control Board
SP	Soil Pit
SWRCB	State Water Resources Control Board
TNW	traditionally navigable water
UPL	Obligate Upland
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
WOTS	waters of the State
WOTUS	waters of the United States

INTRODUCTION

This Jurisdictional Delineation Report presents the results of a delineation of aquatic resources and drainage features conducted for the Ramona Land Development Project (project) in the City of San Jacinto, California. SoCal Propane LLC/3 Peaks Energy LLC is proposing to partially develop two parcels (Assessor's Parcel Numbers [APNs] 430-100-002 and 430-100-013) totaling approximately 58 acres.

The Jurisdictional Delineation Study Area (JDSA) covered herein extends across the entire project site as well as the off-site work area. The purpose of this delineation report is to determine the extent of both State of California and federal jurisdiction within the JDSA. This includes the potential jurisdiction of the United States Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act (CWA), the Regional Water Quality Control Board (RWQCB) under Section 401 of the CWA and/or the Porter-Cologne Water Quality Control Act, and the California Department of Fish and Wildlife (CDFW) under Section 1602 of the California Fish and Game Code. This report has been prepared to inform the environmental planning and review process. All referenced figures are included in Appendix A.

SITE DESCRIPTION AND SETTING

The JDSA is located near the southeast corner of the intersection of Ramona Expressway and North Warren Road in the City of San Jacinto, Riverside County, California, within the United States Geological Survey (USGS) *Lakeview, California* 7.5-minute series topographic quadrangle (refer to Appendix A, Figure 1).

Currently, portions of the JDSA are developed with cannabis hoop houses, and the remaining areas are undeveloped with nonnative annual grassland. Historic aerials (NETRonline Historic Aerials, 2022) from 1966 depict the ephemeral drainage and detention basin, which appear to have been excavated on dry land for agricultural and/or stormwater drainage and flood control purposes. From 1996 until 2019, most of the JDSA appeared to be regularly tilled/mowed and cleared of vegetation. This includes the areas where the ephemeral drainage and detention basin occur within the JDSA. Furthermore, the JDSA has been disturbed by the recent development of cannabis hoop houses since at least 2021. An ephemeral drainage and a detention basin are present in the JDSA. Surrounding land uses consist of dairy and cropland.

The topography is relatively flat, and elevations in the JDSA range from approximately 1,448 feet (ft) to 1,470 ft above mean sea level (amsl). The vegetation within the JDSA consists primarily of upland communities dominated by nonnative grassland as well as developed and disturbed land covers. Riparian vegetation is present within the JDSA in the form of mulefat (*Baccharis salicifolia*) thickets and Goodding's willow (*Salix gooddingii*) woodland.

The climate is classified as Mediterranean (i.e., arid climate with hot, dry summers and mild, wet winters). The average annual precipitation is approximately 9.79 inches. Although most of the precipitation occurs from November through May, thunderstorms may occur at other times of the year and can result in high levels of precipitation. Temperatures typically range between 28- and 100-degrees Fahrenheit (°F) (WeatherCurrents 2022).

The JDSA is located within the Laborde Canyon-San Jacinto River Watershed, which is approximately 169.12 square miles and encompasses Laborde Canyon and several tributaries/canals that flow into the San Jacinto River. All surface waters within the JDSA are ultimately conveyed to the San Jacinto River via an extensive, artificially constructed stormwater drainage system. The tributaries within this watershed, including the subject drainage features, collectively drain into the Santa Ana River.

REGULATORY BACKGROUND

UNITED STATES ARMY CORPS OF ENGINEERS

The USACE regulates discharges of dredged or fill material into waters of the United States (WOTUS). These waters include wetland and nonwetland bodies of water that meet specific criteria. USACE regulatory jurisdiction pursuant to Section 404 of the federal CWA is founded on a connection, or nexus, between the waterbody in question and interstate commerce. This connection may be direct (through a tributary system linking a stream channel with traditionally navigable waters [TNWs] used in interstate or foreign commerce) or may be indirect (through a nexus identified in USACE regulations).

For several decades, the operable definition of WOTUS was provided at 33 Code of Federal Regulations (CFR) 328.3, but implementation of this definition has been shaped by the courts and subsequent guidance over the years, most substantially by the 2001 United States Supreme Court decision in *Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers*, No. 99-1178 and the 2006 Supreme Court decision in the consolidated cases *Rapanos v. United States* and *Carabell v. United States* (126 S. Ct. 2208), collectively referred to as *Rapanos*. The Supreme Court concluded that wetlands are "waters of the United States" if they significantly affect the chemical, physical, and biological integrity of other covered waters more readily understood as navigable. However, the involved Supreme Court justices were not able to agree on a single, underlying standard that would govern future jurisdictional disputes. Instead, a four-justice plurality opinion, authored by Justice Antonin Scalia, and an opinion by Justice Anthony M. Kennedy, proposed two alternative tests for evaluating jurisdictional waters:

1. Relative permanence and continuous surface connection

2. Significant nexus: a nexus exists when the feature (whether an adjacent wetland or tributary) significantly affects the chemical, physical, and biological integrity of other covered waters

Following the *Rapanos* decision, the lower courts immediately struggled to determine which "test" should be used, which led to inconsistency in CWA implementation across the states. On June 5, 2007, the USACE issued guidance regarding the *Rapanos* decision (USACE 2007). After consideration of public comments and agencies' experience, revised guidance was issued on December 2, 2008. This guidance states that the USACE will assert jurisdiction over TNWs, wetlands adjacent to TNWs, relatively permanent nonnavigable tributaries that have a continuous flow at least seasonally (typically 3 months), and wetlands that directly abut relatively permanent tributaries. Under the 2008 *Rapanos* Guidance, the USACE determined that a significant nexus was required for its jurisdiction to extend to waters that are nonnavigable tributaries that are not relatively permanent waters and wetlands adjacent to nonnavigable tributaries that are not relatively permanent waters. The USACE generally did not assert jurisdiction over swales or erosional features, or ditches excavated wholly in and draining only uplands that do not carry a relatively permanent flow of water. However, the USACE reserved the right to regulate these waters on a case-by-case basis.

Several recent attempts have been made to clarify the scope of WOTUS. Based, in part, on the *Rapanos* decision and the opinions authored by Justice Kennedy and Justice Scalia, new rules defining WOTUS were promulgated under the Obama and the Trump administrations. The 2015 "Clean Water Rule" and the 2020 "Navigable Waters Protection Rule" set forth different definitions for WOTUS (ranging from relatively broad federal jurisdiction under the 2015 rule to relatively limited federal jurisdiction under the 2020 rule) (EPA et al. 2020). Each of these new rules prompted series of legal challenges and court decisions. On August 30, 2021, the United States District Court for Arizona vacated the 2020 Navigable Waters Protection Rule, which reinstated federal wetland regulations and definitions originally adopted by the federal government in the 1980s. In light of this order, the United States Environmental Protection Agency (EPA) and the USACE (collectively "agencies") have halted implementation of the 2020 Navigable Waters Protection Rule and are interpreting WOTUS consistent with the pre-2015 regulatory regime (and 2008 *Rapanos* Guidance) until further notice.

While litigation continues and the agencies, on November 18, 2021, the agencies announced plans for new WOTUS rulemaking, the current definition of WOTUS is as follows (EPA 2021):

1. All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
2. All interstate waters including interstate wetlands;
3. All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters:
    a. Which are or could be used by interstate or foreign travelers for recreational or other purposes; or
    b. From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
    c. Which are used or could be used for industrial purposes by industries in interstate commerce;
4. All impoundments of waters otherwise defined as waters of the United States under this definition;
5. Tributaries of waters identified in paragraphs (1) through (4) of this section;
6. The territorial sea; and
7. Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (1) through (6) of this section;

Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA (other than cooling ponds as defined in 40 CFR 423.11(m) which also meet the criteria of this definition) are not WOTUS.

WOTUS do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the CWA, the final authority regarding CWA jurisdiction remains with EPA.

Agencies will decide jurisdiction over the following waters based on a fact-specific analysis to determine whether they have a significant nexus with a traditional navigable water:

- Nonnavigable tributaries that are not relatively permanent
- Wetlands adjacent to nonnavigable tributaries that are not relatively permanent
- Wetlands adjacent to but that do not directly abut a relatively permanent nonnavigable tributary

The agencies generally will not assert jurisdiction over the following features:

- Swales or erosional features (e.g., gullies, small washes characterized by low volume, infrequent, or short duration flow)
- Ditches (including roadside ditches) excavated wholly in and draining only uplands and that do not carry a relatively permanent flow of water

The 2008 *Rapanos* Guidance and 2021 *Revised Definition of "Waters of the United States"* proposed rules acknowledge that certain ephemeral waters, especially in the arid West, are distinguishable from the geographic features described above where such ephemeral waters are tributaries and they have a significant nexus to downstream traditional navigable waters. In such cases, the agencies will decide CWA jurisdiction on a fact-specific analysis to determine whether they have a significant nexus with traditional navigable waters.

The agencies will apply the significant nexus standard as follows:

- A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by all wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of downstream traditional navigable waters
- Significant nexus includes consideration of hydrologic and ecologic factors

Given the substantial changes in operable definitions that have taken place and are likely to continue considering recent regulatory revisions and court actions, it is impossible to predict the regulations that will be in place at the time of a particular jurisdictional determination by the USACE. Therefore, this jurisdictional delineation focuses on identifying the boundaries of potentially jurisdictional waterbodies, using methods for determining the locations of the ordinary high water mark (OHWM) and wetland boundaries as described below. These methods for determining the boundaries of waterbodies in general have not substantially changed over the years and are not likely to change with any revised regulations. This delineation can then be used in combination with a companion jurisdictional analysis to determine which of the identified waterbodies are actually

jurisdictional, based on the definition that is in effect at the time of a jurisdictional determination by the USACE.

The USACE typically considers any body of water displaying an OHWM for designation as WOTUS, subject to the applicable definition of WOTUS. USACE jurisdiction over non-tidal WOTUS extends laterally to the OHWM or beyond the OHWM to the limit of any adjacent wetlands, if present.

The OHWM is defined as "that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding area" (33 CFR 328.3). Jurisdiction typically extends upstream to the point where the OHWM is no longer perceptible.

Waters found to be isolated are not USACE-jurisdictional regulated waters as defined under the pre-2015 definition of "waters of the U.S." (which was further defined by the 2001 Solid Waste Agency of Northern Cook County [SWANCC] decision and the 2006 Rapanos decisions) but may still be regulated by the RWQCB under the State's Porter-Cologne Water Quality Control Act.

Non-Wetland Waters of the United States

Non-wetland WOTUS contain elements described above under USACE jurisdiction but do not possess the three wetland characteristics required to be considered a wetland WOTUS as described below: hydrophytic vegetation, hydric soils, and wetland hydrology.

Wetland Waters of the United States

Wetland delineations for Section 404 purposes must be conducted according to the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (Version 2.0) (Regional Supplement) (USACE 2008) and the Corps of Engineers 1987 Wetland Delineation Manual (1987 Manual) (USACE 1987). Where there are differences between the two documents, the *Regional Supplement* takes precedence over the 1987 Manual.

The USACE and the EPA define wetlands as:

> Those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted to life in saturated soil conditions.

To be considered a jurisdictional wetland under Section 404, an area must possess three wetland characteristics: hydrophytic vegetation, hydric soils, and wetland hydrology. Each characteristic has a specific set of mandatory wetland criteria that must be satisfied for that particular wetland characteristic to be met. Several indicators may be analyzed to determine whether the criteria are satisfied.

Hydrophytic vegetation and hydric soil indicators provide evidence that episodes of inundation have lasted more than a few days or have occurred repeatedly over a period of years, but do not confirm that an episode has occurred recently. Conversely, wetland hydrology indicators provide evidence that an episode of inundation or soil saturation occurred recently, but do not provide evidence that episodes lasted more than a few days or occurred repeatedly over a period of years. Because of this, if an area lacks one of the three characteristics under normal circumstances, the area is considered nonwetland under most circumstances.

Determination of wetland limits may be obfuscated by a variety of natural environmental factors or human activities, collectively called difficult wetland situations, including cyclic periods of drought and flooding, highly ephemeral stream systems, or in areas recently altered by anthropogenic activities. During periods of drought, for example, bank return flows are reduced, and water tables are lowered. This results in a corresponding lowering of ordinary high water and invasion of upland plant species into wetland areas.

Conversely, extreme flooding may create physical evidence of high water well above what might be considered ordinary and may allow the temporary invasion of hydrophytic species into nonwetland areas. In highly ephemeral systems typical of Southern California, these problems are encountered frequently. In these situations, professional judgment based on years of practical experience and extensive knowledge of local ecological conditions comes into play in delineating wetlands. The *Regional Supplement* provides additional guidance for difficult wetland situations.

Hydrophytic Vegetation

Hydrophytic vegetation is plant life that grows and is typically adapted for life in permanently or periodically saturated soils. The hydrophytic vegetation criterion is met if more than 50 percent of the dominant plant species from all strata (tree, shrub, herb, and woody vine layers) are considered hydrophytic. Hydrophytic species are those included on the National Wetland Plant List published by the USACE (USACE 2020). Each species on the list is rated according to a wetland indicator category, as shown below in Table A.

Table A: Hydrophytic Vegetation Ratings

Category	Rating*	Probability
Obligate Wetland	OBL	Almost always occur in wetlands (estimated probability greater than 99 percent)
Facultative Wetland	FACW	Usually occur in wetlands (estimated probability 67–99 percent)
Facultative	FAC	Equally likely to occur in wetlands and nonwetlands (estimated probability 34–66 percent)
Facultative Upland	FACU	Usually occur in nonwetlands (estimated probability 67–99 percent)
Obligate Upland	UPL	Almost always occur in nonwetlands (estimated probability greater than 99 percent)

Source: United States Army Corps of Engineers (2008).
*Plant species not identified by the USACE to have a hydrophytic vegetation rating is considered not listed or N/L.

To be considered hydrophytic, the species must have wetland indicator status (i.e., be rated Obligate Wetland [OBL], Facultative Wetland [FACW], or Facultative [FAC]).

The delineation of hydrophytic vegetation is typically based on the most dominant species from each vegetative stratum (strata are considered separately); when more than 50 percent of these dominant species are hydrophytic (i.e., FAC, FACW, or OBL), the vegetation is considered hydrophytic. In particular, the USACE recommends the use of the "50/20" rule (also known as the dominance test) from the *Regional Supplement* for determining dominant species. Under this method, dominant species are the most abundant species that immediately exceed 50 percent of the total dominance measure for the stratum, plus any additional species comprising 20 percent or more of the total dominance measure for the stratum. In cases where indicators of hydric soil and wetland hydrology are present, but the vegetation initially fails the dominance test, the prevalence index must be used. The prevalence index is a weighted average of all plant species within a sampling point. The prevalence index is particularly useful when communities only have one or two dominants, where species are present at roughly equal coverage, or when strata differ greatly in total plant cover. In addition, USACE guidance provides that morphological adaptations may be considered when determining hydrophytic vegetation when indicators of hydric soil and wetland hydrology are present (USACE 2008). If the plant community passes either the dominance test or prevalence index after reconsidering the indicator status of any plant species that exhibits morphological adaptations for life in wetlands, then the vegetation is considered hydrophytic.

Hydric Soils

Hydric soils[1] are defined as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part.[2] Soils are considered likely to meet the definition of a hydric soil when they meet one or more of the following criteria:

1. All Histels except Folistels and Histosols except Folists;

2. Soils that are frequently ponded for a long duration or very long duration[3] during the growing season; and/or

3. Soils that are frequently flooded for a long duration or very long duration during the growing season.

Hydric soils develop under conditions of saturation and inundation combined with microbial activity in the soil that causes a depletion of oxygen. Although saturation may occur at any time of year, microbial activity is limited to the growing season, when soil temperature is above biologic zero (the soil temperature at a depth of 50 centimeters (19.7 inches), below which the growth and function of locally adapted plants are negligible). Biogeochemical processes that occur under anaerobic conditions during the growing season result in the distinctive morphologic characteristics of hydric soils. Based on these criteria and on information gathered from the National Soil Information

[1] The hydric soils definition and criteria included in the *1987 Manual* are obsolete. Users of the *1987 Manual* are directed to the United States Department of Agriculture's Natural Resources Conservation Service website for the most current information on hydric soils.

[2] Current definition as of 1994 (*Federal Register,* July 13, 1994).

[3] "Long duration" is defined as a single event ranging from 7 to 30 days; "very long duration" is defined as a single event that lasts longer than 30 days.

System database, the United States Department of Agriculture's Natural Resources Conservation Service (NRCS) created a Soil Data Access Hydric Soils List that is updated annually.

The Regional Supplement has a number of field indicators that may be used to identify hydric soils. The NRCS (USDA 2016) has also developed a number of field indicators that may demonstrate the presence of hydric soils. These indicators include hydrogen sulfide generation, accumulation of organic matter, and the reduction, translocation and/or accumulation of iron and other reducible elements. These processes result in soil characteristics that persist during both wet and dry periods. Separate indicators have been developed for sandy soils and for loamy and clayey soils.

Wetland Hydrology

Under natural conditions, development of hydrophytic vegetation and hydric soils is dependent on a third characteristic: wetland hydrology. Areas with wetland hydrology are those where the presence of water has an overriding influence on vegetation and soil characteristics due to anaerobic and reducing conditions, respectively (USACE 1987). The wetland hydrology criterion is satisfied if the area is seasonally inundated or saturated to the surface for a minimum of 14 consecutive days during the growing season in most years (USACE 2008).

Hydrology is often the most difficult criterion to measure in the field due to seasonal and annual variations in water availability. Some of the indicators commonly used to identify wetland hydrology include visual observation of inundation or saturation, watermarks, recent sediment deposits, surface scour, and oxidized root channels (rhizospheres) resulting from prolonged anaerobic conditions.

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE

The CDFW, through provisions of the California Fish and Game Code (Section 1600 et seq.), is empowered to issue agreements for any alteration of a river, stream, or lake where fish or wildlife resources may be adversely affected. Streams (and rivers) are defined by the presence of a channel bed and banks and at least a periodic or intermittent flow of water. The CDFW regulates wetland areas only to the extent that those wetlands are part of a river, stream, or lake as defined by the CDFW.

In obtaining CDFW agreements, the limits of wetlands are not typically determined. This is because the CDFW generally includes, within the jurisdictional limits of streams and lakes, any riparian habitat present. Riparian habitat includes willows, mule fat, and other vegetation typically associated with the banks of a stream or lake shorelines and may not be consistent with USACE definitions. In most situations, wetlands associated with a stream or lake would fall within the limits of riparian habitat. Thus, defining the limits of CDFW jurisdiction based on riparian habitat will automatically include any wetland areas and may include additional areas that do not meet USACE criteria for soils and/or hydrology (e.g., where riparian woodland canopy extends beyond the banks of a stream, away from frequently saturated soils).

REGIONAL WATER QUALITY CONTROL BOARD

The Porter-Cologne Water Quality Control Act of the California Water Code (Section 13000 et seq.) established nine RWQCBs to oversee water quality on a day-to-day basis at the local and/or regional level. Their duties include preparing and updating water quality control plans and associated requirements and issuing water quality certifications under Section 401 of the CWA. The CWA grants ultimate authority to the State Water Resources Control Board (SWRCB) over State water rights and water quality policy. Under the Porter-Cologne Water Quality Control Act, the RWQCBs (or the SWRCB for projects that cross multiple RWQCB jurisdictions) are responsible for issuing National Pollutant Discharge Elimination System permits for point-source discharges and waste discharge requirements for non-point source discharges into jurisdictional waters of the State (WOTS).

The definition of waters under the jurisdiction of the State is broad and includes any surface water or groundwater, including saline waters within the boundaries of the State. Waters that meet the definition of WOTUS are also considered WOTS, but the jurisdictional limits of WOTS may extend beyond the limits of WOTUS. Isolated waters that may not be subject to regulations under federal law are considered to be WOTS and regulated accordingly.

Although there is no formal statewide guidance for the delineation of nonwetland WOTS, jurisdiction generally corresponds to the surface area of aquatic features that are at least seasonally inundated, and all areas within the banks of defined rivers, streams, washes, and channels, including associated riparian vegetation. Currently, each RWQCB reserves the right to establish criteria for the regulation of nonwetland WOTS.

Wetland Waters of the State

On August 28, 2019, the California Office of Administrative Law approved the SWRCB proposed *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State* (*Procedures*) (SWRCB 2019). The *Procedures*, effective on May 28, 2020, apply to discharges of dredged or fill material to WOTS. The *Procedures* consist of four major elements: (1) a wetland definition, (2) a framework for determining whether a feature that meets the wetland definition is a water of the State, (3) wetland delineation procedures, and (4) procedures for the submission, review, and approval of applications for Water Quality Certifications and Waste Discharge Requirements for dredge or fill activities.

The SWRCB and RWQCBs define a wetland as:

> An area is wetland if, under normal circumstances, (1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both; (2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and (3) the area's vegetation is dominated by hydrophytes or the area lacks vegetation.

The RWQCB will rely on the final aquatic resource report verified by the USACE for determining the extent of wetland WOTUS. However, if it is not delineated in a final aquatic report, the procedures will use the USACE *1987 Manual* and the *Regional Supplement* to determine whether the area meets the State definition of a wetland. As described in the *1987 Manual* and the *Regional*

Supplement, an area "lacks vegetation" if it has less than 5 percent areal coverage of plants at the peak of the growing season. The methods shall be modified only to allow for the fact that the lack of vegetation does not prevent the determination of such an area that meets the State definition of wetland.

METHODOLOGY

Prior to conducting delineation fieldwork, the following literature and materials were reviewed:

- Historic and current aerial photographic imagery (Google 2022, NETR 2022);
- Historic and current USGS topographic maps (USGS 2022);
- United States Fish and Wildlife Service National Wetlands Inventory (NWI) wetland mapper (USFWS 2022); and
- Natural Resource Conservation Service Web Soil Survey (USDA 2022).

LSA Senior Biologists Denise Woodard, Ryan Villanueva, and Dr. Stan Spencer conducted the fieldwork for a jurisdictional delineation on March 16, 2022. The JDSA was visually surveyed via a combination of vehicle and, when possible, on foot. All features within the JDSA were evaluated according to the most current federal and/or State regulatory criteria and guidance and mapped using aerial photographs. This included the State wetland definition and delineation procedures recently enacted by the SWRCB, and the current USACE regulations pertaining to jurisdictional WOTUS, which are consistent with the pre-2015 regulatory regime until further notice. In addition, the general conditions and characteristics associated with each drainage feature were noted and photographed. All plants identified during the delineation were named using *The Jepson Manual* (Baldwin et al. 2012). If soil pits were dug, soil color was determined through comparison with the *Munsell Soil Color Charts* (Munsell 2000).

Areas of potential jurisdiction observed within the JDSA during the fieldwork were mapped on a recent, high-resolution aerial photograph (on a scale of 1 inch = approximately 100 ft) showing the JDSA. The widths and lengths of these features mapped during the course of the field investigation were determined by a combination of direct measurements taken in the field and measurements taken from the aerial photographs. Features within the JDSA that are generally excluded from federal and/or State jurisdiction under current regulatory definitions and guidance were evaluated and mapped as “non-jurisdictional features.” Because some of the drainage features in the JDSA exhibited characteristics indicative of wetlands (e.g., areas dominated by hydrophytic vegetation or hydric soils), wetland delineation procedures described in the *Regional Supplement* and those recently enacted by the SWRCB were implemented.

RESULTS

DATABASE SEARCHES

National Wetlands Inventory

Based on the NWI query, three distinct categories were mapped. These include a Palustrine Emergent Persistent Temporary Flooded (PEM1A) and Riverine Unknown Perennial Unconsolidated Bottom Semipermanently Flooded (R5UBF) and Riverine Intermittent Streambed Seasonally Flooded (R4SBC) were mapped within the JDSA as shown on Figure 2. Although these types of features are not located presently within the areas mapped by NWI, they do loosely correspond to features described below.

USDA Soil Survey

According to the NRCS online soil survey for western Riverside County, nine soil types occur within the JDSA. These soils include: Chino silt loam, drained, saline-alkali; Chino silt loam, drained, strongly saline-alkali; Grangeville fine sandy loam, drained, 0 to 2 percent slopes; Grangeville fine sandy loam, saline-alkali, 0 to 5 percent slopes; Grangeville fine sandy loam, loamy substratum, drained, saline-alkali, 0 to 2 percent slopes; Traver loamy fine sand, saline alkali, eroded; Traver fine sandy loam, saline alkali; Traver fine sandy loam, strongly saline-alkali, eroded; and Waukena fine sandy loam, strongly saline-alkali (USDA 2022; Figure 3). Soil observed throughout the site appears to be consistent with this designation. None of the mapped soils are considered hydric soils and have a drainage class ranging from moderately well drained to somewhat excessively drained (Table B).

Table B: Mapped Soils Classifications

Soil	Drainage Class	Frequency of Flooding	Frequency of Ponding	Hydric Soil Rating
Chino silt loam, drained, saline alkali	Somewhat poorly drained	Rare	None	No
Chino silt loam, drained, strongly saline-alkali	Somewhat poorly drained	Rare	None	No
Grangeville fine sandy loam, drained, 0 to 2 percent slopes	Moderately well drained	Rare	None	No
Grangeville fine sandy loam, saline-alkali, 0 to 5 percent slopes	Somewhat poorly drained	Rare	None	No
Grangeville fine sandy loam, loamy substratum, drained, saline-alkali, 0 to 2 percent slopes	Moderately well drained	Rare	None	No
Traver loamy fine sand, saline alkali, eroded	Moderately well drained	Rare	None	No
Traver fine sandy loam, saline alkali	Moderately well drained	Rare	None	No
Traver fine sandy loam, strongly saline-alkali, eroded	Moderately well drained	Rare	None	No
Waukena fine sandy loam, strongly saline-alkali	Moderately well drained	Rare	None	No

Source: United States Department of Agriculture (2022).

VEGETATION COMMUNITIES AND LAND COVER

Vegetation communities present within the JDSA include nonnative grassland, mulefat scrub and Goodding's willow woodland. Other land covers present within the JDSA include ruderal and developed. A description of all vegetation communities and land covers present within the JDSA are provided below (see Figure 4).

Dominant species within nonnative grassland areas include a mix of mouse barley (*Hordeum murinum*), rescue grass (*Bromus catharticus*), red brome (*Bromus rubens*), wheat (*Triticum aestivum*), slender wild oat (*Avena barbata*), and smooth tarplant (*Centromadia pungens* ssp. *laevis*). Nonnative grassland is the most abundant vegetation community within the JDSA and occurs within all areas of the JDSA with the exception of the central portion.

Mulefat scrub consists almost entirely of mulefat with minimal amounts of nonnative grasses in the understory as described above. One small patch of mulefat scrub is located in the northwestern portion of the JDSA just south of Ramona Expressway.

Goodding's willow is the dominant species in Goodding's willow woodland with a variety of annual plants in the understory such as alkali mallow (*Malvella leprosa*) and littleseed canarygrass (*Phalaris minor*). Goodding's willow woodland also overlaps with mulefat scrub along portions of its northern extent with the JDSA. One patch of Goodding's willow woodland is located in the northwestern portion of the JDSA just south of Ramona Expressway.

Dominant species within disturbed areas are primarily nonnative and include redstem filaree (*Erodium cicutarium*), Russian thistle (*Salsola tragus*), London rocket (*Sisymbrium irio*), shortpod mustard (*Hirschfeldia incana*), and smooth tarplant (*Centromadia pungens* ssp. *laevis*). Burning bush (*Kochia scoparia*) also forms a monotypic stand within the drainage that bisects the JDSA in the central portion of the JDSA. Disturbed areas are located within the central portion of the JDSA as well as along and just south of Ramona Expressway.

Areas mapped as "developed" in Figure 4 consist of hoop structures, concrete roads and other paved areas, dairies, and well-traveled dirt roads that generally do not allow for the establishment of vegetation. This land cover was present on the central portion of the site.

PRIOR SITE CONDITIONS (PRE-HOOP HOUSES)

As stated previously, the JDSA is currently partially developed with cannabis hoop houses. In order to ascertain potential impacts to the drainage features, this section details prior conditions from 1966 to 2021 using Google Earth and NETRonline Historic Aerials. Each available year is discussed below.

- **1966 (Historical Aerials):** The JDSA is undeveloped and sparse vegetation is located on the western side, but the remainder of the JDSA appears to be unvegetated. There is one detention basin that is unvegetated, water was present at the time of the photo, and there is a potential pump house located on the western side of the detention basin. There is an ephemeral drainage that contained water and also appears to be unvegetated.

- **1967 (Historical Aerials):** The JDSA has remained in the same condition as described above. The southern extent of the JDSA appears to be more vegetated with a tree and other vegetation. No obvious changes to the land uses or drainage features.

- **1972 (Historical Aerials):** No obvious changes to the land uses or aquatic features. The JDSA is becoming more vegetated throughout, especially around the detention basin and ephemeral drainage. No water was present at the time of photo. The detention basin and ephemeral drainage area are vegetated and appear to have remained in similar conditions since 1966.

- **1978 (Historical Aerials):** The historical aerial is missing a large portion of the JDSA; therefore, the conditions of the JDSA cannot be determined.

- **1985 (Historical Aerials):** A majority of JDSA is vegetated and a small patch in the northwest corner was cleared. The cleared area is not part of the ephemeral drainage or detention basin. No other land use changes are apparent. The detention basin and ephemeral drainage area are vegetated and appear to have remained in similar condition since 1966.

- **1996 (Google Earth and Historical Aerials):** The eastern portion of the JDSA appears to have been tilled/mowed and the northwestern corner cleared in 1985 contains some equipment or material. The central portion of the JDSA, which contains the detention basin and ephemeral drainage, is heavily vegetated.

- **2002 (Google Earth and Historical Aerials):** Most of the JDSA was tilled/mowed and cleared of vegetation. Vegetation within the ephemeral drainage appears to have been removed. Areas around and within the detention basin are vegetated.

- **2003 (Google Earth):** All of the JDSA has been tilled/mowed including around the detention basin and ephemeral drainage. Vegetation and water are present within the detention basin.

- **2005 (Google Earth and Historical Aerials):** All of the JDSA has been tilled/mowed including around the detention basin and ephemeral drainage. Vegetation is present within the detention basin. Water was present within the detention basin in the December 2005 aerial photograph.

- **2006 (Google Earth):** All of the JDSA has been tilled/mowed including around the detention basin and ephemeral drainage in January 2006. Some vegetation is present within the detention basin, but not nearly as dense as the previous years. Later in December 2006, the detention basin appears to have been cleared of vegetation. This appears to be the last year that the detention basin was tilled/mowed.

- **2009 (Google Earth and Historical Aerials):** The whole JDSA appears to have been tilled/ mowed with some areas more recently tilled than others. Some vegetation is present within the detention basin, but the ephemeral drainage is mainly void of vegetation and appears to have been channelized or graded.

- **2010 (Historical Aerials):** The JDSA appears to be growing back with vegetation. Some water is present within the detention basin.

- **2011 (Google Earth):** The ephemeral drainage contains dense vegetation with some water in both the detention basin and ephemeral drainage. This image was taken during the hay growing season which likely accounts for the abundance of vegetation within the JDSA.

- **2012 (Google Earth and Historical Aerials):** A majority of the JDSA has been mowed/tilled. Vegetation from the ephemeral drainage has been removed. Some vegetation is present in the detention basin.

- **2013 (Google Earth):** As of January 2014, a majority of the JDSA has been mowed/tilled, except a small portion on the western side. Vegetation within the ephemeral drainage was tilled/ mowed consistent with adjacent areas. Some vegetation is present in the detention basin.

- **2014 (Google Earth and Historical Aerials):** A majority of the JDSA has been mowed/tilled, except a small portion on the northwestern corner. There is still no vegetation in the ephemeral drainage. Some vegetation is present in the detention basin.

- **2016 (Google Earth and Historical Aerials):** A majority of the JDSA has been mowed/tilled, except a small portion on the northwestern corner. There is still no vegetation in the ephemeral drainage; however, some vegetation is growing above the bank on the western side. There is water in the ephemeral drainage adjacent to the detention basin. Vegetation and water are present in the detention basin.

- **2018 (Google Earth and Historical Aerials):** A majority of the JDSA has been mowed/tilled, except a small portion on the northwestern corner. Vegetation within the ephemeral drainage has been removed and was mowed/tilled consistent with adjacent areas. There is water in the ephemeral drainage adjacent to the detention basin. Vegetation and water are present in the detention basin.

- **2019 (Google Earth):** A majority of the JDSA has been mowed/tilled, except a small portion on the northwestern corner. Vegetation within the ephemeral drainage was tilled/mowed consistent with adjacent areas. The detention basin is vegetated.

- **2021 (Google Earth):** As of August 2021, portions of the JDSA are developed with cannabis hoop houses. The remaining areas have been tilled/mowed. The ephemeral drainage and detention basin are vegetated.

The JDSA has been regularly tilled/mowed since 1996, which sometimes included the ephemeral drainage and detention basin. In 2009 and 2019, the ephemeral drainage appears to have been channelized. Overall, the site has been disturbed for many years prior to the development of the cannabis hoop houses. There were no discernable potential jurisdictional features within areas currently developed within the JDSA based on a review of historical aerial imagery.

DESCRIPTIONS OF DELINEATED FEATURES

A brief description of each delineated feature is provided below. Figure 5 shows the locations of each feature, and Figure 6 provides representative photographs of each feature (see Appendix A).

Feature 1 is an unnamed ephemeral drainage that bisects the JDSA. This feature flows in a south to north direction into the detention basin (described below). It then continues to flow off site through a culvert underneath Ramona Expressway into another unnamed ephemeral drainage that flows into the San Jacinto River. Therefore, this unnamed ephemeral drainage is a tributary to the San Jacinto River. Feature 1 carries ephemeral stormwater flows and urban runoff from the adjacent properties and contains a defined bed/bank with a width varying from 4 to 8 ft that exhibits indicators of OHWM that include sediment and debris deposits. Dominant plant species within Feature 1 are associated with ruderal land cover and consist of burning bush (N/L) and mouse barley (FACU). No riparian habitat or hydrophytic vegetation was present within Feature 1. No standing water or saturation was present at the time of the field survey. Two soil pits (SP-2 and SP-3) were dug within the feature, and hydric soils were found to be absent at both locations. The PEM1A feature mapped by NWI overlaps with this feature although the larger palustrine feature mapped is no longer present as mapped.

Feature 2 is an excavated, ephemeral earthen stormwater detention basin that is used to control stormwater runoff and is located just south of Ramona Expressway. This basin is fed by Feature 1, as described above, a roadside drainage that is located to the west of the basin, and Feature 4, as described below. An OHMW was present within the basin as well as a bed and bank. Portions of the basin contained riparian habitat in the form of Gooding's willow woodland and mule fat thicket. Goodding's willow (FACW) and mule fat (FAC), as well as burning bush (N/L) and alkali mallow (FACU), are dominant. No standing water or saturation was present at the time of the field survey. A single soil pit (SP-1) was dug within the feature, and hydric soils were found to be absent. The feature is approximately 200 ft by 170 ft. Feature two overlaps with both the PEM1A and R5UBF features mapped by NWI.

Feature 3 is an unnamed ephemeral roadside swale located to the south of and along Ramona Expressway. The feature flows in an east to west direction, terminating in Feature 1. Although the feature is very flat, an OHWM was present, as well as a bed and bank. Eastern portions of the drainage did not contain an OHWM or bed and bank and were therefore excluded from Figure 5. No riparian habitat or hydrophytic vegetation was present within the drainage feature as it was primarily devoid of vegetation but did contain small amounts of plants found in ruderal areas, including burning bush (N/L) and mouse barley (FACU). Standing water was present within one location within the feature at the time of the field survey, although saturation was generally absent. A single soil pit (SP-5) was dug within the feature, and hydric soils were found to be absent.

Feature 4 is an unnamed, excavated ephemeral roadside ditch located to the south of and along Ramona Expressway. The feature is lined with riprap within its western extent and flows in a west to east direction, terminating in Feature 2. An OHWM was present as well as a bed and bank. No riparian habitat or hydrophytic vegetation was present within the drainage feature as it contained ruderal vegetation primarily consisting of Russian thistle (FACU) and shortpod mustard (N/L). Standing water and saturation were absent within the feature at the time of the field survey. No soil pits were dug within the feature as vegetation within the drainage was limited to upland species.

Feature 5 is an isolated, depressional feature that is located in the south-central portion of the JDSA just west of Feature 1. This feature sits in a low spot in the landscape and is fed by direct rainfall and sheet flows originating from areas to the west. No riparian habitat or hydrophytic vegetation was

present within the feature, as it lacked vegetation. Standing water and saturation were absent within the feature at the time of the field survey. A single soil pit (SP-4) was dug within the feature, and hydric soils were found to be absent. The feature is approximately 200 ft by 170 ft.

JURISDICTIONAL CONCLUSIONS

Three ephemeral drainages (Features 1, 3, and 4), a detention basin (Feature 2), and a depressional feature (Feature 5) were identified within the JDSA (refer to Figure 5) and, in this case, were determined to be jurisdictional. The regulatory basis for whether a particular waterbody (or feature) is jurisdictional or non-jurisdictional is described below under the applicable regulatory agency.

United States Army Corps of Engineers

Feature 1 is considered a WOTUS under current regulatory definitions, as the feature exhibits OHWM indicators, which include bed and banks, and it contributes flow to the San Jacinto River. Two soil pits (S-2 and S-3) were analyzed; however, no hydric soils were present. Wetland hydrology was determined to be present based on hydrology indicator B7 (inundation visible on aerial imagery). Therefore, due to the lack of hydric vegetation, this ephemeral drainage feature is considered a nonwetland WOTUS subject to USACE regulatory authority. Table C shows the drainage features acreage of jurisdictional areas for USACE, RWQCB and CDFW.

Table C: Summary of Jurisdictional Features within the JDSA

	USACE		RWQCB		CDFW
Feature No.	Nonwetland WOTUS (acres)	Wetland WOTUS (acres)	Nonwetland WOTS (acres)	Wetland WOTS (acres)	Streams/Rivers/Riparian Habitat (acres)
1	0.319	-	0.319		0.892
2	0.642	-	0.642		0.894
3	0.238	-	0.238		0.238
4	0.029	-	0.029		0.351
5	-	-	0.222		-
TOTAL	**1.228**	**-**	**1.450**		**2.375**

Source: Compiled by LSA (2022).
CDFW = California Department of Fish and Wildlife
JDSA = Jurisdictional Delineation Study Area
RWQCB = Regional Water Quality Control Board
USACE = United States Army Corps of Engineers
WOTS = Waters of the State
WOTUS = Waters of the United States

Feature 2 is an excavated earthen stormwater detention basin that is used to control stormwater runoff. Feature 2 directly connects with Features 1 and 4. This soil pit (S-1) did not contain hydric soils. Although hydrophytic plants were not dominant, Gooding's willow and mule fat were present, which can often be an indicator of hydrology. Wetland hydrology was determined to be present based on hydrology indicator B7. Because this feature has a connection to Feature 1 (via the San Jacinto River), this feature is considered a nonwetland WOTUS subject to USACE regulatory authority.

Feature 3 is a considered WOTUS under current regulatory definitions, as the feature exhibits OHWM indicators, which include bed and banks, and it contributes flow to the San Jacinto River. Feature 3 directly connects with Feature 1. One soil pit (S-5) was analyzed to ascertain the presence

or absence of wetland parameters, and no hydric soils or hydrophytic plants were deemed present. Wetland hydrology was determined to be present based on hydrology indicator B7. Therefore, due to the lack of hydrophytic vegetation and hydric soils, this ephemeral drainage feature is considered a nonwetland WOTUS subject to USACE regulatory authority. Table C shows the drainage features acreage of jurisdictional areas for USACE, RWQCB, and CDFW.

Feature 4 is considered a WOTUS under current regulatory definitions, as the feature exhibits OHWM indicators, which include bed and banks, and it contributes flow to the San Jacinto River. Feature 4 directly connects with Feature 2. No soil pits were dug as vegetation present within the feature was limited to upland plants. Wetland hydrology was determined to be present based on hydrology indicators B2 (sediment deposits) and B3 (drift deposits). Therefore, due to the lack of hydrophytic vegetation, this ephemeral drainage feature is considered a nonwetland WOTUS subject to USACE regulatory authority. Table C shows the drainage features acreage of jurisdictional areas for USACE and RWQCB/CDFW.

Feature 5 is an isolated depressional feature that does not connect to Feature 1 or other features within the JDSA. One soil pit (S-4) was analyzed, and it did not contain hydric soils. The feature also lacked vegetation. Wetland hydrology was determined to be present based on hydrology indicator B6 (surface soil cracks). Because this feature lacks a connection to Feature 1 or other features within the JDSA, this feature is not considered a WOTUS subject to USACE regulatory authority.

California Department of Fish and Wildlife

In accordance with Section 1602 of the California Fish and Game Code, CDFW asserts jurisdiction over rivers, streams, and lakes, as well as any riparian vegetation associated with those features. There are no “rivers” or “lakes” within or adjacent to the JDSA, but three ephemeral drainages (Features 1, 3, and 4) and a detention basin (Feature 2) have bed and bank. These features are defined by a bed and bank and function as ephemeral features. Feature 2 also contains riparian vegetation in the form of Goodding’s willow woodland and mulefat scrub. Features 1 and 4 have broader CDFW jurisdictional limits than those identified for USACE/RWQCB as their top-of-banks sit further away from and are elevated above where their OHWMs are located, respectively. The limits of USACE/RWQCB and CDFW jurisdictions within Feature 3 are the same since the OHWM and top of bank are one and the same due to the flatness of the feature. Feature 5 is not considered a CDFW jurisdictional feature as it lacks a bed and bank. Therefore, Features 1 through 4 would be subject to potential CDFW jurisdiction pursuant to Section 1602 of the California Fish and Game Code.

Regional Water Quality Control Board

All the features delineated on site, with the exception of Feature 5, were determined to be non-wetland WOTUS under both current and historic USACE definitions, and guidelines are also considered to be nonwetland WOTS. As such, Features 1 through 4 are considered jurisdictional under Section 401 of the CWA. Feature 5 is considered a nonwetland WOTS under the Porter-Cologne Water Quality Control Act due to it being isolated from other features within the JDSA and containing an OHWM.

RWQCB jurisdiction pursuant to Section 401 of the CWA and/or the Porter-Cologne Water Quality Control Act extends across each drainage, coinciding with USACE’s jurisdictional limits. Where

USACE jurisdiction is absent, RWQCB jurisdiction coincides with the OHWM and may be the same as CDFW's jurisdiction pursuant to Section 1602 of the California Fish and Game Code.

DISCLAIMER

The findings and conclusions presented in this report, including the locations and extents of features subject to regulatory jurisdiction (or lack thereof), represent the professional opinion of the consultant biologists. These findings and conclusions should be considered preliminary until verified by the appropriate regulatory agencies.

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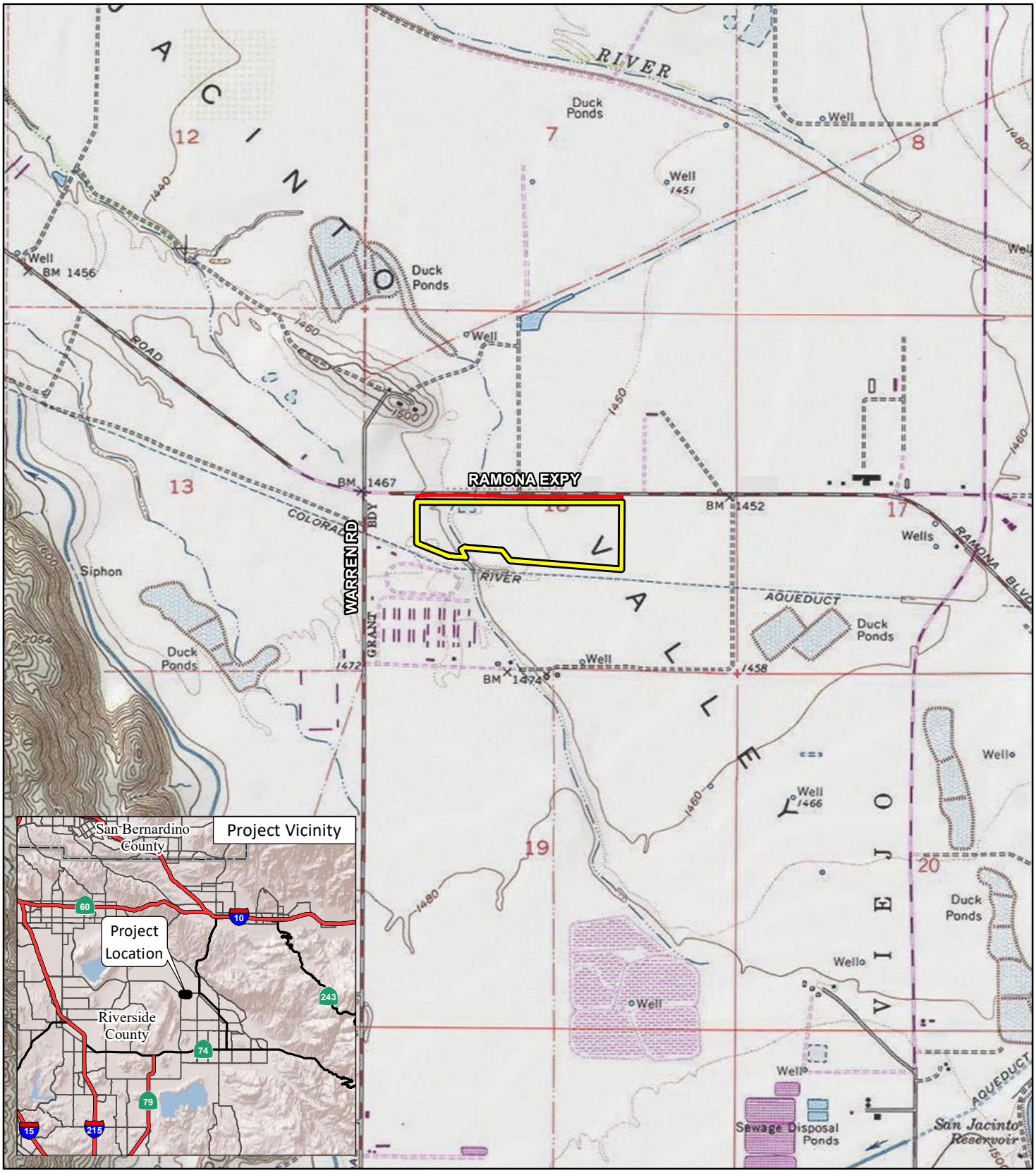
APPENDIX A

FIGURES



LSA

LEGEND

Project Location

Off-Site Work Area

FIGURE 1

N

0 1000 2000

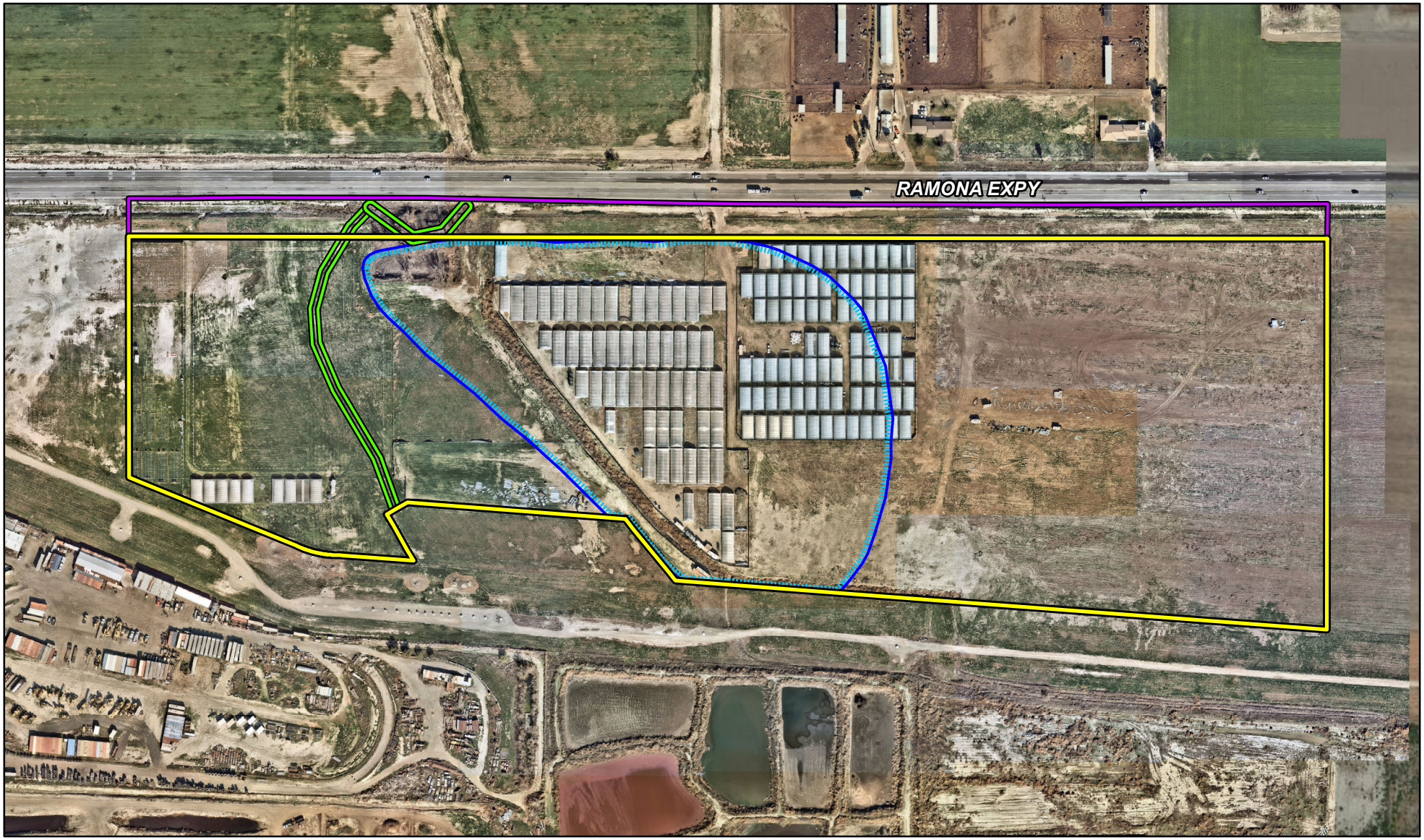
FEET

SOURCE: USGS 7.5' Quad - *Lakeview, CA* (1979)

I:\FVP2201_SOP2101\GIS\MXD\ProjectLocation.mxd (9/21/2022)

Ramona Land Development Project

Regional and Project Location



LSA

LEGEND

Project Location

Off-Site Work Area

National Wetland Inventory

Freshwater Emergent Wetland

Riverine

0 175 350

FEET

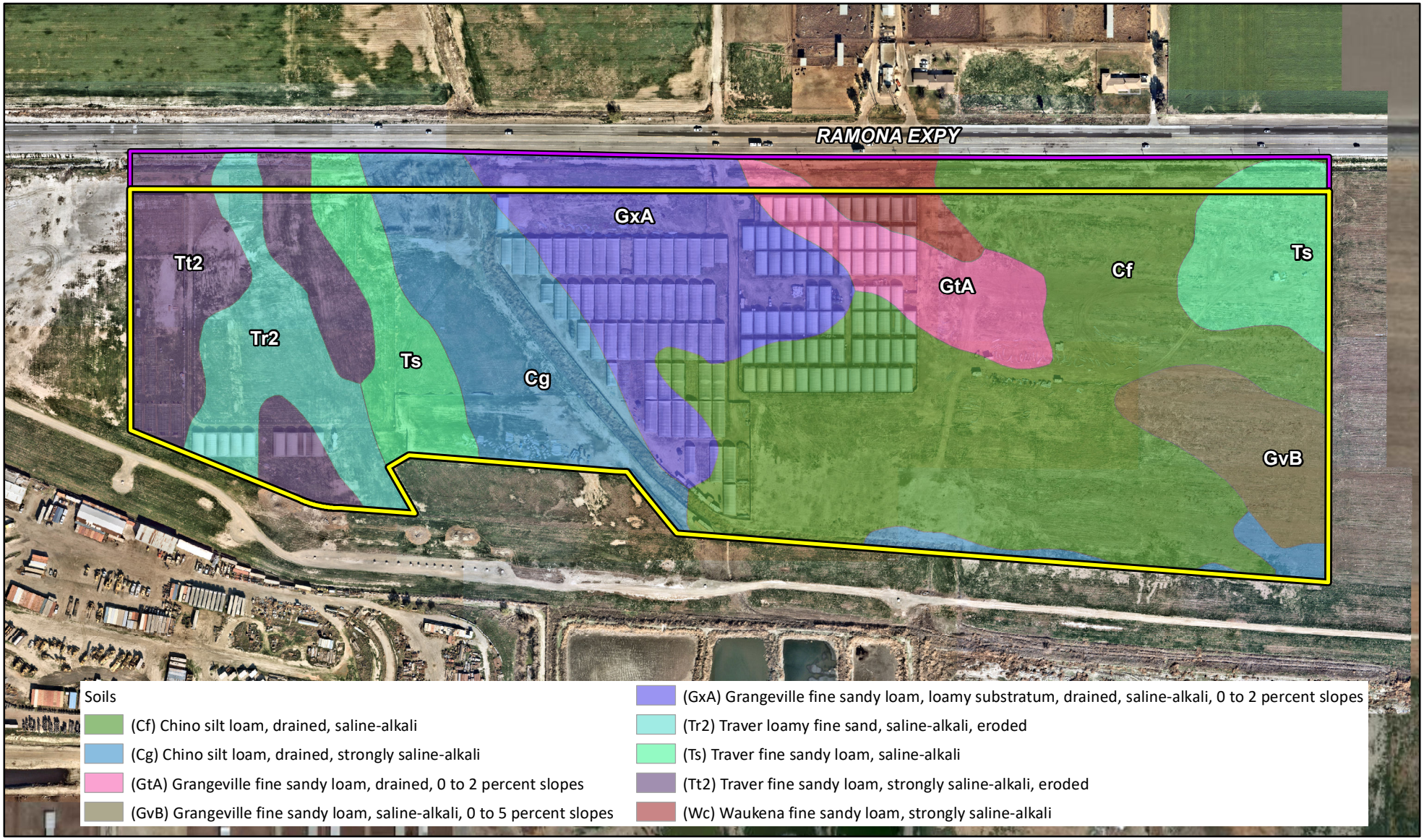
SOURCE: Nearmap (1/14/2022); USFWS (2020)

I:\FVP2201_SOP2101\GIS\MXD\JD\NationalWetlandInventory.mxd (9/21/2022)

FIGURE 2

Ramona Land Development Project

National Wetland Inventory



LSA

LEGEND

Project Location

Off-Site Work Area

N

0 175 350

FEET

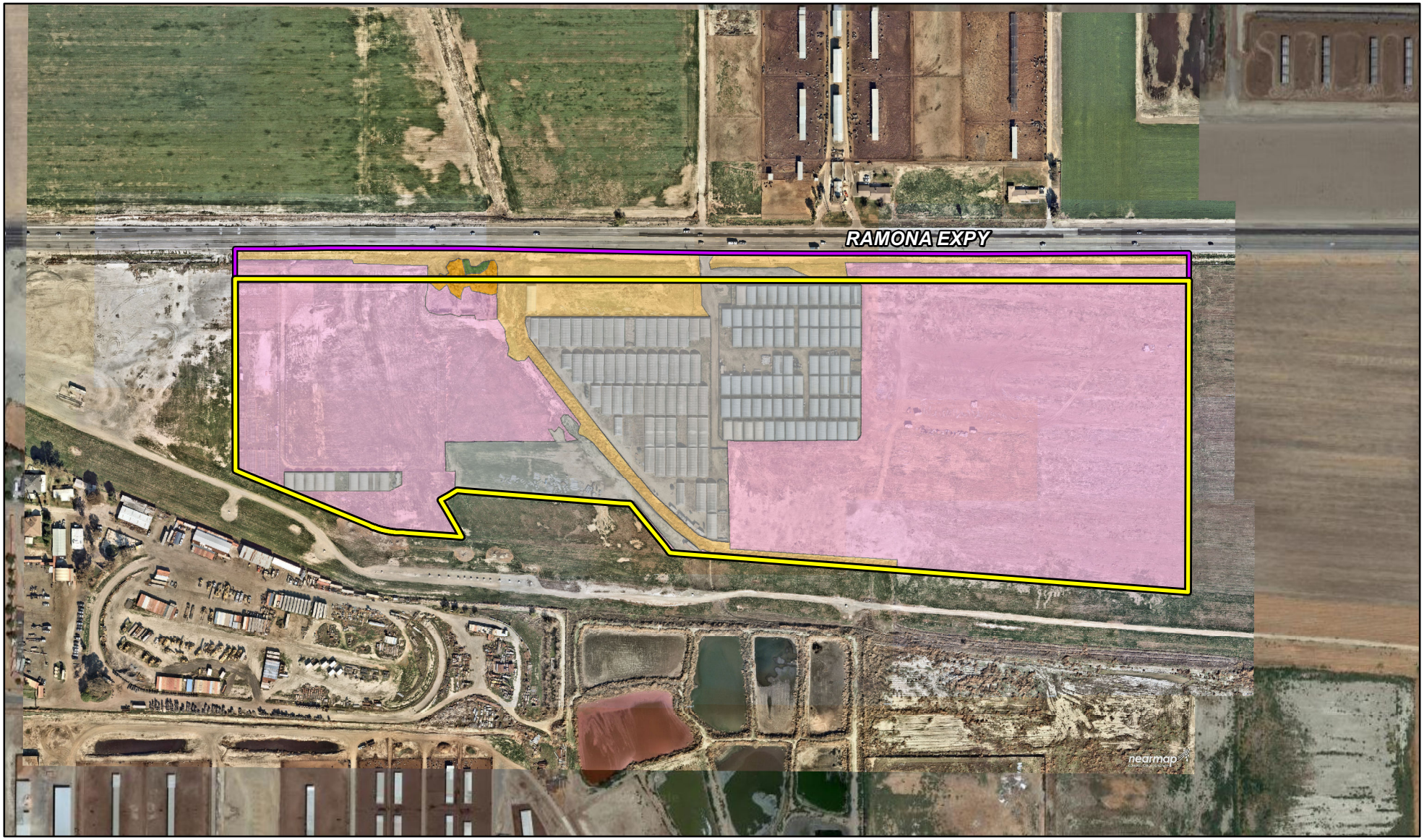
FIGURE 3

Ramona Land Development Project

Soils

SOURCE: Nearmap (1/14/2022); Esri SSURGO (2021)

I:\FVP2201_SOP2101\GIS\MXD\JD\Soils.mxd (9/23/2022)



LSA

FIGURE 4

LEGEND

Project Location

Off-Site Work Area

Vegetation

Developed

Disturbed

Goodding's Willow Woodland

Mulefat Scrub

Non-native Grassland

N

0 220 440

FEET

SOURCE: Nearmap (1/14/2022)

I:\FVP2201_SOP2101\GIS\MXD\JD\Vegetation_JD.mxd (9/21/2022)

Ramona Land Development Project

Vegetation and Land Cover

LSA

FIGURE 5

LEGEND

Jurisdictional Delineation Study Area (JDSA)
Project Location
Off-Site Work Area

Potential USACE/RWQCB Non-Wetland Jurisdiction
Potential USACE/RWQCB Non-Wetland Jurisdiction/CDFW Jurisdiction
Potential RWQCB Non-Wetland Jurisdiction
Potential CDFW Jurisdiction - Bed and Bank
Potential CDFW Jurisdiction - Riparian

Sampling Point
Culvert
Photo Location

0 175 350
FEET

SOURCE: Nearmap (1/14/2022)

Ramona Land Development Project

Jurisdictional Delineation Map

I:\FVP2201_SOP2101\GIS\MXD\JD\JurisdictionalDelineation.mxd (9/23/2022)

Photo 1: View of Feature 1 condition, vegetation present within its bed and banks and adjacent chain link fences. Facing northwest. Taken on March 16, 2022.

Photo 2: View of Feature 2 within the bottom of the basin looking at the elevated bank. Facing southwest. Taken on March 16, 2022.

LSA

FIGURE 5

Ramona Land Development Project

Representative Site Photographs

I:\FVP2201\G\Photos_JD_rev2.cdr (9/23/2022)

Photo 3: View of Feature 1 condition, vegetation present within its bed and banks and adjacent chain link fences. Facing southeast. Taken on March 16, 2022.

Photo 4: View of Feature 2 within the bottom of the basin looking at the elevated bank. Facing southwest. Taken on March 16, 2022.

Photo 5: View of Feature 2 within the bottom of the basin looking at the Goodding's willow woodland. Facing southwest. Taken on March 16, 2022.

Photo 6: View of Feature 2 within the bottom of the basin looking at the Goodding's willow woodland and elevated bank. Facing southwest. Taken on March 16, 2022.

Photo 7: View of Feature 3 within the ephemeral drainage adjacent to Ramona Expressway. Facing east. Taken on March 16, 2022.

Photo 8: View of Feature 3 from the dirt entry road into the project site where a culvert occurs. Facing west. Taken on March 16, 2022.

Photo 9: View of the eastern end of Feature 3 as it transitions to upland. Facing east. Taken on March 16, 2022.

Photo 10: View of Feature 5 condition and extensive soil cracking. Facing northwest. Taken on March 16, 2022.

Photo 11: View of Feature 5 condition and extensive soil cracking. Facing southeast. Taken on March 16, 2022.

LSA

FIGURE 5

Ramona Land Development Project

Representative Site Photographs

APPENDIX B

WETLAND DATA SHEETS

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Romona Land Dev. City/County: San Jacinto/ Riverside Sampling Date 3/16/22
Applicant/Owner: State CA Sampling Point: 1
Investigators: J. Spencer, R. Villanueva, D. Woodard Section, Township, Range:
Landform (hillslope, terrace, etc.): Detention Basin Local relief (concave, convex, none): Slope (%):
Subregion (LRR): Lat: Long: Datum:
Soil Map Unit Name: NWI classification:
Are climatic/hydrologic conditions on the site typical for this time of year? Yes ___ No ___ (If no, explain in Remarks.)
Are Vegetation ___ Soil ___ or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes ___ No ___
Are Vegetation ___ Soil ___ or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic vegetation present?	Yes ___	No ___	**Is the Sampled Area within a Wetland?**	**Yes ___ No ___**
Hydric soil present?	Yes ___	No ___		
Wetland Hydrology present?	Yes ___	No ___		

Remarks:

VEGETATION – Use scientific names of plants

Tree Stratum (Plot size: 10'x10')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:			

Sapling/Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
Total Cover:			

Herb Stratum (Plot size:)			
1. Malvella Leprosa	20%	FACU	
2. Kochia Scoparia	14%	~~FAC~~ NI	
3. Erigeron Canadensis	2%	FAC	
4. Lactuca Serriola	2%	FAC	
5. Xanthium Strumarium	2%	FAC	
6.			
7.			
8.			
Total Cover:	40%		

Woody Vine Stratum			
1.			
2.			
Total Cover:			

% Bare Ground in Herb Stratum: ___ % Cover of Biotic Crust ___

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percentage of Dominant Species That Are OBL, FACW, or FAC: ~~50~~ 0 (A/B)

Prevalence index worksheet

Total % Cover of:		Multiply by:	
OBL species	0	× 1 =	0
FACW species	0	× 2 =	0
FAC species	3	× 3 =	9
FACU species	1	× 4 =	4
UPL species	1	× 5 =	5
Column Totals:	5	(A)	18 (B)
Prevalence Index = B/A =			~~5.18~~ 3.6

Hydrophytic Vegetation Indicators:

___ Dominance Test is > 50%
___ Prevalence Test is ≤ 3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ___ No X

Remarks:

SOIL

Sampling Point: 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16"	7.5YR 4/2	100					Silty Clay Loam	Uniform throughout

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils:[3]

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):
Type: ___
Depth (inches): ___

Hydric Soil Present? Yes ___ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- W Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- ___ Surface Soil Cracks (B6)
- X Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **(Riverine)**
- ___ Drift Deposits (B3) **(Riverine)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Thin Muck Surface (C7)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquatard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___
Water Table Present? Yes ___ No X Depth (inches): ___
Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

Wetland Hydrology Present? Yes X No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Ramona Land Dev. City/County: San Jacinto / Riverside Sampling Date 3/16/22
Applicant/Owner: State CA Sampling Point: 2
Investigators: D. Spencer, R. Villanueva, D. Woodard Section, Township, Range:
Landform (hillslope, terrace, etc.): Local relief (concave, convex, none): Slope (%):
Subregion (LRR): Lat: Long: Datum:
Soil Map Unit Name: NWI classification:
Are climatic/hydrologic conditions on the site typical for this time of year? Yes ___ No ___ (If no, explain in Remarks.)
Are Vegetation ___ Soil ___ or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes ___ No ___
Are Vegetation ___ Soil ___ or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic vegetation present?	Yes ___	No X			
Hydric soil present?	Yes ___	No X	**Is the Sampled Area within a Wetland?**	**Yes** ___	**No** X
Wetland Hydrology present?	Yes X	No ___			

Remarks:

VEGETATION – Use scientific names of plants

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:			
Sapling/Shrub Stratum (Plot size:) 10'x10'			
1.			
2.			
3.			
4.			
5.			
Total Cover:			
Herb Stratum (Plot size:) 16'x10'			
1. Hordeum murinum	20	Y	FACU
2. Malvella leprosa	2	N	FACU
3. Erigeron canadensis	2	N	FACU
4. Rumex crispus	4	N	FAC
5.			
6.			
7.			
8.			
Total Cover: 28			
Woody Vine Stratum			
1.			
2.			
Total Cover:			

% Bare Ground in Herb Stratum: ___ % Cover of Biotic Crust ___

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percentage of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence index worksheet

Total % Cover of:		Multiply by:	
OBL species	___	× 1 =	___
FACW species	___	× 2 =	___
FAC species	___	× 3 =	___
FACU species	___	× 4 =	___
UPL species	___	× 5 =	___
Column Totals:	___ (A)		___ (B)

Prevalence Index = B/A = ___

Hydrophytic Vegetation Indicators:
___ Dominance Test is > 50%
___ Prevalence Test is ≤ 3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ___ No X

Remarks:

SOIL

Sampling Point: 2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 4/2	100					Silt, clay loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils:[3]

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):
Type: ___
Depth (inches): ___

Hydric Soil Present? Yes ___ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- ___ Surface Soil Cracks (B6)
- X Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **(Riverine)**
- ___ Drift Deposits (B3) **(Riverine)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Thin Muck Surface (C7)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquatard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___
Water Table Present? Yes ___ No X Depth (inches): ___
Saturation Present? Yes ___ No X Depth (inches): ___
(includes capillary fringe)

Wetland Hydrology Present? Yes X No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Ramona Land Dev. City/County: San Jacinto/Riverside Sampling Date 3/16/22
Applicant/Owner: State Sampling Point: 3
Investigators: Section, Township, Range:
Landform (hillslope, terrace, etc.): Local relief (concave, convex, none): Slope (%):
Subregion (LRR): Lat: Long: Datum:
Soil Map Unit Name: NWI classification:
Are climatic/hydrologic conditions on the site typical for this time of year? Yes ___ No ___ (If no, explain in Remarks.)
Are Vegetation ___ Soil ___ or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes ___ No ___
Are Vegetation ___ Soil ___ or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic vegetation present?	Yes ___	No X	**Is the Sampled Area within a Wetland?**	**Yes** ___ **No** ___
Hydric soil present?	Yes ___	No X		
Wetland Hydrology present?	Yes ___	No ___		

Remarks:

VEGETATION – Use scientific names of plants

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:			

Sapling/Shrub Stratum (Plot size:)			
1. Baccharis salicifolia	1		FACW
2. ~~Amaranthus albus~~	~~1~~		
3. ~~Kochia scoparius~~	~~10~~		
4.			
5.			
Total Cover:	1		

Herb Stratum (Plot size:)			
1. Amaranthus albus	1	N	FACU
2. Kochia scoparius	10	Y	NI
3. Hordeum marinum	5	Y	FACU
4. Helianthus annuus	4	N	FACU
5.			
6.			
7.			
8.			
Total Cover:			

Woody Vine Stratum	
1.	
2.	
Total Cover:	

% Bare Ground in Herb Stratum: ___ % Cover of Biotic Crust ___

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 3 (B)
Percentage of Dominant Species That Are OBL, FACW, or FAC: 33 (A/B)

Prevalence index worksheet

Total % Cover of:		Multiply by:	
OBL species	0	× 1 =	0
FACW species	1	× 2 =	2
FAC species	0	× 3 =	0
FACU species	10	× 4 =	40
UPL species	1	× 5 =	5
Column Totals:	12 (A)		47 (B)
Prevalence Index = B/A =			3.9

Hydrophytic Vegetation Indicators:

___ Dominance Test is > 50%
___ Prevalence Test is ≤ 3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ___ No X

Remarks:

SOIL

Sampling Point: 3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 4/2	100					Silty Clay loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils:[3]

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):
Type: ___
Depth (inches): ___

Hydric Soil Present? Yes ___ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) **(Riverine)**
- X Sediment Deposits (B2) **Riverine)**
- ___ Drift Deposits (B3) **(Riverine)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Thin Muck Surface (C7)
- ___ Crayfish Burrows (C8)
- ? Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquatard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ___ Depth (inches): ___
Water Table Present? Yes ___ No ___ Depth (inches): ___
Saturation Present? Yes ___ No ___ Depth (inches): ___
(includes capillary fringe)

Wetland Hydrology Present? Yes ___ No ___

Tree frog

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Ramona Land Dev. City/County: San Jacinto / Riverside Sampling Date 4

Applicant/Owner: State Sampling Point:

Investigators: B. Spencer, R. Villanueva, D. Woodard Section, Township, Range:

Landform (hillslope, terrace, etc.): Local relief (concave, convex, none): Slope (%):

Subregion (LRR): Lat: Long: Datum:

Soil Map Unit Name: NWI classification:

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ___ No ___ (If no, explain in Remarks.)

Are Vegetation ___ Soil ___ or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes ___ No ___

Are Vegetation ___ Soil ___ or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic vegetation present?	Yes ___	No ___	**Is the Sampled Area within a Wetland?** **Yes** ___ **No** ___
Hydric soil present?	Yes ___	No ___	
Wetland Hydrology present?	Yes ___	No ___	

Remarks:

VEGETATION – Use scientific names of plants

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:	0		

Sapling/Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
Total Cover:	0		

Herb Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
Total Cover:	0		

Woody Vine Stratum			
1.			
2.			
Total Cover:	0		

% Bare Ground in Herb Stratum: 100 % Cover of Biotic Crust ___

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: ___ (A)

Total Number of Dominant Species Across All Strata: ___ (B)

Percentage of Dominant Species That Are OBL, FACW, or FAC: ___ (A/B)

Prevalence index worksheet

Total % Cover of:		Multiply by:	
OBL species	___	× 1 =	___
FACW species	___	× 2 =	___
FAC species	___	× 3 =	___
FACU species	___	× 4 =	___
UPL species	___	× 5 =	___
Column Totals:	___ (A)		___ (B)

Prevalence Index = B/A = ___

Hydrophytic Vegetation Indicators:

___ Dominance Test is > 50%

___ Prevalence Test is ≤ 3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ___ **No** ___

Remarks:

SOIL

Sampling Point: 4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16"	10YR 4/2	100					Silty Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils:[3]

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):
Type: ___
Depth (inches): ___

Hydric Soil Present? Yes ___ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- X Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **Riverine)**
- ___ Drift Deposits (B3) **(Riverine)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Thin Muck Surface (C7)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquatard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ___ Depth (inches): ___
Water Table Present? Yes ___ No ___ Depth (inches): ___
Saturation Present? (includes capillary fringe) Yes ___ No ___ Depth (inches): ___

Wetland Hydrology Present? Yes ___ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Ramona Land Dev. City/County: San Jacinto / Riverside Sampling Date 3/16/22
Applicant/Owner: ~~S. Spencer, R. Villanueva, D. Woodard~~ State CA Sampling Point: 5 (culvert)
Investigators: S. Spencer, R. Villanueva, D. Woodard Section, Township, Range:
Landform (hillslope, terrace, etc.): Roadside Swale Local relief (concave, convex, none): Slope (%):
Subregion (LRR): Lat: Long: Datum:
Soil Map Unit Name: NWI classification:
Are climatic/hydrologic conditions on the site typical for this time of year? Yes ___ No ___ (If no, explain in Remarks.)
Are Vegetation ___ Soil ___ or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes ___ No ___
Are Vegetation ___ Soil ___ or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic vegetation present?	Yes ___	No X	**Is the Sampled Area within a Wetland?**	**Yes ___ No ___**
Hydric soil present?	Yes ___	No X		
Wetland Hydrology present?	Yes X	No ___		

Remarks:

VEGETATION – Use scientific names of plants

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:			

Sapling/Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
Total Cover:			

Herb Stratum (Plot size: 4'x8')			
1. Kochia scoparia	50%		NI
2. Hordeum murinum	30		FACU
3. malva parviflora	1		NI
4.			
5.			
6.			
7.			
8.			
Total Cover:			

Woody Vine Stratum			
1.			
2.			
Total Cover:			

% Bare Ground in Herb Stratum: ___ % Cover of Biotic Crust ___

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: ___ (A)
Total Number of Dominant Species Across All Strata: ___ (B)
Percentage of Dominant Species That Are OBL, FACW, or FAC: ___ (A/B)

Prevalence index worksheet

Total % Cover of:		Multiply by:	
OBL species	___	× 1 =	___
FACW species	___	× 2 =	___
FAC species	___	× 3 =	___
FACU species	___	× 4 =	___
UPL species	___	× 5 =	___
Column Totals:	___ (A)		___ (B)
Prevalence Index = B/A =			

Hydrophytic Vegetation Indicators:
___ Dominance Test is > 50%
___ Prevalence Test is ≤ 3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ___ No X

Remarks:

SOIL

Sampling Point: 5

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 4/2	100					Silty Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils:[3]

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):
Type: ___
Depth (inches): ___

Hydric Soil Present? Yes ___ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- X Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **(Riverine)**
- ___ Drift Deposits (B3) **(Riverine)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Thin Muck Surface (C7)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquatard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ___ Depth (inches): ___
Water Table Present? Yes ___ No ___ Depth (inches): ___
Saturation Present? Yes ___ No ___ Depth (inches): ___
(includes capillary fringe)

Wetland Hydrology Present? Yes X No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

APPENDIX D

2021–2022 WET SEASON FAIRY SHRIMP SURVEY REPORT

CARLSBAD
CLOVIS
IRVINE
LOS ANGELES
PALM SPRINGS
POINT RICHMOND
RIVERSIDE
ROSEVILLE
SAN LUIS OBISPO

June 23, 2022

Ms. Stacey Love, Recovery Permit Coordinator
United States Fish and Wildlife Service
2177 Salk Avenue, Suite 250
Carlsbad, CA 92008

Subject: Results of the 2021–2022 Wet Season Fairy Shrimp Survey for the SoCal Propane San Jacinto Project (LSA Project No. FVP2201/SOP2101)

Dear Ms. Love:

This letter provides the results of a 2021–2022 wet season presence/absence survey for vernal pool branchiopods conducted by LSA for the SoCal Propane San Jacinto Project site. The survey area is located at Universal Transverse Mercator (UTM) coordinates 3742500 Northing/497505 Easting within Section 18, Township 4 South, Range 1 West, in the City of San Jacinto, Riverside County, as shown on the United States Geological Survey (USGS) 7.5-minute series *Lakeview, California* quadrangle (Figure 1; all figures attached). Six features, totaling less than 0.4 acre, were sampled on and adjacent to the project site (Figures 2 and 3). The 2021–2022 survey results were negative for the listed species.

METHODS

The vernal pool branchiopod (fairy shrimp) survey was conducted for Riverside fairy shrimp (*Streptocephalus woottoni*) and vernal pool fairy shrimp (*Branchinecta lynchi*) by LSA Senior Biologist Stanley Spencer under LSA Federal 10(a)(1)(A) Permit TE 777965 and in accordance with the November 13, 2017, Survey Guidelines for the Listed Vernal Pool Branchiopods. Site checks were conducted on January 5, 8, 12, 18, and 26, February 1 and 25, and April 4 and 11, 2022, to determine whether water was present in ponding features following storm events. Ponded features were sampled at required intervals until they had dried and remained dry.

Features were sampled by drawing a handheld net through the water column, occasionally bumping the bottom to stir up any benthic organisms. The net was periodically removed from the water to check for aquatic species.

Table A provides the dates and weather conditions for each site visit during which features were sampled. Wet season data sheets are attached.

Table A: Survey Dates, Weather Conditions, and Features Sampled

Date	Air Temperature (°C)	Water Temperature (°C)	Cloud Cover	Feature Sampled
1/5/22	23	18	1	1, 2, 3, 4, 5, 6
1/8/22	16	14	N/A	1, 2, 3, 4, 5, 6
1/12/22	21	17	70	2, 3, 6
1/18/22	14	14	100	6
1/26/22	11	9	20	6
4/4/22	13	14	90	1

Source: Compiled by LSA (2022).
°C = degrees Celsius

All features filled in December and were dry by the end of January. Feature 1 refilled in late March and dried in early April.

RESULTS AND CONCLUSIONS

Table B provides information about each of the sampled features. Features 1 and 3 are low areas within a ditch. Feature 2 is a broad, low area within a former crop field. Feature 4 consists of road ruts. Features 5 and 6 are within a borrow area at the south edge of Ramona Expressway. With the possible exception of Feature 2, all of the features are artificially constructed. Water enters the features as direct rainfall and as sheet flow from adjacent areas. Four of the features are unvegetated. The other two have plant species typical of ruderal upland habitats.

Table B: Characteristics of the Features Sampled

Feature	Estimated Maximum Depth (centimeters)	Estimated Maximum Length × Width (meters)	Origin	Vegetation	Fairy Shrimp Species Observed
1	12	10 × 3	Ditch	*Helianthus annuus* *Erigeron canadensis*	None
2	5	60 × 15	Scrape or natural low area	None	None
3	10	12 × 3	Ditch	*Bassia hyssopifolia*	None
4	15	15 × 1	Road ruts	None	None
5	10	20 × 2	Borrow area for roadway	None (maintained road edge)	*Branchinecta lindahli*
6	15	120 × 3	Borrow area for roadway	None (maintained road edge)	*Branchinecta lindahli*

Source: Compiled by LSA (2022).

Versatile fairy shrimp (*Branchinecta lindahli*) was observed in Features 5 and 6.

Please contact me if you require any additional information.

Sincerely,

LSA Associates, Inc.

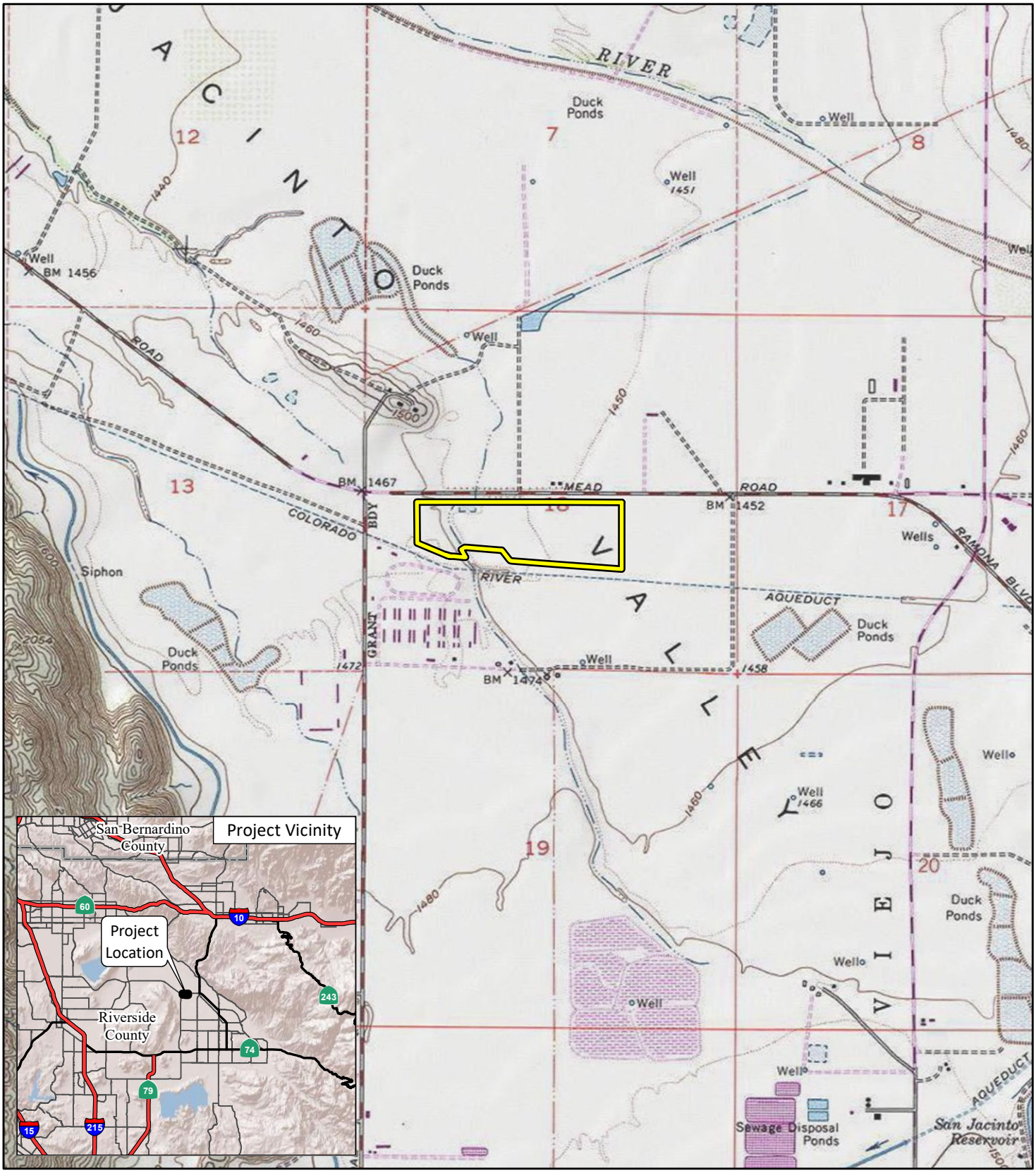
Stanley C. Spencer, Ph.D.
Associate/Senior Botanist

Attachments: Figure 1: Project Location
Figure 2: Features Sampled
Figure 3: Representative Site Photographs
Data Sheets

cc: Melody Aimar, Western Riverside County MSHCP Biological Monitoring Program

I CERTIFY THAT THE INFORMATION IN THIS SURVEY REPORT AND ATTACHED EXHIBITS FULLY AND ACCURATELY REPRESENTS MY WORK:

SURVEYOR:	PERMIT NUMBER:	DATE:
Stanley Spencer	TE-777965	June 21, 2022



LSA

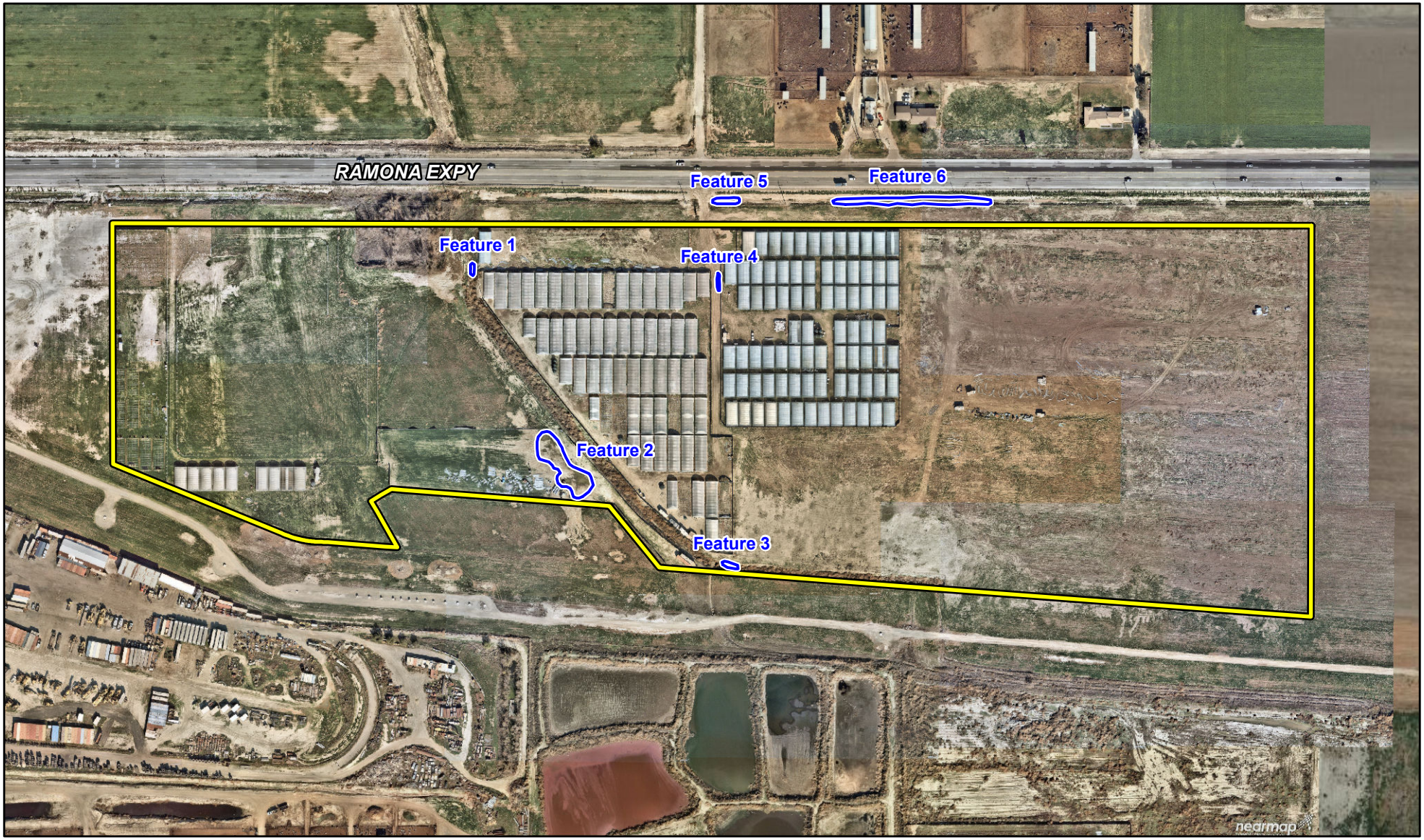
FIGURE 1

So Cal Propane San Jacinto Project

Project Location

SOURCE: USGS 7.5' Quad - *Lakeview, CA* (1979)

I:\FVP2201_SOP2101\GIS\MXD\ProjectLocation.mxd (6/6/2022)



LSA

FIGURE 2

LEGEND

Project Location

Feature

0 175 350

FEET

SOURCE: Nearmap (1/14/2022)

I:\FVP2201_SOP2101\GIS\MXD\FeaturesSampled.mxd (6/16/2022)

So Cal Propane San Jacinto Project

Features Sampled

Photo 1. View of Feature 1, facing east (1/8/22).

Photo 2. View of Feature 2, facing northwest (1/8/22).

Photo 3. View of Feature 3, facing east (1/8/22).

Photo 4. View of Feature 4, facing east (1/8/22).

LSA

FIGURE 3

So Cal Propane San Jacinto Project

Representative Site Photographs

Photo 5. View of Features 5 and 6, facing east (1/8/22).

LSA

FIGURE 3

So Cal Propane San Jacinto Project
Representative Site Photographs

U.S. Fish and Wildlife Service – Data Sheet for Wet Season Surveys for Listed Large Branchiopods

Site or Project Name	County	Quad	Township	Range	Section
SoCal Propane San Jacinto Project	Riverside	Lakeview	4S	1W	18

SURVEYOR / Permit Number: Stan Spencer / TE-777965

Date: 1/5/22 **Time:** 1319 **Weather Conditions:** 1 % cloud cover

Feature ID #	UTM (Northing, Easting, Datum)	Temp (°C)		Depth (cm)		Surface Area (m × m)	Crustaceans						Insects				Platyhelminths	Habitat Condition	Notes/Voucher Information
		Air	Water	Average	Est. Max.	Present	Est. Max.	Anostracans	Notostracans	Copepods	Ostracods	Cladocera	Coleoptera	Hemiptera	Diptera Culicidae	Diptera Chironomida			
1	497393 E, 3742507 N, WGS84	23	14	6	12	5 × 2	10 × 3											D	
2	497463 E, 3742360 N, WGS84	23	24	2	5	30 × 8	60 × 15											D	
3	497591 E, 3742282 N, WGS84	23	6	3	10	7 × 2	12 × 3											D	
4	497582 E, 3742499 N, WGS84	23	28	12	15	12 × 1	15 × 1											D,TT	
5	497587 E, 3742562 N, WGS84	23	21	4	10	15 × 2	20 × 2	BRLI										D	
6	497729 E, 3742563 N, WGS84	23	21	7	15	110 × 3	120 × 3	BRLI										D	

Notes: Fill in abbreviated names of Anostracans and Notostracans, for all others indicate presence with a check mark. Anostracan and Notostracan Abbreviations: Use first two letters of genus and species name (e.g., LIOC = Linderiella occidentalis, BRLI = Branchinecta lindahli). For habitat conditions use two letter abbreviation as follows: NP = Natural Pool, CP = Constructed Pool; UD = undisturbed, D = disturbed: with TT = tire tracks, T = trash, P = plowed; G = grazed, UG = ungrazed by: C = cattle, H = horses, S = sheep; AB = Algal blooms present. (Estimate grazing regime by height of grasses and forbs and density of hoof prints) LG = light grazing, MG = moderate grazing, HG = heavy grazing.

U.S. Fish and Wildlife Service – Data Sheet for Wet Season Surveys for Listed Large Branchiopods

Site or Project Name	County	Quad	Township	Range	Section
SoCal Propane San Jacinto Project	Riverside	Lakeview	4S	1W	18

SURVEYOR / Permit Number: Stan Spencer / TE-777965

Date: 1/8/22 **Time:** 1016 **Weather Conditions:** N/A % cloud cover

Feature ID #	UTM (Northing, Easting, Datum)	Temp (°C)		Depth (cm)		Surface Area (m × m)	Crustaceans						Insects				Platyhelminths	Habitat Condition	Notes/Voucher Information
		Air	Water	Average	Est. Max.	Present	Est. Max.	Anostracans	Notostracans	Copepods	Ostracods	Cladocera	Coleoptera	Hemiptera	Diptera Culicidae	Diptera Chironomida			
1	497393 E, 3742507 N, WGS84	16	13	2	12	2 × 2	10 × 3											D	
2	497463 E, 3742360 N, WGS84	16	18	3	5	18 × 6	60 × 15											D	
3	497591 E, 3742282 N, WGS84	16	13	4	10	6 × 2	12 × 3											D	
4	497582 E, 3742499 N, WGS84	16	14	5	15	4 × 1	15 × 1											D,TT	
5	497587 E, 3742562 N, WGS84	16	14	6	10	8 × 2	20 × 2	BRLI										D	
6	497729 E, 3742563 N, WGS84	16	14	8	15	95 × 3	120 × 3	BRLI										D	

Notes: Fill in abbreviated names of Anostracans and Notostracans, for all others indicate presence with a check mark. Anostracan and Notostracan Abbreviations: Use first two letters of genus and species name (e.g., LIOC = Linderiella occidentalis, BRLI = Branchinecta lindahli). For habitat conditions use two letter abbreviation as follows: NP = Natural Pool, CP = Constructed Pool; UD = undisturbed, D = disturbed: with TT = tire tracks, T = trash, P = plowed; G = grazed, UG = ungrazed by: C = cattle, H = horses, S = sheep; AB = Algal blooms present. (Estimate grazing regime by height of grasses and forbs and density of hoof prints) LG = light grazing, MG = moderate grazing, HG = heavy grazing.

U.S. Fish and Wildlife Service – Data Sheet for Wet Season Surveys for Listed Large Branchiopods

Site or Project Name	County	Quad	Township	Range	Section
SoCal Propane San Jacinto Project	Riverside	Lakeview	4S	1W	18

SURVEYOR / Permit Number: Stan Spencer / TE-777965

Date: 1/12/22 **Time:** 1130 **Weather Conditions:** 70 % cloud cover

Feature ID #	UTM (Northing, Easting, Datum)	Temp (°C)		Depth (cm)		Surface Area (m × m)	Crustaceans						Insects				Platyhelminths	Habitat Condition	Notes/Voucher Information
		Air	Water	Average	Est. Max.	Present	Est. Max.	Anostracans	Notostracans	Copepods	Ostracods	Cladocera	Coleoptera	Hemiptera	Diptera Culicidae	Diptera Chironomida			
2	497463 E, 3742360 N, WGS84	21	21	1	5	10 × 6	60 × 15											D	
3	497591 E, 3742282 N, WGS84	21	11	2	10	2 × 1	12 × 3											D	
6	497729 E, 3742563 N, WGS84	21	20	5	15	50 × 2	120 × 3	BRLI										D	

Notes: Fill in abbreviated names of Anostracans and Notostracans, for all others indicate presence with a check mark. Anostracan and Notostracan Abbreviations: Use first two letters of genus and species name (e.g., LIOC = Linderiella occidentalis, BRLI = Branchinecta lindahli). For habitat conditions use two letter abbreviation as follows: NP = Natural Pool, CP = Constructed Pool; UD = undisturbed, D = disturbed: with TT = tire tracks, T = trash, P = plowed; G = grazed, UG = ungrazed by: C = cattle, H = horses, S = sheep; AB = Algal blooms present. (Estimate grazing regime by height of grasses and forbs and density of hoof prints) LG = light grazing, MG = moderate grazing, HG = heavy grazing.

U.S. Fish and Wildlife Service – Data Sheet for Wet Season Surveys for Listed Large Branchiopods

Site or Project Name	County	Quad	Township	Range	Section
SoCal Propane San Jacinto Project	Riverside	Lakeview	4S	1W	18

SURVEYOR / Permit Number: Stan Spencer / TE-777965

Date: 1/18/22 **Time:** 0945 **Weather Conditions:** 100 % cloud cover

Feature ID #	UTM (Northing, Easting, Datum)	Temp (°C)		Depth (cm)		Surface Area (m × m)	Crustaceans						Insects				Platyhelminths	Habitat Condition	Notes/Voucher Information
		Air	Water	Average	Est. Max.	Present	Est. Max.	Anostracans	Notostracans	Copepods	Ostracods	Cladocera	Coleoptera	Hemiptera	Diptera Culicidae	Diptera Chironomida			
3	497591 E, 3742282 N, WGS84	14	14	1	10	1 × 1	12 × 3											D	
6	497729 E, 3742563 N, WGS84	14	14	1	15	30 × 2	120 × 3	BRLI										D	

Notes: Fill in abbreviated names of Anostracans and Notostracans, for all others indicate presence with a check mark. Anostracan and Notostracan Abbreviations: Use first two letters of genus and species name (e.g., LIOC = Linderiella occidentalis, BRLI = Branchinecta lindahli). For habitat conditions use two letter abbreviation as follows: NP = Natural Pool, CP = Constructed Pool; UD = undisturbed, D = disturbed: with TT = tire tracks, T = trash, P = plowed; G = grazed, UG = ungrazed by: C = cattle, H = horses, S = sheep; AB = Algal blooms present. (Estimate grazing regime by height of grasses and forbs and density of hoof prints) LG = light grazing, MG = moderate grazing, HG = heavy grazing.

U.S. Fish and Wildlife Service – Data Sheet for Wet Season Surveys for Listed Large Branchiopods

Site or Project Name	County	Quad	Township	Range	Section
SoCal Propane San Jacinto Project	Riverside	Lakeview	4S	1W	18

SURVEYOR / Permit Number: Stan Spencer / TE-777965

Date: 1/26/22 **Time:** 0855 **Weather Conditions:** 20 % cloud cover

Feature ID #	UTM (Northing, Easting, Datum)	Temp (°C)		Depth (cm)		Surface Area (m × m)	Crustaceans						Insects				Platyhelminths	Habitat Condition	Notes/Voucher Information
		Air	Water	Average	Est. Max.	Present	Est. Max.	Anostracans	Notostracans	Copepods	Ostracods	Cladocera	Coleoptera	Hemiptera	Diptera Culicidae	Diptera Chironomida			
6	497729 E, 3742563 N, WGS84	11	9	1	15	6 × 1	120 × 3	BR										D	Immature

Notes: Fill in abbreviated names of Anostracans and Notostracans, for all others indicate presence with a check mark. Anostracan and Notostracan Abbreviations: Use first two letters of genus and species name (e.g., LIOC = Linderiella occidentalis, BRLI = Branchinecta lindahli). For habitat conditions use two letter abbreviation as follows: NP = Natural Pool, CP = Constructed Pool; UD = undisturbed, D = disturbed: with TT = tire tracks, T = trash, P = plowed; G = grazed, UG = ungrazed by: C = cattle, H = horses, S = sheep; AB = Algal blooms present. (Estimate grazing regime by height of grasses and forbs and density of hoof prints) LG = light grazing, MG = moderate grazing, HG = heavy grazing.

U.S. Fish and Wildlife Service – Data Sheet for Wet Season Surveys for Listed Large Branchiopods

Site or Project Name	County	Quad	Township	Range	Section
SoCal Propane San Jacinto Project	Riverside	Lakeview	4S	1W	18

SURVEYOR / Permit Number: Stan Spencer / TE-777965

Date: 4/4/22 **Time:** 0745 **Weather Conditions:** 90 % cloud cover

Feature ID #	UTM (Northing, Easting, Datum)	Temp (°C)		Depth (cm)		Surface Area (m × m)	Crustaceans						Insects				Platyhelminths	Habitat Condition	Notes/Voucher Information
		Air	Water	Average	Est. Max.	Present	Est. Max.	Anostracans	Notostracans	Copepods	Ostracods	Cladocera	Coleoptera	Hemiptera	Diptera Culicidae	Diptera Chironomida			
1	497393 E, 3742507 N, WGS84	13	14	10	12	10 × 3	10 × 3											D	

Notes: Fill in abbreviated names of Anostracans and Notostracans, for all others indicate presence with a check mark. Anostracan and Notostracan Abbreviations: Use first two letters of genus and species name (e.g., LIOC = Linderiella occidentalis, BRLI = Branchinecta lindahli). For habitat conditions use two letter abbreviation as follows: NP = Natural Pool, CP = Constructed Pool; UD = undisturbed, D = disturbed: with TT = tire tracks, T = trash, P = plowed; G = grazed, UG = ungrazed by: C = cattle, H = horses, S = sheep; AB = Algal blooms present. (Estimate grazing regime by height of grasses and forbs and density of hoof prints) LG = light grazing, MG = moderate grazing, HG = heavy grazing.

APPENDIX E

2022 DRY SEASON FAIRY SHRIMP SURVEY REPORT

CARLSBAD
CLOVIS
IRVINE
LOS ANGELES
PALM SPRINGS
POINT RICHMOND
RIVERSIDE
ROSEVILLE
SAN LUIS OBISPO

August 26, 2022

Stacey Love, Recovery Permit Coordinator
United State Fish and Wildlife Service
2177 Salk Avenue, Suite 250
Carlsbad, CA 92008

Subject: Results of the 2022 Dry Season Fairy Shrimp Survey for the SoCal Propane San Jacinto Project (LSA Project No. FVP2201)

Dear Stacey:

This letter provides the results of a 2022 dry season presence/absence survey for vernal pool branchiopods conducted by LSA for the SoCal Propane San Jacinto Project site. The survey area is at Universal Transverse Mercator (UTM) coordinates 3742500 Northing/497505 Easting within Section 18, Township 4 South, Range 1 West, in San Jacinto, Riverside County, as shown on the United States Geological Survey 7.5-minute series *Lakeview, California* quadrangle (Figure 1; all figures attached). Six features, totaling less than 0.4 acre, were sampled on and adjacent to the project site (attached Figure 2). LSA conducted wet season surveys at this site in 2021–2022. The results of both wet season and dry season surveys were negative for listed species.

METHODS

The 2022 dry season survey was conducted in accordance with the terms of Federal 10(a)(1)(A) Permits TE-777965 issued to LSA biologist Stan Spencer and TE-839213-3 issued to LSA biologist David Muth, and the November 13, 2017, *Survey Guidelines for the Listed Large Branchiopods*.

Soil samples were collected from the six ponding features by Dr. Spencer (TE-777965) on July 20, 2022. Dr. Spencer collected a series of 50 0.05-liter soil samples from Features 2 and 6, a series of 25 0.05-liter soil samples from Features 1, 3, and 5, and a series of 10 0.05-liter soil samples from Feature 4. The soil was dry at the time of collection. The samples from each feature were combined and stored in plastic zip-lock bags marked to indicate the site and date of collection.

Mr. Muth processed the samples Mr. Muth (TE-839213) on August 2 and 6, 2022. The collected material from each feature was placed into a 5-gallon bucket filled with 1 to 2 gallons of 5 percent brine solution to hydrate the soils. During the approximately 10- to 15-minute hydration period, the bucket was occasionally stirred to ensure all biological material was released and floated to the surface. In small aliquots, the biological material was poured through a series of four sieves with mesh sizes of 710, 355, 212, and 150 microns. The sieves were stacked with the largest mesh size at the top and the smallest mesh size on the bottom. Material was washed through the set with water. Particles trapped in the three smallest sieve sizes were saved for analysis by washing them onto blotter paper to dry.

Mr. Muth examined the sieved material Mr. Muth on August 8, 2022, using a 10- to 40-power Olympus stereo microscope. A reference cyst collection was available for comparison of any cysts found in the samples. Soil material will be stored with LSA until final deposition can be arranged.

RESULTS AND CONCLUSIONS

Eggs produced by the genus *Branchinecta* were detected in four (Features 1, 3, 5, and 6) of the six features sampled.

A total of about 3,500 *Branchinecta* eggs were found in the sampled features. *Branchinecta* eggs are not considered differentiated enough to make a species determination. Based on habitat conditions and the results of the wet season survey, the eggs most likely belong to versatile fairy shrimp (*Branchinecta lindahli*). No eggs of *Streptocephalus* were found. Other invertebrates detected include cladocerans, ostracods, and insect exoskeletons (Features 1, 2, 3, 5, and 6), and copepods (Features 5 and 6). Table A summarizes the sampling results.

Table A: Characteristics of Features Sampled

Estimated Maximum Depth (centimeters)	Estimated Maximum Length × Width (meters)	Origin	Vegetation	Soil Sample Volume (liters)	Fairy Shrimp Egg Abundance (number)
Feature 1					
12	10 × 3	ditch	*Helianthus annuus* *Erigeron canadensis*	1.25	*Branchinecta* – medium (204)
Feature 2					
5	60 × 15	scrape or natural low area	none	2.5	none
Feature 3					
10	12 × 3	ditch	*Erodium cicutarium* *Polygonum aviculare* *Spergularia bocconi*	1.25	*Branchinecta* – very low (2)
Feature 4					
15	15 × 1	road ruts	none	0.50	none
Feature 5					
10	20 × 2	borrow area for roadway	none (maintained road right of way)	1.25	*Branchinecta* – medium (301)
Feature 6					
15	120 × 3	borrow area for roadway	none (maintained road right of way)	2.5	*Branchinecta* – high (2991)

Source: Compiled by LSA (2022).

Please contact me if you require any additional information.

Sincerely,

LSA ASSOCIATES, INC.

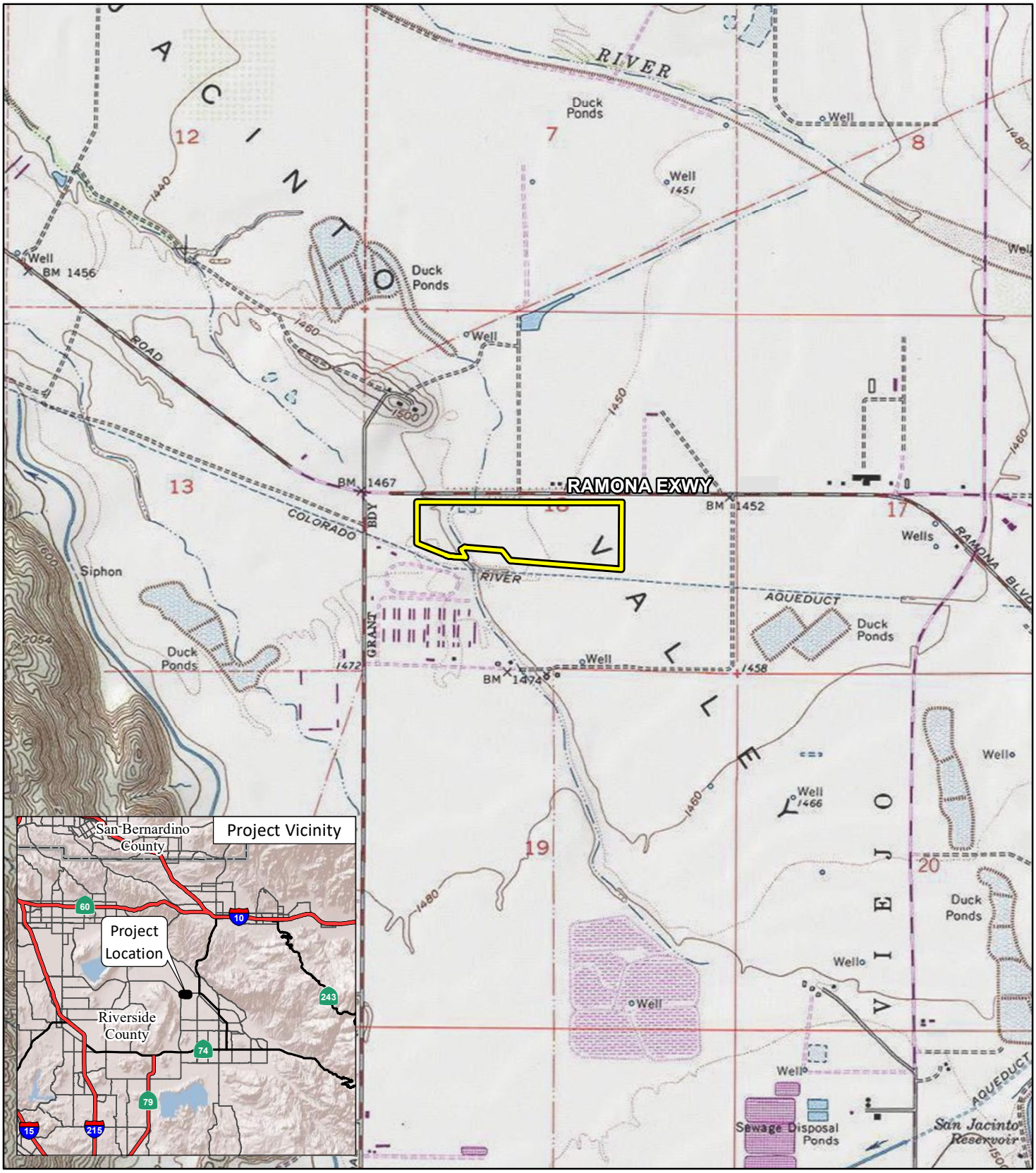
Stanley C. Spencer, Ph.D.
Associate/Senior Botanist

Attachments: Figure 1: Regional and Project Location
Figure 2: Features Sampled
Data Sheet

cc: Melody Aimar, Western Riverside County MSHCP Biological Monitoring Program

WE CERTIFY THAT THE INFORMATION IN THIS SURVEY REPORT AND ATTACHED EXHIBITS FULLY AND ACCURATELY REPRESENTS OUR WORK:

SURVEYOR:	PERMIT NUMBER	DATE:
Stanley Spencer	TE-777965	August 26, 2022
David Muth	TE-839213	August 26, 2022



LSA

LEGEND

Project Location

FIGURE 1

N

0 1000 2000

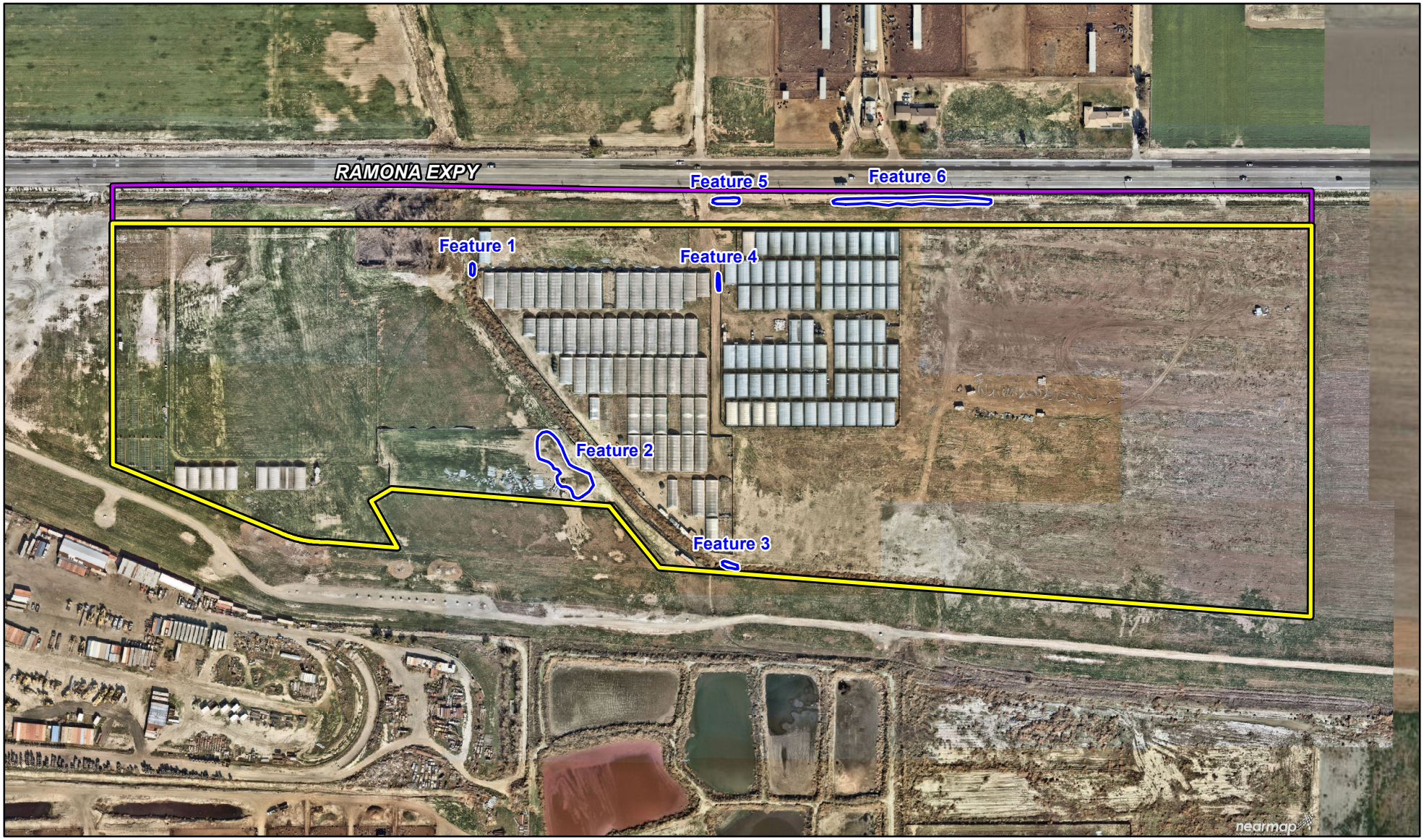
FEET

So Cal Propane San Jacinto Project

Project Location

SOURCE: USGS 7.5' Quad - *Lakeview, CA* (1979)

I:\FVP2201_SOP2101\GIS\MXD\ProjectLocation.mxd (8/9/2022)



LSA

FIGURE 2

LEGEND

- Project Location
- Off-Site Work Area
- Feature

N

0 175 350
FEET

SOURCE: Nearmap (1/14/2022)

I:\FVP2201_SOP2101\GIS\MXD\FeaturesSampled.mxd (8/17/2022)

So Cal Propane San Jacinto Project

Features Sampled

U.S. Fish and Wildlife Service – Data Sheet for Dry Season Sample Analysis for Listed Large Branchiopods

Project Information		Biologist Information
Project Name: **SoCal Propane San Jacinto Project**	Quad : **Lakeview**	Name and Permit Numbers of Person Who Conducted the Following Tasks:
USFWS Project Number**: None issued**	Township: **4S**	Soil Collection: **Dr. Stanley Spencer TE-777965**
County: **Riverside**	Range: **1W**	Soil Processing: **David Muth TE- TE-839213 and TE-797234**
UTMs for center of site: 4972425/374250	Section: **18**	Soil Analysis/Cysts ID: **David Muth TE-839213 and TE-797234**
LSA Project #: FVP2201		Soil Collection Date: July 20, 2022

	Invertebrates Present (X)															
						Number of Large Branchiopod Cysts									Other Species	
Pool/ Habitat/ Basin No.	Insect Exo-Skeletons	Micro-Turbellaria Cysts	Cladocera Ephippia	Ostracods Live/Cysts/ Carapaces	Copepods Live/Cysts	*Branchinecta* sp.	*Lepidurus pack ardi*	*Streptocephalus wootoni*	*Linderiella occidentalis*	*Lynceus brachyurus*	*Cyzicus californicus*	Hydracarina Live	Nematoda	Collembola		Comments
1	X		X	X		204										
2	X		X	X		0										
3	X		X	X		2										
4						0										Nothing
5	X		X	X	X	301										
6	X		X	X	X	2991										

APPENDIX F

RARE PLANT SURVEY REPORT

CARLSBAD
CLOVIS
IRVINE
LOS ANGELES
PALM SPRINGS
POINT RICHMOND
RIVERSIDE
ROSEVILLE
SAN LUIS OBISPO

August 10, 2022

Andrew Kotyuk
SoCal Propane LLC/3 Peaks Energy LLC
220 North San Jacinto Street
Hemet, CA 92543

Subject: Focused MSHCP Plant Species 2022 Survey for the SoCal Propane San Jacinto Project (LSA Project No. FVP2201)

Dear Mr. Kotyuk:

This report documents the results of a 2022 focused survey for Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) plant species for the above-referenced project. The project site is south of the Ramona Expressway and east of Warren Road in San Jacinto, Riverside County, California, within the United States Geological Survey *Lakeview, California* 7.5-minute series topographic quadrangle (Figure 1, all figures attached). The approximately 58-acre project area consists of Assessor's Parcel Numbers 430-100-013 and 430-100-002.

Section 6.1.3 of the MSHCP requires focused surveys for specified sensitive plant species if the project is within a Narrow Endemic Plant Species Survey Area (NEPSSA) and suitable habitat is present. The project is within NEPSSA 3, which indicates the need for a focused survey within suitable habitat for the following plant species:

- Munz's onion (*Allium munzii*)
- San Diego Ambrosia (*Ambrosia pumila*)
- Many-stemmed dudleya (*Dudleya multicaulis*)
- spreading navarretia (*Navarretia fossalis*)
- California Orcutt grass (*Orcuttia californica*)
- Wright's trichocoronis (*Trichocoronis wrightii* var. *wrightii*)

The results of the survey were negative for the target species.

BACKGROUND

The survey area consists of the project area as well as portions of the adjacent right-of-way of Ramona Expressway ("Off-Site Work Area" in Figure 2). The site is more or less flat and level, with elevation ranging from 1,448 to 1,470 feet above mean sea level. There is a constructed pond along the north boundary. Soils are saline-alkali to strongly saline-alkali over most of the site and vary in texture from silt loam to loamy fine sand. The site is highly disturbed due to decades of use as cropland and more recently by construction of greenhouses in a portion of the site (Figure 2).

Vegetation is primarily non-native grassland dominated by non-native grasses and ruderal native and non-native forbs. In some portions of the site, the strong alkalinity favors native ruderal species such as smooth tarplant (*Centromadia pungens* ssp. *laevis*) and alkali mallow (*Malvella leprosa*). In other areas, the heavy nutrient load from applied manure favors non-native ruderal species such as London rocket (*Sisymbrium irio*). Other dominant species include mouse barley (*Hordeum murinum*), kochia (*Kochia scoparia*), stinknet (*Oncosiphon pilulifer*), broad-leaved peppergrass (*Lepidium latifolium*), and littleseed canary grass *(Phalaris minor*). The constructed pond did not hold water for any significant period in the

2021–2022 wet season and its basin is densely vegetated with alkali mallow, prickly lettuce (*Lactuca serriola*), Canadian horseweed (*Erigeron canadensis*), kochia, and rough cocklebur (*Xanthium strumarium*).

METHODS

Riverside area precipitation for the 2021–2022 wet season and normal season values were taken from the WeatherCurrents.com website (http://weathercurrents.com/riverside/). Total 2021–2022 wet season precipitation in the Perris area was 5.2 inches, compared to an average season value of 8.8 inches.

Focused NEPSSA surveys were conducted by LSA botanist Stan Spencer, PhD, and timed to coincide with the blooming periods of target species. An early season survey was conducted on April 4, 2022 from 8:00 to 9:00 a.m. and on April 18 from 10:30 a.m. to 2:30 p.m. A late season survey was conducted on June 16 from 7:00 a.m. to 1:00 p.m. The surveys were conducted by walking approximately 50-foot-wide transects throughout the project site. Areas of dense ruderal vegetation do not provide suitable habitat for the target species and were not surveyed with transects due to the difficulty of traversing these areas. These areas were instead surveyed from their edges to document plant species throughout the site. The survey was floristic in nature, and all plant species observed during the survey were noted.

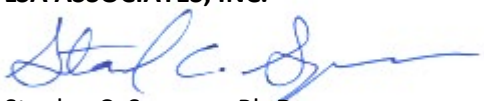
RESULTS

No NEPSSA 3 species were observed during the focused plant survey. Therefore, NEPSSA 3 species are considered absent from the site and are not expected to be impacted by project activities.

Two sensitive plant species were observed during the survey: smooth tarplant and Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*). These species are not listed as threatened or endangered under the federal or State Endangered Species Acts but are considered sensitive (California Rare Plant Rank 1B). The locations and numbers of individuals of these species on the site are indicated in Figure 2. Because these are annual species, numbers of individuals may vary by several orders of magnitude year to year. Impacts to these two species are covered under the MSHCP and no mitigation is required as long as the project is consistent with MSHCP requirements. A complete list of plant species observed on the site is included in attached Table A.

If you have any questions concerning the report, I can be contacted at (951) 232-4124 or stan.spencer@LSA.net.

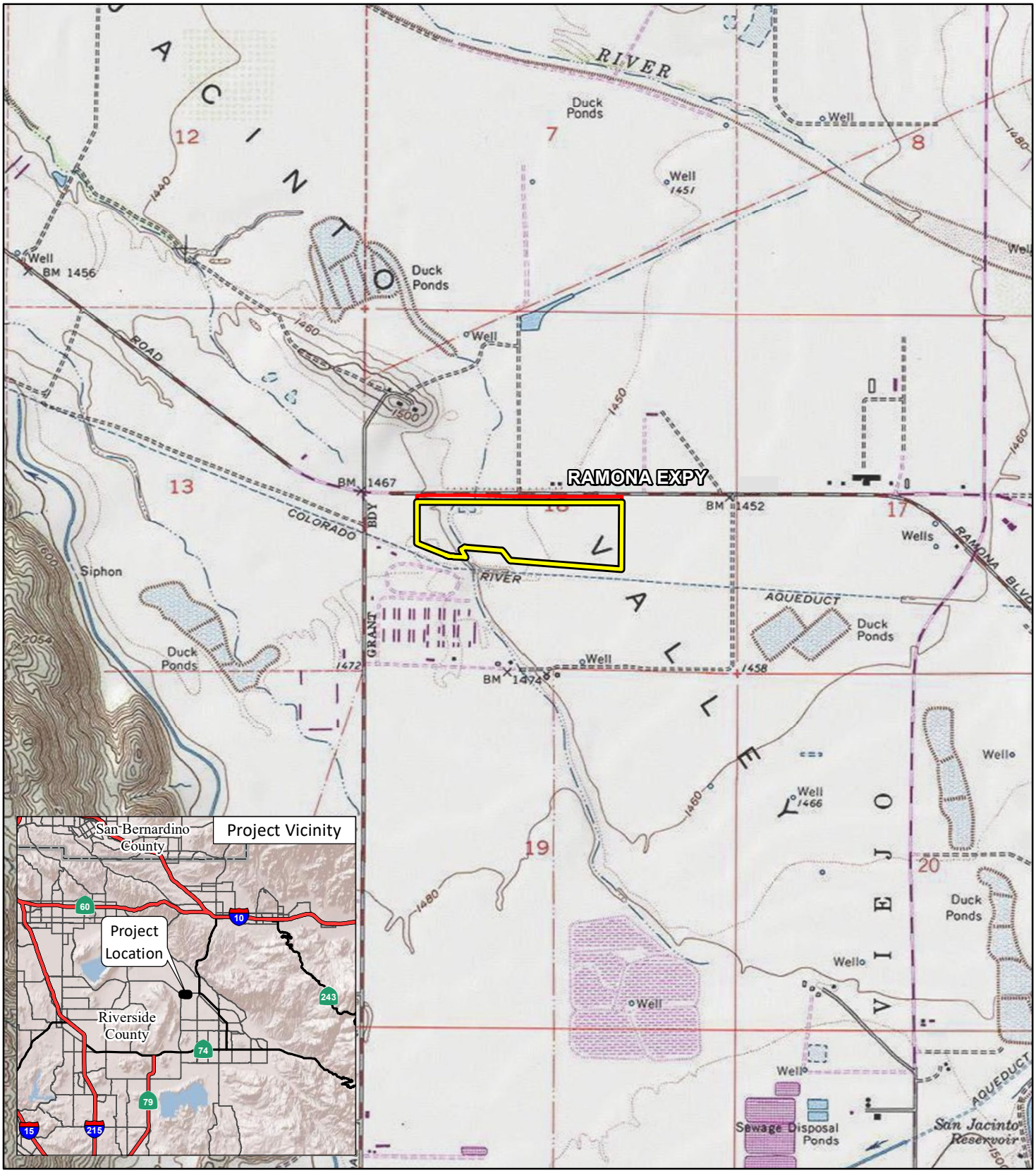
Sincerely,
LSA ASSOCIATES, INC.



Stanley C. Spencer, Ph.D.
Senior Biologist/Botanist

Attachments: Figure 1: Project Location
Figure 2: Plant Survey Results
Table A: Vascular Plant Species Observed

cc: Melody Aimar, MSHCP Biological Monitoring Program



LSA

LEGEND

Project Location

Off-Site Work Area

FIGURE 1

N

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FEET

So Cal Propane San Jacinto Project

Project Location

SOURCE: USGS 7.5' Quad - *Lakeview, CA* (1979)

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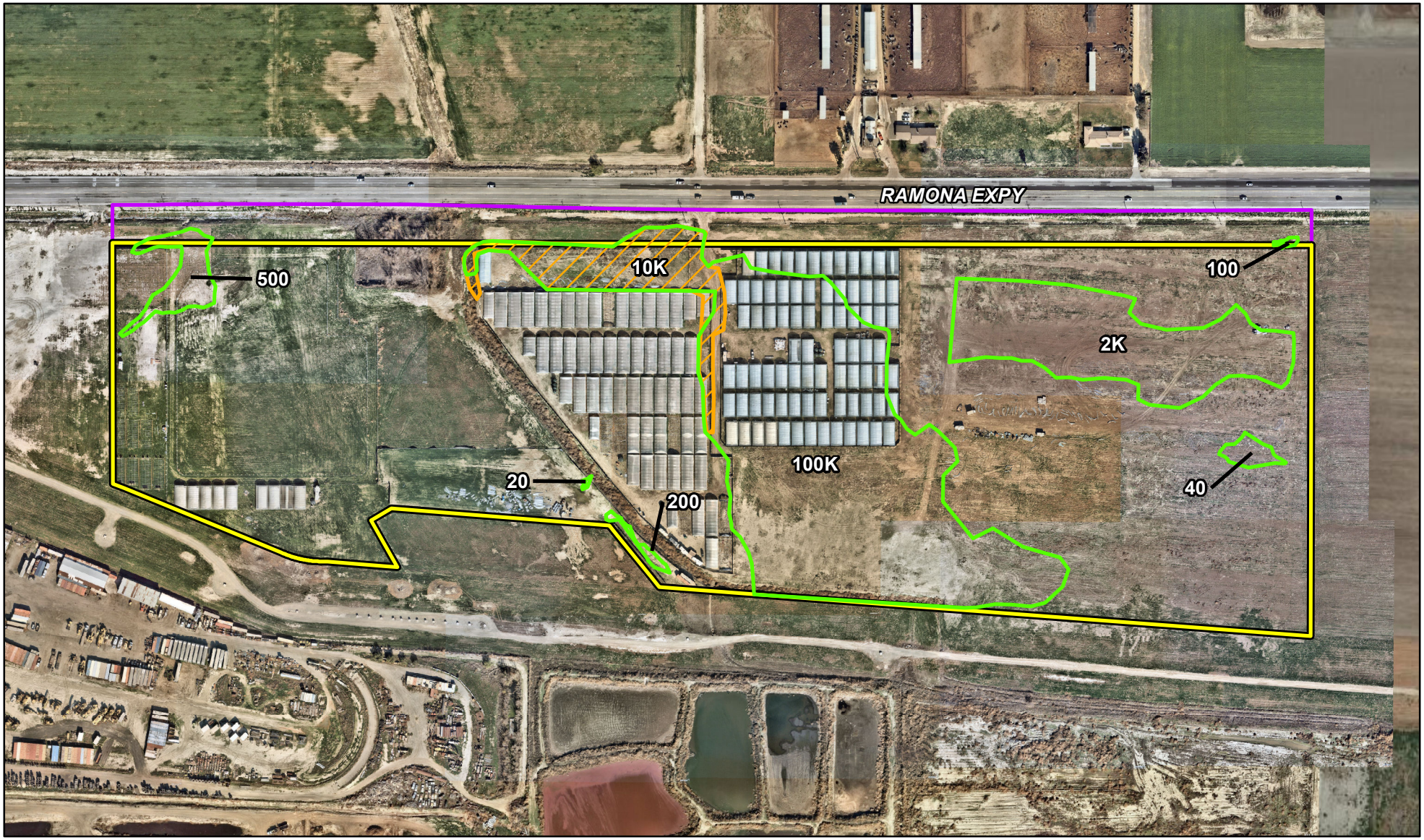

FIGURE 2

LEGEND

Project Location

Off-Site Work Area

Plant Survey Results (with # of indiviuals)

Coulter's Goldfields

Smooth Tarplant

0 175 350

FEET

SOURCE: Nearmap (1/14/2022)

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So Cal Propane San Jacinto Project

Plant Survey Results

Table A: Vascular Plant Species Observed

Scientific Name	Common Name
EUDICOT FLOWERING PLANTS	
Amaranthaceae	**Amaranth family**
Amaranthus albus (nonnative species)	Tumble pigweed
Asteraceae	**Sunflower family**
Baccharis salicifolia	Mule fat
Centromadia pungens ssp. *laevis*	Smooth tarplant
Erigeron canadensis	Canadian horseweed
Helianthus annuus	Common sunflower
Lactuca serriola (nonnative species)	Prickly lettuce
Lasthenia glabrata ssp. *coulteri*	Coulter's goldfields
Oncosiphon pilulifer (nonnative species)	Stinknet
Sonchus oleraceus (nonnative species)	Common sow thistle
Xanthium strumarium	Rough cocklebur
Boraginaceae	**Borage family**
Amsinckia intermedia	Common fiddleneck
Amsinckia retrorsa	Rigid fiddleneck
Heliotropium curassavicum	Salt heliotrope
Brassicaceae	**Mustard family**
Hirschfeldia incana (nonnative species)	Shortpod mustard
Lepidium latifolium (nonnative species)	Broad-leaved peppergrass
Sisymbrium irio (nonnative species)	London rocket
Caryophyllaceae	**Pink family**
Spergularia sp.	Sandspurry
Chenopodiaceae	**Saltbush family**
Atriplex semibaccata (nonnative species)	Australian saltbush
Atriplex serenana var. *serenana*	Bractscale
Atriplex suberecta (nonnative species)	Peregrine saltbush
Bassia hyssopifolia (nonnative species)	Fivehorn smotherweed
Chenopodium murale (nonnative species)	Nettleleaf goosefoot
Chenopodium sp.	Goosefoot
Kochia scoparia (nonnative species)	Burningbush
Salsola tragus (nonnative species)	Russian thistle
Suaeda nigra	Bush seepweed
Geraniaceae	**Geranium family**
Erodium cicutarium (nonnative species)	Redstem stork's bill
Malvaceae	**Mallow family**
Malva parviflora (nonnative species)	Cheeseweed mallow
Malvella leprosa	Alkali mallow

Polygonaceae	**Buckwheat family**
Polygonum aviculare (nonnative species)	Common knotweed
Rumex crispus (nonnative species)	Curly dock
Salicaceae	**Willow family**
Salix gooddingii	Goodding's willow
Urticaceae	**Nettle Family**
Urtica urens (nonnative species)	Dwarf nettle
MONOCOT FLOWERING PLANTS	
Poaceae	**Grass family**
Avena barbata (nonnative species)	Slender wild oat
Avena sativa (nonnative species)	Cultivated oats
Bromus catharticus (nonnative species)	Rescue grass
Bromus rubens (nonnative species)	Red brome
Cynodon dactylon (nonnative species)	Bermuda grass
Distichlis spicata	Saltgrass
Hordeum murinum (nonnative species)	Mouse barley
Phalaris minor (nonnative species)	Littleseed canarygrass
Triticum aestivum (nonnative species)	Wheat

APPENDIX G

BURROWING OWL SURVEY REPORT

CARLSBAD
CLOVIS
IRVINE
LOS ANGELES
PALM SPRINGS
POINT RICHMOND
RIVERSIDE
ROSEVILLE
SAN LUIS OBISPO

September 22, 2022

Andrew Kotyuk
SoCal Propane LLC/3 Peaks Energy LLC
220 North San Jacinto Street
Hemet, CA 92543

Subject: Results of a Burrowing Owl Survey for the SoCal Propane San Jacinto Project (LSA Project No. FVP2201)

Dear Mr. Kotyuk:

This report documents the results of a burrowing owl (*Athene cunicularia*) survey for the SoCal Propane San Jacinto Project (project). The project site is located south of the Ramona Expressway and east of Warren Road in San Jacinto (City), Riverside County, California, within the United States Geological Survey *Lakeview, California* 7.5-minute series topographic quadrangle (Figure 1; all figures attached). The approximately 58-acre project area consists of Assessor's Parcel Numbers 430-100-013 and 430-100-002.

The survey results were negative for burrowing owl as no owls or their sign were observed. Three suitable burrows were observed during the survey but showed no sign of burrowing owl use.

BACKGROUND

Burrowing owls are found in open, dry grasslands; agricultural and range lands; desert habitats; and grass, forb, and shrub stages of pinyon and ponderosa pine habitats. They nest in abandoned burrows of ground squirrels or other animals, in pipes, rock and debris piles, and in other similar features.

Burrowing owls and their nests and eggs are protected from "take" under the Migratory Bird Treaty Act and Sections 3503, 3503.5, and 3800 of the California Fish and Game Code. Activities that cause destruction of active nests, or that cause nest abandonment and subsequent death of eggs or young, may constitute violations of these laws.

Burrowing owl is a species of special concern as determined by the California Department of Fish and Wildlife (CDFW) and is a covered species under the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). In addition, the MSHCP has established survey areas for burrowing owl where focused surveys are required if suitable habitat is determined to be present.

SURVEY AREA

The area surveyed with transects (Figure 2) is approximately 58 acres and includes the entire project site, which is potentially suitable for burrowing owl, as well as the adjacent right-of-way of Ramona Expressway ("Off-Site Work Area" in Figure 2). The entire project site and off-site work area are also within the MSHCP burrowing owl survey area.

The site is bordered by Ramona Expressway to the north, undeveloped lands to the east and west, and commercial development to the south. The site is more or less flat and level, with elevation ranging from 1,448 to 1,470 feet above mean sea level. Soils are saline-alkali to strongly saline-alkali over most of the site and vary in texture from silt loam to loamy fine sand. The site is highly disturbed due to decades of use as cropland and more recently with existing developments throughout portions of the site in the form of cannabis hoop houses (Figure 2).

Vegetation communities present within the project site and off-site work area include non-native grassland, mulefat scrub, and Goodding's willow woodland. Land covers present include ruderal and developed.

Dominant species within non-native grassland areas include a mix of mouse barley (*Hordeum murinum*), rescue grass (*Bromus catharticus*), red brome (*Bromus rubens*), wheat (*Triticum aestivum*), slender wild oat (*Avena barbata*), and smooth tarplant (*Centromadia pungens* ssp. *laevis*). Non-native grassland is the most abundant vegetation community throughout the site.

Mulefat scrub consists almost entirely of mulefat (*Baccharis salicifolia*), although understory species may contain minimal amounts of non-native grasses as described above. One small patch of mulefat scrub is located in the northwestern portion of the off-site work area just south of Ramona Expressway.

Goodding's willow woodland consists almost entirely of Goodding's willow (*Salix gooddingii*) although understory species contain a variety of annual plants including non-native grasses and pepperweed (*Lepidium* sp.). Goodding's willow woodland also overlaps with mulefat thicket along portions of its northern extent within the off-site work area. One patch of Goodding's willow woodland is located in the northwestern portion of the off-site work area just south of Ramona Expressway.

Dominant species within disturbed areas are primarily non-native and include redstem filaree (*Erodium cicutarium*), seaside barley (*Hordeum marinum*), Russian thistle (*Salsola tragus*), London rocket (*Sisymbrium irio*), and smooth tarplant. Summer cypress, also forms a monotypic stand within the drainage that bisects the survey area in the central portion of the survey area. Disturbed areas are located within the central portion of the site and south of Ramona Expressway.

Areas mapped as "developed" in Figure 2 consist of hoop structures, concrete roads and other paved areas, dairies, and well-traveled dirt roads that generally do not allow for the establishment of vegetation. This land cover was present on the central portion of the site, as shown in the photographs on Figure 3.

METHODS

The surveys were conducted by LSA biologists Stan Spencer and Carla Cervantes according to the *County of Riverside Guidelines for Burrowing Owl Surveys* (revised March 29, 2006). A total of four surveys were conducted from May to August 2022. The surveys were conducted by walking approximately 30-meter transects throughout areas of suitable habitat to look for burrowing owls, potential burrows (burrows greater than 11 centimeters [cm] in diameter and 150 cm deep), and burrowing owl sign. Burrows encountered during the survey were examined for owl sign (e.g., feathers, pellets, whitewash, and prey remnants). Burrows with presence of burrowing owl sign and/or burrowing owls were to be recorded using a handheld global positioning system (GPS) unit and mapped onto an aerial photograph. Potential habitat within 500 feet and visible from the site was surveyed using binoculars.

Table A provides dates, times, and weather conditions of site visits. Surveys were conducted during weather conducive to observing owls outside their burrows and to detecting burrowing owl sign. No rain had occurred within five days prior to the site visits.

Table A: Focused Survey Dates, Times, and Weather Conditions

Survey	Personnel	Date (2022)	Time (24-Hour) (start/finish)	Temp. (°F) (start/finish)	Wind (mph)	Sky
Burrow Survey, Burrowing Owl Survey 1	Stan Spencer	May 4	0610/0740	50/56	1–3	100% cloud cover
Burrowing Owl Survey 2	Carla Cervantes	June 9	0520/0730	62/70	1–3	0% cloud cover
Burrowing Owl Survey 3	Carla Cervantes	July 15	0540/0745	68/74	0–3	0% cloud cover
Burrowing Owl Survey 4	Carla Cervantes	August 29	0600/0815	63/70	0–4	0% cloud cover

RESULTS

No burrowing owls or burrowing owl sign were found to be present within the survey area. Three burrows suitable for burrowing owl occupation were observed within the survey area but showed no sign of burrowing owl use. Suitable habitat in the form of non-native, ruderal grassland is present throughout the project site.

Wildlife species detected during the survey included common side-blotched lizard (*Uta stansburiana*), mallard (*Anas* platyrhynchos), mourning dove (*Zenaida macroura*), double-crested cormorant (*Nannopterum auritum*), Cooper's hawk (*Accipiter cooperii*), great horned owl (*Bubo virginianus*), black phoebe (*Sayornis nigricans*), Say's phoebe (*Sayornis saya*), Cassin's kingbird (*Tyrannus vociferans*), American crow (*Corvus brachyrhynchos*), common raven (*Corvus corax*), horned lark (*Eremophila alpestris*), European starling[1] (*Sturnus vulgaris*), house sparrow[2] (*Passer*

[1] Introduced species not native to California.

[2] Ibid.

domesticus), house finch (*Haemorhous mexicanus*), lesser goldfinch (*Spinus psaltria*), white-crowned sparrow (*Zonotrichia leucophrys*), savannah sparrow (*Passerculus sandwichensis),* song sparrow (*Melospiza* melodia), western meadowlark (*Sturnella neglecta*), Brewer's blackbird (*Euphagus* cyanocephalus), California ground squirrel (*Spermophilus beecheyi*), and desert cottontail (*Sylvilagus audubonii*).

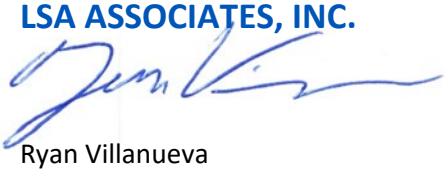
DISCUSSION

Since the project site is suitable for burrowing owl and burrowing owl could occupy the site prior to construction, the MSHCP requires a pre-construction burrowing owl survey 30 days prior to ground disturbance. If burrowing owl is found during the pre-construction survey, the project proponent will need to inform the CDFW and U.S. Fish and Wildlife Service (USFWS) and prepare a Burrowing Owl Protection and Relocation Plan for approval by these agencies prior to initiating ground disturbance.

If you have any questions concerning the report, I can be contacted at (626) 257-0215 or ryan.villanueva@lsa.net.

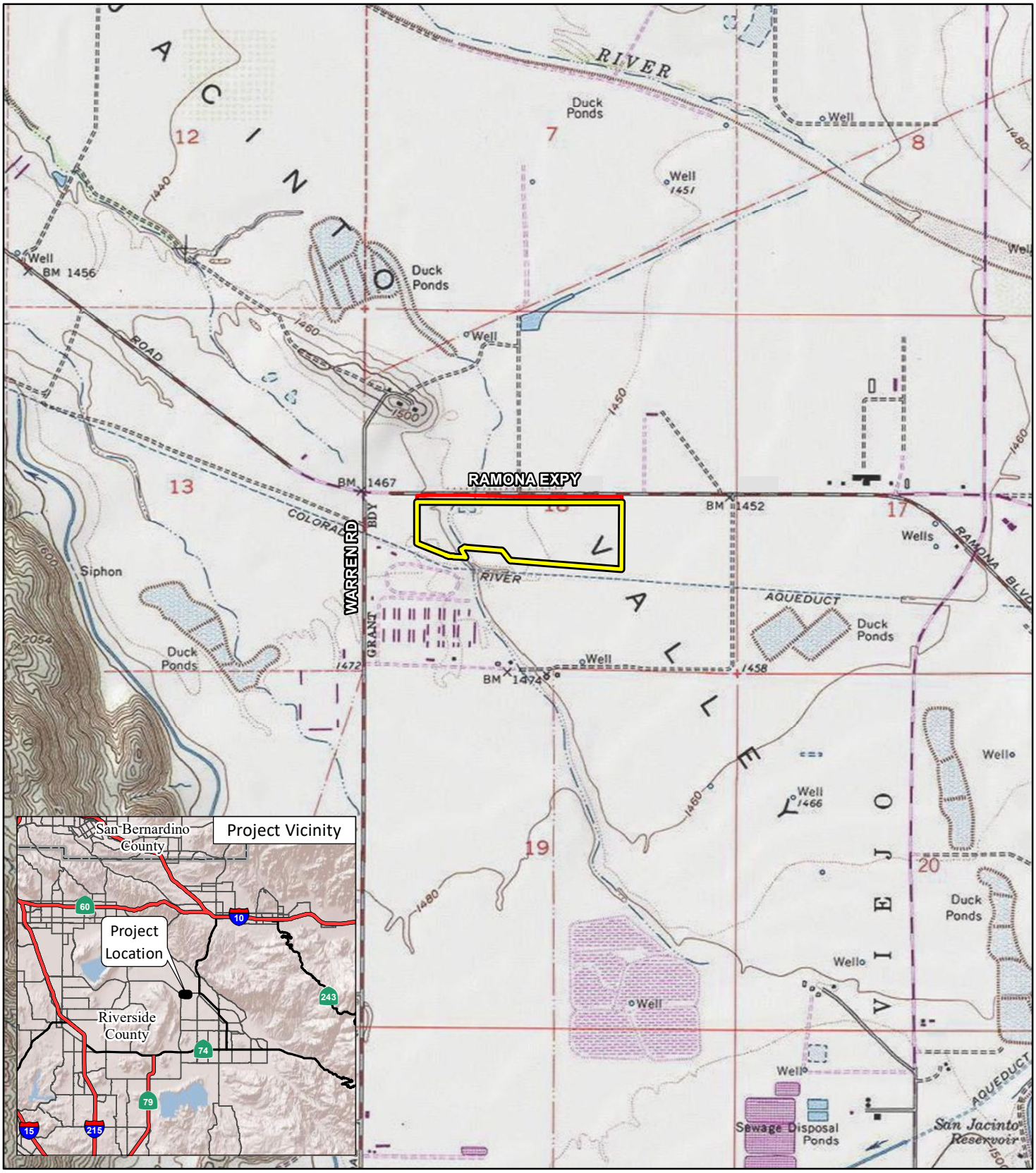
Sincerely,

LSA ASSOCIATES, INC.



Ryan Villanueva
Senior Biologist

Attachments: Figure 1: Regional and Project Location
Figure 2: Survey Results and Vegetation Map
Figure 3: Site Photographs



LSA

LEGEND

Project Location

Off-Site Work Area

FIGURE 1

N

0 1000 2000

FEET

SOURCE: USGS 7.5' Quad - *Lakeview, CA* (1979)

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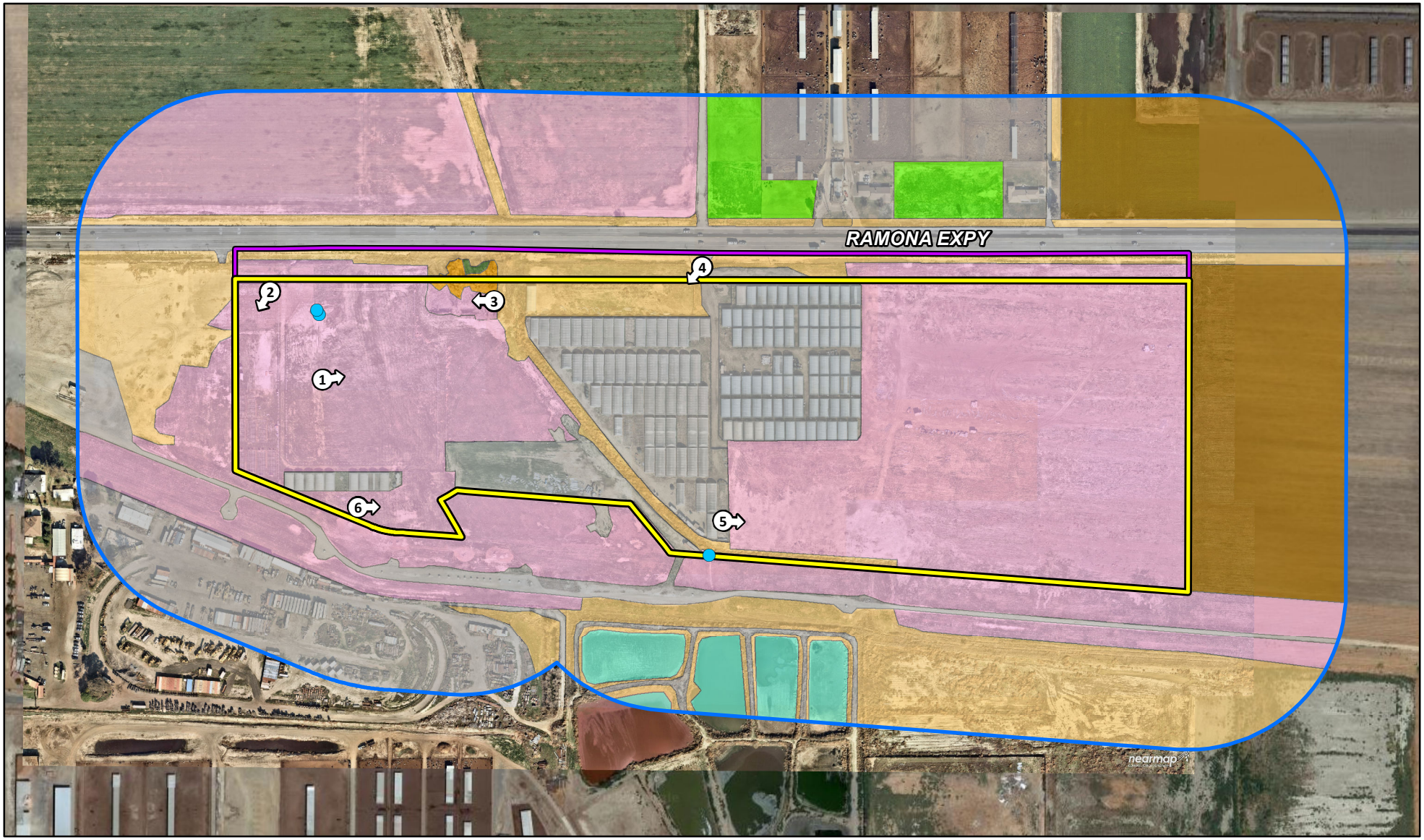
Ramona Land Development Project

Regional and Project Location



LSA

FIGURE 2

LEGEND

- Project Location
- Off-Site Work Area
- Biological Study Area
- Burrowing Owl Survey Results
- Photo Locations

Vegetation

- Crops
- Developed
- Disturbed
- Goodding's Willow Woodland
- Grazing Lands
- Mulefat Scrub
- Non-native Grassland
- Open Water

N

0 220 440
FEET

SOURCE: Nearmap (1/14/2022)

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Ramona Land Development Project

Survey Results and Vegetation Map

Photo 1: View from northwestern portion of the project site looking east.

Photo 2: View from northwestern corner of the project site looking southwest.

Photo 3: View from the southeastern corner of the Goodding's Willow Woodland habitat located within the project site looking west.

Photo 4: View from the northern portion of the project site looking southwest.

LSA

FIGURE 3

Ramona Land Development Project
Site Photographs

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Photo 5: View from the southern portion of the project site looking east.

Photo 6: View from the southwestern portion of the project site looking east.

LSA

FIGURE 3

Ramona Land Development Project
Site Photographs