

Appendix D

Multiple Species Habitat Conservation Plan Consistency Analysis

**WESTERN RIVERSIDE COUNTY
MULTIPLE SPECIES HABITAT CONSERVATION PLAN
CONSISTENCY ANALYSIS**

***DPR 22-00006, SPA 22-05047
TPM 22-05048***

**APNS 302-130-002, 302-130-008, 302-130-018, 302-130-021,
302-130-022, 302-130-023, 302-130-024, AND 302-130-027**

LOCATION:

Southeast corner of the intersection of Perris Boulevard and Perry Street in the City of Perris, Riverside County, California. The site is mapped in a portion of Section 5, Township 4 South and Range 3 West of USGS Topographic Map, 7.5 Minute Series, Perris, California Quadrangle.

OWNER/APPLICANT:

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REPORT DATE:

May 12, 2022

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**"90 Day Letter Report of Dry Season Vernal Pool
Branchipod Sampling for OLC3 Perris Project in
Riverside County, California"**

REPORTS SUBMITTED UNDER SEPARATE COVERS

**MSHCP Narrow Endemic Plant Species and Criteria
Area Species Focused Surveys**

Nesting Season Survey for the Burrowing Owl

INTRODUCTION

Principe and Associates was hired by Optimus Building Corporation to prepare a Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Consistency Analysis on 48.1 acres of land located at the southeast corner of the intersection of North Perris Boulevard and Perry Street in the City of Perris, Riverside County, California (**Site Vicinity Map**). The site is mapped in portions of Section 5, Township 4 South and Range 3 West of USGS Topographic Map, 7.5 Minute Series, Perris, California Quadrangle (**USGS Location Map**). The eight Assessor's Parcel Numbers are 302-130-002, 302-130-008, 302-302-130-021, 302-130-022, 302-130-023, 302-130-024, and 302-130-027.

Section 1 of this report describes the project and the project site. Section 2, 'Environmental Assessment', describes the topographic, hydrographic, soils, and biological environments present on the site. The purpose of Section 3, 'Consistency Analysis', is to identify and discuss (1) how the site relates to MSHCP Reserve Assembly and (2) how the site meets requirements of MSHCP Implementation Structure (Sections 6.1.1, 6.1.2, 6.1.3, 6.1.4, 6.3.2, and 6.4). To show consistency with Sections 6.1.2, 6.1.3 and 6.3.2 of the MSHCP, focused surveys for Fairy Shrimp, Narrow Endemic Plant Species, Criteria Area Species, and the Burrowing Owl have been conducted to complete this MSHCP Consistency Analysis. Thresholds of Significance presented in Section 4 are used to determine the significance of environmental impacts. Levels of Significance (*i.e.*, Potentially Significant Impact, Less Than Significant Impact, etc.) are then applied to a checklist of questions (Thresholds BIO A-F) addressing biological resources to be answered during the initial assessment of a project. Section 5 lists Project Design Features and Mitigation Measures That Reduce Impacts, if any.

The County of Riverside, eight (8) additional land jurisdictions, and approximately fourteen (14) cities adopted the Western Riverside County MSHCP in 2003. The MSHCP is a habitat conservation plan formed and permitted under the Federal Endangered Species Act (FESA). The MSHCP builds upon existing preserves and attempts to provide connectivity and wildlife corridors, and proposes to conserve approximately 500,000 acres and 146 different species. Approximately 347,000 acres are anticipated to be conserved on existing Public/Quasi-Public lands with additional contributions of approximately 153,000 acres acquired from private land owners. The MSHCP establishes seven (7) core reserve areas and associated linkages between proposed and existing core areas. The MSHCP provides a Section 10(a) take permit under the FESA for property owners, developers, and participating public agencies.

CONCLUSIONS

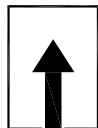
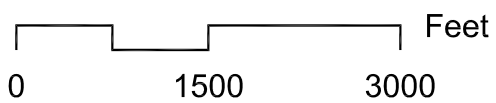
The Non-Native Grasslands and Disturbed/Developed Lands vegetation and habitat extant at the site are not considered to be significant biological resources, nor do they possess unique characteristics (*i.e.*, washes, streams, oak trees, juniper trees, and rock outcroppings). Specifically, the following resources are not present at the site:

- Species identified as a candidate, sensitive, or special status species,
- Riparian habitat and/or other sensitive natural plant communities,



Source of Aerial Photo: Google Earth 8/2021

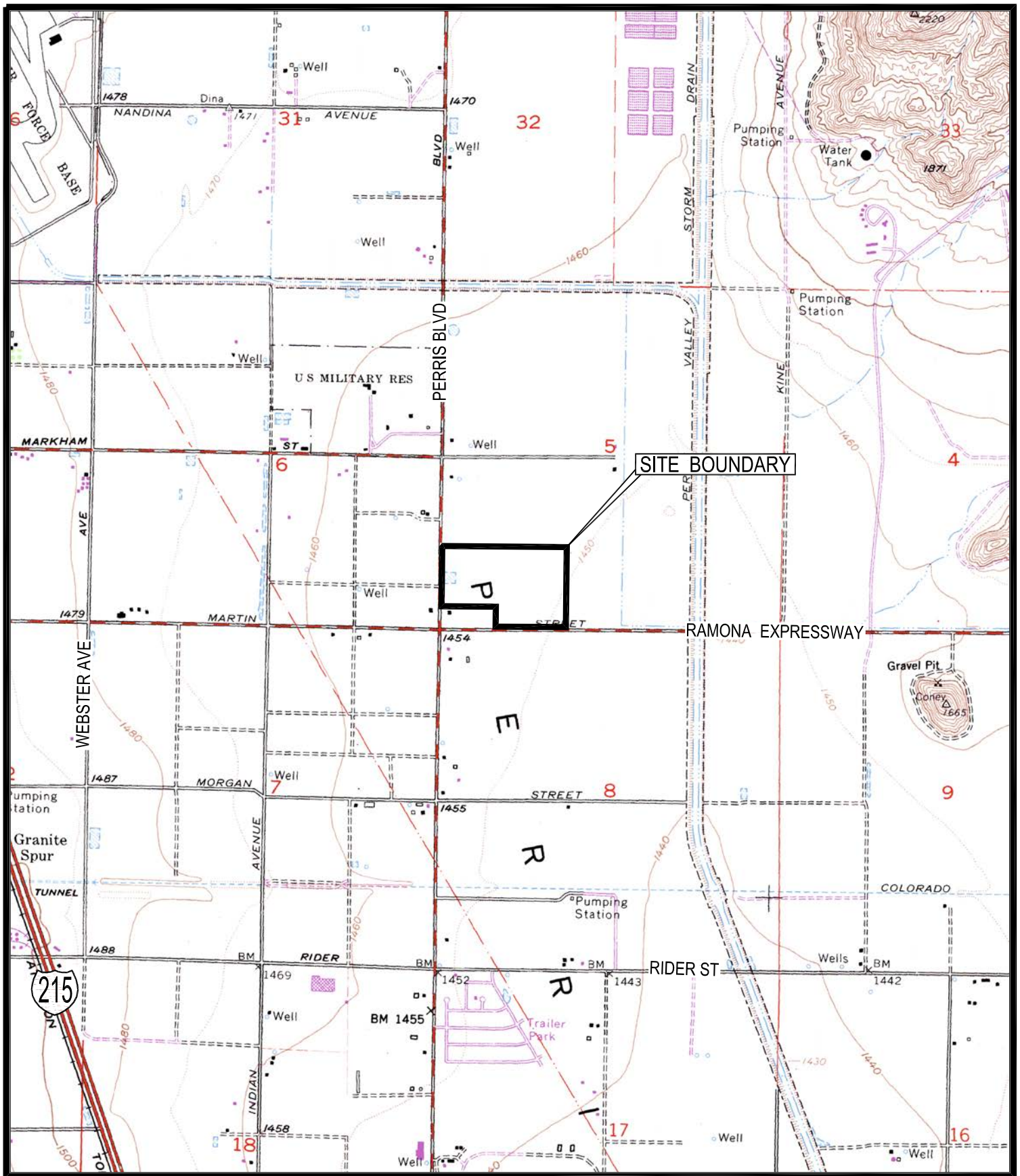
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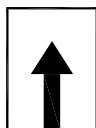
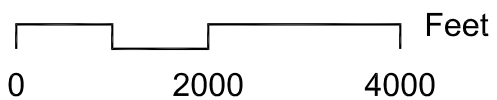
SITE VICINITY MAP

DPR 22-00006, SPA 22-05047, TPM 22-05048

PRINCIPE AND ASSOCIATES



Base Map Source: USGS 7.5 Min.
Perris, Calif. Quad.



USGS LOCATION MAP

DPR 22-00006, SPA 22-05047, TPM 22-05048

PRINCIPE AND ASSOCIATES

- Federally protected wetlands,
- Native resident or migratory fish and wildlife species movement corridors, established native resident or migratory wildlife corridors, and/or native wildlife nursery areas, and/or
- Protected biological resources

Focused surveys for Federally Endangered and Threatened Fairy Shrimp, Narrow Endemic Plant Species, Criteria Area Species, and the Burrowing Owl were all negative.

The analyses of impacts on biological resources resulting from development of the proposed project have determined that, overall, the proposed project does not create an impact on biological resources. In the case of impacts on migratory birds and burrowing owls, it was determined that the proposed project will have less than significant impacts when specific mitigation measures to reduce and/or eliminate the impacts are implemented.

It was also determined that the proposed project will not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. The development and operation of the proposed project is consistent with Sections 6.1.1, 6.1.2, 6.1.3, 6.1.4, 6.3.2, and 6.4 of the MSHCP.

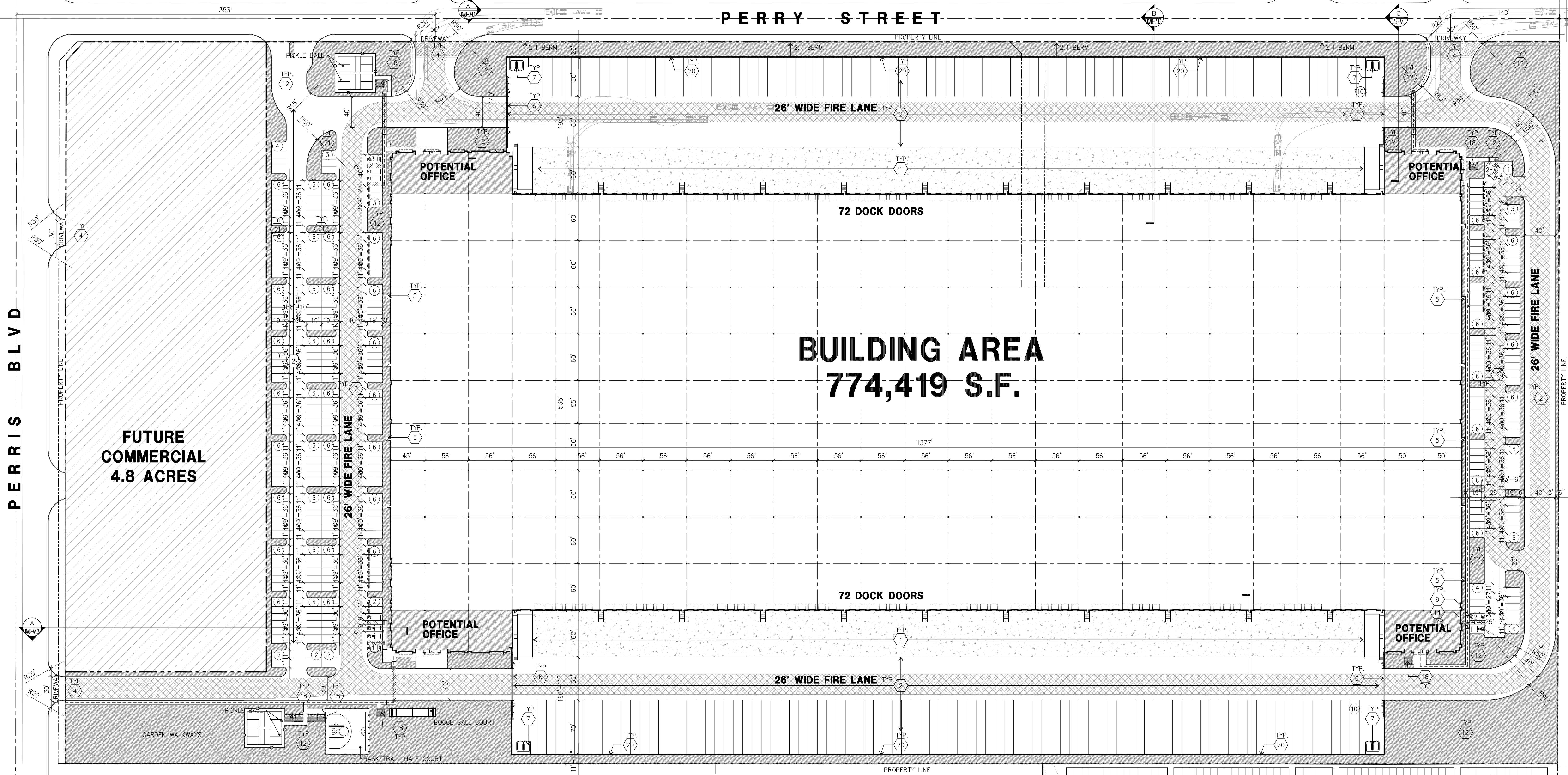
The proposed project will also incorporate features to ensure that the quantity and quality of the runoff water discharged off the site is not altered in an adverse way when compared with existing conditions. Stormwater facilities shall be designed to prevent the release of elements that might degrade or harm biological resources or ecosystem processes downstream. The basic concept will be that all of the storm water runoff generated by the project will be directed to water quality basins or similar facilities where it will be treated.

SECTION 1. PROJECT AND SITE DESCRIPTIONS

1.1 Project Description

Warehouse development would occur within the central portion of the Project site. The warehouse building would include 774,419 total square feet of a high-cube fulfillment center warehouse building that includes 20,000 square feet of planned office area (**Conceptual Site Plan**). The tenant is not known at this time; therefore, for purposes of analysis, it is assumed that the building square footage would be operated as a high-cube fulfillment center warehouse, and the building could operate 24 hours a day, seven days a week.

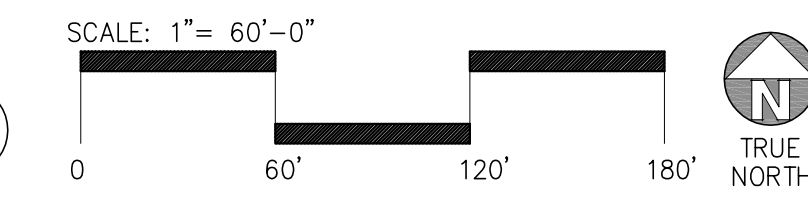
The building would comply with applicable standards and guidelines outlined in the Perris Valley Commerce Center Specific Plan (PVCCSP) related to architecture and, in general, would have a modern industrial design. The building would have a maximum building height of 50 feet. Required indoor and outdoor employee amenities would also be provided.



**BUILDING AREA
774,419 S.F.**

**FUTURE
COMMERCIAL
4.8 ACRES**

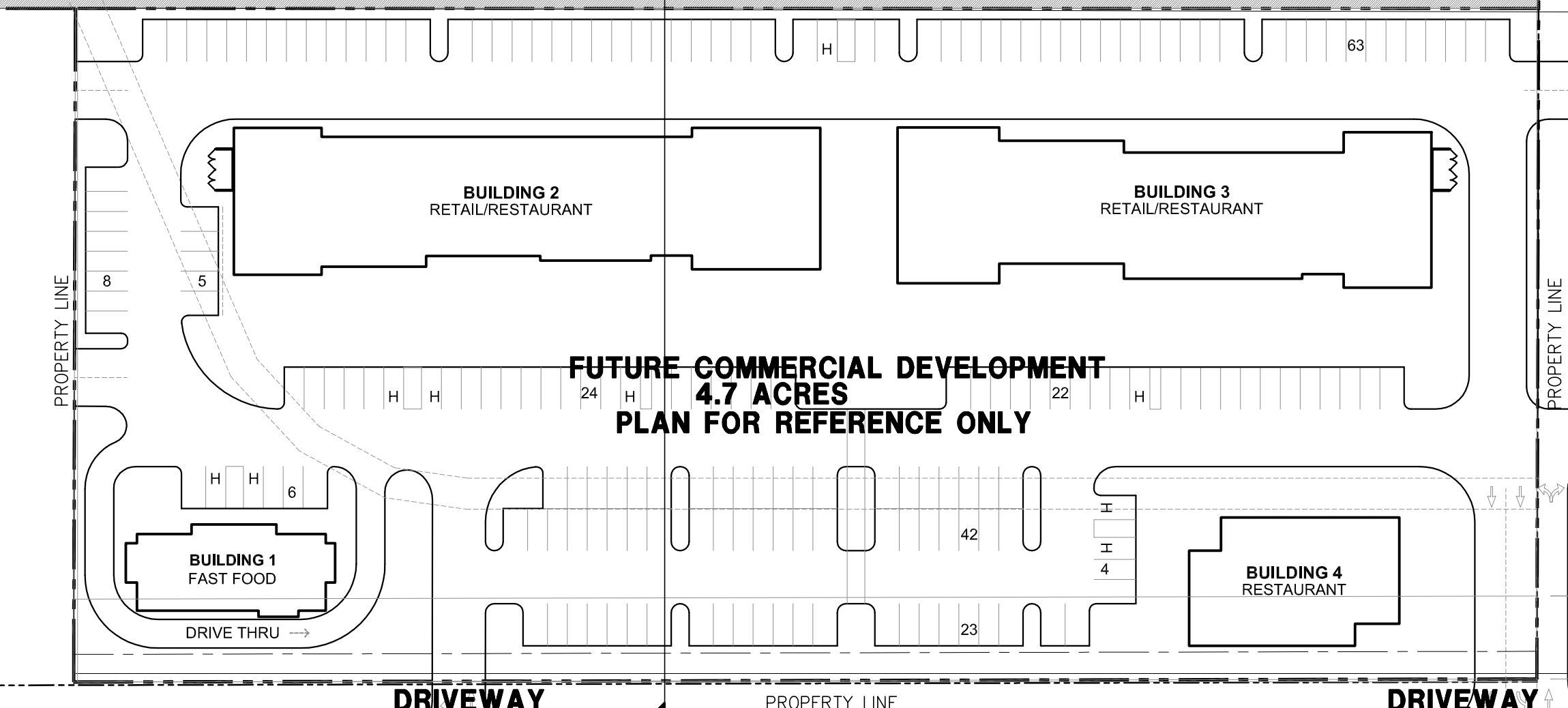
OVERALL SITE PLAN
scale: 1"= 60'-0" **A**



NOTE: OFFICE SQUARE FOOTAGE IS ONLY SPECULATIVE AT THIS MOMENT NOT TO EXCEED 20K SF, WHICH IS BELOW 10%.

PROJECT DATA

SITE AREA	
In s.f.	1,568,647 s.f.
In acres	36.01 ac
BUILDING AREA	
Office - 1st floor	10,000 s.f.
Office - 2nd floor	10,000 s.f.
Warehouse	754,419 s.f.
TOTAL	774,419 s.f.
COVERAGE	49.4%
AUTO PARKING REQUIRED	
High Cube:	
Office: 1/300 s.f. (if exceeds 10% of GFA)	n/a
Whse: 1st 20K @ 1/1,000 s.f.	20 stalls
2nd 20K @ 1/2,000 s.f.	10 stalls
above 40K @ 1/5,000 s.f.	147 stalls
Total parking required	177 stalls
AUTO PARKING PROVIDED	
Standard (9' x 19')	325 stalls
TRAILER PARKING PROVIDED	
Trailer (12' x 45')	177 stalls
ZONING ORDINANCE FOR CITY	
Zoning Designation - Light Industrial (LI)	
MAXIMUM BUILDING HEIGHT ALLOWED	
Height - 50'	
MAXIMUM BUILDING COVERAGE	
Coverage - 50%	
LANDSCAPE REQUIREMENT	
Percentage - 12%	
LANDSCAPE PROVIDED	
Percentage	13.7%
in s.f.	215,000 s.f.
SETBACKS	
Perry street - 10'	
Ramona Expy - 25'	
Perris Blvd. - 25'	
Side/Rear - None	

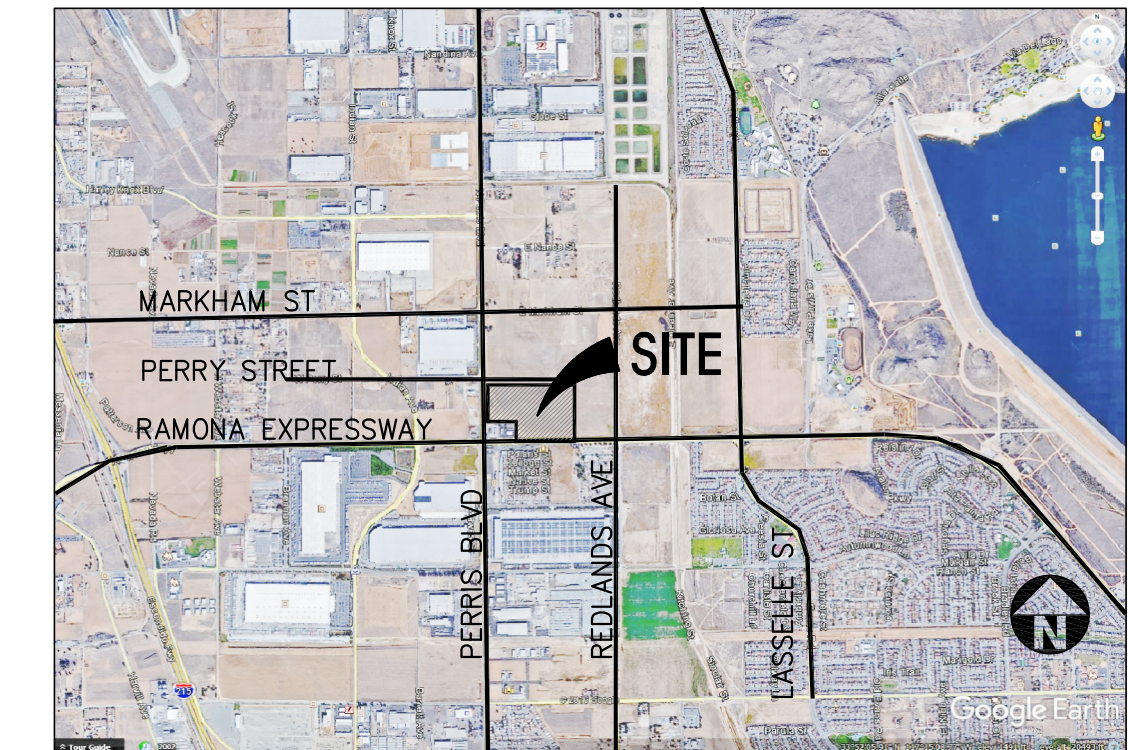


RAMONA EXPRESSWAY

PROJECT DATA BLOCK

PVCCSP Development Standards for LI	Required	Provided
Minimum Lot Size	15,000 SF	1,775,193 SF
Lot Coverage by Structure	50% max	48.9%
Floor Area Ratio (FAR)	0.75 FAR	0.50 FAR
Structure Height	50' max	50'
Front Setback (Local/Collector)- taken from Patterson	25' (10'+5' per 10' of structure height over 20')	140'
Side Setback (non-residential)	None	N/A
Street Side Setback	25' (10'+5' per 10' of structure height over 20')	226'-4"(Perry Blvd) 140'-0"(Perris Street)
Rear Setback	0'	N/A
Perimeter Landscaping (P.M.C. 19.02.130 and 19.44.660)	5'	10' & 3'-6"
Entries/parking/loading Enhanced Landscape Screening	Required	Provided screen wall
Site Landscape Coverage	12%	12.3 %

VICINITY MAP



PROPERTY OWNER

OPTIMUS BUILDING CORPORATION
629 DUFRANC AVE.
SEBASTOPOLE, CA 95472

ADDRESS OF THE PROPERTY

TBD

ASSESSOR'S PARCEL NUMBER

302-130-02 and 08 / 302-130-018 / 302-130-027
302-130-021, 022, 023 AND 024

LEGAL DESCRIPTION

LOT 2 AND 7 IN BLOCK 12 OF THE RIVERSIDE TRACT, AS SHOWN BY MAP ON FILE IN BOOK 14 PAGE 688 OF MAPS, SAN DIEGO COUNTY OF RECORDS, EXCEPTING THEREFROM THAT PORTION OF SAID LOT 7 CONVEYED TO THE COUNTY OF RIVERSIDE FOR FREEWAY PURPOSES BY DEED FILED FOR RECORD DECEMBER 8, 1958 IN BOOK 2376, PAGE 491 OFFICIAL RECORDS.
PARCEL 2 OF PARCEL MAP NO. 5467, AS PER PLAT RECORDED IN BOOK 10 OF PARCEL MAPS PAGE 43, IN THE OFFICE OF THE COUNTY RECORDS OF SAID COUNTY.
PARCELS 1,2,3 AND 4 OF PARCEL NO. 14242 RECORDED IN BOOK 89 PAGES 91 AND 92, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.
PARCEL 1 OF THAT CERTAIN LOT LINE ADJUSTMENT NO. 02/90, RECORDED MARCH 13, 1990 AS INSTRUMENT NO. 089441 OF OFFICIAL RECORDS OF COUNTY OF RIVERSIDE, CALIFORNIA, DESCRIBED AS FOLLOWS: PARCEL 3 AND EAST 421.77 OF PARCEL 4 OF PARCEL MAP NO. 5467 AS SHOWN BY MAP ON THE FILE BOOK 10 PAGE 43 OF PARCEL MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA

ZONING

COMMERCIAL ZONING
PROPOSED LIGHT INDUSTRIAL ZONING

APPLICANT

KELLY OLAUSON
OPTIMUS BUILDING CORPORATION
629 DUFRANC AVE.
SEBASTOPOLE, CA 95472

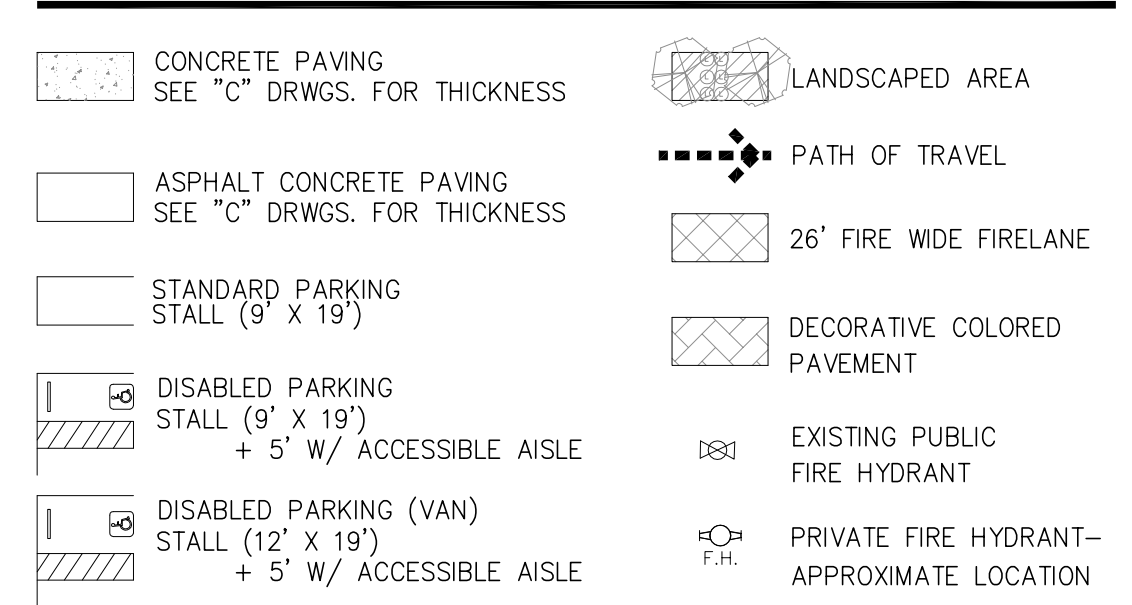
APPLICANT'S REPRESENTATIVE

HPA, INC.
18831 BARDEEN AVE SUITE 100
IRVINE, CA 92612
TEL: 949-863-2126
ATTN: RUBEN CHOI

SITE PLAN KEYNOTES

- HEAVY BROOM FINISH CONCRETE PAVEMENT.
- ASPHALT CONCRETE (AC) PAWING.
- CONCRETE WALKWAY, MEDIUM BROOM FINISH.
- DECORATIVE COLORED DRIVEWAY APRONS TO BE CONSTRUCTED.
- 5'-6"x5'-6"x4" THICK CONCRETE EXTERIOR LANDING PAD TYP. AT ALL EXTERIOR MAN DOORS TO LANDSCAPED AREAS. FINISH TO BE MEDIUM BROOM FINISH.
- PROVIDE 8" HIGH METAL GATES W/ KNOX-BOX PER FIRE DEPARTMENT STANDARDS PER DRIVEWAY.
- TRASH ENCLOSURE PER CITY STANDARD.
- APPROXIMATE LOCATION OF TRANSFORMER.
- PRE-CAST CONCRETE WHEEL STOP.
- CONCRETE FILLED GUARD POST 6" DIA. U.N.O. 42" H.
- DESIGNATED SMOKING AREA.
- LANDSCAPE. ALL LANDSCAPE AREAS INDICATED BY SHADING.
- ACCESSIBLE ENTRY SIGN.
- ACCESSIBLE PARKING STALL SIGN.
- 8" HIGH CONCRETE TILT-UP SCREEN WALL.
- 42" HIGH CONCRETE GUARDWALL.
- TRUNCATED DOME.
- EMPLOYEE BREAK AREA.
- EXTERIOR BIKE RACK.
- 14" HIGH DECORATIVE SCREENWALL.
- RAISED LANDSCAPE PLANTER.

SITE LEGEND



SITE PLAN GENERAL NOTES

- THE SITE PLAN BASED ON THE SOILS REPORT PREPARED BY: TBD.
- IF SOILS ARE EXPANSIVE IN NATURE, USE STEEL REINFORCING FOR ALL SITE CONCRETE.
- ALL DIMENSIONS ARE TO THE FACE OF CONCRETE WALL, FACE OF CONCRETE CURB OR GRID LINE U.N.O.
- SEE "C" PLANS FOR ALL CONCRETE CURBS, GUTTERS AND SWALES.
- THE ENTIRE PROJECT SHALL BE PERMANENTLY MAINTAINED WITH AN AUTOMATIC IRRIGATION SYSTEM.
- SEE "C" DRAWINGS FOR POINT OF CONNECTIONS TO OFF-SITE UTILITIES. CONTRACTOR SHALL VERIFY ACTUAL UTILITY LOCATIONS.
- PROVIDE POSITIVE DRAINAGE AWAY FROM BLDG. SEE "C" DRAWINGS.
- CONTRACTOR TO REFER TO "C" DRAWINGS FOR ALL HORIZONTAL CONTROL DIMENSIONS. SITE PLANS ARE FOR GUIDANCE AND STARTING LAYOUT POINTS.
- SEE "C" DRAWINGS FOR FINISH GRADE ELEVATIONS.
- CONCRETE SIDEWALKS TO BE A MINIMUM OF 4" THICK W/ TOOLED JOINTS AT 6" O.C. EXPANSION/CONSTRUCTION JOINTS SHALL BE A MAXIMUM 12' EA. WAY. EXPANSION JOINTS TO HAVE COMPRESSIVE EXPANSION FILLER MATERIAL OF 1/4" FINISH TO BE A MEDIUM BROOM FINISH U.N.O.
- PAINT CURBS AND PROVIDE SIGNS TO INFORM OF FIRE LANES AS REQUIRED BY FIRE DEPARTMENT.
- CONSTRUCTION DOCUMENTS PERTAINING TO THE LANDSCAPE AND IRRIGATION OF THE ENTIRE PROJECT SITE SHALL BE SUBMITTED TO THE BUILDING DEPARTMENT AND APPROVED BY PUBLIC FACILITIES DEVELOPMENT PRIOR TO ISSUANCE OF BUILDING PERMITS.
- PRIOR TO FINAL CITY INSPECTION, THE LANDSCAPE ARCHITECT SHALL SUBMIT A CERTIFICATE OF COMPLETION TO PUBLIC FACILITIES DEVELOPMENT.
- ALL LANDSCAPE AND IRRIGATION DESIGNS SHALL MEET CURRENT CITY STANDARDS AS LISTED IN GUIDELINES OR AS OBTAINED FROM PUBLIC FACILITIES DEVELOPMENT.
- LANDSCAPED AREAS SHALL BE DELINEATED WITH A MINIMUM SIX INCHES (6") HIGH CURB.
- ALL GROUND MOUNTED UTILITY STRUCTURES SUCH AS TRANSFORMERS, HVAC EQUIPMENT AND BACK FLOW PREVENTION VALVES SHALL BE LOCATED OUT OF VIEW FROM A PUBLIC STREET OR ADEQUATELY SCREENED THROUGH THE USE OF LANDSCAPING AND/OR MASONRY WALLS.
- ALL LIGHTING FIXTURES TO BE FULLY SHIELDED WITH CUT-OFF FIXTURES THAT EMITS GLARE ONTO ADJACENT PROPERTIES.
- PARKING AREA LIGHTING TO BE PROVIDED PURSUANT TO SECTION 19.02.110.0 OF PVCC SPECIFIC PLAN.
- CHAIN-LINK FENCE IS NOT A PERMITTED FENCING MATERIAL PER THE PVCCSP.

The Project proposes commercial retail/restaurant uses within the approximately 4.6-acre southern commercial site fronting on Ramona Expressway and future development of retail and restaurant uses within the approximately 4.8-acre western commercial site fronting on Perris Boulevard. The proposed commercial development within the southern commercial site would include approximately 45,000 square feet of retail and food uses. Future commercial development within the western commercial site would include approximately 25,000 square feet of retail and food uses. The buildings would have a maximum building height of 45 feet.

The Project would provide two automobile access driveways to future commercial uses within the western commercial site fronting Perris Boulevard, as well as two truck and automobile access driveways off of Perry Street. The southern retail component would have two driveways on Ramona Expressway. The proposed warehouse site plan includes 298 automobile parking stalls, 144 truck docks, and 174 trailer parking stalls. The southern commercial site plan includes 212 automobile parking spaces, while the western commercial site plan includes 172 automobile parking spaces. Bike racks would also be provided.

Landscaped parkways would be provided along Ramona Expressway. 14-foot-high concrete screening walls would be provided along the boundary between the proposed retail and warehouse uses, and along the warehouse facility's Perry Street frontage on the north. Landscaping would be provided along the Ramona Expressway and Perris Boulevard frontages of the retail portions of the Project site. Landscaping would be provided along the entire site perimeter of both the warehouse and retail portions of the Project site. Approximately 12.1 percent of the warehouse portion of the Project site would be landscaped. Onsite exterior lighting would be provided throughout the warehouse and retail portions of the Project site as required for security and wayfinding.

The Project would include the installation of on-site storm drain (planned Line E storm drain), water quality, water, sewer, electric, natural gas, and telecommunications infrastructure systems to serve the proposed warehouse and retail uses. The onsite utility infrastructure would connect to existing utilities in the vicinity of the Project site or new utility lines that would be installed within the public right-of-way adjacent to the Project site.

1.2 Site Description

The site is currently vacant and undeveloped with structures. The site is primarily comprised of disturbed vegetation and habitat that is dominated by a low carpet of non-native grass and weeds. Native vegetation and habitats within site boundaries have been eliminated due to long-term disturbances associated with agricultural and weed abatement activities (*i.e.*, chain-flail mowing, disking, tilling, etc.) that have resulted in heavily disturbed and compacted surface soils. One large detention basin is present in the western portion of the site where wind-blown trash accumulates. It is also used for illegal trash dumping. An abandoned water stack likely used for previous agricultural land uses is located towards the middle of the property.

Aerial photographs were reviewed to evaluate past land use patterns at the site and in the surrounding areas. The photos were taken in the following years: 1938, 1949, 1953, 1961, 1966, 1967, 1978, 1985, 1989, 1996, 1997, 2002, 2005, 2006, 2009, 2010, 2012, 2014, 2016, 2018, and 2020. The review revealed that during the years between 1938 and 1985 the site was undeveloped, vacant and in a rural agricultural setting. The aerial photographs taken in 1949, 1953 and 1961 show agricultural land uses occurring on the majority of the site. The detention basin is first apparent on the 1966 aerial photograph, as well as the drainage ditch located along the north side of the Ramona Expressway.

From 1985 to the present, the site remained undeveloped and vacant as the surrounding area was experiencing residential, commercial and industrial development. The aerial photograph from 1997 shows that the southwest corner of the site had been cleared and was being used as a staging area for the commercial development occurring at the intersection of North Perris Boulevard and the Ramona Expressway. That cleared area has remained disturbed ever since the development was completed, and is being used for trailer truck parking on a daily basis.

SECTION 2. ENVIRONMENTAL SETTING

2.1 Topography

Site topography is flat-lying and featureless. Natural topography has been completely altered in the past by long-term disturbances associated with agricultural and weed abatement activities (*i.e.*, chain-flail-mowing, disking, tilling, etc.). There are no boulder or rock outcrops on the site.

Elevation in the northern and western portions of the site is 1456 feet, while the elevation in the eastern and southern portions is 1452 feet. There is a slight change in elevation of four feet between across the site (1456→1452 feet). A manufactured slope is present along the north property line adjacent to Perry Street. The majority of the site is located 10-15 feet below the elevation of Perry Street.

2.2 Hydrography and Drainage

Natural watercourses of any kind are not present on the site (*i.e.*, perennial or intermittent blueline streams, ephemeral drainages, historical drainages, etc.). The San Jacinto River is located approximately 4.5 miles southeast of the site. Due to the low elevation at the site, most of it is located within the 100-year flood limit.

The site consists of vacant, undeveloped land that drains gradually northwest to southeast over varying terrain with a flow slope of 0.3 percent. It has been farmed and graded in the past, and shows evidence of continued disturbance and compaction. The runoff from the site is primarily overland flow or downslope movement of storm water runoff (sheet flow) originating on the slightly higher elevated terrain located in the northern and western portions of the site. The storm water runoff is characterized by low volume,

infrequent and short duration flows that only occur during and after precipitation events. There are no flow paths through the site. The ultimate outfall is the southeast corner of the site into the existing drainage ditch constructed adjacent to the Ramona Expressway. Drainage in the westernmost portion of the site now drains into the new storm water and flood control conveyance systems constructed when North Perris Boulevard was improved (circa 2016). The site is within the Perris Valley Master Drainage Plan, with the proposed Line E regional storm drain traversing the southwest corner of the property

2.3 Soils

Review of the “Soil Survey of Western Riverside Area, California” revealed that the surficial soils at the site are included in the Traver-Domino-Willows Association (Soils of the Southern California Coastal Plain). Within this association, five soil types have been mapped on the site (**Soils Map**):

- Dv – Domino silt loam, 0-2 percent slopes (saline-alkali)
- EnA – Exeter sandy loam, 0 to 2 percent slopes
- EpA - Exeter sandy loam, deep, 0 to 2 percent slopes
- HcA – Hanford coarse sandy loam, 0 to 2 percent slopes
- PaA - Pachappa fine sandy loam, 0 to 2 percent slopes

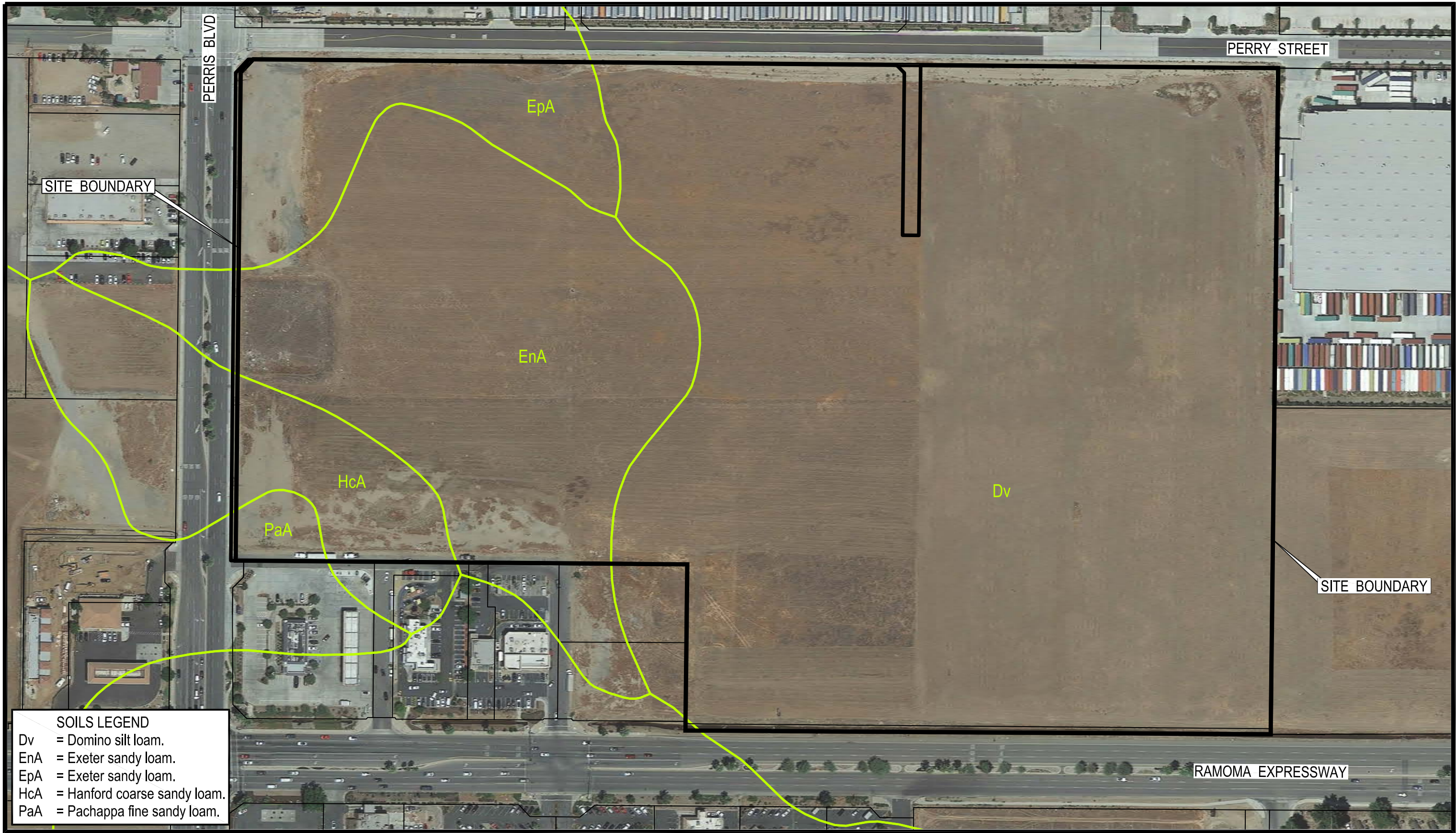
2.4 Vegetation Associations and Species Composition

Based on the Habitat Accounts described in Volume 2 of the MSHCP, the Vegetation Association occurring on the site is classified as Grasslands (41.1 acres) (**Biological Resources Map**). Disturbed/Developed Lands account for the remaining surface area of the site (7.0 acres).

The **Grasslands Vegetation Association** occurs throughout most of Western Riverside County, and covers approximately 11.8% (154,421 acres) of the Plan Area. The **Non-native grasslands Vegetation Subassociation** is growing on the site. Non-native grasslands occur throughout the majority of the Plan Area (11.6%), usually within close proximity to urbanized or agricultural land uses.

Non-native grasslands are primarily composed of annual grass species introduced from the Mediterranean basin and other Mediterranean-climate regions with variable presence of non-native and native herbaceous species. Species composition of Non-native grasslands may vary over time and place based on grazing or fire regimes, soil disturbance and annual precipitation patterns. Non-native grasslands typically produce deep layers of organic matter which is inversely related to the abundance of non-native and native species.

Non-native grasslands also typically support an array of annual species from the Mediterranean-climate regions. Low abundances of native species are sometimes present within Non-native grasslands.



SITE BOUNDARY

PERRY STREET

PERRIS BLVD

EpA

EnA

HcA

PaA

Dv

SITE BOUNDARY

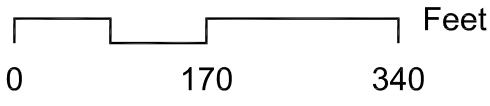
RAMOMA EXPRESSWAY

SOILS LEGEND

Dv	= Domino silt loam.
EnA	= Exeter sandy loam.
EpA	= Exeter sandy loam.
HcA	= Hanford coarse sandy loam.
PaA	= Pachappa fine sandy loam.

Source of Aerial Photo: Google Earth 8/2021

Scale: 1"= 170'



SOILS MAP

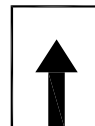
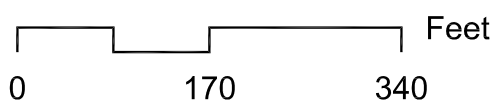
DPR 22-00006, SPA 22-05047, TPM 22-05048

PRINCIPE AND ASSOCIATES



Source of Aerial Photo: Google Earth 8/2021

Scale: 1"= 170'



BIOLOGICAL RESOURCES MAP

DPR 22-00006, SPA 22-05047, TPM 22-05048

PRINCIPE AND ASSOCIATES

Non-native grasslands cover the majority of the site surface. It is growing on all previously disturbed areas that were historically disced for agricultural land uses and more recently for weed abatement to reduce fuel loads in areas where fire could threaten both human safety and property. Species composition is not diverse, but a few of the species are very abundant. The low-growing grasses and weeds form a continuous and dense cover on the surface of the site. Most of it is dominated by common and widespread non-native grass and weed species, but a few native annual species were also present. Dicot species include *dog mayweed (*Anthemis cortula*), *prickly lettuce (*Lactuca serriola*), *common groundsel (*Senecio vulgaris*), *stink-net (*Oncosiphon piluliferum*), *shortpod mustard (*Brassica geniculata*), *tumble mustard (*Sisymbrium altissimum*), *London rocket (*Sisymbrium irio*), *Russian-thistle (*Salsola tragus*), *field bindweed (*Convolvulus arvensis*), *long-beak filaree (*Erodium botrys*), and *cheeseweed (*Malva parviflora*).

Monocot species include *wild oat (*Avena sativa*), *common ripgut grass (*Bromus diandrus*), *red brome (*Bromus madritensis* subsp. *rubens*), *glaucous barley (*Hordeum murinum* subsp. *glaucum*), *hare barley (*Hordeum murinum* subsp. *leporinum*), *annual bluegrass (*Poa annua*), and *rattail fescue (*Vulpia myuros* var. *myuros*).

The only native species discovered in the Non-native grasslands was common fiddleneck (*Amsinckia menziesii* var. *intermedia*).

Disturbed/Developed Land

Weed communities are common in urban areas, often occurring on roadsides and abandoned areas. In larger areas these weed populations may represent the early stages of natural succession. Some of these areas are known as ruderal communities. A ruderal community occupies waste areas, roadsides often on heavily compacted soils with little available oxygen

Disturbed/Developed Lands are located around the perimeter of most of the site. This disturbed habitat supports non-native grasses and weeds growing on disturbed ground, manufactured slopes, stockpiles of excavated earthen materials, gravel, and soils compacted by trailer trucks and construction equipment.

Non-native species observed include *prostrate pigweed (*Amaranthus blitoides*), *prickly lettuce, *common groundsel *stink-net, *shortpod mustard *Australian saltbush (*Atriplex semibaccata*), *Russian-thistle, *long-beak filaree, *Bermuda grass (*Cynodon dactylon*), *hare barley, *Mediterranean schismus (*Schismus barbatus*), and *rattail fescue.

One native species, southern goldfields (*Lasthenia coronaria*) was found growing in the southwest corner of the site only during the February survey. This species was confined to a patch approximately one-tenth of an acre in size located in the disturbed area

*Denotes non-native species throughout the text

Nomenclature after Roberts, Jr., Fred M., Scott D. White, Andrew C. Sanders, David E. Bramlet, and Steve Boyd. 2004.

previously used as a staging area for the commercial development occurring at the intersection of North Perris Boulevard and the Ramona Expressway. It usually occurs in coarse sandy upland soils which are present in this portion of the site.

Since the emergent non-native vegetation growing on the banks and in the channel of the ditch were manually removed and a herbicide was applied in March 2022, *alfalfa (*Medicago sativa*) and *English plantain (*Plantago lanceolata*) are the only two species growing in abundance along the channel and banks of the drainage ditch.

2.5 Wildlife Species Observed

A low abundance and diversity of wildlife was observed at the site likely due to the absence of native wildlife habitats present there. All wildlife species were observed in the Non-native grasslands. The species composition consists of common and opportunistic species that are adapted to exploit available habitats or resources in close proximity to man. Species observed include the western fence lizard (*Sceloporus occidentalis*), side-blotched lizard (*Uta stansburiana*), mourning dove (*Zenaida macroura*), American crow (*Corvus brachyrhynchos*), horned lark (*Eremophila alpestris*), northern rough-winged swallow (*Stelgidopteryx serripennis*), Savannah sparrow (*Passerculus sandwichensis*), white-crowned sparrow (*Zonotrichia leucophrys*), western meadowlark (*Sturnella neglecta*), house sparrow (*Passer domesticus*), and California ground squirrel (*Spermophilus beecheyi*).

Diagnostic animal signs were limited to Botta's pocket gopher dirt mounds (*Thomomys bottae*), and a juvenile coyote carcass (*Canis latrans*).

2.6 Wildlife Movement Corridors

Wildlife movement corridors link together areas of suitable wildlife habitat that are otherwise separated by rugged terrain, changes in vegetation, by human disturbance, or by the encroachment of urban development. The fragmentation of natural habitat creates isolated 'islands' of vegetation that may not provide sufficient area to accommodate sustainable populations, and can adversely impact genetic and species diversity. Wildlife movement corridors can often mitigate the effects of fragmentation by (1) allowing animals to move between remaining habitats, thereby allowing depleted populations to be replenished, (2) providing escape routes from fire, predators and human disturbances, thus reducing the risk that catastrophic events such as fire or disease will result in population or local species extinction, and (3) serving as travel routes for individual animals as they move within their home ranges in search of food, water, mates, and other needs.

Wildlife movement activities usually fall into one of three categories: (1) dispersal (defined as juvenile animals moving from natal areas and individuals extending range distributions), (2) seasonal migration and (3) movements related to home range activities such as foraging for food or water, defending territories or searching for mates, breeding

areas or cover. A number of terms have been used in various wildlife movement studies, such as wildlife corridor, travel route, habitat linkage, and wildlife crossing, to refer to areas in which wildlife move from one area to another.

Wildlife Movement on the Site

The site is not providing a wildlife movement corridor for juvenile animal dispersals, seasonal migrations, foraging movements for food or water, and/or for searching for mates, breeding areas or cover through this portion of Perris. This portion of Perris is experiencing substantial industrial growth, mostly from the development of logistics facilities. It is no longer located adjacent to expansive open spaces with native habitats. Also, the site does not provide a connection between two or more MSHCP designated or proposed core areas, habitat blocks or linkages that would otherwise be fragmented or isolated from one another that would result from development on the site. It does not contain suitable cover, food or water for species to survive at the site and facilitate movement within a corridor. Therefore, future development at the site will not interfere with the movements of native wildlife species, established native wildlife corridors or uses of native wildlife nursery sites.

SECTION 3. MSHCP CONSISTENCY ANALYSIS

3.1 Western Riverside County MSHCP

Based on the final Western Riverside County MSHCP (adopted June 17, 2003), the eight parcels of land comprising the project site are 'Not A Part' of cell criteria under the MSHCP. The project is not then located within a Cell, Cell Group or Sub Unit of the Mead Valley Area Plan. In addition, the site is located approximately 4.1 miles northwest of the most proximate Western Riverside County Regional Conservation Agency (RCA) Conserved Lands located along a reach of the San Jacinto River. The site is also located approximately 1.2 miles west of the most proximate MSHCP Public/Quasi-Public (PQP) Conserved Lands located at the Lake Perris State Recreation Area.

3.2 Project Relationship to MSHCP Reserve Assembly

As stated above, the site is not located within a designated Cell, Cell Group or Sub Unit of the Mead Valley Area Plan. Therefore, conservation has not been described for this site.

The site is located approximately two miles northeast of the closest MSHCP Criteria Area, Cell #2432 of Cell Group B in the Motte/Rimrock Sub Unit (SU1) of the Mead Valley Area Plan. The MSHCP states that conservation within this Cell Group will contribute to the assembly of Proposed Noncontiguous Habitat Block 4. Proposed Noncontiguous Habitat Block 4 is comprised of the Motte Rimrock Reserve. It provides Habitat for a number of Planning Species, including Quino checkerspot butterfly, coastal California gnatcatcher, and Stephens' kangaroo rat. Maintenance of large intact interconnected habitat blocks is important for these species. Important to MSHCP Reserve Assembly, conservation within

this Cell Group will range from 70%-80% of the Cell Group focusing in the southern portion of the Cell Group B.

The site is located approximately 2.3 miles northeast of the southern portion of Cell Group B where conservation within this Cell Group will contribute to the assembly of Proposed Noncontiguous Habitat Block 4. The site does not have a direct relationship to the assembly of Proposed Noncontiguous Habitat Block 4.

3.3 MSHCP Implementation Structure

In addition, Section 6.0 of the MSHCP, the MSHCP Implementation Structure, imposes all other terms of the MSHCP, including but not limited to the protection of species associated with riparian/riverine areas and vernal pools, narrow endemic plant species, urban/wildlands interface guidelines, and additional survey needs and procedures set forth in Sections 6.1.1, 6.1.2, 6.1.3, 6.1.4, 6.3.2, and 6.4.

Section 6.1.1 - Property Owner Initiated Habitat Evaluation and Acquisition Negotiation Strategy (HANS)

As stated above, the site is not located within an area that has been identified in the MSHCP as an area where conservation potentially needs to occur. A HANS Application will not then have to be reviewed by City of Perris Planning Department staff pursuant to the MSHCP and the City's General Plan.

The project is consistent with Section 6.1.1 of the MSHCP.

Section 6.1.2 - Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools

Natural watercourses with associated riparian vegetation and habitat are not located on the site. Therefore, there are no biological resources present on the site that meet the MSHCP definition of Riparian Areas: *"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"*. The, the biological functions and values of Riparian Areas do not then exist. Suitable riparian habitats for the species listed under 'Purpose' in Volume 1, Section 6.1.2 of the MSHCP are not present there.

A drainage ditch has been excavated on the site along the north side of the Ramona Expressway as long as 56 years ago. Storm water and surface water runoff originating on the slightly higher elevated terrain located in the northern and western portions of the site drains toward the southeast corner of the site. Some of this runoff water drains directly into the drainage ditch. This manmade feature also receives runoff water flow from the Ramona Expressway and other developed areas located northeast and east of the site.

As written, the drainage ditch meets the MSHCP definition of Riverine Areas: “areas with fresh water flow during all or a portion of the year”. There is no riparian vegetation or habitat associated with this ditch. Between the March and April surveys, most of the invasive non-native vegetation growing on the banks and in the channel of the ditch was manually removed, and a herbicide was sprayed on the banks. The biological functions and values of Riverine Areas do not then exist on the site. Suitable riverine habitats for the plant and animal species listed under ‘Purpose’ in Volume 1, Section 6.1.2 of the MSHCP are not present there. Note: The proposed project does not extent into this drainage ditch. The proposed Line E regional storm drain will be constructed approximately 60 feet north of it.

Vernal Pools

Frank Wegscheider conducted Dry Season Surveys for Federally Endangered and Threatened Fairy Shrimp at the site. Survey sampling was authorized under the ESA Section 10(a)(1)(A) and was conducted by Frank Wegscheider (permit #TE-038716-5) in accordance with the U.S. Fish and Wildlife Service (USFWS) Survey Guidelines for the Listed Large Branchiopods (USFWS, 2015). Suitable fairy shrimp habitat was limited to one large detention basin identified within the site. The detention basin was then sampled. The sampled basin contained a very low quantity of fairy shrimp cysts comprising the genus *Branchinecta*. No cysts of the federally listed Riverside fairy shrimp *Streptocephalus woottoni* were found in the sampled detention basin during the 2021 dry season sampling survey (**See “90-Day Letter Report of Dry Season Vernal Pool Branchiopod Sampling for the OLC 3 Perris Project in Riverside County, California” attached**).

Other kinds of aquatic features that could provide suitable habitat for endangered and threatened species of fairy shrimp are not present on the site (e.g. vernal pools or swales, vernal pool-like ephemeral ponds, stock ponds or other human-modified depressions such as tire ruts, etc.).

Waters and Wetlands

Section 404 of the Clean Water Act (CWA) has established a program to regulate the discharge of dredged or fill material into “Waters of the United States”, including wetlands. The Code of Federal Regulations Title 33, Part 328.3 (CFR 33 § 328.3) defines the term “Waters of the United States” to mean:

- The territorial seas, and waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including waters which are subject to the ebb and flow of the tide;
- Tributaries;
- Lakes and ponds, and impoundments of jurisdictional waters; and
- Adjacent wetlands.

Furthermore, Part 328.3 (b) includes 12 features that are not defined as “Waters of the United States”. The following is listed as one of the non-jurisdictional Waters of the United States:

- Ditches that are not waters identified in paragraph (a)(1) or (2) of this section, and those portions of ditches constructed in waters identified in paragraph (a)(4) of this section that do not satisfy the conditions of paragraph (c)(1) of this section;

The onsite drainage ditch does not possess characteristics that meet the definition of a USACE jurisdictional 'Water of the United States'.

Wetlands are defined in USACE 33 CFR § 328.3 as those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

The methodology set forth in the USACE Wetland Manual generally requires that, in order to be considered a wetland, three wetland parameters are used to make a positive wetland determination. The vegetation, soils, and hydrology of an area must exhibit at least minimal hydric characteristics:

- more than 50 percent of the dominant plant species at the site must be typical of wetlands;
- 2) Soils must exhibit physical and/or chemical characteristics indicative of permanent or periodic saturation ("hydric soils"); and
- 3) Hydrologic characteristics must indicate that the ground is saturated to within 12 inches of the surface for at least 5 percent of the growing season during a normal rainfall year (Note: for most of low-lying southern California, 5 percent of the growing season is equivalent to approximately 18 days).

The onsite drainage ditch does not possess characteristics that could be classified as a federally protected wetland as defined by Section 404 of the Clean Water Act. Also, other kinds of perennial or seasonal aquatic features that could be classified as federally protected wetlands are not present on the site (*i.e.*, swamps, marshes, bogs, vernal pools, wet meadows and pastures; springs and seeps, etc.). The site does not have a direct relationship to existing wetland regulations.

The project is consistent with Section 6.1.2 of the MSHCP.

Section 6.1.3 - Protection of Narrow Endemic Plant Species

The site is located within a **Narrow Endemic Plant Species** Survey Area for Rough Step 3. The four Narrow Endemic Plant Species listed for Rough Step 3 include San Diego ambrosia, spreading navarretia, California Orcutt grass, and Wright's trichocoronis. Due to the presence of Domino silt loam (saline-alkaline), a soil growing habitat similar to the required soil habitats described for Narrow Endemic Plant Species, focused surveys were completed at the site. Focused surveys were conducted during the blooming periods for most of the four Narrow Endemic Plant Species. A separate report has been prepared detailing the results of the focused surveys (**see MSHCP Narrow Endemic and Criteria Area Plant Species Focused Surveys report submitted under separate cover**).

During the 2022 survey season, none of the listed MSHCP Narrow Endemic Plant Species were identified at the site. The potential for Narrow Endemic Plant Species to occur on the site has been reduced over the years due to native vegetation and habitat removal by heavy equipment and subsequent annual weed abatement activities including discing, tilling and/or chain flail mowing/discing. These activities resulted in heavily disturbed and compacted soils with little available oxygen that no longer supports native plants or plant communities. Domino silt loam is only exposed on the surface in the northeast corner of the site on manufactured slopes and stockpiles as a result of the construction of Perry Street. Most of the site surface has been succeeded by invasive, non-native species. These low-growing grasses and weeds now form a continuous and dense cover on the surface of the site. There are now only a few openings where listed Narrow Endemic Plant Species could emerge and flourish. It appears that the non-native species have had such a competitive advantage over native species that they have prevented this disturbed area from providing growing habitats for any of them.

As the surveys were conducted in accordance with the standardized guidelines issued by the regulatory agencies, results of the surveys provide reasonable evidence that the target Narrow Endemic Plant Species do not occur on the site.

Within identified Narrow Endemic Plant Species Survey Areas, site-specific focused surveys for targeted species were completed for a private project where appropriate habitat is present. Therefore, focused surveys were necessary to ensure compliance with Section 6.1.3 of the MSHCP, and the California Environmental Quality Act (CEQA).

The project is consistent with Section 6.1.3 of the MSHCP

Section 6.1.4 - Guidelines Pertaining to the Urban/Wildlands Interface

As stated above, the site does not have a direct relationship to the assembly of Proposed Noncontiguous Habitat Block 4. The site is located approximately 2.3 miles northeast of the southern portion of Cell Group B where conservation within this Cell Group will contribute to the assembly of Proposed Noncontiguous Habitat Block 4. As a 250-foot buffer is used in the MSHCP to complete an edge analysis, development at the site will not be subject to the treatment and management of edge conditions necessary to ensure that it provides habitat and movement functions for species using Proposed Noncontiguous Habitat Block 4 as planned adjacent land uses are developed along its edge. The project will not then be subject to the Guidelines Pertaining to the Urban/Wildlands Interface such as lighting, urban runoff, toxics, and domestic predators as presented in *Section 6.1.4 of the MSHCP, Volume 1, The Plan*.

The Guidelines Pertaining to the Urban/Wildlands Interface are intended to address indirect effects associated with locating development in proximity to the MSHCP Conservation Area, where applicable. Prior to the approval of any project, the City of Perris will issue a list of conditions that must be satisfied. Existing local regulations are generally in place that address the same issues presented in the Guidelines Pertaining to the Urban/Wildlands Interface section of the MSHCP. Specifically, the City of Perris

has an approved General Plan, Building Codes and Zoning Ordinances and polices that include mechanisms to regulate the development of land. In addition, project review and impact mitigation that are currently provided through the California Environmental Quality Act process also addresses the same issues that regulate land development. Therefore, a project will not be approved that would result in significant impacts on biological resources.

The project is consistent with Section 6.1.4 of the MSHCP.

Section 6.3.2 - Additional Survey Needs and Procedures

The site is not located in an **Amphibian Survey Area** for Rough Step 3 where additional surveys are needed in conjunction with MSHCP implementation in order to achieve coverage for these species.

The site is located within the **Burrowing Owl Survey Area** for Rough Step 3. Based on the Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area, an independent assessment was made of the presence or absence of suitable burrowing owl habitats on the site and in a 150-meter (± 500 feet) buffer zone around the project boundary on February 2, 2022. The assessment determined that the majority of the site and the buffer zone located immediately east and contiguous with the site were providing suitable habitats consisting of annual grassland on level terrain. Active small mammal burrows appear to be limited to those dug by pocket gophers. Required habitat features capable of being used for roosting and/or nesting were limited on the site, but included abandoned burrows of California ground squirrels with openings 4-inches or greater.

In the buffer zone, only the habitat located south of the site across the Ramona Expressway was providing suitable burrowing owl habitats consisting of annual grassland on level terrain with active small mammal burrows and abandoned California ground squirrel burrows. The existing developed areas surrounding the site located in the buffer zone, including the area under construction located to the west, were not providing suitable burrowing owl habitats, and were not surveyed and were not surveyed.

A Nesting Season Survey report following the survey instructions was prepared (**see Nesting Season Survey for the Burrowing Owl report submitted under separate cover**). Four surveys were conducted between March 14 and May 6, 2022. During the 2022 Nesting Season Survey, burrowing owls were not observed. Required burrowing owl habitats capable of being used for nesting and roosting were not being used. Also, animal signs diagnostic of burrowing owls that are sometimes overlooked were not discovered anywhere on the site or in the buffer zone. There was no evidence of either active habitats presently being used by burrowing owls, or habitats abandoned within the last three years. The site has undergone long-term disturbances related to agricultural and vegetation removal activities such as discing and chain flail mowing. These activities have also resulted in the reduction or extirpation of prey species at the site. The disturbed and degraded nature of the site related to those activities and other human-related activities are likely reasons that burrowing owls do not occupy this site.

Completion of this Nesting Season Survey is consistent with Species Conservation Objective 5 of the MSHCP that was developed for the burrowing owl. To ensure direct mortality of burrowing owls is avoided in the future, a pre-construction presence/absence survey should be conducted within thirty (30) days prior to ground disturbance at the site. The proposed project site would then be consistent with Species Conservation Objective 6 of the MSHCP.

The site is located within a **Criteria Area Species** Survey Area for Rough Step 3. The nine Criteria Area Species listed from Rough Step 3 include San Jacinto Valley crownscale, Parish's brittlescale, Davidson's saltscale, thread-leaved brodiaea, round-leaved filaree, smooth tarplant, Coulter's goldfields, little mousetail, and mud nama. Due to the presence of Domino silt loam (saline-alkaline), a soil growing habitat similar to the required soil habitats described for seven of the Criteria Area Species, focused surveys were completed at the site. Focused surveys were conducted during the blooming periods for most of the seven of the Criteria Area Species. A separate report has been prepared detailing the results of the focused surveys (**see MSHCP Narrow Endemic and Criteria Area Plant Species Focused Surveys submitted under separate cover**).

During the 2022 survey season, none of the listed Criteria Area Species were identified at the site. The potential for Criteria Area Species to occur on the site has been reduced over the years due to native vegetation and habitat removal by heavy equipment and subsequent annual weed abatement activities including discing, tilling and/or chain flail mowing/discing. These activities resulted in heavily disturbed and compacted soils with little available oxygen that no longer supports native plants or plant communities. Domino silt loam is only exposed on the surface in the northeast corner of the site on manufactured slopes and stockpiles as a result of the construction of Perry Street. Most of the site surface has been succeeded by invasive, non-native species. These low-growing grasses and weeds now form a continuous and dense cover on the surface of the site. There are now only a few openings where listed Criteria Area Species could emerge and flourish. It appears that the non-native species have had such a competitive advantage over native species that they have prevented this disturbed area from providing growing habitats for any of them.

As the surveys were conducted in accordance with the standardized guidelines issued by the regulatory agencies, results of the surveys provide reasonable evidence that the target Criteria Area Species do not occur on the site.

Within identified Criteria Area Species Survey Areas, site-specific focused surveys for targeted species were completed for a private project where appropriate habitat is present. Therefore, focused surveys were necessary to ensure compliance with Section 6.3.2 of the MSHCP and CEQA.

The site is not located in a **Mammal Survey Area** for Rough Step 3 where additional surveys are needed in conjunction with MSHCP implementation in order to achieve coverage for these species.

The site is not located in an **Invertebrate Survey Area** for Rough Step 3 where additional surveys are needed in conjunction with MSHCP implementation in order to achieve coverage for these species.

The project is consistent with Section 6.3.2 of the MSHCP

Section 6.4 - Fuels Management

Fuels management focuses on hazard reduction for humans and their property. Fuels management for human safety must continue in a manner that is compatible with public safety and conservation of biological resources. Fuels management for human hazard reduction involves reducing fuel loads in areas where fire may threaten human safety or property, suppressing fires once they have started, and providing access for fire suppression equipment and personnel. It is recognized that brush management to reduce fuel loads and protect urban uses and public health and safety shall occur where development is adjacent to the MSHCP Conservation Area.

The site is not located adjacent to a MSHCP Conservation Area. Based on existing fuels management policies, fuels management will not be required for future land uses at the site. Mass grading to develop the project will result in the removal of the existing Non-native Grasslands and Disturbed/Developed Lands growing on the site that could threaten human safety or property during a fire.

The project is consistent with Section 6.4 of the MSHCP.

SECTION 4. THRESHOLDS OF SIGNIFICANCE

Thresholds of Significance are used by public agencies in the determination of the significance of environmental effects. A Threshold of Significance is an identifiable quantitative, qualitative or performance level of a particular environmental effect. In general, exceeding Thresholds of Significance means the effect will be determined to be significant by the agency, while deceeding Thresholds of Significance means the effect will be determined to be less than significant.

Impacts on biological resources resulting from the proposed project will be based on the following **Levels of Significance**:

- **Potentially Significant Impact** applies where a project is one that has the potential to (1) substantially degrade the quality of the environment, (2) substantially reduce the habitat of a fish or wildlife species, (3) cause a fish or wildlife population to drop below self-sustaining levels, (4) threaten to eliminate a plant or wildlife community, or (5) reduce the number or restrict the range of an endangered, rare or threatened Species (CEQA Section 15065(a)).
- **Less Than Significant Impact with Mitigation Measures Incorporated** applies where a project proponent agrees to mitigation measures or project modifications

- that would avoid any significant effect on biological resources, and/or would mitigate the significant effect to a point where clearly no significant effect on biological resources would occur.
- **Less Than Significant Impact** applies where the project creates no significant impact on biological resources.
- **No Impact** applies where a project does not create an impact on biological resources.

The Levels of Significance are then applied to a checklist of questions addressing biological resources to be answered during the initial assessment of a project. The impacts on biological resources resulting from the proposed project have been analyzed and used to answer the checklist of questions on Thresholds of Significance.

Threshold BIO A - Will the proposed project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Answer: Less Than Significant Impact with Mitigation Measures Incorporated

Prior to beginning the field surveys, a literature review was completed to determine locations and types of plant and wildlife species that could be present in the vicinity of the site. The California Natural Diversity Database (CNDDDB) for the Perris, California Quadrangle and the MSHCP were reviewed for all pertinent information regarding the localities of known observations of listed plant and wildlife species and habitats in the vicinity of the site. Using those database sources, plant and wildlife lists were compiled.

Twelve Federal-, State-, and CNPS-Listed Plant Species have been reported to occur within the Perris quadrangle (**see Appendix I attached**). Based on required growing habitats and geographic ranges, all 12 plant species were determined to be either absent or to have no probability to occur on the site. No additional field surveys are necessary to determine their presence or absence.

Twenty-three Federal- and State-Listed Wildlife Species have been reported to occur within the Perris quadrangle (**see Appendix II attached**). Based on required habitats and geographic ranges, all 23 wildlife species were determined to be either absent or to have no probability to occur on the site. No additional field surveys are necessary to determine their presence or absence.

Thirty-six listed wildlife species and two listed plant species are included in the CNDDDB for the Perris, California Quadrangle from within 1, 2 and 3 miles of the site. The CNDDDB does not include any occurrence records of listed wildlife and plant species on the site.

The Migratory Bird Treaty Act (MBTA) of 1918 (USC 703711) is an international treaty that makes it unlawful to take, possess, buy sell, purchase, or barter any migratory bird listed in 50 CFR Part 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21). In addition, Sections 3503, 3503.5, and 3800 of the CDFG Code prohibit the take, possession, or destruction of birds, their nests or eggs.

Suitable nesting habitats for migratory birds are present on the site. The Non-native grasslands provide potential nesting habitats for ground dwelling bird species. The bird species observed at the site are bird species governed by the MBTA, and are listed in 50 CFR Part 10. The MBTA requires that project-related disturbances at active nesting territories be reduced or eliminated during critical phases of the nesting cycle. The removal of vegetation and/or destruction of nests during the breeding season are considered potentially significant impacts. Compliance with the MBTA would reduce impacts to a less than significant level (**see Section 5. Project Design Features and Mitigation Measures That Will Reduce Impacts below**).

Based on the **Report of Dry Season Vernal Pool Branchiopod Sampling**, no cysts of the federally-listed Riverside fairy shrimp were found in the sampled detention basin during the 2021 dry season sampling survey (see attached).

Based on the **MSHCP Narrow Endemic Plant and Criteria Area Plant Species Focused Surveys** report, none of the listed Narrow Endemic Plant and Criteria Area Species were identified at the site during the 2022 survey season (see attached).

Based on the **MSHCP Nesting Season Survey for the Burrowing Owl** report, burrowing owls were not observed at the site during any of the 2022 nesting season surveys (see attached). To ensure direct mortality of burrowing owls is avoided in the future, compliance with Species Conservation Objective 6 of the MSHCP for the burrow owl is recommended (**see Section 5. Project Design Features and Mitigation Measures That Will Reduce Impacts below**).

The proposed project will not then have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or U.S. Fish and Wildlife Service (USFWS).

<p>Threshold BIO B - Will the proposed project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U. S. Fish and Wildlife Service?</p>

Answer: No Impact

Riparian habitat or other sensitive natural community are not present at the site.

The proposed project will not then have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U. S. Fish and Wildlife Service.

Threshold BIO C - Will the proposed project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Answer: No Impact

Federally protected wetlands are not present on the site.

The proposed project will not then have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

Threshold BIO D - Will the proposed project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery areas?

Answer: No Impact

Native resident or migratory fish or wildlife species movement corridors or established native resident or migratory wildlife corridors, or native wildlife nursery areas are not present on the site.

The proposed project will not then interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery areas.

Threshold BIO E - Will the proposed project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Answer: No Impact

Protected biological resources are not present on the site.

The proposed project will not then conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. Riverside County and The City of Perris land use-based conservation goals and policies are in place to protect:

- the ecological and lifecycle needs of threatened, endangered, or otherwise sensitive species and their associated habitats;
- the groundwater aquifer, water bodies, and water courses, including reservoirs, rivers, streams, and the watersheds located throughout the region, and to conserve and efficiently use water;
- floodplain and riparian areas, wetlands, forest, vegetation, and environmentally sensitive lands; and,
- native oak trees, specimen trees and trees with historical significance (heritage).

Threshold BIO F - Will the proposed project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

Answer: No Impact

The development and operation of the project has been determined to be consistent with Sections 6.1.1, 6.1.2, 6.1.3, 6.1.4, 6.3.2, and 6.4 of the MSHCP (**refer to Pages 14-20 of this report**).

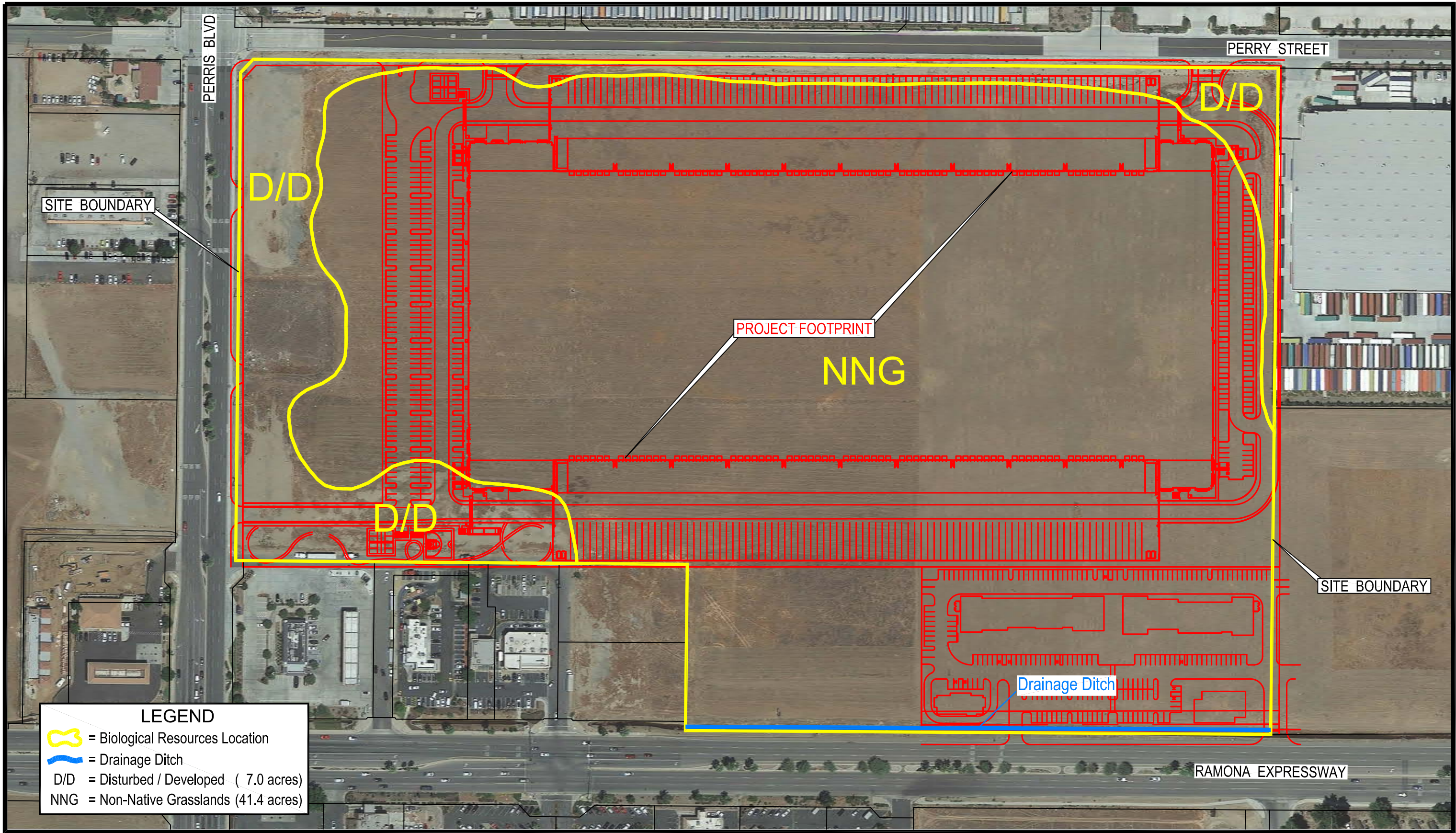
The proposed project will not then conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

In summary, the analyses of impacts on biological resources resulting from development of the proposed project have determined that, overall, the proposed project does not create an impact on biological resources. In the case of impacts on migratory birds and burrowing owls, it was determined that the proposed project will have less than significant impacts when specific mitigation measures to reduce and/or eliminate the impacts are implemented (**Biological Resources/Project Footprint Map**).

SECTION 5. PROJECT DESIGN FEATURES AND MITIGATION MEASURES THAT REDUCE IMACTS

Project Design Features

A project-specific Water Quality Management Plan (WQMP) has been prepared for the project. The WQMP will comply with the requirements for the 2010 Santa Ana Region, Municipal Separate Storm Sewer System (MS4) Permit which includes the requirement



SITE BOUNDARY

PERRY STREET

D/D

D/D

PROJECT FOOTPRINT

NNG

D/D

SITE BOUNDARY

Drainage Ditch

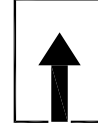
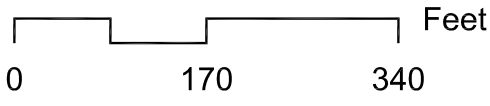
RAMONA EXPRESSWAY

LEGEND

-  = Biological Resources Location
-  = Drainage Ditch
- D/D = Disturbed / Developed (7.0 acres)
- NNG = Non-Native Grasslands (41.4 acres)

Source of Aerial Photo: Google Earth 8/2021

Scale: 1"= 170'



BIOLOGICAL RESOURCES / PROJECT FOOTPRINT MAP
 DPR 22-00006, SPA 22-05047, TPM 22-05048
 PRINCIPE AND ASSOCIATES

for the preparation and implementation of a project-specific WQMP. It will also be in compliance with the Santa Ana RWQCB requirements to ensure that the quantity and quality of runoff discharged off the site is not altered in an adverse way when compared with existing conditions.

The project is located in the vicinity of the Perris Valley Airport (Zone D), and determination was made, due to the threat of bird strike, that no surface basins should be allowed. Therefore, bio-retention was not a treatment option. As such, swales have been chosen to treat the site runoff. In order to still comply with Water Quality rules, bio-swales or filtration trenches along the west and south sides of the project have been placed, with no long-term ponding. The channels are designed to treat flows at a maximum depth of 6 inches, with freeboard. The project has been designed with underground storage to offset the difference in runoff hydrograph volume between the developed and pre-developed condition for the 24-hour duration, 10-year return frequency design storm. The site soils have low infiltration potential, so a system of sump pumps will be used to dewater the three underground systems. The pumps will convey the water to the bio-swales, which will treat the water, before discharging to the line E system. In addition to the underground storage a system of storm drain is proposed to collect and route the site runoff.

Onsite flows are divided into 11 Drainage Management Areas with all but one routed through underground storage and grassed swales. There is one area at the southwest corner that cannot be accepted into the projects water quality treatment due to design grades. The site has no infiltration potential but does have subsurface storage proposed (and required due to the subgrade loading bays). It is proposed that the underground detention be pumped to the surface bio-swales for WQMP treatment.

Maintenance and ownership of the onsite facilities will be the responsibility of the property owner. At the City's request, storm drain easements can be provided. Internal to the site, the underground systems will require pumps to raise the water to the water quality basins. It is assumed that these systems will be the responsibility of the property owner, tenant or a property association, with easements being placed to allow for City access and emergency maintenance. The new Line E stormdrain across the property, will be placed within Riverside County Flood Control Easement, and is assumed to be the Riverside County Flood Control and Water Conservation District's maintenance responsibility once accepted. There are other smaller inlets, control structures, channels, and pipes where maintenance will be the responsibility of the property owner, tenant or a property association.

Project-specific WQMP best management practices (BMPs) will also be used to ensure that siltation and erosion are minimized during and after construction, and will be incorporated into the final design of the project in order to ensure that water quality is not degraded. Regular maintenance of the proposed BMPs will be provided by the property owner to ensure effective operations of runoff control systems. Construction Guidelines and Standard BMPs are set forth in *Section 7.5.3 and Appendix C of the MSHCP, Volume*

1. No disturbed surfaces will be left without erosion control measures in place from October 1 through April 15.

A site-specific storm drain system has also been designed and engineered for the project site. Stormwater facilities shall be designed to prevent the release of toxins, chemicals, petroleum products, exotic plant materials or other elements that might degrade or harm biological resources or ecosystem processes downstream. The basic concept will be that all of the storm water runoff generated by the project will be directed to water quality basins or similar facilities where it will be treated.

There is one existing storm drain inlet affecting the site. A curb inlet along North Perris Boulevard accepts street flow and discharges it onto the site. This inlet will be maintained with the outlet pipe being relocated to connect to the proposed underground system.

The proposed condition for this site will be to construct a network of paved accessways within the site to convey storm runoff into a system of storm drain. The storm drain system will be used to collect and route the runoff from the paved areas and into the underground systems. The underground system will be pumped to the surface for treatment through bio-swales and will then be carried by storm drain into the Line E system. The roads will remain in the existing condition, with the exception that sidewalks and driveways will be added as needed. The bio-swales/water quality channels are planned at locations throughout the project to clean and discharge the flood water.

As the project is located within the areas of the Area Drainage Plan, it will participate in the construction of regional facilities. Line E is proposed to be constructed north of Ramona Expressway. The project proposes to construct the portion of Line E where it crosses the subject property, per the current master plan.

There are no offsite flows that impact the property, with only the Line E Master Plan flows proposed to be routed along the southside of the project. Regional drainage is conveyed along Ramona Expressway. As the site is north of the expressway, no regional flows impact the site. The regional area to the west of the site is identified to be collected and routed as part of the Line E system. That system is not yet in place and as such regional flows drain easterly along Ramona Expressway. There is inundation of all intersections in the area, including Ramona and Perris. The design of the site does not afford an opportunity to accept all of the flows from North Perris Boulevard and Perry Street. The roads will continue to drain south in North Perris Boulevard and east in Perry Street.

Mitigation Measures

Non-native grasslands are present on the site that have the potential to provide suitable nesting habitat for migratory birds. Nesting activity typically occurs from February 15 to August 31. Disturbing or destroying active nests is a violation of the MBTA (16 U.S.C. 703 et seq.). In addition, nests and eggs are protected under Fish and Game Code Section 3503. The removal of vegetation and/or destruction of nests during the breeding

season are considered potentially significant impacts. Compliance with the MBTA would reduce potential impacts to a less than significant level.

Optimus Building Corporation shall demonstrate to the satisfaction of the City of Perris Planning Department that either of the following has been or will be accomplished:

- Non-native grasslands removals shall be scheduled outside the nesting season (September 1 to February 14 for songbirds; September 1 to January 14 for raptors) to avoid potential impacts to nesting birds.
- Any construction activities that occur during the nesting season (February 15 to August 31 for songbirds; January 15 to August 31 for raptors) will require that the Riversidean sage scrub and trees are thoroughly surveyed for the presence of nesting birds by a qualified biologist before commencement of clearing. If any active nests are detected, then a buffer of at least 300 feet (500 feet for raptors) will be delineated, flagged, and avoided until the nesting cycle is complete as determined by the biological monitor to minimize impacts.

To ensure direct mortality of burrowing owls is avoided in the future, a pre-grading/construction presence/absence survey will be conducted within thirty (30) days prior to ground disturbances at the site and follow the MSHCP 30-Day Pre-Construction Burrowing Owl Survey Report Format (Revised: August 17, 2006).

The USFWS and CDFW have issued permits pursuant to the Federal Endangered Species Act and the California Natural Community Conservation Planning Act authorizing "Take" of certain species in accordance with the terms and conditions of the acts, the Western Riverside County MSHCP and the associated Implementing Agreement. Under the acts, certain activities by the applicant will be authorized to "Take" certain species, provided all applicable terms and conditions of the acts, MSHCP and the associated Implementing Agreement are met.

With the take permits issued to the County, 118 of 146 species covered by the MSHCP will be adequately conserved. The MSHCP has addressed the Federal, State and local project-specific mitigation requirements for each of these species and their specific habitats. The MSHCP will mitigate direct, indirect and cumulative impacts resulting from the take of these 118 adequately conserved species by establishing and maintaining a reserve system consisting of approximately 500,000 acres (347,000 acres are currently within public ownership, and 153,000 acres are currently in private ownership). Impacts to adequately conserved species will not require additional mitigation under the Endangered Species Act or the California Environmental Quality Act, but will require the following:

- In order to implement the goals and objectives of the MSHCP and to mitigate the impacts caused by new development in the unincorporated area of Riverside County, lands supporting species covered by the MSHCP must be acquired and conserved. A development fee is necessary in order to supplement the financing of the acquisition of lands supporting species covered by the MSHCP and to pay for new

- development's fair share of this cost. The appropriate funding source to pay the costs associated with mitigating the impacts of new development to the natural ecosystems and covered species is a fee for residential, commercial and industrial development. The amount of the fee is determined by the nature and extent of the impacts from the development to the identified natural ecosystems and the relative cost of mitigating such impacts. Optimus Building Corporation will pay the Western Riverside County MSHCP Mitigation Fee for the development of the project or portions thereof to be constructed within the County (Riverside County Ordinance 810.2).
- As the site is located within the Stephens' Kangaroo Rat Mitigation Fee Area, Optimus Building Corporation will also pay the Stephens' Kangaroo Rat Mitigation Fee (Riverside County Ordinance 663.10).

SECTION 6. CERTIFICATION STATEMENT

Date: May 12, 2022

I hereby certify that the statements furnished herein and in the attached exhibits present the data and information required for this MSHCP Consistency Analysis to the best of my ability, and that the facts, statements and information presented are true and correct to the best of my knowledge and belief.

Paul A. Principe

PRINCIPE AND ASSOCIATES

Paul A. Principe

Principal



View of the northern portion of the site adjacent to Perry Street. Non-native grasslands and Disturbed/Developed Land covering the surface of the site and the manufactured slope along the alignment of Perry Street in February 2022 are visible. Looking east to west from near the northeast corner of the site.

SITE PHOTOGRAPH 1

DPR 22-00006, SPA 22-05047, TPM 22-05048

PRINCIPE AND ASSOCIATES



View of the eastern portion of the site in May 2022. The Moret Group Distribution facility is located along the northern half of the site's east property line. Disturbed/Developed Land can be seen in the foreground while Non-native grasslands can be seen in the background. Looking north to south from the northeast corner of the site.

SITE PHOTOGRAPH 2

DPR 22-00006, SPA 22-05047, TPM 22-05048

PRINCIPE AND ASSOCIATES



View of the southern portion of the site in May 2022. Most of the Non-native grasslands vegetation had died-back by early May 2022. This photograph only shows the eastern portion of the property located east of the existing commercial development. Looking east to west from the southeast corner of the site.

SITE PHOTOGRAPH 3

DPR 22-00006, SPA 22-05047, TPM 22-05048

PRINCIPE AND ASSOCIATES



Another view of the southern portion of the site. This February 2022 photograph only shows the western portion of the south property located south of the developed area. This Disturbed/ Developed Land was created during the construction of the businesses, and it is still being used for trailer truck parking. Looking east to west along the site's south property line.

SITE PHOTOGRAPH 4

DPR 22-00006, SPA 22-05047, TPM 22-05048

PRINCIPE AND ASSOCIATES



View of the western portion of the site located adjacent to North Perris Boulevard in May 2022. This area of the site is mostly Disturbed/Developed Land that includes bare ground, a detention basin and a large area covered by gravel. Looking south to north from the southwest corner of the site.

SITE PHOTOGRAPH 5

DPR 22-00006, SPA 22-05047, TPM 22-05048

PRINCIPE AND ASSOCIATES



View of the drainage ditch located along the site's south property line adjacent to the Ramona Expressway in April 2022. As there are no flow paths through the site, the ultimate outfall is into the existing drainage ditch in the southeast corner of the site. Nuisance vegetation was manually removed and a herbicide was applied in March to improve the flow downstream. Looking east to west.

SITE PHOTOGRAPH 6

DPR 22-00006, SPA 22-05047, TPM 22-05048

PRINCIPE AND ASSOCIATES

REFERENCES

California Department of Fish and Game Natural Diversity Database, Perris, California USGS 7.5-Minute Quadrangle. 2022. Sacramento, CA: California Department of Fish and Game, Biogeographic Data Branch.

California Native Plant Society. 2022. CNPS Electronic Inventory of Rare and Endangered Plants.

Dudek & Associates, Inc. June 17, 2003. Riverside County Integrated Project. Final Western Riverside County Multiple Species Habitat Conservation Plan. Volume I, The Plan, and II.

Dudek & Associates, Inc. June 17, 2003. Riverside County Integrated Project. Final Western Riverside County Multiple Species Habitat Conservation Plan. Volumes II-A through E, The Reference Document.

Earth Strata Geotechnical Services. September 2, 2021 Phase I Environmental Site Assessment, Undeveloped Vacant Property, Assessor's Parcel Numbers 302-130-008, 302-130-018, 302-130-021 through 302-130-024, and 302-130-027, Perris, California 92571.

Hickman, James C., ed. 1993. *The Jepson Manual: Higher Plants of California*. University of California Press, Berkeley and Los Angeles, California. 1400 pp.

Holland, R.F. 1986. *Preliminary Descriptions of the Terrestrial Natural Communities of California*. Non-Game Heritage Program. California Department of Fish and Game, Sacramento, California.

Holland, V. L. and David J. Keil. 1995. *California Vegetation*. Kendall/Hunt Publishing Company. Dubuque, Iowa.

Keeley, J. E. 1990. The California valley grassland. Pp. 2-23 in A.A. Schoenherr (ed.), *Endangered plant communities of southern California*. California State University, Fullerton. Southern California Botanists, Special Publication No. 3.

Knecht, A. 1971. *Soil Survey of Western Riverside Area, California*. United States Department of Agriculture, Soil Conservation Service, Washington, D.C.

McBride, Joe R. and Chris Reid. 1988. Pasture. In *A Guide to Wildlife Habitats of California*. eds. Kenneth E. Mayer and William F. Laudenslayer, Jr. California Department of Forestry and Fire Protection, Sacramento, California. 142-143.

National Geographic Society (U.S.). 2002. *Field Guide to the Birds of North America*. Fourth Edition. National Geographic Society, Washington, D.C.

O'Leary, J.F., Murphy, D., and Brussard, P. 1992. The coastal sage scrub community Conservation planning region: An NCCP special report. Natural Community Conservation Planning/Coastal Sage Scrub Special Report 2.

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

Preliminary Drainage Report for NEC Ramona & Perris Industrial, Perris, California. February 10, 2022. United Engineering Group - California, Inc.

Project Specific Water Quality Management Plan, A Template for Projects located within the Santa Ana Watershed Region of Riverside County. Project Title: NEC Ramona & Perris Industrial. February 10, 2022. United Engineering Group CA, Inc.

PSBS. 1995. Western Riverside County Multi-Species Habitat Conservation Plan; Phase1-Information Collection and Evaluation. Prepared for: Western Riverside County Habitat Consortium.

Riverside County Information Technology. 2022. Map My County v10– Riverside County.

Roberts, Jr., Fred M., Scott D. White, Andrew C. Sanders, David E. Bramlet, and Steve Boyd. 2004. *The Vascular Plants of Western Riverside County, California, An Annotated Checklist*. F.M. Roberts Publications, San Luis Rey, California.

Sawyer, John O. and Todd Keeler-Wolf. 1995. *A Manual of California Vegetation*. California Native Plant Society, Sacramento, California. 471pp.

Tibor, D. [ed.]. 2001. California Native Plant Society. Inventory of Rare and Endangered Plants of California. California Native Plant Society, Special Publication Number 1, Sixth Edition.

Warner, R.E. and K.M. Hendrix. 1984. California Riparian Systems: Ecology, Conservation and Productive Management. University of California Press, Berkeley, California. 1035 pp.

Zeiner, David C. 1988. Cropland. In A Guide to Wildlife Habitats of California. ed. Kenneth E. Mayer and William F. Laudenslayer, Jr. California Department of Forestry and Fire Protection, Sacramento, California. 138-139.

United States Geological Service (USGS), 1979. 7.5-Minute Quadrangle Map, Perris, California.

Western Riverside County - Regional Conservation Authority. 2022. MSHCP Information Map (Viewer).

APPENDIX I - FEDERAL-, STATE- AND CNPS-LISTED PLANT SPECIES

TAXONOMY	1STATUS					ONSITE
SCIENTIFIC NAME COMMON NAME	FEDERAL	STATE	CNPS	HABITAT	BLOOMING PERIOD	OCCURRENCE PROBABILITY
ANGIOSPERMS						
DICOTYLEDONS						
ASTERACEAE						
Sunflower Family						
<i>Centromadia pungens</i> ssp. <i>Laevis</i> smooth tarplant	None	None	1B.1	Valley and foothill grasslands with poor drained alkaline soils at low elevations	April-September	Absent
<i>Lasthenia glabrata</i> ssp. <i>coulteri</i> Coulter's goldfields	None	None	1B.1	Vernal pools, alkali scrub, alkali playas, alkali grassland	February-June	Absent
<i>Trichocoronis wrightii</i> Wright's trichocoronis	None	None	2.1	Marshes and swamps, riparian forest, meadows and seeps, vernal pools, and alkali meadows along San Jacinto River	May-September	Absent
BRASSICACEAE						
Mustard Family						
<i>Caulanthus simulans</i> Payson's jewel-flower	None	None	4.2	Chaparral, coastal sage scrub and Pinyon-Juniper Woodland; fire follower	April-June	None
CHENOPODIACEAE						
Goosefoot Family						
<i>Atriplex parishii</i> Parish's brittle scale	None	None	1B.1	Alkali vernal pools, alkali annual grassland, alkali playa, alkali scrub/alkali vernal plains	June-October	Absent
<i>Atriplex serenana</i> var. <i> davidsonii</i> Davidson's salt scale	None	None	1B.2	Alkali vernal pools, alkali annual grassland, alkali playa, alkali scrub/alkali vernal plains	April-October	Absent
<i>Atriplex coronata</i> var. <i>notatior</i> San Jacinto Valley crown scale	FE	None	1B.1	Floodplains with alkali scrub, alkali playas, vernal pools, alkali grassland with silty-clay Traver-Domino-Wuillows Association soils	April-August	Absent

GERANIACEAE Geranium Family						
<i>Erodium macrophylla</i> round-leaved filaree	None	None	1B.1	Open cismontane woodland and valley and foothill grassland on very friable clay soils	March-May	None
POLEMONIACEAE Phlox Family						
<i>Navarretia fossalis</i> spreading navarretia	FT	None	1B.1	Undisturbed vernal pools and within vernal floodplains with alkali grassland or alkali playas on clay soils	April-June	Absent
POLYGONACEAE Buckwheat Family						
<i>Chorizanthe polygonoides</i> var. <i>longispina</i> long-spined spineflower	None	None	1B.2	Chaparral, coastal sage scrub, valley valley and foothill grassland, and meadows on clay soils	April-July	None
ANGIOSPERMS						
MONOCOTYLEDONS						
POACEAE True Grass Family						
<i>Hordeum intercedens</i> Vernal barley	None	None	3.2	Vernal pools, dry, saline streambeds, annual alkaline grasslands on flats in San Jacinto River floodplain	March-June	Absent
THEMIDACEAE Brodiaea Family						
<i>Brodiaea filifolia</i> thread-leaved brodiaea	FT	SE	1B.1	Cismontane woodland, coastal sage scrub, valley and foothill grassland, vernal pools	March-June	None

¹KEY TO FEDERAL- AND STATE-LISTED PLANT SPECIES

FE - Federal-Listed Endangered Species

FT - Federal-Listed Threatened Species

SE - State-Listed Endangered Species

ST - State-Listed Threatened Species

¹KEY TO CALIFORNIA NATIVE PLANT SOCIETY-LISTED PLANT SPECIES

List 1A - Presumed Extinct in California

List 1B - Rare, Endangered or Threatened throughout their range.

List 2 - Rare, Endangered or Threatened in California, but more common in other states

List 3 - Plant species for which additional information is needed before rarity can be determined

List 4 - Species of limited natural distribution in California, but whose existence does not appear to be susceptible to threat

NEW THREAT CODE EXTENSIONS AND THEIR MEANINGS

1 - Seriously Endangered in California (over 80% of occurrences threatened or with a high degree and immediacy of threat)

2 - Fairly Endangered in California (20 - 80% occurrences threatened)

3 - Not Very Endangered in California (<20% of occurrences threatened or no current threats known)

²ONSITE OCCURRENCE PROBABILITY

None - Species not expected to occur due to the lack of suitable habitat or the site's location outside of the species' range.

Low - Low probability for species to occur on the site due to the small amount of suitable habitats, poor quality of habitats or site's location at the edge of the known ranges of the species.

Moderate - Moderate probability for species to occur on the site due to the presence of suitable habitats.

Absent - Easily identifiable species not identified during surveys conducted at the site

APPENDIX II - FEDERAL- AND STATE-LISTED WILDLIFE SPECIES

TAXONOMY SCIENTIFIC NAME COMMON NAME	¹ STATUS FEDERAL	STATE	HABITAT	² ONSITE OCCURRENCE PROBABILITY
INVERTEBRATES				
Class Branchiopoda - Branchiopods, etc.				
Family Branchinectidae Fairy shrimp <i>Branchinecta lynchi</i> vernal pool fairy shrimp	FT	None	Vernal pools in areas of shallow depressions that have a clay hardpan soil layer that inhibits percolation	None
Class Insecta - Insects				
Family Nymphalidae Brushfoot Butterflies <i>Euphydryas deitha quino</i> Quino checkerspot butterfly	FE	None	Open chaparral, coastal scrub and grassland. Low levels of invasive, non-native vegetation and soil with a cryptogamic crust. Host plants: California plantain (<i>Plantago erecta</i>) and purple owl's clover (<i>Castilleja exserta</i> subsp. <i>exserta</i>)	None
VERTEBRATES				
Class Amphibia - Amphibians				
Family Pelobatidae Spadefoot Toads <i>Scaphiopus hammondii</i> western spadefoot	None	SSC	Lowland grasslands, chaparral and pine-oak woodlands. Areas of sandy or gravelly soil in alluvial fans, washes and floodplains. Requires temporary pools for reproduction	None
Class Reptilia - Reptiles				
Family Emydidae Pond Turtles <i>Clemmys marmorata pallida</i> western pond turtle	None	SSC	Permanent freshwater ponds, marshes, rivers, streams, and irrigation ditches with rocky or muddy bottoms. Occurs in woodlands and grasslands.	None

Family Phrynosomatidae Iguanid Lizards <i>Phrynosoma coronatum blainvillei</i> San Diego horned lizard	None	SSC	Prefers open and sandy washes, chaparral and sage scrub habitats. Also occurs in valley and foothill grassland, riparian, hardwood, conifer, pine-cypress, and juniper habitats below 6,000 feet	None
Family Teiidae Whiptail Lizards <i>Cnemidophorus hyperthrus</i> Belding's orange-throated whiptail	None	SSC	Chaparral, non-native grassland, Riversidean sage scrub, juniper woodland, and oak woodland with disturbed, friable sandy soils. Habitats also include alluvial fan scrub and riparian areas	None
Family Viperidae Vipers <i>Crotalis ruber ruber</i> northern red-diamond rattlesnake	None	SSC	Rocky areas with crevices in dense woodland, chaparral, coastal sage scrub, and grasslands.	None
Class Aves - Birds				
Family Charadriidae Plovers <i>Charadrius montanus</i> mountain plover	PLFT USFWS- REG.1 SMC PIF PBS IUCN-V	SSC	Interior grassland and agricultural areas, alkali playa; only occurs during wintering season	None
Family Emberizidae Emberizids (Sparrows, Towhees, etc.) <i>Amphispiza belli belli</i> Bell's sage sparrow	PIF-PBS SMC FSCS	SSC	Semi-open coastal sage scrub dominated by sage, and chaparral dominated by chamise in inland valleys and lower foothills of local mountains	None

Family Lanidae Shrikes				
<i>Lanius ludovicianus</i> loggerhead shrike	None	SSC	Open habitats with scattered shrubs, trees, posts, fences, utility lines, or other perches	None
Family Muscicapidae Thrushes, Gnatcatchers				
<i>Polioptila californica californica</i> coastal California gnatcatcher	FT	SSC	Riversidean sage scrub, Riversidean alluvial fan sage scrub, Venturan and Diegan coastal sage scrub, maritime succulent scrub, southern coastal bluff scrub, and coastal sage-chaparral scrub. Chaparral, grassland, riparian and alluvial habitats where they occur adjacent to sage scrub	None
Family Strigidae Owls				
<i>Athene cunicularia hypugaea</i> burrowing owl	None	SSC	Shortgrass prairies, grasslands, lowland scrub, agricultural lands (particularly range-lands) prairies, coastal dunes, desert floors, and some open artificial areas	Absent
Family Threskiornithidae Ibises and Spoonbills				
<i>Plegadis chihi</i> white-faced ibis	FSCS USFWS Reg.1 SMC	SSC	Freshwater marshes, brackish ares, or flooded fields	None
Family Troglodytidae Wrens				
<i>Campylorhynchus brunneicapillus sandiegenis</i> coastal cactus wren	None	SSC	Coastal sage scrub or desert scrub with thickets of pricy pear or cholla cactus	None

Family Vireonidae Vireos <i>Vireo bellii pusillus</i> least Bell's vireo	FE	SE	Riverine riparian habitats with dense cover within 1-2 meters of the ground and a dense, stratified canopy. Low, dense riparian growth along water or along dry parts of intermittent streams. Associated with southern willow scrub, cottonwood forest, mule fat scrub, sycamore alluvial woodland, coast live oak riparian forest, arroyo willow riparian forest, and wild blackberry or mesquite scrub in deserts.	None
Class Mammalia - Mammals				
Family Felidae Cats <i>Lynx rufus</i> bobcat	None	None	Rocky and brushy areas nears springs or other perennial water sources, primarily in foothills comprised of chaparral habitats	None
Family Heteromyidae Pocket Mice and Kangaroo Rats <i>Chaetodipus fallax fallax</i> northwestern San Diego pocket mouse <i>Dipodomys stephensi</i> Stephen's kangaroo rat <i>Perognathus longimembris brevinasus</i> Los Angeles pocket mouse	None	SSC	Chaparral, coastal sage scrub (Riversidean and Diegan), desert scrub, grassland, juniper woodland and scrub, and Riversidean alluvial fan sage scrub	None
	FE	ST	Annual and perennial grasslands and coastal sage scrub with sparse canopy cover and gently-sloping topography	Absent
	None	SSC	Coastal sage scrub, grasslands, desert cactus creosote bush, and sagebrush habitats	None
Family Molossidae Free-tailed Bats <i>Eumops perotis californicus</i> western mastiff bat	None	SSC	Conifer and deciduous woodlands, coastal scrub, chaparral, grasslands, etc. Roosts in cliff faces, high buildings, trees, and tunnels	None

Family Muridae Mice, Rats, and Voles				
<i>Onychomys torridus ramona</i> Ramona southern grasshopper mouse	None	SSC	Foothill and desert riparian, desert wash, and palm oasis habitats with friable soils	None
Family Mustelidae Badgers, Otters, Weasles, Relatives				
<i>Taxidea taxus</i> America badger	None	SSC	Dry, open forest, woodland, scrub, grassland habitats and uncultivated ground with friable soils	None
Family Vespertilionidae Evening Bats				
<i>Lasiurus xanthinus</i> western yellow bat	None	SSC	Foothill and desert riparian, desert wash and palm oasis habitats. Roosts in trees, mostly palms.	None

¹KEY TO FEDERAL- AND STATE-LISTED WILDLIFE SPECIES

FE - Federally Listed as Endangered
FT - Federally Listed as Threatened
FSC - Federal Species of Special Concern
PLFT - Proposed for Listing as Federal Threatened
PIF PBS - Partners in Flight Priority Bird Species
IUCN-V - Listed as Vulnerable by International Union of Nature and Natural Resources
FSCS - Federal Special Concern Species
SMC - Species of Management Concern
USFWS-Region 1 SMC - USFWS Region 1 Species of Management Concern

SE - State Listed as Endangered
ST - State Listed as Threatened
SSC - State Sprcies of Special Concern

²ONSITE OCCURRENCE PROBABILITY

None - Species are not expected to occur on the site due to the absence of suitable habitats or site's location outside the known ranges of the species.

Low - Low probability for species to occur on the site due to the small amount of suitable habitats, poor quality of habitats or site's location at the edge of the known ranges of the species.

Moderate - Moderate probability for species to occur on the site due to the presence of suitable habitats.

High - High probability for species to occur on the site due to the abundance and high quality of suitable habitats.

Present - Species were observed or heard calling on the site or diagnostic sign was discovered.

Absent - Easily identifiable species not observed nor heard calling during surveys conducted at the site

14 December 2021

Ms. Stacy Love
Recovery Permit Coordinator
U.S. Fish and Wildlife Service
Carlsbad Fish and Wildlife Office
2177 Salk Avenue, Suite 250
Carlsbad, CA 93003

Re: 90-Day Letter Report of Dry Season Vernal Pool Branchiopod Sampling for the OLC 3 Perris Project in Riverside County, California; Conducted Under the Endangered Species Act Section 10(A)(1)(A) Permit # TE-038716-5.

Dear Ms. Love:

The following report has been prepared to submit primary survey data and results of the 2021 dry season sampling for vernal pool branchiopods listed under the federal Endangered Species Act of 1973 (ESA) on the OLC 3 Perris Project in Riverside County, California.

SUMMARY

Frank Wegscheider conducted dry season surveys for federally endangered and threatened branchiopods at the OLC 3 Perris Project in Riverside County, California. Survey sampling was authorized under the ESA Section 10(a)(1)(A) and was conducted by Frank Wegscheider (permit #TE-038716-5) in accordance with the U.S. Fish and Wildlife Service (USFWS) Survey Guidelines for the Listed Large Branchiopods (USFWS, 2015). One large detention basin was sampled within the Study Area. The sampled basin contained a very low quantity of fairy shrimp cysts comprising the genus *Branchinecta*. No cysts of the federally listed Riverside fairy shrimp *Streptocephalus woottoni* were found in the sampled detention basin during the 2021 dry season sampling survey.

STUDY AREA (SA) DESCRIPTION AND LOCATION

The 40-acre Project Site (Site) is situated within Section 5 Township 4S Range 3W of the City of Perris in Riverside County. More specifically, the Project site is situated north of the Ramona Expressway, east of Perris Boulevard, and south of Perry Street, in the City of Perris, Riverside County, California (Figures 1 and 2; Regional Location Map and Aerial Map, respectively). These surveys are being conducted as part of an Environmental Due Diligence Report. The purpose of this study, conducted in coordination with Michael Baker International (MBI), is to document the existing biological resources and assess the potential biological and regulatory constraints associated with development of the Project Site as outlined by the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). The project will include office space, 85 truck docks, and truck and passenger car parking. A 7.54-acre future commercial site is located at the southeast corner of the property.

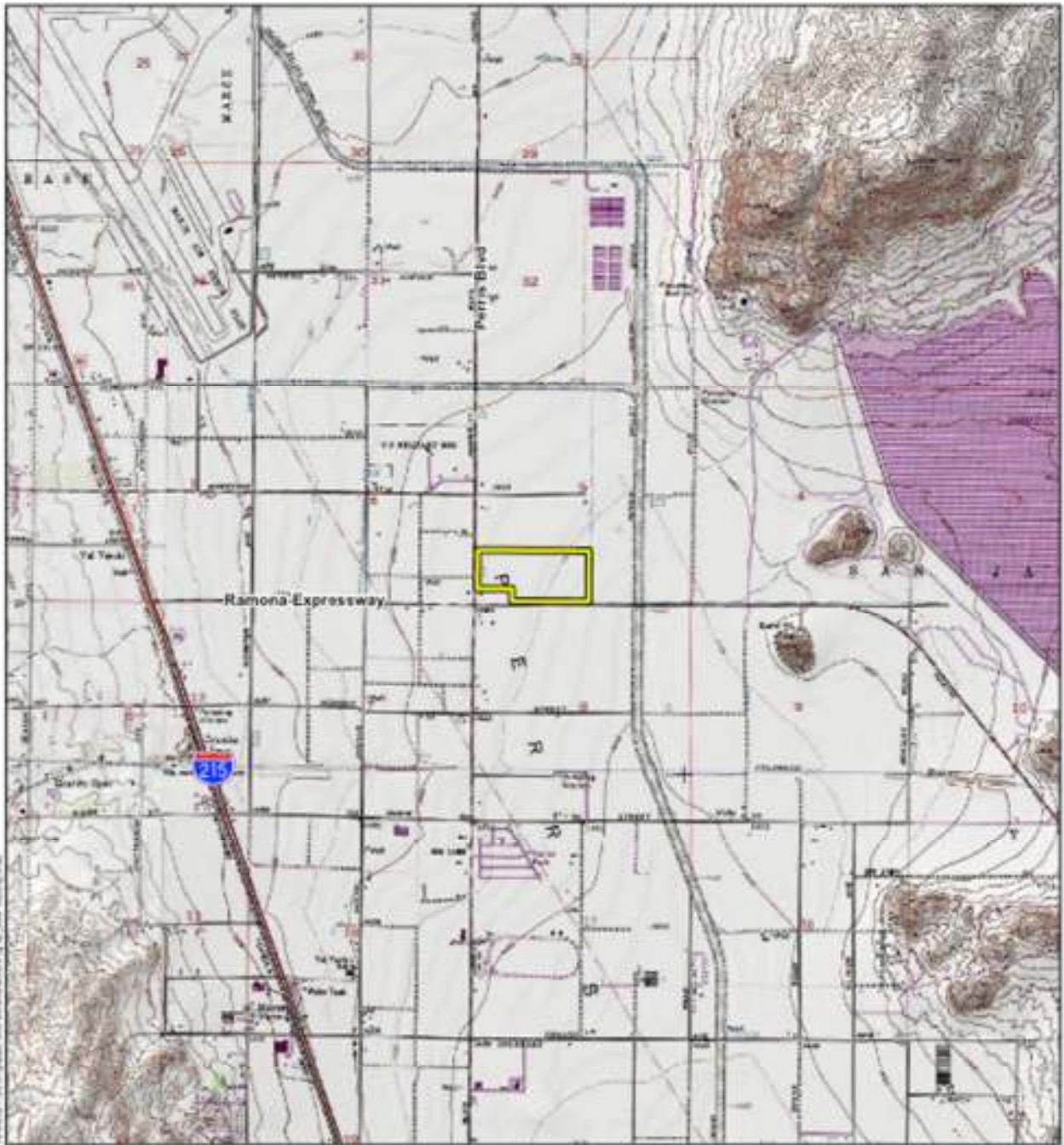


Michael Baker
INTERNET CHAL



OLC 3 PERRIS PROJECT
ENVIRONMENTAL DUE DILIGENCE REPORT
Regional Vicinity

Figure 1



Legend

 Project Boundary

Source: County of Riverside Aerials ©2013 Google
 USGS 7.5 Minute topographic quadrangle map: Perris, California



OLC 3 PERRIS PROJECT
 ENVIRONMENTAL DUE DILIGENCE REPORT

Vicinity Map

Figure 2

PROJECT SITE CONDITIONS

Michael Baker biologists conducted a preliminary field survey on August 26, 2021 to confirm existing site conditions and identify the presence of any sensitive biological resources that could pose a constraint to future development within the project site. Site characteristics such as soil condition, topography, hydrology, anthropogenic disturbances, indicator species, condition of on-site vegetation communities, and the presence of potentially regulated jurisdictional features (e.g., drainages, streambed) were noted.

Natural habitats within the project site have been eliminated due to routine weed abatement activities (i.e., disking, tilling), resulting in heavily disturbed and compacted surface soils. As such, native vegetation communities do not occur. The project site is primarily comprised of disturbed habitat that is dominated by ruderal/weedy, low-growing plant species. A detention basin was observed within the western portion of the project site; the detention basin appears to undergo routine weed abatement (i.e., disking, tilling) and illegal trash dumping was also observed throughout. Industrial warehouses surround the project site to the north, east, and west and commercial land uses are located to the south of the project site.

BRANCHIOPOD SURVEYS

Frank Wegscheider [(FW) permit #TE-038716-5] conducted protocol dry season fairy shrimp surveys at the Site commencing on 20 October 2021 after USFWS had granted permission to begin dry season surveys. The sampled basin was photographed (Appendix) and mapped using field-collected global positioning system (GPS) coordinates during the dry season study. Fairy shrimp sampling sites were located within the U.S. Geological Survey (USGS) 7.5-minute Sunnymead quadrangle topographic map.

Depressions Sampled

One detention basin was identified by Michael Baker biologists within the Site. The GPS center point of the approximately 1960 m² detention basin is located at 33.846743° N 117.225577° W and is depicted in the Fairy Shrimp Detention Basin Map (Figure 3).



Aerial imagery provided by Google Earth Pro, 2015. Photo courtesy of Michael Baker Corp.

Legend

- Project Boundary
- Detention Basin

Source: County of Riverside, Redmap



OLC 3 PERRIS PROJECT
ENVIRONMENTAL DUE DILIGENCE REPORT

OLC-3 Fairy Shrimp Detention Basin Map

Figure 3

Sampling Timelines

On 8 October 2021, USFWS was initially notified of Intent-to-Perform dry season surveys for ESA listed branchiopods at the Site. On 19 October USFWS Inland Division Supervisor Karin Cleary-Rose authorized commencement of dry season surveys at the site via email. Protocol dry season sampling commenced on 20 October after the basin was completely dry. Soil samples were collected from the basin on 20 October. Soil samples were lab-processed beginning on 21 October and were completed on 27 October 2021.

METHODS

Soil Collection

Soil sample collection and processing followed the U.S. Fish and Wildlife Service (USFWS) Survey Guidelines for the Listed Large Branchiopods (USFWS, 2015). Briefly, the basin was sampled at 50 ca. equidistant points starting at the edge of the ponded area continuing lengthwise and widthwise. Collection points were adjusted to include the deepest portions of the basins. Soil samples of ~100 milliliter (ml) aliquots were removed at each subsample site (for a total of 5 liters/ponded area) and transferred to individually labeled plastic bags for future analysis. The detention basin was photographed, and hand-drawn sketches of subsample locations were recorded in field notes.

Soil Analysis

Soil analyses were conducted by USFWS-approved branchiopod biologist Frank Wegscheider. Soil samples were placed into a one-gallon plastic container and allowed to pre-soak in water. The resulting slurry was slowly poured into a graded set of stacked U.S. standard eight-inch soil sieves (710, 300, and 150 micron), while concurrently being gently washed with flowing water. Water was directed through the samples for a time period sufficient to wash all recovered resting eggs (cysts) into the 150-micron sieve. Soil remaining in the 150-micron sieve was used for analysis. The Project site lies outside of the currently documented range of the federally endangered vernal pool tadpole shrimp (*Lepidurus packardii*), which is endemic to California's Central Valley (Rogers, 2001); therefore, it was unnecessary to examine the 300-micron samples. Nonetheless, the 300-micron samples were periodically examined for the presence of cladoceran ephippia. To facilitate the analyses, the 150-micron samples were transferred to a 120ml beaker, whereupon the organic components were thrice-decanted. The remaining decanted organics along with the supernatant were poured into a three-inch 150-micron sieve then examined under a Celestron dissecting microscope at 10-30X.

RESULTS OF 2021 DRY SEASON STUDY

One detention basin was identified within the Site and subsequently surveyed for the presence of fairy shrimp cysts. No federally listed Riverside fairy shrimp (*Streptocephalus woottoni*) cysts were detected in the detention basin during this suite of surveys, although the Project is located within the documented range of this listed species (Eriksen and Belk, 1999). However, a total of four *Branchinecta* sp. cysts, two possibly viable and two non-viable, were collected. The data

summary analysis from the sampled basin is provided in Table 1. Other crustacea detected in the basin included the ephippia (resting eggs) of water fleas (Cladocera) and two species of aquatic snail carapaces were present. An unquantified number of hexapod (insect) parts were found the basin and recorded, but were not identified to species. Selected photographs of the Site and the sampled detention basin are provided in the Appendix I.

Table 1

Detention Basin (1960m ²)					
Subsample number	Cyst quantity	Genus/species	Ostracod cysts	Hexapod exoskeleton	Cladocera ephippia
1	0	N/A	0	0	0
2	1	<i>Branchinecta</i> sp.	0	+	+
3	0	N/A	0	0	+
4	0	N/A	0	+	0
5	2	<i>Branchinecta</i> sp.	0	0	+
6	0	N/A	0	0	+
7	0	N/A	0	+	+
8	0	N/A	0	0	0
9	0	N/A	0	+	+
10	0	N/A	0	+	+
11	0	N/A	0	0	+
12	0	N/A	0	0	0
13	1	<i>Branchinecta</i> sp.	0	0	++
14	0	N/A	0	+	+
15	0	N/A	0	0	+
16	0	N/A	0	0	+
17	0	N/A	0	0	0
18	0	N/A	0	0	+
19	0	N/A	0	+	++
20	0	N/A	0	0	0
21	0	N/A	0	+	+
22	0	N/A	0	+	+
23	0	N/A	0	+	++
24	0	N/A	0	0	+
25	0	N/A	0	0	0
N/A = Not Applicable		N/V = Non-Viable		N/R = Not Recorded	
+ = Relative number of individuals					

Detention Basin (1960m ²)					
Subsample number	Cyst quantity	Genus/species	Ostracod cysts	Hexapod exoskeleton	Cladocera ephippia
26	0	N/A	0	+	+
27	0	N/A	0	0	++
28	0	N/A	0	0	++
29	0	N/A	0	0	++
30	0	N/A	0	+	+
31	0	N/A	0	0	0
32	0	N/A	0	0	+
33	0	N/A	0	+	+
34	0	N/A	0	0	0
35	0	N/A	0	+	+
36	0	N/A	0	0	++
37	0	N/A	0	0	+
38	0	N/A	0	+	+
39	0	N/A	0	0	+
40	0	N/A	0	0	++
41	0	N/A	0	+	+
42	0	N/A	0	0	+
43	0	N/A	0	0	+
44	0	N/A	0	+	++
45	0	N/A	0	+	++
46	0	N/A	0	0	++
47	0	N/A	0	+	++
48	0	N/A	0	0	0
49	0	N/A	0	+	++
50	0	N/A	0	+	+
N/A = Not Applicable		N/V = Non-Viable		N/R = Not Recorded	
+ = Relative number of individuals					

DISCUSSION

Seasonal/Vernal Pools

Vernal pools are characterized by shallow, ephemeral wetlands with very specific hydrologic characteristics and possess a unique vegetative community (Zedler, 1987). As such, they are habitat for specific types of wildlife including fairy shrimp. The basin sampled during this suite of surveys did not support typical vernal pool vegetation. Hence, this feature was considered to be seasonal pools/depression and not a true vernal pool. However, branchiopods—including listed fairy shrimp—are often found in seasonal depressions not meeting the criteria of a typical vernal pool.

Fairy Shrimp Species of Concern

Three species of anostracan brachiopods listed for protection under the ESA have the potential to occur at or near the SA: the Riverside fairy shrimp (*Streptocephalus woottoni*), the vernal pool fairy shrimp (*Branchinecta lynchi*), and the San Diego fairy shrimp (*Branchinecta sandiegoensis*), (Eriksen and Belk, 1999).

The Riverside fairy shrimp is federally listed as endangered (Federal Register, 1993a). This species lives in warm-water, long-lived pools with low to moderate total dissolved solids (TDS) generally with a depth greater than 30 cm (Eng, Belk, and Eriksen, 1990; Hathaway and Simovich, 1996; Eriksen and Belk, 1999), although it has been found in stock ponds with relatively high TDS (F. Wegscheider, unpublished data). None of the onsite depressions appear to possess sufficient depth or duration to support Riverside fairy shrimp.

The federally threatened vernal pool fairy shrimp (*Branchinecta lynchi*) (Federal Register, 1993b) lives in short-lived cool-water pools that may exist for only three weeks in the spring, with low to moderate TDS (Eriksen and Belk, 1999). Generally, they exist in vernal pools (79 percent), although they are sometimes found in a range of natural and artificially created ephemeral habitats such as alkali pools and seasonal drainages (Federal Register, 2003). The vernal pool fairy shrimp generally hatches early in the season when water temperatures are below 10 degrees Celsius (Gallagher, 1996; Helm, 1998) and may cohabit with the versatile fairy shrimp. However, it is found in very low densities, typically comprising perhaps only 1 to 5 percent of the total containment population.

The federally listed San Diego fairy shrimp (*Branchinecta sandiegonensis*) (USFWS, 1997) typically exists in cool-water, short-lived pools (Eriksen and Belk, 1999), the same conditions that *Branchinecta lindahli* thrives in. Cysts hatch in 3-4 days at 10-15° C; hatching will not occur at warmer temperatures and larvae will then mature in 10-20 days as temperatures fluctuate around 20° C (Hathaway & Simovich, 1996). The fairy shrimps generally die after ca. one month, but subsequent cohorts can hatch after, following rain events (USFWS, 2000). The site lies outside of the current range of *B. sandiegonensis* (Fugate, 1993), but conditions are likely suitable for hatching and maturation of the San Diego fairy shrimp.

Widespread and Common Fairy Shrimp Species

The on-site detention basin sampled during this suite of surveys contained a total of four *Branchinecta* sp. cysts. Given the basin's morphology and the lack of any vernal pool indicator plant species, the cysts were most likely those of the common versatile fairy shrimp (*Branchinecta lindahli*), which is a species typical of disturbed, low-quality habitats. However, differentiation of cysts among species of *Branchinecta* is not possible using a light microscope. There are three known populations of vernal pool fairy shrimp within western Riverside County: Skunk Hollow in unincorporated French Valley, the Santa Rosa Plateau Ecological Reserve near Murrieta, and the Stowe Pools in Hemet. Given that the Project lies within the range of the listed vernal pool fairy shrimp, it was not possible to rule out the presence of vernal pool fairy shrimp in these depressions based on cyst morphology in a dry season survey alone.

Additional Studies Recommended

Based on the USFWS protocol for fairy shrimp surveys, one wet season survey and one dry season survey completed in accordance with these guidelines and conducted within a 3- year period are required to complete protocol requirements. A 2021 dry season survey with negative findings for listed fairy shrimp cysts has been completed for the 2021 dry season. A 2021/2022 wet season survey for listed branchiopods should be conducted to fulfill protocol requirements. If you have any questions regarding this report, please contact me via phone at (714) 402-2899 or email at fwegscheider@fullerton.edu. The primary Project contact is Michael Naggar at (951) 551-7730.

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

	14 December 2021	TE-038716-5
_____ Frank J. Wegscheider	_____ Date	_____ Permit No.

REFERENCES

- California Department of Fish and Game (CDFG). 1998. California Vernal Pool Assessment Preliminary Report. Prepared by Todd Keeler-Wolf, Diane R. Elam, Kari Lewis, and Scott A. Flint. May. <http://www.dfg.ca.gov/whdab/wetlands/vp%5Fasses%5Frept/>
- Dudek and Associates, Inc. 2003. Western Riverside County Final Multiple Species Habitat Conservation Plan, Volumes I-V. Prepared for the County of Riverside, Transportation and Land Management Agency by Dudek and Associates, 605 Third Street, Encinitas, California 92024.
- Eng, L., D. Belk, and C. Eriksen. 1990. Californian Anostraca: distribution, habitat, and status. *Journal of Crustacean Biology* 10(2): 47-27
- Eriksen, C. & D. Belk. 1999. Fairy Shrimp of California's Puddles, Pools, and Playas. Mad River Press, Inc. 196 pp.
- Federal Register. 1997. Endangered and Threatened Wildlife and Plants; Determination of Endangered Status for the San Diego Fairy Shrimp; Final Rule Federal Register 62(22): 4925-4939.
- Federal Register. 1993a. Endangered and threatened wildlife and plants; determination of endangered status for three vernal pool plants and the Riverside Fairy shrimp. Federal Register 58(147):41384-41392.
- Federal Register. 1993b. Endangered and threatened wildlife and plants; determination of endangered status for the conservancy fairy shrimp, longhorn fairy shrimp, and the vernal pool tadpole shrimp; and threatened status for the vernal pool fairy shrimp. Federal Register 59(180):48136-48135
- Federal Register. 2001. Endangered and threatened wildlife and plants; final designation of critical habitat for the Riverside Fairy shrimp. Final rule. Federal Register 66(104):59884-29414.
- Federal Register. 2003. Endangered and threatened wildlife and plants; critical habitat designation for four vernal pool crustaceans and eleven vernal pool plants in California and southern Oregon. Federal Register 68(151):46684-46867.
- Federal Register. 2005. Endangered and threatened wildlife and plants; designation of critical habitat for the Riverside Fairy shrimp (*Streptocephalus woottoni*). Final rule. Federal Register 70(69):19154-19200.
- Fugate, M. 1993. *Branchinecta sandiegonensis*, a New Species of Fairy Shrimp (Crustacea: Anostraca) from Western North America. *Proceedings of the Biological Society of Washington* 106(2):296-304.
- Gallagher, S. 1996. Seasonal occurrence and habitat characteristics of some vernal pool branchiopods in northern California, U.S.A. *Journal of Crustacean Biology* 16:323-329.
- Hathaway S. and M. Simovich. 1996. Factors affecting the distribution and co-occurrence of two southern Californian anostracans (Branchiopoda), *Branchinecta sandiegonensis* and *Streptocephalus woottoni*. *Journal of Crustacean Biology* 16(4):669-677.
- Helm, B. 1998. The biogeography of eight large branchiopods endemic to California. *In*: C. Witham, E. Bauder, D. Belk, W. Ferren, and R. Ornduff (eds.), *Ecology, Conservation, and Management of Vernal Pool Ecosystems – Proceedings from a 1996 Conference*. California Native Plant Society, Sacramento, California.
- Michael Baker International. 2021. Environmental Due Diligence Report OLC 3 Perris Project City of Perris CA. Prepared for Mike Naggar and Associates 445 S.D Street, Perris California 92570.
- Rogers, D.C. 2001. Revision of the Nearctic *Lepidurus* (Notostraca). *Journal of Crustacean Biology* 21: 99–1006

- U. S. Department of the Interior, Fish and Wildlife Service. 1996. Interim Survey *Guidelines to Permittees for Recovery Permits Under Section 10(a)(1)(A) of the Endangered Species Act for the Listed Vernal Pool Branchiopods*. 12 pp.
- USFWS. 2000. Endangered and Threatened Wildlife and Plants; Final Determination of Critical Habitat for the San Diego Fairy Shrimp (*Branchinecta sandiegoensis*); Final Rule Federal Register Vol. 65, No. 205: 63438-63466. 23 October.
- USFWS. 2015. Survey Guidelines for the Listed Large Branchiopods to Permittees for Recovery Permits Under Section 10(a)(1)(A) of the Endangered Species Act for the Listed Vernal Pool Branchiopods. 24 pp.
- Zedler, P. 1987. The ecology of southern California vernal pools: a community profile. U. S. Fish and Wildlife Service Biological Report 85(7.11).

APPENDIX I

**OLC 3 PERRIS PROJECT 2021 DRY SEASON
FAIRY SHRIMP SURVEYS PHOTOGRAPHIC DOCUMENTATION**

Site Photo 1 Location: Northwest corner of site
View looking southeast

Date: 20 October 2021
Photo by: F. J. Wegscheider



Site Photo 2 Location: Northwest corner of site
View looking south

Date: 20 October 2021
Photo by: F. J. Wegscheider



Detention Basin

Location: Northwest corner of detention basin
View looking south/southeast

Date: 20 October 2021
Photo by: F. J. Wegscheider



