NATURAL RESOURCES ASSESSMENT, INC.

General Biological Assessment
Perris Truck Terminal
Perris, California

Prepared for:

Markham Street Partners, LLC
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Santa Monica CA 90402

Prepared by:

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January 30, 2023

Project Number: LIL22-104

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CERTIFICATION

I hereby certify that the statements furnished below and in the attached exhibits present data and information required for this biological evaluation, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief.

Karen Kirtland

Natural Resources Assessment, Inc.

January 30, 2023

Table of Contents

Figures

Photos

Appendices

1.0 Introduction

Natural Resources Assessment, Inc. (NRAI) was contracted by Lilburn Corporation and Mr. Bob Nassir of Markham Street Partners, LLC to provide biological services for a proposed industrial center development in Perris, California.

2.0 Site Location and Project Description

The project site is located in Perris, Riverside County, California (Figures 1 and 2). The project site consists of four parcels (APNs 302-110-024, -023, 022, and -021) totaling 8.3 acres. The properties are located on the north side of Markham Street, east of Perris Boulevard. Existing development is on the southern side of Markham Street. Open land (formerly farmland) is on the west, east and north (Figure 3) at t the time of the survey. The properties to the immediate east of the site have been approved for the development of the Markham Street Truck and Trailer Storage Facility (CUP 20-05100).

Based on the evidence of debris and our knowledge of the area, the parcels may have been farmed in the past, but that could not be positively established.

The four parcels are located in Section 5, Township 4 south, Range 3 west on the Perris USGS 7.5-minute quadrangle, San Bernardino Base and Meridian (Figure 2).

The Applicant is proposing to develop a truck and trailer parking facility to be known as the Perris Truck Terminal

3.0 Methods

3.1 Data Review

NRAI conducted a data search for information on plant and wildlife species known occurrences within the vicinity of the project site. This review included biological texts on general and specific biological resources, and those resources considered to be sensitive by various wildlife agencies, local governmental agencies and interest groups. Information sources included but are not limited to the following:

- Information provided by the Western Riverside County MSHCP for the parcels.
- U.S. Army Corps 404 requirements, State Water Resources Control Board requirements and California Department of Fish and Wildlife 1602 requirements.
- General texts and other documents regarding potential resources on the four parcels.

NRAI used the information in the field. Please see Section 6.0 for a complete listing of documents reviewed.

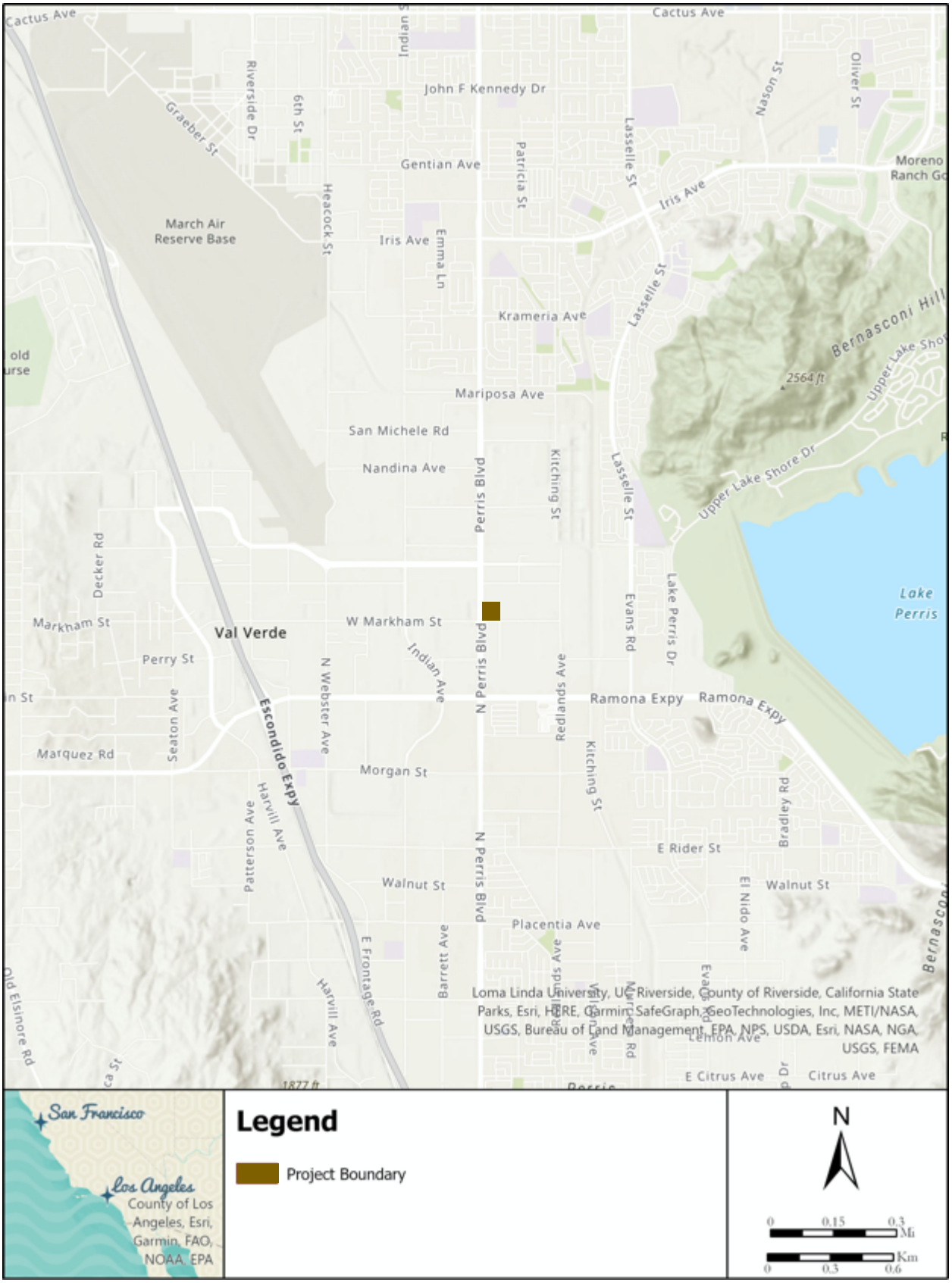

Figure 1. Regional Location of the Project.

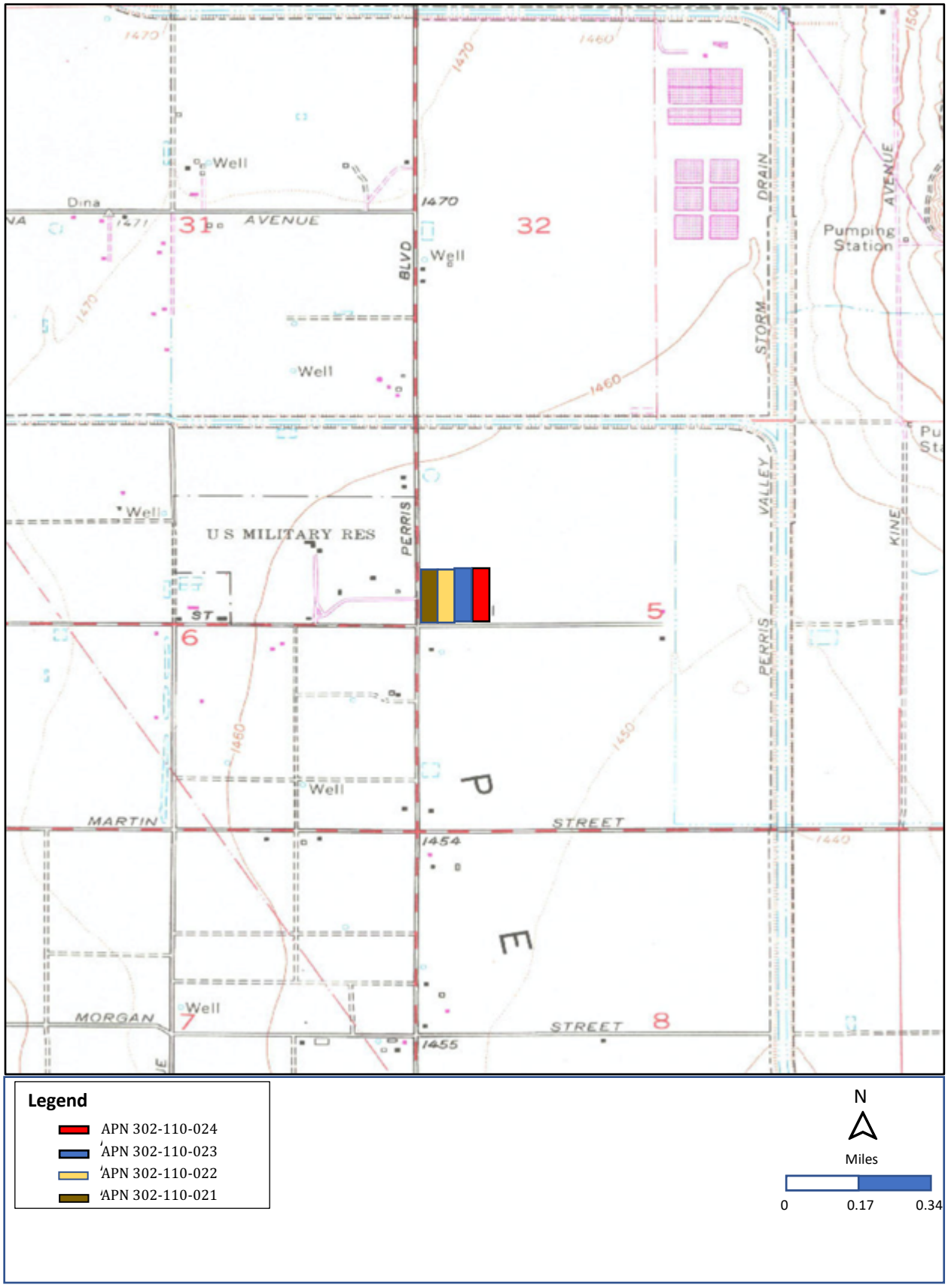

Figure 2. Topography of the Project Site. Date Unknown.

Figure 3. Aerial Showing the Condition of the Four Parcels, 2020.

3.2 Field Assessment

Ms. Karen Kirtland and Mr. Ricardo Montijo conducted an initial assessment on April 22, 2022. They surveyed the eastern two parcels by walking transects across the properties. They evaluated the parcel habitats, making notes on the general and sensitive biological resources present and taking representative photographs. Their survey included habitat assessment for resources covered under the MSHCP survey requirements.

The field team conducted a second site assessment on October 24, 2022. They surveyed the additional two western parcels as part of the project update.

4.0 Results

4.1 Weather, Topography and Soils

Weather at the beginning of the field survey on April 22, 2022 was 55 degrees Fahrenheit, with 90 percent cumulus cloud cover and winds from the west at less than one mile per hour (mph). At the end of the survey, the temperature was 56 degrees Fahrenheit, with 85 percent cumulus cloud cover and winds from the northwest at 2.6 mph.

Weather on the October 24, 2022 survey was 70 degrees Fahrenheit, with clear skies and winds of less than one miles per hour.

The four parcels have a flat topography. Average elevation is 1455 feet mean sea level.

Four soils are on the project site (Figure 4, Natural Resources Conservation Service 2022). They are Domino silt loam (Du), Domino silt loam, saline-alkaline (Dv), Exeter very fine sandy loam (EyB) and Hanford fine sandy loam (HgA).

The Domino silt loams are soils found on alluvial fans. They are made up of alluvium derived from granite. These soils rarely flood and never pond.

Domino silt loam, found on zero slopes, is classified as a non-hydric soil.

Domino silt loam, saline-alkaline, also limited to zero slopes, is moderate saline to strongly saline. This soil is classified as non-hydric in California, except in where it occurs in depressions, where it may exhibit one of the three characteristics identified for hydric soils.

Exeter very fine sandy loam is found on zero to five percent slopes on alluvial fans. This soil is made up of alluvium from granite. It is a well-drained soil, varying from non-saline to very slightly saline and is classified as non-hydric, only rarely flooding and never ponding.

Hanford fine sandy loam (HgA) is a fine sandy loam found on zero to percent slopes on alluvial fans. It is a well-drained soil formed of alluvium derived from granite. Hanford sandy loam rarely floods and never ponds and is classified as a non-hydric soil.

All four soils have been impacted by disking for weeding.

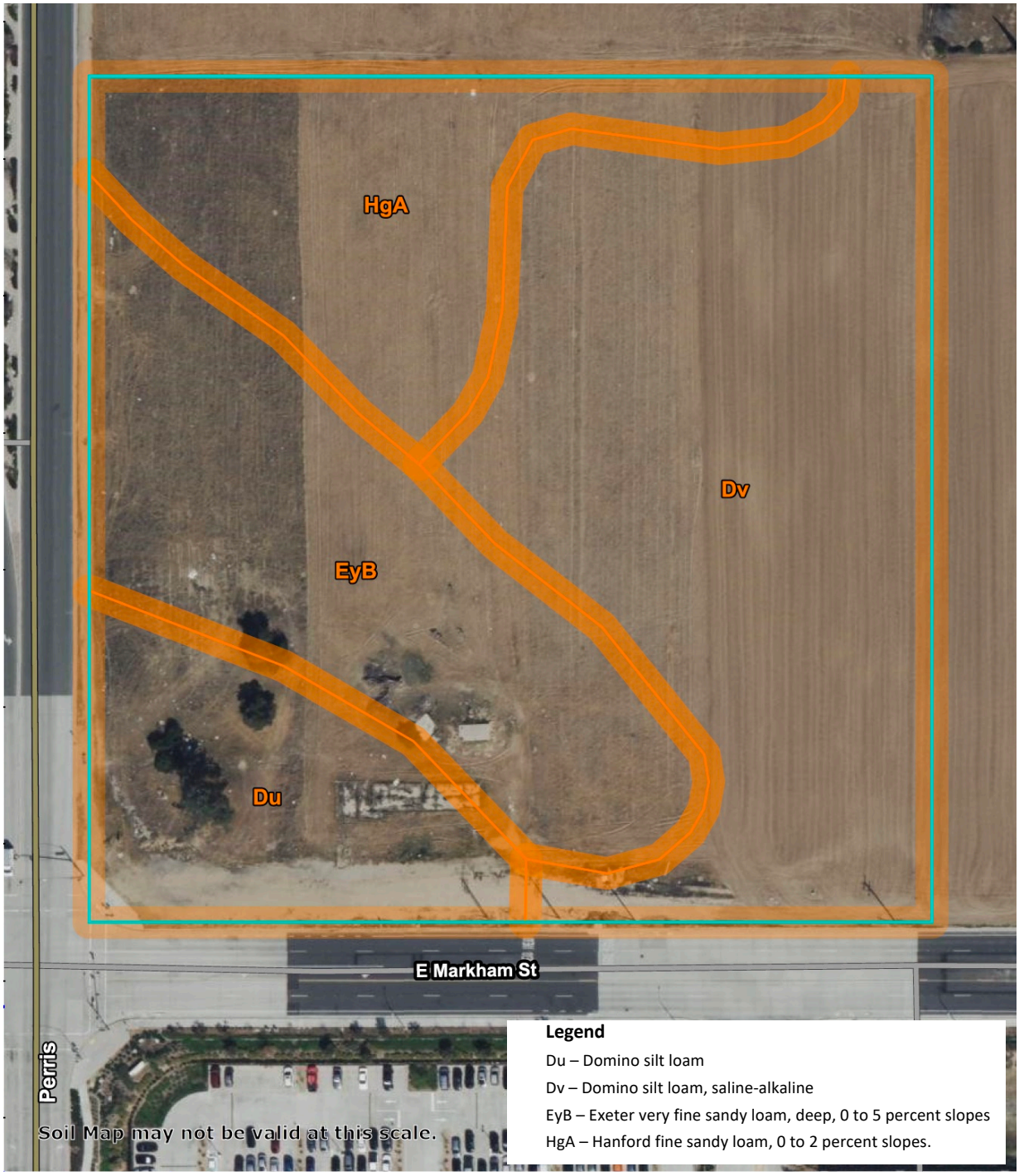

Figure 4. Soils.

4.2 Land Uses

A review of aerial imagery from Google Earth indicates that the four parcels have been vacant since at least 2003. Current disturbances include ongoing disking, and minor dumping.

4.3 Vegetation

The MSHCP mapped the parcels as agriculture with some disturbed areas in 1994. In 2012, the MSCHP mapped the parcels as disturbed/developed. At the time of the surveys, the surface cover was composed of a few barren areas and remnants of a ruderal (weedy) plant community, or disturbed plant community.

4.3.1 Barren

Barren means a combination of no vegetation cover and compaction from intentional grading or repeated travel, such as illegal trespass paths and roads. This area was confined to the southern end of the parcels. There is also one historic dirt foundation of the former irrigation system at the south end of the central parcel (APN 302-110-023).

4.3.2 Ruderal Vegetation

The four parcels have been recently disked and only remnants of ruderal plant vegetation were found Ruderal is comprised of a mix of mostly non-native and native weeds such as ripgut brome (*Bromus diandrus*), mouse barley (*Hordeum murinum*), slender wild oats (*Avena barbata*), fiddeneck (*Amsinckia menziesii*) and stinknet (*Onicosiphon piluliferum*).

The ruderal vegetation is found scattered throughout the four parcels (Photos 1 through 6).

4.3.3 Landscape Trees

There is a small stand of trees, consisting of Canary Island pine (*Pinus canariensis*.), oak tree (*Quercus* sp.), and Brazilian pepper tree (*Schinus terebinthifolia*) in the southwestern area of APN 302-110-021.

A list of all plant species observed is provided in Appendix A.

4.4 Wildlife

No amphibian or reptile species were observed. There are no water sources that would be used by amphibians, and the relative lack of ground cover, rocks or shrub, as well as ongoing disking, makes the parcels unsuitable for most reptile species.

Bird species seen or heard included northern mockingbird (*Mimus polyglottos*), common raven (*Corvus corax*) and house finch (*Haemorhous mexicanus*).

Botta's gopher (*Thomomys bottae*) and California ground squirrel (*Spermophilus beecheyi*) burrows were observed. No other sign of native mammal species was observed.

A list of all wildlife species observed is provided in Appendix A.

Photo 1. Northwest corner of APN 180-027-022. Looking south along the western boundary. April 22, 2022.

Photo 2. Eastern boundary of APN 180-027-024. Looking northwest. April 22, 2022.

Photo 3. Northwestern end of APN 180-027-023. Looking south. April 22, 2022.

Photo 4. Central eastern boundary of the project area, looking west across all four parcels. April 22, 2022.

Photo 5. Southern end of the westernmost parcel looking north. The mixed stand of pine and pepper trees is on the left. October 25, 2022.

Photo 6. Looking at the two western parcels from along the western boundary. October 25, 2022

5.0 MSHCP Consistency Analysis

5.1 Reserve Assembly Analysis

Not applicable. The four parcels are not within a MSHCP Criteria Cell.

5.2 Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools (Section 6.1.2)

5.2.1 Riparian/Riverine Areas

Riparian/Riverine Areas are defined by the MSHCP as "lands which contain Habitat dominated by tress [sic], shrubs, persistent emergents, or emergent mosses and lichens, which occur close to or which depend upon soil moisture from a nearby fresh water source; or areas with fresh water flow during all or a portion of the year".

The parcels are flat, have no drainages and show no evidence of flowing water. There is no riparian habitat as defined in the MSHCP on the parcels. No riverine/riparian habitat exists on the parcels.

The project is consistent with MSHCP Section 6.1.2.

5.2.2 Vernal Pools

The field team did not identify any indicators of vernal pool development such as water stains, cracked mud, shallow depressions, or similar areas where water would collect. Given the history of the parcels, the currently highly disturbed surface, ongoing disturbance from disking, vernal pools are not present nor expected to occur in the future.

The project is consistent with MSHCP Section 6.1.2.

5.2.3 Riverside Fairy Shrimp

Riverside fairy shrimp (*Streptocephalus woottoni*) is known is found in Ventura, Los Angeles, Riverside, Orange, and San Diego Counties. It has also been found at two locations Valle de las Palmas and south of El Rosario in Baja California, Mexico. It occurs in ephemeral pools in farmlands and similar open, flat terrain. Fairy shrimp are confined to temporary pools that fill in spring and evaporate by late spring to early summer.

Constituent elements required for survival of the species per the U.S. Fish and Wildlife1 "include small to large pools or pool complexes that have the appropriate temperature, water chemistry, and length of time of inundation with water necessary for Riverside fairy shrimp incubation and reproduction, as well as dry periods necessary to provide the conditions to maintain a dormant and viable cyst bank."

Specific conditions for successful reproduction of Riverside fairy shrimp include:

[1] https://www.govinfo.gov/content/pkg/FR-2004-04-27/pdf/04-9203.pdf#page=2

- Depths ranging from 10 in (25 cm) to 5 to 10 ft (1.5 to 3 m);
- Ponding inundation that lasts for a minimum length of 2 months and a maximum length of 5 to 8 months during the winter and spring months, followed by a dry period prior to the next winter and spring rains;
- Suitable water temperatures that fall within the range of 50- and 77-degrees Fahrenheit (10 and 25 degrees Celsius);
- Water chemistry with low total dissolved solids and alkalinity (means of 77 and 65 parts per million, respectively), corroborated by pH within a range of 6.4–7.1.

Also required are watersheds associated with suitable ponding sites that provide water to fill the pools in the winter and spring months. There is no set or standard size of watershed varies greatly and it must be evaluated on a case-by-case basis. Factors that affect the size of the watershed include surface and underground hydrology, the topography of the area surrounding the pool or pools, the vegetative coverage, and the soil substrate in the area. Watershed sizes designated vary from a few acres to greater than 100 ac (40 ha).

Regarding soil substrates, any soil type with a clay component and/or an impermeable surface or subsurface layer that is known to support vernal pool habitat may provide suitable habitat for Riverside fairy shrimp.

5.2.4 Vernal Pool Fairy Shrimp

Vernal pool fairy shrimp (*Branchinecta lynchi*) is found in grasslands in ponded areas such as vernal pools, cattle watering holes, basins, etc. Fairy shrimp are confined to temporary pools that fill in spring and evaporate by late spring to early summer.

In southern California, this species is found primarily in the interior of western Riverside County, central Santa Barbara County, and eastern Orange County and more recently in Los Angeles County.

Since most pools preferred by fairy shrimp are found in flat areas, many have been lost to agricultural activities and residential development. The limited extent of available habitat, plus the ongoing loss has resulted in the vernal pool fairy shrimp being listed as threatened by the USFWS.

5.2.5 Santa Rosa Plateau Fairy Shrimp

The Santa Rosa Plateau fairy shrimp (*Linderiella santarosae*) is known only from cool-water vernal pools found only on southern basalt flows. Similar to the other shrimp species, the Santa Rosa Plateau fairy shrimp only occurs under the right conditions of water temperature, depth and evaporation patterns.

The Santa Rosa Plateau fairy shrimp is only found on the Santa Rosa Plateau in a very confined locality. The MSHCP has identified the need to set aside for a total of at least 2,134 acres of area on the basalt flow that may contain unmapped vernal pool habitat which might support Santa Rosa Plateau fairy shrimp.

Currently, the entire known population in Riverside County is currently protected as part of the Santa Rosa Plateau Regional Park.

The project proponent hired Dr. Christopher Rogers of the University of Kansas, an expert in the study of fairy shrimp, to evaluate the parcels and determine the potential for sensitive fairy shrimp species to be present. In Dr. Roger's professional judgement, no habitat for sensitive fairy shrimp species is present on the parcels and there is no need for surveys. His report is included in Appendix B. Dr. Rogers also concluded there is no vernal pool habitat on the parcels.

Based on his finding and the lack of any substantial habitat or soil differences on the remaining two western parcels, his findings can be extended to include the additional area.

The project is consistent with MSHCP Section 6.1.2.

5.2.6 Riparian Birds

There is no riparian habitat in or on the four parcels. Therefore, no riparian bird species are present or will use the parcels, and no impacts to these species or their habitat will occur.

The project is consistent with MSHCP Section 6.1.2.

5.3 Narrow Endemic Plant Species (Section 6.1.3)

The four parcels support only ruderal habitats and isolated stands of landscape trees. There is no suitable habitat for any of the four Narrow Endemic Plant Species within the project boundaries, as described below.

Before the field surveys were conducted, we compiled the relevant botanical information on plant species information for the general project area. Data sources reviewed included the following:

- Calflora, California Native Plant Society (CNPS) Inventory
- California Consortium of Herbaria
- Information, Planning, and Conservation System (IPaC)
- Biogeographic Information & Observation System (BIOS)
- California Natural Diversity Data Base (CNDDB).
- Previous surveys conducted by NRAI and others in the vicinity of the project site.

5.3.1 San Diego Ambrosia

San Diego ambrosia (*Ambrosia pumila*) is an annual herbaceous plant that grows from a rhizomatous root stock. It occurs in chaparral, coastal sage scrub, valley and foothill grassland, and occasionally in freshwater wetlands. San Diego ambrosia grows on sandy loam or clay soils. In valleys, it persists where disturbance is superficial.

San Diego ambrosia occurs from 30 to 182 meters (100 to 600 feet) in elevation throughout western Riverside and San Diego counties. It blooms from April through October.

San Diego ambrosia is listed as endangered by the USFWS and is on list 1B.1 of the CNPS Inventory. It is not listed by the CDFW.

There are no chaparral, coastal scrub, valley and foothill grasslands or freshwater habitats on the parcels. There are no areas suitable for the establishment of San Diego ambrosia. This species is not present.

The project is consistent with MSHCP Section 6.1.3.

5.3.2 Spreading Navarretia

Spreading navarretia (*Navarretia fossalis*) is an annual herb found in chenopod scrub, shallow freshwater marshes and swamps, playas, and vernal pools. It usually is found on sites with mesic conditions. It blooms from April through June at elevations from 30 to 655 meters (98 to 2150 feet).

The distribution of spreading navarretia is from Los Angeles south to Baja California and is found in the Lakeview area near Perris and along the stretch of the San Jacinto River from Winchester south. Spreading navarretia is threatened by the loss of aquatic and mesic habitats from development, farming and invasive plant species.

Spreading navarretia is listed as threatened by the USFWS and is on list 1B.1 of the CNPS Inventory. It is not listed by the CDFW.

The four parcels lack mesic or aquatic habitats preferred by this species. The project site does not have soil or topography conditions suitable for the development of mesic habitat and the establishment of spreading navarretia. This species is not present.

The project is consistent with MSHCP Section 6.1.3.

5.3.3 California Orcutt Grass

California Orcutt grass (*Orcuttia californica*) is an annual herb that is found only in vernal pools. It flowers from April through August at elevations from 15 to 660 meters (49 to 2170 feet).

It is known from the Skunk Lake area and similar vernal pool habitats in Riverside County. California Orcutt grass is threatened by the loss of vernal pool habitats and invasive species. It is listed as endangered by both the USFWS and the CDFW, and is on List 1B.1 of the CNPS Inventory.

The four parcels do not support vernal pools, and site conditions are unsuitable for the formation of vernal pools because of former uses, ongoing disturbances and dominance of cover by ruderal plant species. California Orcutt grass is not present.

The project is consistent with MSHCP Section 6.1.3.

5.3.4 Wright's Trichocoronis

Wright's trichocoronis (*Trichoconis wrightii*) is an annual herb that grows on alkaline soils. It is found in meadows, seeps, marshes, swamps, riparian forests and vernal pools. It blooms from May through September at elevations from 5 to 435 meters (16 to 1430 feet).

It is known from the Mystic Lake area and along the San Jacinto River south to Perris. it is threatened by the loss of mesic habitats and vernal pools to development, farming and invasive plants. It is not listed by the USFWS or the CDFW. It is on List 1B.2 of the CNPS Inventory.

Mesic habitats and vernal pools preferred by this species do not occur on the four parcels. former uses, ongoing disturbances and dominance of cover by ruderal plant species prevent the formation of suitable mesic habitats and vernal pools. Wright's trichocoronis is not present.

The project is consistent with MSHCP Section 6.1.3.

5.4 Additional Survey Needs and Procedures (Section 6.3.2)

5.4.1 Criteria Area Plant Species

The four parcels support only ruderal habitats. There is no suitable habitat for any of the Criteria Area Plant Species within the project boundaries, as described below.

The Before the field surveys were conducted, we compiled the relevant botanical information on plant species information for the general project area. Data sources reviewed included the following:

- Calflora, California Native Plant Society (CNPS) Inventory
- California Consortium of Herbaria
- Information, Planning, and Conservation System (IPaC)
- Biogeographic Information & Observation System (BIOS)
- California Natural Diversity Data Base (CNDDB).
- Previous surveys conducted by NRAI and others in the vicinity of the project site.

5.4.1.1 San Jacinto Valley Crownscale

San Jacinto Valley crownscale (*Atriplex coronata* var. *notatior*) an annual species that occurs on alkali soils. It is known primarily from the San Jacinto Valley and Temescal Canyon areas of Riverside County, with outliers found in Kern County and (historically) Kern County.

San Jacinto Valley crownscale blooms from April through August at recorded elevations ranging from 400 to 500 meters (1312 to 1641 feet). Preferred habitat is alkali sink, freshwater wetlands and wetland-riparian, mostly on playas and vernal pools. It occurs in both wetland non-wetland sites.

San Jacinto Valley crownscale is listed as endangered by the USFWS and is on list 1B.1 of the CNPS Inventory. It is not listed by the CDFW.

Sinks, freshwater wetlands and wetland-riparian preferred by this species do not occur on the four parcels. The project site is not a playa and there are no vernal pools. San Jacinto Valley crownscale does not occur on the parcels.

The project is consistent with MSHCP Section 6.3.2.

5.4.1.2 Davidson's Saltscale

Davidson's saltscale (*Atriplex serenana* var. *davidsonii*) is an annual herb that grows on alkaline soils in coastal bluff scrub and coastal scrub plant communities. This species is recorded mostly along the San Jacinto River in San Jacinto and Hemet areas. It is also recorded from the coast. Davidson's saltscale blooms from April through October at elevations from 10 to 200 meters (30 to 660 feet).

It is threatened by the loss of habitat to development. It is not listed by the USFWS or the CDFW. It is on List 1B.2 of the CNPS Inventory.

Coastal bluff and coastal sage scrub vegetation are not present on the four parcels. Davidson's saltscale is not present.

The project is consistent with MSHCP Section 6.3.2.

5.4.1.3 Thread-leaved Brodiaea

Thread-leaved brodiaea (*Brodiaea filifolia*) is an annual herb that grows from an underground bulb. It is found in openings in chaparral, cismontane woodland, coastal scrub, valley and foothill grasslands, playas and vernal pools. It is found most commonly on clay. It flowers from March through June at elevations from 25 to 1120 meters (82 to 3700 feet). Thread-leaved brodiaea needs loose, uncompacted soils in order for bulbs to grow and reproduce.

Thread-leaved brodiaea is recorded from the Hemet and San Jacinto regions, as well as near Estelle Peak and in the Santa Ana Mountains west of the project site.

Thread-leaved brodiaea is threatened by the loss of habitat to agriculture and conversion to development. It is listed as threatened by the USFWS and endangered by the CDFW. It is on List 1B.1 of the CNPS Inventory.

The four parcels lack chaparral, cismontane woodland, coastal scrub, valley and foothill grasslands, playas and vernal pools. Clay soils are absent. Thread-leaved brodiaea is not present on the four parcels.

The project is consistent with MSHCP Section 6.3.2.

5.4.1.4 Round-leaved Filaree

Round-leaved filaree (*California macrophylla*) is an annual herb that occurs in clay soils of cismontane woodland and valley and foothill grassland plant communities. Round-leaved filaree is found mostly in foothill areas up and down the coast of California at elevations from 15 to 1200 meters (49 to 4000 feet). It flowers from March to May.

Historical localities from the late 1890s include Menifee and near Temecula. The nearest recent population from 1976 at Lake Perris. Round-leaved filaree is threatened by the loss of habitat to agriculture and conversion to development. It is not listed by the USFWS or the CDFW. It is on List 1B.1 of the CNPS Inventory.

Suitable clay soils do not exist on the parcels. There are no woodland or grassland habitats on the parcels. Round-leaved filaree is not present.

The project is consistent with MSHCP Section 6.3.2.

5.4.1.5 Coulter's Goldfields

Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*) is an annual herb that grows in coastal salt marshes, swamps, vernal pools and on playas. It prefers mesic conditions in low-lying areas. It blooms from February through June at elevations from 1 to 1200 meters (sea level to 4000 feet).

Most of the local populations are recorded along the stretch of the San Jacinto River from Mystic Lake south to Perris. It is also known from around Lake Elsinore and Sycamore Canyon in the City of Riverside.

Coulter's goldfields is a species threatened by the loss of habitat to agriculture, conversion to development and road improvements. It is not listed by the USFWS or the CDFW. It is on List 1B.1 of the CNPS Inventory.

No suitable coastal salt marshes, swamps, vernal pools or playas exist on the parcels. Coulter's goldfields is not present.

5.4.1.6 Little Mousetail

Little mousetail (*Myosurus minimus* spp. *apus*) is an annual herb that grows in vernal pools formed on alkaline soils in valley and foothill grasslands.

Little mousetail also occur in depressions with persistent or long-term pooling of water. They bloom from March through June at elevations from 20 to 640 meters (65 to 2100 feet).

The habitat of the little mousetail is threatened by the loss of vernal pools, grazing, agriculture and development. Known populations includes areas south of Lake Elsinore and in the Gavilan Hills area.

The little mousetail is not listed by the USFWS or the CDFW. It is on List 3.1 of the CNPS Inventory.

Little mousetail is not present on the parcels. There are no vernal pools or depressions with persistent or long-term pooling of water on the four parcels.

The project is consistent with MSHCP Section 6.3.2.

5.4.1.7 Parish's Brittlescale

Parish's brittlescale (*Atriplex parishii*) is an annual herb that occurs in vernal pools and playas with alkaline soils. It is found primarily in chenopod scrub from Riverside County down to Baja California. It blooms from June through October, at elevation ranges from 25 to 1900 meters (80 to 6300 feet).

This species is recorded mostly south of the parcels along the San Jacinto River.

Parish's brittlescale is threatened by the loss of habitat to agriculture, conversion to development and drainage of vernal pool areas. It is not listed by the USFWS or the CDFW. It is on List 1B.1 of the CNPS Inventory.

Suitable vernal pools and playas are not present on the four parcels. Parish's brittlescale is not present. The project is consistent with MSHCP Section 6.3.2.

5.4.1.8 Mud Nama

Mud nama (*Nama stenocarpum*) is an annual or perennial herb that prefers wetland habitats such as riparian, marsh and swamp habitats, but has been found in non-wetland areas. Mud nama has been recorded from Los Angeles, Orange, San Diego and Riverside counties.

Mud nama flowers from March through October at elevations ranging from 5 to 500 meters (16 to 1640 feet). It occurs usually in wetlands, occasionally in non-wetlands and is found in riparian habitats, along lake margins, streambanks and edges of ponds Preferred habitats are freshwater wetlands and wetland-riparian sites.

Mud nama is threatened by the loss of wetland and mesic habitats from agriculture, development and recreational activities. It is not listed by the USFWS or the CDFW. It is listed on List 2B.2 of the CNPS Inventory.

There is no mesic habitat on the parcels, and no riparian, lake or pond habitat suitable or this species. There are no drainages with adjacent low areas where water may collect and where this species may occur. Mud nama is not present.

The project is consistent with MSHCP Section 6.3.2.

5.4.1.9 Burrowing Owl

The four parcels are disked on a regular basis. Ground squirrel burrows observed during the April 22, 2022 survey were checked and no sign of owl use (feathers, pellets, scat, small animal bones, whitewash) was seen (Photo 5). There is no scrub cover or other native cover preferred by the small invertebrates foraged on by burrowing owl. There were no suitable burrows or other burrow-like structure that might be used by burrowing owls present on site.

No ground squirrel burrows or other suitable cavities were found on the two westernmost parcels.

The four parcels do not have burrowing owl habitat.

The project is consistent with MSHCP Section 6.3.2.

5.5 Guidelines Pertaining to the Urban/Wildland Interface (Section 6.1.4)

The project site is not near or in the vicinity of an MSHCP Conservation Area. There will be no impacts to the Urban/Wildland Interface.

The project is consistent with MSHCP Section 6.1.4.

Photo 7. Active ground squirrel burrow used by ground squirrel. April 22, 2022.

5.6 Habitat Conservation Plan for the Stephens Kangaroo Rat

The species objectives for the Stephens kangaroo rat (SKR) in the Western Riverside MSHCP were designed to incorporate the objectives and be consistent with the Long-Term Stephens Kangaroo Rat Habitat Conservation Plan (SKR Plan) including fee payment requirements.

The project site is located within the SKR fee area. A fee payment will be required if not already paid.

5.7 Jurisdictional Waters

The Corps regulates discharges of dredged or fill material into waters of the United States. These watersheds include wetlands and non-wetland bodies of water that meet specific criteria. The lateral limit of Corps jurisdiction extends to the Ordinary High-Water Mark (OHWM) and to any wetland areas extending beyond the OHWM; thus, the maximum jurisdictional area is represented by the OHWM or wetland limit, whichever is greater.

Corps regulatory jurisdiction pursuant to Section 404 of the Clean Water Act is founded on a connection or nexus between the water body in question and interstate (waterway) commerce. This connection may be direct, through a tributary system linking a stream channel with traditional navigable waters used in

interstate or foreign commerce, or may be indirect, through a nexus identified in the Corps regulations (Army Corps of Engineers 2020).

The Corps has delegated the authority for use of 404 permits to each individual state. The use of a 404 permit in California is regulated by the State Water Resources Control Board (SWRCB) under Section 401 of the Clean Water Act regulations. The Board has authority to issue a 401 permit that allows the use of a 404 permit in the state, with the authority in the state being vested in regional offices known as Regional Water Quality Control Boards (RWQCB).

Under the Porter-Cologne Act of 2003, the SWRCB has extended its responsibilities to include impacts to water quality from non-point source pollution.

In addition, the SWRCB has the responsibility to require that projects address ground water and water quality issues, which would be evaluated as part of the geotechnical and hydrology studies. Their authority extends to all waters of the State (of California).

The California Department of Fish and Wildlife (CDFW), through provisions of the State of California Administrative Code, is empowered to issue agreements for any alteration of a river, stream or lake where fish or wildlife resources may adversely be affected. Streams (and rivers) are defined by the presence of a channel bed and banks, and at least an intermittent flow of water. Lateral limits of jurisdiction are not clearly defined, but generally include any riparian resources associated with a stream or lake, CDFW regulates wetland areas only to the extent that those wetlands are part of a river, stream or lake as defined by CDFW.

There are no jurisdictional waters on the parcels. There is no wetland or riparian habitat on the parcels. There are no drainages or evidence of water flow. Ruderal vegetation and bare ground are the only habitats present on the four parcels.

5.8 Raptors, Migratory Birds, and Habitat

Most of the raptor species (eagles, hawks, falcons and owls) are experiencing population declines because of habitat loss. Some, such as the peregrine falcon, have also experienced population losses because of environmental toxins affecting reproductive success, animals destroyed as pests or collected for falconry, and other direct impacts on individuals. Only a few species, such as the red-tailed hawk and barn owl, have expanded their range despite or as a result of human modifications to the environment. As a group, raptors are of concern to state and federal agencies.

Raptors and all migratory bird species, whether listed or not, also receive protection under the Migratory Bird Treaty Act (MBTA) of 1918[2]. The MBTA prohibits individuals to kill, take, possess or sell any migratory bird, bird parts (including nests and eggs) except per regulations prescribed by the Secretary of the Department (16 U. S. Code 703[3]).

[2]https://www.fws.gov/birds/policies-and-regulations/laws-legislations/migratory-bird-treaty-act.php
3https://www.fws.gov/le/USStatutes/MBTA.pdf

Additional protection is provided to all bald and golden eagles under the Bald and Golden Eagle Protection Act of 1940, as amended[4]. State protection is extended to all birds of prey by the California Fish and Game Code, Section 2503.5[5]. No take is allowed under these provisions except through the approval of the agencies or their designated representatives.

No take is allowed under these provisions except through the approval of the agencies or their designated representatives.

The small stand of pine, oak and pepper trees may provide some tree-nesting habitat. If the trees are scheduled to be removed between February 1 and August 31 a qualified biologist must conduct a breeding bird survey to check for nesting. The survey must occur no more than three days prior to the start of if construction[6].

If occupied nests are found, they shall not be disturbed unless the qualified biologist verifies through non-invasive methods that either (a) the adult birds have not begun egg-laying and incubation; or (b) the juveniles from the occupied nests are capable of independent survival.

If the biologist is not able to verify one of the above conditions, then no disturbance shall occur within a distance specified by the qualified biologist for each nest or nesting site. The qualified biologist will determine the appropriate distance in consultation with the California Department of Fish and Wildlife and the U.S. Fish and Wildlife Service.

At the time of the surveys, the project site had no nesting habitat for ground-nesting bird species. The adjacent properties on the west and south boundaries re developed and have no suitable nesting habitat.

The properties to the north and east of the four parcels has the same habitat as the project parcels. Impacts to birds have already occurred and is ongoing.

4https://www.fws.gov/le/USStatutes/BEPA.pdf
5https://law.justia.com/codes/california/2015/code-fgc/division-4/part-2/chapter-1/section-3513

[6] "Construction" includes selection of staging areas, demolition, tree, trash and debris removal, placement of equipment and machinery on to the site preparatory to grading, and any other project-related activity that increases noise and human activity on the project site beyond existing levels. Emergency measures are exempt from this definition.

6.0 References

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Appendix A - Plant and Animal Species Observed

Plants

*non-native plant species

Common Name	Scientific Name
	Gymnospermae
	Gymnosperms
Pine Family	**Pinaceae**
Canary Island Pine	*Pinus canariensis**
	Angiosperms
	Angiospermae
	Dicots
	Dicotyledons
Amaranth Family	**Amaranthaceae**
Tumbleweed	*Amaranthus albus**
Sumac Family	**Anacardiaceae**
Brazilian pepper tree	*Schinus terebinthifolia**
Sunflower Family	**Asteraceae**
Tocalote	*Centuarea melitensis**
Stinknet	*Oncosiphon piluliferum**
Borage Family	**Boraginaceae**
Fiddleneck	*Amsinckia menziesii*
Mustard Family	**Brassicaceae**
Short-pod Mustard	*Hirschfeldia incana**
Goosefoot Family	**Chenopodiaceae**
Russian Thistle	*Salsola tragus **
London Rocket	*Sisymbrium irio**
Morning Glory Family	**Convolvulaceae**
Southern California morning glory	*Calystegia macrostegia* ssp. *aria*
Oak Family	**Fagaceae**
Oak. unknown species	*Quercus* sp. unkn.
Geranium Family	**Geraniaceae**
Red-stemmed Filaree	*Erodium cicutarium**
Mallow Family	**Malvaceae**
Cheeseweed	*Malva parviflora**
Myrtle Family	**Myrtaceace**
Red gum	*Eucalyptus camaldulensis**
Russian Thistle	*Salsola tragus **
Nightshade Family	**Solanceae**
Jimson weed	*Datura wrightii*

Monocots Monocotyledons	
Grass Family	**Poaceae**
Slender wild oats	*Avena barbata**
Cheatgrass	*Bromus diandrus**
Red Brome	*Bromus madritensis* ssp. *rubens**
Mouse Barley	*Hordeum murinum* ssp. *leporinum**
Old Han Schismus	*Schismus barbatus**

Animals

BIRDS	CLASS AVES
Common Name	**Scientific Name**
Eagles, Hawks, Kites	**Family Accipitridae**
Red-tailed Hawk	*Buteo jamaicensis*
Horned Larks	**Family Alaudidae**
Horned Lark	*Eremophila alpestris*
New World Vultures	**Family Cathartidae**
Turkey Vulture	*Cathartes aura*
Doves and Pigeons	**Family Columbidae**
Eurasian Collared-dove	*Streptopelia decaocto*
Mourning Dove	*Zenaida macroura*
Crows, Ravens, and Jays	**Family Corvidae**
Common Raven	*Corvus corax*
Sparrows Buntings and Relatives	**Family Emberizidae**
White-crowned Sparrow	*Zonotrichia leucophrys*
Finches	**Fringillidae**
House Finch	*Haemorrhous mexicanus*
Mimic Thrushes	**Family Mimidae**
Northern Mockingbird	*Mimus polyglottos*
New World Warblers	**Family Parulidae**
Yellow-rumped Warbler	*Setophaga coronata*
Gnatcatchers	**Family Polioptilidae**
California Gnatcatcher	*Polioptila californica*
Starlings	**Family Sturnidae**
European Starling	*Sturnus vulgaris*
Flycatchers	**Family Tyrannidae**
Say's Phoebe	*Sayornis saya*
Western Kingbird	*Tyrannus verticalis*

MAMMALS	**CLASS MAMMALIA**
Common Name	**Scientific Name**
Gophers	**Family Geomyidae**
California Pocket Gopher	*Thomomys bottae*
Squirrels	**Sciuridae**
California ground squirrel	*Spermophilus beecheyi*

18 October 2022

Mr. Bobby Nassir
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SUBJECT: Special Status Shrimp Habitat Surveys at the proposed East Markham Street project site, Perris, Riverside County, California.

Dear Mr. Nassir,

Kansas Biological Survey (KBS) conducted a survey for potential special status shrimp at the proposed East Markham Street project site, Perris, Riverside County, California. Surveys were conducted on 11 November 2021 on foot. This survey consisted of a single, one day visual survey of the site.

Site Description

The proposed East Markham Street project site consists of four parcels (APN 302-110-021, 022, 023, and 024) and lies on the north side of East Markham Street, just east of North Perris Road, in the City of Perris, Riverside County, California.

The site is approximately 8.4 acres in area, is generally level, and appears to have been regularly ploughed at recently and little vegetation was present. All observed herbaceous vegetation was upland ruderal. The few scattered plants on site consist of mustard (*Brassica* sp.), fiddleneck (*Amsinkia* sp.), and brome (*Bromus* sp.). Several large Harvester Ant (*Pogonomyrmex* sp.) colonies were observed.

Four trees are present: one Pine (*Pinus* sp.), one oak (*Quercus* sp.), and two Brazilian Pepper Tree (*Schinus terebinthifolia*). The larger Pepper Tree had an active homeless camp beneath it. These trees are in the southwest side of the site.

The southwest quarter also has some sort of underground anthropogenic, concrete structure. Several ground squirrel burrows are around this structure. Just north of the structure are two logs/stumps, each containing a wild hive of bees. Based on their abnormally aggressive divebombing attacks, numerous stings, and chasing me more than 200 meters to my vehicle. Any work done on the site should be conducted after the hives are eradicated by experts.

Soils substrates are all Domino silt loam, saline-alkaline, with 0 to 2 per cent slope, moderately well drained, with Calcium carbonate ~10 per cent, gypsum ($CaSO^4*H_2O$) at 0 percent, and salinity from 8.0 to 16.0 mS/cm.

During the site visit Mourning Dove (*Zenaida macroura*), Northern Common Raven (*Corvus corax principalis*), Western Kingbird (*Tyrannus verticalis*), Savannah Sparrow (*Passerculus sandwichensis*), Song Sparrow (*Melospiza melodia*), House Finch (*Haemorhous mexicanus*) were the only birds observed at the site.

Results

No potential special status shrimp habitat was observed on or adjacent to the proposed East Markham Street project site. In fact, no evidence of wetland habitats of any kind was observed on site at all. The soils have cation percentages and salinity too high to support the federally endangered fairy shrimp *Streptocephalus woottoni* Eng et al., 1990, and the federally threatened *Branchinecta lynchi* Eng et al., 1990 (Rogers, 2014). In addition, the lack of any basins, any vernal pool habitat, and the well drained, sandy loam soils precludes any listed large branchiopod shrimp being present.

If you have any questions, please contact me.

Yours,

D. Christopher Rogers
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References

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