INFORMATION SUMMARY

A. Report Date: May 7th, 2022

B. Report Title: Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Biological Resources Compliance Analysis for the 7.65-Acre Duke Reality Perris Valley Channel Lateral B Stage 4 Connection Project, City of Perris/Unincorporated Riverside County, California.

C. APNs#: 294-200-007, Portions of 294-220-010, 294-200-002, -003 and Right of Way.

D. Project Location: USGS 7.5' Series Perris/Steele Peak Quadrangle Township 3 South, Range 4 West, Section 36, Extending East of Patterson Avenue and West of March Air Reserve Base as shown in Attachment A, *Regional Location Map* and Attachment B, *Vicinity Map*.

E. Applicant Rep: Duke Reality
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G. Date of Survey: May 6th, 2022.

H. Summary: The 7.65-acre study area within which an approximately 1,000-foot connection to the Perris Valley Channel Lateral B Stage 4 is proposed is located within the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Mead Area and Reche Canyon/Badlands Plan Areas, and dominated by disturbed and non-native grassland habitats.

The Study Area is not located within an MSHCP Criteria Area, Cell Group, or Linkage Area. Therefore, no MSHCP Habitat Evaluation

and Acquisition Negotiation Strategy (HANS) or Joint Project Review (JPR) are required.

The MSHCP has determined that all of the sensitive species potentially occurring onsite have been adequately covered (MSHCP Table 2-2 Species Considered for Conservation Under the MSHCP Since 1999, 2004). However, additional surveys may be required for narrow endemic plants, criteria area species, and specific wildlife species, if suitable habitat is documented onsite and/or if the property is located within a predetermined "Survey Area" as shown in Attachment C, *MSHCP Relationship Map* (MSHCP 2004).

The study area does not occur within a predetermined Survey Area for criteria area species (RCA GIS Data Downloads 2022). No additional surveys are required.

The study area does not occur within a predetermined Survey Area for narrow endemic plant species (RCA GIS Data Downloads 2022). No additional surveys are required.

The study area does not occur within a predetermined Survey Area for amphibians (RCA GIS Data Downloads 2022). No additional surveys are required.

The study area does not occur within a predetermined Survey Area for mammals (RCA GIS Data Downloads 2022). No additional surveys are required.

The study area occurs partially within a predetermined Survey Area for the burrowing owl (*Athene cunicularia*) as shown in Attachment C, *MSHCP Relationship Map*. No suitable burrowing owl burrows potentially utilized for refugia and/or nesting were documented within the study area. However, the eastern region of the study area and adjacent open space lands located within the March Air Reserve Base represent foraging habitat and potential refugia and burrows may be present. To ensure potential temporary impacts within the March Air Reserve Base do not directly or indirectly impact burrowing owl, at a minimum, an MSHCP 30-day preconstruction survey will be required immediately prior to the initiation of construction to ensure protection for this species and compliance with the conservation goals as outlined in the MSHCP.

No MSHCP 6.1.2 riparian or riverine resources were documented within or adjacent to the study area. Preparation of an MSHCP Determination of Biological Equivalent or Superior Preservation (DBESP) will not be required.

No riparian scrub, forest or woodland habitat is located within or adjacent to the Study Area. No suitable habitat for the least Bell's vireo (*Vireo bellii pusillus*), southwestern willow flycatcher (*Empidonax traillii extimus*) or western yellow-billed cuckoo (*Coccyzus americanus*) is present onsite as detailed in the following report and shown in Attachment D, *Vegetation Communities Map*, and Attachments E and F, *Current Study Area Photographs*. No additional surveys are required.

No MSHCP Section 6.1.2 vernal pool resources were documented onsite as described in detail in the following report. No additional surveys for fairy shrimp are required.

No features regulated by the Santa Ana Regional Water Quality Control Board, California Department of Fish and Wildlife and United States Army Corps of Engineers were documented within or adjacent to the project. No regulatory permits or certifications are required.

SUBJECT

General MSHCP Habitat Assessment & Compliance Analysis for the 7.65-Acre Perris Valley Channel Lateral B Stage 4 Connection Project, City of Perris and Unincorporated Riverside County, California.

This report presents the findings of a biological resources Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) compliance analysis for the 7.65-acre study area within which an approximately 1,000-foot connection to the Perris Valley Channel Lateral B Stage 4 is proposed ("Study Area"). The Study Area is located within the western region of Riverside County, City of Perris and Unincorporated Riverside County, California. Specifically, the Study Area is located within Assessor Parcel Numbers (APNs) 294-200-007, Portions of 294-220-010, 294-200-002, -003 and existing right-of-way's. The purpose of this study, conducted by Cadre Environmental, is to document the existing biological resources, identify general vegetation types, and assess the potential biological and regulatory constraints associated with the proposed development and ensure compliance with the Western Riverside County MSHCP.

The Study Area is located within United States Geological Survey (USGS) 7.5' Series Perris and Steele Peak Quadrangles, Riverside County, Township 3 South, Range 4 West, Section 36. Specifically, the Study Area extends east of Patterson Avenue (City of Perris into the March Air Reserve Base (Unincorporated Riverside County), as shown in Attachment A, *Regional Location Map* and Attachment B, *Vicinity Map*.

The Study Area is located within the Western Riverside County MSHCP Mead and Reche Canyon/Badlands Plan Areas. The Study Area is not located within an MSHCP Criteria Area, Cell Group, or Linkage Area as shown in Attachment C, *MSHCP Relationship Map*.

This report incorporates the findings of an extensive literature review, compilation of existing documentation and field reconnaissance conducted on May 6th, 2022. This documentation is consistent with accepted scientific and technical standards, the requirements of the United States Fish and Wildlife Service (USFWS), and the California Department of Fish and Wildlife (CDFW). When appropriate, general biological resources are described in summary form in an effort to provide the reader with adequate background information. However, the report focuses on documenting those resources considered to be significant and/or sensitive as outlined by the California Environmental Quality Act (CEQA) and the Western Riverside County MSHCP.

The following report provides a summary of topographic features, soils and habitats observed onsite. Onsite resources were also analyzed to determine which if any are subject to the United States Army Corps of Engineers (USACE) jurisdiction pursuant to Section 404 of the Clean Water Act, CDFW jurisdiction pursuant to Division 2, Chapter 6, Section 1600 of the Fish and Wildlife Code, the Santa Ana Regional Water Quality Control Board (RWQCB) 401 certification/Waste Discharge Requirements (WDR's), and MSHCP jurisdiction pursuant to section 6.1.2 (MSHCP 2004).

Accordingly, this report provides an overview of potential USACE, RWQCB, CDFW, MSHCP riparian/riverine/vernal pool jurisdictional resources and a habitat assessment for species that may require additional focused surveys as outlined by the MSHCP.

METHODS OF STUDY

APPROACH

Prior to visiting the Study Area, a review of all available and relevant data on the biological characteristics, sensitive habitats, and species potentially present on or adjacent to the Study Area was conducted. Additionally, aerial photography, and USGS topographic map were examined. After reviewing the available information, Cadre Environmental conducted a physical site assessment.

As required by the MSHCP, and during the initial property assessment process, all Study Area APN's were searched using the Regional Conservation Authority (RCA) Geographic Information System (GIS) database to determine if the property falls within a "Criteria Area" and if additional surveys for narrow endemic/criteria area plant species or wildlife not adequately covered by the MSHCP may be required as shown in Attachment C, *MSHCP Relationship Map*.

Data, which contain digital images derived from aerial photography with orthographic projection properties, were used in conjunction with Cadre Environmental's in-house GIS database as an important base layer to identify vegetation communities, drainage features, and USFWS designated critical habitat boundaries. Vegetation communities were then "ground-truthed" during field observations to obtain characteristic descriptions.

LITERATURE REVIEW

The study was initiated with a review of relevant literature on the biological resources of the Study Area and vicinity. The MSHCP list of covered species potentially occurring onsite was also examined (MSHCP Table 2-2 Species Considered for Conservation Under the MSHCP Since 1999, 2004). In addition, federal register listings, protocols, and species data provided by USFWS were reviewed in conjunction with anticipated federally listed species potentially occurring at the Study Area. The California Natural Diversity Database (CNDDB),[1] a review of the California Native Plant Society sixth inventory (Tibor 2001), and Roberts et al. (2004) were also reviewed for pertinent information regarding the location of known occurrences of sensitive species in the vicinity of the property. In addition, numerous regional floral and faunal field guides were utilized in the identification of species and suitable habitats. Documents consulted regarding potential onsite biological conditions are listed in the references section at the end of this report.

[1] California Natural Diversity Data Base, Department of Fish and Game. May 2022. Natural Heritage Program: RareFind, Perris and Steele Peak Quadrangles.

FIELD INVESTIGATION

The Study Area was surveyed on May 6th, 2022. The survey included complete coverage of the Study Area, with special attention focused toward sensitive species or those habitats potentially supporting sensitive flora or fauna that would be essential to efficiently implementing the terms and conditions of the Western Riverside County MSHCP including features potentially subject to MSHCP 6.1.2 jurisdiction. Aerial photography of the Study Area and vicinity was utilized to accurately locate and survey the property. General plant communities were preliminarily mapped directly on the aerial photo using visible landmarks in the field, which are depicted in Attachment D, *Vegetation Communities Map*. Representative photographs of the Study Area's natural resources were taken during the field survey as shown in Attachments E and F, *Current Study Area Photographs*).

Plant Community/Habitat Classification and Mapping

Plant communities were preliminarily mapped with the aid of an aerial photograph using the MSHCP uncollapsed vegetation communities classification system when appropriate. When a vegetation community could not be accurately characterized using this information, an updated community classification code was developed to more accurately represent onsite habitat types.

General Plant Inventory

All plants observed during the survey efforts were either identified in the field or collected and later identified using taxonomic keys. Plant taxonomy and nomenclatural changes follow Baldwin et al. (2012) or the Jepson Flora Project (2022). Common names used in this report generally follow Roberts et al. (2004) or Baldwin et al. (2012). Scientific names are included only at the first mention of a species; thereafter, common names alone are used.

General Wildlife Inventory

General wildlife surveys were not conducted during the general biological habitat assessment. However, animals identified during the reconnaissance survey by sight, call, tracks, nests, scat, remains, or other signs were recorded in field notes. All wildlife was identified in the field with the aid of binoculars and taxonomic keys (if applicable). Vertebrate taxonomy followed in this report is according to the Center of North American Herpetology (2022) for amphibians and reptiles, the American Ornithologists' Union (1998 and supplemental) for birds, and Bradley et al. (2014) for mammals. Scientific names are used during the first mention of a species; common names only are used in the remainder of the text (if applicable).

MSHCP Burrowing Owl Habitat Assessment

The Study Area occurs partially within an MSHCP burrowing owl (*Athene cunicularia*) survey area and a habitat assessment was conducted for the species to ensure compliance with MSHCP guidelines for the species.

In accordance with the MSHCP Burrowing Owl Survey Instructions (2006), survey protocol consists of two steps, Step I – Habitat Assessment and Step II – Locating Burrows and Burrowing Owls. The following section describes the approach to conducting the habitat assessment.

Step I – Habitat Assessment

Step 1 of the MSHCP habitat assessment for burrowing owl consists of a walking survey to determine if suitable habitat is present onsite. Cadre Environmental conducted the habitat assessment on May 6th, 2022. Upon arrival at the Study Area, and prior to initiating the assessment survey, Cadre Environmental used binoculars to scan all suitable habitats on and adjacent to the property, including perch locations, to ascertain owl presence.

All suitable areas of the Study Area were surveyed on foot by walking slowly and methodically while recording/mapping areas that may represent suitable owl habitat onsite. Primary indicators of suitable burrowing owl habitat in western Riverside County include, but are not limited to, native and non-native grassland, interstitial grassland within shrub lands, shrub lands with low density shrub cover, golf courses, drainage ditches, earthen berms, unpaved airfields, pastureland, dairies, fallow fields, and agricultural use areas. Burrowing owls typically use burrows made by fossorial mammals, such as ground squirrels (*Otospermophilus beecheyi*) or badgers (*Taxidea taxus*), but they often utilize man-made structures, such as earthen berms, cement culverts, cement, asphalt, rock, wood debris piles, openings beneath cement or asphalt pavement. Burrowing owls are often found within, under, or in close proximity to man-made structures.

According to the MSHCP guidelines, if suitable habitat is present, the biologist should also walk the perimeter of the property, which consists of a 150-meter (approximately 500 feet) buffer zone around the Study Area boundary. If permission to access the buffer area cannot be obtained, the biologist shall not trespass, but visually inspect adjacent habitats with binoculars.

Regional Connectivity/Wildlife Movement Corridor Assessment

The analysis of wildlife movement corridors associated with the Study Area and its immediate vicinity is based on information compiled from literature, analysis of the aerial photograph, and direct observations made in the field during the site visit.

A literature review was conducted that included documents on island biogeography (studies of fragmented and isolated habitat “islands”), reports on wildlife home range sizes and migration patterns, and studies on wildlife dispersal. Wildlife movement studies

conducted in southern California were also reviewed. Use of field-verified digital aerial data, in conjunction with the GIS database, allowed proper identification of vegetation communities and drainage features. This information was crucial to assessing the relationship of the property to large open space areas in the immediate vicinity and was also evaluated in terms of connectivity and habitat linkages. Relative to corridor issues, the discussions in this report are intended to focus on wildlife movement associated with the property and the immediate vicinity.

EXISTING CONDITIONS

The Study Area is completely flat with little to no topographic relief or change in elevation. The Study Area is currently dominated by disturbed and non-native grassland vegetation communities as illustrated in Attachment, D *Vegetation Communities Map*, Attachments E and F, *Current Study Area Photographs*, and outlined in Table 1, *Study Area Vegetation Community Acreages*.

Table 1.
Study Area Vegetation Community Acreages

Vegetation Community	Study Area (ac)
Disturbed	6.73
Non-native Grassland	0.92
TOTAL	**7.65**

Source: Cadre Environmental 2022.

SOILS

The Soil Survey of Western Riverside Area has the following soils mapped within the boundary of the property as shown on Attachment G, *Soils Association Map*:

- **RaA** Ramona sandy loam, 0 to 2 percent slopes, MLRA 19
- **PaA** Pachappa fine sandy loam, 0 to 2 percent slopes

All soils documented within the Study Area are characterized as being well drained (drainage class).

PLANT COMMUNITY/HABITAT CLASSIFICATION

Disturbed

The majority of the Study Area is characterized as disturbed habitat and is generally devoid of vegetation and is currently being utilized for commercial vehicle storage and staging. A few species were documented within this disturbed area including ripgut grass (*Bromus diandrus*), foxtail chess (*Bromus madritensis* ssp. *rubens*), wild oat grass (*Avena fatua*), prickly lettuce (*Lactuca serriola*), black mustard (*Brassica nigra*), and stinknet (*Oncosiphon piluliferum*).

Non-native Grassland

The eastern region of the Study Area extends into the March Air Reserve Base, is characterized as non-native grassland, and appears to be annually or bi-annually mowed. Species documented from the adjacent property boundary include ripgut grass, foxtail chess, wild oat grass, stinknet and foxtail barley (*Hordeum murinum*).

WILDLIFE POPULATIONS

General wildlife species documented onsite or within the vicinity during the site visit include red-tailed hawk (*Buteo jamaicensis*), mourning dove (*Zenaida macroura*), cliff swallow (*Petrochelidon pyrrhonota*), western meadowlark (*Sturnella neglecta*), northern mockingbird (*Mimus polyglottos*), and house finch (*Carpodacus mexicanus*).

REGIONAL CONNECTIVITY/WILDLIFE MOVEMENT

Overview

Wildlife corridors link together areas of suitable habitat that are otherwise separated by rugged terrain, changes in vegetation, or human disturbance. The fragmentation of open space areas by urbanization creates isolated “islands” of wildlife habitat. In the absence of habitat linkages that allow movement to adjoining open space areas, various studies have concluded that some wildlife species, especially the larger and more mobile mammals, will not likely persist over time in fragmented or isolated habitat areas because they prohibit the infusion of new individuals and genetic information (MacArthur and Wilson 1967, Soule 1987, Harris and Gallager 1989, Bennett 1990). Corridors effectively act as links between different populations of a species. A group of smaller populations (termed “demes”) linked together via a system of corridors is termed a “metapopulation.” The long-term health of each deme within the metapopulation is dependent upon its size and the frequency of interchange of individuals (immigration vs. emigration). The smaller the deme, the more important immigration becomes, because prolonged inbreeding with the same individuals can reduce genetic variability. Immigrant individuals that move into the deme from adjoining demes mate with individuals and supply that deme with new genes and gene combinations that increases overall genetic diversity. An increase in a population’s genetic variability is generally associated with an increase in a population’s health.

Corridors mitigate the effects of habitat fragmentation by (1) allowing animals to move between remaining habitats, which allows depleted populations to be replenished and promotes genetic diversity; (2) providing escape routes from fire, predators, and human disturbances, thus reducing the risk that catastrophic events (such as fires 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 (Noss 1983, Fahrig and Merriam 1985, Simberloff and Cox 1987, Harris and Gallagher 1989). Wildlife movement activities usually fall into one of three movement categories: (1) dispersal (e.g., juvenile animals from natal areas, individuals extending range distributions); (2) seasonal migration; and (3) movements related to home range

activities (foraging for food or water, defending territories, 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 moves from one area to another. To clarify the meaning of these terms and facilitate the discussion on wildlife movement in this study, these terms are defined as follows:

Travel Route: A landscape feature (such as a ridge line, drainage, canyon, or riparian strip) within a larger natural habitat area that is used frequently by animals to facilitate movement and provide access to necessary resources (e.g., water, food, cover, den sites). The travel route is generally preferred because it provides the least amount of topographic resistance in moving from one area to another; it contains adequate food, water, and/or cover while moving between habitat areas; and provides a relatively direct link between target habitat areas.

Wildlife Corridor: A piece of habitat, usually linear in nature, that connects two or more habitat patches that would otherwise be fragmented or isolated from one another. Wildlife corridors are usually bounded by urban land areas or other areas unsuitable for wildlife. The corridor generally contains suitable cover, food, and/or water to support species and facilitate movement while in the corridor. Larger, landscape-level corridors (often referred to as "habitat or landscape linkages") can provide both transitory and resident habitat for a variety of species.

Wildlife Crossing: A small, narrow area, relatively short in length and generally constricted in nature, that allows wildlife to pass under or through an obstacle or barrier that otherwise hinders or prevents movement. Crossings typically are manmade and include culverts, underpasses, drainage pipes, and tunnels to provide access across or under roads, highways, pipelines, or other physical obstacles. These are often "choke points" along a movement corridor.

Wildlife Movement within the Study Area

The Study Area is located within and bordered by barbed wired fenced parcels, an existing roadway along the western boundary (Patterson Avenue) and is not located within an MSHCP designated core, extension of existing core, non-contiguous habitat block, constrained linkage, or linkage area. The Study Area does not represent a wildlife movement corridor.

SENSITIVE BIOLOGICAL RESOURCES

OVERVIEW OF CLASSIFICATIONS

The following discussion describes the plant and wildlife species present, or potentially present, within the property boundaries, that have been afforded special recognition by federal, state, or local resource conservation agencies and organizations, principally due to the species' declining or limited population sizes, usually resulting from habitat loss.

Also discussed are habitats that are unique, of relatively limited distribution, or of particular value to wildlife. Protected sensitive species are classified by either state or federal resource management agencies, or both, as threatened or endangered under provisions of the state and federal Endangered Species Acts. Vulnerable or "at-risk" species that are proposed for listing as threatened or endangered are categorized administratively as "candidates" by the USFWS. The CDFW uses various terminology and classifications to describe vulnerable species. There are additional sensitive species classifications applicable in California. These are described below.

Sensitive biological resources are habitats or individual species that have special recognition by federal, state, or local conservation agencies and organizations as endangered, threatened, or rare. The CDFW, the USFWS, and special groups like the California Native Plant Society (CNPS) maintain watch lists of such resources. For the purpose of this assessment, sources used to determine the sensitive status of biological resources are:

Plants: USFWS (2022), CDFW (2022d), CNDDB (CDFW 2022a), CNPS (2022), and Skinner and Pavlik (1994),

Wildlife: California Wildlife Habitat Relationships (2008), USFWS (2022), CDFW (2022b, 2022e), and CNDDB (CDFW 2022a),

Habitats: CNDDB (CDFW 2022a).

Federal Protection and Classifications

The Federal Endangered Species Act of 1973 (FESA) defines an endangered species as "any species that is in danger of extinction throughout all or a significant portion of its range." Threatened species are defined as "any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range." Under provisions of Section 9(a)(1)(B) of the FESA, it is unlawful to "take" any listed species. "Take" is defined as follows in Section 3(18) of the FESA: "...harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." Further, the USFWS, through regulation, has interpreted the terms "harm" and "harass" to include certain types of habitat modification as forms of a "take." These interpretations, however, are generally considered and applied on a case-by-case basis and often vary from species to species. In a case where a property owner seeks permission from a federal agency for an action that could affect a federally listed plant and animal species, the property owner and agency are required to consult with the USFWS. Section 9(a)(2)(b) of the FESA addresses the protections afforded to listed plants. Recently, the USFWS instituted changes in the listing status of former candidate species. Former C1 (candidate) species are now simply referred to as candidate species and represent the only candidates for listing. Former C2 species (for which the USFWS had insufficient evidence to warrant listing at this time) and C3 species (either extinct, no longer a valid taxon, or more abundant than was formerly believed) are no longer considered as candidate species. Therefore, these species are no longer maintained in list form by the USFWS, nor are they formally protected. However, some USFWS field

offices have issued memoranda stating that former C2 species are henceforth to be considered Federal Species of Concern. This term is employed in this document, but carries no official protections. All references to federally protected species in this report (whether listed, proposed for listing, or a candidate) include the most current published status or candidate category to which each species has been assigned by the USFWS. For purposes of this assessment, the following acronyms are used for federal status species:

FE	Federal Endangered
FT	Federal Threatened
FPE	Federal Proposed Endangered
FPT	Federal Proposed Threatened
FC	Federal Candidate for Listing

State of California Protection and Classifications

The California Endangered Species Act (CESA) defines an endangered species as "...a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, or disease." The State defines a threatened species as "...a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future in the absence of the special protection and management efforts required by this chapter. Any animal determined by the commission as rare on or before January 1, 1985 is a threatened species." Candidate species are defined as "...a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that the commission has formally noticed as being under review by the department for addition to either the list of endangered species or the list of threatened species, or a species for which the commission has published a notice of proposed regulation to add the species to either list." Candidate species may be afforded temporary protection as though they were already listed as threatened or endangered at the discretion of the Fish and Game Commission. Unlike the federal FESA, the CESA does not include listing provisions for invertebrate species.

Article 3, sections 2080 through 2085 of the CESA addresses the taking of threatened or endangered species by stating "no person shall import into this state, export out of this state, or take, possess, purchase, or sell within this state, any species, or any part or product thereof, that the commission determines to be an endangered species or a threatened species, or attempt any of those acts, except as otherwise provided..." Under the CESA, "take" is defined as "...hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." Exceptions authorized by the state to allow "take" require "...permits or memorandums of understanding..." and can be authorized for "...endangered species, threatened species, or candidate species for scientific,

educational, or management purposes." Sections 1901 and 1913 of the California Fish and Game Code provide that notification is required prior to disturbance.

Additionally, some sensitive mammals and birds are protected by the State as Fully Protected Mammals or Fully Protected Birds, as described in the California Fish and Game Code, sections 4700 and 3511, respectively. California Species of Special Concern ("special" animals and plants) listings include special status species, including all state and federal protected and candidate taxa, Bureau of Land Management and U.S. Forest Service sensitive species, species considered to be declining or rare by the CNPS or National Audubon Society, and a selection of species that are considered to be under population stress but are not formally proposed for listing. This list is primarily a working document for the CDFW CNDDB project. Informally listed taxa are not protected per se, but warrant consideration in the preparation of biotic assessments. For some species, the CNDDB is only concerned with specific portions of the life history, such as roosts, rookeries, or nest sites. For the purposes of this assessment, the following acronyms are used for state status species:

SE	State Endangered
ST	State Threatened
SCE	State Candidate Endangered
SCT	State Candidate Threatened
SFP	State Fully Protected
SP	State Protected
SR	State Rare
CSC	California Species of Special Concern
WL	California Watch List

Nesting birds, including raptors, are protected under California Fish and Game Code Section 3503, which reads, "It is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto." In addition, under California Fish and Game Code Section 3503.5, "it is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto". Passerines and non-passerine land birds are further protected under California Fish and Game Code 3513. As such, CDFW typically recommends surveys for nesting birds that could potentially be directly (e.g., actual removal of trees/vegetation) or indirectly (e.g., noise disturbance) impacted by project-related activities. Disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered "take" by CDFW.

California Native Plant Society

The CNPS is a private plant conservation organization dedicated to the monitoring and protection of sensitive species in the state. This organization has compiled an inventory comprised of the information focusing upon geographic distribution and qualitative characterization of rare, threatened, or endangered vascular plant species of California (Tibor 2001). The list serves as the candidate list for listing as threatened and endangered by the CDFW. The CNPS has developed five categories of rarity (California Rare Plant Rank [CRPR]):

CRPR 1A	Presumed extinct in California
CRPR 1B	Rare, threatened, or endangered in California and elsewhere
CRPR 2A	Plants presumed extirpated in California but common elsewhere
CRPR 2B	Plants rare, threatened, or endangered in California but more common elsewhere
CRPR 3	Plants about which we need more information – a review list
CRPR 4	Species of limited distribution in California (i.e., naturally rare in the wild), but whose existence does not appear to be susceptible to threat

As stated by the CNPS:

Threat Rank is an extension added onto the California Rare Plant Rank and designates the level of endangerment by a 1 to 3 ranking with 1 being the most endangered and 3 being the least endangered. A Threat Rank is present for all California Rare Plant Rank 1B, 2, 4, and the majority of California Rare Plant Rank 3. California Rare Plant Rank 4 plants are seldom assigned a Threat Rank of 0.1, as they generally have large enough populations to not have significant threats to their continued existence in California; however, certain conditions exist to make the plant a species of concern and hence be assigned a California Rare Plant Rank. In addition, all California Rare Plant Rank 1A (presumed extinct in California), and some California Rare Plant Rank 3 (need more information) plants, which lack threat information, do not have a Threat Rank extension (CNPS 2012).

0.1	Seriously threatened in California (over 80 percent of occurrences threatened/high degree and immediacy of threat)
0.2	Fairly threatened in California (20-80 percent occurrences threatened/moderate degree and immediacy of threat)
0.3	Not very threatened in California (<20 percent of occurrences threatened/low degree and immediacy of threat or no current threats known)

POTENTIALLY SENSITIVE SPECIES/RESOURCES

Determinations of MSHCP sensitive species that could potentially occur on the Study Area are based on one or both of the following: (1) a record reported in the CNDDB or CNPS inventory and; (2) the Study Area is within the known distribution of a species and contains suitable habitat or species documented onsite.

Sensitive Plant Communities

As stated by CDFG:

> "*One purpose of the vegetation classification is to assist in determining the level of rarity and imperilment of vegetation types. Ranking of alliances according to their degree of imperilment (as measured by rarity, trends, and threats) follows NatureServe's Heritage Methodology, in which all alliances are listed with a G (global) and S (state) rank. For alliances with State ranks of S1-S3, all associations within them are also considered to be highly imperiled*" (CDFG 2012)

No sensitive plant communities were documented onsite.

Sensitive Plant Species

The Study Area does not occur within a predetermined Survey Area for criteria area species (RCA GIS Data Downloads 2022).

The Study Area does not occur within a predetermined Survey Area for narrow endemic plant species (RCA GIS Data Downloads 2022).

Tree Resources

No trees are located within or adjacent to the Study Area as shown in Attachment D, *Vegetation Communities Map*. The proposed project will not conflict with the City of Perris's Urban Forestry Establishment and Care Ordinance (19.71).

The following regulations apply to tree removal within Riverside County.

- Riverside County Code of Ordinances, Section 12.08.050 requires a permit from the county transportation Director to remove or severely trim any tree planted in the right-of-way of any county highway.

- Riverside County Code of Ordinances, Section 12.24 or Ordinance No. 559 requires a permit to "remove any living native tree on any parcel or property greater than one-half acre in size, located in an area above 5,000 feet in elevation and within the unincorporated area of the County of Riverside."

- The Riverside County Oak Tree Management Guidelines address the treatment of oak woodlands and their preservation.

No coast live oak or native trees will be directly or indirectly impacted as a result of project initiation. No Impact.

Sensitive Wildlife Species

The Study Area does not occur within a predetermined Survey Area for amphibians (RCA GIS Data Downloads 2022).

The Study Area does not occur within a predetermined Survey Area for mammals (RCA GIS Data Downloads 2022).

Burrowing Owl

The Study Area occurs partially within a predetermined Survey Area for the burrowing owl as shown in Attachment C, *MSHCP Relationship Map*. No suitable burrowing owl burrows potentially utilized for refugia and/or nesting were documented within the Study Area. However, the eastern region of the study area and adjacent open space lands located within the March Air Reserve Base represent foraging habitat and potential refugia and burrows may be present.

Riparian Bird Species

No suitable riparian scrub, forest or woodland habitat for the least Bell's vireo (*Vireo bellii pusillus*), southwestern willow flycatcher (*Empidonax traillii extimus*) or western yellow-billed cuckoo (*Coccyzus americanus*) was documented within or adjacent to the Study Area as shown in Attachment D, *Vegetation Communities Map*, and Attachments E and F, *Current Study Area Photographs*.

Stephens' Kangaroo Rat

The Study Area falls within the Stephens' kangaroo rat (*Dipodomys stephensi*, SKR) Fee Area outlined in the Riverside County SKR Habitat Conservation Plan (HCP).

Nesting Bird Habitat

The non-native grassland documented onsite represents potential nesting habitat for common ground nesting bird species. Potential direct/indirect impacts to regulated nesting birds will require compliance with CDFG Codes Section 3503, 3503.5, and 3513.

MSHCP Section 6.1.2 Riparian, Riverine, Vernal Pool Resources

Vernal Pool Resources

No evidence of vernal pools, seasonal depressions, seasonally inundated road ruts or other wetland features were recorded on the Study Area. Vernal pools are depressions in areas where a hard-underground layer prevents rainwater from draining downward into the subsoils. When rain fills the pools in the winter and spring, the water collects and remains in the depressions. In the springtime, the water gradually evaporates away, until the pools became completely dry in the summer and fall. Vernal pools tend to have an impermeable layer that results in ponded water. The soil texture (the amount of sand, silt, and clay particles) typically contains higher amounts of fine silts and clays with lower percolation rates. Pools that retain water for a sufficient length of time will develop hydric cells. Hydric cells form when the soil is saturated from flooding for extended periods of time and anaerobic conditions (lacking oxygen or air) develop.

Consistent with conditions documented onsite and as previously stated, the Study Area is characterized as Ramona sandy loam, and Pachappa fine sandy, all types possessing well drained substrates (drainage class). No indication of clay substrates or hydric soils were documented within the Study Area.

A review of historic aerials was conducted to determine if inundated features were present during years of high rainfall when features would certainly be documented. Historic aerials taken in 2011 represent an ideal baseline during which know (previously documented) inundated vernal pools, seasonal depressions and road ruts can easily be seen. No sign or indication of inundation was documented within the Study Area during a review of historic aerials.

In summary, none of the conditions (i.e., no inundated depressions including road ruts, hydric soils, historic inundation, etc.) were observed on documented within the Study Area. No features are present that would support fairy shrimp. No standing water or other sign of areas that pond water was recorded.

Riparian/Riverine Resources

No MSHCP Section 6.1.2 riparian scrub, forest or woodland or riverine habitat is present within or adjacent to the Study Area as shown in Attachment D, *Vegetation Communities Map.*

Jurisdictional Resources

No features regulated by the Santa Ana Regional Water Quality Control Board, California Department of Fish and Wildlife and United States Army Corps of Engineers were documented within or adjacent to the Study Area. No regulatory permits or certifications are required.

SUMMARY OF COMPLIANCE WITH MSHCP POLICIES

The purpose of this report is to document the existing biological resources, identify general vegetation types, and assess the potential biological and regulatory constraints associated with the proposed development within the Study Area as outlined by the MSHCP. The following sections summarize the Study Area's relationship to MSHCP criteria areas and MSHCP compliance guidelines.

CRITERIA AREAS

The 7.65-acre Study Area is located within the Western Riverside County MSHCP Mead and Reche Canyon/Badlands Area Plan and is dominated by disturbed and non-native grassland habitats. The Study Area is not located within an MSHCP Criteria Area, Cell Group, or Linkage Area.

No MSHCP Habitat Evaluation and Acquisition Negotiation Strategy (HANS) or Joint Project Review (JPR) are required.

CRITERIA AREA SPECIES SURVEY AREA

The Study Area does not occur within a predetermined Survey Area for criteria area species (RCA GIS Data Downloads 2022).

The project is consistent with MSHCP Section 6.3.2.

NARROW ENDEMIC PLANT SPECIES SURVEY AREA

The Study Area does not occur within a predetermined Survey Area for narrow endemic plant species (RCA GIS Data Downloads 2022).

The project is consistent with MSHCP Section 6.3.2.

AMPHIBIAN SPECIES SURVEY AREA

The Study Area is not within the Amphibian Species Survey Area; therefore, no surveys are required (RCA GIS Data Downloads 2022).

The project is consistent with MSHCP Section 6.3.2.

MAMMAL SPECIES SURVEY AREA

The Study Area is not within the Mammal Species Survey Area; therefore, no surveys are required (RCA GIS Data Downloads 2022).

The project is consistent with MSHCP Section 6.3.2.

BURROWING OWL SURVEY AREA

The Study Area occurs partially within a predetermined Survey Area for the burrowing owl as shown in Attachment C, *MSHCP Relationship Map*. No suitable burrowing owl burrows potentially utilized for refugia and/or nesting were documented within the Study Area. However, the eastern region of the Study Area and adjacent open space lands located within the March Air Reserve Base represent foraging habitat and potential refugia and burrows may be present. To ensure potential temporary impacts within the March Air Reserve Base do not directly or indirectly impact burrowing owl, at a minimum, an MSHCP 30-day preconstruction survey will be required immediately prior to the initiation of construction to ensure protection for this species and compliance with the conservation goals as outlined in the MSHCP.

Following submittal, review and approval of the 30-day preconstruction survey report by the City of Perris and compliance with all species-specific conservation goals, if detected within or adjacent to the Study Area, the project will be consistent with MSHCP Section 6.3.2.

MSHCP RIPARIAN/RIVERINE AREAS AND VERNAL POOLS

Vernal Pool Resources

No evidence of vernal pools, seasonal depressions, seasonally inundated road ruts or other wetland features were recorded on the Study Area. Vernal pools are depressions in areas where a hard-underground layer prevents rainwater from draining downward into the subsoils. When rain fills the pools in the winter and spring, the water collects and remains in the depressions. In the springtime, the water gradually evaporates away, until the pools became completely dry in the summer and fall. Vernal pools tend to have an impermeable layer that results in ponded water. The soil texture (the amount of sand, silt, and clay particles) typically contains higher amounts of fine silts and clays with lower percolation rates. Pools that retain water for a sufficient length of time will develop hydric cells. Hydric cells form when the soil is saturated from flooding for extended periods of time and anaerobic conditions (lacking oxygen or air) develop.

Consistent with conditions documented onsite and as previously stated, the Study Area is characterized as Ramona sandy loam, and Pachappa fine sandy, all types possessing well drained substrates (drainage class). No indication of clay substrates or hydric soils were documented within the Study Area.

A review of historic aerials was conducted to determine if inundated features were present during years of high rainfall when features would certainly be documented. Historic aerials taken in 2011 represent an ideal baseline during which know (previously documented) inundated vernal pools, seasonal depressions and road ruts can easily be seen. No sign or indication of inundation was documented within the Study Area during a review of historic aerials.

In summary, none of the conditions (i.e., no inundated depressions including road ruts, hydric soils, historic inundation, etc.) were observed on documented within the Study Area. No features are present that would support fairy shrimp. No standing water or other sign of areas that pond water was recorded.

The project is consistent with MSHCP Section 6.1.2.

Riparian/Riverine Resources

No MSHCP Section 6.1.2 riparian scrub, forest or woodland or riverine habitat is present within or adjacent to the Study Area as shown in Attachment D, *Vegetation Communities Map.*

An MSHCP Determination of Biological Equivalent or Superior Preservation (DBESP) is not required. The project is consistent with MSHCP Section 6.1.2.

URBAN/WILDLANDS INTERFACE

The MSHCP Urban/Wildlands Interface guidelines presented in Section 6.1.4 are intended to address indirect effects associated with locating commercial, mixed uses and residential developments in proximity to a MSHCP Conservation Area. The Study Area is not located adjacent to an existing or proposed MSHCP Conservation Area.

The project is consistent with MSHCP Section 6.1.4.

FUELS MANAGEMENT

The fuels management guidelines presented in Section 6.4 of the MSHCP are intended to address brush management activities around new development within or adjacent to MSHCP Conservation Areas. The Study Area is not located adjacent to an existing or proposed MSHCP Conservation Area.

The project is consistent with MSHCP Section 6.4.

CONDITIONS OF APPROVAL

The following section summarizes conditions of approval which will need to be implemented to ensure development of the Study Area remains in compliance with CEQA and MSHCP guidelines.

MSHCP Local Development Mitigation Fee

The project applicant shall pay MSHCP Local Development Mitigation fees as established and implemented by the City of Perris.

SKR Mitigation Fee

The Study Area falls within the SKR Fee Area outlined in the Riverside County SKR HCP. The project applicant shall pay the fees pursuant to County Ordinance 663.10 for the SKR HCP Fee Assessment Area as established and implemented by the County of Riverside.

MSHCP 30-Day Burrowing Owl Preconstruction Surveys

A 30-day burrowing owl preconstruction surveys will be required to ensure protection for this species and compliance with the conservation goals as outlined in the MSHCP. The survey will be conducted in compliance with both MSHCP and CDFW guidelines (MSHCP 2006, CDFW 2012). A report of the findings prepared by a qualified biologist shall be submitted to the City of Perris for review and approval prior to any permit or ground disturbing activities.

If burrowing owls are detected onsite during the 30-day preconstruction survey, during the breeding season (February 1st to August 31st) then construction activities shall be limited to beyond 300 feet of the active burrows until a qualified biologist has confirmed that nesting efforts are competed or not initiated. In addition to monitoring breeding activity, if construction is proposed to be initiated during the breeding season or active relocation is proposed, a burrowing owl mitigation plan will be developed based on the City of Perris, CDFW and USFWS requirements for the relocation of individuals to predetermined preserve.

CDFG Nesting Bird Code Compliance

Mitigation for potential direct/indirect impacts on nesting birds will require compliance with CDFG Code Sections 3503, 3503.5, and 3513. Construction outside the nesting season (between September 16th and January 31st do not require pre-removal nesting bird surveys. If construction is proposed between February 1st and September 15th, a qualified biologist must conduct a nesting bird survey(s) no more than three (3) days prior to initiation of grading to document the presence or absence of nesting birds within or directly adjacent (100 feet) to the Study Area.

The survey(s) would focus on identifying any bird nests that would be directly or indirectly affected by construction activities. If active nests are documented, species-specific measures shall be prepared by a qualified biologist and implemented to prevent abandonment of the active nest. At a minimum, grading in the vicinity of a nest shall be deterred until the young birds have fledged. A minimum exclusion buffer of 100 feet shall be maintained during construction, depending on the species and location. The perimeter of the nest setback zone shall be fenced or adequately demarcated with stakes and flagging at 20-foot intervals, and construction personnel and activities restricted from the area. A survey report by a qualified biologist verifying that no active nests are present, or that the young have fledged, shall be submitted to the City of Perris for review and approval prior to initiation of grading in the nest-setback zone. The qualified biologist shall serve as a construction monitor during those periods when construction activities occur near active nest areas to ensure that no inadvertent impacts on these nests occur

Any nest permanently vacated for the season would not warrant protection pursuant to the CDFG Codes.

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ATTACHMENTS

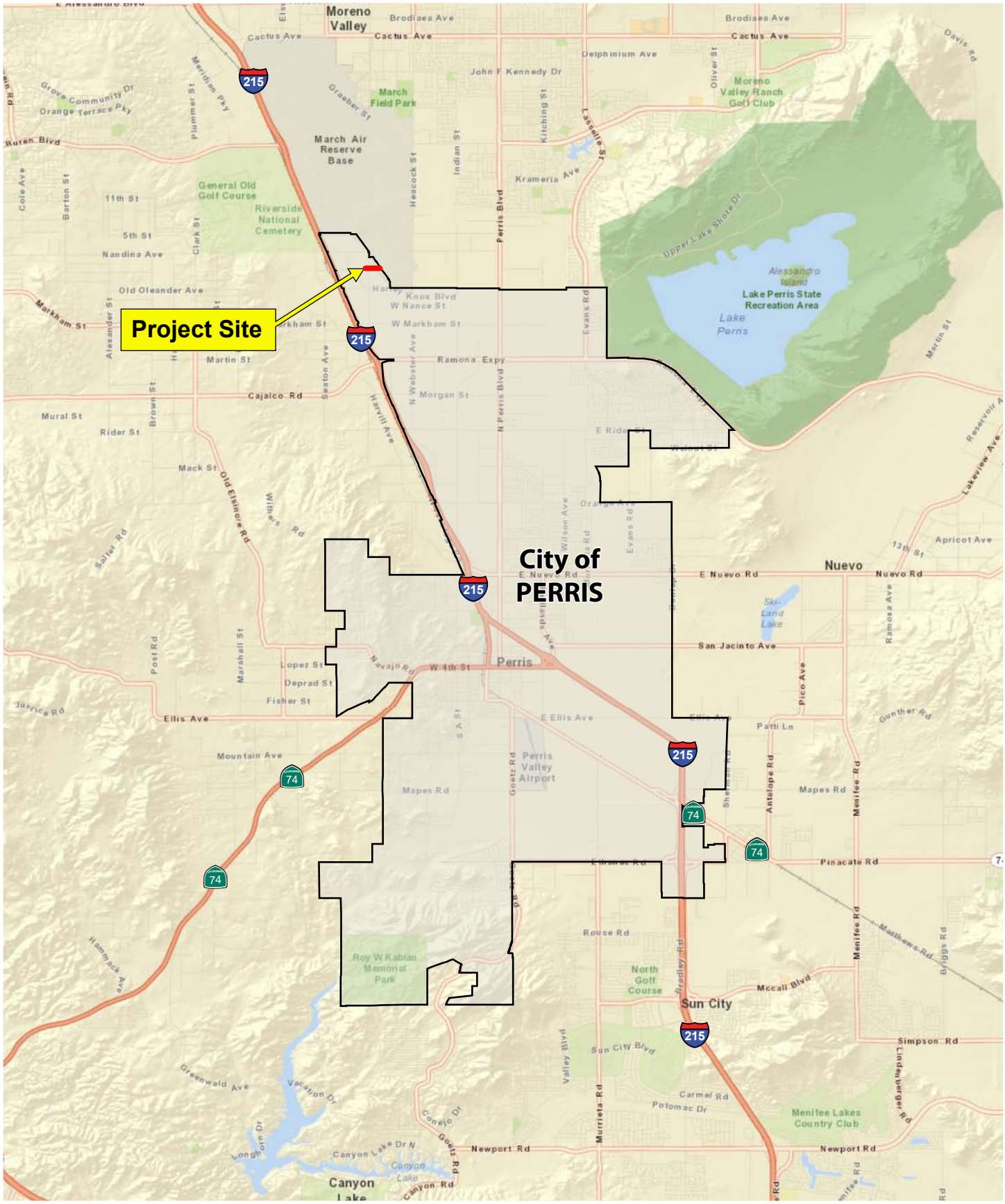
A – Regional Location Map
B – Vicinity Map
C – MSHCP Relationship Map
D – Vegetation Communities Map
E – Current Study Area Photographs
F – Current Study Area Photographs
G – Soils Association Map

Certification

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

Author:_____Date: May 7th, 2022

Fieldwork Performed by:_____Date: May 7th, 2022



APN's 294-200-007, Portions of 294-220-010, 294-200-002, -003 and Right of Way.

Attachment A - Regional Location Map

MSHCP Habitat Assessment & Compliance Analysis
Duke Reality Perris Valley Channel Lateral B Stage 4 Connection Project

CADRE Environmental

not to scale

APN's 294-200-007, Portions of 294-220-010, 294-200-002, -003 and Right of Way.

Attachment B - Vicinity Map

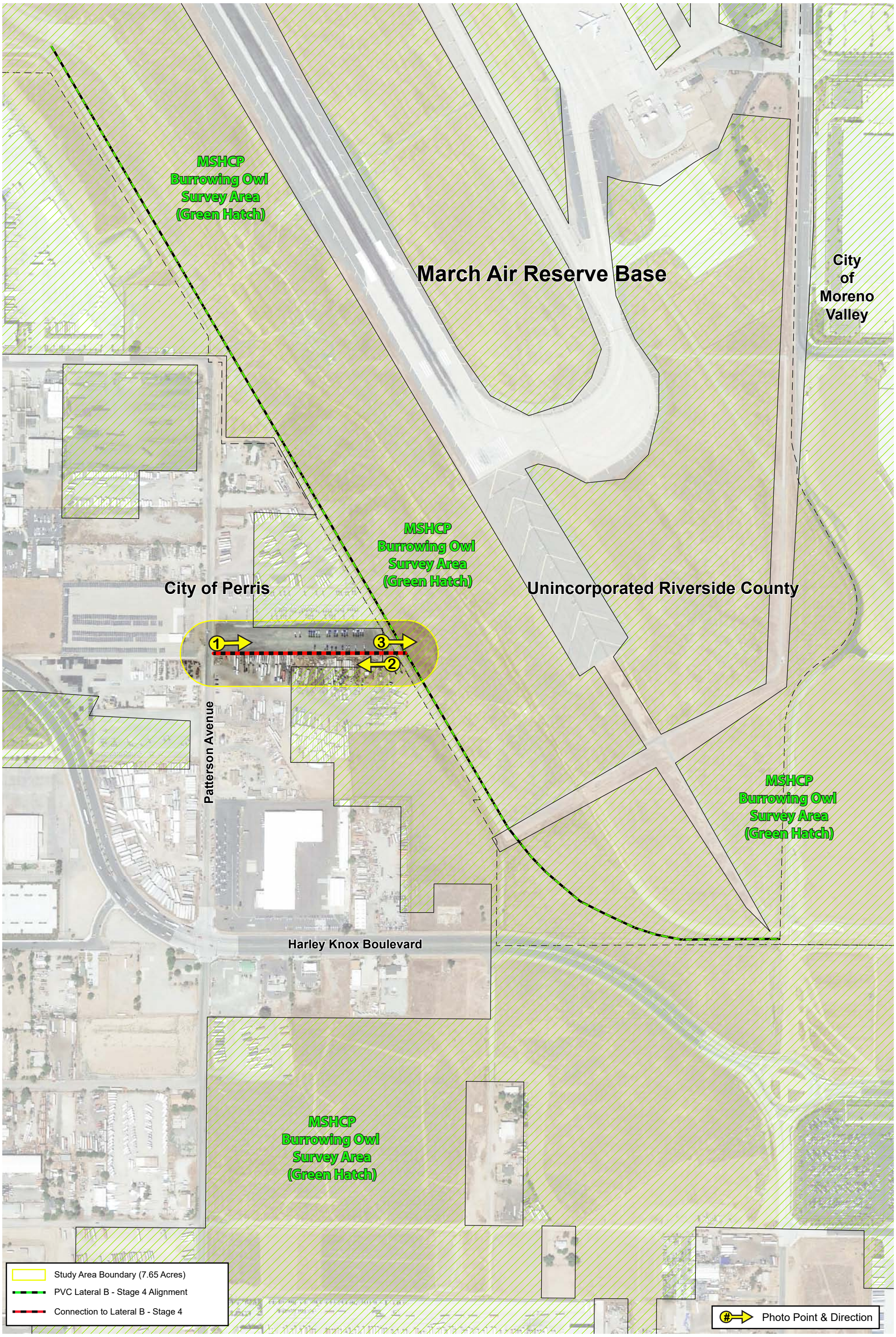
MSHCP Compliance Analysis

Duke Reality Perris Valley Channel Lateral B Stage 4 Connection Project

CADRE Environmental

N

1 inch = 400 feet



APN's 294-200-007, Portions of 294-220-010, 294-200-002, -003 and Right of Way.

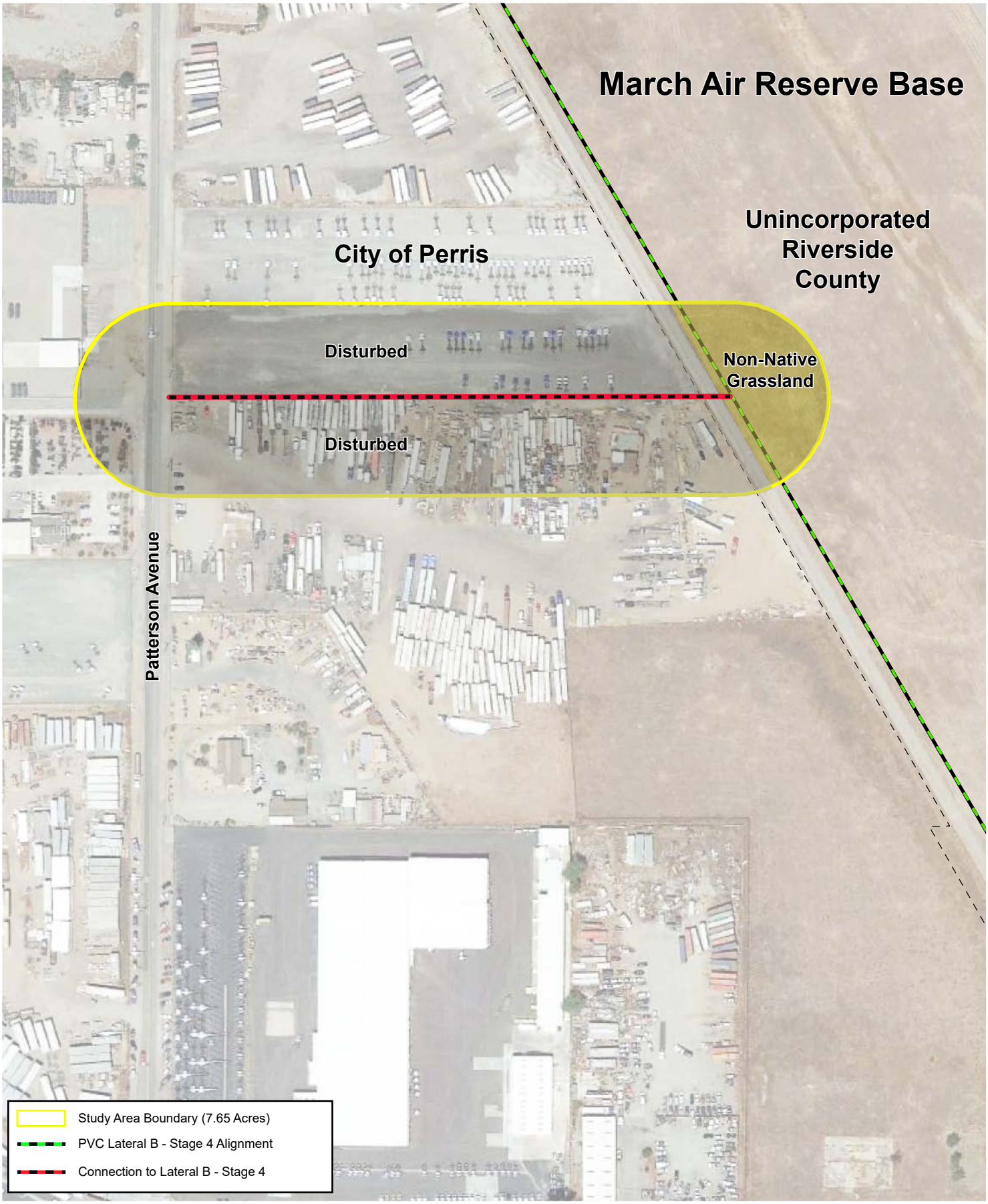
Attachment C - MSHCP Relationship Map

MSHCP Compliance Analysis
Duke Reality Perris Valley Channel Lateral B Stage 4 Connection Project

CADRE Environmental

N

1 inch = 400 feet



APN's 294-200-007, Portions of 294-220-010, 294-200-002, -003 and Right of Way.

Attachment D - Vegetation Communities Map

MSHCP Compliance Analysis

Duke Reality Perris Valley Channel Lateral B Stage 4 Connection Project

CADRE Environmental

N

1" = 200 feet

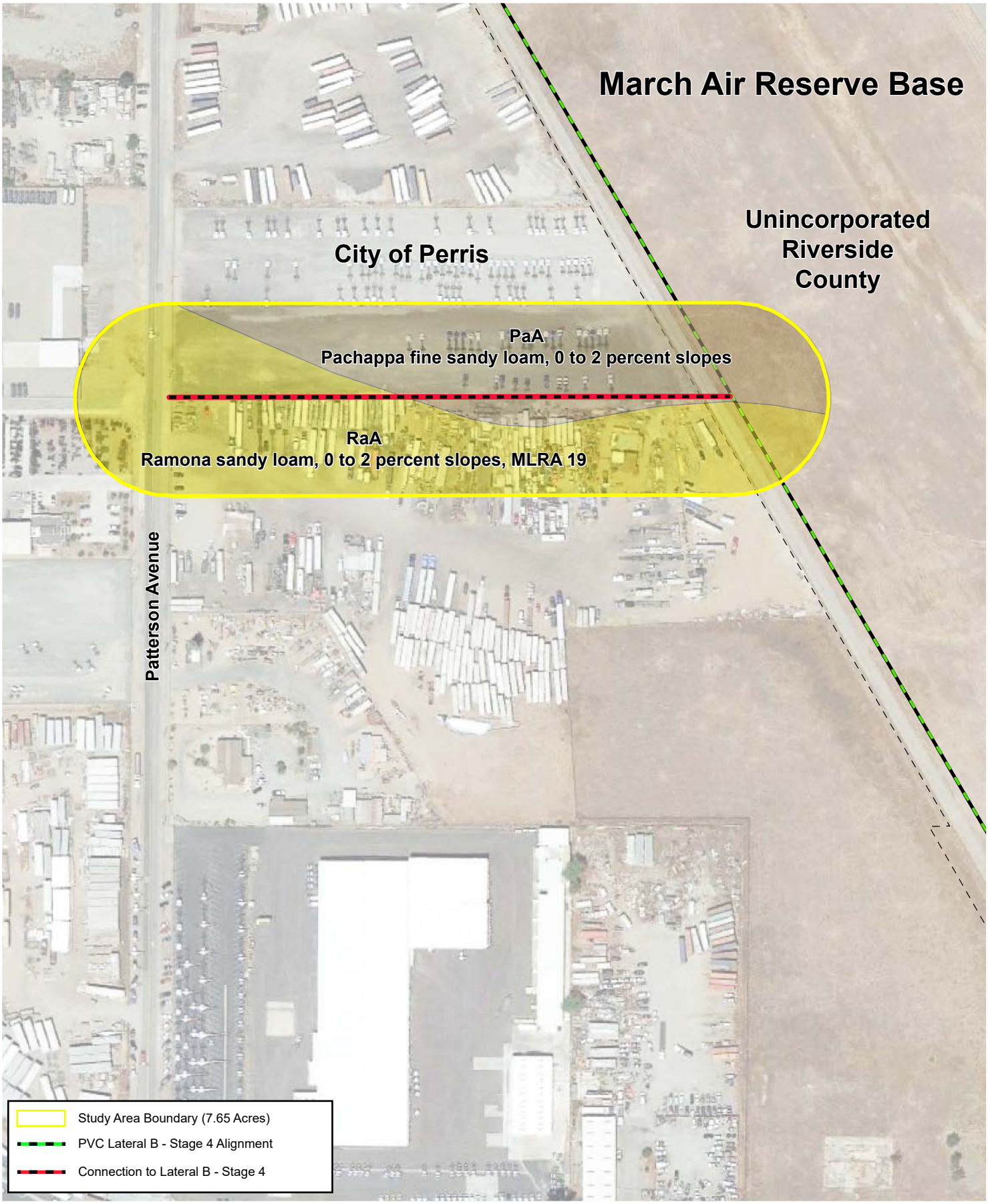
PHOTOGRAPH 1

PHOTOGRAPH 2

Refer to Attachment B for Photographic Key Map

PHOTOGRAPH 3

Refer to Attachment B for Photographic Key Map



APN's 294-200-007, Portions of 294-220-010, 294-200-002, -003 and Right of Way.

Attachment G - Soils Association Map

MSHCP Compliance Analysis

Duke Reality Perris Valley Channel Lateral B Stage 4 Connection Project

CADRE Environmental

N

1" = 200 feet