

INFORMATION SUMMARY



- A. Report Date: May 18th, 2021
- B. Report Title: Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Biological Resources Compliance Analysis for the 6.26-Acre Chartwell Rider & Redlands Warehouse Project Site, City of Perris, Western Riverside County, California.
- C. APNs#: 300-250-007 and 300-250-008.
- D. Project Location: USGS 7.5' Series Perris Quadrangle Township 4 South, Range 3 West, Section 17, Riverside County, South of West Rider Street, and West of Redlands Avenue as shown in Attachment A, *Regional Location Map* and Attachment B, *Vicinity Map*.
- E. Applicant Rep: Herdman Architecture & Design, Inc.
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USFWS permit #TE780566-14
- G. Date of Survey: May 12th, 2021.
- H. Summary: The 6.26-acre project site including 1.35-acre offsite impact area (7.61-acres total) is located within the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Mead Area Plan and dominated by non-native grassland/ruderal, disturbed and development habitats.
- The project site 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 project site occurs partially within an MSHCP predetermined Survey Area for nine (9) criteria area plant species: Coulter’s goldfields (*Lasthenia glabrata* ssp. *coulteri*), Davidson’s saltscale (*Atriplex serenana* var. *davidsonii*), little mousetail (*Myosurus minimus* ssp. *apus*), mud nama (*Nama stenocarpum*), Parish’s brittlescale (*Atriplex parishii*), round-leaved filaree (*Erodium macrophyllum*), San Jacinto Valley crownscale (*Atriplex coronata* var. *notator*), smooth tarplant (*Centromadia pungens* ssp. *laevis*), and thread-leaved brodiaea (*Brodiaea filifolia*) (RCA GIS Data Downloads 2021). No suitable soils, vegetation or site conditions were documented onsite for MSHCP criteria area sensitive plant species as shown in Table 2, *Potential MSHCP Narrow Endemic and Criteria Area Plant Assessment*.

The project site occurs partially within a predetermined Survey Area for four (4) MSHCP narrow endemic plant species including San Diego ambrosia (*Ambrosia pumila*), spreading navarretia (*Navarretia fossalis*), California Orcutt grass (*Orcuttia californica*), and Wright’s trichocoronis (*Trichocoronis wrightii* var. *wrightii*) (RCA GIS Data Downloads 2021). No suitable soils, vegetation or site conditions were documented onsite for MSHCP narrow endemic sensitive plant species as shown in Table 2, *Potential MSHCP Narrow Endemic and Criteria Area Plant Assessment*.

The project site does not occur within a predetermined Survey Area for amphibians (RCA GIS Data Downloads 2021). No additional surveys are required.

The project site does not occur within a predetermined Survey Area for mammals (RCA GIS Data Downloads 2021). No additional surveys are required.

The project site occurs completely 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 and adjacent to the project site. Although the project site does represent potential foraging habitat, the property

and adjacent undeveloped open space extending south are not currently occupied by the 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 project site. 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 project site. 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 Project Site 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 6.26-Acre Chartwell – Rider & Redlands Warehouse Project Site, Western 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 6.26-acre Chartwell – Rider & Redlands Warehouse Project including 1.35-acre offsite impact area (“Project Site”) located within the western region of Riverside County, City of Perris, California. Specifically, the Project Site is located within APNs 300-250-007, 300-250-008, and existing right-of-way’s for West Rider Street and Redlands Avenue. 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 Project Site is located within United States Geological Survey (USGS) 7.5’ Series Perris Quadrangle, Riverside County, Township 4 South, Range 3 West, Section 17. Specifically, the Project Site extends south of south of West Rider Street and west of Redlands Avenue within the City of Perris, California, as shown in Attachment A, *Regional Location Map* and Attachment B, *Vicinity Map*.

The Project Site is located within the Western Riverside County MSHCP Mead Area Plan. The Project Site 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 12th, 2021. 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 Project Site, a review of all available and relevant data on the biological characteristics, sensitive habitats, and species potentially present on or adjacent to the Project Site 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 Project Site 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 Project Site 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 Project Site. 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 2021. Natural Heritage Program: RareFind, Perris Quadrangle.

FIELD INVESTIGATION

The Project Site was surveyed on May 12th, 2021. The survey included complete coverage of the Project Site, 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 Project Site 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 Project Site's natural resources were taken during the field survey as shown in Attachments E and F, *Current Project Site 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 (2021). 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 (2021) 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 Criteria Area & Narrow Endemic Plant Assessment

The Project Site occurs partially within the MSHCP Narrow Endemic Plant Species Survey Area for four (4) plant species: California Orcutt grass (*Orcuttia californica*), San Diego

ambrosia (*Ambrosia pumila*), spreading navarretia (*Navarretia fossalis*), and Wright's trichocoronis (*Trichocoronis wrightii* var. *wrightii*). The Project Site is also located partially within the Criteria Area Species Survey Area (CASSA) for nine (9) plant species: Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*), Davidson's saltscale (*Atriplex serenana* var. *davidsonii*), little mousetail (*Myosurus minimus* ssp. *apus*), mud nama (*Nama stenocarpum*), Parish's brittlescale (*Atriplex parishii*), round-leaved filaree (*Erodium macrophyllum*), San Jacinto Valley crownscale (*Atriplex coronata* var. *notatior*), smooth tarplant (*Centromadia pungens* ssp. *laevis*), and thread-leaved brodiaea (*Brodiaea filifolia*).

Survey methods included slowly walking over the entire site while focusing efforts on habitats and soil types where the target sensitive plant species are most likely to occur. Additionally, a 100-scale topographic map and aerial photograph was inspected during the habitat assessment effort in order to identify potential rare plant habitats that could be easily overlooked in the field. These surveys were conducted in accordance with survey guidelines published in the *Inventory of Rare and Endangered Vascular Plants of California*. These guidelines have also been adopted by the CDFW. In addition to MSHCP Narrow Endemic and Criteria Area species, sensitive plants include those listed by USFWS, CDFW, and California Native Plant Society (CNPS).

MSHCP Burrowing Owl Habitat Assessment

The Project Site occurs completely 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 12th, 2021. Upon arrival at the Project Site, 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 Project Site 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 Project Site boundary. If permission to access the buffer area cannot be obtained, the biologist shall not trespass, but visually inspect adjacent habitats with binoculars. In addition to surveying the entire Project Site all bordering natural habitats located immediately adjacent and south to the Project Site were assessed from the property boundary.

Regional Connectivity/Wildlife Movement Corridor Assessment

The analysis of wildlife movement corridors associated with the Project Site 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 Project Site is completely flat with little to no topographic relief or change in elevation. The Project Site and offsite impact area is currently dominated by non-native grassland/ruderal, developed and disturbed vegetation as illustrated in Attachment, D *Vegetation Communities Map*, Attachments E and F, *Current Project Site Photographs*, and outlined in Table 1, *Project Site Vegetation Community Acreages*.

Table 1. Project Site Vegetation Community Acreages

Vegetation Community	Project Site Onsite (ac)	Project Site Offsite (ac)	Total (ac)
Non-native Grassland/Ruderal	6.26	0.39	6.65
Disturbed	0.00	0.61	0.61
Developed	0.00	0.35	0.35
TOTAL	6.26	1.35	7.61

Source: Cadre Environmental 2021.

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*:

- **Du – Domino silt loam.**
- EpA – Exeter sandy loam, deep, 0-2% slopes.

Domino, soil types (Bold) are classified as sensitive substrates considered important for the conservation of certain plant species and vernal pool resources in the region (MSHCP 2004). The soils documented onsite are characterized as non-saline.

PLANT COMMUNITY/HABITAT CLASSIFICATION

Non-native Grassland/Ruderal

The majority of the Project Site is dominated by non-native grassland/ruderal vegetation. The property appears to be annually disked and a review of historic aerials indicated extensive grading and impacts to the western region of the property in 2018 as a result of being used as a staging area during the development of the warehouse currently extending immediately west of the Project Site.

Common species documented within the non-native grassland/ruderal habitat type include ripgut grass (*Bromus diandrus*), foxtail barley (*Hordeum murinum*), foxtail chess (*Bromus madritensis* ssp. *rubens*), wild oat (*Avena fatua*), stinknet (*Oncosiphon piluliferum*), black mustard (*Brassica nigra*), red-stemmed filaree (*Erodium cicutarium*), white-stemmed filaree (*Erodium moschatum*), London rocket (*Sisymbrium irio*), cheeseweed (*Malva parviflora*), Russian thistle (*Salsola tragus*), puncture vine (*Tribulus terrestris*), totalote (*Centaurea melitensis*), prickly lettuce (*Lactuca serriola*), and tumbling pigweed (*Amaranthus albus*).

Use of the western region of the Project Site as a staging area in 2018 resulted in the creation of two (2) depressions within the non-native grassland/ruderal habitat each measuring approximately 5 meters (m) X 3m and 13m x 4m respectfully. A review of historic aerials including 2011 when inundation was clear on the adjacent property, supports the position of no historic inundation onsite prior to 2018. These recently created disturbed man-made depressions are dominated exclusively by non-native species including prostate knotweed (*Polygonum aviculare*), stinknet, pineapple weed (*Matricaria discoides*), cocklebur (*Xanthium strumarium*), mayweed (*Anthemis cotula*), shepherd's purse (*Capsella bursa-pastoris*), and Boccone's sand spurry (*Spergularia bocconi*).

Disturbed/Developed

Disturbed habitats include those regions generally devoid of vegetation or with scattered ruderal species as those discussed in the previous habitat description. Developed regions of the Project Site include offsite impact areas associated with West Rider Street and Redlands Avenue.

WILDLIFE POPULATIONS

General wildlife species documented onsite or within the vicinity during the site visit include American kestrel (*Falco sparverius*), red-tailed hawk (*Buteo jamaicensis*), mourning dove (*Zenaida macroura*), cliff swallow (*Petrochelidon pyrrhonota*), American crow (*Corvus brachyrhynchos*), common starling (*Sturnus vulgaris*), western meadowlark (*Sturnella neglecta*), northern mockingbird (*Mimus polyglottos*), lesser goldfinch (*Spinus psaltria*), 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 Gallagher 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 Project Site

The property is bordered to the north, east and west by existing high traffic roadways and industrial development. The southern boundary of the Project Site is located adjacent to undeveloped open space; however, the properties collectively are bordered by high-traffic roadways and high density/rural residential developments. The Project Site is not located within an MSHCP designated core, extension of existing core, non-contiguous habitat block, constrained linkage, or linkage area. The closest regional wildlife corridor is located 0.5-mile east of the Project Site along the San Jacinto River.

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 (2021), CDFW (2021d), CNDDDB (CDFW 2021a), CNPS (2021), and Skinner and Pavlik (1994),

Wildlife: California Wildlife Habitat Relationships (2008), USFWS (2021), CDFW (2021b, 2021e), and CNDDDB (CDFW 2021a),

Habitats: CNDDDB (CDFW 2021a).

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 CNDDDB project. Informally listed taxa are not protected per se, but warrant consideration in the preparation of biotic assessments. For some species, the CNDDDB 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 Project Site are based on one or both of the following: (1) a record reported in the CNDDDB or CNPS inventory and; (2) the Project Site 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 Project Site occurs partially within an MSHCP predetermined Survey Area for nine (9) criteria area plant species: Coulter’s goldfields (*Lasthenia glabrata* ssp. *coulteri*), Davidson’s saltscale (*Atriplex serenana* var. *davidsonii*), little mousetail (*Myosurus minimus* ssp. *apus*), mud nama (*Nama stenocarpum*), Parish’s brittlescale (*Atriplex parishii*), round-leaved filaree (*Erodium macrophyllum*), San Jacinto Valley crownscale (*Atriplex coronata* var. *notatior*), smooth tarplant (*Centromadia pungens* ssp. *laevis*), thread-leaved brodiaea (*Brodiaea filifolia*) and four (4) MSHCP narrow endemic plant species, including San Diego ambrosia (*Ambrosia pumila*), spreading navarretia (*Navarretia fossalis*), California Orcutt grass (*Orcuttia californica*), and Wright’s trichocoronis (*Trichocoronis wrightii* var. *wrightii*) (RCA GIS Data Downloads 2021).

No suitable soils, vegetation or site conditions were documented onsite for MSHCP Narrow Endemic or Criteria Area sensitive plant species as shown in Table 2, *Potential MSHCP Narrow Endemic and Criteria Area Plant Assessment*.

Table 2.
Potential MSHCP Narrow Endemic and Criteria Area Plant Assessment

Species Name (Scientific Name) Status	Habitat Description	Comments
MSHCP Criteria Area Plant Species		
San Jacinto Valley crownscale (<i>Atriplex coronata</i> var. <i>notatior</i>) FE CRPR List 1B.1 MSHCP CAPSA CA Endemic	The San Jacinto Valley crownscale occurs primarily in floodplains that support alkali scrub, alkali playas, vernal pools, and occasionally alkali grasslands.	Not expected to occur onsite based on a lack of suitable alkali substrates, suitable habitat and extensive historic impacts including use of the western region of the property where domino soils are mapped as a staging area in 2018 (completely graded and altered as shown in Attachment B, Vicinity Map). Not detected onsite.

Species Name (<i>Scientific Name</i>) Status	Habitat Description	Comments
Parish's brittlebush (<i>Atriplex parishii</i>) CRPR List 1B.1 MSHCP CAPSA	Parish's brittlebush is a small prostrate to decumbent annual, white scaly, and is often much less than eight inches in length. It blooms May to October. This species occurs on alkali or saline flats, alkali meadows, and in or along the margins of vernal pools or playa depressions.	Not expected to occur onsite based on a lack of suitable alkali substrates, suitable habitat and extensive historic impacts including use of the western region of the property where domino soils are mapped as a staging area in 2018 (completely graded and altered as shown in Attachment B, Vicinity Map). Not detected onsite.
Davidson's saltscale (<i>Atriplex serenana</i> var. <i>davidsonii</i>) CRPR List 1B.2 MSHCP CAPSA	Davidson's saltscale is a decumbent to ascending annual that is sparsely scaly. It blooms April to October. It grows on coastal bluffs and alkaline alluvial terraces, and on alkali or saline flats in interior areas such as western Riverside County.	Not expected to occur onsite based on a lack of suitable alkali substrates, suitable habitat and extensive historic impacts including use of the western region of the property where domino soils are mapped as a staging area in 2018 (completely graded and altered as shown in Attachment B, Vicinity Map). Not detected onsite.
Thread-leaved brodiaea (<i>Brodiaea filifolia</i>) FT/SE CRPR List 1B.1 MSHCP CAPSA CA Endemic	Thread-leaved brodiaea is a geophyte, which produces leaves and flower stalks that sprout from corms (underground bulb-like storage stems). Thread-leaved brodiaea blooms March to June. Thread-leaved brodiaea typically occurs on gentle hillsides, valleys, and floodplains in semi-alkaline flats of riparian areas, vernal pools, mesic southern needlegrass grassland, mixed native-annual grassland, and alkali grassland plant communities in association with clay, clay loam, or alkaline silty-clay soils.	Not expected to occur onsite based on a lack of suitable alkali or clay substrates, suitable habitat and extensive historic impacts including use of the western region of the property where domino soils are mapped as a staging area in 2018 (completely graded and altered as shown in Attachment B, Vicinity Map). Not detected onsite.

Species Name (Scientific Name) Status	Habitat Description	Comments
Smooth Tarplant <i>(Centromadia pungens ssp. laevis)</i> CRPR 1B.1 MSHCP CAPSA	Smooth tarplant is an annual member of the sunflower family (Asteraceae) that occurs in vernal pools, alkali playas and scrub, alkali grasslands, riparian areas, along watercourses and disturbed sites. It blooms April to September.	Not expected to occur onsite based on a lack of suitable alkali substrates, suitable habitat and extensive historic impacts including use of the western region of the property where domino soils are mapped as a staging area in 2018 (completely graded and altered as shown in Attachment B, Vicinity Map). Not detected onsite.
Round-leaved filaree <i>(Erodium macrophyllum)</i> CRPR List 2.1 MSHCP CAPSA CA Endemic	Habitats include open areas in cismontane woodland and valley and foothill grasslands, which are often associated with heavy clay soils below 3,600 feet elevation.	Not expected to occur onsite based on a lack of suitable clay substrates, suitable habitat and extensive historic impacts including use of the western region of the property where domino soils are mapped as a staging area in 2018 (completely graded and altered as shown in Attachment B, Vicinity Map). Not detected onsite.
Coulter's goldfields <i>(Lasthenia glabrata ssp. coulteri)</i> CRPR List 1B.1 MSHCP CAPSA	Coulter's goldfields is associated with low-lying alkali and saline habitats along the coast and inland valleys. The majority of the populations are associated with coastal salt marsh. In Riverside County, Coulter's goldfields primarily grow in highly alkaline, silty clays associated with the Traver-Domino-Willows soils, and usually in the wet areas in the alkali vernal plain community.	Not expected to occur onsite based on a lack of suitable alkali substrates, suitable habitat and extensive historic impacts including use of the western region of the property where domino soils are mapped as a staging area in 2018 (completely graded and altered as shown in Attachment B, Vicinity Map). Not detected onsite.
Little mousetail <i>(Myosurus minimus ssp. apus)</i> CRPR List 3.1 MSHCP CAPSA	Little mousetail is widespread in California. It occurs in alkaline vernal pools, and vernal alkali plains and grasslands, and blooms March to June.	Not expected to occur onsite based on a lack of suitable alkali substrates, suitable habitat and extensive historic impacts including use of the western region of the property where domino soils are mapped as a staging area in 2018 (completely graded and altered as shown in Attachment B, Vicinity Map). Not detected onsite.

Species Name (Scientific Name) Status	Habitat Description	Comments
Mud nama <i>(Nama stenocarpum)</i> CRPR List 2.2 MSHCP CAPSA	Mud nama grows on muddy embankments of marshes and swamps, lake margins, riverbank, meadow, playa, and vernal pools. In western Riverside County, it is known only from the north shore of Mystic Lake (Roberts et al. 2004).	Not expected to occur onsite based on a lack of suitable habitat and extensive historic impacts including use of the western region of the property where domino soils are mapped as a staging area in 2018 (completely graded and altered as shown in Attachment B, Vicinity Map). Not detected onsite.
MSHCP Narrow Endemic Plant Species		
San Diego ambrosia <i>(Ambrosia pumila)</i> FE CRPR List 1B.1 MSHCP NEPSA	San Diego ambrosia is known from Baja California, Mexico, and San Diego and Riverside counties in the United States. It blooms May to September. San Diego ambrosia occurs primarily on upper terraces of rivers and drainages as well as in open grasslands, openings in coastal sage scrub, and occasionally in areas adjacent to vernal pools.	Not expected to occur onsite based on a lack of suitable habitat and extensive historic impacts including use of the western region of the property where domino soils are mapped as a staging area in 2018 (completely graded and altered as shown in Attachment B, Vicinity Map). Not detected onsite.
Spreading navarretia <i>(Navarretia fossalis)</i> FT/SE CRPR List 1B.1 MSHCP NEPSA	Spreading navarretia is a member of the phlox family, and is found in vernal pools, chenopod scrub, edge of marshes, and playas on saline-alkali soils. It occasionally grows in ditches and depressions associated with degraded habitat or old stock ponds (Consortium 2012). Spreading navarretia is a small prostrate to occasionally erect annual. Spreading navarretia blooms April to June.	Not expected to occur onsite based on a lack of suitable alkali substrates, suitable habitat and extensive historic impacts including use of the western region of the property where domino soils are mapped as a staging area in 2018 (completely graded and altered as shown in Attachment B, Vicinity Map). Not detected onsite.
California Orcutt grass <i>(Orcuttia californica)</i> FE/SE CRPR List 1B.1 MSHCP NEPSA	California Orcutt grass is a small, unique grass that occurs primarily in vernal pool habitats. In southern California, it is known from Orange (recently reported occurrence), Los Angeles, Riverside, Ventura, and San Diego Counties, and continues south into Baja California, Mexico. California Orcutt grass blooms April to August. In Riverside County,	Not expected to occur onsite based on a lack of suitable habitat and extensive historic impacts including use of the western region of the property where domino soils are mapped as a staging area in 2018 (completely graded and altered as shown in Attachment B, Vicinity Map). Not detected onsite.

Species Name (Scientific Name) Status	Habitat Description	Comments
	this species is found in southern basaltic claypan vernal pools at the Santa Rosa Plateau, and alkaline vernal pools such as Skunk Hollow, at Upper Salt Creek near Hemet, Menifee and elsewhere.	
Wright's trichocoronis (<i>Trichocoronis wrightii</i> var. <i>wrightii</i>) CRPR List 2.1 MSHCP NEPSA	The historic known range of Wright's trichocoronis includes the Great Valley of central California, western Riverside County, and south Texas and adjacent northeast Mexico. This plant grows in meadows and seeps, marshes, riparian scrub, and vernal pools. Wright's trichocoronis blooms May to September.	Not expected to occur onsite based on a lack of suitable habitat and extensive historic impacts including use of the western region of the property where domino soils are mapped as a staging area in 2018 (completely graded and altered as shown in Attachment B, Vicinity Map). Not detected onsite.
California Native Plant Society (CNPS): California Rare Plant Rank (CRPR) CRPR 1A – plants presumed extinct in California CRPR 1B – plants rare, threatened, or endangered in California, but more common 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 – plants of limited distribution, a watch list .1 – Seriously endangered in California .2 – Fairly endangered in California .3 – Not very endangered in California Federal (USFWS) Protection and Classification FE – Federally Endangered FT – Federally Threatened FC – Federal Candidate for Listing State (CDFW) Protection and Classification SE – State Endangered ST – State Threatened		

Tree Resources

No trees are located within or adjacent to the Project Site 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).

Sensitive Wildlife Species

The Project Site does not occur within a predetermined Survey Area for amphibians (RCA GIS Data Downloads 2021).

The Project Site does not occur within a predetermined Survey Area for mammals (RCA GIS Data Downloads 2021).

Burrowing Owl

The Project Site occurs completely 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 and adjacent to the Project Site. Although the Project Site does represent potential foraging habitat, the property and adjacent undeveloped open space extending south are not currently occupied by the burrowing owl

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 Project Site as shown in Attachment D, *Vegetation Communities Map*, and Attachments E and F, *Current Project Site Photographs*.

Stephens' Kangaroo Rat

The Project Site 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/ruderal vegetation documented onsite represents potential nesting habitat for common 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

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 become 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.

The majority of the Project Site is dominated by non-native grassland/ruderal vegetation. The property appears to be annually disked and a review of historic aerials indicated extensive grading and impacts to the western region of the property in 2018 as a result of being used as a staging area during the development of the warehouse currently extending immediately west of the Project Site. Use of the western region of the Project Site as a staging area in 2018 resulted in the creation of two (2) depressions within the non-native grassland/ruderal habitat each measuring approximately 5 meters (m) X 3m and 13m x 4m respectfully. A review of historic aerials including 2011 when inundation was clear on the adjacent property, supports the position of no historic inundation onsite prior to 2018. These recently created disturbed man-made depressions are dominated exclusively by non-native species including prostate knotweed, stinknet, pineapple weed, cocklebur, mayweed, shepherd's purse, and Boccone's sand spurry.

Although the recently created man-made depressions may be occupied by the common versatile fairy shrimp (*Branchinecta lindahli*), they are not expected to be occupied by the Riverside fairy shrimp (*Streptocephalus woottoni*) – closest record 4.5 miles northwest of property. Riverside fairy shrimp occur within deep long-lived season pools in association with soil types not documented onsite (MSHCP 2004, (USFWS GIS 2021). As stated by the MSHCP respective of the Riverside fairy shrimp:

“S. woottoni is restricted to deep seasonal vernal pools, vernal pool like ephemeral ponds, and stock ponds and other human modified depressions (Eng, Belk, and Eriksen 1990, U.S. Fish and Wildlife Service 1993, U.S. Fish and Wildlife Service 2001). Riverside fairy shrimp prefer warm-water pools that have low to moderate dissolved solids, are less predictable, and remained filled for extended periods of time (Eriksen and Belk 1999). Basins that support Riverside fairy shrimp are typically dry a portion of the year, but usually are filled by late fall, winter or spring rains, and may persist through May (U.S. Fish and Wildlife Service 2001). All known habitat lies within annual grasslands, which may be interspersed through chaparral or coastal sage scrub vegetation. In Riverside County, Riverside fairy shrimp have been found in pools formed over the following soils: Murrieta stony clay loams, Las Posas series, Wyman clay loam, and Willows soils (U.S. Fish and Wildlife Service 2001). (MSHCP 2004)

Vernal pool fairy shrimp (*Branchinecta lynchi*) - closest record 12-miles southeast of the property (USFWS GIS 2021).

In summary, the recently created man-made depressions do not meet the minimum standards as being classified as Section 6.1.2 vernal pools and do not provide long-term conservation value based on the lack of native and natural conditions onsite, presence of undisturbed soils, and adjacent land uses.

Riparian/Riverine Resources

No MSHCP Section 6.1.2 riparian scrub, forest or woodland or riverine habitat is present within or adjacent to the Project Site 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 Project Site. 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 Project Site as outlined by the MSHCP. The following sections summarize the Project Site's relationship to MSHCP criteria areas and MSHCP compliance guidelines.

CRITERIA AREAS

The 6.26-acre Project Site including 1.35-acre offsite impact area (7.61-acres total) is located within the Western Riverside County MSHCP Mead Area Plan and dominated by non-native grassland/ruderal, disturbed and development habitats. The Project Site 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 Project Site occurs partially within an MSHCP predetermined Survey Area for nine (9) criteria area plant species: Coulter's goldfields, Davidson's saltscare, little mousetail, mud nama, Parish's brittlescale, round-leaved filaree, San Jacinto Valley crowscale, smooth tarplant, and thread-leaved brodiaea (RCA GIS Data Downloads 2021). No suitable soils, vegetation or site conditions were documented onsite for MSHCP criteria area sensitive plant species as shown in Table 2, *Potential MSHCP Narrow Endemic and Criteria Area Plant Assessment*.

The project is consistent with MSHCP Section 6.3.2.

NARROW ENDEMIC PLANT SPECIES SURVEY AREA

The Project Site occurs partially within a predetermined Survey Area for four (4) MSHCP narrow endemic plant species including San Diego ambrosia, spreading navarretia,

California Orcutt grass, and Wright's trichocoronis (RCA GIS Data Downloads 2021). No suitable soils, vegetation or site conditions were documented onsite for MSHCP narrow endemic sensitive plant species as shown in Table 2, *Potential MSHCP Narrow Endemic and Criteria Area Plant Assessment*.

The project is consistent with MSHCP Section 6.3.2.

AMPHIBIAN SPECIES SURVEY AREA

The Project Site is not within the Amphibian Species Survey Area; therefore, no surveys are required (RCA GIS Data Downloads 2021).

The project is consistent with MSHCP Section 6.3.2.

MAMMAL SPECIES SURVEY AREA

The Project Site is not within the Mammal Species Survey Area; therefore, no surveys are required (RCA GIS Data Downloads 2021).

The project is consistent with MSHCP Section 6.3.2.

BURROWING OWL SURVEY AREA

The Project Site occurs completely 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 and adjacent to the Project Site. Although the Project Site does represent potential foraging habitat, the property and adjacent undeveloped open space extending south are not currently occupied by the burrowing owl.

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 Project Site, the project will be consistent with MSHCP Section 6.3.2.

MSHCP RIPARIAN/RIVERINE AREAS AND VERNAL POOLS

Vernal Pool Resources

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 become 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.

The majority of the Project Site is dominated by non-native grassland/ruderal vegetation. The property appears to be annually disked and a review of historic aerials indicated extensive grading and impacts to the western region of the property in 2018 as a result of being used as a staging area during the development of the warehouse currently extending immediately west of the Project Site. Use of the western region of the Project Site as a staging area in 2018 resulted in the creation of two (2) depressions within the non-native grassland/ruderal habitat each measuring approximately 5 meters (m) X 3m and 13m x 4m respectfully. A review of historic aerials including 2011 when inundation was clear on the adjacent property, supports the position of no historic inundation onsite prior to 2018. These recently created disturbed man-made depressions are dominated exclusively by non-native species including prostate knotweed, stinknet, pineapple weed, cocklebur, mayweed, shepherd's purse, and Boccone's sand spurry.

Although the recently created man-made depressions may be occupied by the common versatile fairy shrimp (*Branchinecta lindahli*), they are not expected to be occupied by the Riverside fairy shrimp (*Streptocephalus woottoni*) – closest record 4.5 miles northwest of property. Riverside fairy shrimp occur within deep long-lived season pools in association with soil types not documented onsite (MSHCP 2004, (USFWS GIS 2021). As stated by the MSHCP respective of the Riverside fairy shrimp:

“S. woottoni is restricted to deep seasonal vernal pools, vernal pool like ephemeral ponds, and stock ponds and other human modified depressions (Eng, Belk, and Eriksen 1990, U.S. Fish and Wildlife Service 1993, U.S. Fish and Wildlife Service 2001). Riverside fairy shrimp prefer warm-water pools that have low to moderate dissolved solids, are less predictable, and remained filled for extended periods of time (Eriksen and Belk 1999). Basins that support Riverside fairy shrimp are typically dry a portion of the year, but usually are filled by late fall, winter or spring rains, and may persist through May (U.S. Fish and Wildlife Service 2001). All known habitat lies within annual grasslands, which may be interspersed through chaparral or coastal sage scrub vegetation. In Riverside County, Riverside fairy shrimp have been found in pools formed over the following soils: Murrieta stony clay loams, Las Posas series, Wyman clay loam, and Willows soils (U.S. Fish and Wildlife Service 2001). (MSHCP 2004)

Vernal pool fairy shrimp (*Branchinecta lynchi*) - closest record 12-miles southeast of the property (USFWS GIS 2021).

In summary, the recently created man-made depressions do not meet the minimum standards as being classified as Section 6.1.2 vernal pools and do not provide long-term conservation value based on the lack of native and natural conditions onsite, presence of undisturbed soils, and adjacent land uses. Focused fairy shrimp surveys not warranted.

Riparian/Riverine Resources

No MSHCP Section 6.1.2 riparian scrub, forest or woodland or riverine habitat is present within or adjacent to the Project Site 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 Project Site 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 Project Site 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 Project Site 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 Project Site 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 completed 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 Project Site.

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.

REFERENCES

- American Ornithologist Union (AOU). 1998. Check-list of North American Birds. 7th ed. American Ornithologists' Union, Washington, DC.
- Bradley, R.D., Ammerman, L.K., Baker, R.J., Bradley, L.C., Cook, J.A., Dowler, R.C., Jones, C., Schmidly, D.F., Stangl, F.B., Van Den Bussche, R.A., and Wursig, N. 2014. Revised Checklist of North American Mammals North of Mexico, 2014. Occasional Papers. Museum of Texas Tech University, Number 327
- Baldwin, B. G., D. H. Goldman, D.J. Keil, R. Patterson, T.J. Rosatti, and D.H. Wilken, editors. 2012. The Jepson manual: Vascular plants of California, second edition. University of California Press, Berkeley.
- Bennett, A. F. 1990. Habitat Corridors: their role in wildlife management and conservation, Department of Conservation and Environment, Melbourne, Australia.
- California Department of Fish and Wildlife (CDFW), Natural Diversity Data Base (CNDDDB). 2021a. Sensitive Element Record Search for the Perris Quadrangle. California Department of Fish and Wildlife. Sacramento, California. Accessed May 2021.
- California Department of Fish and Wildlife (CDFW). 2021b. Special Animals. Natural Heritage Division, Natural Diversity Data Base.
- California Department of Fish and Wildlife (CDFW). 2021c. State and Federally Listed Endangered and Threatened Animals of California. Natural Heritage Division, Natural Diversity Data Base.
- California Department of Fish and Wildlife (CDFW). 2021d. Endangered, Threatened, and Rare Plants of California. Natural Heritage Division, Natural Diversity Data Base.
- California Department of Fish and Wildlife (CDFW). 2021e. Special Vascular Plants, Bryophytes, and Lichens. Natural Heritage Division, Natural Diversity Data Base.
- California Department of Fish and Wildlife (CDFW) 2021f. <https://wildlife.ca.gov/Explore/Organization/BDB>
- California Department of Fish and Game. 2012. Staff Report on Burrowing Owl Mitigation, State of California Natural Resources Agency.
- Center for North American Herpetology (CNAH). 2021. - <http://www.cnah.org/>. Accessed May 2021.
- County of Riverside. 2006. Burrowing Owl Survey Instructions – Western Riverside Multiple Species Habitat Conservation Plan Area.

- Farhig, L. and G. Merriam. 1985. Habitat patch connectivity and population survival. *Ecology* 66:1762-1768.
- Harris, L. and Gallagher, P. 1989. New initiatives for wildlife conservation: the need for movement corridors. In: *Preserving communities and corridors*: 11-34. MacKintosh, G. (Ed.). Washington, DC: Defenders of Wildlife.
- Jepson Flora Project. 2021 (v. 1.0 & supplements). Jepson eFlora. <http://ucjeps.berkeley.edu/IJM.html>. Accessed May 2021.
- McArthur, R. and Wilson, E. O. 1967. *The theory of Island Biogeography*. Princeton University Press, 1967.
- Noss, R. F. 1983. A regional landscape approach to maintain diversity. *BioScience* 33:700-706.
- Riverside County Integrated Project (RCIP) Multiple Species Habitat Conservation Plan (MSHCP), March 2004.
- Roberts, F. M., Jr., S. D. White, A. C. Sanders, D. E. Bramlet, and S. Boyd. 2004. *The vascular plants of western Riverside County, California: an annotated checklist*. F.M. Roberts Publications, San Luis Rey, California, USA.
- Simberloff, D. and J. Cox. 1987. Consequences and cost of conservation corridors. *Conservation Biology* 1:63-71.
- Soule, M. 1987. *Viable populations for conservation*. Cambridge University Press. Cambridge.
- Tibor, D. [ed.]. 2001. *California Native Plant Society. Inventory of Rare and Endangered Plants of California*. California Native Plant Society, Special Publication Number 1, Sixth Edition.
- U.S. Department of Agriculture. 2021. *Custom Soil Resources Report for Western Riverside Area, California*. Natural Resources Conservation Service.
- U.S. Fish and Wildlife Service (USFWS). 2021. *Threatened and Endangered Species Occurrence Database*. Pacific Southwest Region. Carlsbad Office - Accessed May 2021.

ATTACHMENTS

- A – Regional Location Map
- B – Vicinity Map
- C – MSHCP Relationship Map
- D – Vegetation Communities Map
- E – Current Project Site Photographs
- F – Current Project Site Photographs
- G – Soils Association Map
- H – Vegetation Communities Impact Map

Certification

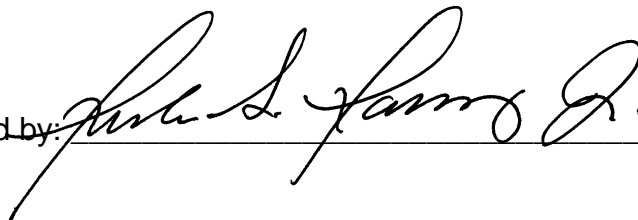
"I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for this biological evaluation, and that the facts, statements, and information presented are true and correct to the best of my knowledge"

Author: _____

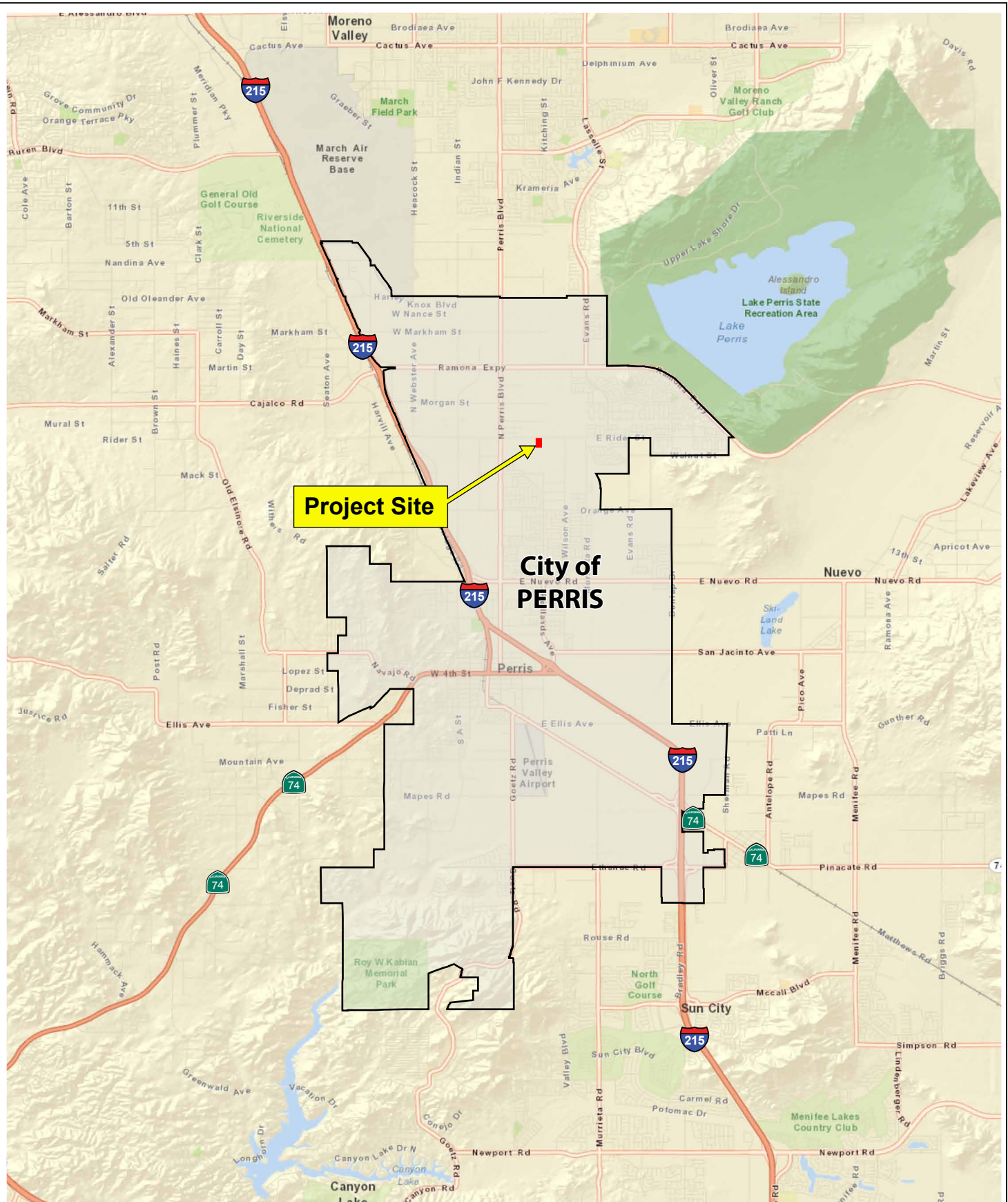


Date: May 18th, 2021

Fieldwork Performed by: _____



Date: May 18th, 2021



APN's 300-250-007 and 300-250-008

Attachment A - Regional Location Map

*MSHCP Habitat Assessment & Compliance Analysis
Chartwell - Rider and Redlands*

CADRE
Environmental



not to scale

West Rider Street

Offsite Impact Area

Project Site Boundary

300-250-007

300-250-008

Right-of-Way

Redlands Avenue



2



1



3



4

APN's 300-250-007 and 300-250-008

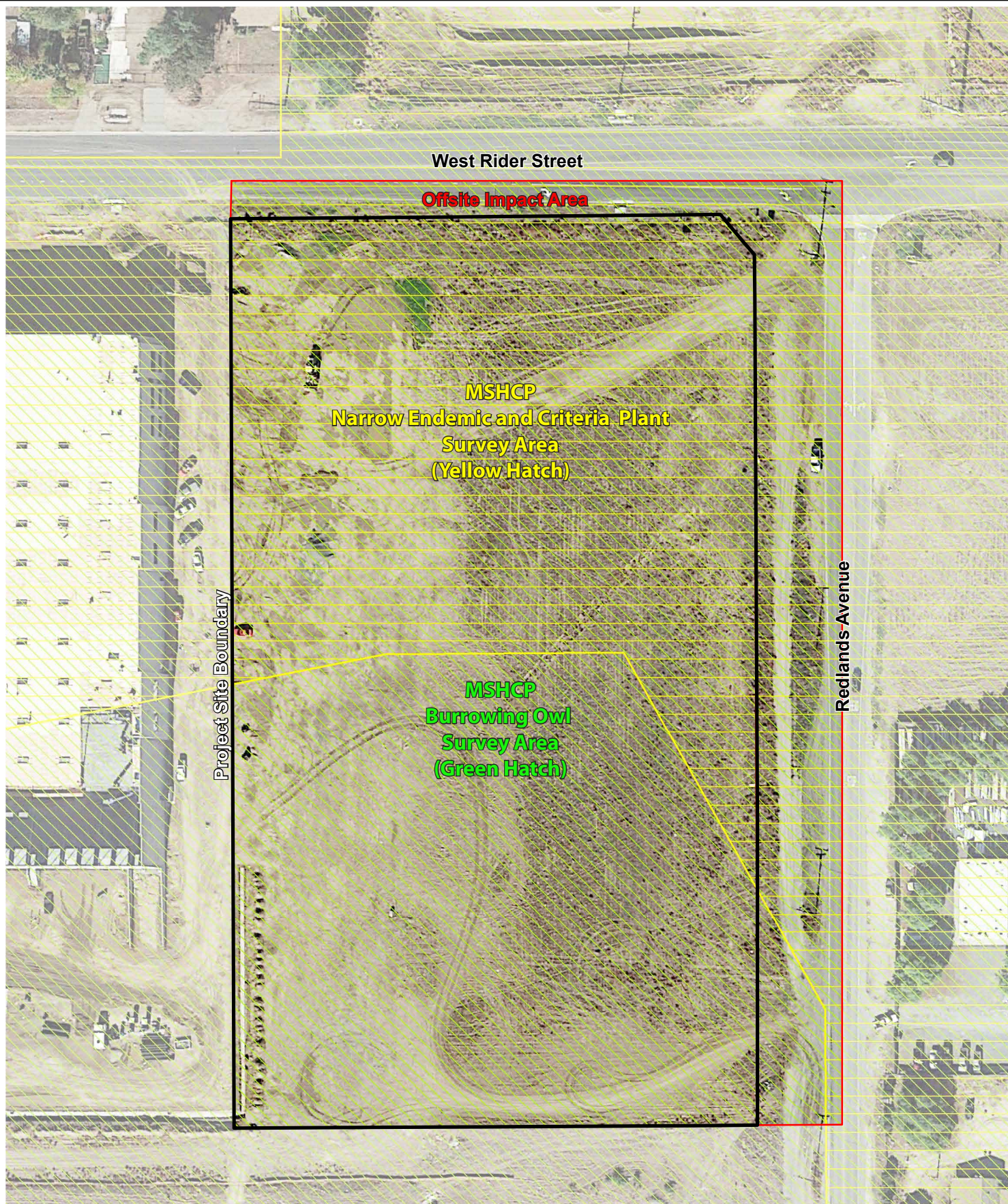


Photo Point & Direction

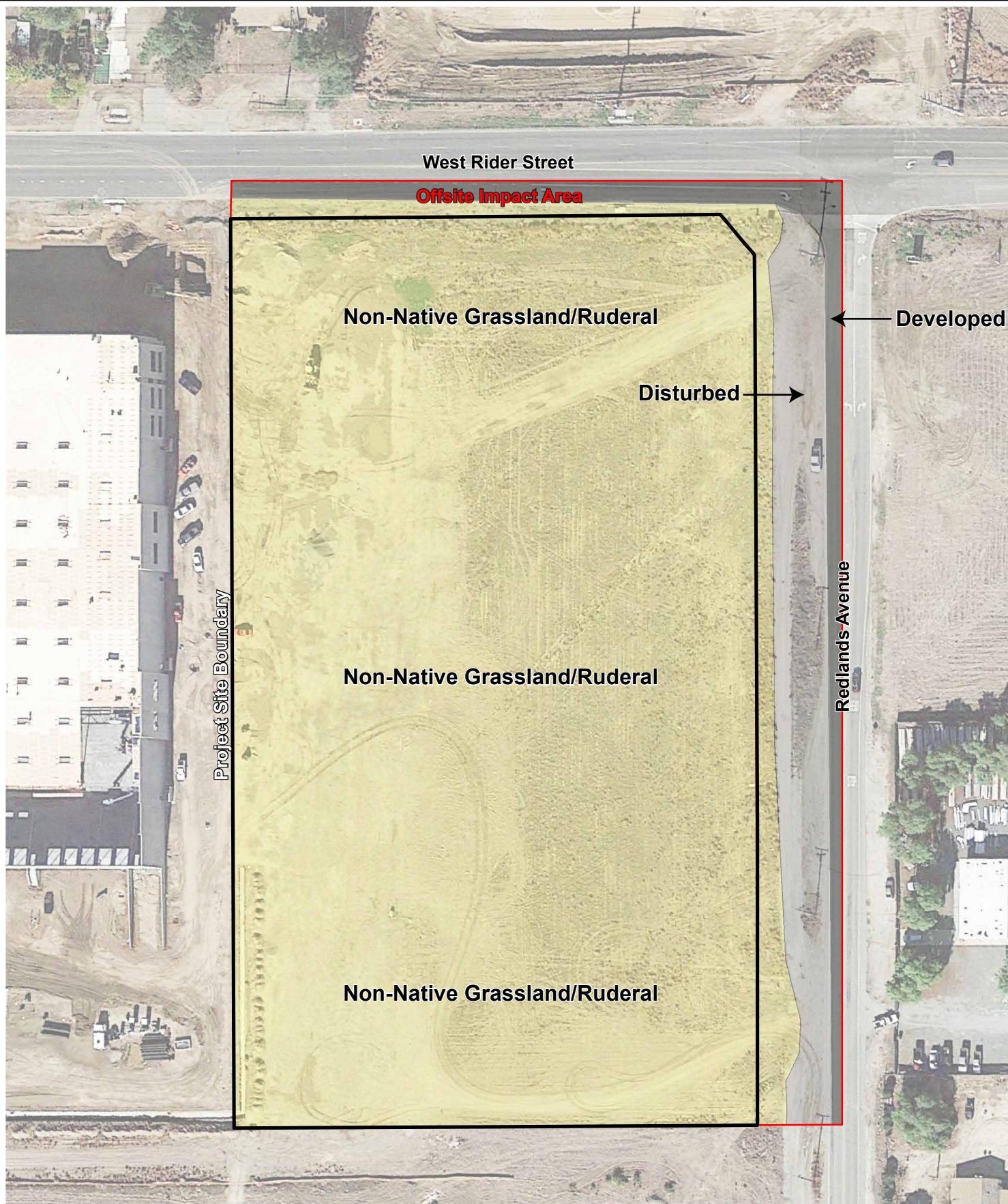
Attachment B Vicinity Map
MSHCP Habitat Assessment & Compliance Analysis
Chartwell - Rider and Redlands

CADRE
Environmental

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N
1" = 100 feet



APN's 300-250-007 and 300-250-008



APN's 300-250-007 and 300-250-008



PHOTOGRAPH 1 - Southwest view of Project Site from northeast corner adjacent to West Rider Street and Redlands Avenue intersection.



PHOTOGRAPH 2 - Southeast view of Project Site from northwest corner adjacent to West Rider Street.

Refer to Attachment B for Photographic Key Map

Attachment E - Current Project Site Photographs

*MSHCP Habitat Assessment & Compliance Analysis
Chartwell - Rider and Redlands*





PHOTOGRAPH 3 - Northeast view of Project Site from southwest corner.



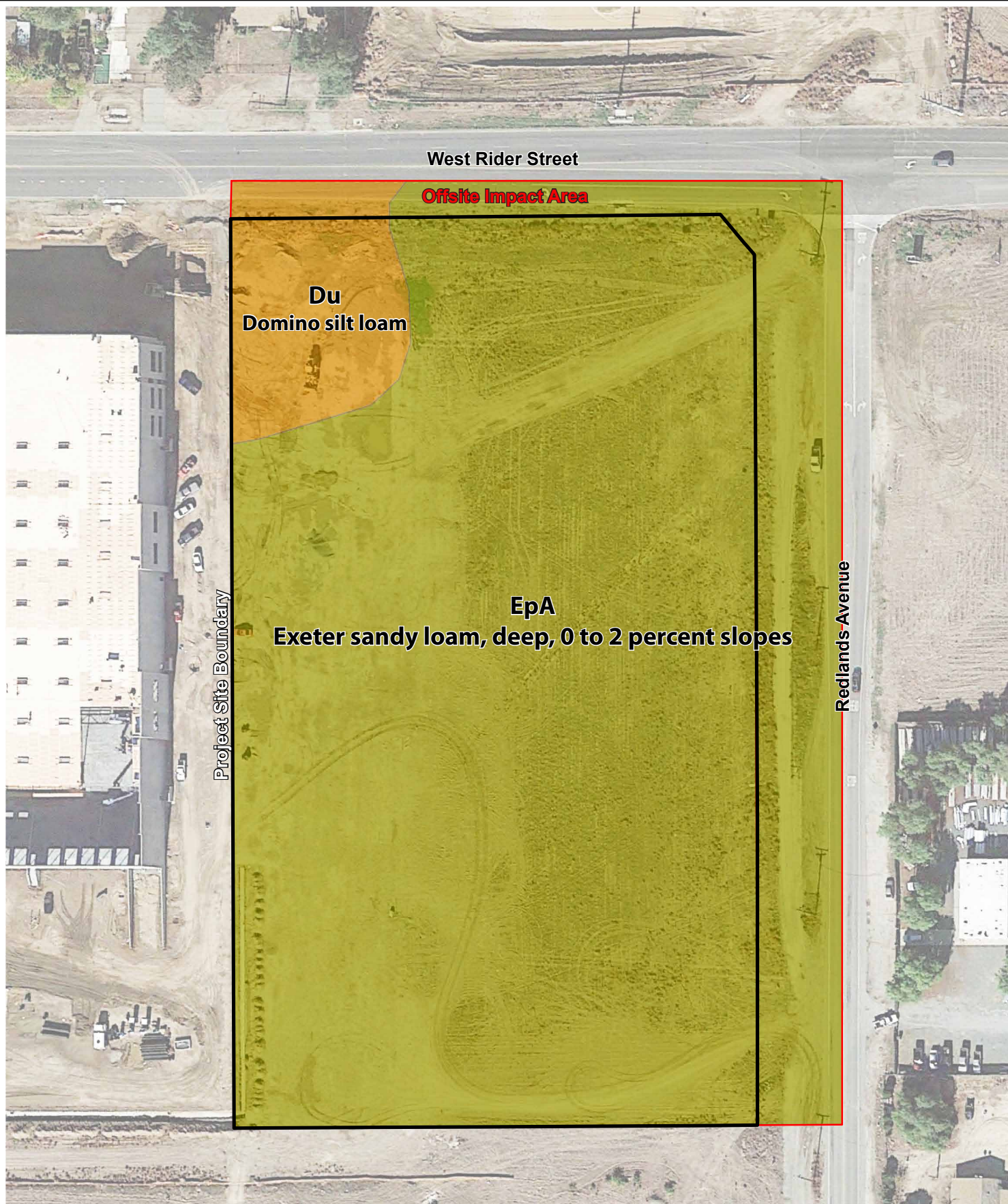
PHOTOGRAPH 4 - Northwest view of Project Site from southeast corner adjacent to Redlands Avenue.

Refer to Attachment B for Photographic Key Map

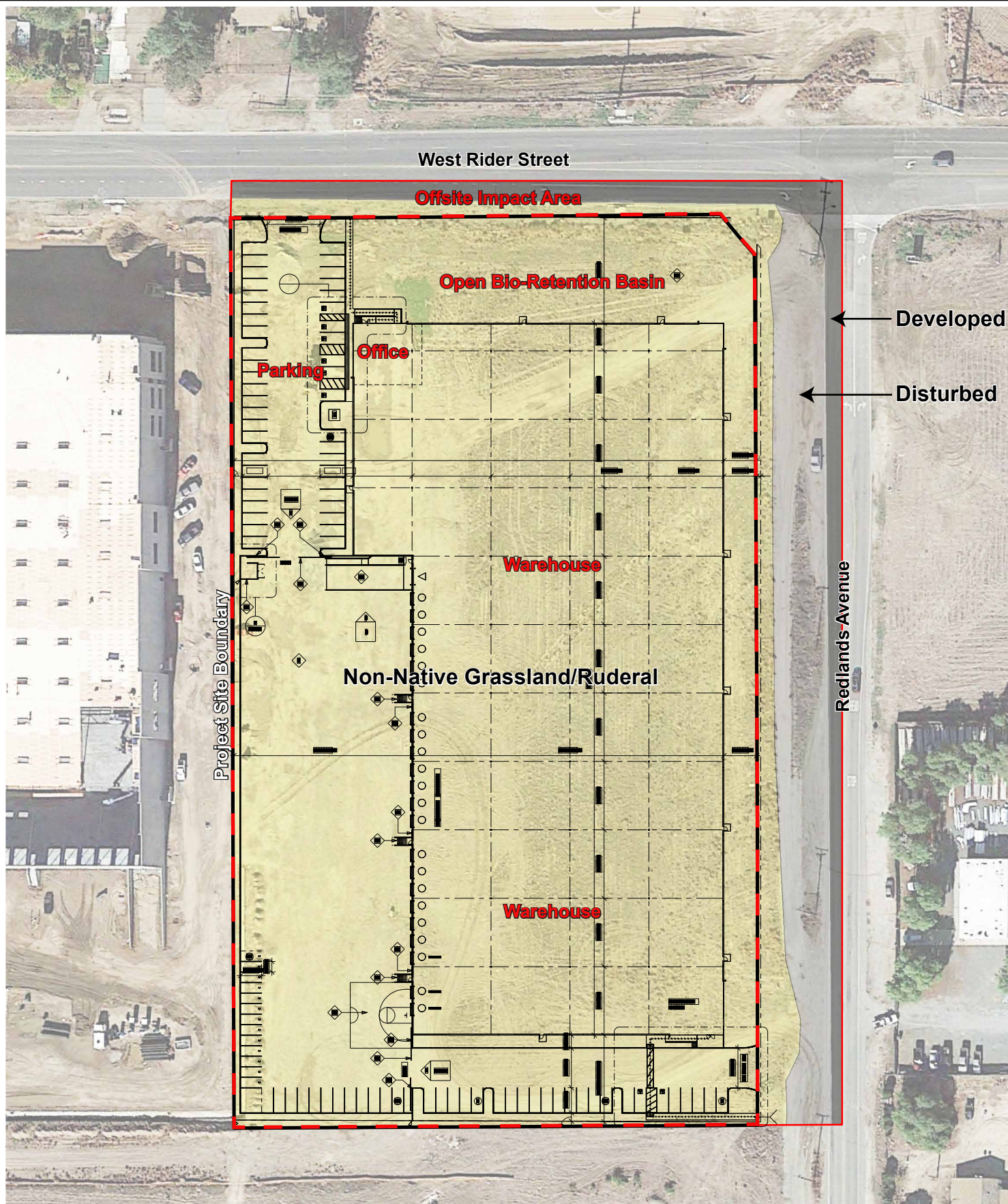
Attachment F - Current Project Site Photographs

*MSHCP Habitat Assessment & Compliance Analysis
Chartwell - Rider and Redlands*





APN's 3300-250-007 and 300-250-008



APN's 300-250-007 and 300-250-008

— — Project Site Impacts

Attachment H Vegetation Communities Impact Map
 MSHCP Habitat Assessment & Compliance Analysis
 Chartwell - Rider and Redlands

CADRE
 Environmental

↑
 N
 1" = 100 feet