Report of a Biological Assessment and MSHCP Consistency Analysis Over APNs 263-132-016 and 263-132-017 City of Moreno Valley, Western Riverside County, California

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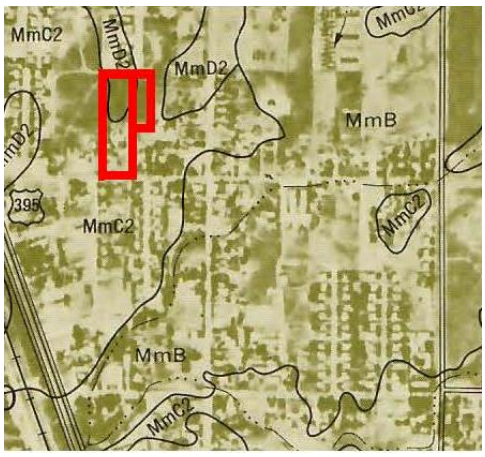
1. INTRODUCTION AND SUMMARY

This Report of a Biological Assessment and Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Consistency Analysis is being prepared to document the biological resources found on Assessor's Parcel Numbers 263-132-017 and 263-132-016. A habitat assessment and burrow survey for the Burrowing Owl was conducted over the subject property and two adjacent parcels on 1 May 2019, and a general biological survey was conducted over the subject property on 11 September 2020. The results of these surveys have been incorporated into the text of this report. The report also contains an impact analysis of the proposed residential project and the mitigation measures recommended to reduce the potentially significant impacts resulting from the proposed project to a less than significant level.

1.1. Project Location and Description

The 3.41-acre property consisting of APNs 263-132-017 and 263-132-016 is located on the north side of Dracaea Avenue between the Old 215 Frontage Road and Edgemont Street in the City of Moreno Valley (see attached Figures 1 and 2). The property is relatively flat with an elevational difference of approximately 12-feet. The highest elevation on-site is in the northwestern corner at 1,545-feet and the lowest elevation occurs in the southwestern section of the site at 1,533-feet (see Figure 3).

The property is currently undeveloped with a dirt road traversing the property in a north/south direction from Dracaea Avenue at the southern end of the site to the end of Lancaster Lane along the northeastern edge of the site (see Figure 2). However, as evidenced from historic aerial photos (such as the soil survey aerial below), the southern portion of APN 263-132-016 used to contain what appears to be residential structures as far back as the 1940's. No evidence of these structures is obvious on the property now. Current, surrounding land uses include undeveloped land to the west and east, and residences to the north, northeast, south, and southeast (again see Figure 2).



Published geological mapping of the area provides an overview of the property (Morton, 2004). The subject property is mapped as "Very old alluvial fan deposits". Surficial soil mapping for the property is provided by the Soil Survey for the Western Riverside Area, California (Knecht, 1971). According to this soil survey, the site is underlain by Monserate sandy loam 5 – 8% slopes, eroded (MmC2) and Monserate sandy loam 8 – 15% slopes, eroded (MmD2) – see insert to the right. These two soil types contain well-drained soils that were derived in alluvium from predominantly granitic soils (Knecht, 1971). The surficial soils are sandy loams while the subsoil is characterized as a sandy, clay loam hardpan between 10 – 20-inches deep.

2. REGULATORY SETTING

The following sections describe the federal, state, and local regulations that pertain to the protection of biological resources on the subject property.

2.1. Federal

2.1.1. Endangered Species Act

The federal Endangered Species Act (ESA) enacted in 1973, authorizes the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) to identify and list imperiled plant and animal species as threatened or endangered under the act. Once listed, these species are protected from unauthorized "take" that would otherwise further imperil the species or even cause them to become extinct. Under the act, the USFWS and the NMFS maintain a list of candidate species, propose critical habitat for listed species, consult with entities proposing "take", and issue "take" permits, all of which is done with the ultimate goal of recovery for the species.

2.1.2. Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) was first enacted in 1918. Since then, treaties with other countries regarding the protection of migratory birds, has necessitated amendments to the act. As it stands currently, the MBTA provides a list of bird species whose nests, eggs and parts are protected under the act from harm through pursuit, hunting, trapping, killing, etc.

2.1.3. Clean Water Act

The Clean Water Act (CWA) is a federal law that regulates water pollution. The U.S. Army Corps of Engineers (USACE) and the U.S. Environmental Protection Agency (EPA) regulate the discharge of dredged or fill material into waters of the United States under Section 404. Recently, on 21 April 2020, these agencies published a final rule in the federal register entitled "The Navigable Waters Protection Rule: Definition of 'Waters of the United States'" which redefines what is jurisdictional to these agencies under the CWA. One main change is the removal of ephemeral drainages from this definition.

2.2. State

2.2.1. California Endangered Species Act

The California Endangered Species Act (CESA) was enacted in 1984 and is quite similar in function to the federal ESA. The CESA authorizes the California Fish and Game Commission to list plants and animals as threatened or endangered, or as candidates for

listing. Once listed, these species are protected from unauthorized "take".

2.2.2. California Environmental Quality Act

The California Environmental Quality Act (CEQA) was enacted in 1970 and is the state regulation with the broadest scope for protecting environmental resources in California. Before a California public agency, such as the City of Moreno Valley, can issue permits for discretionary projects, the project must be analyzed under CEQA for significant impacts. CEQA analyses environmental topics including aesthetics, agriculture and forest resources, air quality, biological resources, cultural resources, energy, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation, tribal cultural resources, utilities and service systems and wildfire. After the analysis portion is complete, the public agency will issue a Negative Declaration, Mitigated Negative Declaration or an Environmental Impact Report depending upon the significance of the impacts and the mitigation requirements.

2.2.3. Fully Protected Species and Species of Special Concern

The Fully Protected Species designations under the California Fish and Game Code and the Species of Special Concern designations made by the California Department of Fish and Wildlife provide additional protection for the species identified as such. Although not listed under the ESA or CESA, species identified as Fully Protected Species or Species of Special Concern are considered "sensitive" and require a full analysis under CEQA.

2.2.4. California Native Plant Society Sensitive Plants

Established in 1965 as a non-profit organization, the California Native Plant Society (CNPS) is dedicated to conserving California native plants and their habitats. In order to track sensitive, California native plants, the CNPS maintains an Inventory of Rare and Endangered Plants of California on their website (CNPS, 2020). When preparing a CEQA analysis, this inventory is used to identify sensitive plant species that are not otherwise protected under the ESA or the CESA.

2.2.5. Waters of the State

Section 401 of the CWA requires that an entity applying for a federal license or permit to conduct an activity that may result in a discharge of a pollutant into waters of the United States must obtain a water quality certification from the state in which the discharge originates. In California, this water quality certification is administered by the State Water Resources Control Board (SWRCB) and its nine Regional Water Quality Control Boards (RWQCBs).

2.3. Local

2.3.1. Western Riverside County Multiple Species Habitat Conservation Plan

The Natural Community Conservation Planning (NCCP) program is a state-wide conservation effort established to protect large blocks of habitat while still allowing for development. The Multiple Species Habitat Conservation Plan (MSHCP) is a multi-jurisdictional, regional NCCP program in Western Riverside County. The MSHCP details conservation goals for native habitats and the sensitive plants and animals that inhabit them. It also outlines development limitations and mitigation requirements for impacts to these sensitive species or habitats. The City of Moreno Valley is one of many jurisdictions participating in the MSHCP.

2.3.2. City of Moreno Valley General Plan

The City of Moreno Valley General Plan was adopted in July 2006 (City of Moreno Valley, 2006). This General Plan outlines how the City of Moreno Valley will be developed through the identification of goals, objectives, policies, and programs within a framework of different plan elements. The protection of environmental resources relevant to this biological report are detailed in the Parks, Recreation, and Open Space Element, the Safety Element (Environmental Safety), and the Conservation Element. It should be noted that efforts for the 2040 General Plan are currently underway to update the 2006 plan and outline what will be accomplished over the next 20 years.

2.3.3. City of Moreno Valley Landscape and Water Efficiency Requirements

The Landscape and Water Efficiency Requirements for the City of Moreno Valley are detailed in the Title 9 of the Moreno Valley Municipal Code. Specifically, section 9.17.030(G) defines “heritage trees” and what can and can not be done with these special protection trees. On-site, there are eleven heritage trees that met the definition of > 15-feet in height. These eleven trees are marked on Figure 3.

3. METHODOLOGY

The preparation of this report required a research component and a field assessment component. The research component consisted of reviews of aerial photography, topography, and soils maps. It also entailed searching the California Natural Diversity Database (CNDDB) and the on-line Inventory of Rare and Endangered Plants of California maintained by the California Native Plant Society (CNPS). The field assessment component was comprised of two site surveys performed by the undersigned on 1 May 2019, and 11 September 2020. The first visit on 1 May 2019 represented the habitat assessment and burrow survey for the Burrowing Owl. The second visit on 11 September 2020 consisted of the general biological survey of the project area. Below is a table of the dates, times, and weather conditions for both visits.

APNs 263-132-016 and 263-130-017								
Date	Times of survey	Observer	Beginning of Observational Period			End of Observational Period		
			Wind	Air Temp	Cloud Cover	Wind	Air Temp	Cloud Cover
1 May 2019	1030 to 1300 hours	G. Cummings	1.4 – 5.1 mph	69.1°F	10%	< 5.5 mph	71.4°F	Clear
11 Sept 2020	0830 to 0945 hours	G. Cummings	< 1.9 mph	65.6°F	100% (smoke from fire)	< 2.0 mph	75.2°F	100% (smoke from fire)

The goals of the first site visit were to 1) determine if there was suitable habitat for the Burrowing Owl on the property or within 500-feet of the site, and 2) determine if potential burrows occurred within the survey area. The goals of the second field survey in 2020 were to delineate and quantify the types and amounts of habitats on the property, and to determine if any sensitive plants or animals occur within the bounds of the site.

In order to meet the above outlined goals, all sign (including track, scat, and others), direct observation, and auditory inputs (such as songs and calls) were utilized to identify the species present. Standard naming references are cited in the References Cited section of this report.

4. EXISTING BIOLOGICAL CONDITIONS

The 3.41-acre property is currently undeveloped and is surrounded by residential development. Residential structures used to stand in the southern portion of APN 263-132-016, but no remnants of these structures occur on-site. Their existence is only supported by historical aerial photography. During the field visits, one sensitive wildlife species was observed, and this species is discussed in section 4.4 below (also see Figure 3 for location). For complete lists of all the plants and animal species observed on the property, please see the attached Tables 1 and 2.

4.1. Vegetation Classifications and Flora

The property contains two in-fill parcels totaling 3.41-acres. This property is comprised of a dirt road and annually disced fields. The fields are occupied by native and non-native adventive (or weed) species and are best classified as Developed/Disturbed Land under the collapsed vegetation community classifications in the MSHCP and as Residential/Urban/Exotic habitat under the uncollapsed vegetation community classifications. The habitat on-site has been disced repeatedly throughout the years for fire purposes.

Residential/Urban/Exotic Habitat. This vegetation classification consists primarily of native and non-native weed species and falls under the collapsed vegetation community classification of Developed/Disturbed Land in Volume II of the MSHCP. Plant species that

dominate this habitat type on the property include:

Cheeseweed	*Malva parviflora*
Turkey-Mullein	*Croton setigerus*
Red Brome	*Bromus madritensis* ssp. *rubens*
Short-pod Mustard	*Hirschfeldia incana*

On-site this vegetation type exhibits a number of subtle differences due to the elapsed time from the last mechanical disturbance. Where the soil is disced annually, the above four species form a nearly exclusive association. Where the soils are apparently not disced annually, such as around the heritage trees at the periphery of the parcel, a slightly higher diversity of plants occurs, but the composition remains adventive and primarily non-native in content. As a collective whole, this habitat type is perhaps the least valuable of the habitats found in western Riverside County.

It should be noted that the property also contains an approximately 100-foot x 40-foot ponded area on APN 263-132-017 that appears to fill with water from runoff of Lancaster Lane to the north during years with good rainfall. Plant species the dominate this particular patch of the Residential/Urban/Exotic habitat include:

Puncture Vine	*Tribulus terrestris*
California Goosefoot	*Chenopodium californicum*
Knotweed	*Polygonum aviculare* ssp. *depressum*
Tumbleweed	*Amaranthus albus*

No Vernal Pool plant indicator species commonly found in Riverside County were noted during the surveys.

4.2. Wildlife

Given the degree of human utilization of the surrounding properties, and the degree to which the subject property has been disturbed, it is not surprising that the suite of wildlife species present has been greatly reduced. Birds are the most obvious part of the fauna, followed by mammals. During the field surveys, an effort was made to assess all available sign (tracks, burrows, trails, scat, and the like) as a means of ascertaining the wildlife species present on the property. Included in the survey was a protocol survey for the Burrowing Owl. Most of the wildlife observations were avian in nature, but two mammals were also noted on the property. These species are discussed in the sections below.

Amphibians. The area that holds water runoff from Lancaster Lane has the potential to be suitable habitat for common frog species, such as the Baja California Treefrog (*Pseudacris hypochondriaca*). However, at the time of the visits in May 2019 and September 2020, this area was not holding any water and no amphibian species were noted during either of the surveys.

Reptiles. Although temperatures and weather were suitable for reptilian activity, no reptiles were observed during either of the surveys. This is not surprising given the lack of shrub habitats for cover and the fact that the area is disced annually.

Mammals. Probably as a result of the major freeways to and north and west of the property, the past and present disturbances to the site, and the extensive residential development surrounding the subject property, the mammalian component of the fauna was limited to domestic cats and dogs. No native mammalian species were observed during the site visits.

Birds. The avifauna is the most visible wildlife resource on the property and a total of fifteen bird species were noted during the protocol survey for the Burrowing Owl and the general biological survey of the property.

While the survey for the Burrowing Owl was negative, one other "sensitive" bird species was observed on the property. This species was the Cooper's Hawk. Sensitive wildlife species are discussed in detail in the following section 4.4 of the report, and the reader's attention is directed there for specific information about this sensitive bird species.

4.3. Sensitive Plants

One principal goal of the biological survey was to determine the presence or absence of sensitive plant species. A search was made of the on-line California Native Plant Society's Inventory of Rare and Endangered Plants of California to determine those plant species considered sensitive and known to occur within an approximate 10-mile radius of the subject property (CNPS, 2020). This search produced a list of fifty-two species. This list was compared with the list of plants generated from a nine-quad search of the California Natural Diversity Database (CDFW, 2020a), and one additional plant species was added by the CNDDB, creating a total sensitive plant list of fifty-three plant species. The list of fifty-three plant species is presented as Table 3 (the reader's attention is directed to that table for additional information). Each entry in the table has been annotated as to whether the species would be expected on the property or not. A diligent search was conducted for all the species during field work conducted within the bounds of the project, but no sensitive plant species were found. Forty-nine of the fifty-three plants would not be anticipated given their specific habitat, soil, and elevational requirements. Three plants would have a low probability of being found on the property, and one plant species would have a high probability of occurring on-site. The one plant with a high probability of occurrence is the Paniculate Tarplant (*Deinandra paniculata*).

A diligent search was made for all of the species during the field work conducted within the bounds of the property, but none were found. Given the disturbance that most of the property has been subject to for many decades, it is not surprising that no sensitive plant species were encountered. The one species, Paniculate Tarplant, with a high probability of occurrence on-site, is an annual herb that blooms from April to November (CNPS, 2020). The field surveys were conducted in May and September when above-ground expressions of this plant would

have been visible. Given the lack of observations, and the past and present disturbances to the property, it is highly unlikely that this plant occurs on-site.

4.4. Sensitive Wildlife

One of the principal goals of the biological reconnaissance was the identification and delineation of populations of sensitive wildlife species. A list of sixty-one sensitive animal species known to occur within a 10-mile radius of the project was generated from a nine-quad search of the CNDDB (CDFW, 2020a). Of the sixty-one sensitive wildlife species known to occur within a 10-mile radius of the property (see the attached Table 4), only one was noted during the surveys, the Cooper's Hawk. Forty-nine of the sensitive wildlife species are unlikely given their habitat associations and known locations, nine have a low probability of occurring on the property, and two have a medium probability of occurring on-site.

Cooper's Hawk. The Cooper's Hawk (*Accipiter cooperi*) is a medium-sized, streamlined hawk with a long tail whose primary prey species are other smaller birds. For nesting, Cooper's Hawks use a variety of tall tree species, including several horticultural species and native Oaks. The Cooper's Hawk has no federal or state listing under the ESA or CESA, respectively, but it is on a Watch List maintained by the California Department of Fish and Wildlife (CDFW, 2020b).

During the site visit in September of this year, a single individual was seen overflying the northwestern portion of the property (see Figure 3 for location). According to Small (1994), fall migration of this species occurs from mid-September to mid-October. Given the brief observation of this species on-site as a flyover only, combined with the disturbed nature of the site, and the timing of the observation, it is quite probable that this was a fall migrant passing through the area. However, there are potentially suitable nest trees around the periphery of the site and an avian breeding season avoidance mitigation measure is proposed to ensure that no "take" occurs to the Cooper's Hawk or any other bird species protected under the MBTA.

4.5. Core Areas, Linkages, and Wildlife Movement Corridors

Core areas are defined in the MSCHP-Volume I as "a block of Habitat of appropriate size, configuration, and vegetation characteristics to generally support the life history requirements of one or more Covered Species". These core areas serve as the cornerstones of the MSHCP conservation area. To ensure connectivity between the core areas, linkages have also been identified for protection. These linkages provide "Live-In" habitat for certain species and habitat for movement between core areas. A third term, wildlife movement corridor, is used in the MSHCP to describe typically linear, unobstructed paths that provide adequate cover for species moving from place to place. The 3.41-acre subject property is not mapped within a core area or linkage in the MSHCP. In addition, the site contains Disturbed Land that is disced annually for fire prevention. It is an in-fill property that is surrounded by residential development. As such, the property does not function as a wildlife movement corridor either.

5. MSHCP CONSISTENCY ANALYSIS

5.1. Criteria Areas

The subject property is located within the Reche Canyon/Badlands Area Plan of the Western Riverside County MSHCP. According to the Volume I of the MSHCP, the subject property is not located within a criteria area (Dudek, 2003a).

5.2. Narrow Endemic Plant Species Survey Area

According to the Volume I of the MSHCP, the subject property is not located within a narrow endemic plant survey area (Dudek, 2003a). As such, no surveys for narrow endemic plants are required.

5.3. Criteria Area Species Survey Area

According to the Volume I of the MSHCP, the subject property is not located within a species survey area for other sensitive plant species either (Dudek, 2003a). As such, no specific surveys for those additional nine plant species are required.

5.4. Amphibian Species Survey Area

According to the Volume I of the MSHCP, the subject property is not located within an amphibian survey area (Dudek, 2003a). As such, no surveys for amphibians are required.

5.5. Burrowing Owl Survey Area

According to the Volume I of the MSHCP, the subject property is not located within a Burrowing Owl survey area (Dudek, 2003a). However, a habitat assessment and burrow survey were conducted over the property in 2019 (see Appendix A). Portions of the property contained suitable habitat for the Burrowing Owl, but no burrows were found on-site. Even though the Burrowing Owl is not anticipated to occur on the property given the lack of burrows, a pre-construction survey is recommended 30-days before ground disturbing activities begin.

5.6. Mammal Species Survey Area

According to the Volume I of the MSHCP, the subject property is not located within a mammal survey area (Dudek, 2003a). As such, no surveys for mammals are required.

5.7. MSHCP Riparian/Riverine Areas and Vernal Pools

The subject property does not contain riparian/riverine areas or vernal pools as defined in section 6.1.2 of Volume I of the MSHCP (Dudek, 2003a). Specifically, for riparian/riverine areas, there are no trees, shrubs, persistent emergents, or emergent mosses and lichens which

occur close to or depend upon soil moisture from a nearby water source on the property. Rather, the site is occupied by Residential/Urban/Exotic habitat.

The vernal pool analysis was not as clear cut as it was for riparian/riverine habitat. As defined in section 6.1.2 of Volume I of the MSHCP, vernal pools are "seasonal wetlands that occur in depression areas that have wetlands indicators of all three parameters (soil, vegetation and hydrology) during the wetter portion of the growing season but normally lack wetland indicators of hydrology and/or vegetation during the drier portion of the growing season." Regional mapping for this area was researched to see if there were any previously mapped vernal pools or wetlands on the property. Per the National Wetlands Inventory maintained by the USFWS, there are no wetlands or riparian habitats mapped on-site (USFWS, 2020). Also, according to the Final Program EIR for the Moreno Valley General Plan (2006), no vernal pools were mapped within the City of Moreno Valley by the regional vegetation mapping effort.

Regional mapping efforts can sometimes miss smaller biological resources, and site-specific surveys are required to ensure that these smaller biological resources are not overlooked. Based upon aerial photography, one of the three vernal pool indicators, hydrology, occurs at least occasionally on the site. As can be seen on Figure 2, there is an area on APN 263-132-017 that holds water runoff coming from the paved Lancaster Lane to the north during some years when there is good rainfall. No standing water was observed in this location during either the May 2019 visit or the September 2020 visit, but this was not surprising since these visits occurred during the drier portion of the growing season (see Figure 4). The two other vernal pool indicators, hydric soils and hydrophytic vegetation, do not occur on-site. The Monserate soils underlying the site are not considered hydric soils by the USDA (2020) and the site surveys confirmed the occurrence of these sandy loams. As mentioned previously, the vegetation within the area that ponds occasionally did not vary much from the surrounding vegetation. Both areas contained annual weedy species, and the area that holds the water runoff contained a concentration of Puncture Vine, Tumbleweed, California Goosefoot and Knotweed. According to the National Wetland Plant List for California maintained by the USACE (2018), two of these four plant species were not even on the list, one was a facultative upland species, and one was a facultative species. Facultative species commonly occur as either a hydrophyte or a non-hydrophyte, and facultative upland species occasionally occur as a hydrophyte, but usually occur in uplands. Since all three indicators need to be present to be defined as a vernal pool, this area that holds water runoff occasionally but does not contain hydric soils or predominantly hydrophytic vegetation is not classified as a vernal pool by the MSHCP.

5.8. Urban/Wildlands Interface

Since the subject property is not located within an MSHCP Conservation Area, there are no indirect effects that need to be addressed regarding placement of development next to an MSHCP Conservation Area.

5.9. Stephens' Kangaroo Rat (SKR) Mitigation Fee

The Riverside County Habitat Conservation Agency (RCHCA) has a section 10(a) permit under the Endangered Species Act from the U.S. Fish and Wildlife Service for the "take" of the SKR. This permit is a Habitat Conservation Plan (HCP) that identifies a designated SKR HCP Area within which development projects can proceed as long as they pay a mitigation fee. Payment of the fee provides full mitigation under CEQA, ESA, and CESA for impacts to the SKR.

6. ENVIRONMENTAL IMPACT ANALYSIS

This section addresses the environmental impacts to sensitive biological resources that would result from the proposed development of the subject property and the associated mitigation measures required to reduce those impacts to a less than significant level under CEQA.

6.1. Thresholds of Significance

The CEQA Guidelines provide information on evaluating whether certain project impacts would be significant under CEQA. A significant impact would require mitigation, while a less than significant impact would not. In accordance with Appendix G in the CEQA Guidelines, a project could have a significant impact on biological resources if the project would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service;
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service;
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance;
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

6.2. Impacts

The purposes of this biological report were to provide documentation of the biological resources found on the property, analyze the impacts of the proposed residential development, and provide mitigation measures if the impacts are significant. Based upon the levels of significance outlined in the CEQA Guidelines and detailed in section 6.1 above, the following four significant biological impacts will occur as a result of the proposed residential development:

Impact BIO-1: Burrowing Owl
A Burrowing Owl habitat assessment and burrow survey were conducted over the property. Although suitable habitat was found on-site, no burrows were detected within the suitable habitat. However, the City of Moreno Valley requires that the below BIO-1 mitigation measure be implemented to reduce potential impacts to Burrowing Owls to a less than significant level.

Impact BIO-2: Nesting Birds
The property contains habitats in which nesting birds protected under the MBTA may be found. Although no active nests were found during the field surveys, there are bird species that could build nests on-site prior to the onset of project construction. The BIO-2 mitigation measure below should be implemented to reduce potential impacts to nesting birds to a less than significant level.

Impact BIO-3: Heritage Trees
The Moreno Valley Municipal Code section 9.17.030(G) contains information on what the city considers to be "heritage trees". Specifically, the municipal code states that trees are considered heritage trees if they define "the historical and cultural character of the city including older Palm and Olive trees, and/or any tree designated as such by official action", OR if they have a "fifteen (15) inch diameter measure twenty-four (24) inches above ground level" OR if they "have reached a height of fifteen (15) feet or greater". On-site, there are eleven trees that meet the latter definition of having attained a height of ≥ 15-feet. These eleven trees are shown on the preliminary grading plan in Figure 3. The BIO-3 mitigation measure below should be implemented to reduce impacts to these eleven heritage trees to a less than significant level.

Impact BIO-4: Stephens' Kangaroo Rat Fee Area
The subject property is located within the SKR HCP Fee Area which is administered by the RCHCA. The BIO-4 mitigation measure below should be implemented to reduce impacts to the SKR to a less than significant level.

6.3. Mitigation Measures

BIO-1: Pre-construction Burrowing Owl Survey
All project sites containing suitable Burrowing Owl habitat or burrows, whether or not Burrowing Owls were found, require pre-construction surveys for the Burrowing Owl 30-days before ground-disturbing activities occur. Therefore, a pre-construction survey for the

Burrowing Owl shall be conducted over the subject property 30-days prior to ground-disturbing activities.

BIO-2: Avian Breeding Season Avoidance or Pre-construction Nesting Bird Survey
Vegetation removal shall occur outside of the avian breeding season (February 1 to September 1) unless a qualified biologist has first surveyed the area of disturbance to determine the presence or absence of nesting bird species. If vegetation removal is proposed during the avian breeding season, then this pre-construction nesting bird survey should be conducted no more than five days prior to the beginning of project-related activities. For passerines and small raptors, surveys shall be conducted within a 250-foot radius of the work area. For large raptors, surveys shall be conducted within a 500-foot radius of the work area. If such nesting birds are *not* found, then project-related activities may proceed during the avian breeding season. However, if such nesting birds are found, then the avian biologist will need to decide whether the construction activities can proceed without harm to the nest or if a buffer or construction monitoring will be necessary to protect the active nest. The results of the nesting bird survey shall be detailed in a short report provided to the City of Moreno Valley for their concurrence.

BIO-3: Planting of Large Landscape Trees to Replace Heritage Trees to be Removed
In order to mitigate for the loss of eleven heritage trees on-site as a result of the proposed residential project, sixteen large landscape trees are proposed to be planted in their place (see Figure 5). The large landscape trees will be Chinese Elms (*Ulmus parvifolia*) or Golden Raintrees (*Koelreuteria paniculata*), or another suitable tree species anticipated to grow to be larger than 15-feet tall and become heritage trees themselves. If replacement landscape tree species must be selected, then those tree species must also be anticipated to grow to be larger than 15-feet tall to ensure that the heritage trees lost will be replaced.

BIO-4: SKR Fee
The property is located within the SKR HCP Fee Area. The Mitigation Fee of $500 per gross acre needs to be paid upon issuance of a grading permit, a certificate of occupancy, or upon final inspection, whichever comes first.

7. REFERENCES

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CERTIFICATION

This report is based on an independent field examination and analysis of APNs 263-132-016 and 263-132-017 in the City of Moreno Valley, County of Riverside, California. Any errors or omissions in this report are solely the responsibility of the author.

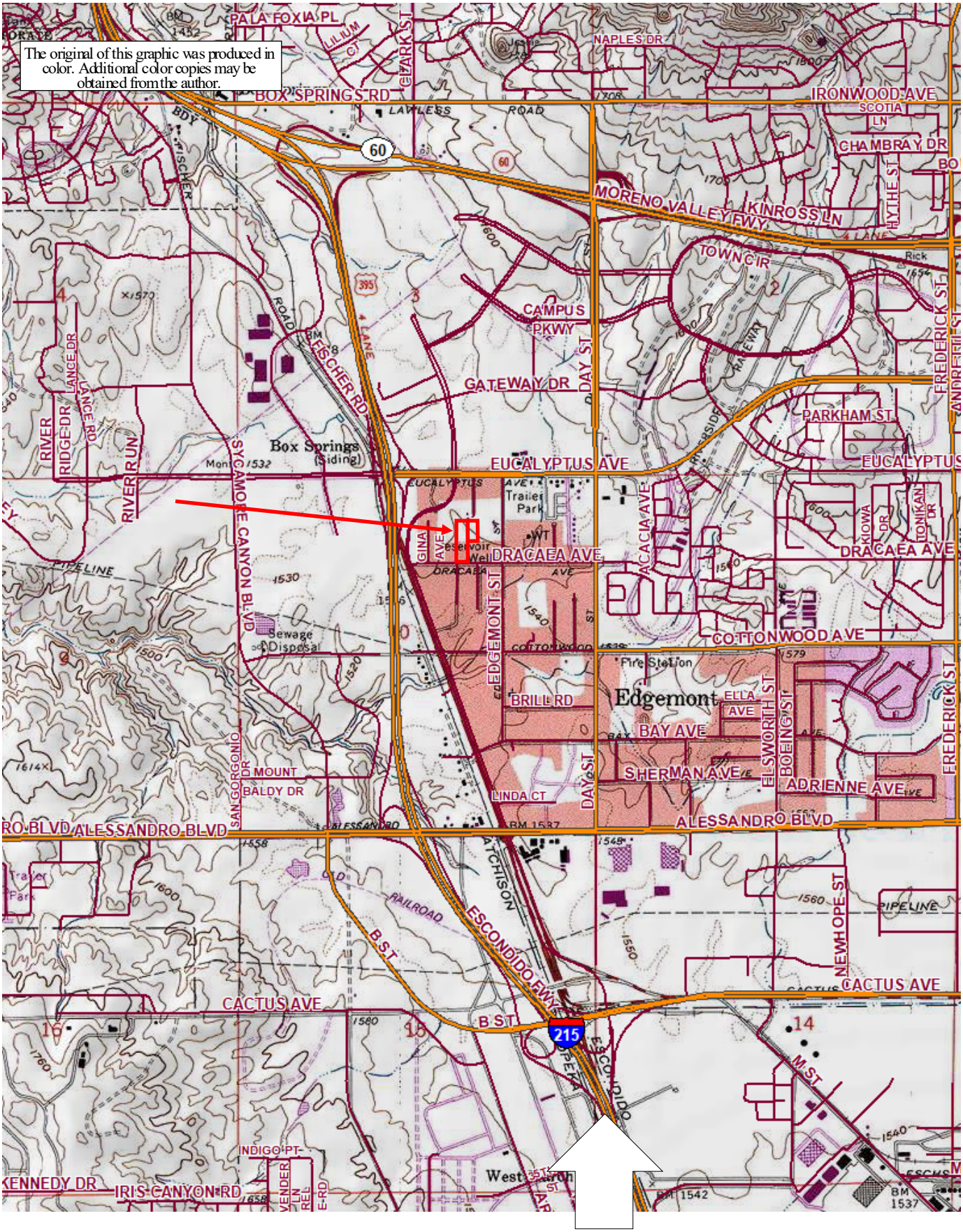
Gretchen Cummings

Gretchen B. Cummings
President/Consulting Biologist

ATTACHMENTS

Figure 1 – APNs 263-132-016 and 263-132-017 Shown on the U.S.G.S. 7½-min Riverside East Quad Map
Figure 2 – APNs 263-132-016 and 263-132-017 Shown on an Aerial Photo
Figure 3 - Biological Resources Shown on the Preliminary Grading Plan

[:\1869-bio-rpt-rev.doc]



Scale: 1-inch = 2,000-feet

Cummings Environmental Job Number 1869.86A 22 October 2020 [:\1869-Fig-1.pptx]

Cummings Environmental

APNs 263-132-016 and 263-132-017 Shown on the U.S.G.S. 7 ½-min Riverside East Quad Map [Base Map Created with TOPO!® ©2006 National Geographic; ©2005 TeleAtlas]

Figure 1

Cummings Environmental Job Number 1834.34C 22 October 2020

Scale: 1-inch = 200-feet

[:\1869-Fig-2.pptx]

Cummings Environmental

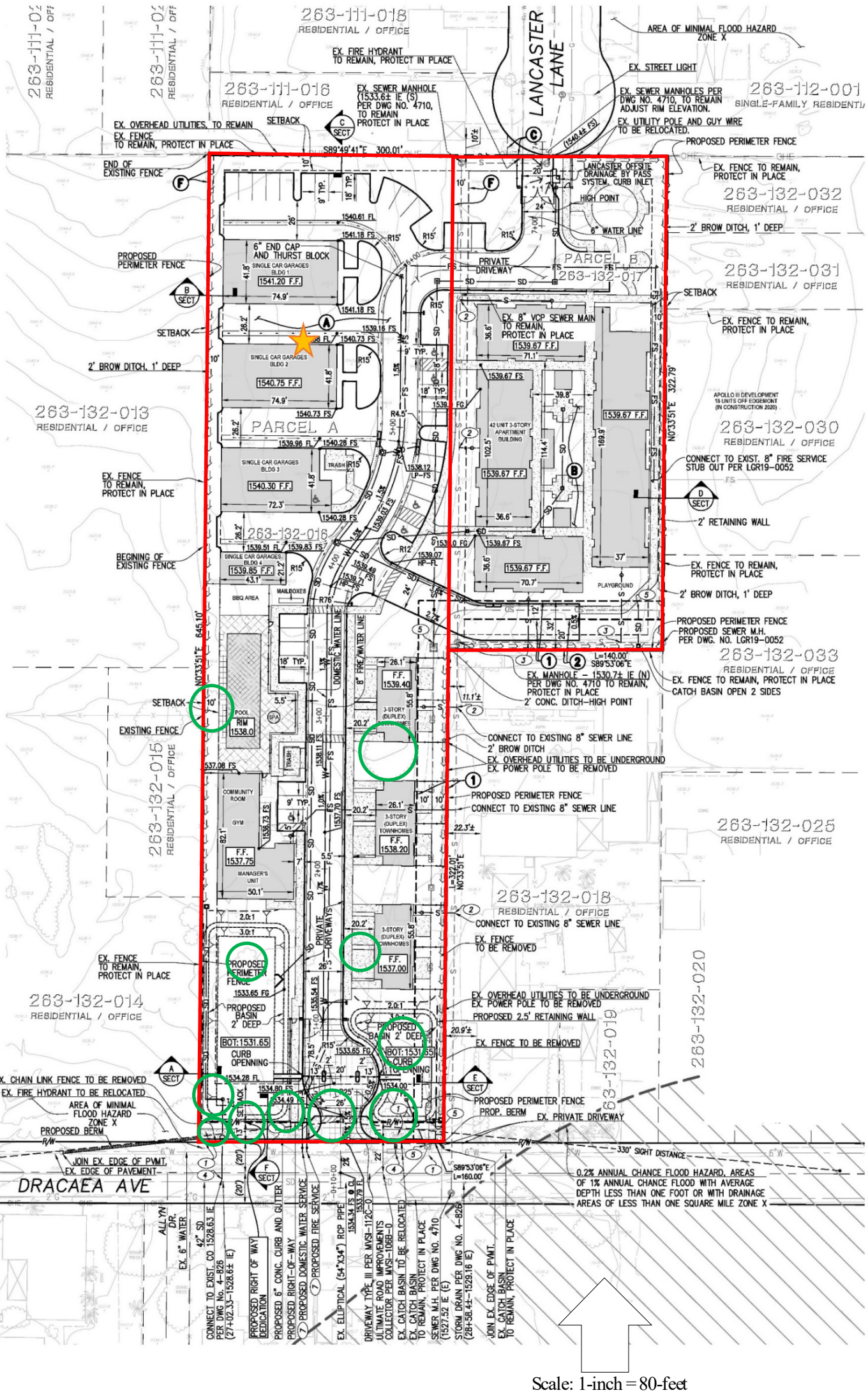
APNs 263-132-016, and 263-132-017 Shown on an Aerial Photo
[Base Photo © 2020 Maxar Technologies; Imagery Date 4/23/2020]

Figure 2

The original of this graphic was produced in color. Additional color copies may be obtained from the author.

KEY

- Parcel Boundaries
- Cooper's Hawk
- Heritage Trees



Scale: 1-inch = 80-feet

Cummings Environmental Job Number 1869.86A 25 October 2020 [:\1869-Fig-3.ppp]

Cummings Environmental

Biological Resources Shown on the Preliminary Grading Plan
[Base Preliminary Grading Plan Provided by Masson & Associates, Inc.]

Figure 3

The original of this graphic was produced in color. Additional color copies may be obtained from the author.

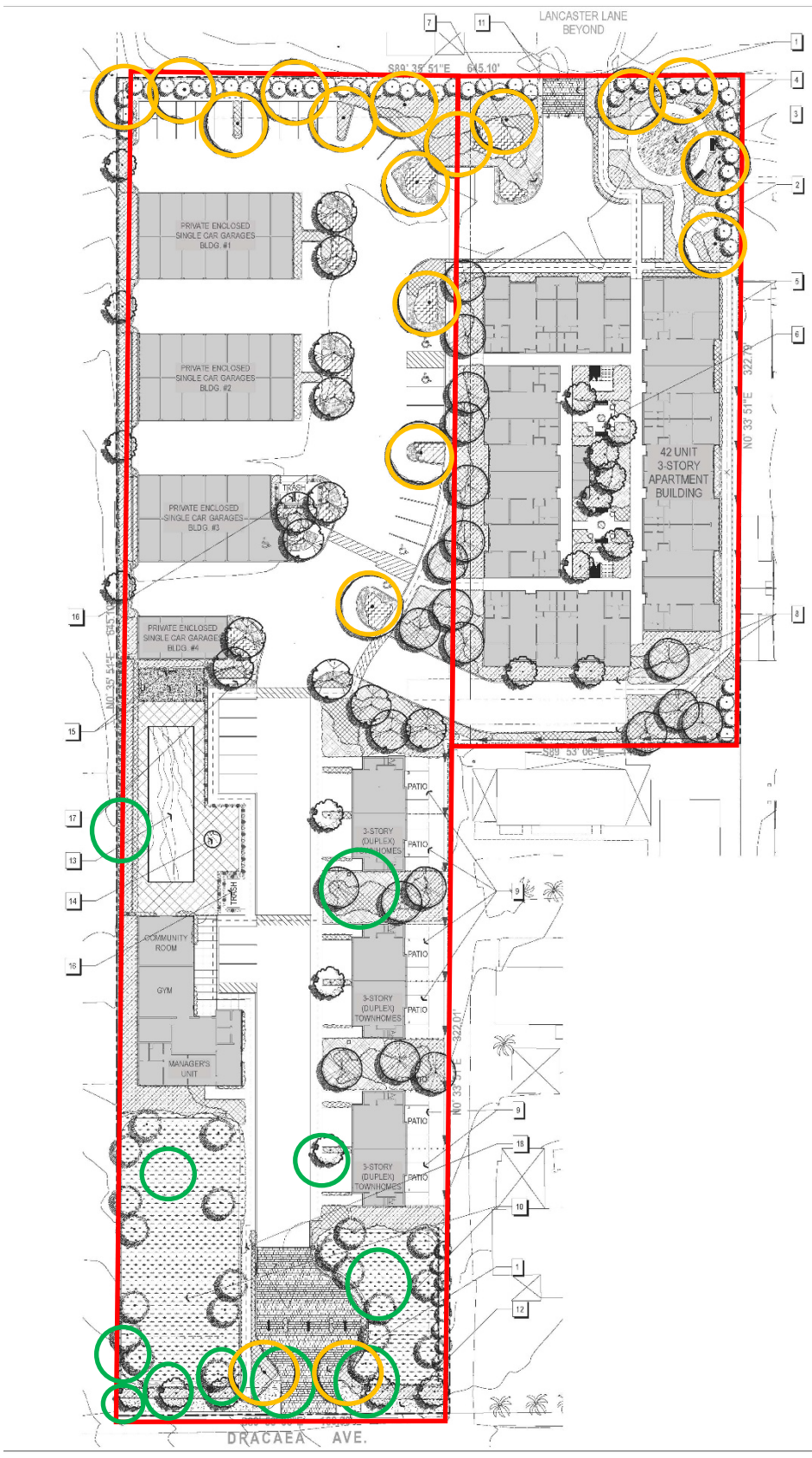
Cummings Environmental Job Number 1869.86A 25 October 2020 [:\1869-Fig-4.pptx]

Cummings Environmental	**Site Photos of the Area that Holds Water Runoff from Lancaster Lane Taken in May 2019 (top photo) and September 2020 (bottom photo)**	**Figure 4**

The original of this graphic was produced in color. Additional color copies may be obtained from the author.

KEY

- Parcel Boundaries
- Existing Heritage Trees
- Proposed Large Canopy Landscape Trees



Scale: 1-inch = 80-feet

Cummings Environmental Job Number 1869.86A 25 October 2020

[:\1869-Fig-5.ppp]

Cummings Environmental

Locations of Existing Heritage Trees and Landscape Trees Proposed to Reach Heritage Tree Status Shown on the Preliminary Landscape Plan
[Base Preliminary Landscape Plan Provided by Daedalus Design Group]

Figure 5

Table 1

Vascular Plants Observed on APNs 263-132-016 and 263-132-017

Plant Family	*Scientific Name* Common Name	Native (N) or Introduced (I)
Amaranthaceae **Amaranth Family**	*Amaranthus albus* Tumbleweed	I
Anacardiaceae **Sumac Family**	*Schinus molle* Pepper Tree	I
Asteraceae **Sunflower Family**	*Deinandra fasciculata* Clustered Tarweed	N
	Erigeron canadensis Horseweed	N
	Lactuca serriola Prickly Lettuce	I
	Sonchus oleraceus Common Sow Thistle	I
Boraginaceae **Borage Family**	*Amsinckia menziesii* Common Fiddleneck	N
	Cryptantha sp. Cryptantha	N
Brassicaceae **Mustard Family**	*Hirschfeldia incana* Short-pod Mustard	I
	Sisymbrium irio London Rocket	I
Chenopodiaceae **Goosefoot Family**	*Chenopodium berlandieri* var. *sinuatum* Pitseed Goosefoot	N
	Chenopodium californicum California Goosefoot	N
	Salsola tragus Russian Thistle	I
Euphorbiaceae **Spurge Family**	*Chamaesyce albomarginata* Rattlesnake Weed	N

Plant Family	*Scientific Name* Common Name	Native (N) or Introduced (I)
	Croton setigerus Turkey-Mullein	N
Fabaceae **Pea Family**	*Medicago polymorpha* California Burclover	I
Fagaceae **Pea Family**	*Quercus suber* Cork Oak	I
Geraniaceae **Geranium Family**	*Erodium cicutarium* Redstem Filaree	I
Lamiaceae **Mint Family**	*Trichostema lanceolatum* Vinegar Weed	N
Malvaceae **Mallow Family**	*Malva parviflora* Cheeseweed	I
Poaceae **Grass Family**	*Avena barbata* Slender Wild Oat	I
	Bromus diandrus Ripgut Grass	I
	Bromus madritensis ssp. *rubens* Red Brome	I
	Digitaria sanguinalis Hairy Crab Grass	I
	Hordeum murinum ssp. *leporinum* Hare Barley	I
Polygonaceae **Milkwort Family**	*Polygonum aviculare* ssp. *depressum* Knotweed	I
	Rumex crispus Curly Dock	I
Zygophyllaceae **Caltrop Family**	*Tribulus terrestris* Puncture Vine	I

28 Plants [:\1869-Plant List.docx]

Table 2

Wildlife Species Observed on APNs 263-132-016 and 263-132-017

Scientific Name Common Name	Vegetative Community in which the Species was Observed	Observations
Mammals		
Canis lupus ssp. *familiaris* Domestic Dog	Residential/Urban/Exotic	Three small dogs entered the property from the adjacent residences to the south during the 9/11/20 visit.
Felis catus Domestic Cat	Residential/Urban/Exotic	Domestic cats were seen at the periphery of the property during the 5/1/19 and 9/11/20 visits.
Birds		
Accipiter cooperii Cooper's Hawk	N/A	During the 9/11/20 visit, a single Cooper's Hawk flew overhead.
Buteo jamaicensis Red-tailed Hawk	N/A	During the 9/11/20 visit, a single Red-tailed Hawk flew overhead.
Columba livia Rock Pigeon	N/A	A flock of 21 Rock Pigeon were seen flying off-site to the south during the 9/11/20 visit.
Streptopelia decaocto Eurasian Collared-Dove	Residential/Urban/Exotic	During the 9/11/20 visit, an individual was seen perched on a power pole and seven were seen perched in a tree in the southwestern portion of the site.

Scientific Name Common Name	Vegetative Community in which the Species was Observed	Observations
Zenaida macroura Mourning Dove	Residential/Urban/Exotic	This species was seen as overflights and as individuals perched on the fence along the western property boundary during the 5/1/19 and 9/11/20 visits.
Sayornis nigricans Black Phoebe	Residential/Urban/Exotic	During both visits, a Black Phoebe was seen flycatching from the fence lines along the southeastern boundary.
Sayornis saya Say's Phoebe	Residential/Urban/Exotic	On 9/11/20, a single Say's Phoebe was seen along the northern property boundary.
Tyrannus vociferans Cassin's Kingbird	N/A	During the 9/11/20 visit, a single Cassin's Kingbird was seen as an overflight.
Corvus corax Common Raven	N/A	On 9/11/20, a single individual was seen as an overflight.
Stelgidopteryx serripennis Northern Rough-winged Swallow	N/A	During the 5/1/19 visit, three Northern Rough-winged Swallows were seen overflying the property.
Mimus polyglottos Northern Mockingbird	N/A	During the 5/1/19 and 9/11/20 visits, Northern Mockingbirds were heard calling off-site to the west.
Sturnus vulgaris European Starling	N/A	During both visits, European Starlings were seen perched on the wires to the north and west of the property.

Scientific Name Common Name	Vegetative Community in which the Species was Observed	Observations
Carpodacus mexicanus House Finch	Residential/Urban/Exotic	During 5/1/19 and 9/11/20 visits, House Finch were seen foraging on-site, perched on wires along the periphery of the site, and as overflights.
Spinus psaltria Lesser Goldfinch	N/A	On 9/11/20, a single individual was seen perched on the wires next to several House Finch.
Passer domesticus House Sparrow	N/A	This species was seen during both visits perched on the wires at the periphery of the site and as overflights.

17 Species

[:\1869-Wildlife Table.doc]

Table 3

Sensitive Plant Species Known to Occur Within an Approximate 10-mile Radius[1] of APNs 263-132-016 and 263-132-017

Scientific Name Common Name[2]	Sensitivity Code and Status[3]	Habitat Preference	Found On-site (Y or N)	Potential On-site[4]	Factual Basis for Potential
Abronia villosa var. *aurita* Chaparral Sand-Verbena	Rank 1B.1/S2/-/-	Found in sandy substrates within Chaparral, Coastal Scrub and Desert Dune habitats at elevations ranging from -197 - 5,264 feet.	N	U	Although the site is underlain by sandy loams (Knecht, 1971), there are no Chaparral, Coastal Scrub or Desert Dune habitats on the property. The closest CNDDB record is 9.61-miles to the southeast (CDFW, 2020a).
Allium munzii Munz's Onion	Rank 1B.1/S1/CT/FE CA Endemic	Found in heavy clay soil in a wide variety of habitats. Grows at elevations of 977 - 3,521 feet.	N	U	The site contains a sandy loam surficial soil with a subsoil of sandy clay loam hardpan at > 10-inches deep (Knecht, 1971). The closest CNDDB record is 9.1-miles to the southwest (CDFW, 2020a).
Ambrosia pumila San Diego Ambrosia	Rank 1B.1/S1/-/FE	Found in sandy loam or clay soils in Chaparral, Sage Scrub, or Valley and Foothill Grassland habitats at elevations of 65 - 1,366 feet.	N	L	The site contains Disturbed Land underlain by a sandy loam surficial soil with a subsoil of sandy clay loam hardpan at > 10-inches deep (Knecht, 1971). The closest CNDDB record is 9.2-miles to the northwest (CDFW, 2020a). NOTE: Dwarf Burr Ambrosia is a synonym.

Scientific Name Common Name[2]	Sensitivity Code and Status[3]	Habitat Preference	Found On-site (Y or N)	Potential On-site[4]	Factual Basis for Potential
Arenaria paludicola Marsh Sandwort	Rank 1B.1/S1/CE/FE	Found within marshes and swamps in sandy openings at elevations of 9 – 560 feet.	N	U	There are no marshes or swamps on the property, just a small area that temporarily fills with run-off water during good rainfall years. Also, the highest known elevation of the species is ±973-feet lower than the lowest elevation on the property.
Artemisia palmeri San Diego Sagewort	Rank 4.2/S3?/-/-	Found primarily along creeks and drainages on sandy soils within Chaparral, Coastal Scrub, and riparian habitats at elevations of 49 - 3,011 feet.	N	U	There are no creeks on the property, just a small area that temporarily fills with run-off water during good rainfall years. This species is not found in the Riverside East quad (CNPS, 2020). In fact, the Sunnymead and Redlands quads are the only two quads in Riverside County that are known to contain this species. NOTE: Palmer's Sage is a synonym.
Asplenium vespertinum Western Spleenwort	Rank 4.2/S4/-/-	Found among boulders and rock outcrops within Chaparral, Coastal Sage, and Cismontane Woodland habitats at elevations of 592 - 3,290 feet.	N	U	There are no boulders or rock outcrops on the property, just sandy loam soils (Knecht, 1971).

Scientific Name Common Name[2]	Sensitivity Code and Status[3]	Habitat Preference	Found On-site (Y or N)	Potential On-site[4]	Factual Basis for Potential
Astragalus hornii var. *hornii* Horn's Milk-vetch	Rank 1B.1/S1/-/-	Found within playas and meadows and seeps in alkaline sites at 197 – 2,797 feet.	N	U	There are no playas, meadows or seeps on the property, just a small area that temporarily fills with run-off water during good rainfall years. The only CNDDB record within 10-miles of the property is from a 1900 collection and this location is believed to be extirpated (CDFW, 2020a).
Atriplex coronata var. *notatior* San Jacinto Valley Crownscale	Rank 1B.1/S1/-/FE CA Endemic	This species is associated with Playas, Valley and Foothill grasslands and Vernal Pool habitats at elevations of 457-1,645 feet.	N	U	There is a small area on-site that temporarily fills with run-off water during good rainfall years. However, the closest CNDDB record is 9.9-miles to the southeast (CDFW, 2020a).
Atriplex pacifica South Coast Saltscale	Rank 1B.2/S2/-/-	Found on alkaline soils in Coastal Bluff Scrub, Coastal Dune, Coastal Scrub, and Playa habitats at elevations of 3 – 1,316 feet.	N	U	There are no alkaline soils mapped on the property (Knecht, 1971).
Atriplex parishii Parish's Brittlescale	Rank 1B.1/S1/-/-	Found on alkaline soils in Alkali Meadows, Vernal Pools, Chenopod Scrub, and Playa habitats at elevations of 82 - 6,251 feet.	N	U	There are no alkaline soils mapped on the property (Knecht, 1971).

Scientific Name Common Name[2]	Sensitivity Code and Status[3]	Habitat Preference	Found On-site (Y or N)	Potential On-site[4]	Factual Basis for Potential
Atriplex serenana var. *davidsonii* Davidson's Saltscale	Rank 1B.2/S1/-/-	Found on alkaline soils within Coastal Scrub and Coastal Bluff Scrub at elevations ranging from 0 – 1,580 feet.	N	U	There are no alkaline soils mapped on the property (Knecht, 1971).
Berberis nevinii Nevin's Barberry	Rank 1B.1/S1/CE/FE CA Endemic	Found in Chaparral, Cismontane Woodland, Riparian Scrub, and Sage Scrub at elevations ranging from 230 - 5,232 feet.	N	U	There are no Chaparral, Cismontane Woodland, Riparian Scrub, or Sage Scrub habitats on the property.
Brodiaea filifolia Thread-Leaved Brodiaea	Rank 1B.1/S2/CE/FT CA Endemic	Found on clay soils in a variety of habitats at 49 - 3,685 feet.	N	U	The site contains Disturbed Land underlain by a sandy loam surficial soil with a subsoil of sandy clay loam hardpan at > 10-inches deep (Knecht, 1971). The closest CNDDB record is 10.5-miles to the southeast (CDFW, 2020a).
Calochortus plummerae Plummer's Mariposa Lily	Rank 4.2/S4/-/- CA Endemic	Found in a variety of habitats on granitic, rocky soils at elevations of 329 – 5,593 feet.	N	U	Although this species is known from the Riverside East quad (CNPS, 2020), the site is not underlain by rocky soils (Knecht, 1971).

Scientific Name Common Name[2]	Sensitivity Code and Status[3]	Habitat Preference	Found On-site (Y or N)	Potential On-site[4]	Factual Basis for Potential
Carex comosa Bristly Sedge	Rank 2B.1/S2/-/-	Found within Coastal Prairie, Marshes and Swamps, and Valley and Foothill Grassland habitats at elevations of -16 – 3,323 feet.	N	U	The property contains Disturbed Land with a small area that collects water run-off during good rainfall years. The only CNDDB record within 10-miles of the property is 8.9-miles to the north from an 1882 collection and is possibly extirpated (CDFW, 2020a).
Caulanthus simulans Payson's Jewelflower	Rank 4.2/S4/-/- CA Endemic	Found in Juniper Woodland, Chaparral, and Sage Scrub habitats at elevations of 296 - 7,238 feet.	N	U	There are no Juniper Woodland, Chaparral or Sage Scrub habitats on the property.
Centromadia pungens ssp. *laevis* Smooth Tarplant	Rank 1B.1/S2/-/- CA Endemic	Found on alkaline soils in mesic habitats, such as Meadows and Seeps, Playas, and Riparian Woodlands at elevations of 16 – 3,850 feet.	N	U	There are no alkaline soils mapped on the property (Knecht, 1971).

Scientific Name Common Name[2]	Sensitivity Code and Status[3]	Habitat Preference	Found On-site (Y or N)	Potential On-site[4]	Factual Basis for Potential
Chloropyron maritimum ssp. *maritimum* Salt Marsh Bird's-Beak	Rank 1B.2/S1/CE/FE	A species found in Coastal Dunes along the immediate coast at elevations of 0 - 99 feet.	N	U	The property is located inland in Moreno Valley and does not contain Coastal Dune habitat. There is an historic CNDDB record from 1888 approximately 3.7-miles to the north that is possibly extirpated (CDFW, 2020a). NOTE: *Cordylanthus maritimus* ssp. *maritimus* is a synonym.
Chorizanthe leptotheca Peninsular Spineflower	Rank 4.2/S3/-/-	Found on granitic soils in Chaparral, Coastal Scrub, and Lower Montane Coniferous Forest habitats at elevations of 987 - 6,251 feet.	N	U	There are no Chaparral, Coastal Scrub, or Lower Montane Coniferous Forest habitats on the property.
Chorizanthe parryi var. *parryi* Parry's Spineflower	Rank 1B.1/S2/-/- CA Endemic	Found in openings within Chaparral, Cismontane Woodland, Coastal Scrub, and Valley and Foothill Grassland habitats in sandy or rocky soil at elevations of 296 - 4,014 feet.	N	L	The property contains Disturbed Land underlain by sandy loams (Knecht, 1971). The closest CNDDB record is 1.5-miles to the northwest in Sycamore Canyon from a 1936 collection (CDFW, 2020a).

Scientific Name Common Name[2]	Sensitivity Code and Status[3]	Habitat Preference	Found On-site (Y or N)	Potential On-site[4]	Factual Basis for Potential
Chorizanthe polygonoides var. *longispina* Long-Spined Spineflower	Rank 1B.2/S3/-/-	Found on clay and gabbroic soils in a variety of habitats at elevations of 98 - 5,363 feet.	N	U	There are no gabbroic soils mapped on the property, just sandy loams with a clay subsoil at least 10-inches below the surface (Knecht, 1971).
Convolvulus simulans Small-Flowered Morning-Glory	Rank 4.2/S4/-/-	Grows on friable clay soils in a variety of habitats in areas devoid of shrubs. Found at elevations of 98 - 2,435 feet.	N	U	There are no friable, clay surficial soils mapped on the property (Knecht, 1971).
Cuscuta obtusiflora var. *glandulosa* Peruvian Dodder	Rank 2B.2/SH/-/-	Found in freshwater Marshes and Swamps at elevations of 49 – 922 feet.	N	U	The property contains Disturbed Land with a small area that collects water run-off during good rainfall years. Also, the highest known elevation of this variety is ± 611-feet lower than the lowest elevation on-site.
Cylindropuntia californica var. *californica* Snake Cholla	Rank 1B.1/S1/-/-	Found in Coastal Scrub and Chaparral habitats at elevations of 98 - 494 feet.	N	U	There are no Coastal Scrub or Chaparral habitats on the property and the known elevations of the Snake Cholla are much lower than the elevations on-site. NOTE: *Opuntia californica var. californica* and *Opuntia parryi* var. *serpentina* are synonyms.

Scientific Name Common Name[2]	Sensitivity Code and Status[3]	Habitat Preference	Found On-site (Y or N)	Potential On-site[4]	Factual Basis for Potential
Deinandra paniculata Paniculate Tarplant	Rank 4.2/S4/-/-	Found in vernally mesic areas within Coastal Scrub, Valley and Foothill Grassland, Vernal Pool or other wetland habitats at elevations of 82 -3,093 feet.	N	H	The property contains Disturbed Land with a small area that collects water run-off during good rainfall years. Also, this species has been documented within the Riverside East quad (CNPS, 2020).
Dodecahema leptoceras Slender-horned Spineflower	Rank 1B.1/S1/CE/FE CA Endemic	Found on flood deposited terraces within Chaparral, Cismontane Woodland, and Coastal Scrub habitats at elevations of 658 - 2,517 feet.	N	U	There are no Chaparral, Cismontane Woodland or Coastal Scrub habitats on the property. The closest CNDDB record is 8.8-miles to the northwest (CDFW, 2020a).
Dudleya multicaulis Many-stemmed Dudleya	Rank 1B.2/S2/-/BLM Sensitive; FS Sensitive	Found on heavy clay soils within Chaparral, Coastal Scrub and Valley and Foothill Grassland habitats at elevation of 3 – 2,994-feet.	N	U	The property is underlain by sandy loams, not heavy clay soils (Knecht, 1971).
Eriastrum densifolium ssp. *sanctorum* Santa Ana river Woollystar	Rank 1B.1/S1/CE/FE CA Endemic	Found within Coastal Scrub and Chaparral habitats on sandy soils at elevations of 299 – 2,320 feet.	N	U	Although the property is underlain by sandy loams (Knecht, 1971), the site does not contain Coastal Scrub or Chaparral habitats. The closest CNDDB record is 7.3-miles to the northwest (CDFW, 2020a).

Scientific Name Common Name[2]	Sensitivity Code and Status[3]	Habitat Preference	Found On-site (Y or N)	Potential On-site[4]	Factual Basis for Potential
Galium californicum ssp. *primum* Alvin Meadow Bedstraw	Rank 1B.2/S2/-/- CA Endemic	Found within Lower Montane Coniferous Forest and Chaparral habitats at elevations of 4,441 – 6,021 feet.	N	U	The known elevations of this subspecies are much higher than the elevations on-site.
Harpagonella palmeri Palmer's Grapplinghook	Rank 4.2/S3/-/-	Found in clay soils within Chaparral, Coastal Scrub, and Valley and Foothill Grassland habitats at elevations of 65 - 3,142 feet.	N	U	The property is underlain by sandy loams with a subsoil of sandy clay loam at least 10-inches below the surface (Knecht, 1971). The closest CNDDB record is 9.3-miles to the southwest (CDFW, 2020a).
Helianthus nuttallii ssp. *parishii* Los Angeles Sunflower	Rank 1A/SH/-/- CA Endemic	Found in coastal and freshwater Marshes and Swamps at elevations of 32 – 5,018 feet.	N	U	There are no Marshes or Swamps at the site, just a small area that collects water runoff during good rainfall years. Also, this species is presumed to be extirpated in California (CNPS, 2020).
Hordeum intercedens Bobtail Barley	Rank 3.2/S3S4/-/-	Occurs in Valley and Foothill Grasslands, Coastal Scrub, Coastal Dunes, and Vernal Pool basins at elevations of 16 - 3,290 feet.	N	U	There are no Valley and Foothill Grasslands, Coastal Scrub, Coastal Dunes, or Vernal Pools on the property, just a small area that collects water runoff during good rainfall years. Also, this species is not known from the Riverside East quad (CNPS, 2020). NOTE: Vernal Barley is a synonym.

Scientific Name Common Name[2]	Sensitivity Code and Status[3]	Habitat Preference	Found On-site (Y or N)	Potential On-site[4]	Factual Basis for Potential
Horkelia cuneata var. *puberula* Mesa Horkelia	Rank 1B.1/S1/-/- CA Endemic	Associated with Chaparral, Cismontane Woodland and Sage Scrub habitats at elevations of 49 – 5,413 feet.	N	U	There are no Chaparral, Cismontane Woodland or Sage Scrub habitats on the property. The closest CNDDB record is 9.8-miles to the northwest (CDFW, 2020a).
Imperata brevifolia California Satintail	Rank 2B.1/S3/-/-	Found in mesic situations within alkali Meadows and Seeps, Riparian Scrub, Coastal Scrub, Chaparral, and Mojavean Desert Scrub habitats at elevations of 0 – 4,919 feet.	N	U	The property contains Disturbed Land with a small area that collects water run-off during good rainfall years. The closest CNDDB record is 12-miles to the northeast (CDFW, 2020a).
Lasthenia glabrata ssp. *coulteri* Coulter's Goldfields	Rank 1B.1/S2/-/-	Found on alkaline soils in Salt Marshes, Playas and Vernal Pools at elevations of 3 - 4,524 feet.	N	U	There are no alkaline soils mapped on the property (Knecht, 1971).
Lepidium virginicum ssp. *robinsonii* Poor Man's Pepper	Rank 4.3/S3/-/-	Found in Coastal Scrub and Chaparral habitats in relatively dry, exposed locales at elevations of 3 - 4,722 feet.	N	L	There are no Coastal Scrub or Chaparral habitats on the property. The closest CNDDB record is 1.5-miles to the northwest (CDFW, 2020a). NOTE: *Lepidium virginicum* var. *menziesii* is a synonym.

Scientific Name Common Name[2]	Sensitivity Code and Status[3]	Habitat Preference	Found On-site (Y or N)	Potential On-site[4]	Factual Basis for Potential
Lycium parishii Parish's Desert-Thorn	Rank 2B.3/S1/-/-	Found in Sonoran Desert Scrub and Coastal Scrub habitats at elevations of -9 - 1,876 feet.	N	U	There are no Sonoran Desert Scrub or Coastal Scrub habitats on the property. The only CNDDB record within 10-miles of the site is from an 1885 collection and is now extirpated (CDFW, 2020a).
Malacothamnus parishii Parish's Bush-mallow	Rank 1A/SX/-/- CA Endemic	Found in Chaparral and Coastal Scrub habitats at elevations of 1,003 – 1,497 feet.	N	U	There are no Chaparral or Coastal Scrub habitats on the property and all historical sites in California are extirpated (CNPS, 2020).
Microseris douglasii ssp. *platycarpha* Small-flowered Microseris	Rank 4.2/S4/-/-	Found on clay soils in Cismontane Woodland, Coastal Scrub, Valley and Foothill Grassland, and Vernal Pool habitats at elevations of 49 - 3,521 feet.	N	U	The property contains Disturbed Land underlain by sandy loams with a subsoil of sandy clay loam at > 10-inches below the surface. Also, this species is not documented within the Riverside East quad (CNPS, 2020).
Monardella pringlei Pringle's Monardella	Rank 1A/SX/-/- CA Endemic	Found in sandy soils in Coastal Scrub habitat at elevations of 987 – 1,316 feet.	N	U	There is no Coastal Scrub on the property and all historic sites in California are extirpated (CNPS, 2020).
Myosurus minimus ssp. *apus.* Little Mousetail	Rank 3.1/S2/-/-	Found on alkaline soils in Vernal Pools and occasionally in Valley and Foothill Grasslands adjacent to Vernal Pools at elevations of 65 - 2,106 feet.	N	U	The property contains Disturbed Land with a small area that collects water run-off during good rainfall years, but there are no alkaline soils mapped on the property (Knecht, 1971).

Scientific Name Common Name[2]	Sensitivity Code and Status[3]	Habitat Preference	Found On-site (Y or N)	Potential On-site[4]	Factual Basis for Potential
Nasturtium gambelii Gambel's Watercress	Rank1B.1/S1/CT/FE	Found in Marshes and Swamps on the edge of lakes or along streams in or just above the water level at elevations of 16 - 1,086 feet.	N	U	The property contains Disturbed Land with a small area that collects water run-off during good rainfall years. The elevations on the property are higher than the highest known elevation for this species. In addition, the only CNDDB record within 10-miles of the site is from a 1935 collection and is now extirpated (CDFW, 2020a). NOTE: *Rorippa gambellii* is a synonym.
Navarretia fossalis Spreading Navarretia	Rank 1B.1/S2/-/FT	Found in Marshes and Swamps, Playas, Chenopod Scrub and Vernal Pools at elevations of 49 - 2,797 feet.	N	U	The property contains Disturbed Land with a small area that collects water run-off during good rainfall years. The closest CNDDB record is 10.1-miles to the southeast (CDFW, 2020a).
Phacelia stellaris Brand's Star Phacelia	Rank 1B.1/S1/-/FC	Found in open areas within Coastal Dunes or Coastal Scrub at elevations of 3 - 1,316 feet.	N	U	There are no Coastal Dunes or Coastal Scrub habitats on the property. The closest CNDDB record is 7.6-miles to the northwest (CDFW, 2020a).

Scientific Name Common Name[2]	Sensitivity Code and Status[3]	Habitat Preference	Found On-site (Y or N)	Potential On-site[4]	Factual Basis for Potential
Pseudognaphalium leucocephalum White Rabbit-Tobacco	Rank 2B.2/S2/-/-	Found in Chaparral, Coastal Scrub, Riparian Woodland and Cismontane Woodland habitats at elevations ranging from 0 - 6,909-feet.	N	U	There are on Chaparral, Coastal Scrub, Riparian Woodland or Cismontane Woodland habitats on the property. The closest CNDDB record is 15-miles to the southwest (CDFW, 2020a). NOTE: G*naphalium leucocephalum* is a synonym.
Ribes divaricatum var. *parishii* Parish's Gooseberry	Rank 1A/SX/-/- CA Endemic	Found in Riparian Woodland habitat at elevations of 213 – 987 feet.	N	U	There is no Riparian Woodland habitat on the property and all historic sites in California are extirpated (CNPS, 2020).
Romneya coulteri Coulter's Matilija Poppy	Rank 4.2/S4/-/-	Found in Chaparral, Coastal Scrub, and Desert Washes at elevations of 65 - 3,948 feet.	N	U	There are no Chaparral, Coastal Scrub, or Desert Wash habitats on the property.
Senecio aphanactis Chaparral Ragwort	Rank 2B.2/S2/-/-	Found on alkaline soils in Chaparral, Coastal Scrub and Cismontane Woodland habitats. Grows at elevations of 49 – 3,356 feet.	N	U	There are no alkaline soils mapped on the property (Knecht, 1971). NOTE: Rayless Ragwort is a synonym.
Sidalcea neomexicana Salt Spring Checkerbloom	Rank 2B.2/S2/-/-	Found in alkaline springs and marshes at elevations of 0 – 5,034 feet.	N	U	There are no alkaline soils mapped on the property (Knecht, 1971).

Scientific Name Common Name[2]	Sensitivity Code and Status[3]	Habitat Preference	Found On-site (Y or N)	Potential On-site[4]	Factual Basis for Potential
Sphenopholis obtusata Prairie Wedge Grass	Rank 2B.2/S2/-/-	Found in Meadows and Seeps and at moist sites within Cismontane Woodland habitats at elevations of 49 – 8,637 feet.	N	U	The property contains Disturbed Land with a small area that collects water run-off during good rainfall years. The closest CNDDB record is 7.2-miles to the northwest (CDFW, 2020a).
Symphyotrichum defoliatum San Bernardino Aster	Rank 1B.2/S2/-/- CA Endemic	Found in a variety of habitats in vernally mesic sites near ditches, streams, or springs at elevations of 6 - 6,729 feet.	N	U	The property contains Disturbed Land with a small area that collects water run-off during good rainfall years. The closest CNDDB record is 9.7-miles to the northeast (CDFW, 2020a). This species is not known from the Riverside East quad (CNPS, 2020).
Texosporium sancti-jacobi Woven-spored Lichen	Rank 3/S1/-/-	Found in Chaparral habitat with *Adenostoma fasciculatum*, *Eriogonum* sp., and *Selaginella* sp. at elevations of 197 - 2,863 feet.	N	U	There is no Chaparral habitat on the property.

Scientific Name Common Name[2]	Sensitivity Code and Status[3]	Habitat Preference	Found On-site (Y or N)	Potential On-site[4]	Factual Basis for Potential
Trichocoronis wrightii var. *wrightii* Wright's Trichocoronis	Rank 2B.1/S1/-/-	Found in alkaline soils within Meadows and Seeps, Marshes and Swamps, Riparian Forest and Vernal Pool habitats at elevations of 16 – 1,432 feet.	N	U	There are no alkaline soils mapped on the property (Knecht, 1971).

[1] This plant list was generated by the nine quad search function of the on-line California Native Plant Society (CNPS) inventory. This list was augmented with plants from a nine quad search of the California Natural Diversity Data Base (CNDDB).
[2] The Common Names were taken from Baldwin, B.G., Goldman, D.H., Keil, D.J., Patterson, R., Rosatti, T.J., and Wilken, D.H. eds. 2012. The Jepson Manual Vascular Plants of California, 2nd Edition. University of California Press, Berkeley, xxii + 1568 pp.
[3] The first line in the "Sensitivity Code and Status" column shows the California Rare Plant Rank with threat code extensions/the state ranking of the California Natural Diversity Database (CNDDB) with the threat rank extension/the California state threatened and endangered status code/the federal threatened and endangered status code. The second line in the "Sensitivity Code and Status" column identifies whether the species is a California Endemic as identified by the CNPS or not (blank second line). Following is a key to the codes in the table.

Key to the California Rare Plant Ranking System

Rare Plant Rank 1A - Extirpated in California, Rare or Extinct Elsewhere
Rare Plant Rank 1B - Rare, Endangered
Rare Plant Rank 2A - Extirpated in California, Common Elsewhere
Rare Plant Rank 2B -Endangered in California
Rare Plant Rank 3 - Needs Review
Rare Plant Rank 4 - Uncommon in California

Key to the California Rare Plant Rank Threat Code Extensions

.1 - Seriously threatened in California (over 80% of occurrences threatened/high degree and immediacy of threat)
.2 - Fairly threatened in California (20-80% occurrences threatened/moderate degree and immediacy of threat)
.3 - Not very threatened in California (< 20% of occurrences threatened/low degree and immediacy of threat or no current threats known)

Key to the State Ranking of the CNDDB

S1 - Critically Imperiled - Critically imperiled in the state because of extreme rarity (often 5 or fewer occurrences) or because of some factor(s) such as very steep declines making it especially vulnerable to extirpation from the state/province

S2 - Imperiled - Imperiled in the state because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the nation or state/province

S3 - Vulnerable - Vulnerable in the state due to restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation

S4 - Apparently Secure - Uncommon but not rare; some cause for long-term concern due to declines or other factors

S5 - Secure - Common, widespread, and abundant in the state

? - By adding a question mark, it represents uncertainty. For example, a S2? means more certainty than S2S3, but less certainty than S2

Two S Ranks - Two S Ranks represent a range of values. For example, a S2S3 means the rank is somewhere between S2 and S3.

SX - All sites in California are extirpated, but the species exists in cultivation

SH - All California sites are historical

Key to the Threat Rank Extensions of S1, S2 or S3 (if assigned)

.1 - very threatened

.2 - threatened

.3 - no current threats are known

State and Federal Threatened and Endangered Species Status Codes

CR - State of California listed as rare

CE - State of California listed as endangered

CT - State of California listed as threatened

PT - Proposed for Listing as Threatened under the Federal Endangered Species Act

PE - Proposed for Listing as Endangered under the Federal Endangered Species Act

FC - Candidate for Listing under the Federal Endangered Species Act

FE - Designated Endangered under Federal Endangered Species Act

FT - Designated as Threatened under the Federal Endangered Species Act

[4] The "Potential On-site" column assesses the potential for the particular species to occur on the subject property given the known habitat preferences and distribution of that species. The codes used in this column are defined as follows:

Observed - Individuals of this species were found within the bounds of the site

H - The potential for occurrence is "high" Habitats on-site are considered suitable for the species, and the species is known from the immediate vicinity.

M - The potential for occurrence is "medium". Habitats and conditions on-site are considered possible for the species.

L - The potential for occurrence is "low". The habitats present on-site are marginal for the species and/or extremely limited in extent. In other words, the species is not anticipated, but it's occurrence can not be precluded.

U - The potential for occurrence is "unlikely". The habitat requirements of the species are not present on the subject property.

Table 4

Sensitive Wildlife Species Known to Occur Within an Approximate 10-mile Radius[1] of the APNs 263-132-016 and 263-132-017

Scientific Name Common Name	Sensitivity Code and Status[2]	Habitat Preference	Found On-site (Y or N)	Potential On-site[3]	Factual Basis for Potential
Insects					
Bombus crotchii Crotch Bumble Bee	—/CCE/—	Food plants include *Antirrhinum* spp., *Phacelia* spp., *Clarkia* spp., *Dendromecon* spp., *Eschscholzia* ssp., and *Eriogonum* spp.	N	U	None of the known food plants were detected on-site. The closest CNDDB record is 4.9-miles to the northwest (CDFW, 2020a).
Carolella busckana Busck's Gallmoth	—/—/—	This insect is found in Coastal Dunes and Coastal Scrub.	N	U	There are no Coastal Dunes or Coastal Scrub habitats on the site, and all state occurrences are historic (CDFW, 2020a).
Ceratochrysis longimala Desert Cuckoo Wasp	—/—/— CA Endemic	This is a parasitic wasp that raises its young in the nests of other wasps and bees. Historically, it has been collected in Riverside and Los Angeles counties.	N	U	The only CNDDB record within a 10-mile radius of the site is from 1915 and is possibly extirpated (CDFW, 2020a).
Cicindela tranquebarica ssp. *viridissima* Greenest Tiger Beetle	—/—/—	This species is found in open spots between trees within the woodlands adjacent to the Santa Ana River basin.	N	U	There are no Riparian Woodlands on the property. The closest CNDDB record is 7.5-miles to the northwest (CDFW, 2020a).

Scientific Name Common Name	Sensitivity Code and Status[2]	Habitat Preference	Found On-site (Y or N)	Potential On-site[3]	Factual Basis for Potential
Euphydryas editha quino Quino Checkerspot Butterfly	FE/—/X-CI	The Quino is found in a variety of open canopy habitats where the butterfly's larval host plants are found. These host plants include, Dot-seed Plantain (*Plantago erecta*), Desert Plantain (*Plantago patagonica*), Owl's Clover (*Castilleja exserta*), Coulter's Snapdragon (*Antirrhinum coulterianum*), Chinese Houses (*Collinsia heterophylla*), and Thread-leaved Bird's Beak (*Cordylanthus rigidus*). It is precluded from closed canopy situations and is a hilltopping species.	N	U	The property is located outside of the recommended survey area for the Quino Checkerspot Butterfly per the 2014 survey guidelines (USFWS, 2014).
Neolarra alba White Cuckoo Bee	—/—/— CA Endemic	This cuckoo bee is only known from southern California. It is a kleptoparasite that feeds in the nests of bees in the Perdita genus.	N	U	All state occurrences are historic (CDFW, 2020a).
Rhaphiomidas terminatus ssp. *abdominalis* Delhi Sands Flower-loving Fly	FE/—/— CA Endemic	Found only in Delhi sand in southwestern San Bernardino and northwestern Riverside counties.	N	U	The site does not contain Delhi sand (Knecht, et al., 1971).

Scientific Name Common Name	Sensitivity Code and Status[2]	Habitat Preference	Found On-site (Y or N)	Potential On-site[3]	Factual Basis for Potential
Crustaceans					
Streptocephalus woottoni Riverside Fairy Shrimp	Group 1, FE/—/—	A Vernal Pool obligate.	N	U	The property contains Disturbed Land with a small area that collects water run-off during good rainfall years. The only two CNDDB records within a 10-mile radius of the property are either extirpated or possibly extirpated (CDFW, 2020a).
Fish					
Catostomus santaanae Santa Ana Sucker	FT/—/AFS TH CA Endemic	Found in the south coastal streams of the Los Angeles Basin.	N	U	There are no streams on the property.
Gila orcutti Arroyo Chub	—/SSC/FS Sensitive; AFS VU	Found in slow-moving sections of permanent streams in water depths of generally > 40 cm deep. Stream bottom substrates are typically muddy or sandy.	N	U	There are no streams on the property.

Scientific Name Common Name	Sensitivity Code and Status[2]	Habitat Preference	Found On-site (Y or N)	Potential On-site[3]	Factual Basis for Potential
Oncorhynchus mykiss irideus Steelhead – southern California DPS	FE/—/AFS EN	This fish species migrates to the ocean but returns to freshwater to reproduce. They occur in well-oxygenated lakes and streams where the temperature is less than 12 degrees Celsius in the summer.	N	U	There are no streams on the property.
Rhinichthys osculus ssp. 3 Santa Ana Speckled Dace	—/SSC/FS Sensitive; AFS TH	Found at the headwaters of the Santa Ana and San Gabriel Rivers in permanently flowing streams with summer temperatures of 17-20 degrees Celsius.	N	U	There are no rivers on the property.
Amphibians					
Rana muscosa Mountain Yellow-legged Frog	FE/CE/FS Sensitive; WL	Historically found in montane streams with sunny banks.	N	U	There are no streams on the property.
Spea hammondii Western Spadefoot Toad	—/SSC/BLM Sensitive	A cryptic species, this toad probably occurs throughout the coastal plain and foothills, anywhere ephemeral water sources develop.	N	L	The property contains Disturbed Land with a small area that collects water run-off during good rainfall years. The closest CNDDB record is 0.3-mile to the south (CDFW, 2020a). However, given the annually discing of the site, and the surrounding residential land uses, the potential occurrence of this species on-site is low. NOTE: *Spea scaphiopus hammondii* is a synonym.

Scientific Name Common Name	Sensitivity Code and Status[2]	Habitat Preference	Found On-site (Y or N)	Potential On-site[3]	Factual Basis for Potential
Reptiles					
Anniella stebbinsi Southern California Legless Lizard	—/SSC/FS Sensitive	Occurs throughout the County (except for the low desert) where it is fossorial in soft soils and deep leaf litters. Some soil moisture is preferred.	N	L	While the majority of the site is disced annually for fire prevention, there are a few trees around the periphery of the parcel that have some leaf litter. The closest CNDDB record is 4.1-miles to the northeast (CDFW, 2020a). NOTE: This species was previously recognized as the Silvery Legless Lizard (*Anniella pulchra pulchra*).
Arizona elegans ssp. *occidentalis* California Glossy Snake	—/SSC/—	Found in Scrub and Grassland habitats, often on loose or sandy soils.	N	U	The property is occupied by Disturbed Land that is disced annually for fire prevention. The closest CNDDB record is 4.9-miles to the northwest (CDFW, 2020a).
Aspidoscelis hyperythra Orange-throated Whiptail	—/WL/—	Occupies scrub habitats on the coastal plain and lower foothills where Subterranean Termites (*Reticulitermes* sp.), the principal prey species, is found. Shrub cover with openings are required for thermoregulation.	N	L	The property is occupied by Disturbed Land that is disced annually for fire prevention. The closest CNDDB record is 1.2-miles to the northwest (CDFW, 2020a). NOTE: Synonyms are *Aspidoscelis hyperythrus beldingi* and *Cnemidophorus hyperythrus*.

Scientific Name Common Name	Sensitivity Code and Status[2]	Habitat Preference	Found On-site (Y or N)	Potential On-site[3]	Factual Basis for Potential
Aspidoscelis tigris stejnegeri Coastal Western Whiptail	—/SSC/—	Occupies scrub habitats on the coastal plain and lower foothills where shrub cover with openings is required for thermoregulation.	N	L	The property is occupied by Disturbed Land that is disced annually for fire prevention. The closest CNDDB record is 3.0-miles to the southwest (CDFW, 2020a). NOTE: A synonym is *Cnemidophorus tigris multiscutatus*.
Coleonyx variegatus abbottii San Diego Banded Gecko	—/SSC—	The Gecko prefers rocky Sage Scrub and Chaparral habitats on the coastal side of the mountains.	N	U	There are no Sage Scrub or Chaparral habitats on the property.
Crotalus ruber Red Diamond Rattlesnake	—/SSC/FS Sensitive	In a variety of habitats, although most frequently found in Sage Scrub and Chaparral. It is found throughout the County except for the low desert.	N	U	There is an historical CNDDB record of this species from 1947 that covers the property (CDFW, 2020a). However, the property is occupied by Disturbed Land that is disced annually for fire prevention.
Diadophis punctatus modestus San Bernardino Ringneck Snake	—/—/FS Sensitive	Found in open, relatively rocky areas with leaf litter or herbaceous vegetation.	N	U	There are no rocky areas on the property, and most of the site is disced annually for fire prevention. There are a few trees with some leaf litter around the periphery of the site. However, the only CNDDB record within a 10-mile radius of the property is 5.8-miles to the southwest (CDFW, 2020a).

Scientific Name Common Name	Sensitivity Code and Status[2]	Habitat Preference	Found On-site (Y or N)	Potential On-site[3]	Factual Basis for Potential
Emys marmorata Southwestern Pond Turtle	—/SSC/FS and BLM Sensitive	Most often found in environments where water persists year-round. It has also been found at two drainages in the desert. It prefers lakes, streams, ponds or other areas with emergent or floating vegetation and often basks on rocks or protruding logs.	N	U	There are no year-round water sources on the property. NOTE: Synonyms are *Clemmys marmorata pallida* and *Actinemys marmorata pallida*.
Phrynosoma blainvillii Coast Horned Lizard	—/SSC/ BLM Sensitive	Found throughout the County (except the low deserts) anywhere the primary prey species, harvester ants (*Pogonomyrmex* sp. and *Messor* sp.) are found. It requires some openings in vegetation for thermoregulation.	N	U	The property is occupied by Disturbed Land that is disced annually for fire prevention and is surrounded by residences. The closest CNDDB record is 1.7-miles to the northwest (CDFW, 2020a). NOTE: *Phrynosoma coronatum* is a synonym.
Salvadora hexalepis virgultea Coast Patch-nosed Snake	—/SSC/—	Found in arid Sage Scrub and Chaparral habitats.	N	U	The property is occupied by Disturbed Land that is disced annually for fire prevention and is surrounded by residences. The only CNDDB record within a 10-mile radius of the property is 8.6-miles to the northeast (CDFW, 2020a).

Scientific Name Common Name	Sensitivity Code and Status[2]	Habitat Preference	Found On-site (Y or N)	Potential On-site[3]	Factual Basis for Potential
Thamnophis hammondii Two-striped Garter Snake	—/SSC/FS and BLM Sensitive	An aquatic snake found in association with fluvial and lacustrine environments, even cattle tanks. Aestivating individuals may be found some distance from water sources.	N	U	The property is occupied by Disturbed Land with a small area that collects water run-off during good rainfall years. The closest CNDDB record is 14.0-miles to the northeast (CDFW, 2020a).
Mammals					
Antrozous pallidus Pallid Bat	—/SSC/FS and BLM Sensitive; WBWG High Priority	A bat that feeds on the ground (Jerusalem Crickets and scorpions are typical fare). This species prefers open, dry habitats with rocky areas for roosting. It is very sensitive to disturbance of roost sites.	N	U	There are no suitable roost sites on the property.
Chaetodipus fallax fallax Northwestern San Diego Pocket Mouse	—/SSC/—	Found in Coastal Sage Scrub, Sage Scrub/grassland ecotones and Chaparral communities. Found in open, sandy areas.	N	U	The property is underlain by sandy loams (Knecht, 1971), but there is no Sage Scrub or Chaparral habitats on-site. Also, the site is disced annually for fire prevention.
Dipodomys merriami parvus San Bernardino Kangaroo Rat	FE/SSC/—	Lives in sandy soils associated with Alluvial Scrub habitat characteristic of alluvial fans and flood plains.	N	U	The property is underlain by sandy loams (Knecht, 1971), but there is no Alluvial Scrub habitat on-site. Also, the site is disced annually for fire prevention.
Dipodomys stephensi Stephens' Kangaroo Rat	FE/CT/—	Prefers areas with sparse vegetation in Scrub and grassland habitats.	N	U	The property contains Disturbed Land that is disced annually for fire prevention.

Scientific Name Common Name	Sensitivity Code and Status[2]	Habitat Preference	Found On-site (Y or N)	Potential On-site[3]	Factual Basis for Potential
Eumops perotis californicus Greater Western Mastiff Bat	—/SSC/BLM Sensitive; WBWG High Priority	Found in a variety of habitats but is frequently associated with cliff faces, high buildings, trees and tunnels that afford a considerable vertical drop from the roost to become airborne.	N	U	There are no suitable roost sites on the property.
Lasiurus xanthinus Western Yellow Bat	—/SSC/WBWG High Priority	Found in Valley Foothill Riparian, Desert Riparian, Desert Wash, and Palm Oasis habitats. Roosts in trees, particularly palm trees.	N	U	There are no riparian habitats on-site, and only a few trees around the periphery of the property (none of which are palm trees).
Lepus californicus bennettii San Diego Black-tailed Jackrabbit	—/SSC/—	Found in a variety of habitats throughout the County, but requires open or semi-open vegetation.	N	L	The property is occupied by Disturbed Land but is surrounded by residences. The closest CNDDB record is 4.3-miles to the southwest (CDFW, 2020a).
Myotis yumanensis Yuma Myotis	—/—/BLM Sensitive; WBWG Low to Medium Priority	This species roosts in caves and man-made structures, and is closely associated with water sources.	N	U	There are no suitable roost sites on the property.
Neotoma lepida intermedia San Diego Desert Woodrat	—/SSC/—	An inhabitant of Sage Scrubs and Chaparral, especially with yuccas and cacti. Typical nests are embedded in rock crevices and partially underground.	N	U	There are no Sage Scrub or Chaparral habitats on the property, nor are there any rock outcrops.

Scientific Name Common Name	Sensitivity Code and Status[2]	Habitat Preference	Found On-site (Y or N)	Potential On-site[3]	Factual Basis for Potential
Nyctinomops femorosaccus Pocketed Free-tailed Bat	—/SSC/—;WBWG Medium Priority	Roosting in a variety of situations, this species is associated with Desert Scrub and Pinyon-Juniper Woodlands. They particularly like rocky areas with high cliffs.	N	U	There are no suitable roost sites on the property.
Onychomys torridus ramona Southern Grasshopper Mouse	—/SSC/—	Found within Chenopod Scrub in the desert areas on friable soils.	N	U	There is no Chenopod Scrub on the property. All three CNDDB records that are within a 10-mile radius of the property are historic (CDFW, 2020a).
Perognathus longimembris brevinasus Los Angeles Little Pocket Mouse	—/SSC/FS Sensitive	Associated with fine, sandy soils.	N	M	The site is underlain by sandy loams (Knecht, 1971). The closest CNDDB record is 2.2-miles to the southwest (CDFW, 2020a).
Taxidea taxus American Badger	—/SSC/—	A fossorial species of open deserts and grassland habitats.	N	U	The property contains Disturbed Land that is disced annually for fire prevention.
Birds					
Accipiter cooperii Cooper's Hawk (nesting)	—/WL/—	Nesting Cooper's generally use taller trees, including a number of horticultural species and native Oaks.	Y	Observed	A single Cooper's Hawk was seen overflying the property during the 9/11/20 site visit.
Agelaius tricolor Tricolored Blackbird	BCC/CCE, SSC/BLM Sensitive	Breeding colonies are limited to ponds with adjacent, undisturbed foraging habitat.	N	U	There are no suitable habitats on the property.

Scientific Name Common Name	Sensitivity Code and Status[2]	Habitat Preference	Found On-site (Y or N)	Potential On-site[3]	Factual Basis for Potential
Aimophila ruficeps ssp. *canescens* Rufous-crowned Sparrow	—/WL/—	This species nests in Sage Scrub, open or burned Chaparral, and in Non-Native Grasslands with scattered shrubs.	N	U	The property contains Disturbed Land that is disced annually for fire prevention. NOTE: Southern California Rufous-crowned Sparrow is a synonym.
Artemisiospiza belli belli Bell's Sage Sparrow	—/WL/—	This species prefers Sage Scrub and Chaparral habitats with an open canopy and areas of bare soil.	N	U	There are no Chaparral or Sage Scrub habitats on the property. The closest CNDDB record is 4.0-miles to the northeast (CDFW, 2020a). NOTE: *Amphispiza belli belli* is a synonym.
Asio otus Long-eared Owl (nesting)	—/SSC/—	Strictly nocturnal; roosts during day in dense trees and brush; at night flies over forest edges and brushy fields in search of mainly small animals.	N	U	The property is occupied by Disturbed Land with a few trees around the periphery of the parcels. The closest CNDDB record is 9.0-miles to the southwest (CDFW, 2020a).
Athene cunicularia Burrowing Owl (burrow sites)	BCC/SSC/BLM Sensitive	This owl requires relatively flat terrain to enable the bird to survey its territory from the burrow hole. It occurs in open grasslands, and open Sage Scrub habitats.	N	U	The property was surveyed for suitable habitat and burrows in 2019. No burrows were found.

Scientific Name Common Name	Sensitivity Code and Status[2]	Habitat Preference	Found On-site (Y or N)	Potential On-site[3]	Factual Basis for Potential
Buteo regalis Ferruginous Hawk (winter)	—/WL/ BLM Sensitive	Found in arid grasslands, sagebrush flats, desert scrub, and the lower foothills of Pinyon and Juniper habitats. Often perches on the ground, unlike other buteos. Nests in isolated trees.	N	L	The property is occupied by Disturbed Land. The only CNDDB record within a 10-mile radius of the property is 6.7-miles to the northeast (CDFW, 2020a).
Buteo swainsoni Swainson's Hawk	—/CT/ FS Sensitive	Found on grasslands and farmlands. Nests in isolated trees. Usually solitary, but migrates in large flocks and large numbers concentrate at migration points.	N	U	The property is occupied by Disturbed Land with a few trees along the periphery of the parcels. The only two CNDDB records within a 10-mile radius of the site are both historic and possibly extirpated (CDFW, 2020a).
Coccyzus americanus occidentalis Yellow-billed Cuckoo (nesting)	BCC; FT/CE/FS Sensitive	Found in extensive stands of mature riparian woods.	N	U	There are no riparian habitats on the property. NOTE: Western Yellow-billed Cuckoo is a synonym.
Coturnicops noveboracensis Yellow Rail	—/—/—	This species lives in dense, freshwater marshes.	N	U	There are no freshwater marshes on the property. Also, this species is an uncommon visitor to California (Unitt, 2004).

Scientific Name Common Name	Sensitivity Code and Status[2]	Habitat Preference	Found On-site (Y or N)	Potential On-site[3]	Factual Basis for Potential
Elanus leucurus White-tailed Kite (nesting)	—/Fully Protected/—	This species nests in tall trees adjacent to foraging habitat that contains its primary prey, the California Vole (*Microtus californicus*).	N	U	The property contains Disturbed Land with a few tall trees along the periphery of the parcels. However, the site is disced annually for fire prevention. This disturbance probably precludes the California Vole from the site. Also, the only CNDDB within a 10-mile radius of the site is 9.5-miles to the southwest on the Gavilan Plateau (CDFW, 2020a). NOTE: *Elanus caeruleus* is a synonym.
Empidonax traillii extimus Southwestern Willow Flycatcher (nesting)	FE/CE/—	This species is restricted to wide riparian habitats, generally with flowing water.	N	U	There are no riparian habitats on the property.
Eremophila alpestris actia California Horned Lark	—/WL/—	A species of open (often disturbed), arid habitats, such as grasslands, coastal strand, and sandy deserts.	N	M	The property is occupied by Disturbed Land. The closest CNDDB record is 2.2-miles to the southwest (CDFW, 2020a).
Falco columbarius Merlin (wintering)	—/WL/—	During the winter, the Merlin is found in open habitats where its prey, small birds, are numerous.	N	L	The property is occupied by Disturbed Land. The closest CNDDB record is 9.4-miles to the north along the Santa Ana River (CDFW, 2020a).
Haliaeetus leucocephalus Bald Eagle (nesting and wintering)	D; BCC/CE; Fully Protected/—	Found along the ocean, lake margins and rivers.	N	U	There are no lakes or rivers on this property in Moreno Valley.

Scientific Name Common Name	Sensitivity Code and Status[2]	Habitat Preference	Found On-site (Y or N)	Potential On-site[3]	Factual Basis for Potential
Icteria virens Yellow-breasted Chat (nesting)	—/SSC/—	In San Diego County, this bird is typically found in the coastal lowland where riparian woodlands occur.	N	U	There are no riparian woodlands on the property.
Lanius ludovicianus Loggerhead Shrike	BCC/SSC/—	This bird species is found in a variety of habitats, such as Pinyon and Juniper Woodlands, Riparian Woodland, Mojavean Desert Scrub, and Joshua Tree Woodland.	N	L	The property is occupied by Disturbed Land. The closest CNDDB record is 1.2-miles to the southwest at the March Air Reserve Base (CDFW, 2020a).
Laterallus jamaicensis coturniculus California Black Rail	BCC/CT; Fully Protected/—	Found in coastal and freshwater wetlands.	N	U	The property is occupied by Disturbed Land with a small area that collects water run-off during good rainfall years. The only two CNDDB records within a 10-mile radius of the site are both historic records (CDFW, 2020a).
Pandion haliaetus Osprey	—/WL/—	A regular year-round inhabitant in small numbers both along the coast and on inland lakes. The most frequent nest site is racks of floodlights for ball fields.	N	U	There are no inland lakes on this property in Moreno Valley.
Polioptila californica californica Coastal California Gnatcatcher	FT/SSC/—	An obligate inhabitant of Sage Scrub or sometimes Chaparral where the two habitats intermix.	N	U	There are no Sage Scrub or Chaparral habitats on the property.

Scientific Name Common Name	Sensitivity Code and Status[2]	Habitat Preference	Found On-site (Y or N)	Potential On-site[3]	Factual Basis for Potential
Setophaga petechia Yellow Warbler (nesting)	BCC/SSC/—	Breeding occurs in mature riparian habitats, primarily along the coastal slope.	N	U	There are no riparian habitats on the property.
Spinus lawrencei Lawrence's Goldfinch (nesting)	BCC/—/—	A nomadic species, generally associated with water (creeks and ponds) with adjacent fields that provide seed, especially plants in the family Boraginaceae. When nesting, this species is associated with Oaks.	N	L	While nesting on the property by this species is unlikely since there are only two Cork Oak trees on-site, the property could be used for foraging since the site contains two plants species in the Borage family. NOTE: *Carduelis lawrencei* is a synonym.
Vireo bellii pusillus Least Bell's Vireo	FE/CE/—	An obligate inhabitant of dense, fairly broad, riparian woodlands with adjacent uplands that provide foraging habitat.	N	U	There are no riparian habitats on the property.

[1] This sensitive wildlife list is based on a search of the California Natural Diversity Database (CNDDB), and Fish and Wildlife, California Department of. 2020b. California Natural Diversity Data Base: Special Animals. The Author, Sacramento, California, 120 pp. [available at http://www.dfg.ca.gov/wildlife/nongame/list.html], edition of July 2020.

[2] The status codes are given in the sequence "federal/state/other." A "—" indicates no status at that level. The codes used are defined as follows:

FE — Federal Endangered
pFE — A petition for Federal Endangerment status has been submitted
FT — Federal Threatened
D — Delisted from the Endangered Species Act
BCC — Birds of Conservation Concern on the BCC 2008 list within BCR 32
CE — State Endangered
CT — State Threatened
CCE — State Candidate Endangered
SSC — Species of Special Concern
WL — California Department of Fish and Game Watch List
AFS EN — defined as an endangered species by the American Fisheries Society
AFS TH — defined as a threatened species by the American Fisheries Society

AFS VU — defined as a vulnerable species by the American Fisheries Society
Fully Protected — A species for which special state legislation exists protecting the species
FS Sensitive — defined as a sensitive species by the USDA Forest Service
BLM Sensitive — defined as a sensitive species by the Bureau of Land Management
WBWG — priority status as defined by the multi-agency Western Bat Working Group
X-CI — defined as critically imperiled by the Xerces Society

[3] The "Potential On-site" column assesses the potential for the particular species to occur on the subject property given the known habitat preferences and distribution of that species. The codes used in this column are defined as follows:

Observed — Individuals of this species were found within the bounds of the site.
H — The potential for occurrence is "high". Habitats on-site are considered suitable for the species, and the species is known from the immediate vicinity.
M — The potential for occurrence is "medium". Habitats and conditions on-site are considered possible for the species.
L — The potential for occurrence is "low". The habitats present on-site are marginal for the species and/or extremely limited in extent. In other words, the species is not anticipated, but it's occurrence can not be precluded.
U — The potential for occurrence is "unlikely". The habitat and/or food requirements of the species are not present on the subject property.

[:\Riverside Sensitive Wildlife List.wpd]

Appendix A

A Habitat Assessment and Burrow Survey for the Burrowing Owl Over APNs 263-132-016, 263-132-017, 263-132-030, and 263-132-033 City of Moreno Valley, California

Prepared by
Cummings Environmental, Inc.
21 May 2019

A Habitat Assessment and Burrow Survey for the Burrowing Owl Over APNs 263-132-016, 263-132-017, 263-132-030, and 263-132-033 City of Moreno Valley, California

[Application No. PEN18-0064]

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21 May 2019
Job Number 1834.86A

Cummings Environmental, Inc.

A Habitat Assessment and Burrow Survey for the Burrowing Owl Over APNs 263-132-016, 263-132-017, 263-132-030, and 263-132-033 City of Moreno Valley, California

[Application No. PEN18-0064]

SUMMARY

A habitat assessment and burrow survey for the Burrowing Owl (*Athene cunicularia*) were conducted over Assessor's Parcel Numbers 263-132-016, 263-132-017, 263-132-030, and 263-132-033, and within 500-feet of the parcels on 1 May 2019. The four parcels are located in the Edgemont neighborhood in the western part of the City of Moreno Valley (see attached Figures 1 and 2). APNs 263-132-030, and 263-132-033 are part of City of Moreno Valley Application No. PEN18-0064 to obtain development permits for a residential project. APNs 263-132-016 and 263-132-017 are proposed to be disturbed as a result of sewer and drainage line connections for this residential project. Portions of the survey area included suitable habitat for the Burrowing Owl consisting of short, Non-Native Grassland and/or Ruderal Habitat, and dirt roads/parking lots (see Figure 3). As such, a focused burrow survey was conducted within the suitable habitat, but no burrows were found. The habitat assessment and subsequent burrow survey were required by the City of Moreno Valley in accordance with the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) to determine the usage of the property and the surrounding areas by the Burrowing Owl. Based on the results of the habitat assessment and burrow survey, there are no burrows within the suitable habitat. As such, the parcels and surrounding areas within 500-feet are not utilized by the Burrowing Owl and no further surveys are required.

PHYSICAL AND FLORAL ENVIRONMENT

The four parcels comprise approximately 5.27-acres which are relatively flat ranging in elevation from approximately 1,535-feet to 1,545-feet. Most of the 5.27-acres are occupied by Non-Native Grassland and/or Ruderal Habitat varying in height from 0.05-meter to 1.3-meters. The majority of the Non-Native Grassland and/or Ruderal Habitat consists of a thick thatch of non-native grasses and forbes between 0.6-1.3-meters tall that is not suitable for use by Burrowing Owls (see photo insert to the right). The remaining areas within the

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four parcels contain shorter Non-Native Grasslands and/or Ruderal Habitat with a dirt road and some Eucalyptus trees (see photo insert to the left). The surrounding areas within 500-feet of the parcels contain mostly residential development (see Figure 3). There were a few undeveloped lots in between the residential development with the same thick thatch as the subject properties, a few disced fields, a dirt parking lot, wide dirt road, and a lot with water tanks and heavy equipment (again see Figure 3).

METHODS

A habitat assessment and burrow survey were conducted following the Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area found in the Staff Report from the Regional Conservation Authority entitled Report Regarding Burrowing Owl Surveys dated November 7, 2005 (Regional Conservation Authority, 2005). Per these instructions, the four parcels and the properties within 500-feet of the four parcels were surveyed for suitable habitat on 1 May 2019 (see Habitat Assessment Survey Area in Figure 3). The four parcels were walked by the undersigned, but many of the adjacent properties had to be surveyed with binoculars due to restricted access. Short, Non-Native Grassland or Ruderal Habitat, or dirt roads/parking lots were considered to be suitable habitat for the Burrowing Owl, while the residential areas, disced fields, and tall Non-Native Grassland and/or Ruderal Habitat was not (habitat not suitable for the Burrowing Owl is shown in blue on Figure 3). Directly following the habitat assessment, suitable habitat was then surveyed on-site and off-site for burrows by walking transects covering no greater than 100-feet to either side, unless access was restricted, in which case the suitable habitat was surveyed with binoculars (suitable habitat with restricted access is shown in yellow on Figure 3) . The habitat assessment and burrow survey both occurred on 1 May 2019 between 1030 and 1300 hours. The sky was partly cloudy during the survey with cloud cover measured at 10% at the onset of the visit and at 5% at the end of the visit. Ambient temperature was measured at 69.1°F at 1030 hours and at 71.4°F at 1300 hours. Winds were blowing from the west throughout the visit. In the beginning of the survey, wind speeds were measured between 1.4 – 5.1 mph. At the end of the observation period, wind speeds were measured at < 5.5 mph.

RESULTS

A total of only eight avian species were observed on and in the vicinity of the property during the site visit on 1 May 2019. Those eight bird species were House Sparrow, House Finch, Barn Swallow, Northern Mockingbird, Mourning Dove, European Starling, Black Phoebe, and Northern Rough-winged Swallow.

Burrowing Owl. The Burrowing Owl (*Athene cunicularia*) is a small, long-legged owl that nests in subterranean burrows. It is found in grassland and open scrub habitat with low-growing vegetation. The closest California Natural Diversity Database record is found 2.2-miles to the

southeast on March Air Force Base (CDFW, 2019). Even though suitable habitat occurs on-site and within 500-feet of the properties, no natural burrows or suitable man-made structures were found during the burrow survey. Given the absence of potential burrows, no further surveys are required for the Burrowing Owl.

CONCLUSIONS

The four parcels and areas within 500-feet of the four parcels were surveyed for suitable habitat for the Burrowing Owl on 1 May 2019. Portions of the survey area did contain suitable habitat for the Burrowing Owl. The suitable habitat on the four parcels and within 500-feet of the four parcels, which included dirt roads/parking lots, and short, Non-Native Grassland or Ruderal Habitat was surveyed for burrows on 1 May 2019. Based upon the results of the focused burrow survey, there are no potential burrows or suitable manmade structures, and therefore, no Burrowing Owls. As such, no further surveys are required for the Burrowing Owl.

REFERENCES CITED

Fish and Wildlife, California Department of. 2019. California Natural Diversity Database. Rare Find 5 Commercial Version Updated 7 May 2019. Biogeographic Data Branch, Sacramento, CA.

Regional Conservation Authority. 2005. Staff Report Regarding Burrowing Owl Surveys. Found at http://www.wrc-rca.org/species/survey_protocols/Birds/Burrowing Owl Survey Instructions complete.pdf

SURVEYOR CERTIFICATION

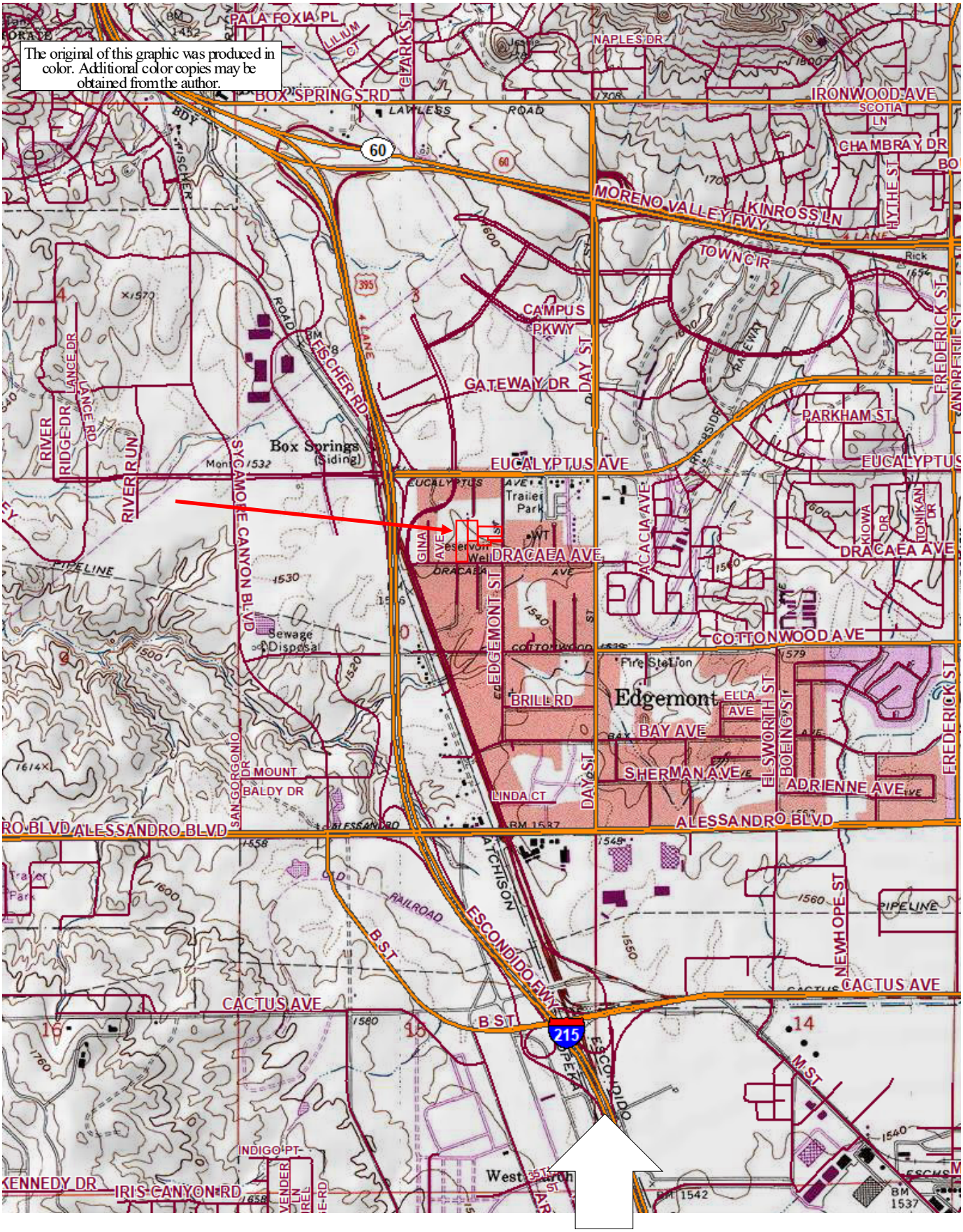
I certify that the information in this survey report and attached exhibits fully and accurately represents my work. Any errors or omissions are solely my responsibility.

Gretchen Cummings . 5/21/19 .

Gretchen Cummings
President/Consulting Biologist

Attachments

1. Figure 1 — APNs 263-132-030, -033, -016, and -017 Shown on the U.S.G.S. 7½-min Riverside East Quad Map
2. Figure 2 — APNs 263-132-030, -033, -016, and -017 Shown on an Aerial Photo
3. Figure 3 — Burrowing Owl Habitat Assessment Area Shown on an Aerial Photo



Scale: 1-inch = 2,000-feet

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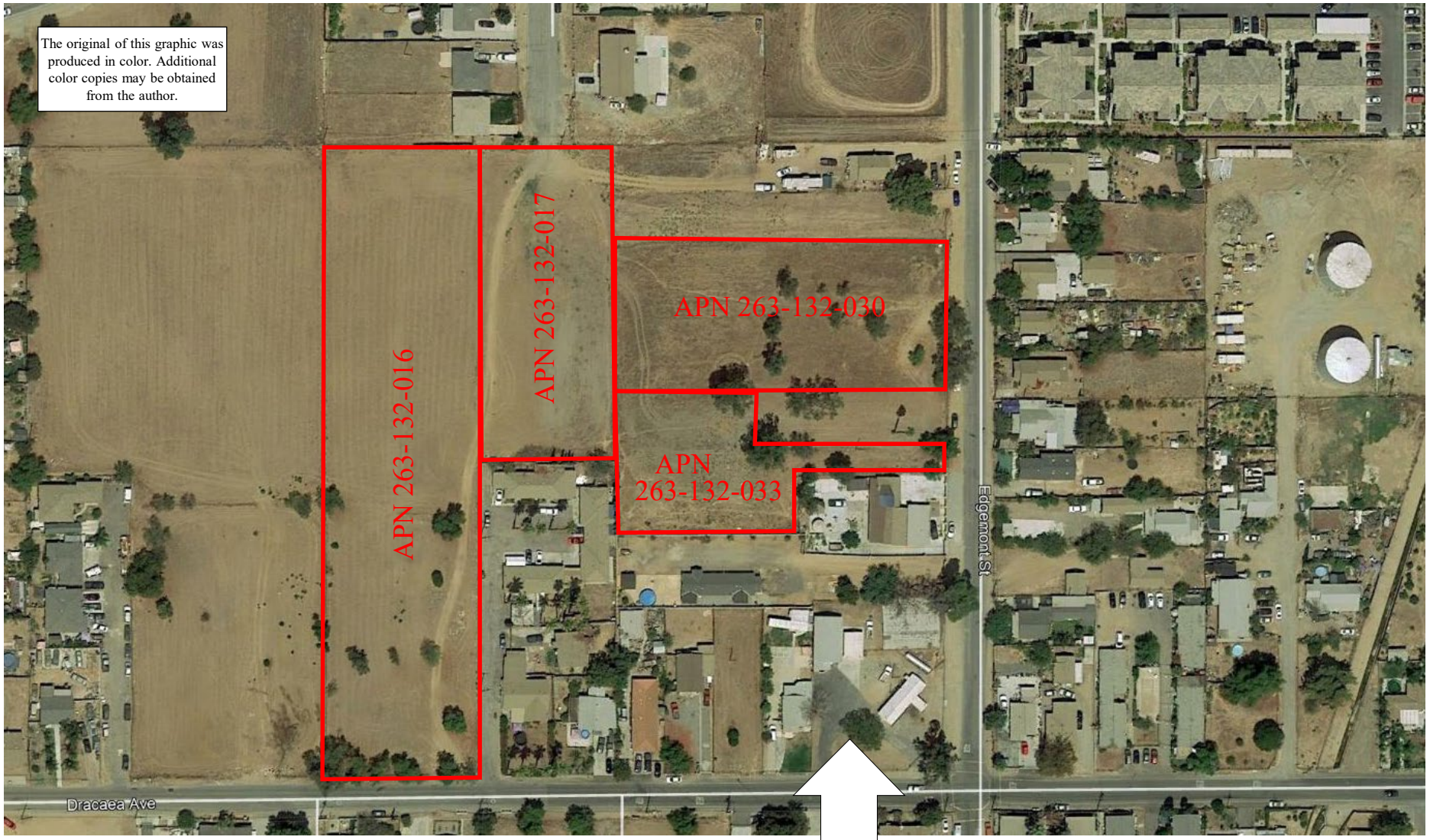
APNs 263-132-030, -033, -016, and -017 Shown on the U.S.G.S. 7 ½-min Riverside East Quad Map [Base Map Created with TOPO!® ©2006 National Geographic; ©2005 TeleAtlas]

Figure 1



Cummings Environmental Job Number 1834.34C 23 April 2019

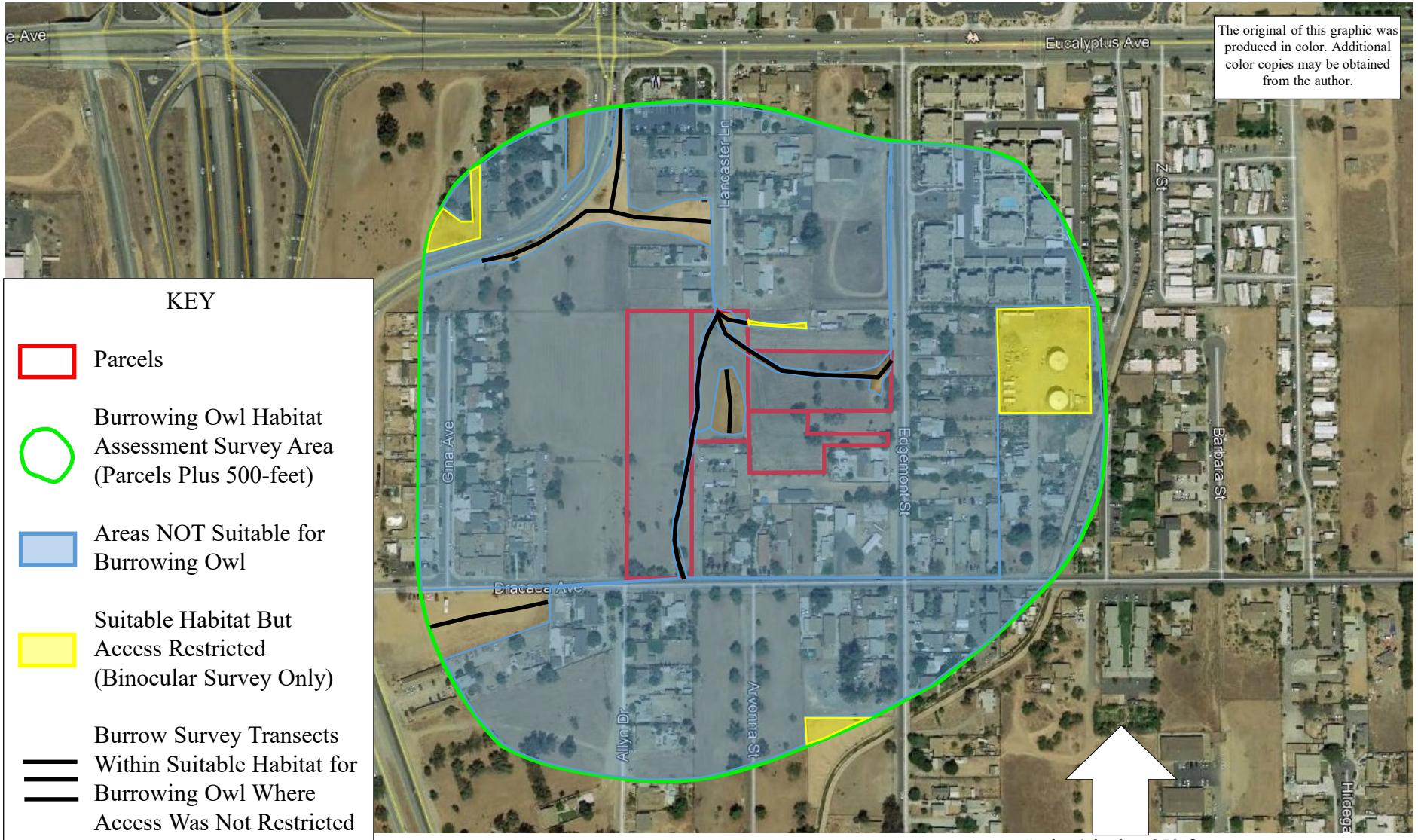
Scale: 1-inch = 150-feet

[:\1834-Fig-2.pptx]

Cummings Environmental

APNs 263-132-030, -033, -016, and -017 Shown on an Aerial Photo [Base Photo © 2018 Google; Imagery Date 8/24/2018]

Figure 2



Scale: 1-inch = 350-feet

Cummings Environmental Job Number 1834.86A 21 May 2019 [:\1834-Fig-3.pptx]

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Burrowing Owl Habitat Assessment Survey Area Shown on an Aerial Photo [Base Photo © 2018 Google; Imagery Date 8/24/2018]

Figure 3