

APPENDIX F

Biological Report

December 22, 2015 (Updated June 6, 2016)

9023

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Planning Division
3900 Main Street, Third Floor
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***Subject: Biological Report for the Canyon Springs Healthcare Project, City of
Riverside, Riverside County, California***

Dear Mr. Kelleher,

Dudek has prepared this Biological Report for the City of Riverside in support of Canyon Springs Healthcare Project, City of Riverside, California (project or project site). This letter report is intended to: (1) describe the existing conditions of biological resources within the project site in terms of vegetation, flora, wildlife, and wildlife habitats; (2) discuss potential constraints to development of the project site; and (3) provide recommendations for avoidance of biological resources and additional actions that may be required for environmental permitting of the project with respect to biological resources. This report also covers a Multiple Species Habitat Conservation Plan (MSHCP) consistency determination for the following requirements (relevant MSHCP sections are provided in parentheses):

- Riparian/Riverine, Vernal Pool, and Fairy Shrimp Requirements (Section 6.1.2)
- Species Survey Requirements (Sections 6.1.3 and 6.3.2)
- Urban/Wildlife interface Guidelines (Section 6.1.4)
- Reserve Assembly Requirements within the Criteria Area (Section 3)

1.0 PROJECT LOCATION

The approximately 50.85-acre project site consists of three separate, non-contiguous, previously graded areas located within the Canyon Springs Business Park Specific Plan (SP)/The Springs area in Riverside, California, approximately 0.2 mile east of Interstate 215 (I-215) and approximately less than one mile south of State Route 60 (SR-60). The adjacent City of Moreno Valley is generally located north of SR 60, east of Day Street, and south of Eucalyptus Avenue (Figure 1; all figures are provided in Attachment A). For purposes of this consistency analysis, the term “project site” will refer to the entire three separate non-contiguous areas.

The main 30.13-acre irregular-shaped area (hospital, medical office buildings, and parking structure site) consisting of 14 Assessor's Parcel Numbers (APNs) (291-450-055, 291-450-056, 291-450-057, 291-090-038, 291-090-039, 291-090-040, 291-090-041, 291-450-054, 291-440-050, 291-440-049, 291-440-048, 291-440-018, 291-440-033, and 291-440-036) is bounded by Gateway Drive to the north; Valley Springs Parkway to the west; Day Street and a Riverside Medical Clinic building to the east; and the City of Moreno Valley limit, south of which are 10 single family homes and Edgemont Elementary School, a Riverside County Flood Control detention basin, and a medical office building to the south fronting Eucalyptus Avenue.

The northwest 10.45-acre semi-rectangular shaped area (senior housing site) consisting of four APNs (291-450-052, 291-450-053, 291-450-051, and 291-440-047) is bounded by Corporate Centre Place and Campus Parkway to the north; Valley Springs Parkway to the west; vacant office zoned land to the east; and Riverside County Assessor office buildings and vacant office zoned land to the south.

The northeast 10.27-acre irregular-shaped area (independent living, assisted living, and skilled nursing facility site) consisting of four APNs (291-440-042, 291-440-043, 291-440-044, and 291-440-045) is bounded by two multi-story office buildings to the north; Canyon Park Drive to the west; Day Street to the east; and Gateway Drive to the south.

The Canyon Springs Healthcare Campus Project site includes parts of Section 03 of Township 3 South, Range 4 West within the Riverside East 7.5-minute quadrangle, as mapped by the U.S. Geological Survey (Figure 2). The project site is located in the Cities of Riverside and Norco Area Plan within the Western Riverside County MSHCP (County of Riverside 2003) (Figure 3).

2.0 METHODS AND MATERIALS

2.1 Special-Status Biological Resources

Special-status biological resources are defined in the following paragraphs.

Special-status vegetation communities are those communities identified as high priority for inventory in the *List of Vegetation Alliances and Associations* (CDFG 2010a) by a state rarity ranking of S1, S2, or S3.

Special-status plant species are those plant species that are:

- Classified as endangered, threatened or rare by the California Fish and Wildlife Commission (CDFW; state listed) and/or classified as endangered or

threatened by the U.S. Fish and Wildlife Service (USFWS; federally listed), or candidates for future listing;

- Considered by the California Native Plant Society (CNPS) to be “rare, threatened, or endangered in California” (California Rare Plant Rank (CRPR) 1B and 2B);
- Considered a locally significant species, that is, a species that is not rare from a statewide perspective but is rare or uncommon in a local context such as within a county or region or is so designated in local or regional plans, policies, or ordinances.

Special-status wildlife species are those wildlife species that are:

- Listed as threatened or endangered or candidates for future listing as threatened or endangered under the federal Endangered Species Act or California Endangered Species Act;
- Designated as a species of concern by the CDFW;
- Fully protected species protected under Fish and Game Code Sections 3511, 4700, 5050, and 5515.

Special-status soils are those that are designated as sensitive by Western Riverside County MSHCP.

2.2 Literature Reviewed

Prior to conducting the field investigation, special-status biological resources present or potentially present in the project and surrounding areas were identified through a literature search. The following sources were used during the literature review process:

- Riverside East 7.5-minute USGS quadrangle
- U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey
 - A database query was conducted to identify special-status biological resources present or potentially present within the vicinity of the project site using the California Natural Diversity Database (CNDDDB) (CDFW 2015), CNPS’s *Inventory*

of Rare and Endangered Vascular Plants (CNPS 2014), USFWS Database (USFWS 2015), and MSHCP species occurrence data.

- A 7-mile buffer around the project site was queried in the CNDDDB, USWFS, and the MSHCP data using geographic information systems (GIS) software.
- A “nine-quad” query was conducted of the CNPS. A nine-quad query includes the subject quadrangle and the eight USGS quadrangles surrounding the subject quadrangle including Riverside East, Riverside West, Fontana, San Bernardino South, Redlands, Sunnymead, Perris, Steele Peak, and Lake Matthews.
- Historical aerials were also reviewed to identify site history, as well as the potential for vernal pools and other potential ponded areas (Google Earth 2015, historicalaerials.com 2015).

2.3 Survey Methodology

Dudek conducted a species habitat assessment (including for burrowing owl), and vegetation mapping (see Table 1). The area surveyed on foot was limited to the project site boundary as right of entry was not granted for adjacent parcels. A 300-foot buffer was surveyed visually.

Table 1. Schedule of Surveys

Date	Hours	Personnel*	Focus	Conditions
9/16/2015	0640–0945	Jessica Self	Habitat assessment and vegetation mapping	68°F–70°F, 80% cc, 3-5 mph winds

*F = ° Fahrenheit; cc = cloud cover; mph = miles per hour

The purpose of the habitat assessment was to determine the likelihood of occurrence of any special-status plant or wildlife species, including burrowing owl. Expected special-status species were determined according to the presence/absence of suitable habitat (such as vegetation, soils, and hydrology) and knowledge of their relative distributions in the project area.

Flora

All plant species encountered during the field surveys were identified and recorded. Those species that could not be identified immediately were brought into the laboratory for further investigation. Latin and common names for plant species with a CRPR (formerly CNPS List) follow the CNPS *Inventory of Rare, Threatened, and Endangered Plants of California* (CNPS 2015). For plant species without a CRPR, Latin names follow the *Jepson Interchange List of Currently Accepted Names of Native and Naturalized Plants of California* (Jepson Flora Project

2014), and common names follow the USDA Natural Resources Conservation Service Plants Database (NRCS 2015). Plant species identification was assisted with *The Jepson Manual* (Baldwin et al. 2012) and *The Flora of the Santa Ana River and Environs* (Clarke et al. 2007).

Fauna

Wildlife species observed or detected during field surveys by sight, calls, tracks, scat, or other signs were recorded. No trapping or focused surveys for special-status or nocturnal species was conducted. Identification of wildlife species was assisted with guidebooks, such as Sibley (2000) for birds, Reid (2006) for mammals, and Stebbins (2003) for reptiles and amphibians.

2.3.1 Vegetation Community and Land Cover Mapping

Vegetation communities and land uses within the study area were mapped in the field directly onto a 2,400-foot-scale (1 inch = 200 feet), aerial photograph-based field map (Bing) of the project site. Following completion of the fieldwork, all vegetation polygons were digitized using ArcGIS and GIS coverage was created. Vegetation community classifications used in this report follow the *CNPS Vegetation Alliances of Western Riverside County* (CNPS 2006).

2.3.2 Burrowing Owl Habitat Assessment

To meet requirements in the MSHCP, a habitat assessment was conducted to identify suitable habitat for burrowing owl (*Athene cunicularia*). For the properties adjacent to the project area in the buffer area, only visual surveys were conducted as access had not been granted. All observed burrows suitable for burrowing owl were mapped using a Global Positioning System (GPS).

3.0 ENVIRONMENTAL SETTING

3.1 Land Use

The project site is located in the City of Riverside, with Box Springs Mountains to the north, Olive Hill to the northeast, Perris Reservoir to the southeast, March Airforce Base to the south and Sycamore Canyon Wilderness to the west. The site is relatively flat, with an elevation of 1,550 feet to 1,570 feet above mean sea level (amsl). The project site is disturbed with evidence of recent discing throughout. Exotic plant species occurs interspersed throughout the site, but exposed, loose soil caused by discing is the primary land cover. Ornamental plants and landscaped lawn borders the perimeter of each section of the project site.

Generally, the vicinity surrounding the project site is developed with residential and commercial uses as well as vacant lots. Land uses immediately adjacent to the project site include medical

office buildings, office buildings, governmental offices, single-family residential development, a school, and vacant, undeveloped parcels (Figure 4). Land uses north of the overall project site (north of Corporate Centre Place and Campus Parkway) include big box retail uses (e.g., Walmart, Target, Petsmart) and other commercial retail uses. Land uses west of the overall project site (west of Valley Springs Parkway) include a big box retail (Sam's Club) and a bank. Land uses south of the overall project site (south of Eucalyptus Avenue) include a mix of residential development, commercial uses, and vacant, undeveloped parcels. Land uses east of the overall project site (east of Day Street) include big box retail (e.g., Costco, WinCo Foods) and commercial retail uses.

The project site is disturbed with evidence of previous discing. A review of historical aerials suggests that this discing has regularly occurred on the site since at least 2002 (Google Earth 2015), and there is evidence that the site was severely disturbed as far back as 1948 (historicaerials.com 2015).

3.2 Hydrology

The study area is located within the Moreno Valley Hydrologic Unit. The USGS topographic quadrangle depicts one unnamed stream within the study area that flows through the northeast section of the independent living, assisted living, and skilled nursing facility site. Historically, this feature is mapped as originating from outside of the study area to the north within the foothills of the Box Springs Mountains within the city of Moreno Valley. The channel is mapped as continuing further to the south and then west through Sycamore Canyon Park into the Santa Ana River and ultimately flowing west until its terminus at the Pacific Ocean. Currently, the parcel receives storm water flows from a storm drain that drains runoff from the parking lot directly adjacent to the north.

3.3 Soils

The following soils are mapped within the project site (USDA 2015): Cieneba rocky sandy loam; Monserate sandy loam, and Hanford coarse sandy loam (Figure 4). Descriptions provided below are summarized from NRCS (2015). The MSHCP has a list of sensitive soils that are known to be associated with listed and sensitive plant species in the region. These soils include clay soils and are absent from the project site.

Cieneba series consists of very shallow and shallow, somewhat excessively drained soils that formed in material weathered from granitic rock. Vegetation is mainly chaparral and chemise with small areas of thin annual grasses and weeds. This series is slightly or medium acidic with less than 18% clay throughout the profile.

Hanford series consists of very deep and well drained soils that formed in moderately coarse textured alluvium. Soils were formed dominantly from granite and usually found on stream bottoms, floodplains and alluvium fans. Slopes containing these soils range from 0-15 percent. Vegetation in uncultivated areas is mainly grasses and associated herbaceous plants.

Monserate series are moderately well-drained soils that formed in alluvium derived from granitic rocks. They occur on terraces and fans at elevations from 700 feet to 2,500 feet amsl. Monserate soils are considered fine-loamy, mixed, super active, thermic Typic Durixeralfs. They have slow to rapid runoff and a moderately slow permeability. Uncultivated areas contain annual grasses, forbs, native canyon oak, and shrubs on eroded slopes.

4.0 EXISTING CONDITIONS

4.1 Vegetation Communities

Three vegetation communities were mapped within the project survey area: tamarisk alliance, California annual grassland, and disturbed/developed. The vegetation communities are depicted on Figure 5 and described in the following discussion; representative photographs are provided in Attachment B, and photograph locations are depicted on Figure 6.

4.1.1 Tamarisk Alliance

According to CNPS 2006, Tamarisk alliance (*Tamarix* sp.) contains stands of Tamarix species in a shrubland form where Tamarix species dominates. The herbaceous layer is open to intermittent at 0.2 – 2.0 meters tall. Within this alliance black willow (*Salix gooddingii*)¹ may be regenerating in the shrub layer.

On site, Tamarisk alliance vegetation communities contained shrubs and tree understory including Mediterranean tamarisk (*Tamarix ramosissima*), athel tamarisk (*Tamarix aphylla*), black willow, and mulefat (*Baccharis salicifolia*). Herbaceous plants included compact brome (*Bromus madritensis*), and the common sunflower (*Helianthus annuus*).

¹ The common name used in Attachment C to this report is Goodding's willow. However, because CNPS (2006) uses the common name black willow, this common name is used in the description of the vegetation communities.

4.1.2 California Annual Grassland

As defined by CNPS 2006, California annual grassland is usually dominated by annual grasses and herbs of various assortments that are in upland habitats. Specifically, red brome or ripgut brome (*B. diandrus*), are abundant with other non-native and native species.

The majority of the site is California annual grassland. These areas showed evidence of recent discing had some identifiable annual weedy species present including, but not limited to, mustard species (*Brassica* sp.), prickly Russian thistle (*Salsola tragus*).

4.1.3 Disturbed/Developed

This community is not recognized within the MSHCP; however, it is recognized by Holland (1986). Developed land consists of structures, homes, paved roads, and maintained areas. Developed areas do not support native vegetation. Disturbed habitat refers to areas that are not developed yet lack vegetation, and generally are the result of severe or repeated mechanical perturbation.

On site, this community occurs around all California annual grassland vegetation within the project site. Specifically, this community consists of roadways (both dirt and paved) and commercial buildings. Residential developments occur on southern perimeter of the southern section of the project site. Vegetation within the residential developments include a variety of ornamentals such as Peruvian peppertree (*Schinus molle*), and Mexican palo verde (*Parkinsonia aculeata*).

4.1.4 Plant Species Observed

A total of 22 plant species — three native (or naturalized) plants (14%) and 19 non-native plants (86%)—were recorded during the survey, representing 12 plant families. The high proportion of non-native plants indicates this site contains disturbed condition. The common plant species that were identified within the vegetation communities are provided in the Plant Compendium in Attachment C.

4.1.5 Wildlife Species Observed

There were few wildlife species observed within the survey area, with the most common being California ground squirrel, common side blotched lizard (*Uta stansburiana*), house finch (*Tyrannus verticalis*), and common raven (*Corvus corax*). A complete list of wildlife observed is listed in Attachment D.

4.2 Special-Status Plant Species

No special-status plant species were identified within this site during the reconnaissance survey. Furthermore, there is no USFWS-designated critical habitat for listed plant species within the study area (USFWS 2015).

Attachment E lists special-status plant species documented in the literature review and their potential to occur within this site. It was determined that no special-status plant species have the potential to occur within the project site due to the lack of suitable habitat. The site does not overlap any required plant assessment areas of the MSHCP. Therefore, no additional plant surveys are required.

4.3 Special-Status Wildlife Species

There is no USFWS-designated critical habitat for listed wildlife species within the study area (USFWS 2015).

Attachment F includes special-status wildlife species documented in the literature review and their potential to occur on the project site based on location, site history, and general vegetation communities present. Burrowing owl was the only special-status species determined to have potential to occur in the survey area. Due to the presence of suitable foraging habitat and suitable nesting habitat (burrows), burrowing owl has a moderate potential to occur on the project site.

4.3.1 Burrowing Owl

Burrowing owl is a California Species of Special Concern. With a relatively wide-ranging distribution throughout the west, burrowing owls are considered to be habitat generalists (Lantz et al. 2004). In California, burrowing owls are yearlong residents of open, dry grassland and desert habitats, and in grass, forb, and open shrub stages of pinyon–juniper and ponderosa pine habitats (Zeiner et al. 1990). Preferred habitat is generally typified by short, sparse vegetation with few shrubs, level to gentle topography, and well-drained soils (Haug et al. 2011).

The presence of burrows is the most essential component of burrowing owl habitat as they are required for nesting, roosting, cover, and caching prey. In California, western burrowing owls most commonly live in burrows created by California ground squirrels. Burrowing owls may occur in human-altered landscapes such as agricultural areas, ruderal grassy fields, vacant lots, and pastures if the vegetation structure is suitable (i.e., open and sparse), useable burrows are available, and foraging habitat occurs in close proximity (Gervais et al. 2008). Furthermore, debris piles, riprap, culverts, and pipes can be used for nesting and roosting.

Burrowing Owl Habitat Assessment

After conducting the habitat assessment, it was determined that the project site contains suitable habitat for burrowing owl. The site and undeveloped parcels within a 500-foot buffer provides suitable foraging habitat and suitable nesting habitat was present where California ground squirrel burrows were noted, particularly on the perimeter of the site, fence lines, dirt mounds, and berms lining roadways (Figure 7). A concrete drainage on the southern portion of the northeast section of the independent living, assisted living, and skilled nursing facility site was also suitable for burrowing owl. Most of the area within the project site was recently disced and therefore absent of burrows.

4.4 Nesting Birds

The entire site provides suitable habitat for nesting birds. The disturbed habitat contains suitable burrows for burrowing owl, and the ground surface is suitable nesting habitat for killdeer (*Charadrius vociferus*). Furthermore, there are numerous bird species that could nest within the tamarisks, willows and ornamental trees on and surrounding the site, such as the northern mockingbird (*Mimus polyglottos*) and mourning dove (*Zenaida macroura*).

4.5 Jurisdictional Waters

Ephemeral Drainage

A review of historical aerials shows that there is evidence that the independent living, assisted living, and skilled nursing facility site receives storm water flows from a storm drain that drains runoff from the parking lot directly to the north. At the southern end of the site, there is another storm drain leading to an underground pipeline which was created to capture runoff from the site (see photographs in Attachment B). An inline detention basin is located immediately to the south of the southeastern parcel, which is where water from the site ultimately drains. When flows in this basin overflow, a concrete outlet leads across Eucalyptus Avenue and eventually flows to what is known as Sycamore Canyon. Due to heavy recent discing, the ephemeral drainage on the independent living, assisted living, and skilled nursing facility site is not definable, with no evidence of bed and bank or ordinary high water mark (OHWM) and no riparian vegetation. However, aerial imagery also shows that at times, there is likely a definable bed and bank.

5.0 WESTERN RIVERSIDE COUNTY MSHCP CONSISTENCY ANALYSIS

The project site is located in the MSHCP Cities of Riverside/Norco Plan and is not within an MSHCP Criteria Cell or existing conservation area (Figure 3). Therefore, no reserve assembly requirements would apply to the project site. The project site is within a required burrowing owl

habitat assessment area. Because suitable nesting habitat (burrows) exists, a focused burrow survey is required to determine if burrowing owls are present.

5.1 Riparian/Riverine Areas

The MSHCP defines riparian/riverine areas as “lands which contain habitat dominated by trees, shrubs, persistent emergent, or emergent mosses and lichens, which occur close to or which depend upon soil moisture from a nearby fresh water source; or areas with fresh water flow during all or a portion of the year” (County of Riverside 2003). The MSHCP further clarifies those areas “demonstrating characteristics as described above which are artificially created are not included in these definitions.”

There were no riparian/ riverine areas observed within the project site.

5.2 Vernal Pool and Fairy Shrimp Habitat

No indicators of ponding or vernal pool plant species were observed during the site visit. Historic aerials and topographic maps were reviewed for signatures of ponding. No topographic low points or indicators of ponding are present on historic aerials or topographic maps. Despite the presence of an ephemeral drainage previously described, the soils present within the project site are well-drained and not typically associated with vernal pools. Based on the soils present, the field visit, and a historical aerial review, the project site was determined not to support vernal pools or fairy shrimp habitat.

5.3 Species Survey

The MSHCP establishes habitat assessment requirements for certain species of plants, birds, mammals, and amphibians. The project site is only in a required habitat assessment area for burrowing owl. As presented earlier, the habitat assessment identified potential burrowing owl habitat and suitable burrows.

5.4 Urban/Wildlife Interface Guidelines

According to the MSHCP, the Urban/Wildlands Interface Guidelines are intended to address indirect effects associated with locating development in proximity to the MSHCP Conservation Area (MSHCP, p 6-42). The project site is not within the vicinity of any conserved areas (Figure 3) and the Urban/Wildlife Interface Guidelines are not applicable.

6.0 IMPACTS AND RECOMMENDATIONS

6.1 Vegetation Communities

There were no special status vegetation communities on site.

6.2 Jurisdictional Waters

A review of historical aerials shows that there is evidence that the northeastern independent living, assisted living, and skilled nursing facility site receives storm water flows from a storm drain that drains runoff from the parking lot directly to the north and eventually flows into an inline basin. Due to heavy recent discing, the ephemeral drainage on the project site is not definable, with no evidence of bed and bank or OHWM and no riparian vegetation. However, aerial imagery also shows that at times, there is likely a definable bed and bank and therefore, a formal jurisdictional delineation is recommended for this site, which has been prepared by Michael Baker International under a separate report.

6.3 MSHCP Covered Species

There are no special-status plant species observed or with potential to occur on the project site. Furthermore, the project site does not fall within any MSHCP plant habitat assessment areas; therefore, development of the site would not result in significant impacts to special-status plants, and no additional actions are required.

There were no special-status wildlife species detected within the project site. However, there is the potential for burrowing owl to occupy the project site in the future. Therefore, a focused burrowing owl survey and a preconstruction survey for all three parcels in accordance with the MSHCP is required prior to ground-disturbance activities.

Burrowing Owl Focused Survey

A burrowing owl focused survey will be required and shall be conducted in accordance with the Burrowing Owl Survey Instructions for the MSHCP Area (dated March 29, 2006), which includes four (4) site visits during the burrowing owl breeding season (March 1–August 31).

Burrowing Owl Preconstruction Survey

In accordance with the MSHCP, all project sites containing burrows or suitable habitat, whether owls were found or not, require preconstruction surveys that are to be conducted within 30 days prior to ground-disturbance activities for projects within the MSHCP. A minimum of one survey

site visit within the described time frame prior to disturbance is required to document/confirm presence or absence of owls on the site.

6.4 Special-Status Species not covered by the MSHCP

Per attachment F, no special-status species not covered by the MSHCP have potential to occur on the project site.

6.5 Nesting Birds

The project site provides suitable habitat for nesting birds. Direct impacts to migratory birds must be avoided in accordance with the Migratory Bird Treaty Act and Fish and Game Code. If ground-disturbance activities occur during the avian nesting season, preconstruction survey and avoidance measures, if nesting birds are present, must be conducted. A pre-activity nesting bird survey will be conducted if activities are scheduled to occur during the avian nesting season (from February 1 – August 30). Surveys will be conducted within 1 week of activity and will be conducted between dawn and noon.

7.0 CONCLUSIONS

Based on the above discussion, the following mitigation measures shall be incorporated:

MM-BIO-1 In accordance with the Multiple Species Habitat Conservation Plan (MSHCP), potentially suitable habitat to support burrowing owl is present within the project site. Prior to the initiation of construction activities, a qualified biologist shall conduct focused surveys for burrowing owl in accordance with the Burrowing Owl Survey Instructions for the MSHCP Area (dated March 29, 2006), which includes four (4) site visits during the burrowing owl breeding season (March 1– August 31).

Preconstruction clearance surveys for burrowing owl shall be conducted within 30 days of site disturbance to determine whether the burrowing owl is present at the site. Preconstruction surveys shall include suitable burrowing owl habitat within the project footprint and an appropriate buffer as required in the most recent guidelines and where legal access to conduct the survey exists. If burrowing owls are not detected during the clearance survey, no additional mitigation is required.

If burrowing owl is located, occupied burrowing owl burrows shall not be disturbed during the nesting season (February 1 through August 31) unless a qualified biologist approved by CDFW verifies through non-invasive methods

that either the birds have not begun egg-laying and incubation or that juveniles from the occurred burrows are foraging independently and capable of independent survival. A 500-foot non-disturbance buffer (where no work activities may be conducted) will be maintained between project activities and nesting burrowing owls during the nesting season, unless otherwise authorized by CDFW. If burrowing owl is detected during the non-breeding season (September 1 through January 31) or confirmed to not be nesting, a 160-foot buffer non-disturbance buffer will be maintained between the project activities and occupied burrow. For unavoidable impacts to burrowing owl, passive or active relocation of burrowing owls would be implemented. Passive relocation will be conducted by a qualified biologist in accordance with procedures set forth by the MSHCP. Passive relocation of occupied burrows would be conducted outside the breeding season, pursuant to the California Fish and Game Code and the MBTA (February 1 through August 31).

MM-BIO-2 In order to avoid potential impacts to nesting birds in conformance with the Migratory Bird Treaty Act and California Fish and Game Code during all phases of the project, a qualified biologist will conduct a nesting bird survey within 1 week prior to the commencement of any ground-disturbance activities between February 1 to August 31, which covers the breeding season for most birds that may occur in the project area. If active nests are not observed no further mitigation is required. However, if an active bird nest is found, the nest will be flagged and mapped on the construction plans along with an appropriate buffer, which will be determined by a qualified biologist based on the biology of the species. The nest area will be avoided until the nest is vacated and the juveniles have fledged or the nest is determined to be inactive (no eggs or young). The nest area will be demarcated in the field with flagging and stakes or construction fencing for avoidance.

MM-BIO-3 The project applicant will pay the development mitigation fees associated with the Multiple Species Habitat Conservation Plan (MSHCP fee and Stephen's kangaroo rat (SKR) fee), which will be based on the number of acres affected. The fee will be paid to the City of Riverside during the processing of the proposed project. Payment of the SKR impact fees is made before issuance of a grading permit, while MSHCP fees are paid before issuance of building permits.

With the above mentioned mitigation measures, the project will be fully compliant with the MSHCP and fully covered for impacts to covered species with payment of the MSHCP development mitigation fee and the Stephens' Kangaroo Rat HCP fee. A jurisdictional

*Subject: Biological Report for the Canyon Springs Healthcare Project, City of Riverside,
Riverside County, California*

delineation report has been completed by Michael Baker International to determine if any additional waters permitting may be required, including any applicable mitigation measures.

Should you have any questions regarding this biological assessment, please do not hesitate to contact me at 909.810.0718 or at mromich@dudek.com.

Sincerely,



Mikael Romich
Senior Biologist

Att.: A: Figures 1–7
B: Photograph Documentation
C: Plant Compendium
D: Wildlife Compendium
E: Special Status Plant Species Potential to Occur
F: Special Status Wildlife Species Potential to Occur

8.0 REFERENCES

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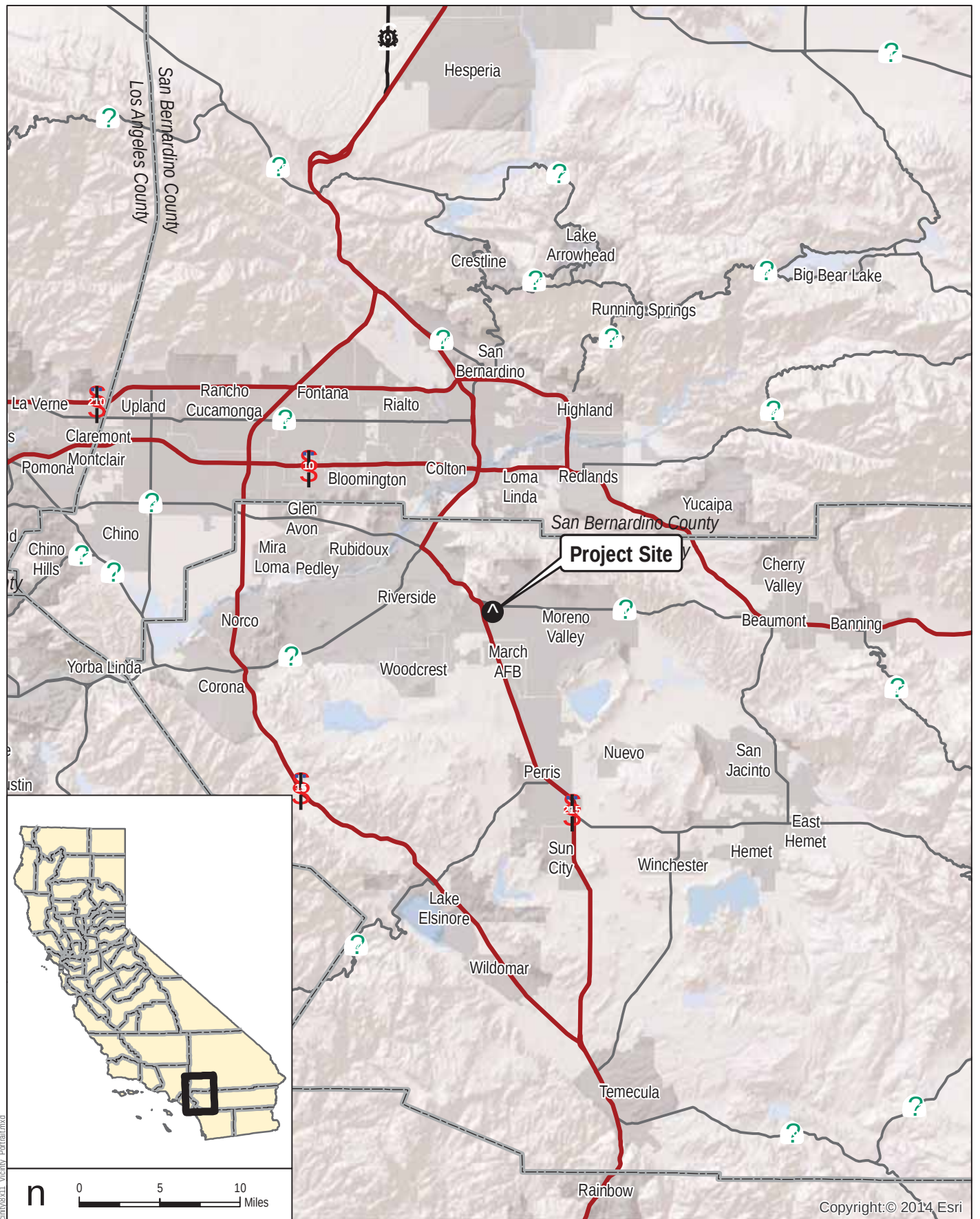
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ATTACHMENT A

Figures 1–7



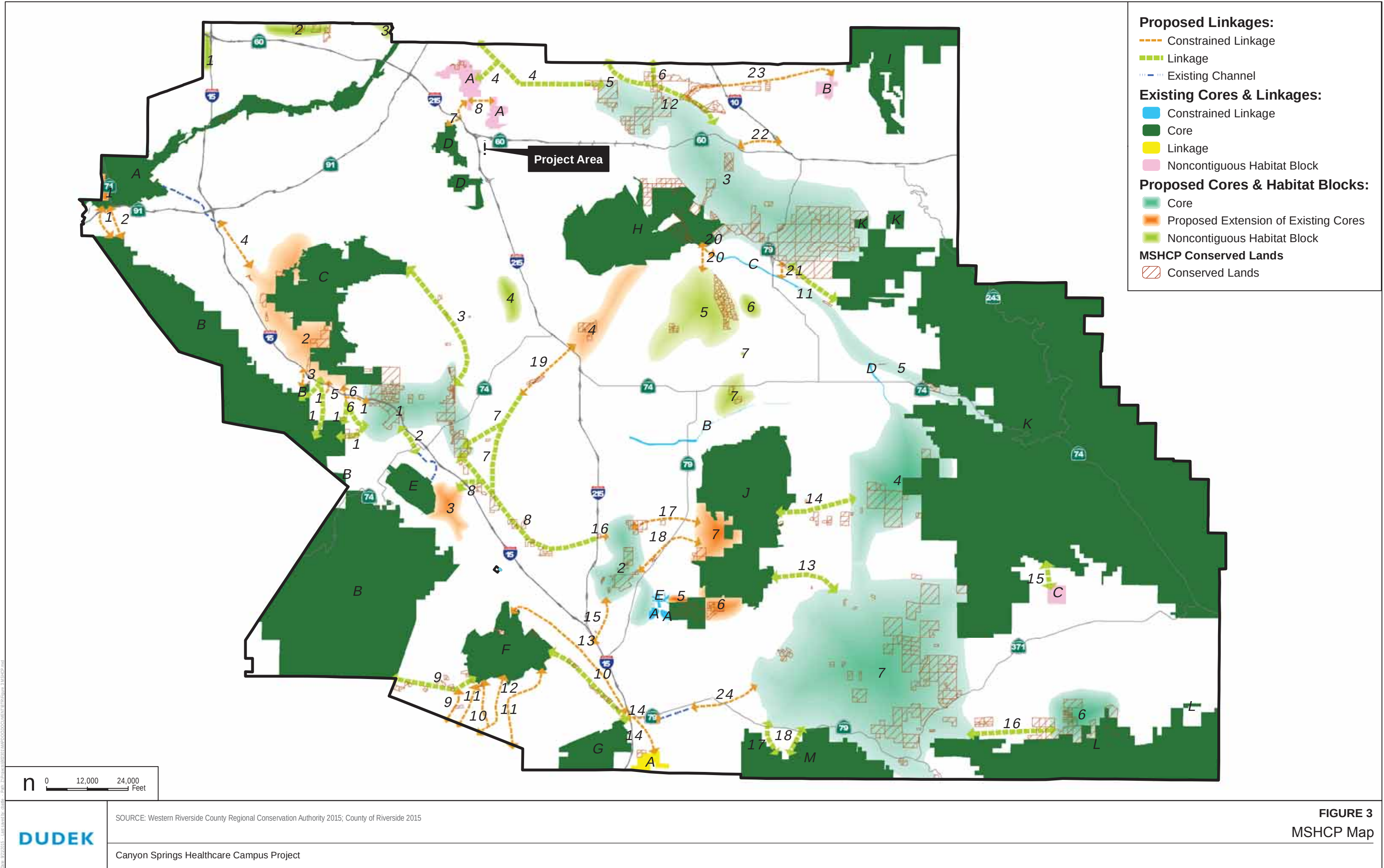
Copyright: © 2014 Esri

SOURCE: ESRI, 2015

DUDEK

FIGURE 1
Regional Map

Canyon Springs Healthcare Campus Project



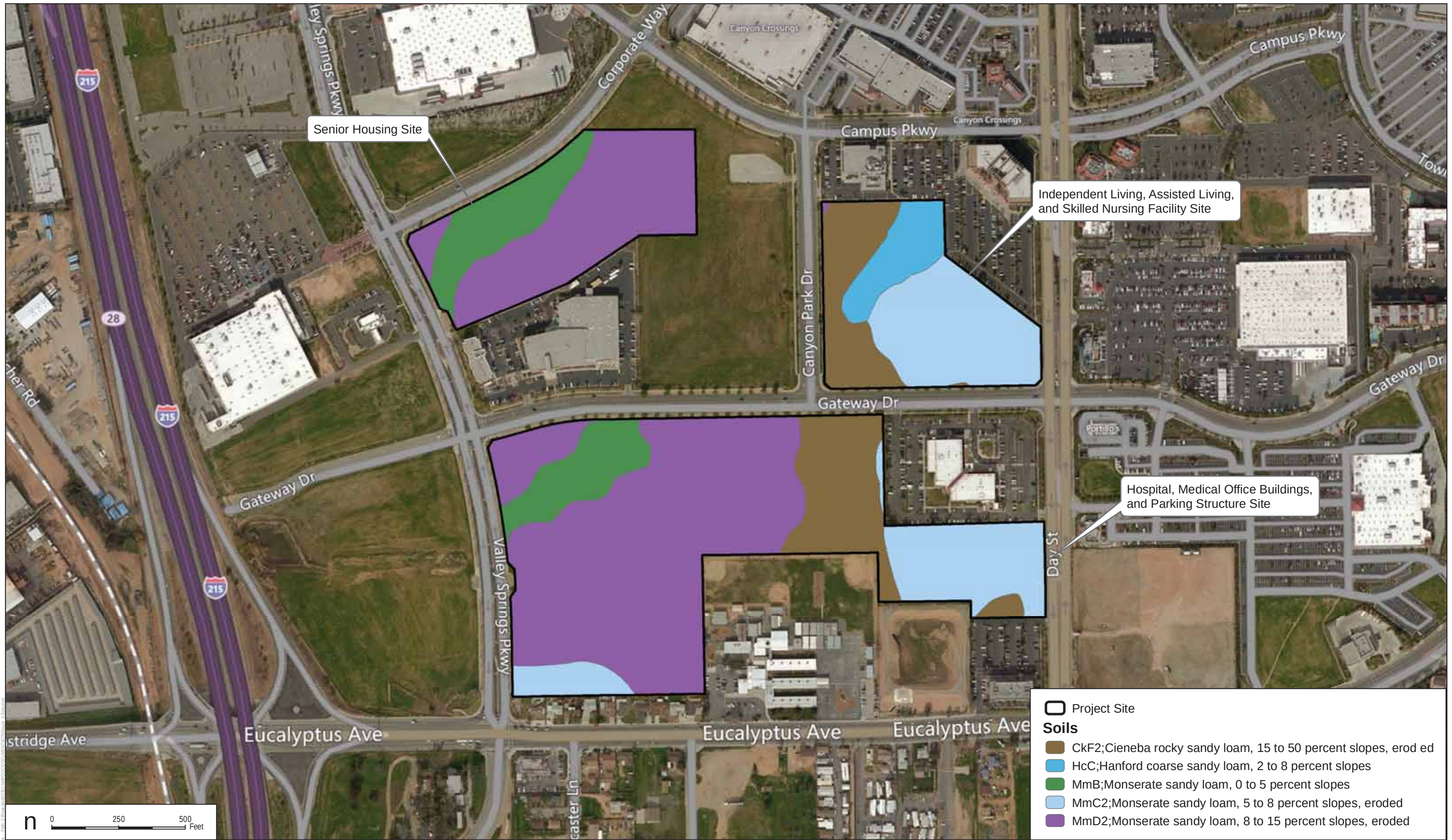


FIGURE 4
Soils Map



SOURCE: Bing Maps, 2015

Canyon Springs Healthcare Campus Project

FIGURE 5

Vegetation Communities



Photo Direction and Number
 Project Site

FIGURE 6
Photo Documentation

ATTACHMENT B
Photograph Documentation

ATTACHMENT B

Photograph Documentation

	
Location 1: Drain and single burrow with debris at entrance. Suitable for burrowing owl.	Location 2: Recently disced California annual grassland, facing east. Within the northeast portion of the project site.
	
Location 3: Recently disced California annual grassland, facing north. Within the northeast portion of the project site.	Location 4: Close up of recently disced soil occurring throughout the entire project site. Within the northeast portion of the project site.

ATTACHMENT B (Continued)

	
Location 5: Suitable burrow complex for burrowing owl. Within the northwest portion of the project site along Campus Parkway, facing southeast.	Location 6: Recently disced California annual grassland. Within the northwest portion of the project site facing south.
	
Location 7: Recently disced California annual grassland. Within the northwest portion of the project site facing southeast.	Location 8: Recently disced California annual grassland. Within the northwest portion of the project site facing east.

ATTACHMENT B (Continued)

	
Location 9: Suitable burrow complex for burrowing owl. Within the northwest portion of the project site along Campus Parkway, facing northwest.	Location 10: Tamarisk alliance vegetation community along Canyon Park Dr. Facing south.
	
Location 11: Recently disced California annual grassland. Within the southern portion of the project site facing east.	Location 12: Recently disced California annual grassland. Within the southern portion of the project site facing south.

ATTACHMENT B (Continued)

	
Location 13: Recently disced California annual grassland. Within the southern portion of the project site facing west.	Location 14: Drainage from parking lot located at the northern border of the north eastern section of the project site, facing north.
	
Location 15: Standing water from rainstorm event at the northern border of the northeast section of the project site, facing east.	Location 16: Same location as photos 14 and 15, facing south. Showing behavior of water runoff from parking lot drainage.

ATTACHMENT B (Continued)



Location 17: California annual grassland, no evidence of water scouring to the southern portion of the northeast section of the project site due to the parking lot drainage (See photo 14).



Location 18: Evidence of wet soil and water runoff caused by rain event from the day prior, facing north.

ATTACHMENT C

Plant Compendium

APPENDIX C

Plant Compendium

ANGIOSPERMS (DICOTS)

ANACARDIACEAE – SUMAC FAMILY

- * *Shinus molle* – Peruvian pepper tree

ASTERACEAE—SUNFLOWER FAMILY

- * *Deinandra paniculata* – paniculate tarplant
- Helianthus annuus*—common sunflower
- Heterotheca villosa* – hairy golden aster
- Baccharis salicifolia*—mule-fat

BRASSICACEAE—MUSTARD FAMILY

- * *Brassica* sp.—mustard
- * *Brassica nigra* – black mustard
- * *Brassica rapa* ssp. *sylvestris* – common field mustard

CHENOPODIACEAE—GOOSEFOOT FAMILY

- * *Salsola tragus*—prickly Russian thistle

CONVOLVULACEAE—MORNING-GLORY FAMILY

- * *Convolvulus arvensis*—field bindweed

FABACEAE—LEGUME FAMILY

- * *Parkinsonia aculeata* – Mexican palo verde

GERANIACEAE – GERANIUM FAMILY

- * *Erodium cicutarium* – red-stemmed filaree

MALVACEAE – MALLOW FAMILY

- * *Malvella leprosa* – alkali mallow

SALICACEAE – WILLOW FAMILY

Salix gooddingii—Goodding's willow

TAMARICACEAE – TAMARISK FAMILY

- * *Tamarix ramosissima* – Saltcedar
- * *Tamarix aphylla* - Athel

APPENDIX C (Continued)

MONOCOTS

ARECACEAE—PALM FAMILY

- * *Washingtonia robusta*—Washington fan palm

POACEAE—GRASS FAMILY

- * *Bromus diandrus*—ripgut brome
- * *Bromus madritensis*—compact brome
- * *Poa annua*—annual bluegrass
- * *Polypogon monosplensis* – annual beard grass
- * *Schismus barbatus* – father of the earth

- * signifies introduced (non-native) species

ATTACHMENT D
Wildlife Compendium

APPENDIX D

Wildlife Compendium

WILDLIFE SPECIES – VERTEBRATES

BIRD

EMBERIZIDAE—EMBERIZIDS

Melospiza crissalis—California towhee

FRINGILLIDAE—FRINGILLINE & CARDUELINE FINCHES & ALLIES

* *Haemorhous mexicanus*—house finch

CORVIDAE—CROWS & JAYS

Corvus brachyrhynchos—American crow

Corvus corax – common raven

MIMIDAE – PASSERINES

Mimus polyglottos – northern mockingbird

COLUMBIDAE—PIGEONS & DOVES

* *Columba livia* – rock dove

Zenaida macroura—mourning dove

STURNIDAE—STARLINGS

* *Sturnus vulgaris*—European starling

APODIDAE—SWIFTS

Aeronautes saxatalis—white-throated swift

MAMMAL

SCIURIDAE—SQUIRRELS

Spermophilus (Otospermophilus) beecheyi—California ground squirrel

REPTILE

PHRYNOSOMATIDAE—IGUANID LIZARDS

Uta stansburiana—common side-blotched lizard

* signifies introduced (non-native) species

ATTACHMENT E

*Special-Status Plant Species Potential to Occur
within the Project Site*

APPENDIX E

Special-Status Plant Species Potential to Occur within the Project Site

Species	Status: Federal /State	CRPR	MSHCP Covered Species	Habitat/ Annual or Perennial/ Soil/ Elevation	Blooming Period	Potential to Occur
Munz's onion <i>Allium munzii</i>	FE/None	1B.1	Yes	Chaparral, Cismontane woodland, Coastal scrub, Pinyon and juniper woodland, Valley and foothill grassland. Mesic, clay. Perennial bulbiferous herb. 974-3510 feet	March – May	No potential to occur. Extensive soil disturbance on site from recent discing.
San Jacinto Valley crownscale <i>Atriplex coronata</i> var. <i>notatior</i>	FE/ None	1B.1	Yes	Playas, valley and foothill grassland, vernal pools. Alkaline areas in the San Jacinto River Valley. 450–1,650 feet.	April - August	No potential to occur. Extensive soil disturbance on site from recent discing.
Thread-leaved brodia <i>Brodiaea filifolia</i>	FT/SE	1B.1	Yes	Chaparral (openings), cismontane woodland, coastal scrub, playas, valley and foothill grassland, vernal pools. Usually associated with annual grassland and vernal pools; often surrounded by shrubland habitats. Occurs in openings on clay soils. 80–3,700 feet.	March - June	No potential to occur. Associated habitat including vernal pools and surrounding shrubland is not located on site. Extensive soil disturbance within grassland on site from recent discing.
Round-leaved filaree California macrophylla	None/ none	1B.1	Yes	Cismontane woodland, Valley and foothill grassland. Clay soils. Annual herb. 49-3937 feet	March - May	No potential to occur. Extensive soil disturbance on site from recent discing.
Smooth tarplant <i>Centromadia</i> <i>pungens</i> ssp. <i>laevis</i>	None/ None	1B.1	Yes	Chenopod scrub, meadows and seeps, playas, riparian woodland, valley and foothill grassland/ / annual herb, alkaline soils, 300–1,650 feet.	April - Sept	No potential to occur due to high soil disturbance and lack of associated habitat on site
Parry's Spineflower <i>Chorizanthe parryi</i>	None/ None	1B.1	Yes	Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland. Sandy or rocky,	April - June	No potential to occur. Extensive soil disturbance on site from recent discing.

APPENDIX E (Continued)

Species	Status: Federal /State	CRPR	MSHCP Covered Species	Habitat/ Annual or Perennial/ Soil/ Elevation	Blooming Period	Potential to Occur
<i>var. parryi</i>				openings. Annual herb. 902-4003 feet.		
Long-stemmed spineflower <i>Chorizanthe polygonoides var. longispina</i>	None/ None	1B.2	Yes	Chaparral, Coastal scrub, Meadows and seeps, Valley and foothill grassland, Vernal pools. Often clay soils. Annual herb. 98- 5020 feet.	April - July	No potential to occur. Extensive soil disturbance on site from recent discing.
Many-stemmed dudleya <i>Dudleya multicaulis</i>	None/ None	1B.2	Yes	Chaparral, Coastal scrub, Valley and foothill grassland. Often clay soils. Perennial herb. 49-2592 feet.	April - July	No potential to occur. Extensive soil disturbance on site from recent discing..
San Bernardino Aster <i>Symphyotrichum defoliatum</i>	None/ None	1B.2	No	Washes, steep hillsides, dry flats, scree, calcareous rubble, rocky bluffs, exposed crevices, annual herb, clay soils, 0–6,800 feet.	March - April	No potential to occur. Associated habitat including washes and steep hillsides do not occur on site.

Federal Designations

FE: Species listed as endangered by USFWS.

FT: Species listed as threatened by USFWS.

State Designations

ST: State threatened

SE: State endangered

California Rare Plant Rank (CRPR)

1A: Plants presumed extinct in California.

1B: Plants rare, threatened, or endangered in California and elsewhere.

Threat Ranks

0.1: Seriously threatened in California (high degree/immediacy of threat).

0.2: Fairly threatened in California (moderate degree/immediacy of threat).

Local Designation

MSCHP: Covered species under the MSHCP.

ATTACHMENT F

Special-Status Wildlife Species Potential to Occur

APPENDIX F

Special-Status Wildlife Species Potential to Occur

Special-Status Wildlife Species and Their Potential to Occur within Project Site

Scientific Name	Common Name	Status Federal/ State/MSHCP ¹	General Habitat Description	Potential to Occur
Amphibians				
<i>Spea hammondi</i>	Western spadefoot	None/SSC/MSHCP	Most common in grasslands, coastal scrub near rain pools or vernal pools; riparian habitats	No potential to occur. Suitable rain or vernal pools do not occur on site.
<i>Rana mucosa</i>	Southern mountain yellow-legged frog	FE/SE/MSHCP	Lakes, ponds, meadow streams, isolated pools and open riverbanks; rocky canyons in narrow canyons and in chaparral	No potential to occur. Outside of species range and no suitable habitat.
Reptiles				
<i>Aspidoscelis hyperythra</i>	Orangethroat whiptail	None/SSC/MSHCP	Coastal scrub, chaparral, grassland, juniper, and oak woodland	No potential to occur. No suitable habitat including coastal scrub and chaparral vegetation communities are present on site.
<i>Abbiella pulchra pulchra</i>	Silvery legless lizard	None/SSC/MSHCP	Stabilized dunes, beaches, dry washes, chaparral, scrubs, pine, oak, and riparian woodlands; associated with sparse vegetation and sandy or loose, loamy soils	No potential to occur. No suitable habitat including coastal scrub, dunes oak or riparian vegetation communities are present on site.
<i>Crotalus ruber</i>	Red-diamond rattlesnake	None/SSC/MSHCP	Variety of shrub habitats where there is heavy brush, large rocks, or boulders	No potential to occur. No suitable habitat including heavy brush, rocks, or boulders are present on site.
<i>Phrynosoma blainvillii</i>	Coast horned lizard	None/SSC/MSHCP	Coastal scrub, annual grassland, chaparral, oak and riparian woodland, coniferous forest	No potential to occur. No suitable habitat including coastal scrub and chaparral vegetation communities are present on site. Heavy soil disturbance on site.
Birds				
<i>Athene cunicularia</i> (burrow sites and some wintering sites)	Burrowing owl	None/SSC/MSHCP	Grassland, lowland scrub, agriculture, coastal dunes, and other artificial open areas	Moderate potential to occur. Suitable habitat including suitable burrows occur within the perimeter of the project site and surrounding 500-foot buffer. There is a 2006 CNDDB documented occurrence within 4.7 miles north of the project site.
<i>Buteo regalis</i> (wintering)	Ferruginous hawk	None/SSC/MSHCP	Open, dry country, grasslands, open fields, agriculture	Low potential for wintering. Suitable wintering habitat including open fields including open fields.

APPENDIX F (Continued)

Special-Status Wildlife Species and Their Potential to Occur within Project Site

Scientific Name	Common Name	Status Federal/ State/MSHCP ¹	General Habitat Description	Potential to Occur
<i>Buteo swainsoni</i> (nesting)	Swainson's hawk	None/ST/MSHCP	Nests in open woodland and savanna, riparian and in isolated large trees; forages in nearby grasslands and agricultural areas such as wheat and alfalfa fields and pasture	No suitable nesting potential. This site lacks suitable habitat including open woodland and savanna riparian. The survey area also lacks large, isolated trees.
<i>Elanus leucurus</i> (nesting)	White-tailed kite	None/FP/MSHCP	Nests in woodland, riparian, and individual trees near open lands; forages opportunistically in grassland, meadows, scrubs, agriculture, emergent wetland, savanna, and disturbed lands	No suitable nesting potential. The site lacks suitable habitat including woodland and riparian. The survey area buffer contains individual trees near open lands. However, the open land on site is heavily disturbed with limited prey for this species.
<i>Empidonax traillii</i> <i>extimus</i> (nesting)	Southwestern willow flycatcher	FE/SE/MSHCP	Riparian woodlands along streams and rivers with mature, dense stands of willows or alders; may nest in thickets dominated by tamarisk	No nesting potential. No suitable nesting habitat occurring within the project site including dense riparian woodlands or tamarisk thickets.
<i>Lanius ludovicianus</i> (nesting)	Loggerhead shrike	None/SSC/MSHCP	Open ground, including grassland, coastal scrub, broken chaparral, agriculture, riparian, open woodland.	Low nesting potential to occur. Suitable nesting habitat is scarce within the project site.
<i>Poliophtila californica californica</i>	Coastal California gnatcatcher	FT/SSC/MSHCP	Coastal scrub, coastal scrub-chaparral mix, coastal scrub-grassland ecotone.	No potential to occur. No suitable habitat including coastal scrub occurs on site.
Mammals				
<i>Antrozous pallidus</i>	Pallid bat	None/SSC	Arid habitats, including grasslands, shrublands, woodlands and forests; prefers rocky outcrops, cliffs and crevices with access to open habitats for foraging	No potential to occur. No suitable roosting habitat including rocky outcrops, cliffs and on site.
<i>Chaetodipus fallax fallax</i>	Northwestern San Diego pocket mouse	None/SSC/MSHCP	Coastal scrub, grassland, sage scrub-grassland ecotones, sparse chaparral; rocky substrates, loams, and sandy loams	No potential to occur. No potential for this species to occur on site due to extensively high soil disturbance on site.
<i>Dipodomys stephensi</i>	Stephens' kangaroo rat	FE/ST/MSHCP	Open habitat, grassland, sparse coastal scrub, sandy loam, and loamy soils with low clay content; gentle slopes (< 30%)	No potential to occur. No potential for this species to occur on site due to extensively high soil disturbance on site.

APPENDIX F (Continued)

Special-Status Wildlife Species and Their Potential to Occur within Project Site

Scientific Name	Common Name	Status Federal/ State/MSHCP ¹	General Habitat Description	Potential to Occur
<i>Eumops perotis californicus</i>	Western mastiff bat	None/SSC	Roosts in small colonies in cracks and small holes, seeming to prefer man-made structures	No potential to occur. No suitable roosting habitat on site.
<i>Lepus californicus bennettii</i>	San Diego black-tailed jackrabbit	None/SSC/MSHCP	Arid habitats with open ground; grasslands, coastal scrub, agriculture, disturbed areas, rangelands.	Low potential to occur. Site is heavily disturbed and urbanization entirely surrounds this site.
<i>Neotoma lepida intermedia</i>	San Diego desert woodrat	None/SSC/MSHCP	Coastal scrub, chaparral, pinyon-juniper woodland with rock outcrops, cactus thickets, dense undergrowth.	No potential to occur. No suitable habitat within the project site.
<i>Nyctinomops femorosaccus</i>	Pocketed free-tailed bat	None/SSC	Pinyon-juniper woodlands, desert scrub, desert succulent shrub, desert riparian, desert wash, alkali desert scrub, Joshua tree, palm oases; roosts in high cliffs or rock outcrops with drop-offs, caverns, buildings.	No potential to occur. No suitable roosting habitat on site.
<i>Onychomys torridus ramona</i>	Southern grasshopper mouse	None/SSC	Inhabits scrub and grasslands with friable soils for digging; prefers low to moderate shrub cover.	Low potential to occur. Site is heavily disturbed and urbanization entirely surrounds this site.
<i>Perognathus longimembris brevinasus</i>	Los Angeles pocket mouse	None/SSC/MSHCP	Grassland, coastal scrub, disturbed habitats; fine, sandy soils	No potential to occur. Site is heavily disturbed and urbanization entirely surrounds this site.
<i>Taxidea taxus</i>	American badger	None/SSC	Grasslands, agriculture, drier open stages of shrub, forest, and herbaceous habitats with friable soils.	No potential to occur. Site is heavily disturbed and urbanization entirely surrounds this site.
Invertebrates				
<i>Branchinecta lynchi</i>	Vernal pool fairy shrimp	FT/None/MSHCP	Vernal pools; cool-water pools with low to moderate dissolved solids	No potential to occur on site. Vernal pools or fairy shrimp habitat do not occur within the project site.
<i>Streptocephalus woottoni</i>	Riverside fairy shrimp	FE/None/MSHCP	Deep, long-lived vernal pools, vernal pool-like seasonal ponds, stock ponds; warm water pools that have low to moderate dissolved solids	No potential to occur on site. Vernal pools or fairy shrimp habitat do not occur within the project site.

Federal Designations

FE: Species listed as endangered by the USFWS.

FT: Species listed as threatened by the USFWS.

State Designations

FP: CDFW Fully Protected species.

DUDEK

APPENDIX F (Continued)

SE: Species listed as endangered by the California Fish and Game Commission.

ST: Species listed as threatened by the California Fish and Game Commission.

SSC: California Species of Special Concern; considered by CDFW as vulnerable to extinction in California due to declining populations or habitat.

Local Designation

MSHCP: Covered species under the MSHCP.