

Greenspot Village & Marketplace Specific Plan

Supplemental Draft Environmental Impact Report

City of Highland, California

State Clearinghouse Number: 2008031058

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Lead Agency:



City of Highland

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Introduction and Background

The Greenspot Village & Marketplace Specific Plan includes a mix of residential, commercial, entertainment and office land uses, along with open space and recreational uses. It is located in the City of Highland, California, east of SR-210, north of Greenspot Road, west of Webster Street & Boulder Avenue, and south of Eucalyptus Avenue. (Refer to Exhibit 1-1: Regional/Context Map and Exhibit 1-2: Aerial Photograph/Specific Plan Area)

Conceptual land use plans have been developed for two development scenarios, depending on whether the San Bernardino County Flood Control District (SBCFCD) property is acquired for development. Scenario One would include the acquisition of a 21-acre parcel in the western portion of the project site that is currently owned by SBCFCD, for a project site totaling 104 acres. Scenario Two would exclude the SBCFCD property and would be comprised of an 83-acre site. Planning Area 1 would consist of commercial uses, Planning Area 2 of residential uses, and Planning Area 3 would be a mix of residential, commercial, entertainment, governmental and professional office uses. (Refer to Exhibit 2-1: Conceptual Land Use Plan, Scenario 1 and Exhibit 2-2: Conceptual Land Use Plan, Scenario 2)

Scenario One Land Use Summary					
Planning Area	Proposed Land Use	Approximate Acreage	Density Range	Number of Dwelling Units¹	Gross Square Feet
1	Commercial	43.6 acres	N/A	N/A	595,600
2	High-Density Residential and Open Space/ Parks	29.8 acres	20-30 du/ac	550 du	N/A
3	Mixed Use	30.6 acres	25-40 du/ac	350 du	174,000
Total		104 acres		800 du	769,600

¹ The total number of dwelling units in the Specific Plan may not exceed 800; within that limit, dwelling units may be transferred between Planning Areas 2 and 3.

Scenario Two Land Use Summary					
Planning Area	Proposed Land Use	Approximate Acreage	Density Range	Number of Dwelling Units¹	Gross Square Feet
1	Commercial	27.5 acres	N/A	N/A	380,600
2	High-Density Residential and Open Space/ Parks	24.9 acres	30 du/ac	500-700 du	N/A
3	Mixed Use	23 acres	25-40 du/ac	100-300 du	174,000
Total		83 acres		800 du	554,600

¹ The total number of dwelling units in the Specific Plan may not exceed 800; within that limit, dwelling units may be transferred between Planning Areas 2 and 3.

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The CEQA process for this project was initiated with a Notice of Preparation (NOP) of an Environmental Impact Report (EIR) posted with the State Clearinghouse (SCH) on March 13, 2008 (SCH Number 2008031058). The Draft EIR was prepared and available for agency and public review from April 10 to June 1, 2009. The City of Highland City Council approved the Greenspot Village & Marketplace Specific Plan and certified the EIR on May 14, 2013. The Notice of Determination (NOD) was filed with the SCH on May 22, 2013 indicating the project would have a significant impact on the environment, that mitigation measures were made a condition of the approval of the project, that a Statement of Overriding Considerations was adopted for this project, and that Findings were made pursuant to the provisions of CEQA.

As outlined in the 2013 Final EIR, the current Federal Emergency Management Agency (FEMA) flood control zone map includes a portion of the Scenario One property within the 100-year floodplain (Zone A, a 1-percent annual chance flood) and the balance of the project site is in Shaded Zone X (area of 0.2 percent annual chance flood, or 500-year floodplain). The existing Shaded Zone X designation is based on FEMA's "provisionally accredited levee" (PAL) of City Creek's levee. If this levee is not accredited by FEMA, the entire site would be converted to Zone A. The San Bernardino County Flood Control District (SBCFCD) submitted correspondence to FEMA contending that the "levee" does not function as a levee and does not meet FEMA's definition of a levee and that it is not needed to confine the 100-year storm in City Creek. FEMA responded acknowledging SBCFCD's position and request for a Flood Insurance Rate Map (FIRM) revision, however, remapping by FEMA in the project area has not been completed. (Final EIR page 4-19) The intent remains to request a Conditional Letter of Map Revision (CLOMR) from FEMA for the proposed project and once the project is completed request a revision to the FIRM.

During consultation between FEMA and the US Fish and Wildlife Service (USFWS) related to SBCFCD's request for a revised FIRM a trapping study for San Bernardino kangaroo rat (SBKR, *Dipodomys merriami parvus*) was requested by USFWS. SBKR is listed as endangered under the federal Endangered Species Act. A presence/absence trapping study was conducted in March 2016 and a single SBKR was found within the Scenario One area (21-acre property). The entire Greenspot Village & Marketplace Specific Plan area is located in USFWS designated Critical Habitat for SBKR.

The City and a prospective developer for the 21-acre parcel in the Scenario One area met with representatives from the USFWS, Palm Springs Field Office and the California Department of Fish and Wildlife (CDFW), Inland Deserts Region 6 in February 2018 to discuss the results of the 2016 SBKR trapping study and potential development of the site. USFWS and CDFW representatives requested a focused sensitive plant survey and an updated SBKR trapping survey and report on the 21-acre property. A focused sensitive plant survey was conducted in May – July 2018 to coincide with known flowering periods of special-status plant species known to occur in the vicinity of the project area. No special status plant species were observed. Additional SBKR protocol trapping surveys were conducted on the 21-acre property May 10-15 and September 6-11, 2018, as requested and in consultation with USFWS to determine the extent and location of occupied habitat. Findings of these surveys indicate that the northeastern portion of the 21-acre site is occupied but the remaining portion of the site is not. A few individuals of San Diego pocket mouse (*Chaetodipus fallax fallax*) and San Diego desert woodrat (*Neotoma lepida*), both California Species of Special Concern (CSC), were also captured during the additional 2016 and 2018 trapping efforts.

Supplemental Draft Environmental Impact Report (SDEIR)

Pursuant to the CEQA Guidelines, Section 15163, Supplement to an EIR,

- (a) *The Lead Agency or Responsible Agency may choose to prepare a supplement to an EIR rather than subsequent EIR if:*

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- 1) Any of the conditions described in Section 15162 would require the preparation of a subsequent EIR, and
 - 2) Only minor additions or changes would be necessary to make the previous EIR adequately apply to the project in the changed situation.
- (b) The supplement to the EIR need contain only the information necessary to make the previous EIR adequate for the project as revised.
- (c) A supplement to an EIR shall be given the same kind of notice and public review as is given to the draft EIR.
- (d) A supplement to an EIR may be circulated by itself without recirculating the previous draft or final EIR.
- (e) When the agency decides whether to approve the project, the decision-making body shall consider the previous EIR as revised by the supplemental EIR. A finding under Section 15091 shall be made for each significant effect shown in the previous EIR as revised.

The Greenspot Village & Marketplace Specific Plan 2013 EIR did not include an analysis of potential impacts to SBKR as the site was considered too disturbed to support them and they were considered absent from the site. The 2013 EIR indicated the site was determined to support marginal habitat for northwestern San Diego pocket mouse and San Diego desert woodrat was present in City Creek, has the potential to occur in Bledsoe Creek, but the onsite habitat is very marginal and therefore the potential for it to occur is low. However, additional trapping surveys conducted on the 21-acre parcel in Scenario One in 2016 and 2018 captured four individual SBKR as well as one individual San Diego desert woodrat and up to two individuals of northwestern San Diego pocket mouse. The results of the additional trapping surveys, which indicated occurrence of SBKR, San Diego pocket mouse, and northwestern San Diego pocket mouse within the northeastern portion of Scenario One, constitutes a *changed situation* related to sensitive biological resources in the project area. In addition, a new query of CDFW's California Natural Diversity Database (CNDDB) was completed to determine if any other sensitive plants or wildlife have been documented in the project area or the project vicinity after adoption of the EIR in 2013.

The 2013 EIR (Section 5.4.3 Environmental Impacts, page 5.4-9) indicated:

IMPACT 5.4-1: DEVELOPMENT OF THE PROPOSED PROJECT WOULD NOT HAVE A SUBSTANTIAL IMPACT ON SENSITIVE SPECIES, INCLUDING, BUT NOT LIMITED TO: BURROWING OWL, CALIFORNIA HORNED LARK, NORTHWESTERN SAN DIEGO POCKET MOUSE, OR SAN DIEGO DESERT WOODRAT. [THRESHOLD B-1]

Only minor additions and changes to the 2013 EIR are necessary to make the EIR adequately apply to the changed situation, of finding a small number of individuals of sensitive mammals on a portion of the site adjacent to City Creek and to include mitigation for potential impacts to San Bernardino kangaroo rat. Other minor additions are necessary to include the results of the current CNDDB database sensitive species occurrence results in the project vicinity. The additional sensitive species occurrences are identified in SDEIR Section 5.4 Biological Resources, 5.4.1 Environmental Setting, pages 5.4-4 and 5.4-5.

The SDEIR consists of minor revisions to Section 5.4 Biological Resources of the 2013 FEIR utilizing ~~strikethrough~~ to indicate deleted text and underline to indicate added text. Revisions include the results or additional information provided in the recently completed survey reports, which are included as Appendices to this SDEIR. These technical reports include Focused Presence/Absence Protocol Trapping for SBKR in 2016 and two in 2018 and a Focused Protocol Special-Status Plant Survey in 2018. Revisions also include IMPACT 5.4-1 to include San Bernardino kangaroo rat and required implementation of additional mitigation measures to ensure potential impacts to sensitive species remains less than significant. USFWS provided avoidance measures to be followed to ensure avoidance of "take" of SBKR. Implementation of avoidance

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measures approved by USFWS is incorporated into the added mitigation measure (4-3) for SBKR. The 2013 EIR indicated the proposed project would not have a substantial impact on sensitive species. After only minor additions and changes to Section 5.4 Biological Resources of the 2013 EIR that make the EIR adequately apply to the changed situation, the Supplemental Draft EIR analysis and conclusion remains that development of the proposed project would not have a substantial impact on sensitive species.

As outlined in the CEQA Guidelines, Section 15163(a)(2)(b) and (d), the supplement to the EIR needs to only contain the information necessary to make the previous EIR adequate for the proposed project and it may be circulated by itself without recirculating the previous draft or final EIR. Therefore, only Section 5.4 Biological Resources, requires revisions and is being recirculated for public review, along with the recently completed technical reports. No other sections of the EIR require revisions, such as cultural or Tribal resources, air quality, noise or traffic, as the new information and changed circumstances only applies to sensitive biological resources.

Section 15162 of the CEQA Guidelines outlines the parameters in which a Subsequent EIR would need to be prepared, as follows:

(a) *When an EIR has been certified or a negative declaration adopted for a project, no subsequent EIR shall be prepared for that project unless the lead agency determines, on the basis of substantial evidence in the light of the whole record, one or more of the following:*

(1) *Substantial changes are proposed in the project which will require major revisions of the previous EIR due to the involvement of new significant environmental effects or substantial increase in the severity of previously identified significant effects;*

(2) *Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or*

(3) *New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete, shows any of the following:*

(A) *The project will have one or more significant effects not discussed in the previous EIR or negative declaration;*

(B) *Significant effects previously examined will be substantially more severe than shown in the previous EIR;*

(C) *Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents declined to adopt the mitigation measure or alternative; or*

(D) *Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more*

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significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

A subsequent EIR is not required, as the substantial changes to the proposed project are not being proposed that would result in new significant environmental effects and the changed circumstances do not require major revisions of the previous EIR due to new significant effects or a substantial increase in the severity of previous identified significant effects.

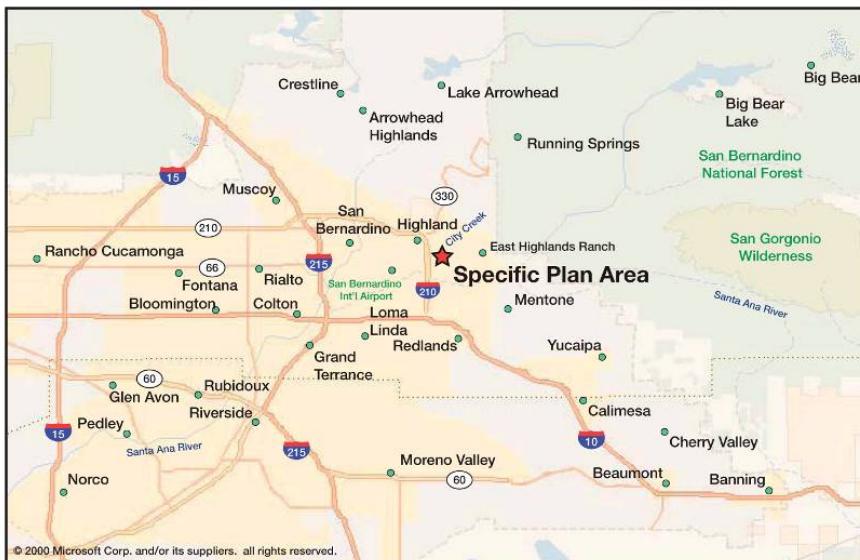
A supplement to the 2013 Greenspot Village & Marketplace SP EIR is further supported based on the following findings: 1) There are no changes to the project description and development footprint from what was analyzed in the 2013 EIR; and 2) Any changes to the project description and development footprint to avoid, minimize, and/or mitigate impacts to SBKR and/or occupied Critical Habitat would result in a smaller development footprint, less density of residential, and/or less intense commercial development, such that the worst-case scenario for development was already considered in the 2013 EIR and does not need to be re-analyzed. The Supplemental Draft EIR is being circulated to agencies and the public for a 45-day review period consistent with CEQA Guidelines, Section 15163(c). The Notice of Availability (NOA) of the Greenspot Village & Marketplace SP SDEIR is being provided to all of the same agencies and interested parties or organizations that received notice of the 2013 EIR. Any comment letters received on the Supplemental DEIR will be addressed in written responses to comments. The Supplemental Final EIR (including Responses to Comments and any revisions to the SDEIR), Findings, and revised Mitigation Monitoring and Reporting Program (MMRP) will be considered by the City Council.

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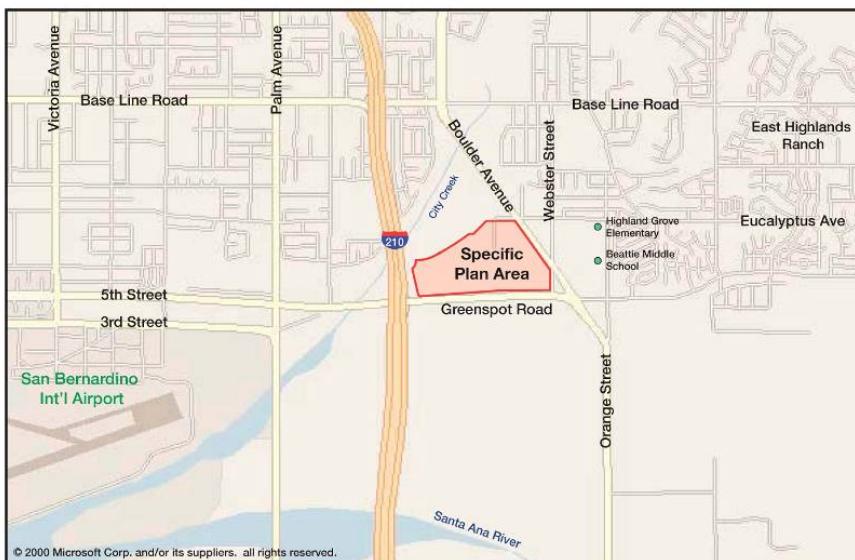
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Exhibit 1-1: Regional / Context Map

INTRODUCTION



Regional Context Map



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Exhibit 1-2: Aerial Photograph / Specific Plan Area

INTRODUCTION

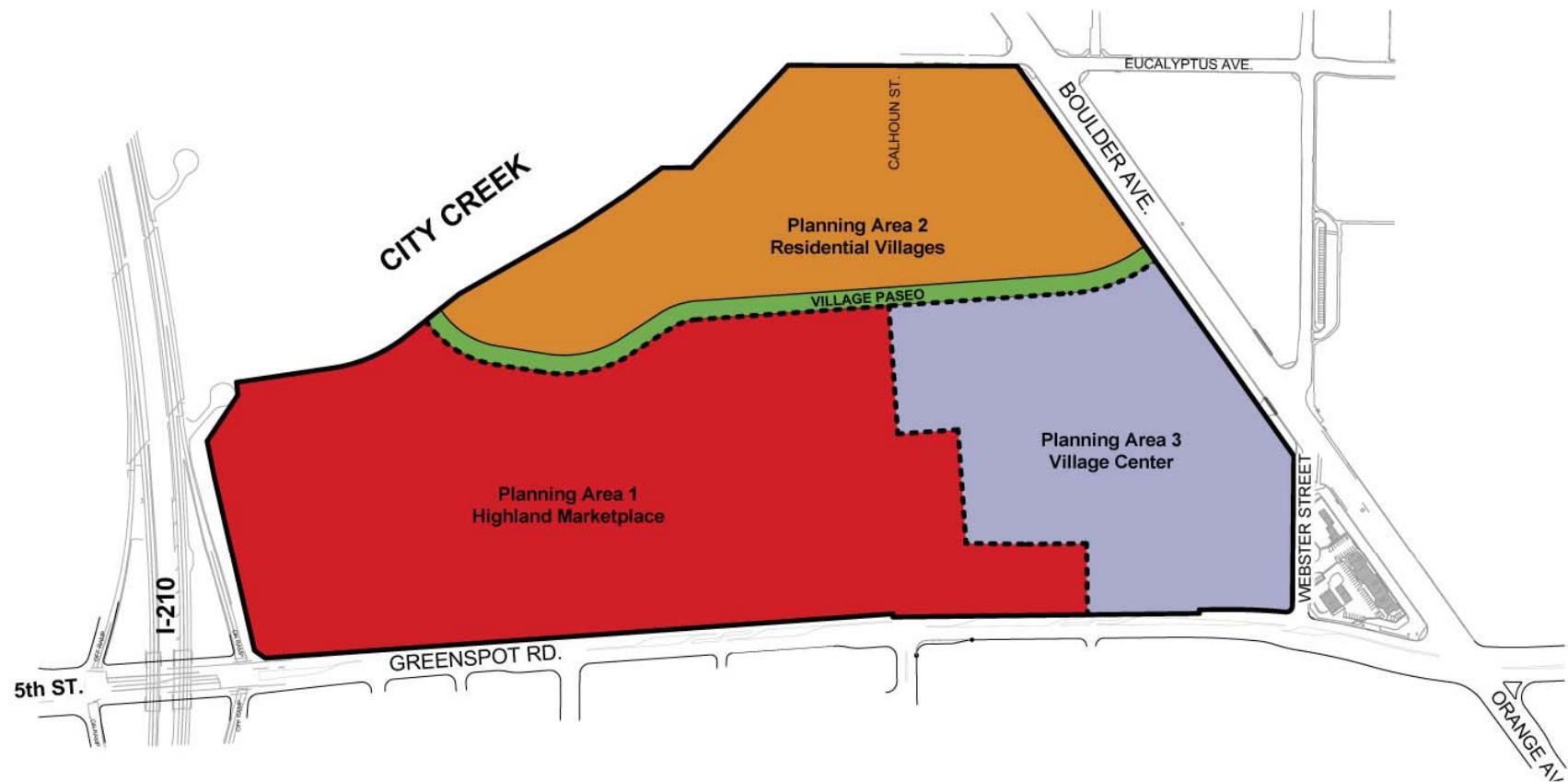


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Exhibit 2-1: Conceptual Land Use Plan, Scenario 1

LAND USE PLAN



Legend

- PA 1 - Highland Marketplace
- PA 2 - Residential Villages
- PA 2 - Village Paseo
- PA 3 - Village Center
- - - Planning Area Boundary
- Specific Plan Area

Source: Architects Orange

Land Use Summary, Scenario 1

Land Use Designation	Acres	Gross Square Feet	Density Range	Dwelling Unit Cap
PA 1 - Highland Marketplace	51	595,600 sf	N/A	N/A
PA 2 - Residential Villages (Village Paseo approx. 3.4 acres)	30	N/A	15-22 du/ac	550
PA 3 - Village Center	23	174,000 sf	25-40 du/ac	350
Total			769,600 square feet	Maximum 800 dwelling units*

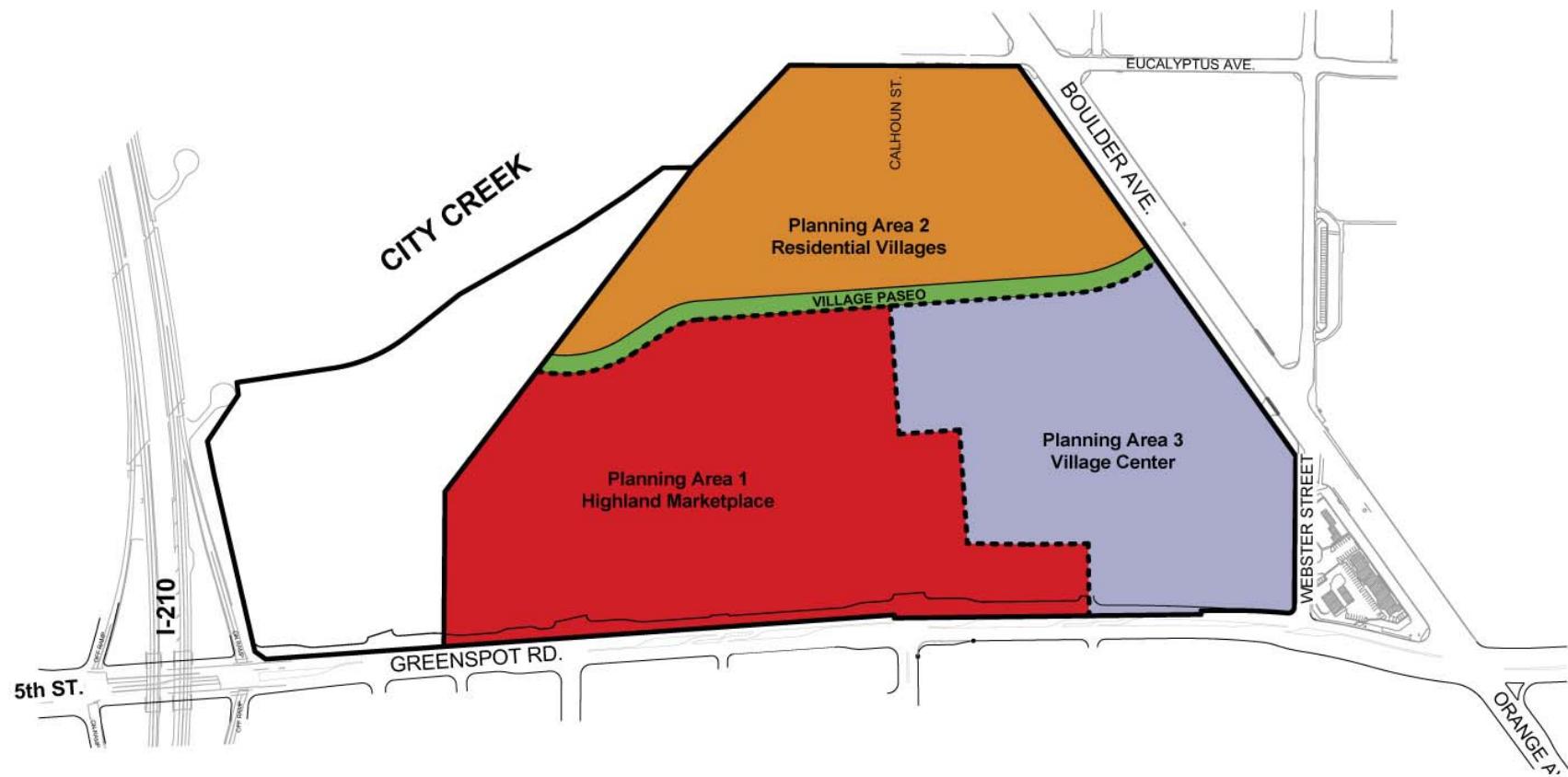
*Note: The maximum number of units to be developed in the entire Specific Plan area shall not exceed 800 units. For example, if 525 units are developed in Planning Area 2, then the total amount of units developed in Planning Area 3 cannot exceed 275 units.

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Exhibit 2-2: Conceptual Land Use Plan, Scenario 2

LAND USE PLAN



Legend

- PA 1 - Highland Marketplace
- PA 2 - Residential Villages
- PA 2 - Village Paseo
- PA 3 - Village Center
- - - Planning Area Boundary
- Specific Plan Area

Source: Architects Orange

Land Use Summary, Scenario 2

Land Use Designation	Acres	Gross Square Feet	Density Range	Dwelling Unit Cap
PA 1 - Highland Marketplace	35	380,600 sf	N/A	N/A
PA 2 - Residential Villages (Village Paseo approx. 2.8 acres)	25	N/A	15-22 du/ac	550
PA 3 - Village Center	23	174,000 sf	25-40 du/ac	350
Total			554,600 square feet	Maximum 800 dwelling units*

*Note: The maximum number of units to be developed in the entire Specific Plan area shall not exceed 800 units. For example, if 525 units are developed in Planning Area 2, then the total amount of units developed in Planning Area 3 cannot exceed 275 units.

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5. Environmental Analysis

BIOLOGICAL RESOURCES

5.4 BIOLOGICAL RESOURCES

This section of the Draft Environmental Impact Report (DEIR) evaluates the potential for the Greenspot Village & Marketplace Specific Plan (proposed project) to impact biological resources in the local and regional context of the City of Highland and San Bernardino County, respectively. The analysis in this section is based in part on the following technical reports:

- *Biological Survey Update for the Greenspot Village and Marketplace*, Shay Lawrey, Tom Dodson & Associates, June 9, 2008.
- *General Biological Survey for Greenspot Village and Marketplace*, Tom Dodson & Associates, October 2005.
- *San Bernardino Kangaroo Rat (SBKR) Presence/Absence Survey Report 21-acre parcel- E of the 210 Freeway, SE of City Creek, N of 5th St-Greenspot Rd., City of Highland, County of San Bernardino, California*, Bajada Ecology, LLC., May 28, 2018.
- *San Bernardino Kangaroo Rat (SBKR) Presence/Absence Survey Report 21-acre parcel- E of the 210 Freeway, SE of City Creek, N of 5th St-Greenspot Rd., City of Highland, County of San Bernardino, California*, Bajada Ecology, LLC., September 25, 2018.
- *Special-Status Plant Survey Report for the Greenspot Village and Marketplace Project Located in the City of Highland, San Bernardino County, California*, ELMT Consulting, July 18, 2018.
- *404 and 1602 Jurisdictional Delineation on Greenspot Village Marketplace Outfall Structure*, Lisa M. Tollstrup, Tom Dodson & Associates, June 2008.

Complete copies of these studies are included in the Technical Appendices to this DEIR (Volume I, Appendix G). The 2018 technical reports are included in Appendix A to this Supplemental DEIR.

5.4.1 Environmental Setting

A review of existing literature was carried out, including previous biological studies performed for the project site and vicinity and databases on sensitive species for the project area found in the California Department of Fish and Game (CDFG) California Natural Diversity Database (CNDDB).

A biological field survey of the site of Scenario Two of the proposed project was conducted on foot in 2005. A field survey of the entire project site (Scenario One), was conducted in 2007 also on foot. Flora and fauna were observed and noted. Observations of wildlife included scat, tracks, and burrows. All observed burrows were examined for shape, scat, pellets, and tracks. Complete lists of the animal and plant species that were noted during the biological surveys are available in Appendix G. Additional surveys were conducted for Scenario One property including a focused special-status plant survey conducted during the 2018 spring-summer blooming season and focused presence/absence trapping for the San Bernardino kangaroo rat in May and September 2018 (also available in Appendix G).

Existing Plant Communities/Habitat

The project site contains hard-packed bare ground, nonnative grasslands, and a few remnant individual native plants associated with alluvial fan and coastal sage scrub habitat. The whole site, as shown on the aerial

5. Environmental Analysis

BIOLOGICAL RESOURCES

photograph (previous Figure 3-3) and in site photographs (previous Figure 4-1) consists of ruderal, that is, disturbed habitat, with a few individual native plants that do not constitute a native "plant community" or "habitat." In addition, nearly the entire 20-acre parcel adjacent to City Creek, which forms the westernmost part of the site of Scenario One, consists of hard-packed bare ground that has been cleared of vegetation. Based on the 2018 survey of the Scenario One area, it is heavily disturbed land that is vegetated with a variety of non-native and early successional plant species consisting of highly compacted soils that do not support a native plant community. From 2006 to 2012 the project site was routinely graded with little to no vegetation. (ELMT 2018)

Nonnative Grassland

The plant community on nearly the entire site of Scenario Two is nonnative grassland. The dominant types of plants in this community include nonnative plants such as common Mediterranean grass (*Schismus barbatus*), oat (*Avena fatua*), grey mustard (*Hirschfeldia incana*), and cheatgrass (*Bromus spp.*), in addition to native shrubs such as deerweed (*Lotus scoparius*) and wire-lettuce (*Stephanomeria exigua*).

Sensitive Resources

Sensitive biological resources are: (1) species that have been given special recognition by federal, state, or local conservation agencies and organizations due to limited, declining, or threatened population sizes; (2) species and vegetation types recognized by local and regional resource agencies as sensitive; (3) habitat areas or plant communities that are unique, of relatively limited distribution, or of particular value to wildlife; and (4) wildlife corridors and habitat linkages.

Sensitive species that occur or potentially occur on the project site are based on one or more of the following: (1) direct observation of the species on the property during the biological surveys; (2) a record reported in the CNDB; and (3) the project site is within known distribution of a species and contains appropriate habitat.

Protection and Classifications

Protection of federally designated sensitive species is administered by the United States Fish and Wildlife Service (USFWS) under the authority of the Federal Endangered Species Act (FESA) of 1973. References to federally protected species in this DEIR (whether listed, proposed for listing, or candidate) are according to the most recent Threatened and Endangered Species System listings maintained by the USFWS.

These acronyms refer to federal special-status species:

- FE Federally listed as Endangered
- FT Federally listed as Threatened
- PFE Federally proposed for listing as Endangered
- PFT Federally proposed for listing as Threatened
- FC Federal candidate species (former C1 species)
- FSC Federal Species of Concern (former C2 species)

Species to be protected by the State of California are defined under the California Endangered Species Act (CESA) and protected by regulations administered by the CDFG. Unlike FESA, CESA does not include listing provisions for invertebrate species. Some mammals and birds are protected by the state as Fully Protected (SFP) Mammals or Fully Protected Birds, as described in the California Fish and Game Code, Sections 4700 and 3511, respectively. California Species of Special Concern (CSC) are species designated as vulnerable to extinction due to declining population levels, limited ranges, and/or continuing threats. Informally listed taxa are not protected but warrant consideration in the preparation of biotic assessments.

These acronyms refer to state special-status species:

- SE State listed as Endangered

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- ST State listed as Threatened
- SR State listed as Rare
- SCE State candidate for listing as Endangered
- SCT State candidate for listing as Threatened
- CSC California Special Concern Species (CDFG¹)

The California Native Plant Society (CNPS) is a private organization dedicated to the monitoring and protection of sensitive plant species in California. CNPS focuses on geographic distribution and qualitative characterization of rare, threatened, and endangered vascular plant species of California. Their inventory serves as the candidate list for listing species as threatened and endangered by CDFG¹. CNPS has developed ~~five-six~~ categories of rarity²:

- CRPR 1A California Rare Plant Rank 1A
- CRPR 1B California Rare Plant Rank 1B
- CRPR 2A California Rare Plant Rank 2A
- CRPR 2B California Rare Plant Rank 2B
- CRPR 3 California Rare Plant Rank 3
- CRPR 4 California Rare Plant Rank 4
- ~~List 1A Presumed extinct in California~~
- ~~List 1B Rare endangered in California and elsewhere~~
- ~~List 2 Rare endangered in California, more common elsewhere~~
- ~~List 3 Need more information~~
- ~~List 4 Plants of limited distribution~~

The biological survey included a search of the CNDDB for listings of occurrences of sensitive species in the Redlands 7.5-minute topographic quadrangle, where the project site is located. Occurrences of 35 species were listed within the Redlands quadrangle. The field surveys of the site included evaluation of the habitat on-site to determine whether there is appropriate habitat for any of these species. A query of the CNDDB on April 4, 2019 included 47 recorded occurrences of species in the Redlands 7.5-minute topographic quadrangle. The Redlands 7.5-minute topographic quadrangle includes Highland and Redlands, western San Bernardino and Loma Linda and San Timoteo Canyon.

Sensitive Plants

No state- or federally listed endangered or threatened plant species were observed on-site.

Table 1 of the Biological Survey Update (see Appendix G) indicates the status of sensitive plants and their potential to occur on-site, based on vegetation, soils, and the habitat types and ranges reported in the CNDDB for each species. The April 2019 query of the CNDDB includes occurrences for 2 plant species not included in Table 1 of the Biological Survey Update: Peruvian dodder (*Cuscuta obtusiflora* var. *glandulosa*) and California satintail (*Imperata brevifolia*). However, they are historic occurrences, from 1890 and 1891 respectively, and were documented outside of the project area. They are not anticipated to occur in the project site and therefore were not included in Table 1.

The CNDDB contained listings for 11 species of sensitive plants in the Redlands quadrangle. There is no appropriate habitat for any of these species on the project site. One of them, slender-horned spineflower

¹ The California Department of Fish and Game (CDFG) became the California Department of Fish and Wildlife (CDFW) effective January 1, 2013.

² The CNPS Ranking System was updated from the CNPS Inventory, 6th Edition, 2001 to the current 2019 Inventory, online edition, v8-03 0.39 (<http://www.rareplants.cnps.org>).

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(*Dodecahema leptocerus*), has some potential to occur in City Creek near the western site boundary, but not on-site. After floods in 2004, the portion of City Creek near the project site was cleared of vegetation between 2005 and 2007. No sensitive species have been identified in that portion of City Creek since the recent cleanup work.

A focused special-status plant survey was conducted in the Scenario One area (21-acre parcel) during the 2018 blooming season. Sensitive plant species surveyed for included Peninsular spineflower (*Chorizanthe leptotheca*), Parry's spineflower (*Chorizanthe parryi* var. *parryi*), slender-horned spineflower, Santa Ana River woollystar (*Eriastrum densifolium* ssp. *sanctorum*), and Robinson's pepper-grass (*Lepidium virginicum* var. *robinsonii*). Disturbances associated with historic land uses have precluded the project site from supporting native/undisturbed plant communities. The Scenario One area was systematically surveyed/inventoried and no special status plant species were observed.

Sensitive Animals

The San Bernardino kangaroo rat has been observed in the Scenario One area (northeastern portion of the 21-acre property). No other threatened or endangered animal species were observed on or adjacent to the project site.

CNDBB listings for the Redlands quadrangle consisted of 1 fish species, 1 amphibian species, 3 reptile species, 10 bird species, and 9 species of mammals. The status of each species and the potential for it to occur within or adjacent to the project site is indicated in Table 1 of the Biological Survey Update in Appendix G. Potential habitat was identified on-site for four species. The April 2019 query of the CNDBB includes occurrences for 1 fish species, 1 amphibian species, 4 reptile species, 1 bird species, 1 mammal species and 2 insect species not included in Table 1 of the Biological Survey Update. None of the additional 10 occurrences of animals and insects occur within or adjacent to the project area.

The fish species is California steelhead (*Oncorhynchus mykiss irideus*) a CSC was recorded along the Santa Ana River, but is possibly extirpated. The amphibian species is the western spadefoot toad (*Spea hammondii*), a CSC, was documented in 2015 east of the project site, in the Santa Ana River wash. Western spadefoot toads prefer open areas with sandy or gravelly soils in a variety of habitats including mixed woodlands, grasslands, coastal sage scrub, chaparral, sandy washes, river floodplains, alluvial fans, playas, alkali flats, foothills and mountains³. The project site does not contain suitable habitat for the western spadefoot toad.

The reptile species are California glossy snake (*Arizona elegans occidentalis*), coastal whiptail (*Aspidoscelis tigris stejnegeri*), red-diamond rattlesnake (*Crotalus ruber*), and two-striped gartersnake (*Thamnophis hammondi*), all CSC. California glossy snake's habitat includes arid scrub, rocky washes, grasslands, chaparral. It was documented in 2013-2015 east of the project area along the Santa Ana Wash area, near and south of Greenspot Road. Coastal whiptail lizard's habitat includes open areas with sparse foliage, including chaparral, woodland and riparian areas. It was documented 2014-2016 east of the project area just north of Greenspot Road. Red-diamond rattlesnake, habitat includes arid scrub, coastal chaparral, oak and pine woodlands, rocky grassland, and cultivated areas. It was documented 2015-2017 south and east of the project area along the Santa Ana Wash area. Two-striped gartersnake's habitat is generally found around pools, creeks, cattle tanks and other water sources, often in rocky areas, in oak woodland, chaparral, brushland and coniferous forest. It was documented in 2014 east of the project area near Greenspot Road. The habitat on-site is marginal for these reptiles, but they could occur. There is currently no regulatory protection for these species.

The additional bird species documented in the Redlands quadrangle is southern California rufus-crowned sparrow (*Aimophila ruficeps canescens*), currently on CDFW's watch list. Its habitat includes rocky areas of foothills and lower canyons, in understory of pine-oak woods, or in chaparral or coastal scrub⁴. It was documented in 2016 southwest of the project area in the hills between San Timoteo Canyon and Reche Canyon. The habitat

³ Habitat descriptions for amphibians and reptiles are from <https://www.californiaberps.com>

⁴ <https://www.audubon.org/field-guide/bird/rufous-crowned-sparrow>

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on-site is not suitable, and they are not expected to occur. There is currently no regulatory protection for these species.

The additional mammal species documented in the Redlands quadrangle is pocketed free-tailed bat (*Nyctinomops femorosaccus*), a CSC. This species has been found associated primarily with Sonoran creosote bush and chaparral habitats in association with prominent rock features, very large boulder jumbles or rocky canyons⁵. This bat was documented in 1985 generally in the San Bernardino area. The habitat on-site is not suitable, and they are not expected to occur. There is currently no regulatory protection for these species.

The two insect species documented in the Redlands quadrangle are crotch bumble bee (*Bombus crotchii*) in 1933 and Busck's gallmoth (*Carolella busckana*), no date, both generally in the Loma Linda area. They do not have listing status. The gallmoth is presumed extirpated. Neither are expected in the project area.

Burrowing Owl (Athene cunicularia)

The burrowing owl is considered a CSC. They occur in prairies, grasslands, lowland scrub, agricultural lands (particularly rangelands), coastal dunes, desert floors, and some artificial and open areas. In Southern California, some burrowing owls are year-long residents, while others are migratory, wintering in Southern California and migrating to the northern United States or to Canada during the summer (USFS 2008). In developed regions they may occur in such places as golf courses and vacant lots. They require large open expanses of sparsely vegetated areas on gently rolling or level terrain with an abundance of active small mammal burrows. As a critical habitat feature need, they require the use of rodent or other burrows for roosting and nesting cover.

The field surveys of the site included examination of all observed burrows for shape, scat, pellets, and tracks. The bases of perennial shrubs were checked for burrows and signs. No burrows of appropriate size and shape for burrowing owl were found. No sign of historic or current presence of burrowing owl was found on or adjacent to the site. Site soils are compacted and thus not suitable for burrowing owl nesting sites.

California Horned Lark (Eremophila alpestris actia)

The California horned lark, classified as a CSC, lives in short-grass prairie, "bald" hills, mountain meadows, open coastal plains, fallow grain fields, and alkali flat habitats (CDFG 2008). California horned larks are year-round residents in southern California. The habitat on-site is semi suitable. This species was not found during the survey.

Northwestern San Diego Pocket Mouse (Chaetodipus fallax fallax)

The San Diego pocket mouse, classified as a CSC, inhabits coastal sage scrub and chaparral communities, as well as the borders between sage scrub and grasslands. It inhabits open, sandy areas of southwestern California and northern Baja California. The San Diego pocket mouse generally shows a strong affinity for moderately gravelly and rocky soils. The habitat on-site is marginal, but the species is expected to occur. There is currently no regulatory protection for this species.

San Diego Desert Woodrat (Neotoma lepida intermedia)

The San Diego desert woodrat, considered to be a CSC, lives in high desert areas, chaparral, sagebrush flats, pinyon-juniper woodland, and in desert trees such as catclaw acacia and Joshua tree. The species was present in City Creek and still has the potential to occur there in addition to Bledsoe Creek. However, ~~it does not occur on-site~~, and there is very marginal habitat on-site and the occurrence potential is low.

On-site habitat is considered to be suitable for foraging, though not for roosting, by two additional species. The pallid bat (*Antrozous pallidus*) feeds at night, mostly on arthropods such as insects, centipedes, and scorpions, taking prey both from the ground and in midair. It usually roosts in rock crevices and buildings. The western

⁵ <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=84486>

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mastiff bat (*Eumops perotis californicus*) are insectivores that eat mostly moths. Roosts are generally found in canyons and cliffs, although this bat will also roost in buildings; the bat requires at least 6.5 feet of vertical free space beneath its roosting site for initiating flight. There are no roosting sites and habitat elements capable of supporting these two species, however they may forage in the area.

San Bernardino Kangaroo Rat (*Dipodomys merriami parvus*)

The San Bernardino kangaroo rat (SBKR), is federally listed as endangered and is a state CSC. There are 19 subspecies of Merriam's kangaroo rat (*Dipodomys merriami*), three of which occur in California, including SBKR. Of the six primary and recently occupied locations in the San Bernardino and San Jacinto Valleys, only three sites (Santa Ana River and its tributaries, Cajon and Lytle Creeks, and San Jacinto and Bautista Creeks) support robust, sustaining populations of SBKR and large contiguous patches of occupied habitat.

SBKR are found primarily on well drained, sandy loam substrates, characteristic of alluvial fan and floodplains. Soil texture is a primary factor in determining species' distributions. The habitat of SBKR is described as inland valley scrub communities (and more specifically primary and secondary alluvial fan sage scrub) occurring along rivers, streams, and drainages where they dig burrows in loose soil, usually near or beneath shrubs. Loose soils allow SBKR to dig simple, shallow burrow systems for shelter and rearing offspring, and surface pits for food storage. *D. merriami*, and other kangaroo rat species, actively avoid rocky substrates.

Past habitat losses and potential future losses prompted the emergency listing of SBKR as an endangered species in 1998 by the USFWS and designating 33,294 acres of Critical Habitat, which included 7,779 acres in San Bernardino and Riverside Counties.

Jurisdictional Waters and Wetlands

The Jurisdictional Delineation did not report, any jurisdictional waters or wetlands on-site. City Creek is considered to be Waters of the United States.⁶ The area between the ordinary high-water marks on each side of the Creek is under the jurisdiction of the United States Army Corps of Engineers (Corps). There are no wetlands jurisdictional to the Corps. In the portion of City Creek that is adjacent to the project site. The area within the bed and bank of City Creek is within the jurisdiction of CDFGW.

Regulatory Setting

Federal, state, regional and local laws, regulations, plans, or guidelines that are potentially applicable to the proposed project are summarized below.

Federal

Endangered Species Act

The FESA of 1973, as amended, was promulgated to protect and conserve any species of plant or animal that is endangered or threatened with extinction and the habitats in which these species are found. "Take" of endangered species is prohibited under Section 9 of the FESA. "Take," as defined under the FESA, means to "harass, harm, pursue, hunt, wound, kill, trap, capture, collect, or attempt to engage in any such conduct." Section

⁶ "Waters of the United States" as it applies to the jurisdictional limits of the authority of the Corps of Engineers under the Clean Water Act, includes: all waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide; all interstate waters including interstate wetlands; all other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce; water impoundments; tributaries of waters; territorial seas; wetlands adjacent to waters. The terminology used by Section 404 of the Clean Water Act includes "navigable waters" which is defined at Section 502(7) of the Act as "waters of the United States including the territorial seas."

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7 requires federal agencies to consult with the USFWS on proposed federal actions which may affect any endangered, threatened or proposed (for listing) species or critical habitat that may support the species. Section 4(a) requires that critical habitat be designated by the USFWS "to the maximum extent prudent and determinable, at the time a species is determined to be endangered or threatened." Critical habitat is formally designated by USFWS to provide guidance for planners/managers and biologists with an indication of where suitable habitat may occur and where high priority of preservation for a particular species should be given. Section 10 provides the regulatory mechanism that allows the incidental take of a listed species by private interests and nonfederal government agencies during lawful activities. Habitat Conservation Plans (HCPs) for the impacted species must be developed in support of incidental take permits for nonfederal projects to minimize impacts to the species and develop viable mitigation measures to offset the unavoidable impacts.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act of 1918 (MBTA), is the domestic law that affirms or implements the United States' commitment to international conventions with Canada, Japan, Mexico, and Russia for the protection of shared migratory bird resources. The MBTA governs the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests. It prohibits the take, possession, import, export, transport, sale, purchase, barter, or offering of these activities, except under a valid permit or as permitted in the implementing regulations. USFWS administers permits to take migratory birds in accordance with the regulations promulgated by the MBTA.

Clean Water Act, Section 404

The Corps regulates discharges of dredged or fill material into "waters of the U.S." including wetlands and no wetland bodies of water that meet specific criteria. Pursuant to Section 404 of the federal Clean Water Act (CWA), a permit is required for any filling or dredging within waters of the U.S. The permit review process entails an assessment of potential adverse impacts to Corps wetlands and jurisdictional waters, wherein the Corps may require mitigation measures. Where a federally listed species may be affected, a Section 7 consultation with USFWS may be required. If there is potential for cultural resources to be present, Section 106 review may be required. Also, where a Section 404 permit is required, a Section 401 Water Quality Certification would also be required from the Regional Water Quality Control Board (RWQCB).

Clean Water Act, Section 401 and 402

Section 401(a)(1) of the CWA specifies that any applicant for a federal license or permit to conduct any activity that may result in any discharge into navigable waters shall provide the federal permitting agency a certification, issued by the state in which the discharge originates, that any such discharge will comply with the applicable provisions of the CWA. In California, the applicable RWQCB must certify that the project will comply with water quality standards. Permits requiring Section 401 certification include Corps Section 404 permits and National Pollutant Discharge Elimination System (NPDES) permits issued by the Environmental Protection Agency (EPA) under Section 402 of the CWA. NPDES permits are issued by the applicable RWQCB. The City of Highland is within the jurisdiction of the Santa Ana RWQCB (Region 8).

State

California Fish and Game Code, Section 1600

Section 1600 of the California Fish and Game Code requires that a project proponent notify the California Department of Fish and Game (CDFG⁷) of any proposed alteration of streambeds, rivers, and lakes. The intent

⁷ Now CDFW, as outlined above.

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is to protect habitats that are important to fish and wildlife. CDFG may review a project and place conditions on the project as part of a Streambed Alteration Agreement (SAA). The conditions are intended to address potentially significant adverse impacts within CDFW's jurisdictional limits.

California Endangered Species Act

The CESA generally parallels the main provisions of the FESA and is administered by CDFG. Its intent is to prohibit take and protect state-listed endangered and threatened species of fish, wildlife, and plants. Unlike its federal counterpart, CESA also applies the take prohibitions to species petitioned for listing (state candidates). Candidate species may be afforded temporary protection as though they were already listed as threatened or endangered at the discretion of the Fish and Game Commission. Unlike the FESA, CESA does not include listing provisions for invertebrate species. Under certain conditions, CESA has provisions for take through a 2081 permit or Memorandum of Understanding (MOU). In addition, some sensitive mammals and birds are protected by the state as Fully Protected Species. Fully Protected Species may not be taken or possessed at any time and no licenses or permits may be issued for their take except when collecting these species for necessary scientific research and relocating for the protection of livestock. California Species of Special Concern are species designated as vulnerable to extinction due to declining population levels, limited ranges, and/or continuing threats. This list is primarily a working document for the CNDDB project, a database of known and recorded occurrences of sensitive species. Informally listed taxa are not protected per se but warrant consideration in the preparation of biological resources assessments.

Regional

Santa Ana River Area of Critical Concern/Research Natural Area

In 1994, the Bureau of Land Management (BLM) designated three parcels (totaling 760 acres) in the Santa Ana River as an Area of Critical Concern (ACEC) and Research Natural Area (RNA) for the protection of habitat for two federally listed endangered plants, Santa Ana River woolly star (*Eriastrum densifolium* ssp. *sanctorum*) and slender-horned spineflower (*Dodecahema leptoceras*). None of the sites or Scenario One or Scenario Two are within the ACEC/RNA (Lawrey 2009).

Woolly Star Preservation Area

In 1998, the Corps and three flood control districts established the Woolly Star Preservation Area (WSPA), permanently reserving 764 acres in the Santa Ana River floodplain to protect the Santa Ana River woollystar from the effects of the Seven Oaks Dam flood control improvements (part of the Santa Ana River Mainstem Project initiated in 1990). Approximately 200 acres of the WSPA also appear to be habitat for the federally listed endangered San Bernardino kangaroo rat (*Dipodomys merriami parvus*). A portion of the WSPA is within the City limits, southeast of the intersection of Greenspot Road and Weaver Street.

The Santa Ana River woollystar lives on sandy soils in river floodplains or terraced alluvial deposits, within coastal scrub and chaparral habitats. It is not present in or adjacent to the project site as suitable habitat is not present. There is some potential for it to occur in City Creek; however, the segment of City Creek near project site was cleared of vegetation between 2005 and 2007 during repair work.

San Bernardino Kangaroo Rat Critical Habitat

Critical Habitat identifies specific areas, both occupied and unoccupied by a federally protected species, that are essential to the conservation of a listed species and may require special management considerations or protection. The location of a proposed project within Critical Habitat typically warrants a habitat assessment and, if suitable habitat is present, focused (protocol) surveys to determine presence or absence of the listed species. Any project involving a federal agency, federal monies, or a federal permit that falls within an area designated as Critical Habitat requires the project proponent to consult with the USFWS regarding potential impacts to the listed species and conservation measures to offset identified impacts:

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The San Bernardino kangaroo rat was emergency listed as endangered in January 1998, when its population had been reduced by approximately 95 percent due to habitat loss, urban development, degradation, water conservation activities, and fragmentation owing to sand and gravel mining operations. The species are typically found on alluvial fans, in floodplains, along washes, in adjacent upland areas, and in areas with historic braided channels. Final designation of critical habitat for the San Bernardino kangaroo rat was issued in April 2002 (Department of the Interior 2002). Approximately 33,295 acres in San Bernardino and Riverside Counties have been designated as Critical Habitat for the species. Portions of the City of Highland are within Critical Habitat Unit 1 (Santa Ana River and San Timoteo Canyon), which covers, roughly, the areas encompassing City Creek, Plunge Creek, and the Santa Ana River wash. The project site is within Critical Habitat for the San Bernardino kangaroo rat as designed by the USFWS.

San Bernardino kangaroo rat occupied City Creek prior to floods in 2004; it has not been detected ~~in the Creek in the vicinity of the project site since then until 2016. This species does not occur on-site as the project site is not considered to be suitable habitat for the species because the soils are too compacted, and there is no vegetation associated with this species.~~ This species was detected in the northeastern portion of Scenario One in March 2016 and May 2018 in upland areas adjacent to City Creek. Although the entire project site (Scenario One) has degraded quality habitat for this species, with very little vegetative cover and compacted soils, they have been found and documented in a portion of Scenario One (northwest portion of a 21-acre parcel), and other portions of the Specific Plan Area may also support this species, especially those areas closest to and adjacent to City Creek and Bledsoe Gulch.

Coastal California Gnatcatcher Critical Habitat

The coastal California Gnatcatcher (*Polioptila californica californica*) is a federally listed threatened, CSC that typically occurs in or near coastal sage scrub habitat. The species was listed as threatened in 1993. A revised final designation of Critical Habitat for the species (50 CFR Part 17) was issued by the USFWS in December 2007. The designated habitat consists of 197,303 acres in a six-county area of southwestern California, Ventura to San Diego County. The coastal California gnatcatcher Critical Habitat nearest to the project site is in the City of Loma Linda, 5.8 miles southwest of the project site (USFWS 2007). No suitable habitat for the coastal California gnatcatcher was found on or adjacent to the project site.

Upper Santa Ana River Wash Land Management and Habitat Conservation Plan

The San Bernardino Valley Water Conservation District (SBVWCD) circulated the Draft EIR for the Upper Santa Ana River Wash Land Management and Habitat Conservation Plan (Plan) on March 21, 2008. The Plan area would consist of 4,467 acres in the floodplain of the Santa Ana River, extending eastward approximately six miles from Alabama Street, which is 0.6 mile west of the project site. The nearest boundary of the Plan area to the project site would be approximately 1,200 feet south of the site. The Plan would include 1,947 acres of habitat conservation areas providing protection for five sensitive species: the Santa Ana River woollystar, the slender-horned spineflower, the coastal California gnatcatcher, the San Bernardino kangaroo rat, and the Los Angeles pocket mouse (SBVWCD 2008).

Local

City of Highland General Plan

The Highland General Plan includes policies related to the protection and preservation of biological resources. The following are policies In the City's General Plan that are relevant to the proposed project.

- **Biological Resources Element; Policy 4 (page 5-21).** Design lighting systems to avoid intrusion of night lighting into the sensitive area.

City of Highland Land Use and Development Code

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The following are provisions in the City of Highland's Land Use and Development Code (Title 16 of the Municipal Code) that are relevant to the proposed project:

Chapter 16.64 (Environmental Management);

- **Section 6.64.040 (Heritage Tree Preservation Requirements).** Heritage trees are defined as any live woody plant more than 15 feet in height and with a single-trunk circumference of 24 inches or greater; or a multi-trunk tree with total circumference of 30 inches or greater; or a stand of trees in which each is dependent on the others for survival; or any other tree as may be deemed historically or culturally significant by the Community Development Director or designee because of size, condition, location, or aesthetic qualities (City of Highland Municipal Code section 8.36.020). Relocation, removal, or destruction of heritage trees is prohibited without first obtaining a tree removal permit from the Community Development Director. Exceptions to this policy are specified in said section.
- **Section 16.64.050 (Riparian Plant Conservation).** The removal of any vegetation within 25 feet of the drip line of riparian vegetation along a USGS blueline stream or indicated as a protected riparian area on a community or specific plan, shall be subject to a tree removal permit in accordance with the procedures detailed by this section and shall be subject to environmental review.

5.4.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

- B-1 Have a substantial 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 Game⁸ or U.S. Fish and Wildlife Service.
- B-2 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.
- B-3 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.
- B-4 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.
- B-5 Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- B-6 Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

The Initial Study included as Appendix A, substantiates that impacts associated with the following thresholds would be less than significant: B-6. This impact will not be addressed in the following analysis.

⁸ Now CDFW, as outlined above.

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5.4.3 Environmental Impacts

The project would involve the destruction of approximately 80 acres of nonnative grassland.

The following impact analysis addresses thresholds of significance for which the Initial Study disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

IMPACT 5.4-1: DEVELOPMENT OF THE PROPOSED PROJECT WOULD NOT HAVE A SUBSTANTIAL IMPACT ON SENSITIVE SPECIES, INCLUDING, BUT NOT LIMITED TO: CALIFORNIA GLOSSY SNAKE, COASTAL WHIPTAIL LIZARD, RED-DIAMOND RATTLESNAKE, TWO-STRIPED GARTERSNAKE, BURROWING OWL, CALIFORNIA HORNED LARK, SAN BERNARDINO KANGAROO RAT, NORTHWESTERN SAN DIEGO POCKET MOUSE, OR SAN DIEGO DESERT WOODRAT WITH IMPLEMENTATION OF MITIGATION MEASURES. [THRESHOLD B-1]

Impact Analysis: ~~The proposed project would not have any adverse impacts on listed or sensitive species as they do not occur on the project site and due to recent site disturbance, have little or no potential for occupying the site.~~ The project site contains semi-suitable habitat for California homed lark, California glossy snake, coastal whiptail lizard, red-diamond rattlesnake, and two-striped gartersnake, marginal habitat for Northwestern San Diego pocket mouse, and very marginal habitat for San Diego desert woodrat and San Bernardino kangaroo rat. Semi suitable habitat contains some, though not all, elements of a suitable habitat; those elements include soil, food sources, vegetation, and nesting or denning sites. Marginal habitat contains fewer habitat elements, and very marginal fewer still. Regarding the project site, these categorizations of habitat refer mainly to soils on the site.

Burrowing owl is not expected to occur on the site due to compacted soils. None of these species were observed on-site during the biological survey, although northwestern San Diego pocket mouse is expected to occur on the site. As with any development there may be an increased potential for indirect impacts to sensitive species that occupy or use City Creek and Bledsoe Gulch; Bledsoe Gulch extends northeast-southwest offsite and passes near the northern site boundary as shown in Figure 3-3, Aerial View. Indirect impacts could consist of nighttime lighting and intrusion or damage to habitat by children and domestic animals. Note that due to past development in the area, indirect damage to the two creek channels already exists.

The project site is within Critical Habitat designated for San Bernardino kangaroo rat by USFWS; however, the site does not contain suitable habitat for the San Bernardino Kangaroo Rat and no additional surveys are required. Therefore, the project development is not expected to adversely impact the San Bernardino Kangaroo Rat.

Although burrowing owls are not expected to occur on site, mitigation (4-1 below) is required to ensure potential impacts to this species, if they were to start nesting at the site, are reduced to less than significant levels. Although the project site is disturbed and nesting habitat for California horned lark and other migratory birds is marginal, mitigation (4-2 below) is required to ensure potential impacts to these birds are reduced to less than significant levels.

Although the project site has been significantly disturbed and habitat for northwestern San Diego pocket mouse, San Diego desert woodrat, and San Bernardino kangaroo rat is marginal to very marginal, focused trapping surveys conducted in 2016 and 2018 indicated that these mammals do occur in small numbers in the northeastern portion of the project site adjacent to City Creek. The loss of disturbed marginally suitable habitat for northwestern San Diego pocket mouse and San Diego desert woodrat and the loss of a small number of these individuals is not considered significant and does not require mitigation. The loss of disturbed marginally suitable habitat for California glossy snake, coastal whiptail lizard, red-diamond rattlesnake, and two-striped gartersnake and the potential loss of a small number of these individuals is not considered significant and does not require mitigation. However, due to the endangered status of SBKR and limited distribution of this species in San

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Bernardino and Riverside Counties, direct impacts to SBKR individuals and loss of occupied Critical Habitat would need implementation of mitigation measure 4-3 below to be reduced to less than significant levels.

IMPACT 5.4-2: DEVELOPMENT OF THE PROPOSED PROJECT WOULD NOT IMPACT RIPARIAN HABITAT OR OTHER SENSITIVE NATURAL COMMUNITIES [THRESHOLD B-2]

Impact Analysis: The project site consists of nonnative grassland; barren, compacted ground; and a few individual native plants associated with alluvial fan and coastal sage scrub habitats. There are no sensitive natural communities or riparian habitat within the project site. There are two creek channels adjacent to the project site: City Creek and Bledsoe Gulch, bordering the western and northwestern site boundaries, respectively. The project would include construction of a storm drain outlet within the City Creek channel; however, there is no riparian vegetation at the site of the proposed outlet or within the area that would be impacted by construction of the outlet.

The project may have indirect impacts to riparian habitat in City Creek and Bledsoe Gulch, such as nighttime lighting, and intrusion and habitat damage by children and domestic dogs and cats.

IMPACT 5.4-3: THE PROPOSED PROJECT WOULD INCLUDE CONSTRUCTION OF A STORM DRAIN OUTLET STRUCTURE WITHIN CITY CREEK. THE OUTLET STRUCTURE AND ITS CONSTRUCTION WOULD IMPACT 0.15 ACRE OF STREAMBED AND WATERS OF THE STATE, WHICH ARE UNDER THE JURISDICTION OF THE CALIFORNIA DEPARTMENT OF FISH AND GAME⁹. [THRESHOLD B-3]

Impact Analysis: The proposed project would include construction and operation of a storm drain outlet structure within City Creek. The location of this structure is shown on Figure 3-9, *Proposed Storm Drain Outlet Structure Location* and a conceptual plan is shown on Figure 3-10, *Proposed Storm Drain Outlet Structure Plan*. The outlet structure would discharge drainage from the bioswale between Planning Areas 1 and 2; it would comprise 0.09 acre of permanent fill within the bed and bank of City Creek, which is designated as Waters of the State and streambed and is therefore within the jurisdiction of CDFG. Construction of the structure would involve temporary use of an 0.06-acre for access and a turnaround. The 0.06 area is also within the bed and bank of City Creek, and thus within CDFG's jurisdiction. The project would require a CDFG Streambed Alteration Agreement under Section 1600 et seq. of the California Fish and Game Code. The total area within the streambed of City Creek that would be impacted by the project would be 0.15 acre. This area is not between the ordinary high water marks of City Creek and is therefore not considered to be Waters of the United States; neither does it contain any wetlands. Consequently, the project would not impact any area within the jurisdiction of the Corps.

IMPACT 5.4-4: THE PROPOSED PROJECT WOULD NOT SUBSTANTIALLY AFFECT WILDLIFE MOVEMENT. [THRESHOLD B-4]

Impact Analysis: The project site consists of disturbed nonnative grassland and barren ground, and does not contain native habitat. To the south is Greenspot Road followed by commercial uses, commercial uses under construction, and vacant land; to the east are Boulder Avenue and Webster Street followed by commercial uses and two schools; to the north are residential uses and vacant land; and to the west, by City Creek followed by SR-210, then by residential and commercial uses. The project site is not part of a substantial wildlife movement corridor.

City Creek is adjacent to the western boundary of the project site, while Bledsoe Gulch is adjacent to the northwestern site boundary. These creeks are each assumed to function as wildlife movement corridors between the San Bernardino Mountains north and northeast of the site and the Santa Ana River to the south. Each of these channels is surrounded by intensely developed urban and suburban uses from the confluence of City Creek and the Santa Ana River southwest of the site to the base of the San Bernardino Mountains north and northeast

⁹ Now CDFW, as outlined above.

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of the site. Such uses include transportation, heavy industry, and commercial and residential uses. The proposed project would add to the existing urban development adjacent to these creeks, but there would be no direct effect on either creek other than the proposed storm drain outlet into City Creek west of the project site.

Indirect project effects on these two creeks would consist of night lighting; and Intrusion and damage to habitat by domestic animals (dogs and cats) and children.

IMPACT 5.4-5: THERE ARE SEVERAL TREES ON THE PROJECT SITE THAT ARE PROTECTED BY ORDINANCE, AND THE PROJECT APPLICANT WOULD BE REQUIRED TO OBTAIN PERMITS FROM THE CITY OF HIGHLAND BEFORE REMOVING OR RELOCATING THOSE TREES. [THRESHOLD B-5]

Impact Analysis: The City of Highland has ordinances protecting heritage trees, front yard trees, riparian vegetation, and hillsides. The project site does not contain hillsides or riparian vegetation or habitat. There are a number of trees on the properties of residences in the northern portion of the project site; several of these trees appear to meet the definition of heritage trees (more than 15 feet in height with a single-trunk circumference of 24 inches or greater). There are several trees on a residential property on Webster Street; these trees were leafless at the time of a site visit on March 12, 2008 and appear to be dead. There are a few scattered palm trees along the southern edge of the project site adjacent to Greenspot Road; several of these palm trees also appear large enough to be heritage trees. All of these trees are within Scenarios One and Two of the proposed project. In accordance with Section 16.64.040, Heritage Trees, of the City's Municipal Code, the project applicant would be required to obtain permits from the Community Development Director for the relocation, removal, or destruction of any designated heritage trees.

One project component, a storm drain outlet, would be constructed within City Creek, but in a portion of the channel that does not contain riparian vegetation or trees. The storm drain outlet would be constructed in Scenarios One and Two of the proposed project. The proposed project would not conflict with City of Highland ordinances protecting trees, riparian vegetation and hillsides.

5.4.4 Cumulative Impacts

Table 4-1 and Figure 4-3 identify cumulative projects in the Cities of Highland, Redlands, and San Bernardino, and in unincorporated areas of San Bernardino County. Most of these are in areas that are already developed with urban uses, and thus are not expected to have substantial adverse effects on sensitive species or sensitive habitats. Each project would be required to comply with existing regulations protecting biological resources, including the federal and State Endangered Species Acts, the Clean Water Act, and the California Fish and Game Code. Such compliance would help limit cumulative impacts on biological resources.

Five of the cumulative projects are within Critical Habitat for the San Bernardino kangaroo rat. Each of these projects would be required under the federal Endangered Species Act to have surveys conducted of their respective project sites for suitable habitat for the San Bernardino kangaroo rat. If suitable habitat is found, the affected project would be required to consult with the USFWS to find ways to avoid or mitigate any impact on the San Bernardino kangaroo rat. Suitable habitat for the San Bernardino kangaroo rat was not found within the confines of the project site and therefore no further surveys were deemed necessary from 2005 through 2013.

SBWCD is preparing a Land Management and Habitat Conservation Plan for an area of approximately 4,467 acres in the Upper Santa Ana River Wash. None of the related projects would be located within the area of the proposed plan.

The analysis of the proposed project's impacts on biological resources above did not identify any substantial adverse impacts on any sensitive species, after implementation of required mitigation measures. The project would impact approximately 0.15 acre of CDFG jurisdictional area within City Creek. The minimal biological

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resource impacts of the proposed project would not combine with other projects to result in a cumulatively considerable impact on biological resources.

5.4.5 Existing Regulations

Federal

- Endangered Species Act
- Statewide General Construction NPDES Permit (Order 99-08-DWQ)

State

- California Fish and Game Code, Section 1600 et seq. (Streambed Alteration Agreement)

City of Highland

- Municipal Code Section 16.64.040: Heritage Trees

5.4.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements, mitigation measures, and standard conditions of approval the following impacts would be less than significant: 5.4-1, 5.4-2, and 5.4-5.

Without mitigation, the following impacts would be potentially significant:

- Impact 5.4-1 The project could affect, either directly or through habitat modifications, sensitive species, including the California glossy snake, coastal whiptail lizard, red-diamond rattlesnake, two-striped gartersnake, burrowing owl, California horned lark, San Bernardino kangaroo rat, northwestern San Diego pocket mouse, or San Diego desert woodrat.
- Impact 5.4-3 The project would impact approximately 0.15 acre of CDFG jurisdictional wetlands.
- Impact 5.4-4 The project could have indirect impacts on wildlife movement in City Creek and Bledsoe Gulch arising from nighttime lighting and from intrusion and damage by domestic animals and children.

5.4.7 Mitigation Measures

Impact 5.3-1

4-1 Pre-construction presence/absence surveys for burrowing owls shall be conducted for all properties within the Specific Plan area within 30 days prior to any onsite ground disturbing activity. The burrowing owl survey shall be conducted pursuant to current recommended guidelines established by the California Department of Fish and Wildlife. In the event this species is not identified within the project limits, no further mitigation is required. If during the pre-construction survey burrowing owls are identified, then the following shall be implemented:

- Active nests within the areas scheduled for disturbance or degradation shall be avoided from February 1 through August 31, and a minimum of 250-foot buffer shall be provided until fledging has occurred. Following fledging, owls may be passively relocated by a qualified biologist.
- If impacts on occupied burrows in the non-nesting period are unavoidable, on-site passive relocation techniques may be used if approved by the CDFW to encourage owls to move to alternative burrows outside of the impact area.

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- If relocation of the owls is approved for the site by CDFW, the City shall require the developer to hire a qualified biologist to prepare a plan for relocating the owls to a suitable site. The relocation plan must include all of the following:
 - The location of the nest and owls proposed for relocation.
 - The location of the proposed relocation site.
 - The number of owls involved and the time of year when the relocation is proposed to take place.
 - The name and credential of the biologist who will be retained to supervise the relocation.
 - The proposed method of capture and transport for the owls to the new site.
 - A description of site preparation at the relocation site (e.g., enhancement of existing burrows, creation of artificial burrows, one-time or long-term vegetation control).

4-2 A California horned lark and migratory nesting bird survey shall be conducted for all properties within the Specific Plan area by a qualified biologist within 30 days prior to initiating vegetation clearing or ground disturbance. If active nests are found during the pre-construction nesting bird surveys, a Nesting Bird Plan (NBP) shall be prepared and implemented. At a minimum the NBP shall include guidelines for addressing active nests, establishing buffers, monitoring, and reporting. The NBP will include a copy of maps showing the location of all nests and an appropriate buffer zone around each nest sufficient to protect the nest from direct and indirect impact. The size and location of all buffer zones, if required, shall be determined by the biologist in consultation with CDFW, and shall be based on the nesting species, its sensitivity to disturbance, and expected types of disturbance. The nests and buffer zones shall be field checked by a qualified biological monitor as recommended by the biologist. The approved buffer zone shall be visually marked in the field, which no vegetation clearing, or ground disturbance shall commence until the qualified biologists has determined the nest in question has become inactive (failed or successful with fledged young birds) and a monitoring report has been submitted to the CDFW for review and approval. Construction within the designated buffer area shall not proceed until approved by the monitoring biologist.

4-3 Protocol presence/absence trapping surveys in accordance with current guidelines established by the USFWS for San Bernardino kangaroo rat (SBKR) shall be completed on all areas within the Specific Plan Area that are proposed for development unless written concurrence from the USFWS is obtained that the survey is not required, and that the given property is deemed unsuitable and non-occupied by USFWS.

If protocol presence/absence trapping surveys for SBKR have negative results for a given property, then no additional mitigation measures are required as there would be no anticipated impacts. Protocol presence/absence trapping surveys are valid for one year.

If protocol presence/absence trapping surveys for SBKR are positive then the occupied portion of the property shall be determined utilizing protocol trapping surveys and one or more or a combination of the following shall be implemented, as reviewed and approved by the City and USFWS:

- Avoidance of the occupied portion(s) of the property utilizing current avoidance measures approved by USFWS.
- Enhancement of on-site avoided SBKR habitat as determined by USFWS.
- Conservation of off-site suitable habitat as determined by USFWS for impacts to on-site occupied habitat from the project.

Impact 5.4-3

4-44 Prior to discharge of any fill into either of the channels adjacent to the project site, the developer shall obtain regulatory permits from the California Department of Fish and Game Wildlife and the Santa Ana

5. Environmental Analysis

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Regional Water Quality Control Board. Areas within the channels that experience discharge of fill or streambed alteration (estimated to be 0.15 acre of the streambed of City Creek) shall be compensated by creation of 0.45 acre of comparable habitat within the project site; at an alternative location approved by the regulatory agencies; or through purchase of mitigation credits at a mitigation bank acceptable to the regulatory agencies. If the agencies that issue permits for this project specify a different mitigation plan than is provided in this measure, the City will ensure implementation of such mitigation as long as it is not less protective than what is specified in this measure.

Impact 5.4-4

- 4-25 Night lighting shall be sized (light standard height), located, oriented, and shielded to avoid any light spillover into the adjacent creek channel. A lighting plan shall be submitted to the City for review and approval that demonstrates light from night lighting on the property will not spill over into the adjacent creek channel.
- 4-36 Fencing shall be installed between the project site and the creek channel. A minimum eight-foot ~~brick~~ wall, combined berm and ~~brick~~ wall, or wrought iron view fence shall be installed. Access through the fence shall meet safety requirements but shall minimize access to the channels for people and domestic animals. The fence design shall be submitted to and approved by the City, and any alternative acceptable to the City that provides access control to the Creek can be implemented.

5.4.8 Level of Significance After Mitigation

The mitigation measures identified above would reduce potential impacts associated with biological resources to a level that is less than significant. Therefore, no significant unavoidable adverse impacts relating to biological resources remain.

5. Environmental Analysis

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**Greenspot Village & Marketplace Specific Plan
Supplemental Draft Environmental Impact Report**

Appendix A. 2018 Biological Reports

May 28, 2018

Ms. Stacey Love
Recovery Permit Coordinator
Carlsbad Fish and Wildlife Office
2177 Salk Avenue, Suite 250
Carlsbad, CA 92008

RE: USFWS permit No. TE-122026-2
San Bernardino kangaroo rat (SBKR) Presence/Absence Survey Report
21-acre parcel - E of the 210 Freeway, SE of City Creek, N of 5th St-Greenspot Rd
City of Highland, County of San Bernardino, California

Dear Ms. Stacey Love,

This letter report contains the findings of my May 10-15, 2018 San Bernardino kangaroo rat (*Dipodomys merriami parvus* [SBKR]) presence/absence survey for an approximate 21-acre parcel located east of the 210 Freeway, north of 5th Street-Greenspot Road in the City of Highland, San Bernardino County, California within the U.S. Geological Survey (USGS) – Redlands Quadrangle, 7.5 Minute Series Topographic Map. The study site is adjacent to City Creek and adjacent to Santa Ana Sucker designated critical habitat. The site is mapped within SBKR designated critical habitat and as such, presence/absence surveys were conducted.

The study site encompassed all the 21-acre parcel but focused on the outer circumference of the parcel that abuts native floodplain habitat that is suitable for SBKR. Currently, the 21-acre parcel is basically devoid of vegetation as it has been utilized since the mid-1990's as a stockpile location for the San Bernardino County Flood Control District, especially during the 2003-2004 and 2010-2011 floods. The periphery of the parcel is adjacent to native habitat and shows signs of gradual recovery back to a more native state (i.e., nascent shrub growth). The soil on this parcel consists of Soboba gravelly loamy soil sand and Soboba stony loamy sand (Soil Survey of San Bernardino County Southwestern Part, CA, U.S. Depart. of Agriculture Soil Conversation Service).

Following a 15-Day Notification to the U. S. Fish and Wildlife Service (USFWS) to survey for the federally-listed as endangered SBKR, permitted biologists Tracy Bailey and Jason Berkeley conducted trapping surveys on the property. The results were **positive** with four, individual adult SBKR captured during the 5-night trapping period.

1.0 Species Background:

San Bernardino kangaroo rats are one of several kangaroo rat species that occur throughout its range. Other species include Dulzura (*Dipodomys simulans*), Pacific kangaroo rat (*D. agilis*), and Stephens kangaroo rat (*D. stephensi*). Characteristically, SBKR are differentiated from other species by having four toes on its hind legs and unlike other species, which tend to have a wider habitat range, SBKR habitat is much more confined. The habitat of SBKR is described as inland valley scrub communities confined to primary and secondary alluvial fan habitats, with sandy soils deposited by fluvial processes. Therefore, SBKR are confined to scrub communities occurring along rivers, streams, and drainages where they dig burrows in loose soil, usually near or beneath shrubs. Loose soils allow SBKR to dig simple, shallow burrow systems for shelter and rearing offspring, and surface pits for

food storage that provide for individual and population growth and for normal behavior (Federal Register, Vol. 73, No. 202/Friday, October 17, 2008/Rules and Regulations). Past habitat losses and potential future losses prompted the emergency listing of SBKR as an endangered species in 1998, securing federal protections of 33,295 acres of critical habitat, which included 7,779 acres of habitat in San Bernardino and Riverside Counties, California.

2.0 Methods:

The capture techniques listed here are in accordance with the guidelines established by the USFWS as outlined in federal 10a permit numbers TE-122026-2 and TE-009015-4 and are designed to minimize stress to SBKR. Trapping was conducted by Tracy Bailey and Jason Berkeley, experienced biologists with over 15 years of trapping experience, under their federal 10(a)(1)(A) TE-122026-2 and TE-009015-4 permits, respectively. The purpose of this survey was to establish presence or absence of SBKR within the 21 acre parcel and those project areas that support habitat suitable to SBKR and provide current survey data to the USFWS.

The project site was examined visually on 10 May 2018 and subsequently sampled by live trapping.

We used 103 Sherman live traps (product number SLK; H.B. Sherman Traps, Tallahassee, FL) to survey the parcel. Degraded habitat (e.g., the central barren and compacted area) that we visually determined as unoccupied was also sampled. Each trap, which measured 12 inches in length, 3.5 inches in width, and 4 inches in height, was baited with a mixture of commercially-formulated small mammal feed (seed) that included a millet seed and trace peanut butter for scent. Traps were placed 10-meters apart along a transect line and were opened after dusk each night. Each trap was then inspected at 11:00 PM and 5:30 AM. The survey was initiated on the evening of May 10 and ended the morning of May 15, 2018, encompassing 5-nights of consecutive trapping. Each trap was counted as a trap night, which totaled 515 trap nights (103 traps x 5 nights).

Trapped animals were identified and released unharmed at the point of capture. When an SBKR was captured, individuals were marked by hair clipping on the right flank and additional data were recorded, including sex (male or female), age (young of year or adult), weight, and any distinctive characteristics (e.g., markings, bob-tail, etc.). We also recorded data on weather conditions, such as temperature, wind speed, cloud cover, precipitation, and percent moon illumination, and on habitat characteristics, such as soils, topography, condition of the plant communities, and anthropogenic impacts.

3.0 Results:

3.1 Weather conditions

Surveys were conducted during the appropriate season and in good weather conditions. Temperatures, measured by a Nielsen-Kellerman Kestrel, were mild with an average overnight low of 15°C (59°F, Table 1). Skies ranged from clear to cloudy, with slight misting during the second trap run on the first night. Winds were calm at approximately 0.8-1.7 knots (1-2 MPH), with an average Beaufort Scale of 1. Beaufort Scales quantify wind speed and range from 0 (calm) to 12 (hurricane). Prior to the survey, Weather Underground (<http://www.wunderground.com>) was checked

to track the weather forecast for this trapping site. Moonlight conditions were also optimal through most of the trapping effort (Table 2).

Table 1. Temperatures during the trapping period, May 10-May 15, 2018.

Date	Time	Air Temp °C	Wind Beauf #	Cloud Cover
5/10/2018	11:00 PM	21.1	1	partly cloudy
5/11/2018	5:32 AM	14.6	1	drizzle
5/11/2018	11:04 PM	14.8	1	cloudy
5/12/2018	5:26 AM	14.1	1	cloudy
5/12/2018	11:00 PM	16.1	1	cloudy
5/13/2018	5:21 AM	13.9	1	cloudy
5/13/2018	11:00 PM	18.5	0	clear
5/14/2018	5:34 AM	11.6	0	partly cloudy
5/14/2018	11:09 PM	16.0	1	clear
5/15/2018	5:34 AM	12.0	1	partly cloudy

Table 2. Summary of sunrise, sunset, moonrise, moonset, and percent moon illumination for the trapping period.

Date	Sunrise	Sunset	Moonrise	Moonset	% Moon
5/10/2018	5:50 AM	7:45 PM	3:11 AM	2:53 PM	23.9%
5/11/2018	5:49 AM	7:46 PM	3:49 AM	3:52 PM	15.7%
5/12/2018	5:48 AM	7:47 PM	4:18 AM	4:52 PM	8.7%
5/13/2018	5:47 AM	7:47 PM	4:53 AM	5:55 PM	3.6%
5/14/2018	5:47 AM	7:48 PM	5:31 AM	7:01 PM	0.5%

3.2 Habitat conditions

Site conditions presented a lack of suitable habitat for SBKR with very little shrub cover and compacted soils or small areas covered with heavy grasses, as observed also in 2016 (Lawrey, S). Some plant cover was present on the parcel adjacent to the abutting City Creek flood plain. Only soils along the parcel periphery, in and along the berms, were found to be somewhat conducive for small mammal burrow construction and maintenance, with signs of fossorial vertebrate activity. On the surface, as in 2016, sign typically indicative of kangaroo rat species (tracks, scat, tail drags, sand bath sites, or burrows) could not be found. The site is disturbed by past surface disturbance and dirt fill piles.

*USFWS permit No. TE-122026-2
SBKR Presence/Absence Survey Report
21-acres E of 210, SE of City Creek, N of Greenspot/5th St.
City of Highland, San Bernardino County*

Photo 1. Site conditions looking E

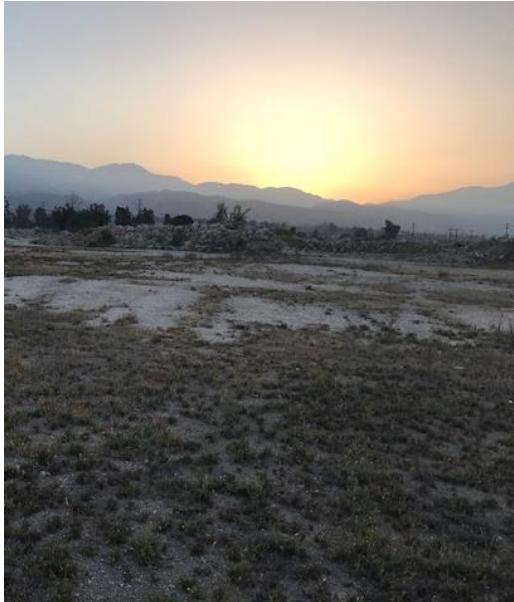


Photo 2. Site conditions looking SW across central section parcel



Photo 3. Site conditions looking W



Photo 4. Site conditions looking N



Photo 5. Site conditions looking S



3.3 Trapping results

Over the course of the 5-night survey, we trapped a total of four species of small mammals (Table 3), which included two adult male SBKR and two adult female SBKR. These positive findings determined SBKR presence within the peripheral habitat found adjacent to the City Creek floodplain. The drainage is functioning like a corridor for the movement of SBKR. One female SBKR (Figure 1; green dots) was first captured on the second night of trapping when the trap line was inadvertently set off the property, in an unfenced area. However, this female was subsequently recaptured on the fifth night on the property, after the trap line was readjusted. The two male SBKR could be identified by their tails, in that one had a bob-tail (Figure 1; dark orange dot) and the other did not (Figure 1; yellow dots). The two female SBKR (Figure 1; green dots and light orange dot) were mainly identified by the difference in their size (weight), as one was 9 grams larger than the other. The areas that we visually determined as unoccupied did not yield any SBKR in those traps that were set out. **We estimate that < 0.5 acre is occupied by SBKR.**

Table 3. Animal species captured during the trapping period, May 10-May 15, 2018

Species	Trap Night 1		Trap Night 2		Trap Night 3		Trap Night 4		Trap Night 5		N Total
	New	Recapture									
<i>Peromyscus maniculatus</i>	8	0	9	4	10	7	10	10	9	13	46
<i>Dipodomys merriami parvus</i>	0	0	1	0	0	0	2	2	1	1	4
<i>Reithrodontomys megalotis</i>	0	0	0	0	0	0	1	0	1	0	2
<i>Chaetodipus fallax fallax</i>	0	0	1	0	0	1	0	0	0	0	2
Total	8	0	12	4	10	8	13	12	11	14	54

USFWS permit No. TE-122026-2
SBKR Presence/Absence Survey Report
21-acres E of 210, SE of City Creek, N of Greenspot/5th St.
City of Highland, San Bernardino County

Photo 6. Male captured on 11 May 2018 (yellow dot)



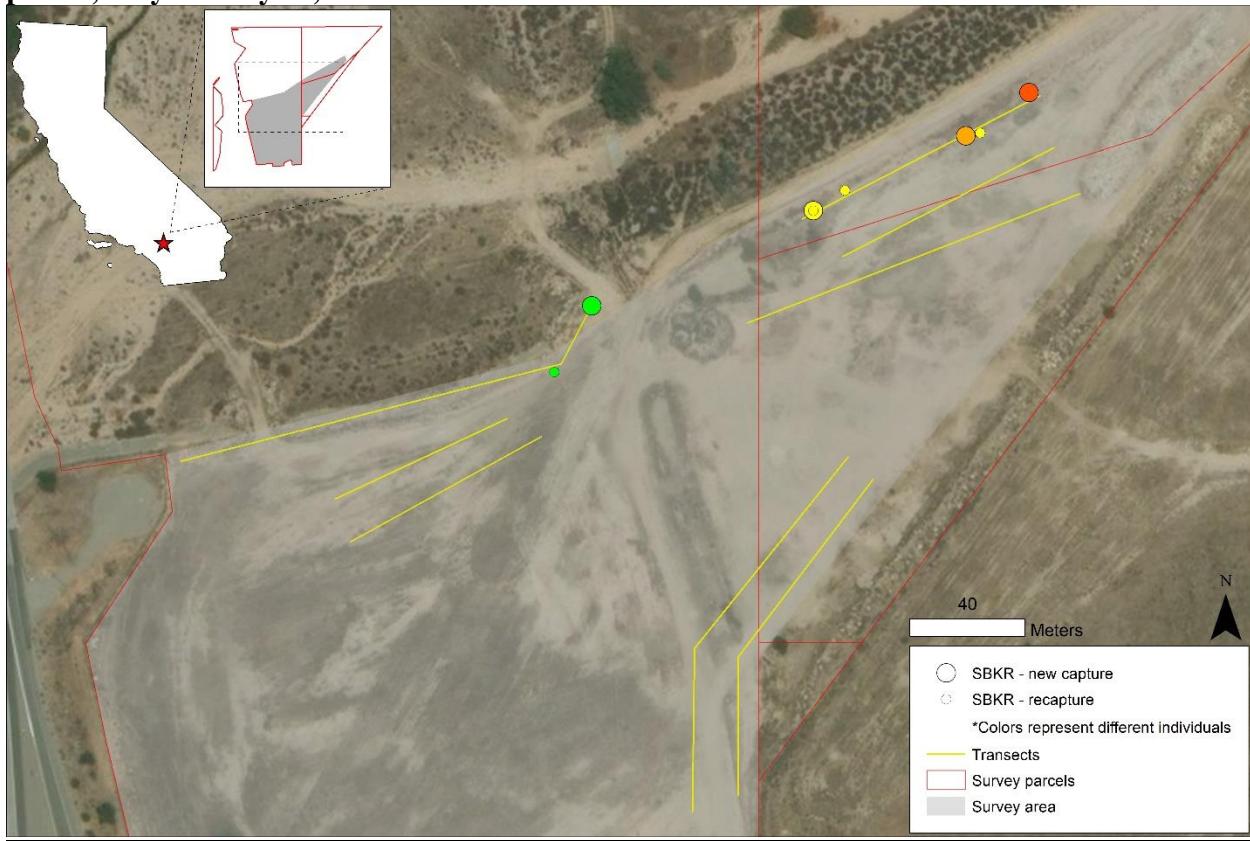
Photo 7. Female captured on 13 May 2018 (light orange dot)



Photo 8. Male captured on 13 May 2018 (dark orange dot)

Photo 9. Female captured on 14 May 2018 (green dot)

Figure 1. Locations of trap lines and *Dipodomys merriami parvus* captured during the trapping period, May 10-May 15, 2018.



4.0 References:

Federal Register, Vol. 73, No. 202/Friday, October 17, 2008/Rules and Regulations.

Lawrey, S. 2016. 45-Day San Bernardino kangaroo rat (SBKR) Presence/Absence Survey Report
21-acre parcel - E of the 210 Freeway, SE of City Creek, N of 5th St-Greenspot Rd
City of Highland, County of San Bernardino, California.

Soil Survey of San Bernardino County Southwestern Part, CA, U. S. Depart. of Agriculture Soil
Conversation Service.

5.0 Certification:

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

DATE: 28 May 2018 **SIGNED:**

September 25, 2018

Ms. Stacey Love
Recovery Permit Coordinator
Carlsbad Fish and Wildlife Office
2177 Salk Avenue, Suite 250
Carlsbad, CA 92008

RE: USFWS permit No. TE-122026-2

**San Bernardino kangaroo rat (SBKR) Presence/Absence Survey Report
21-acre parcel - E of the 210 Freeway, SE of City Creek, N of 5th St-Greenspot Rd
City of Highland, County of San Bernardino, California**

Dear Ms. Stacey Love,

This letter report contains the findings of my September 6-11 San Bernardino kangaroo rat (*Dipodomys merriami parvus* [SBKR]) presence/absence survey for an approximate 21-acre parcel located east of the 210 Freeway, north of 5th Street-Greenspot Road in the City of Highland, San Bernardino County, California within the U.S. Geological Survey (USGS) – Redlands Quadrangle, 7.5 Minute Series Topographic Map. The study site is adjacent to City Creek and adjacent to Santa Ana Sucker designated critical habitat. The site is mapped within SBKR designated critical habitat and as such, presence/absence surveys were conducted.

The study site encompassed all the 21-acre parcel but focused on the outer circumference of the parcel that abuts native floodplain habitat that is suitable for SBKR. Currently, the 21-acre parcel has patches of dense grasses on the mid-upper western portion of the property; areas devoid of vegetation on the southern portion; and gravel, rock piles and sparse shrubs on the eastern and upper portion. The site has been utilized since the mid-1990's as a stockpile location for the San Bernardino County Flood Control District, especially during the 2003-2004 and 2010-2011 floods. The periphery of the parcel is adjacent to native habitat. The soil on this parcel consists of Soboba gravelly loamy soil sand and Soboba stony loamy sand (Soil Survey of San Bernardino County Southwestern Part, CA, U.S. Depart. of Agriculture Soil Conversation Service).

Following a 15-Day Notification to the U. S. Fish and Wildlife Service (USFWS) to survey for the federally-listed as endangered SBKR, permitted biologists Tracy Bailey and Jason Berkeley conducted trapping surveys on the property. The results were **positive** with four, individual SBKR captured during the 5-night trapping period.

1.0 Species Background:

San Bernardino kangaroo rats are one of several kangaroo rat species that occur throughout its range. Other species include Dulzura (*Dipodomys simulans*), Pacific kangaroo rat (*D. agilis*), and Stephens kangaroo rat (*D. stephensi*). Characteristically, SBKR are differentiated from other species by having four toes on its hind legs and unlike other species, which tend to have a wider habitat range, SBKR habitat is much more confined. The habitat of SBKR is described as inland valley scrub communities confined to primary and secondary alluvial fan habitats, with sandy soils deposited by fluvial processes. Therefore, SBKR are confined to scrub communities occurring along rivers, streams, and drainages where they dig burrows in loose soil, usually near or beneath shrubs. Loose soils allow

SBKR to dig simple, shallow burrow systems for shelter and rearing offspring, and surface pits for food storage that provide for individual and population growth and for normal behavior (Federal Register, Vol. 73, No. 202/Friday, October 17, 2008/Rules and Regulations). Past habitat losses and potential future losses prompted the emergency listing of SBKR as an endangered species in 1998, securing federal protections of 33,295 acres of critical habitat, which included 7,779 acres of habitat in San Bernardino and Riverside Counties, California.

2.0 Methods:

The capture techniques listed here are in accordance with the guidelines established by the USFWS as outlined in federal 10a permit numbers TE-122026-2 and TE-009015-4 and are designed to minimize stress to SBKR. Trapping was conducted by Tracy Bailey and Jason Berkeley, experienced biologists with over 15 years of trapping experience, under their federal 10(a)(1)(A) TE-122026-2 and TE-009015-4 permits, respectively. The purpose of this survey was to establish presence or absence of SBKR within the 21-acre parcel and those project areas that support habitat suitable to SBKR and provide current survey data to the USFWS.

The project site was examined visually on 06 September 2018 and subsequently sampled by live trapping.

We used 142 Sherman live traps (product number SLK; H.B. Sherman Traps, Tallahassee, FL) to survey the parcel. Degraded habitat (e.g., the central barren and compacted area) that we visually determined as unoccupied was also sampled. Each trap, which measured 12 inches in length, 3.5 inches in width, and 4 inches in height, was baited with a mixture of commercially-formulated small mammal feed (seed) that included a millet seed and trace peanut butter for scent. Traps were placed 10-12 meters apart along a transect line and were opened after dusk each night. Each trap was then inspected at 11:00 PM and 6:00 AM. The survey was initiated on the evening of September 6 and ended the morning of September 11, 2018, encompassing 5-nights of consecutive trapping. Each trap was counted as a trap night, which totaled 710 trap nights (142 traps x 5 nights).

Trapped animals were identified and released unharmed at the point of capture. When an SBKR was captured, individuals were marked by hair clipping on the right flank and additional data were recorded, including sex (male or female), age (young of year or adult), weight, and any distinctive characteristics (e.g., markings, bob-tail, etc.). We also recorded data on weather conditions, such as temperature, wind speed, cloud cover, precipitation, and percent moon illumination, and on habitat characteristics, such as soils, topography, condition of the plant communities, and anthropogenic impacts.

3.0 Results:

3.1 Weather conditions

Surveys were conducted during the appropriate season and in good weather conditions. Temperatures, measured by a Nielsen-Kellerman Kestrel, were mild with an average overnight low of 25.7°C (78.3°F, Table 1). Skies were clear. Winds were calm at approximately 0.0-2.6 knots (0-3 MPH), with an average Beaufort Scale of 1. Beaufort Scales quantify wind speed and range from 0

(calm) to 12 (hurricane). Prior to the survey, Weather Underground (<http://www.wunderground.com>) was checked to track the weather forecast for this trapping site. Moonlight conditions were also optimal through most of the trapping effort (Table 2).

Table 1. Temperatures during the trapping period, September 6- September 11, 2018.

Date	Time	Air Temp °C	Air Temp °F	Wind (MPH)	Wind (Beauf #)	Cloud Cover
9/6/2018	11:00 PM	24.1	75.4	1-2 WSW	1	Clear
9/7/2018	6:00 AM	18.5	65.3	0	0	Clear
9/7/2018	11:00 PM	28.5	83.3	0	0	Clear
9/8/2018	6:00 AM	18.1	64.1	1-2 W	1	Clear
9/8/2018	11:00 PM	29.0	84.2	0	0	Clear
9/9/2018	6:00 AM	20.6	69.1	0	0	Clear
9/9/2018	11:00 PM	25.0	77.0	2-3 E	1	Clear
9/10/2018	6:00 AM	17.6	63.7	0	0	Clear
9/10/2018	11:00 PM	22.1	71.8	2-3WSW	1	Clear
9/11/2018	6:00 AM	18.5	65.3	1-2 W	1	Clear

Table 2. Summary of sunrise, sunset, moonrise, moonset, and percent moon illumination for the trapping period.

Date	Sunrise	Sunset	Moonrise	Moonset	% Moon
9/6/2018	6:26 AM	7:08 PM	2:48 AM	5:12 PM	13.4%
9/7/2018	6:27 AM	7:06 PM	3:56 AM	6:02 PM	6.3%
9/8/2018	6:27 AM	7:05 PM	5:06 AM	6:46 PM	1.7%
9/9/2018	6:28 AM	7:04 PM	6:16 AM	7:27 PM	0.0%
9/10/2018	6:29 AM	7:02 PM	7:24 AM	8:04 PM	1.2%

3.2 Habitat conditions

Site conditions presented a lack of suitable habitat for SBKR with very little shrub cover and compacted soils or small areas covered with heavy grasses, as observed also in 2016 (Lawrey, S) and 2018 (Bailey, T.). Some plant cover was present on the parcel adjacent to the abutting City Creek flood plain. Soils along the parcel periphery, SE of City Creek, and a few scattered areas void of heavy grasses, were found to be somewhat conducive for small mammal burrow construction and maintenance, with signs of fossorial vertebrate activity. On the surface, as in 2016, sign typically indicative of kangaroo rat species (tracks, scat, tail drags, sand bath sites, or burrows) could not be found. The site is disturbed by past surface disturbance and rock and dirt fill piles.

*City of Highland, San Bernardino County
USFWS permit No. TE-122026-2
SBKR Presence/Absence Survey Report
21-acres E of 210, SE of City Creek, N of Greenspot/5th St.*

Photo 1. Site conditions looking E



Photo 2. Site conditions looking SW across central section parcel



Photo 3. Site conditions looking W



Photo 4. Site conditions looking N

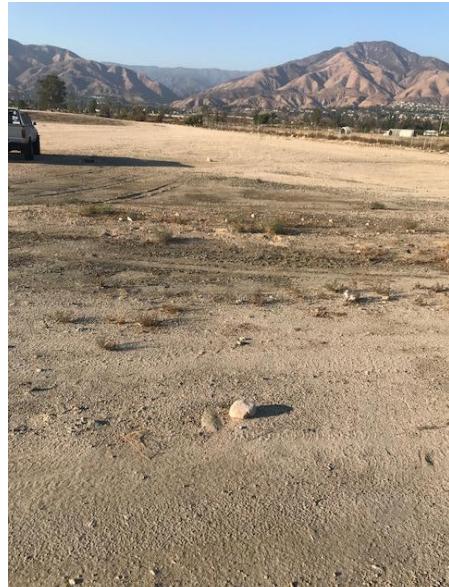


Photo 5. Site conditions looking S



3.3 Trapping results

Over the course of the 5-night survey, we trapped a total of four species of small mammals (Table 3), which included one adult male SBKR, one adult female SBKR, and two male young of the year SBKR. These positive findings determined SBKR presence within the peripheral habitat found associated with the City Creek floodplain. The drainage is functioning like a corridor for the movement of SBKR. The trapping information appears to show that the area to the east is occupied at least some of the time, although some of that intermediate shrub land area is probably not used. The central cleared area also appears to be used regularly. One adult male SBKR (Figure 1; yellow dot) was first captured on the first night of trapping and again three more times. This male was a recapture from the May 2018 trapping. The hair on its right flank exhibited signs of being clipped in the recent past and it had a bob-tail which was one of the characteristics of a past captured animal. The adult female SBKR (Figure 1; green dot) was first captured on the second night and four more times during this trapping period. This female SBKR was a recapture from the May 2018 trapping. The hair on its right flank exhibited signs of being clipped in the recent past. Two young of the year male SBKR (Figure 1; purple dots and light blue dot) were mainly identified by the difference in their size (weight). The larger of the two young SBKR was captured four times and the smaller SBKR was captured two times.

Table 3. Animal species captured during the trapping period, September 6- September 11, 2018

Species	Trap Night 1		Trap Night 2		Trap Night 3		Trap Night 4		Trap Night 5		TOTAL (individuals)
	New	Recapture									
Deer mouse (<i>Peromyscus maniculatus</i>)	14	3	11	9	10	12	12	13	7	15	54
Desert woodrat (<i>Neotoma lepida</i>)	1	1	0	0	0	0	0	0	0	0	1
San Bernardino kangaroo rat (<i>Dipodomys merriami parvus</i>)	2	1	2	1	0	2	0	4	0	3	4
San Diego pocket mouse (<i>Chaetodipus fallax fallax</i>)	0	0	1	0	0	0	0	0	0	0	1

Photo 6. Male captured on 6 Sept 2018 (yellow dot)



Photo 7. Female captured on 6 Sept 2018 (green dot)



*City of Highland, San Bernardino County
USFWS permit No. TE-122026-2
SBKR Presence/Absence Survey Report
21-acres E of 210, SE of City Creek, N of Greenspot/5th St.*



Photo 6. Young male captured on 7 Sept 2018 (purple dot)



Photo 7. Young male captured on 7 Sept 2018 (light blue dot)

Figure 1. Locations of trap lines, *Dipodomys merriami parvus* captured, and their burrows, during the trapping period, September 6-September 11, 2018.



4.0 References:

Federal Register, Vol. 73, No. 202/Friday, October 17, 2008/Rules and Regulations.

Bailey, T. May 2018. San Bernardino kangaroo rat (SBKR) Presence/Absence Survey Report
21-acre parcel - E of the 210 Freeway, SE of City Creek, N of 5th St-Greenspot Rd
City of Highland, County of San Bernardino, California.

Lawrey, S. 2016. 45-Day San Bernardino kangaroo rat (SBKR) Presence/Absence Survey Report
21-acre parcel - E of the 210 Freeway, SE of City Creek, N of 5th St-Greenspot Rd
City of Highland, County of San Bernardino, California.

Soil Survey of San Bernardino County Southwestern Part, CA, U. S. Depart. of Agriculture Soil
Conversation Service.

5.0 Certification:

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

DATE: 25 Sept 2018

SIGNED:

Tracy Raulier



July 18, 2018

RUTH VILLALOBOS & ASSOCIATES, INC.

Attention: Sonya Hooker
3602 Inland Empire Blvd., Suite C310
Ontario, California 91764

SUBJECT: Special-Status Plant Survey Report for the Greenspot Village and Marketplace Project Located in the City of Highland, San Bernardino County, California

Introduction

This report contains the findings of ELMT Consulting's (ELMT) focused plant surveys conducted during the 2018 blooming season for the Greenspot Village and Marketplace Project (project) located in the City of Highland, San Bernardino County, California. ELMT conducted three (3) separate focused plant surveys to coincide with the flowering periods of those special-status¹ plant species known to occur within the general vicinity of the project site. The special-status plant survey was conducted on May 2, June 12, and July 6, 2018 to coincide with known flowering periods of special-status plant species known to occur in the vicinity of the project site in accordance with the CDFW *Guidelines for Assessing the Effects of Proposed Developments on Rare and Endangered Plants and Plant Communities* (CDFW 2009) as well as the United States Fish and Wildlife Service (USFWS) *Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed and Candidate Plants* (USFWS 1996). Specifically, the surveys focused on the presence/absence of the federally and state endangered slender-horned spineflower (*Dodecahema leptoceras*) and Santa Ana River woollystar (*Eriastrum densifolium* ssp. *sanctorum*). The findings of the surveys will be used to establish constraints, if any, to development including measures to avoid impacts to any federally and state listed plant species and California Native Plant Society (CNPS) *California Rare Plant Rank* listed plant species.

Project Location

The project site is located north of Interstate 10, east of State Route 210, south of State Route 330, and west of the San Bernardino National Forest in the City of Highland, San Bernardino County, California. The project site is depicted on the Highland quadrangle of the United States Geological Survey (USGS) 7.5-minute topographic map series in Section 4 of Township 1 South, Range 3 West. Specifically, the project site is located on the northeast corner of the intersection of Greenspot Road and State Route 210 south of City Creek. Refer to Exhibits 1 and 2 in Attachment A.

¹ As used in this report, "special-status" refers to plant species that are federally or State listed, proposed, or candidates; and plant species that have been designated a California Native Plant Society (CNPS) Rare Plant Rank.

Methodology

ELMT conducted a thorough literature review and records search to determine which special-status plant species have the potential to occur on or within the general vicinity of the Project site. In addition to the literature review, three (3) focused surveys were conducted to coincide with the flowering periods of special-status plant species known to occur within the general vicinity, focusing on the presence/absence of Peninsular spineflower (*Chorizanthe leptotheca*), Parry's spineflower (*Chorizanthe parryi* var. *parryi*), slender-horned spineflower (*Dodecahema leptoceras*), Santa Ana River woollystar (*Eriastrum densifolium* ssp. *sanctorum*), and Robinson's pepper-grass (*Lepidium virginicum* var. *robinsonii*).

Literature Review

Prior to conducting the focused surveys, a literature review and records search was conducted for special-status plant species potentially occurring on or within the vicinity of the project site. Previously recorded occurrences of special-status plant species and their proximity to the project site were determined through a query of the Consortium of California Herbaria (CCH), California Department of Fish and Wildlife's (CDFW) *California Natural Diversity Database* (CNDDB) *Rarefind 5* and QuickView Tool in the Biogeographic Information and Observation System (BIOS), the California Native Plant Society (CNPS) *Electronic Inventory of Rare and Endangered Vascular Plants of California*, Calflora Database, compendia of special-status species published by CDFW, and the U.S. Fish and Wildlife Service (USFWS) species listings.

Previously prepared reports, survey results, and literature detailing the biological resources previously observed on or within the vicinity of the project site were reviewed to understand existing site conditions and note the extent of any disturbances that have occurred within the project site that would otherwise limit the distribution of special-status biological resources. Standard field guides and texts were reviewed for specific habitat requirements of special-status and non-sensitive biological resources, as well as the following resources:

- Google Earth Pro historic aerial imagery (1994 - 2018);
- *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Communities and Natural Communities* (CDFW 2009);
- *Botanical Survey Guidelines* (CNPS 2001);
- *Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed, and Candidate Plants* (USFWS 1996);
- United States Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) Web Soil Survey; and
- USFWS Critical Habitat designations for Threatened and Endangered Plant Species.

Focused Plant Survey

Surveys were conducted at the time of year when plant species are both evident and identifiable. Three (3) site visits were spaced throughout the growing season to accurately determine what plant species exist on-site and capture the floristic diversity at a level necessary to determine if special-status plants are present.

The timing and number of surveys was determined based on geographic location, the natural communities present, and the weather patterns of the region. Based on the special-status plant species known to occur within the general vicinity and the suitability of the on-site habitat to support those species, ELMT biologists Thomas J. McGill, Ph.D. and Travis J. McGill conducted the special-status plant surveys on May 2, June 12, and July 6, 2018. These surveys were spaced throughout the growing season to capture the appropriate phenotypic stage to ensure proper identification of all special-status plant species determined to have a low to high potential to occur within the project site. In addition, ELMT biologists visited reference populations of Parry's spineflower, slender-horned spineflower, and Santa Ana River woollystar within the Santa Ana River wash to confirm the blooming periods of each species and coordinate the timing of the surveys.

All areas that may be directly and indirectly impacted by proposed project were extensively surveyed on foot. Linear transects were walked throughout the project site and spaced at 10-meter intervals to ensure maximum visual coverage and increase the likelihood of detecting special-status plant species known to occur within the general vicinity of the project site. All plant species observed during the surveys were identified by visual characteristics and morphology in the field and recorded in a field notebook/iPad. Unusual and less familiar plants were photographed on-site and identified in the laboratory using taxonomical guides. A handheld geographic positioning systems (GPS) device and standard field data sheets were used to record all populations of special-status plant species, if observed.

On-site and adjoining soils were researched prior to conducting the focused surveys using the USDA NRCS Web Soil Survey for San Bernardino County, California. In addition, a review of the local geological conditions and historical aerial photographs was conducted to assess the ecological changes and disturbances that have occurred within the project site.

Plant communities were mapped using USGS 7.5-minute topographic maps and aerial photography. The plant communities were classified in accordance with Sawyer, Keeler-Wolf and Evens (2009), CDFW (2010) and Holland (1986), delineated on an aerial photograph, and then digitized into GIS Arcview. The Arcview application was used to compute the area of each plant community in acres. Taxonomic nomenclature used in this study follows the 2012 Jepson Manual. In this report, scientific names are provided immediately following common names of plant species (first reference only). Refer to Attachment B for a complete list of plant species observed during the focused surveys.

Existing Site Condition

Surface elevations within the project site range from approximately 1,228 to 1,245 feet above mean sea level and generally slope from northeast to southwest. According to the U.S. Department of Agriculture and the Natural Resources Conservation Service Web Soil Survey, the project site is underlain by the following soil units: Soboba gravelly loamy sand (0 to 9 percent slopes), and Soboba stony loamy sand (2 to 9 percent slopes) (refer to Exhibit 3, *Soils*, in Attachment A). The Soboba series consists of excessively drained, nearly level to moderately sloping soils found on long, broad alluvial fans. On-site soils have been heavily disturbed from historic land uses (e.g., sand and gravel processing activities, grading activities), which has reduced the project sites' ability to provide suitable habitat for special-status plant species known to occur in the vicinity of the project site.

The project site is bordered by Greenspot Road to the south and a commercial development to the south, a vacant/undeveloped field to the east, State Route 210 to the west, and City Creek to the north. City Creek borders the northern boundary of the project site and is separated from the project site by an earthen berm that is used as a dirt access road.

Sensitive Plant Species

The CCH, CNDBB Rarefind 5, the Quickview Tool in BIOS, and the CNPS Electronic Inventory of Rare and Endangered Vascular Plants of California was queried for reported locations of special-status plant species in the Highland USGS 7.5-minute quadrangle. The literature search identified seventeen (17) special-status plant species as having the potential to occur within the Highland quadrangle. Special-status plant species identified during the literature review are presented in *Table C-1: Potentially Occurring Special-status Biological Resources*, provided in Attachment C. The following sections provide a detailed assessment of the plant species that were determined to have a low potential to occur within the project site.

Peninsular Spineflower

Peninsular spineflower is a CNPS Rare Plant Rank 4.2 plant species in the buckwheat family (Polygonaceae) that blooms from May to August. The species is a prostrate to spreading plant with pink flowers that occurs in granitic soils within alluvial fans from 984 to 6,234 feet above mean sea level in alluvial scrub, chaparral, coastal scrub, and lower montane coniferous forest habitats. Peninsular spineflower is found within San Bernardino, Riverside, and San Diego Counties. The nearest recorded occurrence of Peninsular spineflower is approximately 5.5-miles southwest of the project site.

Parry's Spineflower

Parry's spineflower is a CNPS Rare Plant Rank 1B.1 plant species in the buckwheat family (Polygonaceae) that blooms from April to June. The species is a prostrate to spreading plant with white flowers that occurs in sandy soils from 902 to 4,003 feet above mean sea level in alluvial scrub, chaparral, and mixed grassland. Parry's spineflower is known from the flats and foothills of the San Gabriel, San Bernardino, and San Jacinto Mountains within Los Angeles, San Bernardino, and Riverside Counties of southern California. The nearest recorded occurrence of Parry's spineflower is approximately 1.17-mile northeast of the project site on an undeveloped slope.

Slender-horned Spineflower

Slender-horned spineflower is a federally and state endangered plant species in the buckwheat family (Polygonaceae) that blooms from April to June. It is also a CNPS Rare Plant Rank 1B.1 plant species. The species is small and prostrate and has white to pink flowers. The species is usually found from 984 to 3,937 feet above mean sea level on sandy soils in association with mature alluvial scrub on alluvial terraces subject to only rare flood events. Slender-horned spineflower is typically associated with cryptogamic crust or microhabitats that contain soil, bacteria, algae, lichens, and mosses. These crusts act as a living mulch in that they retain soil moisture and discourage the growth of annuals and weeds, as well as resist disturbances of wind and water erosion. The nearest recorded occurrence of slender-horned spineflower is approximately 1.24 miles southeast of the project site on an alluvial terrace associated with the Santa Ana River.

Santa Ana River Woollystar

The Santa Ana River woollystar is a federally and state endangered plant species in the phlox family (Polemoniaceae) that blooms from April to September. It is also a CNPS Rare Plant Rank 1B.1 plant species. The entire plant is covered with woolly pubescence, giving it a silvery-white appearance and the flower consists of a blue to violet-blue inflorescence. It is a perennial which grows upright to about 3 feet. The species occurs along the Santa Ana River and Lytle and Cajon Creek flood plains in open washes and early-successional alluvial fan scrub on open slopes above the active channels where flooding and scouring occur. Santa Ana River woollystar grows primarily on dry, sandy soils in open areas on alluvial terraces from 299 to 2,001 feet above mean sea level. It is a pioneer subspecies that colonizes washed sand deposits created by sporadic stream flow action. Periodic flooding, scouring, and sediment deposition is important to maintaining Santa Ana River woollystar habitat. Associated plant species include California buckwheat (*Eriogonum gasciclatum*), California croton (*Croton californicus*), yerba santa (*Eriodictyon angustifolium*), and scalebroom (*Lepidospartum squamatum*). The nearest recorded occurrence of Santa Ana River woollystar is approximately 0.22-mile northeast of the project site on an alluvial terrace of City Creek (CNDB 2013).

Robinson's Pepper-Grass

Robinson's pepper-grass is a CNPS Rare Plant Rank 4.3 plant species in the mustard family (Brassicaceae) that blooms from January to July. The species occurs in dry soils from 3 to 2,904 feet above mean sea level in chaparral and coastal scrub habitats. Robinson's pepper-grass is found within Los Angeles, Orange, Riverside, Santa Barbara, San Bernardino, San Diego, and Ventura Counties and Santa Cruz Island. The nearest recorded occurrence of Peninsular spineflower is approximately 5.5-miles southwest of the project site. The nearest recorded occurrence of Robinson's pepper-grass is approximately 1.24 miles southeast of the project site on an alluvial terrace associated with the Santa Ana River.

Results

The project site consists of an undeveloped area on the northeast corner of the intersection of Greenspot Road and State Route 210. From 1994-2004 the project site supported a vacant lot that was graded with little to no vegetation. From 2003 to 2004 the eastern half of the project site was subject to soil stockpiling. Between 2004 and 2006 the project site supported a sand and gravel processing operation with heavy equipment continually running across the site. From 2006 to 2012 the project site was routinely graded with little to no vegetation. From 2013 to present day the project site has remained vacant/undeveloped but has not been subject to routine grading activities.

Currently, due to existing land uses, no native plant communities or natural communities of special concern were observed within the proposed project footprint. The area within the proposed project site can be characterized as a heavily disturbed land cover type that is vegetated with a variety of non-native and early successional plant species consisting of highly compacted soils that do not support a native plant community (refer to Exhibit 4, *Vegetation*, in Attachment A).

Common plant species observed within the project site include red brome (*Bromus madritensis* ssp. *rubens*), deer weed (*Acmispon glaber*), tumbleweed (*Salsola tragus*), short-podded mustard (*Hirschfeldia incana*), mouse barley (*Hordeum murinum*), telegraph weed (*Heterotheca grandiflora*), filaree (*Erodium* sp.),

tocalote (*Centaurea melitensis*), California buckwheat, wild oat (*Avena fatua*), California sagebrush (*Artemisia californica*), Spanish lotus (*Acmispon americanus*), horseweed (*Erigeron bonariensis*), and ripgut (*Bromus diandrus*). Refer to Attachment D, *Site Photographs*, for representative photographs of the project site.

Heavy disturbances associated with historic land uses have eliminated undisturbed native plant communities from the project site and have compacted native soils. No special-status plant species were observed during the focused plant surveys.

Conclusion and Recommendation

Despite a systematic inventory of the proposed project site, no special-status plant species were observed during the May 2, June 12, and July 6, 2018 focused plant surveys. Disturbances associated with historic land uses have precluded the project site from supporting native/undisturbed plant communities. Therefore, special-status plant species known to occur in the vicinity of the project site are presumed absent. Implementation of the proposed project is not expected to result in impacts to special-status plant species and no additional focused plant surveys are recommended.

Please do not hesitate to contact Tom McGill at (951) 285-6014 or tmcgill@elmtconsulting.com or Travis McGill at (909) 816-1646 or travismcgill@elmtconsulting.com should you have any questions or require further information regarding this report.

Sincerely,



Thomas J. McGill, Ph.D.
Managing Director



Travis J. McGill
Director

Attachments:

- A. *Project Exhibits*
- B. *Floral Compendium*
- C. *Potentially Occurring Special-Status Plant Species*
- D. *Site Photographs*

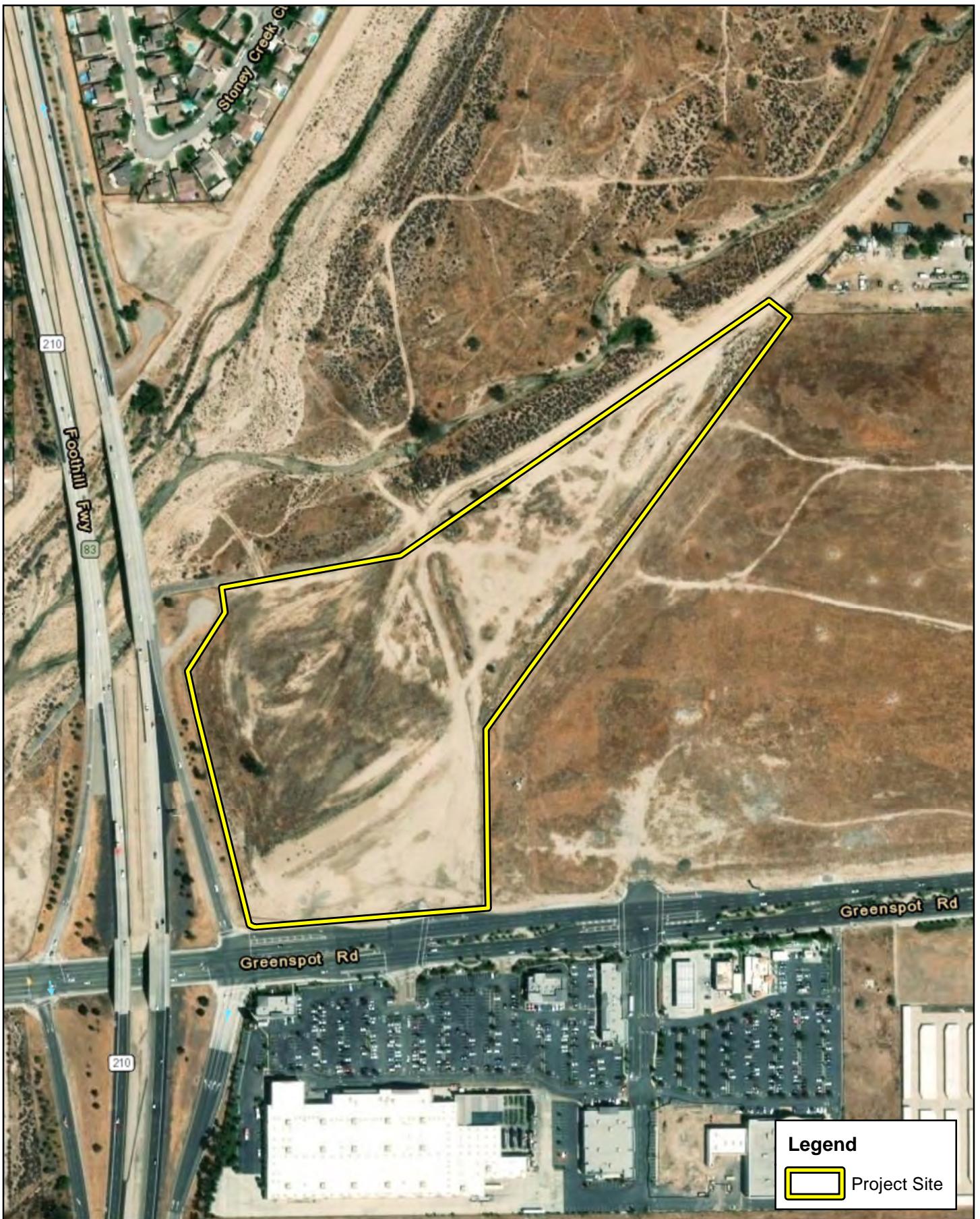
Attachment A

Project Exhibits



GREENSPOT VILLAGE AND MARKETPLACE
SPECIAL-STATUS PLANT SURVEY

Regional Vicinity

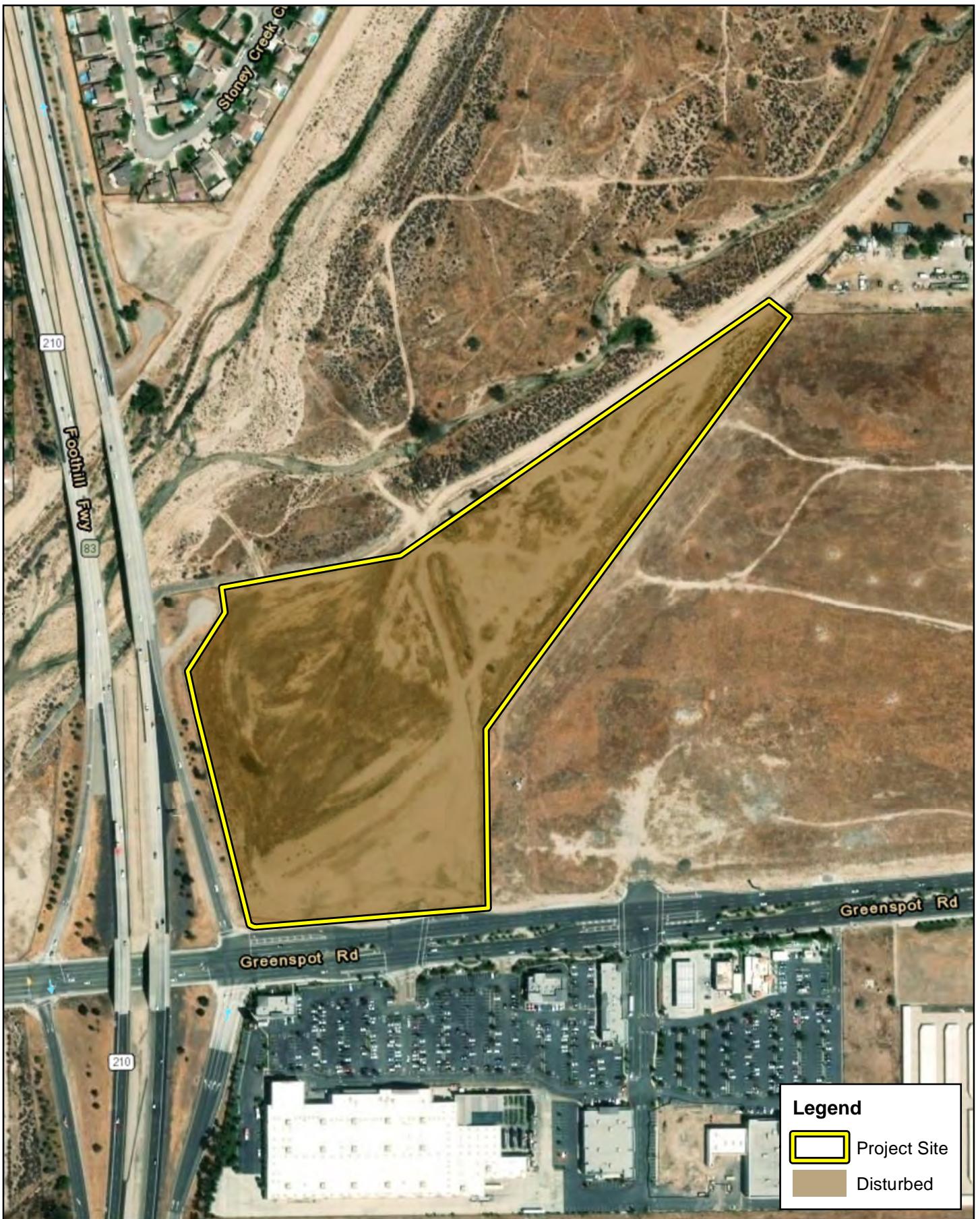


GREENSPOT VILLAGE AND MARKETPLACE
SPECIAL-STATUS PLANT SURVEY

Project Site



GREENSPOT VILLAGE AND MARKETPLACE
SPECIAL-STATUS PLANT SURVEY



GREENSPOT VILLAGE AND MARKETPLACE
SPECIAL-STATUS PLANT SURVEY

Attachment B

Floral Compendium

Table B – 1: Plant Species

PLANT SPECIES	
Scientific Name	Common Name
<i>Acmispon americanus</i>	Spanish lotus
<i>Acmispon glaber</i>	Deerweed
<i>Ambrosia psilostachya</i>	Western ragweed
<i>Amsinckia intermedia</i>	Fiddleneck
<i>Artemesia californica</i>	California sagebrush
<i>Avena fatua</i>	Wild oat
<i>Baccharis salicifolia</i>	Mulefat
<i>Bromus diandrus</i>	Ripgut
<i>Bromus hordeaceus</i>	Soft chess
<i>Bromus madritensis</i> ssp. <i>Rubens</i>	Red brome
<i>Bromus tectorum</i>	Downy chess
<i>Calyptidium monandrum</i>	Pussypaws
<i>Camissoniopsis bistorta</i>	California sun cup
<i>Capsella bursa-pastoris</i>	Shepherd's purse
<i>Centaurea melitensis</i>	Tocalote
<i>Chaenactiuscula</i>	Yellow pincushion
<i>Chenopodium album</i>	Pigweed
<i>Chenopodium pumilio</i>	Tasmanian goosefoot
<i>Convolvulus arvensis</i>	Bindweed
<i>Croton californicus</i>	California croton
<i>Croton setigerus</i>	Dove weed
<i>Cryptantha</i> sp.	Cryptantha
<i>Datura stramonium</i>	Jimsonweed
<i>Elaeagnus angustifolia</i>	Olive
<i>Erigeron bonariensis</i>	Flax-leaved horseweed
<i>Eriodictyon trichocalyx</i>	Yerba santa
<i>Eriogonum fasciculatum</i>	California buckwheat
<i>Erodium cicutarium</i>	Red-stemmed filaree
<i>Eucalyptus</i> sp.	Eucalyptus
<i>Eucrypta chrysanthemifolia</i>	Common eucrypta
<i>Eulobus californicus</i>	California primrose
<i>Helianthemum scoparium</i>	Rush-rose
<i>Helianthus annus</i>	Common sunflower
<i>Heterotheca grandiflora</i>	Telegraph weed
<i>Heterotheca sessiliflora</i>	Goldenaster
<i>Hesperocnide tenella</i>	Western nettle
<i>Hirschfeldia incana</i>	Short-podded mustard
<i>Hordeum murinum</i>	Mouse barley
<i>Isocoma menziesii</i>	Coast goldenbush
<i>Lactuca serriola</i>	Prickly lettuce
<i>Lastarriaea coriacea</i>	Leather spineflower
<i>Lepidospartum squamatum</i>	Scalebroom
<i>Loeflingia squarrosa</i>	Spreading loeflingia
<i>Lupinus bicolor</i>	Miniature lupine
<i>Lupinus succulentus</i>	Arroyo lupine
<i>Malva parviflora</i>	Cheeseweed
<i>Melilotus indicus</i>	Yellow sweetclover
<i>Nicotiana glauca</i>	Tree tobacco
<i>Oncosiphon piluliferum</i>	stinknet
<i>Pectocarya linearis</i>	Sagebrush combseed
<i>Platanus racemose</i>	Western sycamore
<i>Polycarpon tetraphyllum</i>	Four leaved all seed

PLANT SPECIES	
Scientific Name	Common Name
<i>Pseudognaphalium californicum</i>	California everlasting
<i>Pseudognaphalium canescens</i>	Fragrant everlasting
<i>Ricinus communis</i>	Castor bean
<i>Salsola tragus</i>	Russian thistle
<i>Salvia columbariae</i>	Chia
<i>Sambucus nigra</i>	Mexican elderberry
<i>Schismus barbatus</i>	Mediterranean grass
<i>Senecio vulgaris</i>	Common groundsel
<i>Solanum xanti</i>	Chaparral nightshade
<i>Tamarisk ramosissima</i>	Salt-cedar
<i>Taraxacum officinale</i>	Dandelion
<i>Urtica urens</i>	Dwarf nettle
<i>Vicia villosa</i>	Winter vetch

Attachment C

Potentially Occurring Special-Status Plant Species

Table C-1: Potentially Occurring Special-Status Biological Resources

Scientific Name Common Name	Status	Habitat	Observed Onsite	Potential to Occur
SPECIAL-STATUS PLANT SPECIES				
<i>Arenaria paludicola</i> marsh sandwort	Fed: END CA: END CNPS: 1B.1	Grows mainly in wetlands and freshwater marshes in arid climates. The plant can grow in saturated acidic bog soils and soils that are sandy with a high organic content. Found at elevations ranging from 33 to 558 feet. Blooming period is from May to August.	No	Presumed absent. No suitable habitat is present on-site.
<i>Artemisia palmeri</i> San Diego sagewort	Fed: None CA: None CNPS: 4.2	Found in sandy and mesic soils within chaparral, coastal scrub, riparian forest, riparian scrub, and riparian woodland habitats. Found at elevations ranging from 49 to 3,002 feet. Blooming period is from (February)March to September.	No	Presumed absent. No suitable habitat is present on-site.
<i>Berberis nevini</i> Nevin's barberry	Fed: END CA: END CNPS: 1B.1	Occurs on steep, north-facing slopes or in low-grade sandy washes in chaparral, cismontane woodland, coastal scrub, and riparian scrub. From 951 to 5,167 feet in elevation. Blooming period is from (February) March to June.	No	Presumed absent. No suitable habitat is present on-site.
<i>Calochortus plummerae</i> Plummer's mariposa-lily	Fed: None CA: None CNPS: 4.2	Prefers openings in chaparral, foothill woodland, coastal sage scrub, valley and foothill grasslands, cismontane woodland, lower montane coniferous forest and yellow pine forest. Often found on dry, rocky slopes and soils and brushy areas. Can be very common after a fire. From 328 to 5,577 feet in elevation. Blooming period is from May to July.	No	Presumed absent. No suitable habitat is present on-site.
<i>Centromadia pungens</i> ssp. <i>laevis</i> smooth tarplant	Fed: None CA: None CNPS: 1B.1	Occurs in alkaline soils within chenopod scrub, meadows and seeps, playas, riparian woodland, and valley and foothill grassland habitats. Grows in elevation ranging from 0 to 2,100 feet. Blooming period ranges from April to September.	No	Presumed absent. No suitable habitat is present on-site.
<i>Chloropyron maritimum</i> ssp. <i>maritimum</i> salt marsh bird's-beak	Fed: END CA: END CNPS: 1B.2	Upper terraces and higher edges of coastal salt marshes where tidal inundation is periodic. Found at elevations ranging from 0 to 99 feet. Blooming period is from May to October.	No	Presumed absent. No suitable habitat is present on-site.
<i>Chorizanthe leptotheca</i> Peninsular spineflower	Fed: None CA: None CNPS: 4.2	Found in granitic soils within alluvial fan, chaparral, coastal scrub, and lower montane coniferous forest habitat. Found at elevations ranging from 984 to 6,234 feet. Blooming period is from May to August.	No	Low. Although heavily disturbed, the project site has a low potential to provide suitable habitat for this species due to the site's proximity to City Creek.
<i>Chorizanthe parryi</i> var. <i>parryi</i> Parry's spineflower	Fed: None CA: None CNPS: 1B.2	Occurs on sandy and/or rocky soils in chaparral, coastal sage scrub, and sandy openings within alluvial washes and margins. Found at elevations ranging from 951 to 3,773 feet. Blooming period is from April to June.	No	Low. Although heavily disturbed, the project site has a low potential to provide suitable habitat for this species due to the site's proximity to City Creek.

Scientific Name Common Name	Status	Habitat	Observed Onsite	Potential to Occur
<i>Convolvulus simulans</i> small-flowered morning-glory	Fed: None CA: None CNPS: 4.2	Found in clay and serpentinite seeps within chaparral (openings), coastal scrub, valley and foothill grassland. Found at elevations ranging from 98 to 2,297 feet. Blooming period is from March to July.	No	Presumed absent. No suitable habitat is present on-site.
<i>Cuscuta obtusiflora</i> var. <i>glandulosa</i> Peruvian dodder	Fed: None CA: None CNPS: 2B.2	Found in freshwater marshes and swamps. Grows at elevations ranging from 49 to 919 feet. Blooming period is from July to October.	No	Presumed absent. No suitable habitat is present on-site.
<i>Dodecahema leptoceras</i> slender-horned spineflower	Fed: END CA: END CNPS: 1B.1	Chaparral, coastal scrub (alluvial fan sage scrub). Flood deposited terraces and washes. Found at elevations ranging from 1,181 to 2,690 feet. Blooming period is from April to June.	No	Low. Although heavily disturbed, the project site has a low potential to provide suitable habitat for this species due to the site's proximity to City Creek.
<i>Eriastrum densifolium</i> ssp. <i>sanctorum</i> Santa Ana River woollystar	Fed: END CA: END CNPS: 1B.1	Grows in sandy or gravelly soils within chaparral and coastal scrub habitat. Found at elevations ranging from 299 to 2,001 feet. Blooming period is from April to September.	No	Low. Although heavily disturbed, the project site has a low potential to provide suitable habitat for this species due to the site's proximity to City Creek.
<i>Imperata brevifolia</i> California satintail	Fed: None CA: None CNPS: 2B.1	Occurs in mesic sites, alkali seeps, and riparian areas within coastal scrub, chaparral, riparian scrub, Mojavean scrub, and alkali meadows and seeps. From 0 to 1,640 feet in elevation. Blooming period is from September to May.	No	Presumed absent. No suitable habitat is present on-site.
<i>Juglans californica</i> southern California black walnut	Fed: None CA: None CNPS: 4.2	Found in chaparral, cismontane woodland, coastal scrub, and riparian woodland habitats. Found at elevations ranging from 164 to 2,953 feet. Blooming period is from March to August.	No	Presumed absent. No suitable habitat is present on-site.
<i>Lepidium virginicum</i> var. <i>robinsonii</i> Robinson's pepper-grass	Fed: None CA: None CNPS: 4.3	Dry soils on chaparral and coastal sage scrub. Found at elevations ranging from 3 to 2,904 feet. Blooming period is from January to July.	No	Low. Although heavily disturbed, the project site has a low potential to provide suitable habitat for this species due to the site's proximity to City Creek.
<i>Malacothamnus parishii</i> Parish's bush-mallow	Fed: None CA: None CNPS: 1A	Grows in chaparral and coastal scrub habitats. Found at elevations ranging from 1,001 to 1,493 feet. Blooming period is from June to July.	No	Presumed absent. No suitable habitat is present on-site.
<i>Ribes divaricatum</i> var. <i>parishii</i> Parish's gooseberry	Fed: None CA: None CNPS: 1A	Found in riparian woodland and other riparian habitats. Found at elevations ranging from 213 to 984 feet. Blooming period is from February to April.	No	Presumed absent. No suitable habitat is present on-site.

**U.S. Fish and Wildlife Service
(USFWS) - Federal**
END- Federal Endangered

**California Department of Fish
and Wildlife (CDFW) -
California**
END- California Endangered

**California Native Plant
Society (CNPS)**
California Rare Plant Rank
1A- Plants Presumed Extirpated
in California and Either Rare
or Extinct Elsewhere
1B- Plants Rare, Threatened, or
Endangered in California
and Elsewhere
2B- Plants Rare, Threatened, or
Endangered in California,
but More Common
Elsewhere
4- Plants of Limited
Distribution – A Watch List

Threat Ranks
0.1- Seriously threatened in
California
0.2- Moderately threatened in
California
0.3- Not very threatened in
California

Attachment D

Site Photographs



Photograph 1: From the southeast corner of the project site looking west along the southern boundary of the site.



Photograph 2: From the middle of the eastern boundary of the project site looking south towards the southeast corner of the site.



Photograph 3: From the eastern boundary of the project site looking northeast along the eastern boundary of the site.



Photograph 4: Dirt stockpile/berm along the northeastern boundary of the project site.



Photograph 5: From the northeast corner of the project site looking southwest. The dirt access road that borders the northern boundary of the site can be seen on the right side of the photo and the dirt stockpile/berm along the northeastern boundary of the site can be seen on the left.



Photograph 6: From the northeast corner of the project site looking southwest along the dirt access road that traverses the northern boundary of the project site.



Photograph 7: From the middle of the eastern boundary of the project site looking west across the site.



Photograph 8: From the northwest corner of the project site looking south along the western boundary of the site.



Photograph 9: From the western boundary of the project site looking east across the site.



Photograph 10: From the southwest corner of the project site looking east along the southern boundary.